STRATUS
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March 10, 2008
Project No. 2007-0057-01

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Dual Phase Extraction and Air Sparge Event Report
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

Dear Mr. Chan:

Stratus Environmental, Inc. (Stratus), on behalf of Moller Investment Group, Inc. (Moller), has prepared this report to present the results of a dual phase extraction (DPE) and air sparge (AS) remediation event completed at former USA Service Station No. 57 (the site), located at 10700 MacArthur Boulevard, Oakland, California (see Figure 1). This DPE-AS event was conducted between September 4 and November 14, 2007, in order to reduce subsurface petroleum hydrocarbon mass beneath the subject property. This report presents the DPE and AS procedures adopted, tabulated summaries of field measurements, analytical results for soil vapor and groundwater samples collected during the event, and a discussion of the findings associated with completion of work.

SITE BACKGROUND

The site is currently an undeveloped, partially paved parcel situated on the western corner of the intersection of 108th Avenue and Foothills Boulevard in Oakland, California, approximately 400 feet west of Interstate 580. This parcel comprises the southeastern corner of the Foothills Square Shopping Center. It is our understanding that the property owner intends to re-develop the portion of the Foothills Square Shopping Center formerly occupied by the site.

Former USA Station 57 was closed and the gasoline underground storage tanks (UST's) were removed in July 1994. Approximately 775 cubic yards of impacted soil was excavated from the vicinity of the UST pit and product lines between August and October 1994. The approximate former locations of the UST's and dispenser islands are shown on Figure 2.

Eight groundwater monitoring wells (S-1, S-2, and MW-3 through MW-8) were installed, and 12 exploratory soil borings (A through D and B-1 through B-8) were advanced, in order to assess the extent of subsurface petroleum hydrocarbon impact beneath the site. The well network has been monitored and sampled on a quarterly basis since 1995. Depth to groundwater has been reported in the monitoring wells at depths ranging from approximately 7 to 21 feet below ground surface (bgs) since groundwater monitoring was initiated.

Petroleum hydrocarbon impact to soil extends to the saturated zone in the vicinity of the former UST complex and fuel dispenser islands. Gasoline range organics (GRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA) have historically been reported in groundwater samples collected beneath the site.

Petroleum hydrocarbon mass reduction events using DPE technology have been periodically conducted at the site since July 2004. Three DPE events to reduce the subsurface petroleum hydrocarbon mass were conducted between July 2004 and September 2004. The first DPE event was conducted between July 6 and 25, 2004, using a 400 cubic feet per minute (cfm) DPE system. During the first DPE event, individual well DPE tests using wells S-1, S-2, and MW-3 and a combined DPE test using all three wells, were conducted to evaluate the technical viability of using DPE to mitigate the subsurface petroleum hydrocarbon impact. During the combined DPE test, an average applied vacuum of 22.66 inches mercury ("Hg) (or 308.18 inches water column ["WC]) resulted in an average soil vapor extraction rate of 86 cfm and an average groundwater extraction rate of 0.55 gallons per minute (gpm). Approximately 13.35 pounds of GRO were extracted in vapor and aqueous phases during this DPE event. Based on the findings of this test and analytical results of subsequent quarterly monitoring, Stratus proposed (letter dated October 15, 2004) to conduct quarterly DPE events as an interim remedial measure to reduce the subsurface petroleum hydrocarbon mass. In a letter dated May 9, 2005, Alameda County Health Care Services Agency (ACHCSA) approved the proposal for conducting intermittent DPE events.

A second DPE petroleum hydrocarbon mass removal event was conducted at the site between June 6 and July 1, 2005, using a 400 cfm DPE system and wells S-1, S-2, and MW-3. During this DPE event, an applied vacuum in the range of 23 to 25 "Hg produced soil vapor flow rates in the range of 23 to 39.4 cfm and an average groundwater extraction rate of 1.12 gpm. A total of 34,340 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer. Approximately 6.449 pounds and 0.082 pounds of GRO were extracted in vapor and aqueous phases, respectively, during this DPE event.

A third DPE petroleum hydrocarbon mass removal event was conducted at the site between August 29 and September 16, 2005, using a 200 cfm DPE system and wells S-1, S-2, MW-3, and MW-7. During this DPE event, an applied vacuum in the range of 16 to 18 "Hg produced soil vapor flow rates in the range of 37.3 to 62.5 cfm and an average groundwater extraction rate of 2.45 gpm. A total of 54,730 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer. GRO was not reported in any of the influent soil vapor samples collected during this DPE event. Approximately 0.014 pounds of GRO was extracted in aqueous phase during this DPE event.

Based on the findings of the first two DPE events, Stratus, in a work plan (*Work Plan for Well Installation and In-Situ Groundwater Remediation*) dated August 31, 2005, proposed installation of four shallow-screened (5 to 25 feet bgs) extraction wells to maximize the petroleum hydrocarbon mass removal rates. In addition, this work plan also proposed installation of an oxygen injection system to supplement the DPE events in reducing the dissolved petroleum hydrocarbon mass. This work plan was subsequently approved by ACHCSA in a letter dated September 9, 2005.

Stratus oversaw the installation of four extraction wells (EX-1 through EX-4) on October 6 and 7, 2005. Stratus submitted a *Well Installation Report*, documenting the findings during the installation of wells EX-1 through EX-4 to ACHCSA on December 30, 2005.

The construction and installation of an oxygen injection system (using iSOC™) was completed during December 2005 and upon approval by the City of Oakland Fire Department, operation of the oxygen injection system was initiated on January 18, 2006.

A fourth DPE petroleum hydrocarbon mass removal event was conducted at the site between February 20 and March 24, 2006, using the newly installed extraction wells EX-1 through EX-4. During this DPE event, an applied vacuum in the range of 18.5 to 23 "Hg produced influent soil vapor flow rates in the range of 22.4 to 50.6 cfm and an average groundwater extraction rate of 0.40 gpm. A total of 13,340 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer. Approximately 25.83 pounds and 0.157 pounds of GRO were extracted in vapor and aqueous phases, respectively, during this DPE event.

A fifth DPE petroleum hydrocarbon mass removal event was conducted at the site between May 1 and May 25, 2006, using extraction wells EX-1 through EX-4. An applied vacuum in the range of 20 to 24.5 "Hg produced influent soil vapor flow rates in the range of 21.9 to 56.2 cfm and an average groundwater extraction rate of 0.30 gpm. A total of 7,400 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer. Based on influent soil vapor flow rates and

concentrations, approximately 5.43 pounds of GRO were extracted in vapor phase and 0.027 pounds of GRO were removed from the subsurface in aqueous phase during this DPE event.

A sixth DPE petroleum hydrocarbon mass removal event was conducted at the site between July 17 and August 10, 2006, using extraction wells EX-1 through EX-4. An applied vacuum in the range of 16.5 to 18 "Hg produced influent soil vapor flow rates in the range of 70.7 to 114.8 cfm and an average groundwater extraction rate of 0.06 gpm. A total of 1,990 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer. Based on influent soil vapor flow rates and concentrations, approximately 47.628 pounds of GRO were extracted in vapor phase and 0.0072 pounds of GRO were removed from the subsurface in aqueous phase during this DPE event. Tabulated summaries of the previous six DPE events completed at the site are included in Appendix A.

In order to more aggressively manage the environmental case at this site towards closure, Stratus proposed conducting an additional DPE event at the site in a work plan (*Work Plan for Dual Phase Extraction and Air Sparge Hydrocarbon Mass Removal Event*) dated June 13, 2007. This work plan also proposed installation of two AS wells (screened from 18 to 20 feet bgs) to maximize the petroleum hydrocarbon mass removal rates. This work plan was subsequently approved by ACHCSA in a letter dated July 25, 2007.

Stratus oversaw the installation of two air sparge wells (AS-1 and AS-2) on August 23, 2007 and destruction of obstructed monitoring well MW-6 on October 6, 2007. A document titled *Well Installation and Destruction Report,* documenting this work was submitted to ACHCSA on October 24, 2007.

The operation of the oxygen injection system at the site was discontinued on September 4, 2007, prior to initiation of the DPE-AS event.

DUAL PHASE EXTRACTION AND AIR SPARGE EVENT

The DPE-AS event was conducted between September 4 and November 14, 2007. Wells EX-1 through EX-4 were used to extract hydrocarbon-laden soil vapors and groundwater and wells AS-1 and AS-2 were used for air sparging. Additionally, wells S-1, S-2, MW-3, MW-7, and MW-8 were used as observation wells during the DPE-AS event. Construction details for the remediation and monitoring wells are summarized in Table 1.

Prior to the commencement of the DPE-AS event, in accordance with the Bay Area Air Quality Management District (BAAQMD) various locations permit (Application Number 12773 and Plant Number 17101), Stratus notified BAAQMD in letters dated August 28, 2007 and November 12, 2007, regarding use of the DPE system. Stratus also

notified East Bay Municipal Utility District (EBMUD) regarding the schedule and duration of the DPE-AS event. Groundwater was discharged to the sanitary sewer under EBMUD Permit Number 50546352. A site-specific health and safety plan was developed and discussed prior to conducting field activities.

Dual Phase Extraction and Air Sparging Equipment

DPE Equipment

A trailer mounted 200 cfm thermal oxidizer (Serial Number: M1294) with a 15-horsepower (hp) liquid-ring pump was used to apply vacuum and extract soil vapors and groundwater from wells EX-1 through EX-4. The system also housed a 100-gallon water/condensate knockout tank and a 2-hp liquid discharge pump to drain the knockout tank. A 25-kilowatt (30-hp) propane generator was used to energize the control panel of the DPE system. Liquid propane was used as supplemental fuel to maintain combustion temperatures in the thermal oxidizer.

The wellheads of the extraction wells were temporarily modified to provide a seal for vacuum conditions and to facilitate insertion of a drop-tube (1-inch diameter) to extract soil vapors and groundwater. The liquid ring pump was used to extract soil vapors and groundwater from the extraction wells and the extracted soil vapors and groundwater (dual phase flow) were directed to the knockout tank. Following separation from the groundwater in the knockout tank, the soil vapors were directed to the thermal oxidizer for abatement before discharge to the atmosphere. The groundwater in the knockout tank of the DPE unit was treated using two USFilter Westates 500-pound granular activated carbon vessels, connected in series, prior to discharge to the sanitary sewer.

Air Sparging Equipment

A 2-hp Quincy blower (Serial Number: 5146084) rated at 9.6 cfm was used to inject air into the subsurface through wells AS-1 and AS-2. The blower was powered by the same propane generator as the DPE system. The wellheads of the air sparge wells were temporarily modified to facilitate air injection.

A temporary fence was erected around the DPE system, blower, generator, the carbon vessels, and the sewer discharge point.

Dual Phase Extraction and Air Sparging Procedure

The DPE-AS event was conducted by lowering a 1-inch diameter drop tube into each extraction well. The drop tube (stinger) was installed near the base of each extraction well casing. The liquid ring pump was used to apply high vacuum to the stinger to extract soil vapors and groundwater from the wells. Additionally, air was injected into

the subsurface at approximately 150 to 200 percent of the static head pressure observed at wells AS-1 and AS-2 at the beginning of the test. A flow rate of approximately 2.8 to 4 cfm was maintained at each air sparge well.

Wells S-1, S-2, MW-3, MW-7, and MW-8 were used as observation wells to monitor for changes in groundwater elevation and/or induced vacuums during the DPE-AS event. Magnahelic gauges were used to measure induced vacuum. Hand-operated electric water-level sounders were used to measure depth-to-groundwater in the observation wells. The DPE system was equipped to measure the groundwater extraction rate (discharge from the centrifugal pump after the knockout tank) and the soil vapor flow rate. A flow totalizer was installed between the carbon vessels and the sewer discharge point to record the volume of treated groundwater discharged during the DPE-AS event. Stratus visited the site on a periodic basis (approximately bi-weekly) to monitor performance of the DPE and AS systems. Influent soil vapor concentrations were monitored using a photoionization detector (PID) during each site visit. Field data sheets documenting measurements recorded during the DPE-AS event are presented in Appendix B. Table 2 summarizes observations recorded on the field data sheets.

Soil vapor and groundwater samples were collected during the DPE-AS event to evaluate performance of the DPE and AS systems and to verify compliance with the air and water discharge permits. Soil vapor samples were retained in laboratory supplied tedlar bags and stored at ambient air temperature in a protective container. Groundwater samples were collected in preserved glass containers (VOAs) and stored in an ice-chilled cooler. All samples collected were forwarded to the laboratory for chemical analysis under strict chain-of-custody procedures.

Laboratory Analytical Methods

Soil vapor and groundwater samples collected during the DPE-AS event were forwarded to Alpha Analytical, Inc. (Alpha), a California state-certified laboratory (ELAP #2019), for chemical analysis. Groundwater samples were analyzed for GRO using EPA Method SW8015B/DHS LUFT Manual, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, TBA, ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), and tertiary amyl methyl ether (TAME) using EPA Method SW8260B. Soil vapor samples were analyzed for GRO (using SW8015B/DHS LUFT Manual), BTEX, MTBE, and TBA (using SW8260B). Soil vapor analytical results are presented in Table 3 and groundwater analytical results are presented in Table 4. Certified analytical reports with chain-of-custody documentation are included in Appendix C.

DPE-AS Event Results

The DPE-AS event was conducted between September 4 and November 14, 2007, for 779.50 hours (approximately 32.48 days). The DPE-AS system was unable to operate continuously due to frequent malfunctions of the propane generator used to power the control panel of the DPE system. The field and analytical data collected during the DPE-AS event are summarized below:

- An applied vacuum in the range of 8.0 to 15.0 "Hg produced influent soil vapor flow rates in the range of 93.3 to 132.6 cfm and an average groundwater extraction rate of 0.08 gpm. A total of 690 gallons of extracted groundwater were treated using the carbon vessels and discharged to the sanitary sewer.

- The greatest drawdown (1.02 feet) in the observation well network was observed at well MW-3, located approximately 14 feet from extraction well EX-2. Drawdown of 4.14 feet observed at well MW-8 was considered anomalous and hence was not used in determining greatest drawdown (Table 2).

- Groundwater elevation contour maps for depth to water measurements taken at the start-up of the DPE event (September 4, 2007) and during the event (October 15, 2007) are presented in Figures 3 and 4, respectively.

- GRO and benzene concentrations in the influent air samples ranged from 540 milligrams per cubic meter (mg/m^3) to 1,800 mg/m^3 and 0.75 mg/m^3 to 3.4 mg/m^3, respectively. MTBE was not reported above laboratory detection limits in any of the four influent air samples collected during this event.

- GRO, benzene, and MTBE concentrations in the influent water samples ranged from 51 micrograms per liter (µg/L) to 470 µg/L, 9.2 µg/L to 140 µg/L, and 3.8 µg/L to 230 µg/L, respectively.

- Based on influent soil vapor flow rates, operational uptime, and concentrations, approximately 698.8 pounds of GRO were extracted in vapor phase during this DPE-AS event. A total of approximately 797.3 pounds of GRO in vapor phase has been removed from the subsurface in the vapor phase as a result of this and historical DPE events (Table 5).

- Based on groundwater extraction rates and influent concentrations, approximately 0.002 pounds of GRO was removed from the subsurface in aqueous phase during this DPE-AS event. A total of approximately 0.31 pounds of GRO has been removed in aqueous phase from the subsurface as a result of this and historical DPE events (Table 5).

- Concentrations of GRO, benzene, and MTBE in observation wells S-1, S-2, and MW-3 appear to be declining due to DPE and AS. Graphs illustrating concentrations of GRO, benzene, and MTBE variations with time at wells S-1, S-2, MW-3, EX-1 through EX-4 are presented in Figures 5 through 11.

DISCUSSION

Petroleum hydrocarbon concentrations and hydrocarbon mass extraction rates in extracted soil vapors during the DPE-AS event were significantly higher than the concentrations observed during the previous DPE remediation events. The combination of seasonally low groundwater levels and air sparging appears to have improved subsurface soil vapor flow rates, resulting in higher hydrocarbon mass extraction rates in soil vapor.

In order to further reduce petroleum hydrocarbon mass beneath the property and manage the site towards closure, Stratus intends to initiate continuous DPE and AS at the site. Prior to initiating further remediation, Stratus will obtain appropriate electrical service needed to operate DPE and AS equipment from Pacific Gas and Electric Company (PG&E). Natural gas service for the DPE system may also be obtained.

LIMITATIONS

This report was prepared in general accordance with accepted standards of care that existed at the time this work was performed. No other warranty, expressed or implied, is made. Conclusions and recommendations are based on field observations and data obtained from this work and previous investigations. It should be recognized that definition and evaluation of geologic conditions is a difficult and inexact science. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface conditions present. More extensive studies may be performed to reduce uncertainties. This report is solely for the use and information of our client unless otherwise noted.

If you have any questions or comments concerning this report, please contact Scott Bittinger at (530) 676-2062.

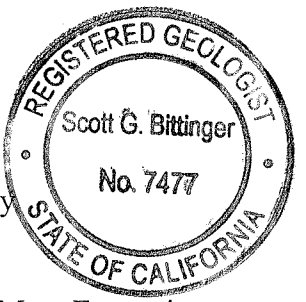
Sincerely,

STRATUS ENVIRONMENTAL, INC.

Sonia Nandi

Sonia Nandi
Staff Engineer

Scott Bittinger, P.G.
Project Manager



Attachments:

	Table 1	Drilling and Well Construction Summary
	Table 2	DPE-AS Event Field Observation Summary
	Table 3	Soil Vapor Analytical Results
	Table 4	Groundwater Analytical Results
	Table 5	Petroleum Hydrocarbon and Groundwater Mass Extraction Summary
	Figure 1	Site Location Map
	Figure 2	Site Plan
	Figure 3	Groundwater Elevation Contour Map for 9/4/07
	Figure 4	Groundwater Elevation Contour Map for 10/15/07
	Figure 5	GRO, Benzene, and MTBE Variation with Time at S-1
	Figure 6	GRO, Benzene, and MTBE Variation with Time at S-2
	Figure 7	GRO, Benzene, and MTBE Variation with Time at MW-3
	Figure 8	GRO, Benzene, and MTBE Variation with Time at EX-1
	Figure 9	GRO, Benzene, and MTBE Variation with Time at EX-2
	Figure 10	GRO, Benzene, and MTBE Variation with Time at EX-3
	Figure 11	GRO, Benzene, and MTBE Variation with Time at EX-4
	Appendix A	Summaries of Previous DPE Events
	Appendix B	Field Data Sheets
	Appendix C	Certified Analytical Reports and Chain-of-Custody Documentation

cc: Mr. Charles Miller, Moller Investment Group, Inc.
Mr. Ken Phares, Jay-Phares Corporation
Mr. Peter McIntyre, AEI Consultants
Mr. Robert Cave, Bay Area Air Quality Management District

TABLE 1
DRILLING AND WELL CONSTRUCTION SUMMARY
Former USA Station #57
10700 MacArthur Boulevard
Oakland, California

ID	Date	Boring Dia. (inches)	Boring Depth (feet bgs)	Casing Diameter (inches)	Casing Depth (feet bgs)	Slot Size (inches)	Screen Interval (feet bgs)
Monitoring Wells							
S-1	2/12/87	8	40	3	40	0.02	20 to 40
S-2	2/12/87	8	40	3	40	0.02	20 to 40
MW-3	2/28/95	10	44	4	44	0.02	24 to 44
MW-4	11/20/95	10	40.5	4	40.5	0.02	10 to 40.5
MW-5	11/20/95	10	41	4	40	0.02	10 to 40
MW-6	11/20/95	10	40.5	4	40.5	0.02	10 to 40.5
MW-7	11/21/95	10	41	4	40	0.02	10 to 40
MW-8	11/21/95	10	35.5	4	35	0.02	10 to 35
Extraction Wells							
EX-1	10/6/05	10	25	4	25	0.02	5 to 25
EX-2	10/7/05	10	25	4	25	0.02	5 to 25
EX-3	10/6/05	10	25	4	25	0.02	5 to 25
EX-4	10/6/05	10	25	4	25	0.02	5 to 25
Air Sparge Wells							
AS-1	8/23/07	8	20	1	20	0.02	17.5 to 20
AS-2	8/23/07	8	25	1	20	0.02	17.5 to 20
Soil Borings							
A	2/12/87	8	20				
B	2/12/87	6	20				
C	2/12/87	6	20				
D	2/12/87	6	20				
B-1	2/28/95	8	46				
B-2	3/1/95	8	31				
B-3	3/1/95	8	21				
B-4	3/2/95	8	12				
B-5	3/2/95	8	12				
B-6	3/2/95	8	12				
B-7	3/2/95	8	12				
B-8	3/2/95	8	12				

bgs - Below ground surface

TABLE 2
DPE-AS EVENT FIELD OBSERVATION SUMMARY
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE (days)	Appl Vac ("Hg)	Air Flow[1] (cfm)	Totalizer Reading (gallons)	GW Ext Rate (gpm)	Inf PID (ppmv)	Oper Temp (deg F)	Depth to Water, feet bgs and Induced Vacuum, "WC									
									S-1		S-2		MW-3		MW-7		MW-8	
									(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)
9/4/07 5:45	NM	NM	NM	NM	NM	NM	NM	NM	18.57	--	20.69	--	15.43	--	17.60	--	19.55	--
9/4/07 9:40	**Begin DPE-AS event using wells EX-1 through EX-4 and AS-1 through AS-2. Hour Meter Reading = 11,489.50. Totalizer Reading = 199,300 gallons**																	
9/4/07 9:40	11,489.50	0.00	15.00	93.3	199,307	--	NM	NM	NM	--	NM	--	NM	--	NM	--	NM	--
9/4/07 10:15	11,490.50	0.04	15.00	98.2	199,320	0.22	230	1,490	NM	--	NM	--	NM	--	NM	--	NM	--
9/4/06 11:15	11,491.40	0.08	14.00	103.1	199,340	0.37	140	1,450	NM	--	NM	--	NM	--	NM	--	NM	--
9/11/07 10:15	11,524.00	1.44	12.00	122.8	199,410	0.04	160	1,450	NM	--	NM	--	NM	--	NM	--	NM	--
9/17/07 5:45	11,592.60	4.30	10.00	122.8	199,550	0.03	139	1,483	NM	--	NM	--	NM	--	NM	--	NM	--
9/18/07 4:15	11,616.70	5.30	NM	NM	199,550	0.00	NM	NM	18.80	0.23	20.94	0.25	16.10	0.67	17.78	0.18	23.69	4.14
9/20/07 5:00	11,640.00	6.27	NM	98.2	199,550	0.00	418	1,538	NM	--	NM	--	NM	--	NM	--	NM	--
9/25/07 9:00	11,668.10	7.44	14.00	103.1	199,630	0.05	400	1,527	NM	--	NM	--	NM	--	NM	--	NM	--
10/2/07 5:00	11,730.00	10.02	NM	NM	NM	--	NM	NM	19.12	0.55	21.33	0.64	16.40	0.97	18.11	0.51	20.24	0.69
10/3/07 5:30	11,762.20	11.36	8.00	132.6	199,690	0.01	1,060	1,480	NM	--	NM	--	NM	--	NM	--	NM	--
10/5/07 5:00	11,808.80	13.30	NM	NM	199,690	--	NM	NM	NM	--	NM	--	NM	--	NM	--	NM	--
10/11/07 7:00	11,862.00	15.52	11.00	122.8	199,770	0.03	90	1,460	NM	--	NM	--	NM	--	NM	--	NM	--
10/15/07 4:50	11,960.30	19.62	NM	NM	199,830	0.01	NM	NM	19.22	0.65	21.32	0.63	16.45	1.02	18.29	0.69	20.36	0.81
10/17/07 8:00	11,972.00	20.10	11.00	103.1	199,830	--	300	1,497	NM	--	NM	--	NM	--	NM	--	NM	--
10/30/07 8:50	12,101.00	25.48	14.50	117.9	199,920	0.01	69	1,450	NM	--	NM	--	NM	--	NM	--	NM	--
11/6/07 7:00	12,108.00	25.77	12.00	117.9	199,990	0.17	347	1,485	NM	--	NM	--	NM	--	NM	--	NM	--
11/14/07 6:00	12,269.00	32.48	NM	NM	NM	--	NM	NM	NM	--	NM	--	NM	--	NM	--	NM	--
11/14/07 20:00	**Discontinue DPE-AS event.**																	
Average	--	--	**12.41**	**111.31**	--	**0.08**	**304.82**	**1,483**										
Distance to Nearest Extraction Well, feet									**20**		**27**		**15**		**33**		**62**	
Screening Interval : EX-1=EX-2=EX-3=EX-4= 5 to 25 feet bgs									**20 - 40**		**20 - 40**		**24 - 44**		**10 - 40**		**10 - 35**	

TABLE 2
DPE-AS EVENT FIELD OBSERVATION SUMMARY
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE (days)	Appl Vac ("Hg)	Air Flow[1] (cfm)	Totalizer Reading (gallons)	GW Ext Rate (gpm)	Inf PID (ppmv)	Oper Temp (deg F)	Depth to Water, feet bgs and Induced Vacuum, "WC									
									S-1		S-2		MW-3		MW-7		MW-8	
									(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)	(DTW)	(DD)

Notes:

Appl - Applied

cfm - Cubic feet per minute

DD - Drawdown

deg F - Degree Fahrenheit

DTW - Depth to groundwater

gpm - Gallons per minute

GW Ext Rate = Difference of Totalizer Readings, gallons

"Hg - Inches mercury

Inf - Influent

NM - Not measured

Oper - Operating

PID - Photo ionization detector

ppmv - Parts per million by volume

TE - Time elapsed calculated as difference of hour meter readings, days

Temp - Temperature

Vac - Vacuum

[1] Flow rate measured using a digital anemometer at 3" diameter steel pipe;
flow rate = velocity x area of pipe (e.g. flow rate = 600 feet per minute x 0.05 square feet)

TABLE 3
SOIL VAPOR ANALYTICAL RESULTS
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	GRO (mg/m^3)	Benzene (mg/m^3)	Toluene (mg/m^3)	Ethyl-benzene (mg/m^3)	Total Xylenes (mg/m^3)	MTBE (mg/m^3)	TBA (mg/m^3)
09/04/07	11:15	Sys Inf Air 57	**540**	**0.75**	<0.75	**0.97**	<0.75	<0.75	<38
09/04/07	11:20	EFF Air	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<7.5
10/03/07	05:30	0057ASYSINF	**1,800**	**3.4**	**0.96**	**1.2**	**7.5**	<0.75	NA
10/11/07	07:11	USA57 A SYSINF	**730**	**1.2**	**0.45**	<0.30	**1.1**	<0.30	NA
10/11/07	07:00	USA57 A EFF	<15	<0.15	<0.15	<0.15	<0.15	<0.15	NA
11/06/07	07:22	0057 A SYS INF	**1,600**	**2.6**	**1.2**	**0.81**	**2.3**	<0.75	NA
11/06/07	07:20	0057 A SYS EFF	**73**	<0.15	<0.15	<0.15	<0.15	<0.15	NA
11/15/2007 [1]	09:10	0057 A INF	**77**	<0.15	**0.15**	<0.15	**1.16**	<0.15	NA
11/15/2007 [1]	09:05	0057 A EFF	<15	<0.15	<0.15	<0.15	<0.15	<0.15	NA

Notes

[1] Samples analyzed per Bay Area Air Quality Management District (BAAQMD) permit limits

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

GRO = Gasoline Range Organics C4-C13

MTBE = Methyl tertiary butyl ether

NA = Not analyzed

TBA = Tertiary butyl alcohol

Analytical Laboratory

Alpha Analytical, Inc. (Alpha [ELAP #2019])

Analytical Methods

GRO analyzed by EPA Method SW8015B/DHS LUFT Manual

BTEX, MTBE, and TBAanalyzed by EPA Method SW8260B

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
09/04/07	10:15	INF	**470**	**25**	**2.9**	**10**	**19**	**230**	**120**	<1.0	<1.0	<1.0
10/03/07	5:30	0057WINF	**51**	**9.2**	**0.63**	<0.50	**1.82**	**5.4**	**19**	<1.0	<1.0	<1.0
10/11/07	6:35	USA57 W INF	**120**	**25**	**1.6**	**3.3**	**8.7**	**3.8**	**18**	<1.0	<1.0	<1.0
10/11/07	6:30	USA57 W EFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
11/06/07	7:35	00057 W INF	**430**	**140**	**33**	**9.6**	**61**	**9.0**	**41**	<2.0[1]	<2.0[1]	<2.0[1]
11/06/07	7:30	00057 W EFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0

Notes:

µg/L - Micrograms per liter
BTEX - Benzene, toluene, ethylbenzene, and total xylenes
DIPE - Di-isopropyl ether
ETBE - Ethyl tertiary butyl ether
GRO - Gasoline range organics C4-C13
MTBE - Methyl tertiary butyl ether
TBA - Tertiary butyl alcohol
TAME - Tertiary amyl methyl ether

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
GRO analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, and TAME analyzed by EPA Method SW8260B

[1] = Reporting limits were increased due to high concentrations of target analytes

TABLE 5
PETROLEUM HYDROCARBON AND GROUNDWATER MASS EXTRACTION SUMMARY
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed (days)	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate (lbs/day)			Cumulative Mass (TPHG) Removed	
			GRO	Benzene	MTBE	GRO	Benzene	MTBE	Period[1] lbs	Total lbs
Petroleum hydrocarbon mass removed during the previous DPE events									98.527	98.527
09/04/07	0.08	103.1	540	0.75	<0.75	4.95	0.01	<0.0069	4.950	103.477
10/03/07	11.36	132.6	1,800	3.40	<0.75	21.22	0.04	<0.0088	148.618	252.095
10/11/07	15.52	122.8	730	1.2	<0.30	7.97	0.013	<0.0033	226.474	478.569
11/06/07	25.77	117.9	1,600	2.6	<0.75	16.77	0.027	<0.0079	318.733	797.302
11/15/07	NA	NM	77	<0.15	<0.15	--	--	--	--	--

Date	Time Elapsed (days)	Volume of Groundwater Extracted[2] (gallons)	Influent Concentration (µg/L)			Mass Extracted from Groundwater (lbs)			Cumulative Mass Removed	
			GRO	Benzene	MTBE	GRO	Benzene	MTBE	GRO lbs	MTBE lbs
Petroleum hydrocarbon mass removed during the previous DPE events									0.30279	0.01351
09/04/07	0.04	20.0	470	25	230	0.00008	0.000004	0.000038	0.30287	0.01355
10/03/07	11.36	390.0	51	9.2	5.4	0.00017	0.00003	0.000018	0.30303	0.01357
10/11/07	15.52	470	120	25	3.8	0.00034	0.0001	0.00002	0.30337	0.01358
11/06/07	25.77	690	430	140	9	0.00158	0.0005	0.00004	0.30495	0.01362

Groundwater extracted to date 187,490 gallons

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40.3 \text{ cu ft}}{\text{min}} \times \frac{690 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{cu meter}}{35.314 \text{ cu ft}}$

= 2.47 lbs/day

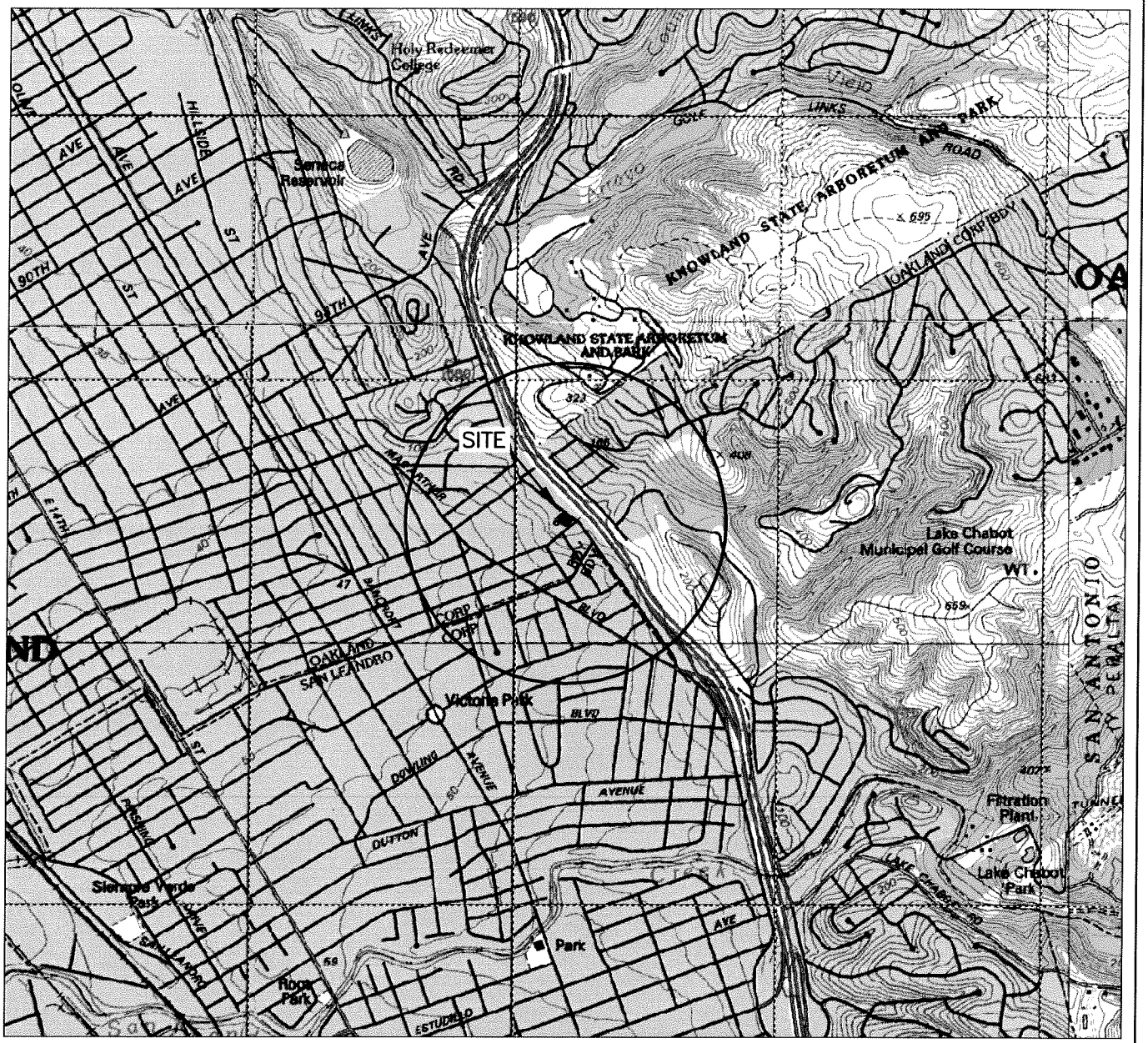
Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

Notes:

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used.

[2] Volume estimated based on flow totalizer measurements taken on the sampling days.

µg/L - Micrograms per liter
cfm - Cubic feet per meter
DPE - Dual phase extraction
gal - Gallons
GRO - Gasoline range organics
lbs - Pounds
mg/m^3 - Milligrams per cubic
MTBE - Methuyl tertiary butyl ether
NA - Not analyzed
NM - Not monitored
TPHG - Total petroleum hydrocarbons



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
OAKLAND, CA
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1980

QUADRANGLE LOCATION

North

0 2000 FT

SCALE 1:24,000

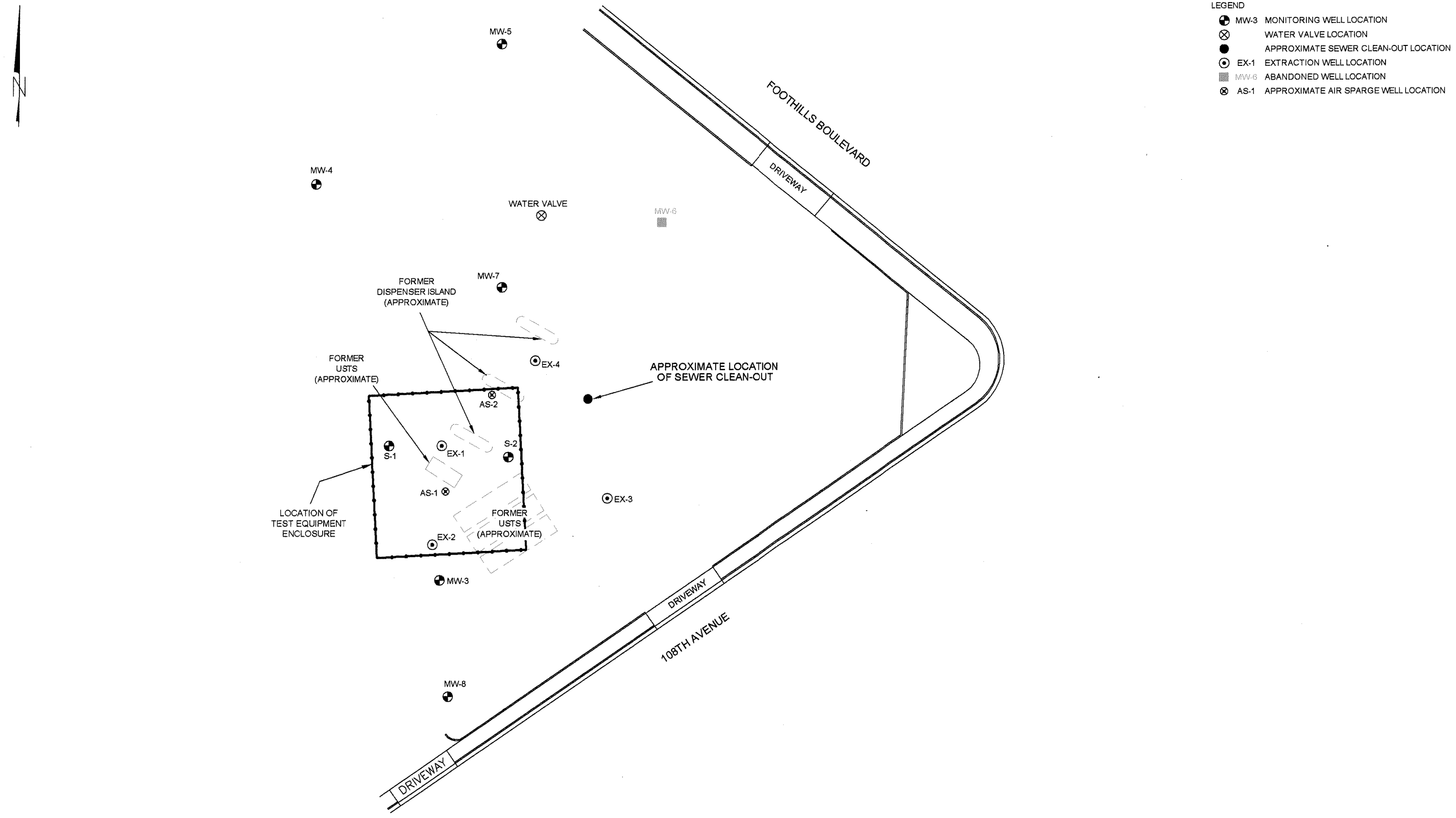
STRATUS ENVIRONMENTAL, INC.

FORMER USA SERVICE STATION NO. 57
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE
1
PROJECT NO.
2007-0057-01

USA\57\Quarterly JMP REV August 13, 2007 USA 57 Site Location Map



JMP REV September 17, 2007 USA 57 Stenlan

USA57\DPE

STRATUS ENVIRONMENTAL, INC.

0 40 FT

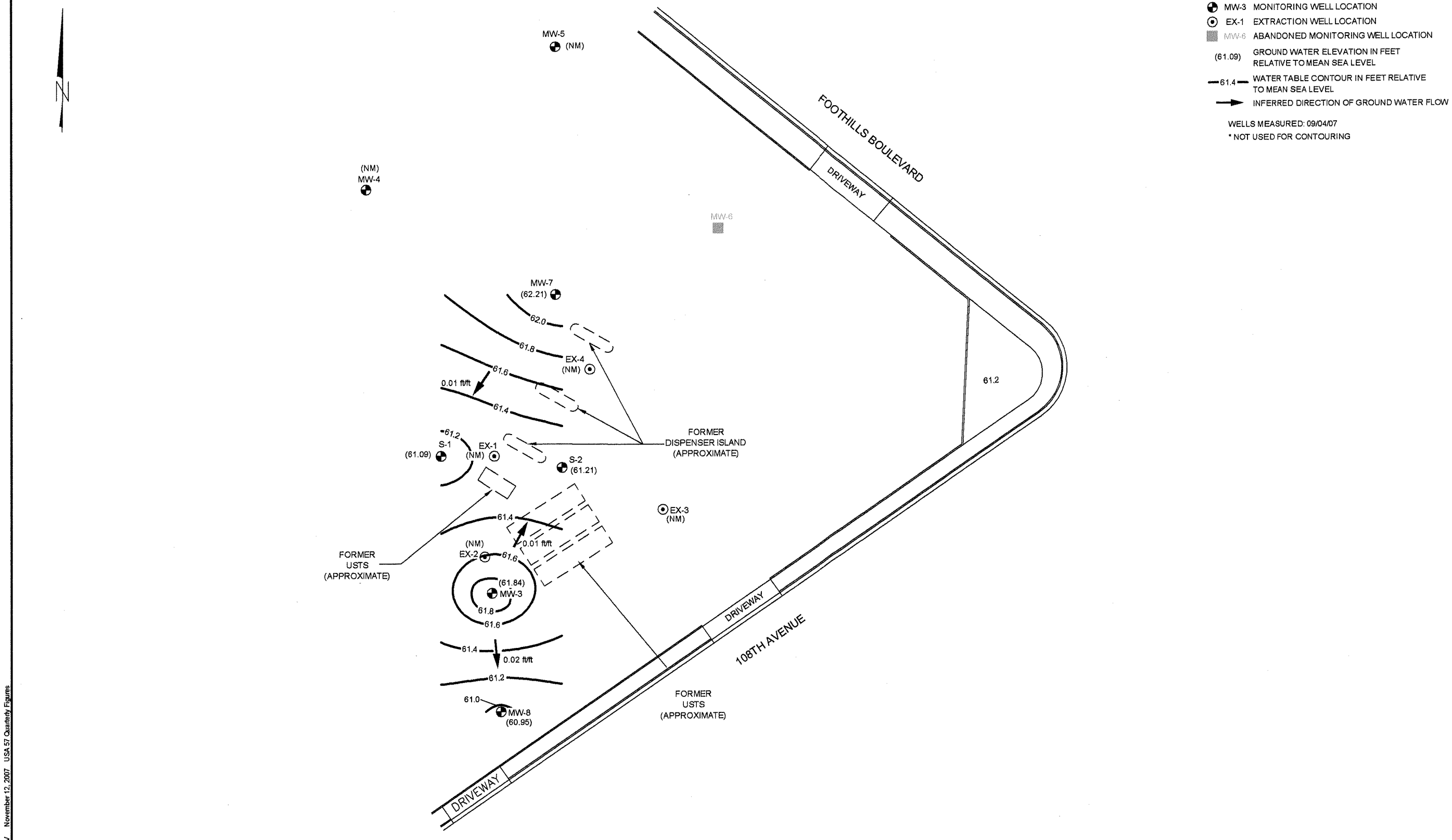
SCALE

FORMER USA STATION NO. 57
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
2

PROJECT NO.
2007-0057-01



JMP REV November 12, 2007 USA 57 Quarterly Figures

USA57\Quarterly

STRATUS ENVIRONMENTAL, INC.

0 40 FT

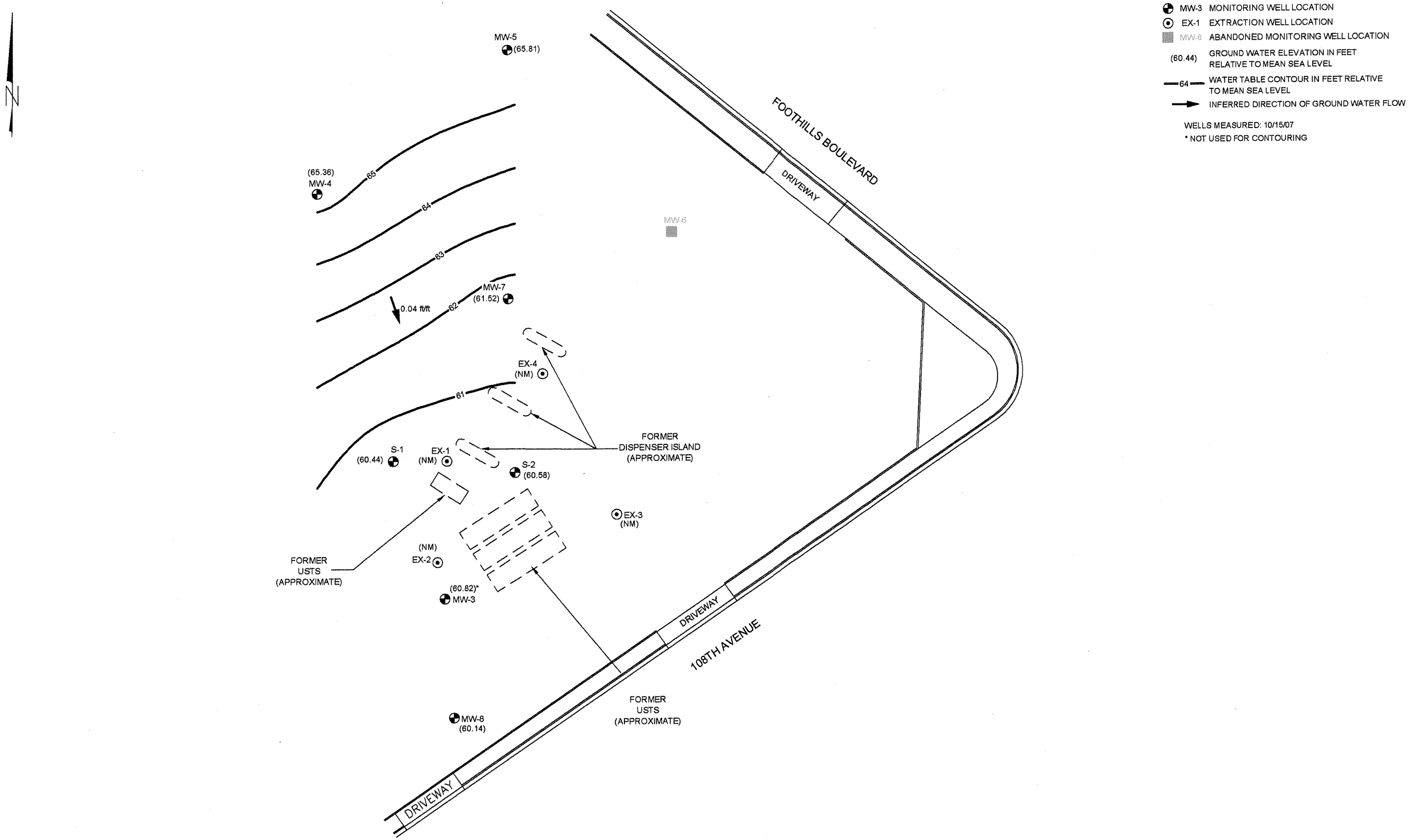
SCALE

FORMER USA SERVICE STATION NO. 57
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP
FOR SEPTEMBER 4, 2007

FIGURE
3

PROJECT NO.
2007-0057-01



LEGEND

- MW-3 MONITORING WELL LOCATION
- EX-1 EXTRACTION WELL LOCATION
- MW-6 ABANDONED MONITORING WELL LOCATION
- (60.44) GROUND WATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- 64 WATER TABLE CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
- INFERRED DIRECTION OF GROUND WATER FLOW

WELLS MEASURED: 10/15/07

* NOT USED FOR CONTOURING

JMP REV November 12, 2007 USA 57 Quarterly Figures

USA57\Quarterly

STRATUS ENVIRONMENTAL, INC.

0 40 FT

SCALE

FORMER USA SERVICE STATION NO. 57
10700 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP
FOR OCTOBER 15, 2007

FIGURE
4

PROJECT NO.
2007-0057-01

Figure 5
GRO, Benzene, and MTBE Variation with Time at S-1
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

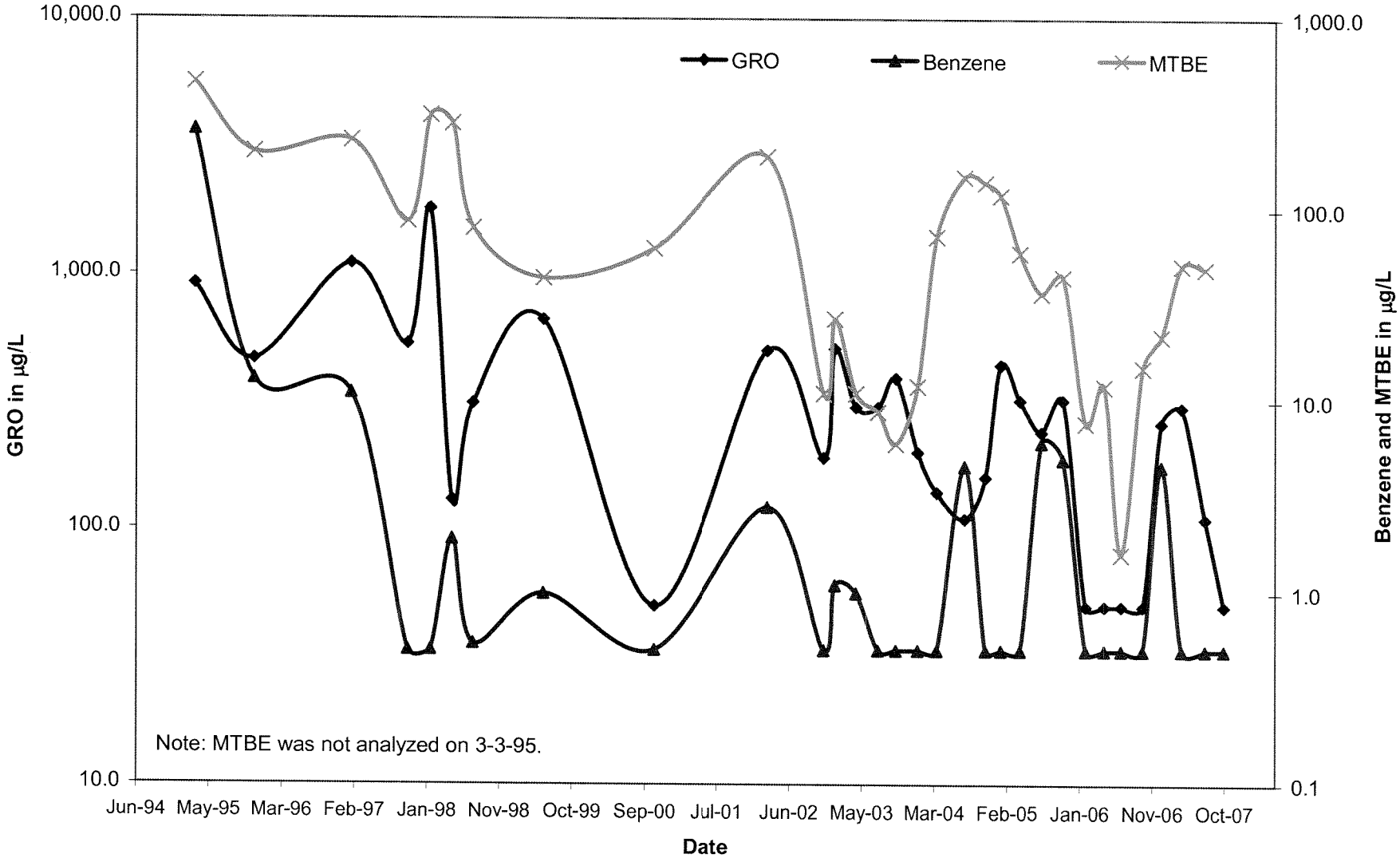


Figure 6
GRO, Benzene, and MTBE Variation with Time at S-2
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

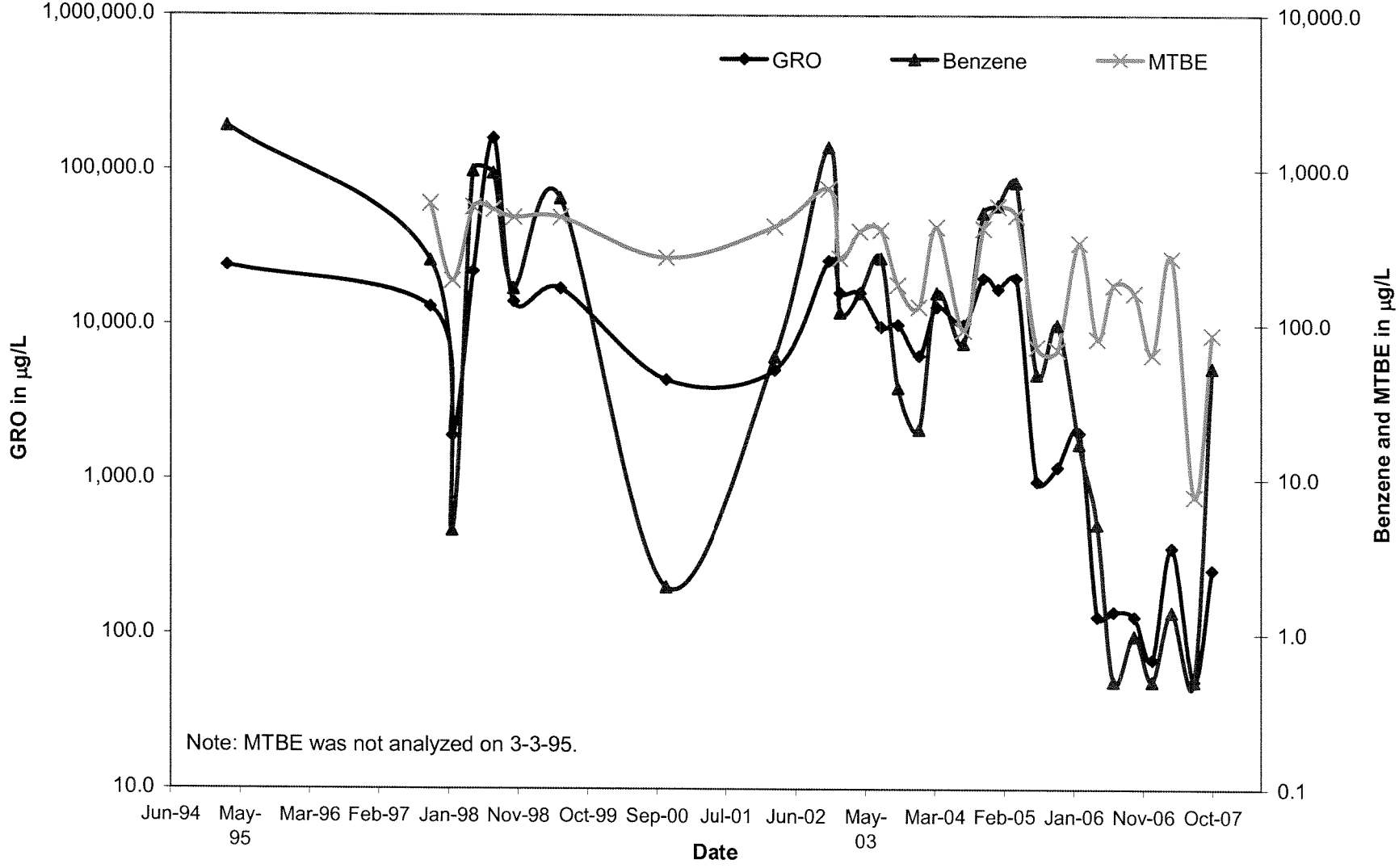


Figure 7
GRO, Benzene, and MTBE Variation with Time at MW-3
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

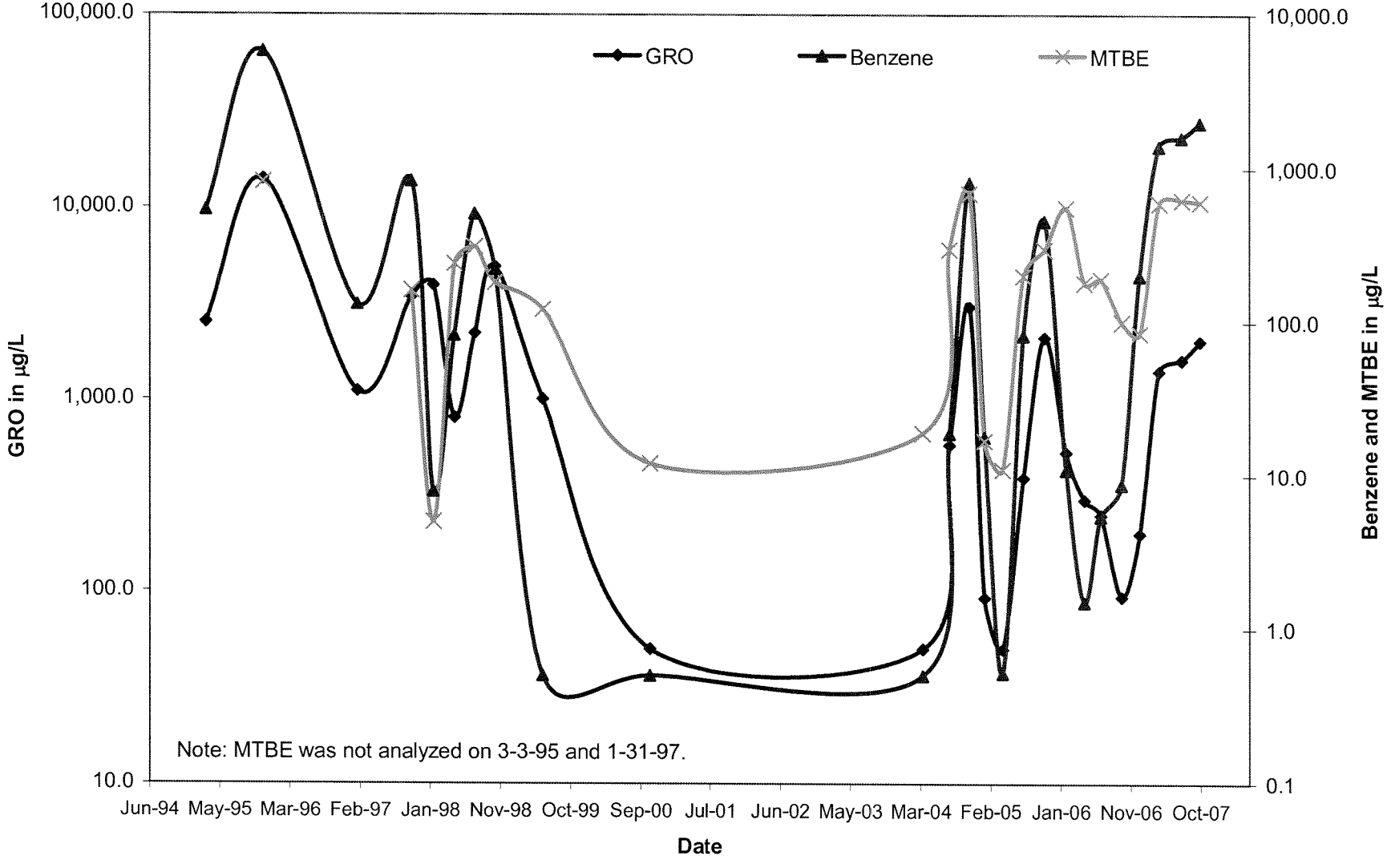


Figure 8
GRO, Benzene, and MTBE Variation with Time at EX-1
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

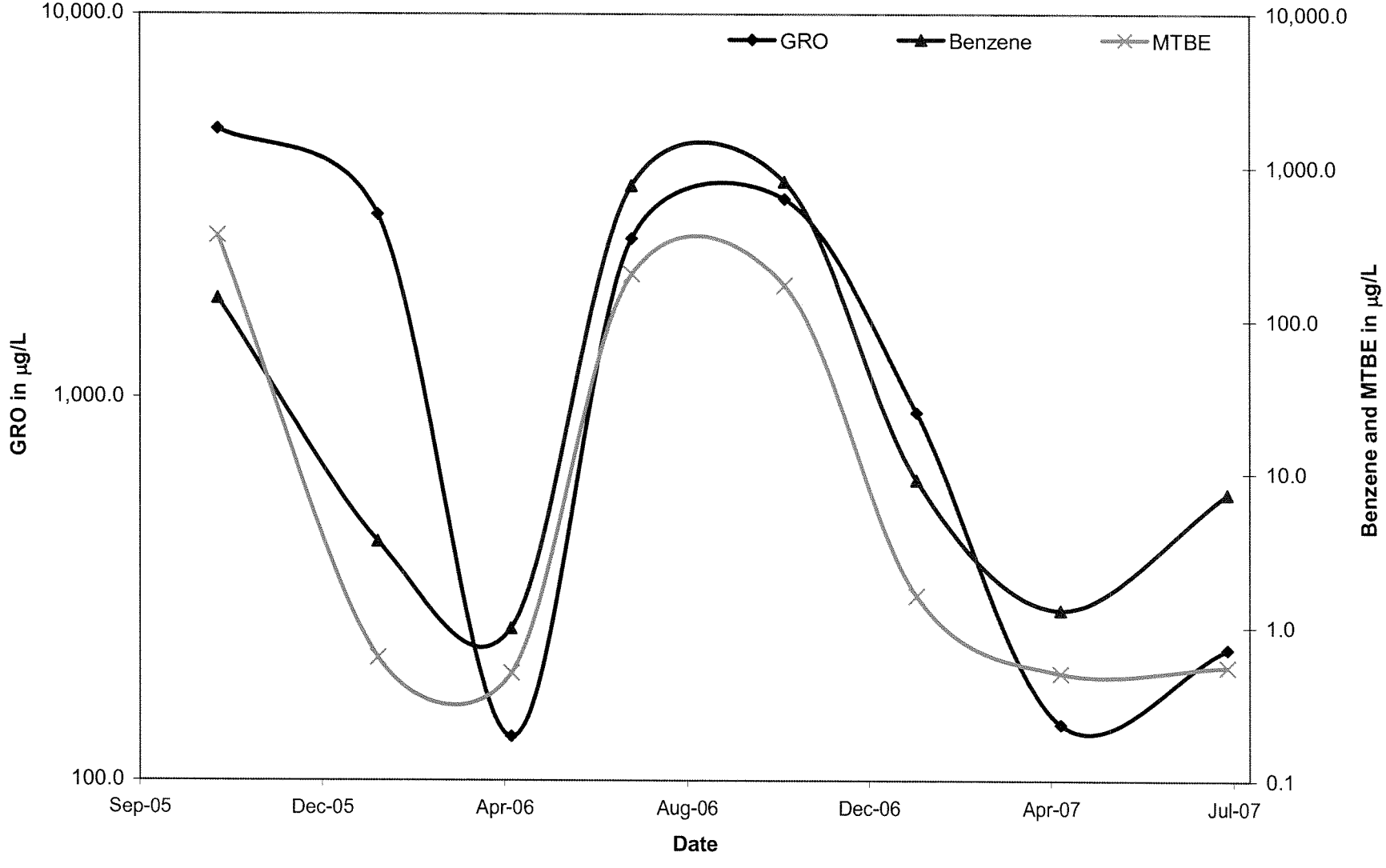


Figure 9
GRO, Benzene, and MTBE Variation with Time at EX-2
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

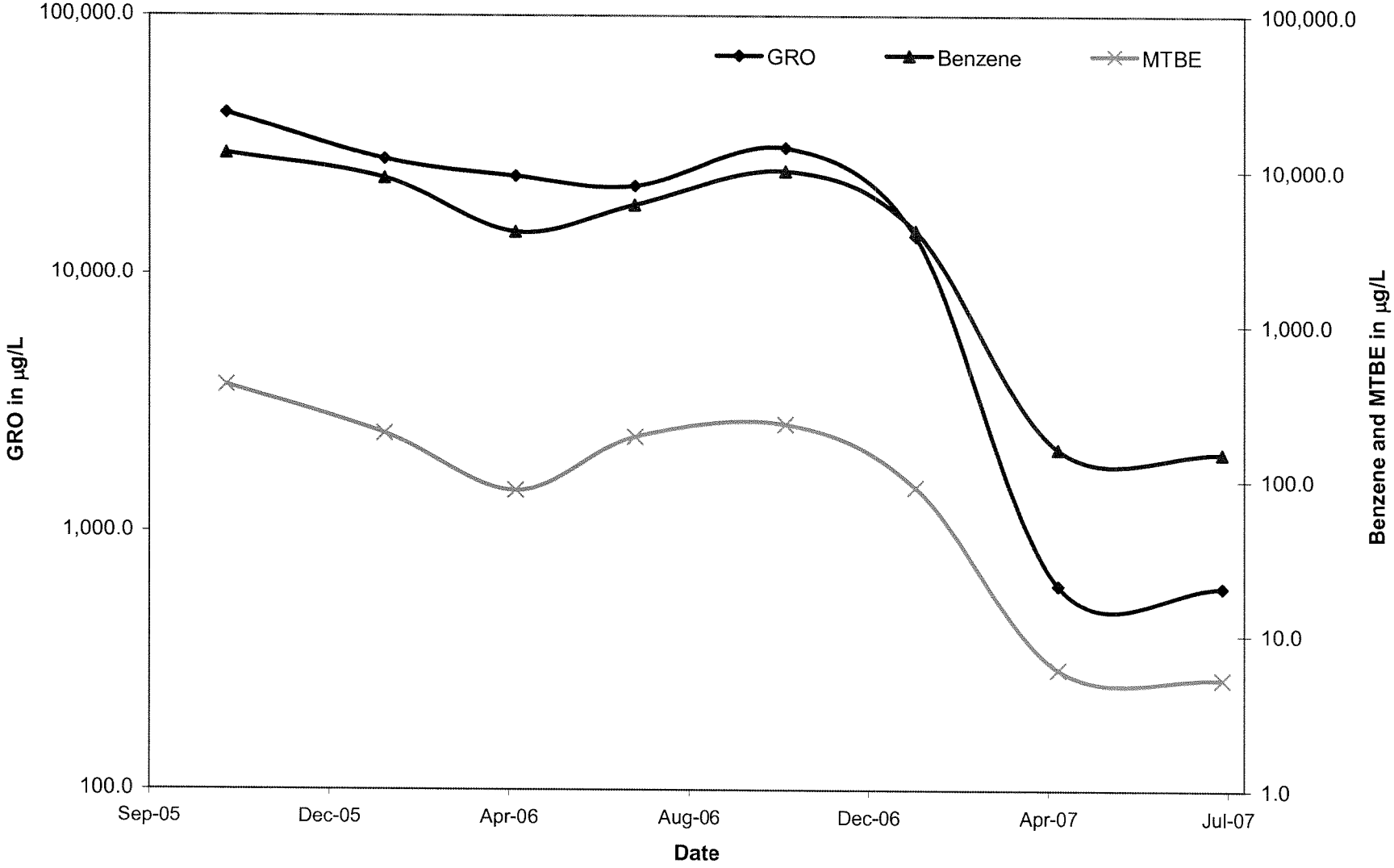


Figure 10
GRO, Benzene, and MTBE Variation with Time at EX-3
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California

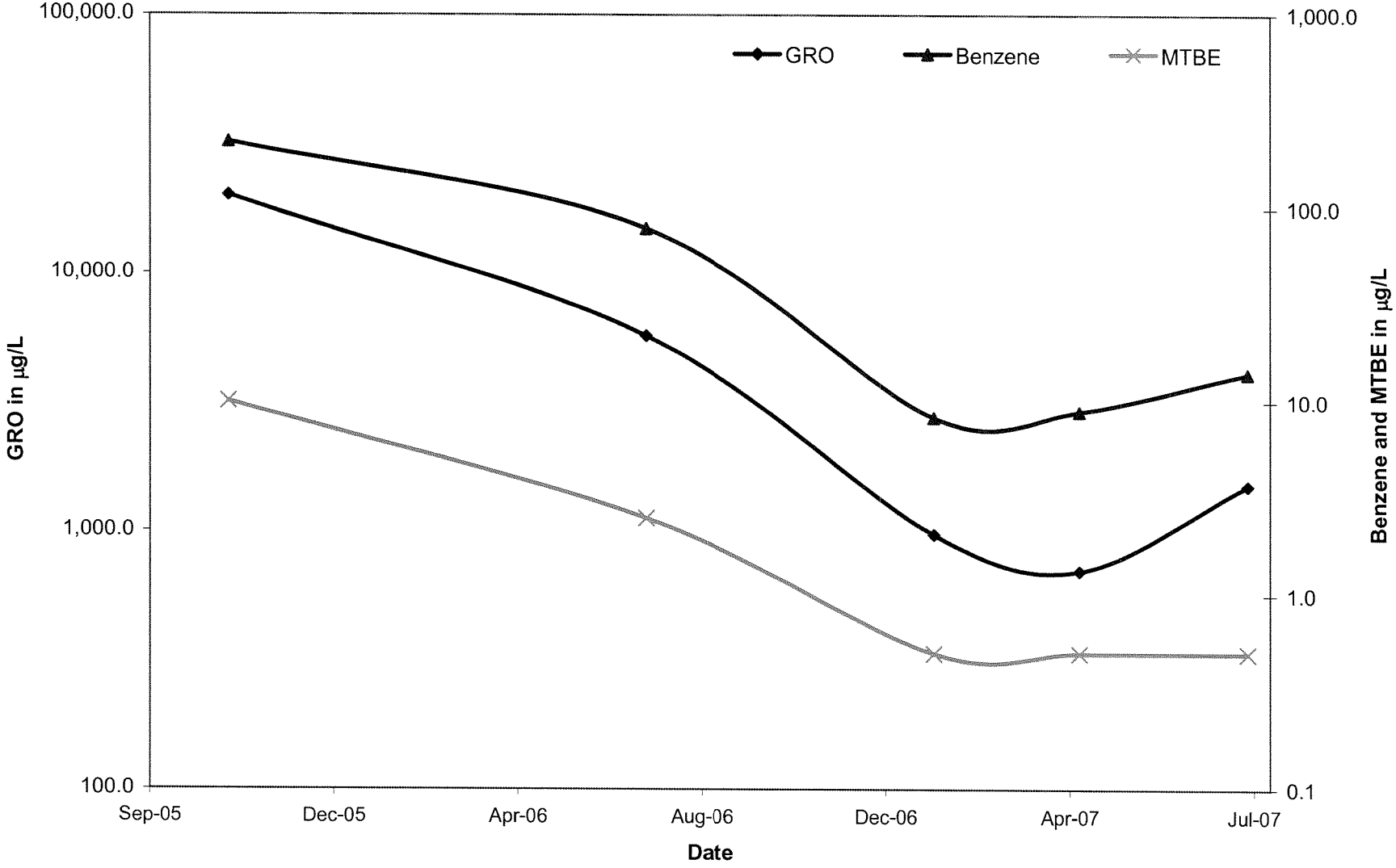
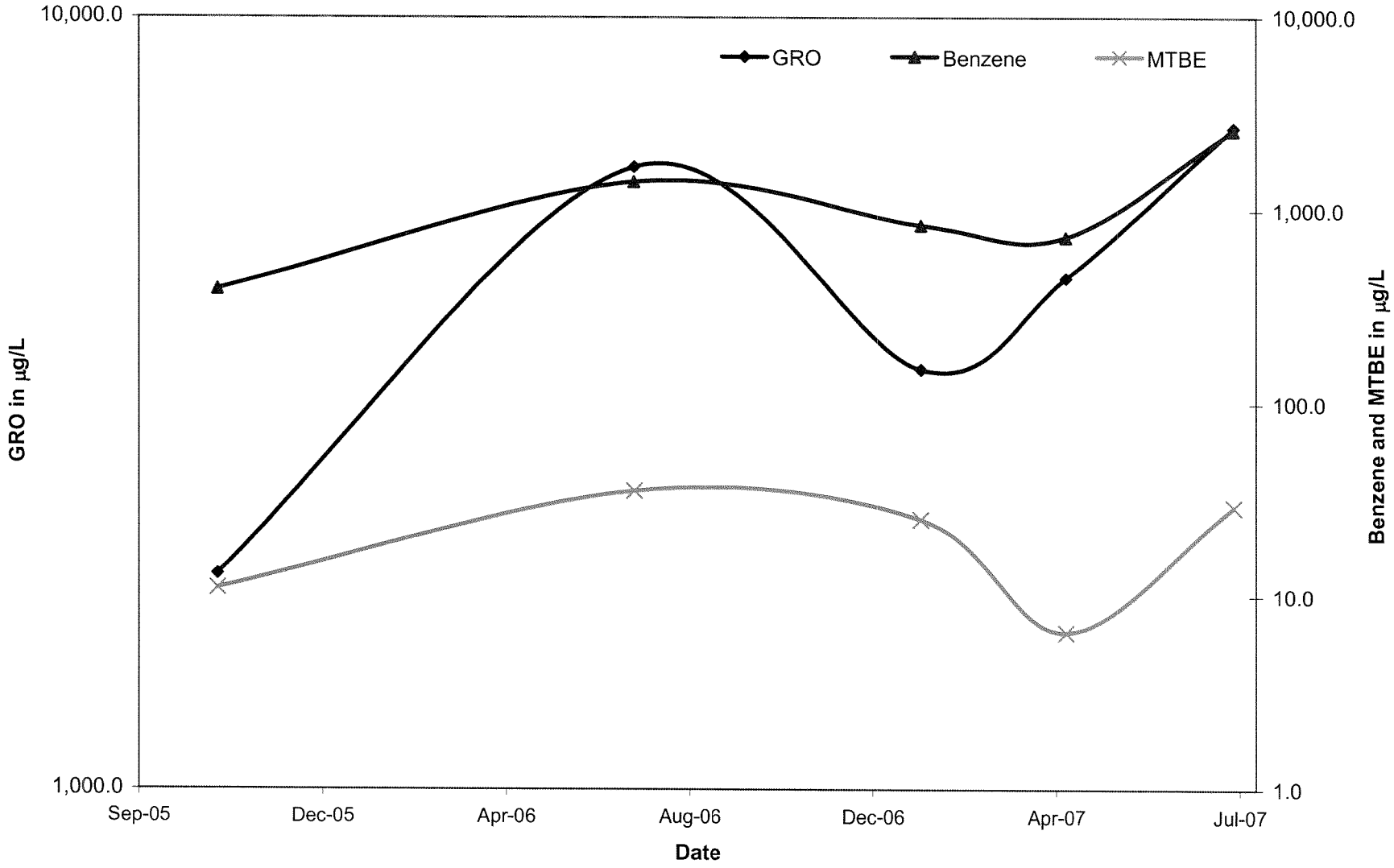


Figure 11
GRO, Benzene, and MTBE Variation with Time at EX-4
Former USA Service Station No. 57
10700 MacArthur Boulevard
Oakland, California



APPENDIX A

SUMMARIES OF PREVIOUS DPE EVENTS

TABLE 1
DPE TEST USING WELL S-2
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date & Time	TE	Appl Vac	Air Flow	Totalizer Reading	GW Ext Rate	Inf PID	Oper Temp	Induced Vacuum ("WC) &/or DTW (feet bgs) Data in Observation Wells														
								S-1			MW-3			MW-4		MW-5		MW-7			MW-8	
	hh:mm	"Hg	cfm	gallons	gpm	ppmv	deg F	Vac	DTW	DD	Vac	DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	DTW	DD
7/6/2004 7:00				42,120					18.13			15.70		12.26		18.07			18.19		19.55	
7/6/2004 8:30		Start Up Test using well S-2, DTW =20.26 feet bgs and DPE unit hour meter reading = 839.6																				
7/6/2004 9:00	00:30	25.50	87	42,120	--	2.9	1,450	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
7/6/2004 10:00	01:30	NM	NM	42,120	--	23.0	NM	0.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
7/6/2004 11:00	02:30	26.25	88	42,130	0.07	29.0	1,466	1.30	18.38	0.25	0.0	15.70	0.00	12.27	0.01	18.08	0.01	0.0	18.30	0.11	19.58	0.03
7/6/2004 12:00	03:30	26.50	87	42,200	0.33	24.0	1,444	0.50	18.58	0.45	0.0	15.69	-0.01	12.25	-0.01	18.05	-0.02	0.0	18.35	0.16	19.51	-0.04
7/7/2004 6:30	22:00	23.50	86	42,820	0.47	7.1	1,456	0.20	18.65	0.52	0.0	15.70	0.00	12.26	0.00	18.04	-0.03	0.0	18.38	0.19	19.55	0.00
7/7/2004 6:50	22:20	Discontinue Test on S-2																				
Distance to Extraction Well S-2								50			60			135		170		70			100	
Screening Interval	20 - 40 (S-2)							20 - 40			24 - 44			10 - 40.5		10 - 40		10 - 40.5			10 - 35	

Notes:

TE - Time Elapsed, hours: minutes
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
ppmv - parts per million by volume
Temp - Temperature
deg F - degree Farenheit
Ext. - Extraction

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
GW Ext - Groundwater Extraction
PID - Photo Ionization Detector
All induced vacuum measured in observation wells were in "WC
gpm - gallons per minute
"Hg - Inches Mercury
bgs - below ground surface
NM - Not measured

TABLE 2
DPE TEST USING WELL S-1
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date & Time	TE	Appl Vac	Air Flow	Totalizer Reading	GW Ext Rate	Inf PID	Oper Temp.	Induced Vacuum ("WC) &/or DTW (feet bgs) Data in Observation Wells													
								S-2			MW-3			MW-4		MW-5		MW-7			MW-8	
	hh:mm	"Hg	cfm	gallons	gpm	ppmv	deg F	Vac	DTW	DD	Vac	DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	DTW	DD
7/7/2004 7:05	Start Up Test using Well S-1																					
7/7/2004 7:05	0.00	NM	NM	42,820	NM	NM	NM	NM	NM		NM	15.70		12.26		18.07			18.38		19.55	
7/7/2004 7:30	00:25	24.00	86	42,890	2.80	1.5	1,459	+7.4	30.08		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
7/7/2004 8:00	00:55	24.00	87	42,890	--	0.6	1,456	+4.4	25.35	-4.73	0.0	15.70	0.00	12.25	-0.01	18.06	-0.01	0.0	18.38	0.00	19.55	0.00
7/7/2004 9:00	01:55	24.00	87	42,960	0.61	0.0	1,457	+0.2	22.16	-7.92	0.0	15.70	0.00	12.25	-0.01	18.07	0.00	0.0	18.38	0.00	19.55	0.00
7/7/2004 9:05	02:00	Discontinue Test on S-1																				
Distance to Extraction Well S-1								50			60			110		170		80			105	
Screening Interval	20 - 40 (S-1)							20 - 40			24 - 44			10 - 40.5		10 - 40		10 - 40.5			10 - 35	

Notes:

TE - Time Elapsed, hours: minutes
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
ppmv - parts per million by volume
Temp - Temperature
deg F - degree Farenheit
Ext. - Extraction
cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
GW Ext - Groundwater Extraction
PID - Photo Ionization Detector
All induced vacuum measured in observation wells were in "WC
gpm - gallons per minute
"Hg - Inches Mercury
bgs - below ground surface
NM - Not measured

TABLE 3
DPE TEST USING WELL MW-3
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date & Time	TE	Appl Vac	Air Flow	Totalizer Reading	GW Ext Rate	Inf PID	Oper Temp	Induced Vacuum ("WC) &/or DTW (feet bgs) Data in Observation Wells													
								S-1			S-2			MW-4		MW-5		MW-7			MW-8	
	hh:mm	"Hg	cfm	gallons	gpm	ppmv	deg F	Vac	DTW	DD	Vac	DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	DTW	DD
7/7/2004 9:25	Start Up Test using Well MW-3																					
7/7/2004 9:25	0.00	NM	NM	42,960	--	NM	NM	NM	NM	--	NM	22.16	--	12.26	--	18.07	--	NM	18.38	--	19.55	NM
7/7/2004 10:00	00:35	24.50	87	42,960	--	0.0	1,450	0.0	NM	--	NM	NM	--	NM	--	NM	--	NM	NM	--	NM	NM
7/7/2004 10:30	01:05	25.50	87	42,960	--	0.0	1,447	0.0	19.38	--	+0.6	21.00	-1.16	12.25	0.00	18.06	-0.01	0.0	18.36	-0.02	19.53	-0.02
7/7/2004 11:30	02:05	26.00	87	42,960	--	0.0	1,456	0.0	19.11	-0.27	+0.2	20.91	-1.25	12.25	0.00	18.06	-0.01	0.0	18.35	-0.03	19.53	-0.02
7/7/2004 11:35	02:10	Discontinue test on MW-3																				
Distance to Extraction Well MW-3								60			60			170		220		120			50	
Screening Interval	24-44 (MW-3)							20 - 40			20 - 40			10 - 40.5		10 - 40		10 - 40.5			10 - 35	

Notes:

TE - Time Elapsed, hours: minutes
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
ppmv - parts per million by volume
Temp - Temperature
deg F - degree Farenheit
Ext. - Extraction

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
GW Ext - Groundwater Extraction
PID - Photo Ionization Detector
All induced vacuum measured in observation wells were in "WC
gpm - gallons per minute
"Hg - Inches Mercury
bgs - below ground surface
NM - Not measured

TABLE 4
COMBINED DPE TEST USING WELLS S-1, S-2, AND MW-3
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date & Time	TE	Appl Vac	Air Flow	Totalizer Reading	GW Ext Rate	Inf PID	Oper Temp	MW-4		MW-5		MW-6		MW-7			MW-8		
	hh:mm	"Hg	cfm	gallons	gpm	ppmv	deg F	DTW	DD	DTW	DD	Vac	DTW	Vac	DTW	DD	Vac	DTW	DD
7/7/2004 11:35	Start Test on S-1, S-2 and MW-3																		
7/7/2004 11:35	0.00	NM	NM	42,960	NM	NM	NM	12.25	--	18.06	--	NM	DRY	NM	18.35	--	NM	19.53	--
7/8/2004 6:15	18:40	22.25	87	44,610	1.47	4.0	1,460	12.25	0.00	18.11	0.05	0.0	DRY	0.0	18.63	0.28	0.0	19.70	0.17
7/9/2004 6:00	42:25	23.00	86	46,960	0.92	2.3	1,440	12.33	0.08	18.18	0.12	0.0	DRY	0.0	18.72	0.37	0.0	20.02	0.49
7/10/2004 6:00	66:25	23.00	86	48,690	0.43	3.5	1,460	12.41	0.16	18.26	0.2	0.0	DRY	0.0	18.78	0.43	0.0	20.32	0.79
7/11/2004 6:00	90:25	21.00	86	50,760	0.38	3.2	1,456	12.41	0.16	18.27	0.21	0.0	DRY	0.0	18.81	0.46	0.0	20.58	1.05
7/12/2004 6:30	114:55	22.50	86	52,780	0.29	3.0	1,453	12.42	0.17	18.32	0.26	0.0	DRY	0.0	18.84	0.49	0.0	20.75	1.22
7/15/2004 6:00	186:25	22.50	86	58,760	0.53	4.0	1,446	12.27	0.02	18.36	0.3	0.0	DRY	0.0	18.90	0.55	0.0	21.17	1.64
7/19/2004 5:45	282:10	23.25	86	66,320	0.45	3.2	1,459	11.67	-0.58	18.23	0.17	0.0	DRY	0.0	18.98	0.63	0.0	21.50	1.97
7/22/2004 5:45	354:10	23.25	86	71,870	0.26	3.0	1,458	12.05	-0.20	18.33	0.27	0.0	DRY	0.0	19.03	0.68	0.0	21.65	2.12
7/25/2004 10:36	431:01			77,720	0.23	**Discontinue DPE Test. DPE unit hour meter reading = 1,297.7**													
Distance to Nearest Extraction Well								110		170		110		70			50		
Screening Interval								10 - 40.5		10 - 40		10 - 40.5		10 - 40.5			10 - 35		

Notes:

TE - Time Elapsed, hours: minutes
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
ppmv - parts per million by volume
Temp - Temperature
deg F - degree Farenheit
Ext. - Extraction
cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
GW Ext - Groundwater Extraction
PID - Photo Ionization Detector
All induced vacuum measured in observation wells were in "WC
gpm - gallons per minute
"Hg - Inches Mercury
bgs - below ground surface
NM - Not measured

TABLE 5
SOIL VAPOR ANALYTICAL RESULTS
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	Sample Type	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
07/06/04	1030	Eff Air	Air	<12	<0.12	<0.12	<0.12	<0.12	<0.12
07/06/04	1032	Inf Cat Air	Air	**660**	**2.1**	**0.38**	**1.2**	**1.1**	**1.0**
07/07/04	0904	Inf Cat Air S-1	Air	<12	<0.12	<0.12	<0.12	<0.12	**0.29**
07/07/04	1126	Inf Cat Air MW-3	Air	<12	<0.12	<0.12	<0.12	<0.12	**0.13**
07/19/04	0641	Eff Air	Air	<12	<0.12	<0.12	<0.12	<0.12	<0.12
07/19/04	0644	Inf Cat Air	Air	**88**	**0.26**	<0.12	<0.12	**0.19**	**0.25**

All air sample values reported in milligrams per cubic meter (mg/m^3)

TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether

Analytical Laboratory
Alpha Analytical, Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX and MTBE analyzed by EPA Method SW8260B

TABLE 6
GROUNDWATER ANALYTICAL RESULTS
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	Sample Type	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Methanol	Ethanol
07/06/04	1050	S-2	Water	2200	13	1.8	10	26.9	66	170	<1.0	<1.0	<1.0	<5,000	<5,000
07/08/04	0854	Influent	Water	<100[1]	<0.50	<0.50	0.66	4.4	16	NA	NA	NA	NA	NA	NA
07/08/04	0905	GAC Influent	Water	110	<0.50	<0.50	<0.50	1.89	17	NA	NA	NA	NA	NA	NA
07/08/04	1030	Effluent	Water	<50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA	NA	NA
07/19/04	0623	Effluent	Water	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0	NA	NA
07/19/04	0630	Influent	Water	<50	<0.50	<0.50	<0.50	0.52	3.7	56	<1.0	<1.0	<1.0	NA	NA
07/27/04	1118	Effluent	Water	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0	NA	NA

All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
NA = Not analyzed
[1] Reporting limits were increased due to sample foaming

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by EPA Method SW8260B
Methanol & Ethanol analyzed by EPA Method SW8260B-DI

TABLE 7
PETROLEUM HYDROCARBON MASS EXTRACTION RATES SUMMARY
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Test Well ID	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate from Wells (lbs/day)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period[1] lbs	Total lbs
07/06/04	S-2	87.0	660	2.1	1.0	5.16	0.01	0.01	5.16	5.16
07/07/04	S-1	87.0	<12	<0.12	0.29	<0.09	<0.001	0.002	0.01	5.17
07/07/04	MW-3	87.0	<12	<0.12	0.13	<0.09	<0.001	0.001	0.01	5.18
07/19/04	S-1, S-2, MW-3	86.0	88	0.26	0.25	0.68	0.002	0.002	8.16	13.34

Date	Test Well ID	Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period lbs	Total lbs
07/06/04	S-2	80	2,200	13	66	0.001	0.00001	0.00004	0.001	0.001
07/08/04	S-1, S-2, MW-3	2,490	<100	<0.50	16	<0.002	<0.00001	0.0003	0.012	0.014
07/19/04	S-1, S-2, MW-3	21,710	<50	<0.50	4	<0.01	<0.0001	0.001	0.008	0.015

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40 \text{ cu ft}}{\text{min}} \times \frac{8{,}400 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{x cu meter}}{35.314 \text{ cu ft}}$

= 30.21 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used

[2] Volume estimated based on flow totalizer measurements taken on the sampling days

Based on average groundwater extraction rate of 0.63 gpm and the average concentrations, the mass extraction rate for is calculated using:

Mass removed from groundwater (lbs/day) = concentration (µg/L) x average flowrate (gpm) x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L) * 60 (mins/hr)*24 (hr/day)

TPHG = 0.017 lbs/day
Benzene = 0.0001 lbs/day
MTBE = 0.0002 lbs/day

TABLE 2
DPE EVENT FIELD OBSERVATION SUMMARY
2nd DPE Event - June/July 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE days	Appl Vac "Hg	Air Flow cfm	Totalizer Reading gallons	GW Ext Rate gpm	Inf PID ppmv	Oper Temp deg F	MW-4		MW-5		MW-6			MW-7			MW-8		
									DTW	DD	DTW	DD	Vac	DTW	DD	Vac	DTW	DD	Vac	DTW	DD
06/06/05	**Begin June/July 2005 DPE Event, Using Wells S-1, S-2, and MW-3 for Extraction; Hour Meter Reading Prior to Test Start up = 3361.2**																				
06/06/05	3361.20	--	24.00	26.6	23,710	--	125.0	1,471	6.65	--	10.91	--	0.00	15.67	--	0.00	14.79	--	0.00	14.08	--
06/07/05	3383.60	0.93	24.00	NM	25,480	1.32	NM	1,443	NM	NM	NM	NM	0.02	NM	NM	0.00	NM	NM	0.00	NM	NM
06/09/05	3416.60	2.31	23.00	27.7	27,160	0.85	6.0	1,473	6.10	-0.55	10.62	-0.29	0.00	14.58	-1.09	0.00	13.58	-1.21	0.00	14.90	0.82
06/14/05	3468.10	4.45	24.00	28.4	31,000	1.24	6.0	1,450	6.35	-0.30	10.80	-0.11	0.00	15.60	-0.07	0.00	13.56	-1.23	0.00	14.81	0.73
06/16/05	3515.00	6.41	25.00	23.0	34,450	1.23	5.0	1,472	6.33	-0.32	10.98	0.07	0.00	15.85	0.18	0.00	13.97	-0.82	0.00	14.98	0.90
06/21/05	3638.20	11.54	25.00	39.4	43,130	1.17	0.0	1,470	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
06/28/05	3804.80	18.48	24.00	39.3	53,540	1.04	NM	1,456	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
07/01/05	3877.30	21.50	24.00	31.9	57,950	1.01	5.0	1,473	6.46	-0.19	11.09	0.18	0.00	15.65	-0.02	0.00	14.18	-0.61	0.00	16.35	2.27
07/01/05	3878.10	21.54	Event End Hr. Meter		58,050		**Discontinue DPE Event**														
Distance to Nearest Extraction Well									**110**		**170**		**110**			**70**			**50**		
Screening Interval									**10 - 40.5**		**10 - 40**		**10 - 40.5**			**10 - 40.5**			**10 - 35**		

Notes:

TE - Time Elapsed, days
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
* = time elapsed based on hour meter readings
ppmv - parts per million by volume
Temp - Temperature
deg F - degree Farenheit
Ext. - Extraction
cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
GW Ext - Groundwater Extraction
PID - Photo Ionization Detector
All induced vacuum measured in observation wells were in "WC
gpm - gallons per minute
"Hg - Inches Mercury
bgs - below ground surface
NM - Not measured

TABLE 3
SOIL VAPOR ANALYTICAL RESULTS
2nd DPE Event - June/July 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA
06/06/05	11:18	SYS INF Air	**160**	**4.4**	**0.72**	**0.55**	**1.35**	**3.6**	<7.5
06/06/05	11:15	Eff Air	<15	<0.30	<0.30	<0.30	<0.30	<0.30	<7.5
06/28/05	06:16	Inf Air	<15	<0.15	<0.15	<0.15	<0.15	<0.15	NA
07/01/05	05:41	SYS INF AIR*	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0
07/01/05	05:39	EFF AIR*	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0

Notes

All air sample values reported in milligrams per cubic meter (mg/m^3)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
DIPE = Di-isopropyl ether
DIPE, ETBE, and TAME were reported below laboratory reporting limits in all samples.
NA = Not Analyzed

Analytical Laboratory

Alpha Analytical, Inc. (Alpha [ELAP #2019])
* = Analyzed by Severn Trent Laboratories (STL [ELAP #2496])

Analytical Methods

TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual (Alpha) & by 8260B (STL)
BTEX, MTBE, TBA, DIPE, TAME, and ETBE analyzed by EPA Method SW8260B

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
2nd DPE Event - June/July 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
06/06/05	11:34	Influent	**590**	**11**	**3.8**	**6.1**	**33**	**62**	**140**	<1.0	<1.0	<1.0
06/07/05	09:41	MID (Fluent)	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
06/07/05	09:39	EFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
06/28/05	06:08	Influent	<50	<0.50	<0.50	<0.50	<0.50	**2.6**	**52**	<1.0	<1.0	<1.0
06/28/05	06:04	Mid GAC	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
06/28/05	06:00	Effluent	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
07/01/05	05:46	INF	<50	<0.50	<0.50	<0.50	<0.50	**2.2**	**64**	<1.0	<1.0	<1.0
07/01/05	05:54	GAC-1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
07/01/05	05:58	EFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0

All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by
EPA Method SW8260B

TABLE 5
PETROLEUM HYDROCARBON MASS EXTRACTION SUMMARY
2nd DPE Event June/July 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed (days)	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate from Wells (lbs/day)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period[1] lbs	Total lbs
Petroleum hydrocarbon mass removed during first DPE event conducted during July 2004									13.34	13.34
06/06/05	-	26.6	160	4.4	3.6	0.378	0.010	0.009	0.378	13.718
06/28/05	18.48	39.3	<15	<0.15	<0.15	<0.052	<0.001	<0.001	3.980	17.698
07/01/05	21.54	31.9	<50	<0.50	<0.50	<0.142	<0.001	<0.001	<2.091	19.789

Date		Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	TPHG lbs	MTBE lbs
Petroleum hydrocarbon mass removed during first DPE event conducted during July 2004									0.015	0.00149
06/06/05	-	56 [3]	590	11	62	0.00028	0.00001	0.00003	0.01528	0.00152
06/28/05	18.48	29,830	<50.0	<0.50	2.6	0.07966	0.00143	0.00804	0.09493	0.00956
07/01/05	21.54	4,510	<50.0	<0.50	2.2	<0.00188	<0.00002	0.00009	0.09682	0.00965

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40 \text{ cu ft}}{\text{min}} \times \frac{8{,}400 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{x cu meter}}{35.314 \text{ cu ft}}$

30.21 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used

[2] Volume estimated based on flow totalizer measurements taken on the sampling days

[3] Volume estimated based on average groundwater extraction rate and the time elapsed between the sample collection and start-up

The mass extraction rate is calculated by multiplying the mass extracted per day by the operational uptime for the period.

TABLE 1
DPE EVENT FIELD OBSERVATION SUMMARY
3rd DPE Event - August/September 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE days	Appl Vac "Hg	Air Flow cfm	Totalizer Reading gallons	GW Ext Rate gpm	Inf PID ppmv	Oper Temp deg F	Depth to Water, feet bgs and Induced Vacuum, "WC									
									MW-4		MW-5		MW-6			MW-8		
									DTW	DD	DTW	DD	Vac	DTW	DD	Vac	DTW	DD
8/29/05 5:30	Baseline measurements prior to start of third DPE event								8.71	--	12.90	--	0.00	DRY	--	0.00	16.75	--
8/29/05 7:00	**Begin Third DPE Event, Using Wells S-1, S-2, MW-3, and MW-7 for Extraction; Hour Meter Reading Prior to Test Start up = 435.6. Totalizer reading = 22,580**																	
8/29/05 8:30	437.00	0.06	18.00	48.8	22,740	1.90	5.5	1,458	NM	NM	NM	NM	NM	NM	--	NM	NM	--
8/31/05 5:00	480.70	1.88	18.00	37.3	29,840	2.71	5.5	1,456	8.73	0.02	13.18	0.28	0.00	DRY	--	0.00	17.21	0.46
9/6/05 6:00	619.10	7.65	NM	NM	51,690	2.63	System observed non-functional due to low propane											
9/6/05 9:15	System re-started after propane delivery. Based on hour meter readings for 8/31/5 at 0500 hrs & 9/6/5 at 0600 hrs, the DPE system was likely shutdown on 9/5/05 at 23:14 hrs																	
9/6/05 10:15	620.10	7.69	18.00	62.5	51,850	2.67	16.1	1,447	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
9/9/05 5:00	685.70	10.42	16.00	45.0	61,390	2.42	8.1	1,450	8.99	0.28	13.61	0.71	0.00	DRY	--	0.00	18.68	1.93
9/13/05 5:30	780.20	14.36	16.00	40.4	75,020	2.40	2.0	1,457	9.14	0.43	13.78	0.88	0.00	18.67	-0.33	0.00	19.08	2.33
9/16/05 5:00	796.10	15.02	NM	NM	77,310	2.40	System observed non-functional due to high water level in the knockout tank. Based on hour meter readings between 9/13/05 5:30 and 9/16/05 5:00, the DPE system was likely shutdown on 9/13/05 21:24 hrs. Since the influent concentrations were low, the third DPE event was discontinued.											
Distance to Nearest Extraction Well									**86**		**99**		**70**			**48**		
Screening Interval, feet bgs : S-1=20-40 , S-2=20-40, MW-3=24-44, & MW-7=10-40									**10 - 40.5**		**10 - 40**		**10 - 40.5**			**10 - 35**		

Notes:

TE - Time Elapsed calculated as difference of hour meter readings, days
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
Ext. - Extraction
GW Ext - Groundwater Extraction
GW Ext Rate = Difference of Totalizer Readings, gallons

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
bgs - below ground surface
gpm - gallons per minute
"Hg - Inches Mercury

Temp - Temperature
deg F - degree Farenheit
PID - Photo Ionization Detector
ppmv - parts per million by volume
NM - Not measured
-- = Not applicable

[1] Flow rate measured using a digital anemometer at 3" diameter steel pipe; flow rate = velocity X area of pipe (e.g.: flow rate = 994 feet per minute X 0.05 sq.ft)

TABLE 2
SOIL VAPOR ANALYTICAL RESULTS
3rd DPE Event - August/September 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA
08/29/05	09:01	USA57ASYSINF	<15	**0.59**	<0.15	**0.23**	**0.44**	**0.41**	<1.5
08/29/05	09:05	USA57ASYSEFF	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<1.5
09/06/05	10:30	Sys Inf Air	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<7.5
09/13/05	05:45	USA57ASYSINF	<15	**0.19**	<0.15	<0.15	<0.15	<0.15	<7.5

Notes

All air sample values reported in milligrams per cubic meter (mg/m^3)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
DIPE = Di-isopropyl ether

Analytical Laboratory

Alpha Analytical, Inc. (Alpha [ELAP #2019])

Analytical Methods

TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, TAME, and ETBE analyzed by EPA Method SW8260B

DIPE, ETBE, and TAME were reported below laboratory reporting limits in all samples (<0.30 mg/m^3).

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
3rd DPE Event - August/September 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
08/29/05	09:30	USA57WINF	**55**	**3.3**	**<0.50**	**0.68**	**3.3**	**17**	**160**	<1.0	<1.0	<1.0
08/29/05	09:35	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
09/06/05	10:36	Inf Water	<50	<0.50	<0.50	<0.50	<0.50	**4.7**	**61**	<1.0	<1.0	<1.0
09/13/05	06:20	USA57WINF	<50	<0.50	<0.50	<0.50	<0.50	**2.6**	**29**	<1.0	<1.0	<1.0
09/13/05	06:22	USA57WGAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
09/13/05	06:25	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
09/16/05	5:32	USA57WINF	**67**	<0.50	<0.50	<0.50	**3.8**	**2.3**	**25**	<1.0	<1.0	<1.0

All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by
EPA Method SW8260B

TABLE 4
PETROLEUM HYDROCARBON MASS EXTRACTION SUMMARY
3rd DPE Event August/September 2005
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed (days)	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate (lbs/day)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period[1]	Total
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									19.789	19.789
08/29/05	-	48.8	<15	0.59	0.41	<0.065	0.003	0.002	--	--
09/06/05	7.69	62.5	<15	<0.15	<0.15	<0.083	<0.001	<0.001	<0.570	19.789
09/13/05	6.67	40.4	<15	0.19	<0.15	<0.054	0.001	<0.001	<0.458	19.789

Date	Time Elapsed (days)	Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	TPHG	MTBE
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									0.09682	0.00965
08/29/05	-	160	55	3.3	17	0.00007	0.000004	0.00002	0.09689	0.00967
09/06/05	7.69	29,110	<50	<0.50	4.7	0.01275	0.00046	0.00264	0.10965	0.01231
09/13/05	6.67	23,170	<50	<0.50	2.6	<0.00967	<0.00010	0.00071	0.10965	0.01231
09/16/05	0.66	2,290	67	<0.50	2.3	0.00112	<0.00001	0.00005	0.11076	0.01231

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40 \text{ cu ft}}{\text{min}} \times \frac{8{,}400 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{x cu meter}}{35.314 \text{ cu ft}}$

30.21 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used

[2] Volume estimated based on flow totalizer measurements taken on the sampling days

The mass extraction rate is calculated by multiplying the mass extracted per day by the operational uptime for the period.

TABLE 1
DPE EVENT FIELD OBSERVATION SUMMARY
4th DPE Event - February/March 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE days	Appl Vac "Hg	Air Flow cfm	Totalizer Reading gallons	GW Ext Rate gpm	Inf PID ppmv	Oper Temp deg F	Depth to Water, feet bgs and Induced Vacuum, "WC													
									S-1		S-2		MW-3		MW-6			MW-7			MW-8	
									DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	Vac	DTW	DD	Vac	DTW	DD
2/20/06 5:30	**Begin fourth DPE event using wells EX-1, EX-2, EX-3, and EX-4. Hour Meter Reading = 3,086.3. Totalizer reading = 94,450 gallons**																					
2/20/06 5:30	3,086.30	0.00	20.00	40.3	94,450	--	360	1,460	14.47	--	16.61	--	10.79	--	NM	15.70	--	NM	13.74	--	NM	13.82	--
2/24/06 5:15	3,161.30	3.13	System observed non-functional and re-started by resetting power supply. Based on hour meter readings, the DPE system was likely shutdown on 2/23/06 around 0830 hrs																				
2/24/06 5:15	3,161.30	3.13	18.50	50.6	98,740	0.95	150	1,462	14.45	-0.02	16.53	-0.08	11.82	1.03	0.00	15.64	-0.06	0.00	13.65	-0.09	0.00	14.29	0.47
3/3/06 7:00	3,262.40	7.34	23.00	29.0	100,540	0.30	212	1,451	14.20	-0.27	16.30	-0.31	11.55	0.76	0.00	15.10	-0.60	0.10	13.26	-0.48	0.00	14.38	0.56
3/9/06 6:30	3,403.10	13.20	23.00	22.4	103,490	0.35	150	1,470	13.97	-0.50	16.00	-0.61	11.47	0.68	0.00	14.49	-1.21	3.03	13.11	-0.63	3.05	13.69	-0.13
3/16/06 5:30	3,566.70	20.02	23.00	25.5	105,780	0.23	68	1,457	13.61	-0.86	15.60	-1.01	11.15	0.36	0.00	14.15	-1.55	0.00	12.55	-1.19	3.15	13.03	-0.79
3/24/06 5:00	3,752.80	27.77	23.00	30.5	107,790	0.18	35	1,459	13.10	-1.37	14.68	-1.93	10.73	-0.06	0.03	13.82	-1.88	0.05	11.99	-1.75	0.00	12.83	-0.99
3/24/06 5:30	Discontinue fourth DPE event.																						
Average	--	--	**21.75**	**33.04**	--	**0.40**	**162.5**	**1,460**	**13.97**	**-0.60**	**15.95**	**-0.79**	**11.25**	**0.55**	**0.01**	**14.82**	**-1.06**	**0.64**	**13.05**	**-0.83**	**1.24**	**13.67**	**-0.18**
Distance to Nearest Extraction Well, feet									**20**		**27**		**15**		**75**			**33**			**62**		
Screening Interval : EX-1=EX-2=EX-3=EX-4= 5 to 25 feet bgs									**20 - 40**		**20 - 40**		**24 - 44**		**10 - 40.5**			**10 - 40**			**10 - 35**		

Notes:

TE - Time Elapsed calculated as difference of hour meter readings, days
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
Ext. - Extraction
GW Ext - Groundwater Extraction
GW Ext Rate = Difference of Totalizer Readings, gallons

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
bgs - below ground surface
gpm - gallons per minute
"Hg - Inches Mercury

Temp - Temperature
deg F - degree Farenheit
PID - Photo Ionization Detector
ppmv - parts per million by volume
NM - Not measured
-- = Not applicable

[1] Flow rate measured using a digital anemometer at 3" diameter steel pipe;
flow rate = velocity X area of pipe (e.g.: flow rate = 994 feet per minute X 0.05 sq.ft)

TABLE 2
SOIL VAPOR ANALYTICAL RESULTS
4th DPE Event - February/March 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA
02/20/06	07:18	USA57ASysEff	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<7.5
02/20/06	07:20	USA57ASysInf	**690**	**8.3**	**20**	**17**	**107**	<0.60	<30
03/03/06	07:25	USA57ASYSINF	**480**	**8.6**	**7.0**	**8.8**	**19.9**	**0.29**	<7.5
03/09/06	06:46	USA57ASysInf	**320**	**2.0**	**10**	**11**	**40.5**	<0.30	<15
03/24/06	05:30	USA57ASYSINF	**98**	**0.39**	**0.50**	**1.6**	**7.2**	<0.15	<7.5

Notes
All air sample values reported in milligrams per cubic meter (mg/m^3)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
DIPE = Di-isopropyl ether

DIPE, ETBE, and TAME were below laboratory reporting limits in all samples.

Analytical Laboratory
Alpha Analytical, Inc. (Alpha [ELAP #2019])

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, TAME, and ETBE analyzed by EPA Method SW8260B

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
4th DPE Event - February/March 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
02/20/06	07:28	USA57WINF	**3,800**	**65**	**300**	**71**	**740**	**2.7**	**160**	<5.0[1]	<5.0[1]	<5.0[1]
02/20/06	07:42	USA57WGAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
02/20/06	07:39	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
03/03/06	07:25	USA57WSYSINF	**1,100**	**96**	**20**	**30**	**120**	**10**	**47**	<1.0	<1.0	<1.0
03/09/06	07:24	USA57WINF	**510**	**3.1**	**3.3**	**10**	**65**	**1.1**	**23**	<1.0	<1.0	<1.0
03/09/06	07:26	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
03/09/06	07:28	USA57GAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
03/24/06	05:15	USA57WINF	**130**	**2.7**	**1.9**	**2.8**	**27**	<0.50	**28**	<1.0	<1.0	<1.0
03/24/06	05:20	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0

All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
[1] = Reporting limits were increased due to high concentrations of target analytes

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by
EPA Method SW8260B

TABLE 4
PETROLEUM HYDROCARBON MASS EXTRACTION SUMMARY
4th DPE Event February/March 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed	Flowrate	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate (lbs/day)			Cumulative Mass (TPHG) Removed	
									Period[1]	Total
	(days)	(cfm)	TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									19.789	19.789
02/20/06	--	40.3	690	8.3	<0.60	2.47	0.03	<0.002	--	--
03/03/06	7.34	29.0	480	8.6	0.29	1.24	0.02	0.001	13.608	33.397
03/09/06	5.86	22.4	320	2.0	<0.30	0.64	0.004	<0.001	5.495	38.892
03/24/06	14.57	30.5	98	0.39	<0.15	0.27	0.001	<0.0004	6.578	45.469

Date	Time Elapsed	Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass Removed	
									TPHG	MTBE
	(days)		TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									0.11076	0.01231
02/20/06	-	48	3,800	65	2.7	0.00152	0.000026	0.000001	0.11228	0.01231
03/03/06	7.34	6,090	1,100	96	10.0	0.12451	0.00409	0.00032	0.23679	0.01263
03/09/06	5.86	2,950	510	3.1	1.1	0.01982	0.00122	0.00014	0.25661	0.01277
03/24/06	14.57	4,300	130	2.7	<0.50	0.01148	0.00010	0.00003	0.26809	0.01280

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40.3 \text{ cu ft}}{\text{min}} \times \frac{690 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{cu meter}}{35.314 \text{ cu ft}}$

= 2.47 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used

[2] Volume estimated based on flow totalizer measurements taken on the sampling days. For February 20, 2006, the volume of groundwater extracted was estimated based on the average groundwater extraction rate (0.40 gpm) and time elapsed between the start-up and sample collection

TABLE 1
DPE EVENT FIELD OBSERVATION SUMMARY
5th DPE Event - May 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE	Appl Vac	Air Flow[1]	Totalizer Reading	GW Ext Rate	Inf PID	Oper Temp	Depth to Water, feet bgs and Induced Vacuum, "WC															
									S-1		S-2		MW-3		MW-6			MW-7			MW-8			
		days	"Hg	cfm	gallons	gpm	ppmv	deg F	DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	Vac	DTW	DD	Vac	DTW	DD
5/1/06 9:30	**Begin fifth DPE event using wells EX-1, EX-2, EX-3, and EX-4. Hour Meter Reading = 3,758. Totalizer reading = 107,790 gallons**																							
5/1/06 9:30	3,758.00	0.00	24.50	29.5	107,790	--	12	1,451	9.43	--	11.37	--	7.84	--	0.00	11.00	--	0.00	8.41	--	0.00	11.16	--
5/3/06 5:30	3,826.80	2.87	24.00	21.9	110,790	0.73	15	1,479	9.55	0.12	11.04	-0.33	8.85	1.01	0.00	11.05	0.05	0.00	8.37	-0.04	0.01	11.04	-0.12
5/8/06 6:00	3,923.20	6.88	22.00	26.1	112,920	0.37	17	1,450	9.58	0.15	11.42	0.05	9.51	1.67	0.00	11.08	0.08	0.00	8.35	-0.06	0.00	11.46	0.30
5/16/06 5:30	4,006.80	10.37	Upon arrival the DPE system was observed to be non-operating due to generator malfunction. Based on the hour meter readings, the DPE system was likely shutdown at 17:36 hrs on 5/11/06. The DPE system system was re-started at 5:30 hrs on 5/16/06 after troubleshooting the generator malfunction.																					
5/16/06 5:30	4,006.80	10.37	21.00	56.2	113,780	0.17	50	1,460	9.63	0.20	11.47	0.10	9.95	2.11	0.00	11.28	0.28	0.00	8.43	0.02	0.00	11.86	0.70
5/22/06 5:30	4,150.40	16.35	21.00	38.8	114,830	0.12	43	1,460	9.54	0.11	11.39	0.02	9.85	2.01	0.00	11.10	0.10	0.00	8.39	-0.02	0.00	11.88	0.72
5/25/06 5:30	4,190.20	18.01	Upon arrival the DPE system was observed to be non-operating due to generator malfunction. Based on the hour meter readings, the DPE system was likely shutdown at 21:18 hrs on 5/23/06. The DPE system system was re-started at 5:30 hrs on 5/25/06 after troubleshooting the generator malfunction.																					
5/25/06 5:30	4,190.20	18.01	20.00	48.4	115,090	0.11	20	1,452	NM	--	NM	--	NM	--	NM	NM	--	NM	NM	--	NM	NM	--
5/25/06 6:40	4,191.10	18.05	Discontinue fifth DPE event. Totalizer reading = 115,190 gallons																					
Average	--	--	**22.08**	**36.79**	--	**0.30**	**26.2**	**1459**	**9.55**	**0.15**	**11.34**	**-0.04**	**9.20**	**1.70**	**0.00**	**11.10**	**0.13**	**0.00**	**8.39**	**-0.03**	**0.00**	**11.48**	**0.40**
Distance to Nearest Extraction Well, feet									**20**		**27**		**15**		**75**			**33**			**62**			
Screening Interval : EX-1=EX-2=EX-3=EX-4= 5 to 25 feet bgs									**20 - 40**		**20 - 40**		**24 - 44**		**10 - 40.5**			**10 - 40**			**10 - 35**			

Notes:

TE - Time Elapsed calculated as difference of hour meter readings, days
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
Ext. - Extraction
GW Ext - Groundwater Extraction
GW Ext Rate = Difference of Totalizer Readings, gallons

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
bgs - below ground surface
gpm - gallons per minute
"Hg - Inches Mercury

Temp - Temperature
deg F - degree Farenheit
PID - Photo Ionization Detector
ppmv - parts per million by volume
NM - Not measured
-- = Not applicable

[1] Flow rate measured using a digital anemometer at 3" diameter steel pipe;
flow rate = velocity X area of pipe (e.g.: flow rate = 600 feet per minute X 0.05 sq.ft)

TABLE 2
SOIL VAPOR ANALYTICAL RESULTS
5th DPE Event - May 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA
05/01/06	10:40	USA57ASysEff	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<7.5
05/01/06	10:45	USA57ASysInf	**37**	**5.4**	**2.3**	**0.58**	**2.25**	<0.15	<7.5
05/08/06	06:10	USA57ASYSINF	**37**	**0.31**	**0.25**	**0.49**	**2.73**	<0.15	<7.5
05/25/06	06:20	USA57ASysInf	**180**	**1.1**	**0.22**	**0.32**	**0.58**	<0.15	<7.5

Notes

All air sample values reported in milligrams per cubic meter (mg/m^3)

TPHG = Total petroleum hydrocarbons as gasoline (Gasoline Range Organics [GRO] C4-C13)

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

MTBE = Methyl tertiary butyl ether

TBA = Tertiary butyl alcohol

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

DIPE = Di-isopropyl ether

Analytical Laboratory

Alpha Analytical, Inc. (Alpha [ELAP #2019])

Analytical Methods

TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual

BTEX, MTBE, TBA, DIPE, TAME, and ETBE analyzed by EPA Method SW8260B

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
5th DPE Event - May 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
05/01/06	10:28	USA57WINF	**990**	**170**	**96**	**15**	**205**	**12**	**66**	<2.0[1]	<2.0[1]	<2.0[1]
05/04/06	06:28	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
05/04/06	06:32	USA57WGAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
05/08/06	06:45	USA57WINF	**110**	**0.61**	**<0.50**	**0.66**	**11.1**	**0.61**	**29**	<1.0	<1.0	<1.0
05/25/06	06:35	USA57WInf	**290**	**19**	**2.7**	**3.5**	**22.3**	**20**	**42**	<1.0	<1.0	<1.0
05/25/06	06:39	USA57WMid	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0

Notes:
All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline (Gasoline Range Organics [GRO] C4-C13)
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by
EPA Method SW8260B

[1] = Reporting limits were increased due to high concentrations of target analytes

TABLE 4
PETROLEUM HYDROCARBON MASS EXTRACTION SUMMARY
5th DPE Event - May 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed (days)	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate (lbs/day)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period[1]	Total
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									45.469	45.469
05/01/06	--	29.5	37	5.4	<0.15	0.10	0.01	<0.0004	--	--
05/08/06	6.88	26.1	37	0.31	<0.15	0.09	0.00	<0.0003	0.629	46.098
05/25/06	11.16	48.4	180	1.1	<0.15	0.77	0.005	<0.001	4.801	50.900

Date	Time Elapsed (days)	Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	TPHG	MTBE
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									0.26809	0.01280
05/01/06	-	18	990	170	12	0.00015	0.000026	0.000002	0.26824	0.01280
05/08/06	6.88	5,130	110	0.61	0.61	0.02355	0.00365	0.00027	0.29178	0.01307
05/25/06	11.16	2,270	290	19	20	0.00379	0.00019	0.00020	0.29557	0.01327

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40.3 \text{ cu ft}}{\text{min}} \times \frac{690 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{x cu meter}}{35.314 \text{ cu ft}}$

= 2.47 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used

[2] Volume estimated based on flow totalizer measurements taken on the sampling days. For May 1, 2006, the volume of groundwater extracted was estimated based on the average groundwater extraction rate (0.30 gpm) and time elapsed between the start-up and sample collection

TABLE 1
DPE EVENT FIELD OBSERVATION SUMMARY
6th DPE Event - July/August 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Hour Meter Reading	TE days	Appl Vac "Hg	Air Flow[1] cfm	Totalizer Reading gallons	GW Ext Rate gpm	Inf PID ppmv	Oper Temp deg F	Depth to Water, feet bgs and Induced Vacuum, "WC															
									S-1		S-2		MW-3		MW-6			MW-7			MW-8			
									DTW	DD	DTW	DD	DTW	DD	Vac	DTW	DD	Vac	DTW	DD	Vac	DTW	DD
7/17/06 7:00	**Begin sixth DPE event using wells EX-1, EX-2, EX-3, and EX-4. Hour Meter Reading = 4,410.7. Totalizer reading = 121,580 gallons**																							
7/17/06 7:00	4,410.70	0.00	18.00	113.1	121,580	--	106	1,479	11.00	--	12.98	--	10.08	--	0.00	12.75	--	0.00	9.94	--	0.00	13.08	--
7/17/06 8:30	4,412.10	0.06	18.00	113.4	121,690	1.31	105	1,470	NM	--	NM	--	NM	--	NM	NM	--	NM	NM	--	NM	NM	--
7/21/06 5:00	4,505.10	3.93	18.00	111.5	122,200	0.09	100	1,450	NM	--	NM	--	NM	--	NM	NM	--	NM	NM	--	NM	NM	--
7/25/06 9:45	4,605.60	8.12	16.50	70.7	122,518	0.05	98	1,450	11.53	0.53	13.47	0.49	11.05	0.97	NM	13.13	0.38	NM	10.35	0.41	NM	13.51	0.43
7/27/06 6:00	4,651.40	10.03	17.00	59.9	122,633	0.04	77	1,457	NM	--	NM	--	NM	--	NM	NM	--	NM	NM	--	NM	NM	--
8/3/06 5:00	4,818.10	16.98	16.50	114.8	123,070	0.04	23	1,450	11.95	0.95	13.90	0.92	11.66	1.58	0.00	13.56	0.81	0.00	10.83	0.89	0.00	14.10	1.02
8/10/06 6:45	4,988.00	24.05	17.50	88.9	123,570	0.05	20	1,460	12.25	1.25	14.22	1.24	11.93	1.85	0.00	13.85	1.10	0.00	11.15	1.21	0.00	14.35	1.27
8/10/06 7:00																								
Average	--	--	**17.36**	**96.05**	--	**0.06**	**75.6**	**1,459**																
Distance to Nearest Extraction Well, feet									**20**		**27**		**15**		**75**			**33**			**62**			
Screening Interval : EX-1=EX-2=EX-3=EX-4= 5 to 25 feet bgs									**20 - 40**		**20 - 40**		**24 - 44**		**10 - 40.5**			**10 - 40**			**10 - 35**			

Notes:

TE - Time Elapsed calculated as difference of hour meter readings, days
Appl - Applied
Oper - Operating
Vac - Vacuum
DTW - depth to groundwater
" WC - Inches water column
Ext. - Extraction
GW Ext - Groundwater Extraction
GW Ext Rate = Difference of Totalizer Readings, gallons

cfm - cubic feet per minute
Inf - Influent
DD - Drawdown
bgs - below ground surface
gpm - gallons per minute
"Hg - Inches Mercury

Temp - Temperature
deg F - degree Farenheit
PID - Photo Ionization Detector
ppmv - parts per million by volume
NM - Not measured
-- = Not applicable

[1] Flow rate measured using a digital anemometer at 3" diameter steel pipe;
flow rate = velocity X area of pipe (e.g.: flow rate = 600 feet per minute X 0.05 sq.ft)

TABLE 2
SOIL VAPOR ANALYTICAL RESULTS
6th DPE Event - July/August 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA
07/17/06	8:25	USA57ASysEff	<15	<0.15	<0.15	<0.15	<0.15	<0.15	<7.5
07/17/06	8:28	USA57ASysInf	**370**	**3.8**	**0.96**	**1.8**	**3.72**	<0.30	<15
08/03/06	5:42	USA57ASysInf	**80**	<0.15	<0.15	**0.20**	**2.33**	<0.15	<7.5
08/10/06	07:00	USA57ASysInf	**220**	**2.6**	**17**	**5.5**	**27.6**	<0.15	<7.5

Notes

All air sample values reported in milligrams per cubic meter (mg/m^3)

TPHG = Total petroleum hydrocarbons as gasoline (Gasoline Range Organics [GRO] C4-C13)

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

MTBE = Methyl tertiary butyl ether

TBA = Tertiary butyl alcohol

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

DIPE = Di-isopropyl ether

Analytical Laboratory

Alpha Analytical, Inc. (Alpha [ELAP #2019])

Analytical Methods

TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual

BTEX, MTBE, TBA, DIPE, TAME, and ETBE analyzed by EPA Method SW8260B

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
6th DPE Event - July/August 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Sample Date	Sample Time	Sample ID	TPHG	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
07/17/06	8:10	USA57WINF	**900**	**170**	**56**	**13**	**130**	**34**	**130**	<5.0[1]	<5.0[1]	<5.0[1]
08/03/06	5:55	USA57WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
08/03/06	5:57	USA57WGAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<1.0	<1.0	<1.0
08/03/06	5:59	USA57WINF	**150**	<0.50	<0.50	<0.50	**17.9**	**0.79**	**18**	<1.0	<1.0	<1.0

Notes:
All water sample values reported in micrograms per liter (µg/L)
TPHG = Total petroleum hydrocarbons as gasoline (Gasoline Range Organics [GRO] C4-C13)
BTEX = Benzene, toluene, ethylbenzene, and total xylenes
MTBE = Methyl tertiary butyl ether
TBA = Tertiary butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether

Analytical Laboratory
Alpha Analytical , Inc. (ELAP #2019)

Analytical Methods
TPHG analyzed by EPA Method SW8015B/DHS LUFT Manual
BTEX, MTBE, TBA, DIPE, ETBE, & TAME analyzed by EPA Method SW8260B

[1] = Reporting limits were increased due to high concentrations of target analytes

TABLE 4
PETROLEUM HYDROCARBON AND GROUNDWATER MASS EXTRACTION SUMMARY
6th DPE Event - July/August 2006
Former USA Station No. 57
10700 MacArthur Boulevard
Oakland, California

Date	Time Elapsed (days)	Flowrate (cfm)	Influent Concentration (mg/m^3)			Soil Vapor Extraction Rate (lbs/day)			Cumulative Mass (TPHG) Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	Period[1]	Total
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									50.900	50.900
07/17/06	--	113.4	370	3.8	<0.30	3.73	0.04	<0.0030	--	--
08/03/06	16.98	114.8	80	<0.15	<0.15	0.82	<0.002	<0.0015	38.596	89.496
08/10/06	7.07	88.9	220	2.6	<0.15	1.74	0.021	<0.0012	9.032	98.527

Date	Time Elapsed (days)	Volume of groundwater extracted[2], gallons	Influent Concentration (µg/L)			Mass Extracted from groundwater (lbs)			Cumulative Mass Removed	
			TPHG	Benzene	MTBE	TPHG	Benzene	MTBE	TPHG	MTBE
									lbs	lbs
Petroleum hydrocarbon mass removed during the previous DPE events									0.29557	0.01327
07/17/06	-	91.7	900	170	34	0.00069	0.000130	0.000026	0.29626	0.01330
08/03/06	16.98	1,490	150	<0.50	0.79	0.00653	<0.00106	0.00022	0.30279	0.01351

Groundwater extracted to date 186,800 gallons

Sample Calculations

Ext. Rate from Wells (vapor) = $\frac{40.3 \text{ cu ft}}{\text{min}} \times \frac{690 \text{ mg}}{\text{cu meter}} \times \frac{\text{lb}}{453{,}593 \text{ mg}} \times \frac{1{,}440 \text{ min}}{\text{day}} \times \frac{\text{cu meter}}{35.314 \text{ cu ft}}$

= 2.47 lbs/day

Mass removed from groundwater = concentration (µg/L) x gallons extracted x (2.2046×10^{-9})(lb/mg) / 0.26418 (gal/L)

[1] For mass estimates between the sampling dates, average mass extraction rate and time elapsed (operational uptime) between the sampling events were used.

[2] Volume estimated based on flow totalizer measurements taken on the sampling days. For July 17, 2006, the volume of groundwater extracted was estimated based on the groundwater extraction rate (1.31 gpm) and time elapsed between the start-up and sample collection .

APPENDIX B

FIELD DATA SHEETS

ORIGINAL

Site Name & Address: Former USA Station 57; 10700 MacArthur Boulevard, Oakland

Test Well ID: Extracting from EX-1 through EX-4

Date: 9.5.07

Test Operators: CHILL-GOWER; Vince

Equipment Model and Serial Nos.:

PID Model: MINI RAE

Date & Time	DPE System Parameters												
	Hour Meter Reading hrs	System Applied Vacuum "Hg	System Inf Air Flow Rate[1] fpm/cfm	System Inf Air Temp deg F	Dilution Air Flow Rate[2] fpm/cfm	Dilution Air Temp deg F	Control Temp deg F	Effluent Air Temp deg F	System Influent PID ppmv	Effluent PID ppmv	Totalizer Reading gallons		Comments/Notes
	11489.3												199300 Start Totalizer
09:40		15	1900	139	0	0					199307		1.8 CFM TO AS-1 GUAGE PRS. = 34PSI
10:00	SHUT	AIR	SPARGE	OFF									
10:15	11490.5	15	2000	134	0	0	1490	1370	230	0.2	~~199320~~		199320
1115	11491.4	14"	2100	140	0	0	1450	1337	140	0	199340		SYSTEM Air 1115 EFF Air 1120
9-11-07 0900	onsite	System	Down		Generator	off							
1015	11524.0	12"	2500	130	0	0	1450	1374	160	0	199410		
9-12-07 0500	SHUT	Unit	Down	Air	Pressure	Alarm	Reset						
0545	11592.6	10" HG	2500	130	0	0	1483	1354	139	0	199550		

[1] Diameter of the system influent air flow pipe is_____ inches

[2] Diameter of the dilution air flow pipe is_____ inches

ORIGINAL

Site Name & Address: Former USA Station 57, 10700 MacArthur Boulevard, Oakland

Test Well ID: Extracting from EX-1 through EX-4

Date: 9-19-07

Test Operators: CHILL

Equipment Model and Serial Nos.:

PID Model:

Date & Time	DPE System Parameters												
	Hour Meter Reading hrs	System Applied Vacuum "Hg	System Inf Air Flow Rate[1] fpm/cfm	System Inf Air Temp deg F	Dilution Air Flow Rate[2] fpm/cfm	Dilution Air Temp deg F	Control Temp deg F	Effluent Air Temp deg F	System Influent PID ppmv	Effluent PID ppmv	Totalizer Reading gallons		Comments/Notes
9-19-07 0700	out of Propane		will	come	back	9	2004	Restart					
9-20-07 0500	11640.0		2000	125	–	–	1538	1404	418	0	199550		Restart
	A/S H2O PSI		2.8 SCFM To wells			AS-2 35 PSI		AS-1 30 PSI			A well Head		
9-25-07 900	11668.1	14	2100	134	0	0	1527	1414	400	0	199630		
	A/S	32PSI	4 SCFM To Both wells				AS-2	28PSI	AS-1	18 PSI			
10/3/07 0530	11762.2	8	2700	128	0	0	1480	1396	1060	0	199690		Air Samples
	A/S Dead												Water Samples
10-5-07 0500	Install	New	compression –		SVE	System Down Acc			Propane				
	11808.8	A/S	up	3.4	SCFM	To Both wells			AS-2 30 PSI		AT well		
									AS-1 30 PSI		AT well		
											199690		

[1] Diameter of the system influent air flow pipe is 3 inches

[2] Diameter of the dilution air flow pipe is 2 inches

Site Name & Address	Former USA Station 57 10700 MacArthur Boulevard, Oakland	**Date**	10-11-07
Test Well ID	Extracting from EX-1 through EX-4	**Test Operators**	CHILL
Equipment Model and Serial Nos.	200T CAT LZ? 6M1294?	**PID Model**	Mini RAE

Date & Time	DPE System Parameters												
	Hour Meter Reading hrs	System Applied Vacuum "Hg	System Inf Air Flow Rate[1] fpm/cfm	System Inf Air Temp deg F	Dilution Air Flow Rate[2] fpm/cfm	Dilution Air Temp deg F	Control Temp deg F	Effluent Air Temp deg F	System Influent PID ppmv	Effluent PID ppmv	Totalizer Reading gallons		Comments/Notes
10-11-07 0530	System	Down	A/S -	DPE	Come up				~~40~~				USA57W EFF 0630 USA57W INF 0635
0700	11862	11	2500	120	—	—	1460	1339	90	ø	199770		USA57 A SYS EFF 0700 USA57 A SYS INF 0704
A/S	30 PSI	2.8 Scfm		AS-2	28 PSI		AS-1	26 PSI					
101707 0630	System	Down	Generator	off	10-16-07		Turn	compressor	on By		May		High Temp
0800	11972	11	2100	110	—	—	1497	1349	300	ø	199830		
	AS-1	18 PSI		AS-2	16 PSI		High Temp	compressor	Shut off				

[1] Diameter of the system influent air flow pipe is 3 inches

[2] Diameter of the dilution air flow pipe is 2 inches

Site Name & Address: Former USA Station 57
10700 MacArthur Boulevard, Oakland

Test Well ID: Extracting from EX-1 through EX-4

Date: 103007

Test Operators: CHILL
S. Nandi

Equipment Model and Serial Nos.: 200T CAT LR M1244

PID Model: Mini Rae

Date & Time	DPE System Parameters												Comments/Notes
	Hour Meter Reading hrs	System Applied Vacuum "Hg	System Inf Air Flow Rate[1] fpm/cfm	System Inf Air Temp deg F	Dilution Air Flow Rate[2] fpm/cfm	Dilution Air Temp deg F	Control Temp deg F	Effluent Air Temp deg F	System Influent PID ppmv	Effluent PID ppmv	Totalizer Reading gallons		
103007 0800	Restart System DPE												
0850	12101	14.5	2400	120	ø	ø	1450	1311	69	ø	199920		
System was shut off 103007 Need Inspection													
0700 11-6-07	12108	12	2400	125	ø	ø	1485	1379	347	ø	199990		00057 A SYS INF 0722 00057 A SYS EFF 0720
													00057 W INF 0737 00057 W EFF 0730
111407 0600	12269	Generator	stop - Restart				No	Readings					
111407 2000	Shutdown DPE												

[1] Diameter of the system influent air flow pipe is 3 inches

[2] Diameter of the dilution air flow pipe is 2 inches

Former USA Service Station No. 57
10700 McArthur Boulevard
Oakland, CA
Oxygen Injection System Using iSOC

Date: 9-4-07
Onsite Time: 0545
Offsite Time:

Technician: Vince Z
Project Engineer:
Weather Conditions: clear
Ambient Temperature: 60's

ORIGINAL

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels
No. of Oxygen Cylinders On Site: 6
No. of Cylinders Connected to Panels: 3
No. of Empty Cylinders: 0

DPE TEST and TANKS OFF

Connected Cylinders	
O_2 Cylinder	Pressure
1	~~380~~
2	~~700~~
3	~~500~~
4	
5	
6	

PSI

Field Measurments (Monthly)

Well ID	Time	DTW	pH	DO	TEMP	COND	ORP	~~TOTAL~~
S-1	0707	18.57	7.14	.72	20.0	1084	36	DUPLICATE
S-2	0724	20.69	7.28	0.0	19.0	1115	136	
MW-3	0617	15.43	6.79	.44	19.9	2.94	89	
EX-1	0717	12.42	7.26	0.0	19.8	988	113	24.10
EX-2	0728	10.98	7.19	1.04	20.3	1558	127	24.87
EX-3	0637	13.73	7.06	.52	19.6	1374	61	24.60
MW-7	0657	17.60	7.91	5.69	20.0	809	23	
MW-8	0626	19.55	6.97	5.46	18.9	1.94	99	
~~EX-1~~								
Ex-2								
Ex-3		14.35					new	25.22
Ex-4		14.30	7.05	.40	20.0	1030	9	24.55

Added Extended Casing

.62 casing Added

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemcal oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

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Former USA Service Station No. 57
10700 McArthur Boulevard
Oakland, CA
Oxygen Injection System Using iSOC

Date: 9-18-07
Onsite Time: 0415
Offsite Time:

Technician: Vince Z
Project Engineer: Gowri
Weather Conditions: clear
Ambient Temperature: 60's

ORIGINAL

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels
No. of Oxygen Cylinders On Site: 6
No. of Cylinders Connected to Panels: 0 OFF Line
No. of Empty Cylinders: 0

N/A

Connected Cylinders	
O_2 Cylinder	Pressure
1	
2	
3	
4	
5	
6	

Field Measurments (Monthly)								"KPA"
Well ID	Time	DTW	pH	DO	Temp	Cond	ORP	VAC
S-1	0507	18.8	7.23	1.18	19.7	1096	70	~~0 N/A~~
S-2	0516	20.94	7.10	.41	18.9	1043	86	~~0~~ N/A
MW-3	0451	16.10	6.88	.90	19.4	2.95m	153	0
EX-1	on	system						
EX-2								
EX-3	ON	System						~~0~~
MW-7	0427	17.78	7.68	4.22	20.0	843	130	6
MW-8	0440	23.69	7.04	5.74	18.7	7.63m	179	0
Central TEMP	1478							
EFF Temp	1374	(*)	gals	01	99	55	0	
HRS	11616.7							
INS. H_2O	.40		in. Hg	(-9.5)			H_2O	18
TEMP	132 F						psi	23

(*)

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemcal oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

Former USA Service Station No. 57
10700 McArthur Boulevard
Oakland, CA
Oxygen Injection System Using iSOC

Date: 10-02-07
Onsite Time: 0500
Offsite Time: 0645

Technician: Vince Z
Project Engineer: Gowri
Weather Conditions: clear
Ambient Temperature: 55°

ORIGINAL

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels
No. of Oxygen Cylinders On Site: 6
No. of Cylinders Connected to Panels: Ø
No. of Empty Cylinders: Ø

} OFF Line

Field Measurments (Monthly)

Well ID	Time	DTW	pH	DO	Temp	Cond	ORP	(KPA) VAC
S-1	0556	19.12	7.34	.54	19.3	1143	11	Ø
S-2	0605	21.33	7.35	.89	18.5	1050	35	Ø
MW-3	0533	16.40	7.12	.35	19.3	2.78m	73	Ø
EX-1	on	sy	stem					
EX-2								
EX-3								
MW-7	0525	18.11	7.46	.30	20.1	992	29	Ø
MW-8	0541	20.24	7.28	5.52	18.5	7.68m	109	Ø
Control Temp	50		Stack Temp	1600				
EFF Temp	48							
HRS	11730.0							
GAL								
INS-H2O			IN Hg					

System Down

N/A

Connected Cylinders	
O_2 Cylinder	Pressure
1	
2	
3	
4	
5	
6	

16

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemcal oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

Former USA Service Station No. 57
10700 McArthur Boulevard
Oakland, CA
Oxygen Injection System Using iSOC

Date: 10-15-07
Onsite Time: 0450
Offsite Time: 1030

Technician: Vince Z
Project Engineer: Gowri
Weather Conditions: clouds high
Ambient Temperature: 60's

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels
No. of Oxygen Cylinders On Site: 6
No. of Cylinders Connected to Panels: ∅
No. of Empty Cylinders: ∅

} OFF LINE *

* N/A

Connected Cylinders	
O_2 Cylinder	Pressure
1	
2	
3	
4	
5	
6	

Field Measurments (Monthly) — KPA

Well ID	Time	DTW	pH	DO	Temp	Cond.	ORP	VAC
S-1	0815	19.22	7.60	1.62	20.9	980	158	∅
S-2	0650	21.32	7.49	2.19	20.0	1111	135	∅
MW-3	0954	16.45	7.04	2.87	19.3	3.21m	67	∅
EX-1			ON	SYSTEM				
EX-2								~~∅~~
EX-3								~~∅~~
MW-7	0811	18.29	7.95	.61	19.3	843	85	.03
MW-8	0915	20.36	7.29	5.49	20.2	7.99m	192	∅
Control Temp	1446		Gals. →		199830			
EFF Temp	1346							
INS. H_2O	.30 IN. 2200 FPM		IN. Hg	(-9.0)			H_2O	16
Temp	130°F						psi	15
HRS.	11960.3							

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemcal oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

ORIGINAL

APPENDIX C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 09/05/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	540	75 mg/m³	09/04/07	09/06/07
Sys Inf Air 57	Tertiary Butyl Alcohol (TBA)	ND	38 mg/m³	09/04/07	09/06/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0.75 mg/m³	09/04/07	09/06/07
STR07090504-01A	Di-isopropyl Ether (DIPE)	ND	1.5 mg/m³	09/04/07	09/06/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.5 mg/m³	09/04/07	09/06/07
	Benzene	0.75	0.75 mg/m³	09/04/07	09/06/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.5 mg/m³	09/04/07	09/06/07
	Toluene	ND	0.75 mg/m³	09/04/07	09/06/07
	Ethylbenzene	0.97	0.75 mg/m³	09/04/07	09/06/07
	m,p-Xylene	ND	0.75 mg/m³	09/04/07	09/06/07
	o-Xylene	ND	0.75 mg/m³	09/04/07	09/06/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in a Tedlar Bag are at 21 degrees Celsius and 25.76 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

9/12/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Sep-07*

QC Summary Report

Work Order: 07090504

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **07090607.D** Batch ID: **MS08A0906B** Analysis Date: **09/06/2007 10:12**

Sample ID: **MBLK MS08A0906B** Units : **mg/m³** Run ID: **MSD_08_070906B** Prep Date: **09/06/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	1.81		2		91	75	128			
Surr: Toluene-d8	2.04		2		102	80	120			
Surr: 4-Bromofluorobenzene	1.88		2		94	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **07090604.D** Batch ID: **MS08A0906B** Analysis Date: **09/06/2007 09:03**

Sample ID: **GLCS MS08A0906B** Units : **mg/m³** Run ID: **MSD_08_070906B** Prep Date: **09/06/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	394	10	400		99	70	130			
Surr: 1,2-Dichloroethane-d4	9.76		10		98	75	128			
Surr: Toluene-d8	9.74		10		97	80	120			
Surr: 4-Bromofluorobenzene	9.7		10		97	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Sep-07*

QC Summary Report

Work Order: 07090504

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **07090607.D** Batch ID: **MS08A0906A** Analysis Date: **09/06/2007 10:12**

Sample ID: **MBLK MS08A0906A** Units : **mg/m³** Run ID: **MSD_08_070906B** Prep Date: **09/06/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	5								
Methyl tert-butyl ether (MTBE)	ND	0.1								
Di-isopropyl Ether (DIPE)	ND	0.2								
Ethyl Tertiary Butyl Ether (ETBE)	ND	0.2								
Benzene	ND	0.1								
Tertiary Amyl Methyl Ether (TAME)	ND	0.2								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.81		2		91	75	128			
Surr: Toluene-d8	2.04		2		102	80	120			
Surr: 4-Bromofluorobenzene	1.88		2		94	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **07090606.D** Batch ID: **MS08A0906A** Analysis Date: **09/06/2007 09:50**

Sample ID: **LCS MS08A0906A** Units : **mg/m³** Run ID: **MSD_08_070906B** Prep Date: **09/06/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	11.1	0.1	10		111	70	130			
Benzene	9.55	0.1	10		96	70	130			
Toluene	9.15	0.1	10		92	80	120			
Ethylbenzene	9.09	0.1	10		91	80	120			
m,p-Xylene	8.92	0.1	10		89	70	130			
o-Xylene	8.89	0.1	10		89	70	130			
Surr: 1,2-Dichloroethane-d4	9.79		10		98	75	128			
Surr: Toluene-d8	9.63		10		96	80	120			
Surr: 4-Bromofluorobenzene	9.3		10		93	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07090504

Report Due By : 5:00 PM On : 13-Sep-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Scott Bittinger
TEL : (530) 676-2062 x
FAX : (530) 676-6005
EMail sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : C. Hill

Report Attention : Scott Bittinger
CC Report :

Job : USA 57
PO :

Client's COC # : 10040

Cooler Temp	Samples Received	Date Printed
20 °C	05-Sep-07	**05-Sep-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests TPH/P_A	VOC_A							Sample Remarks
STR07090504-01A	Sys Inf Air 57	AR	09/04/07 11:15	1	0	6		GAS-N/C	BTEX/OXY							TEDLAR

Comments: Security seals intact. Ice n/a. Chain split into two separate work orders due to different TATs. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Sauvageau	Elizabeth Sauvageau	**Alpha Analytical, Inc.**	9-5-07 10:01

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus
Address 3330 Cameron Park Dr
City, State, Zip Cameron Park
Phone Number 530626 6004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

10040

Client Name	USA 57	P.O. #	Job #
Address		EMail Address	
City, State, Zip	Parkland	Phone #	Fax #

Report Attention Scott
Sampled by CHIC

Required QC Level? I II III IV

EDD / EDF? YES ___ NO ___

Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only / Lab ID Number	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO + BTEX	SOXY 5	REMARKS
1115	9/5	OT	STR07090504-01	SysInF Air 57	STD		1-T	X	X	STD
1120	"	OT		EFF Air	24		1-T	X	X	24 HR

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		CHIC	Stratus	9/5/07	1515
Received by		Mike Gilchrist	Alpha	9/5/07	1515
Relinquished by					
Received by	E Sauvageau	E. Sauvageau	Alpha	9-5-07	10:01
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 09/05/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	ND	15 mg/m³	09/04/07	09/05/07
EFF Air	Tertiary Butyl Alcohol (TBA)	ND	7.5 mg/m³	09/04/07	09/05/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0.15 mg/m³	09/04/07	09/05/07
STR07090502-01A	Di-isopropyl Ether (DIPE)	ND	0.30 mg/m³	09/04/07	09/05/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	0.30 mg/m³	09/04/07	09/05/07
	Benzene	ND	0.15 mg/m³	09/04/07	09/05/07
	Tertiary Amyl Methyl Ether (TAME)	ND	0.30 mg/m³	09/04/07	09/05/07
	Toluene	ND	0.15 mg/m³	09/04/07	09/05/07
	Ethylbenzene	ND	0.15 mg/m³	09/04/07	09/05/07
	m,p-Xylene	ND	0.15 mg/m³	09/04/07	09/05/07
	o-Xylene	ND	0.15 mg/m³	09/04/07	09/05/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in a Tedlar Bag are at 21 degrees Celsius and 25.76 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

9/5/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *07-Sep-07*

QC Summary Report

Work Order: 07090502

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **07090507.D** Batch ID: **MS08A0905B** Analysis Date: **09/05/2007 10:49**

Sample ID: **MBLK MS08A0905B** Units : **mg/m³** Run ID: **MSD_08_070905B** Prep Date: **09/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	8.65		10		87	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	9.23		10		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **07090505.D** Batch ID: **MS08A0905B** Analysis Date: **09/05/2007 09:41**

Sample ID: **GLCS MS08A0905B** Units : **mg/m³** Run ID: **MSD_08_070905B** Prep Date: **09/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	418	10	400		105	70	130			
Surr: 1,2-Dichloroethane-d4	8.96		10		90	75	128			
Surr: Toluene-d8	9.86		10		99	80	120			
Surr: 4-Bromofluorobenzene	9.82		10		98	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *07-Sep-07*

QC Summary Report

Work Order: 07090502

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **07090507.D** Batch ID: **MS08A0905A** Analysis Date: **09/05/2007 10:49**

Sample ID: **MBLK MS08A0905A** Units : **mg/m³** Run ID: **MSD_08_070905B** Prep Date: **09/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	5								
Methyl tert-butyl ether (MTBE)	ND	0.1								
Di-isopropyl Ether (DIPE)	ND	0.2								
Ethyl Tertiary Butyl Ether (ETBE)	ND	0.2								
Benzene	ND	0.1								
Tertiary Amyl Methyl Ether (TAME)	ND	0.2								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	8.65		10		87	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	9.23		10		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **07090506.D** Batch ID: **MS08A0905A** Analysis Date: **09/05/2007 10:02**

Sample ID: **LCS MS08A0905A** Units : **mg/m³** Run ID: **MSD_08_070905B** Prep Date: **09/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.9	0.1	10		109	70	130			
Benzene	9.67	0.1	10		97	70	130			
Toluene	9.2	0.1	10		92	80	120			
Ethylbenzene	9.06	0.1	10		91	80	120			
m,p-Xylene	8.99	0.1	10		90	70	130			
o-Xylene	9.09	0.1	10		91	70	130			
Surr: 1,2-Dichloroethane-d4	9.17		10		92	75	128			
Surr: Toluene-d8	9.7		10		97	80	120			
Surr: 4-Bromofluorobenzene	9.1		10		91	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

RUSH!

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07090502

Report Due By : 5:00 PM On : 05-Sep-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Scott Bittinger
TEL : (530) 676-2062 x
FAX : (530) 676-6005
EMail sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : C. Hill

Report Attention : Scott Bittinger
CC Report :

Job : USA 57
PO :

Client's COC # : 10040

Cooler Temp	Samples Received	Date Printed
20 °C	05-Sep-07	**05-Sep-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests TPH/P_A	VOC_A							Sample Remarks
STR07090502-01A	EFF Air	AR	09/04/07 11:20	1	0	1		GAS-N/C	BTEX/OXY							TEDLAR

Comments: Security seals intact. Ice n/a. Chain split into two separate work orders due to different TATs. Send copy of receipt checklist with final report. ASAP TAT. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Sauvageau	Elizabeth Sauvageau	**Alpha Analytical, Inc.**	9-5-07 9:26

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stantec
Address 3338 Cameron Park Dr
City, State, Zip Cameron Park
Phone Number 530 626 6004 Fax 530 676 6005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 of 1

Client Name	USA 57	P.O. #	Job #
Address		EMail Address	
City, State, Zip	Portland	Phone #	Fax #

Report Attention: Scott
Sampled by: CHIC

Analyses Required: GRO+BTEX; SOXY 5

10040

Required QC Level? I II III IV

EDD / EDF? YES ___ NO ___

Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO+BTEX	SOXY 5	REMARKS
1115	9/5/07	OT		SVS INF Air 57	STD		1-T	X	X	STD
1120	"	OT	STR07090502-01	EFF Air	24		1-T	X	X	24 HR

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		CHIC	Stantec	9/5/07	1515
Received by		Mike Lithgow	Alpha	9/5/07	1515
Relinquished by					
Received by	E. Sauvageau	E. Sauvageau	Alpha	9-5-07	9:26
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

FILE COPY

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 09/05/07

SEP 20 2007

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	470	50 µg/L	09/04/07	09/07/07
INF	Tertiary Butyl Alcohol (TBA)	120	10 µg/L	09/04/07	09/07/07
Lab ID :	Methyl tert-butyl ether (MTBE)	230	0.50 µg/L	09/04/07	09/07/07
STR07090555-01A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/04/07	09/07/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/04/07	09/07/07
	Benzene	25	0.50 µg/L	09/04/07	09/07/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/04/07	09/07/07
	Toluene	2.9	0.50 µg/L	09/04/07	09/07/07
	Ethylbenzene	10	0.50 µg/L	09/04/07	09/07/07
	m,p-Xylene	14	0.50 µg/L	09/04/07	09/07/07
	o-Xylene	5.0	0.50 µg/L	09/04/07	09/07/07

Gasoline Range Organics (GRO) C4-C13

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

9/12/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR07090555 **Project:** USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07090555-01A	INF	Aqueous	2

9/12/07

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *11-Sep-07*

QC Summary Report

Work Order: 07090555

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090707.D** Batch ID: **MS07W0907B** Analysis Date: **09/07/2007 11:13**

Sample ID: **MBLK MS07W0907A** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	9.5		10		95	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	9.81		10		98	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090703.D** Batch ID: **MS07W0907B** Analysis Date: **09/07/2007 09:44**

Sample ID: **GLCS MS07W0907B** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	369	50	400		92	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10		96	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	10		10		100	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090712.D** Batch ID: **MS07W0907B** Analysis Date: **09/07/2007 13:05**

Sample ID: **07090451-06AGS** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1580	250	2000	0	79	60	131			
Surr: 1,2-Dichloroethane-d4	46.7		50		93	75	128			
Surr: Toluene-d8	50.1		50		100	80	120			
Surr: 4-Bromofluorobenzene	51.1		50		102	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090713.D** Batch ID: **MS07W0907B** Analysis Date: **09/07/2007 13:27**

Sample ID: **07090451-06AGSD** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1740	250	2000	0	87	60	131	1583	9.7(20)	
Surr: 1,2-Dichloroethane-d4	47.3		50		95	75	128			
Surr: Toluene-d8	50.3		50		101	80	120			
Surr: 4-Bromofluorobenzene	49.5		50		99	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 11-Sep-07

QC Summary Report

Work Order: 07090555

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090707.D** Batch ID: **MS07W0907A** Analysis Date: **09/07/2007 11:13**

Sample ID: **MBLK MS07W0907A** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	9.5		10		95	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	9.81		10		98	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090704.D** Batch ID: **MS07W0907A** Analysis Date: **09/07/2007 10:06**

Sample ID: **LCS MS07W0907A** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.59	0.5	10		96	70	130			
Benzene	9.27	0.5	10		93	70	130			
Toluene	9.38	0.5	10		94	80	120			
Ethylbenzene	9.12	0.5	10		91	80	120			
m,p-Xylene	9.18	0.5	10		92	70	130			
o-Xylene	9.38	0.5	10		94	70	130			
Surr: 1,2-Dichloroethane-d4	9.44		10		94	75	128			
Surr: Toluene-d8	10.2		10		102	80	120			
Surr: 4-Bromofluorobenzene	9.96		10		99.6	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090710.D** Batch ID: **MS07W0907A** Analysis Date: **09/07/2007 12:20**

Sample ID: **07090451-06AMS** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	48.5	1.3	50	0	97	62	139			
Benzene	45.5	1.3	50	0	91	70	130			
Toluene	45.2	1.3	50	0	90	67	130			
Ethylbenzene	42.8	1.3	50	0	86	70	130			
m,p-Xylene	43.3	1.3	50	0	87	69	130			
o-Xylene	45.8	1.3	50	0	92	70	130			
Surr: 1,2-Dichloroethane-d4	46		50		92	75	128			
Surr: Toluene-d8	50.9		50		102	80	120			
Surr: 4-Bromofluorobenzene	50.3		50		101	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\070907\07090711.D** Batch ID: **MS07W0907A** Analysis Date: **09/07/2007 12:43**

Sample ID: **07090451-06AMSD** Units : **µg/L** Run ID: **MSD_07_070907A** Prep Date: **09/07/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	50.1	1.3	50	0	100	62	139	48.51	3.2(20)	
Benzene	45.6	1.3	50	0	91	70	130	45.54	0.2(20)	
Toluene	45.5	1.3	50	0	91	67	130	45.22	0.6(20)	
Ethylbenzene	43.8	1.3	50	0	88	70	130	42.76	2.5(20)	
m,p-Xylene	43.9	1.3	50	0	88	69	130	43.28	1.3(20)	
o-Xylene	46.1	1.3	50	0	92	70	130	45.82	0.6(20)	
Surr: 1,2-Dichloroethane-d4	47.1		50		94	75	128			
Surr: Toluene-d8	50.5		50		101	80	120			
Surr: 4-Bromofluorobenzene	50.1		50		100	80	120			

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *11-Sep-07*

QC Summary Report

Work Order: 07090555

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

Sample Receipt Checklist

Date Report is due to Client : **9/13/2007** Date of Notice : **9/5/2007 10:47:03 A**

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: **Stratus Environmental** Project ID : **USA 57**

Project Manager: **Scott Bittinger** Client's EMail: **sbittinger@stratusinc.net**

Client's Phone: **(530) 676-2062** Client's FAX: **(530) 676-6005**

Work Order Number: **STR07090555** Date Received: **9/5/2007** Received by: Tara Dickinson

Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ?	Yes ☑	No ☐	
Custody seals intact on shippping container/cooler ?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles ?	Yes ☐	No ☐	Not Present ☑
Chain of custody signed when relinquished and received ?	Yes ☑	No ☐	
Chain of custody agrees with sample labels ?	Yes ☑	No ☐	
Sample ID noted by Client on COC ?	Yes ☑	No ☐	
Date and time of collection noted by Client on COC ?	Yes ☑	No ☐	
Samplers's name noted on COC ?	Yes ☑	No ☐	
Internal Chain of Custody (COC) requested ?	Yes ☐	No ☑	
Sub Contract Lab Used :	None ☑	See Comments ☐	

Sample Receipt Information

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	Cooler Temperature
Container/Temp Blank temperature in compliance (0-6°C)?	Yes ☑	No ☐	4 °C
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TOC Water - pH acceptable upon receipt (H2SO4 pH<2)?	Yes ☐	No ☐	N/A ☑

Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes ☐	No ☑	
Are there client specific Project requirements ?	Yes ☐	No ☑	If YES : see the Chain of Custody (COC)

Comments :

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07090555

Report Due By : 5:00 PM On : 13-Sep-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Scott Bittinger
TEL : (530) 676-2062 x
FAX : (530) 676-6005
EMail sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : C. Hill

Report Attention : Scott Bittinger
CC Report :

Job : USA 57
PO :

Client's COC # : 10041

Cooler Temp	Samples Received	Date Printed
4 °C	05-Sep-07	05-Sep-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests TPH/P_W	VOC_W							Sample Remarks
STR07090555-01A	INF	AQ	09/04/07 10:15	5	0	6		GAS-C	BTEX/OXY_C							

Comments: Security seals intact. Frozen ice. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Tara Dickinson	Tara Dickinson	Alpha Analytical, Inc.	9/5/07 1049

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratos ENV
Address 3390 Cameron Park Dr
City, State, Zip Cameron Park CA
Phone Number 5306666004 Fax 5306666005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___ Page # 1 of 1

10041

Client Name USA 57
Address
City, State, Zip Oakland
P.O. # Job #
EMail Address
Phone # Fax #
Report Attention Scott
Sampled by CHILL

Required QC Level? I II III IV
EDD / EDF? YES ___ NO ___
Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Analyses Required: GRO-BTEX	Analyses Required: 5 OXYS	REMARKS
1015	9/5/07	AQ	STR070905SS-01	INF	5W		5-V	X	X	

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		CHILL	Stratos	9507	1515
Received by		Mike Gilliland	Alpha	9407	1515
Relinquished by					
Received by	Dana Dickinson	Dana Dickinson	Alpha	9/5/07	1049
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

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FILE COPY

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 10/04/07

OCT 22 2007

Job#: 2007-0057-01/USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	51	50 µg/L	10/03/07	10/05/07
0057WINF	Tertiary Butyl Alcohol (TBA)	19	10 µg/L	10/03/07	10/05/07
Lab ID :	Methyl tert-butyl ether (MTBE)	5.4	0.50 µg/L	10/03/07	10/05/07
STR07100432-01A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	10/03/07	10/05/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	10/03/07	10/05/07
	Benzene	9.2	0.50 µg/L	10/03/07	10/05/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	10/03/07	10/05/07
	Toluene	0.63	0.50 µg/L	10/03/07	10/05/07
	Ethylbenzene	ND	0.50 µg/L	10/03/07	10/05/07
	m,p-Xylene	1.1	0.50 µg/L	10/03/07	10/05/07
	o-Xylene	0.72	0.50 µg/L	10/03/07	10/05/07

Gasoline Range Organics (GRO) C4-C13
ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

10/10/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR07100432 **Project:** 2007-0057-01/USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07100432-01A	0057WINF	Aqueous	2

10/10/07

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Oct-07*

QC Summary Report

Work Order: 07100432

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071005\07100504.D** Batch ID: **MS09W1005B** Analysis Date: **10/05/2007 13:04**

Sample ID: **MBLK MS09W1005B** Units : **µg/L** Run ID: **MSD_09_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	8.87		10		89	75	128			
Surr: Toluene-d8	10.5		10		105	80	120			
Surr: 4-Bromofluorobenzene	10.6		10		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071005\07100503.D** Batch ID: **MS09W1005B** Analysis Date: **10/05/2007 12:41**

Sample ID: **GLCS MS09W1005B** Units : **µg/L** Run ID: **MSD_09_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	379	50	400		95	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10		87	75	128			
Surr: Toluene-d8	10.6		10		106	80	120			
Surr: 4-Bromofluorobenzene	10.3		10		103	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071005\07100508.D** Batch ID: **MS09W1005B** Analysis Date: **10/05/2007 14:40**

Sample ID: **07100426-01AGS** Units : **µg/L** Run ID: **MSD_09_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1610	250	2000	0	81	60	131			
Surr: 1,2-Dichloroethane-d4	42.6		50		85	75	128			
Surr: Toluene-d8	54.1		50		108	80	120			
Surr: 4-Bromofluorobenzene	50.8		50		102	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071005\07100509.D** Batch ID: **MS09W1005B** Analysis Date: **10/05/2007 15:04**

Sample ID: **07100426-01AGSD** Units : **µg/L** Run ID: **MSD_09_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1820	250	2000	0	91	60	131	1612	11.9(20)	
Surr: 1,2-Dichloroethane-d4	42.4		50		85	75	128			
Surr: Toluene-d8	53.5		50		107	80	120			
Surr: 4-Bromofluorobenzene	50.7		50		101	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 10-Oct-07

QC Summary Report

Work Order: 07100432

Method Blank

Type MBLK Test Code: EPA Method SW8260B

File ID: D:\HPCHEM\MS09\DATA\071005\07100504.D Batch ID: MS09W1005A Analysis Date: 10/05/2007 13:04

Sample ID: MBLK MS09W1005A Units : µg/L Run ID: MSD_09_071005A Prep Date: 10/05/2007

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	8.87		10		89	75	128			
Surr: Toluene-d8	10.5		10		105	80	120			
Surr: 4-Bromofluorobenzene	10.6		10		106	80	120			

Laboratory Control Spike

Type LCS Test Code: EPA Method SW8260B

File ID: D:\HPCHEM\MS09\DATA\071005\07100502.D Batch ID: MS09W1005A Analysis Date: 10/05/2007 12:18

Sample ID: LCS MS09W1005A Units : µg/L Run ID: MSD_09_071005A Prep Date: 10/05/2007

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.48	0.5	10		85	70	130			
Benzene	9.32	0.5	10		93	70	130			
Toluene	10.1	0.5	10		101	80	120			
Ethylbenzene	10.9	0.5	10		109	80	120			
m,p-Xylene	10.3	0.5	10		103	70	130			
o-Xylene	10.3	0.5	10		103	70	130			
Surr: 1,2-Dichloroethane-d4	8.77		10		88	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	9.51		10		95	80	120			

Sample Matrix Spike

Type MS Test Code: EPA Method SW8260B

File ID: D:\HPCHEM\MS09\DATA\071005\07100506.D Batch ID: MS09W1005A Analysis Date: 10/05/2007 13:53

Sample ID: 07100426-01AMS Units : µg/L Run ID: MSD_09_071005A Prep Date: 10/05/2007

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	41.5	1.3	50	0	83	62	139			
Benzene	42.6	1.3	50	0	85	70	130			
Toluene	46.5	1.3	50	0	93	67	130			
Ethylbenzene	49.7	1.3	50	0	99	70	130			
m,p-Xylene	48	1.3	50	0	96	69	130			
o-Xylene	48.1	1.3	50	0	96	70	130			
Surr: 1,2-Dichloroethane-d4	41.8		50		84	75	128			
Surr: Toluene-d8	52.7		50		105	80	120			
Surr: 4-Bromofluorobenzene	47.1		50		94	80	120			

Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW8260B

File ID: D:\HPCHEM\MS09\DATA\071005\07100507.D Batch ID: MS09W1005A Analysis Date: 10/05/2007 14:16

Sample ID: 07100426-01AMSD Units : µg/L Run ID: MSD_09_071005A Prep Date: 10/05/2007

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	46.6	1.3	50	0	93	62	139	41.53	11.5(20)	
Benzene	43.4	1.3	50	0	87	70	130	42.56	1.9(20)	
Toluene	46.3	1.3	50	0	93	67	130	46.45	0.4(20)	
Ethylbenzene	48.1	1.3	50	0	96	70	130	49.72	3.3(20)	
m,p-Xylene	47.3	1.3	50	0	95	69	130	48.01	1.4(20)	
o-Xylene	49.7	1.3	50	0	99	70	130	48.09	3.3(20)	
Surr: 1,2-Dichloroethane-d4	42.1		50		84	75	128			
Surr: Toluene-d8	52.5		50		105	80	120			
Surr: 4-Bromofluorobenzene	46.8		50		94	80	120			

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Oct-07*

QC Summary Report

Work Order: 07100432

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

Sample Receipt Checklist

Date Report is due to Client : **10/12/2007** Date of Notice : **10/4/2007 2:13:50 P**

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: **Stratus Environmental**
Project ID : **2007-0057-01/USA 57**
Project Manager: **Scott Bittinger**
Client's EMail: **sbittinger@stratusinc.net**
Client's Phone: **(530) 676-2062** Client's FAX: **(530) 676-6005**
Work Order Number: **STR07100432**
Date Received: **10/4/2007** Received by: Kathryn Murray

Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ?	Yes ☑	No ☐	
Custody seals intact on shippping container/cooler ?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles ?	Yes ☐	No ☐	Not Present ☑
Chain of custody signed when relinquished and received ?	Yes ☑	No ☐	
Chain of custody agrees with sample labels ?	Yes ☑	No ☐	
Sample ID noted by Client on COC ?	Yes ☑	No ☐	
Date and time of collection noted by Client on COC ?	Yes ☑	No ☐	
Samplers's name noted on COC ?	Yes ☑	No ☐	
Internal Chain of Custody (COC) requested ?	Yes ☐	No ☑	
Sub Contract Lab Used :	None ☑	See Comments ☐	

Sample Receipt Information

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance (0-6°C)?	Yes ☑	No ☐	Cooler Temperature 4 °C
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TOC Water - pH acceptable upon receipt (H2SO4 pH<2)?	Yes ☐	No ☐	N/A ☑

Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes ☐	No ☑	
Are there client specific Project requirements ?	Yes ☐	No ☑	If YES : see the Chain of Custody (COC)

Comments :

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07100432

Report Due By : 5:00 PM On : 12-Oct-07

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062	sbittinger@stratusinc.net

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

EDD Required : **Yes**

Sampled by : CHILL

PO :

Client's COC # : 18505 Job : 2007-0057-01/USA 57

Cooler Temp	Samples Received	Date Printed
4 °C	04-Oct-07	**04-Oct-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_W	VOC_W							Sample Remarks
STR07100432-01A	0057WINF	AQ	10/03/07 05:30	5	0	6	GAS-C	BTEX/OXY_C							

Comments: Security seals intact. Frozen ice. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	K Murray	K Murray	Alpha Analytical, Inc.	10/4/07 1415

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

18505

Billing Information:

Name Stratus Environmental, Inc.
Address 3330 Cameron Park Dr. #550
City, State, Zip Cameron Park, CA 95682
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 **of** 1

Client Name	USA 57
Address	
City, State, Zip	Oakland
P.O. #	
Job #	2007-0057-01
EMail Address	
Phone #	
Fax #	
Sampled by	C HILL
Report Attention	Scott Bittinger

Analyses Required

Required QC Level? (I) II III IV

EDD / EDF? YES X NO ___

Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO, BTEX	5 oxys						REMARKS
0530	10/3/07	AQ	STR07100432-01	0057WINF	5		5-V	X	X						

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Christopher Hill	Stratus	10/3/07	1345
Received by	[signature]	Mike Gilsdorf	Alpha	103107	1345
Relinquished by					
Received by	K Murray	K Murray	AAI	10/4/07	1410
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

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ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 10/04/07

Job#: 2007-0057-01/USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	1,800	75 mg/m³	10/03/07	10/05/07
0057ASYSINF	Methyl tert-butyl ether (MTBE)	ND	0.75 mg/m³	10/03/07	10/05/07
Lab ID :	Benzene	3.4	0.75 mg/m³	10/03/07	10/05/07
STR07100422-01A	Toluene	0.96	0.75 mg/m³	10/03/07	10/05/07
	Ethylbenzene	1.2	0.75 mg/m³	10/03/07	10/05/07
	m,p-Xylene	5.9	0.75 mg/m³	10/03/07	10/05/07
	o-Xylene	1.6	0.75 mg/m³	10/03/07	10/05/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in a Tedlar Bag are at 21 degrees Celsius and 25.06 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

10/11/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Oct-07*

QC Summary Report

Work Order: 07100422

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071005\07100506.D** Batch ID: **MS07A1005B** Analysis Date: **10/05/2007 10:13**

Sample ID: **MBLK MS07A1005B** Units : **mg/m³** Run ID: **MSD_07_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	2.07		2		104	75	128			
Surr: Toluene-d8	1.99		2		100	80	120			
Surr: 4-Bromofluorobenzene	2.11		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071005\07100503.D** Batch ID: **MS07A1005B** Analysis Date: **10/05/2007 09:06**

Sample ID: **GLCS MS07A1005B** Units : **mg/m³** Run ID: **MSD_07_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	395	10	400		99	70	130			
Surr: 1,2-Dichloroethane-d4	11.1		10		111	75	128			
Surr: Toluene-d8	9.73		10		97	80	120			
Surr: 4-Bromofluorobenzene	10.6		10		106	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *10-Oct-07*

QC Summary Report

Work Order: 07100422

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071005\07100506.D** Batch ID: **MS07A1005A** Analysis Date: **10/05/2007 10:13**

Sample ID: **MBLK MS07A1005A** Units : **mg/m³** Run ID: **MSD_07_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	2.07		2		104	75	128			
Surr: Toluene-d8	1.99		2		100	80	120			
Surr: 4-Bromofluorobenzene	2.11		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071005\07100504.D** Batch ID: **MS07A1005A** Analysis Date: **10/05/2007 09:28**

Sample ID: **LCS MS07A1005A** Units : **mg/m³** Run ID: **MSD_07_071005A** Prep Date: **10/05/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.89	0.1	10		99	70	130			
Benzene	9.91	0.1	10		99	70	130			
Toluene	10.2	0.1	10		102	80	120			
Ethylbenzene	10.2	0.1	10		102	80	120			
m,p-Xylene	10.3	0.1	10		103	70	130			
o-Xylene	10.2	0.1	10		102	70	130			
Surr: 1,2-Dichloroethane-d4	10.4		10		104	75	128			
Surr: Toluene-d8	9.96		10		99.6	80	120			
Surr: 4-Bromofluorobenzene	10.6		10		106	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR07100422

Report Due By : 5:00 PM On : 12-Oct-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Scott Bittinger (530) 676-2062 sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : CHILL

Report Attention : Scott Bittinger
CC Report :

Job : 2007-0057-01/USA 57
PO :
Client's COC # : 10042

Cooler Temp	Samples Received	Date Printed
20 °C	04-Oct-07	**04-Oct-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests TPH/P_A	VOC_A						Sample Remarks
STR07100422-01A	0057ASYSINF	AR	10/03/07 05:30	2	0	6		GAS-N/C	BTEX/MTBE						2 Tedlars

Comments: Security seals intact. Ice N/A. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	K Murray	K Murray	**Alpha Analytical, Inc.**	10/4/07 0950

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus Environmental, Inc.
Address 3330 Cameron Park Dr. #550
City, State, Zip Cameron Park, CA 95682
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___ Page # 1 of 1

Analyses Required

10042

Client Name USA 57 | P.O. # | Job # 2007-0057-01
Address | EMail Address
City, State, Zip Oakland, CA | Phone # | Fax #
Sampled by CHILL | Report Attention S. Bittner

Required QC Level? (I) II III IV
EDD / EDF? YES X NO ___
Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO/BTEX	MTBE							REMARKS
0550	10/3/07	OT	STR07100422-01	0057ASYSINF	S		(2)-T	X	X							

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Christopher Hill	Stratus	10/3/07	1345
Received by	[signature]	Mike Gittelson	Alpha	10/3/07	1345
Relinquished by					
Received by	K Murray	K Murray	AAI	10/4/07	0945
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 10/12/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	730	30 mg/m³	10/11/07	10/18/07
USA57 A SYSINF	Methyl tert-butyl ether (MTBE)	ND	0.30 mg/m³	10/11/07	10/18/07
Lab ID :	Benzene	1.2	0.30 mg/m³	10/11/07	10/18/07
STR07101203-01A	Toluene	0.45	0.30 mg/m³	10/11/07	10/18/07
	Ethylbenzene	ND	0.30 mg/m³	10/11/07	10/18/07
	m,p-Xylene	1.1	0.30 mg/m³	10/11/07	10/18/07
	o-Xylene	ND	0.30 mg/m³	10/11/07	10/18/07
Client ID :	TPH-P (GRO)	ND	15 mg/m³	10/11/07	10/18/07
USA57 A EFF	Methyl tert-butyl ether (MTBE)	ND	0.15 mg/m³	10/11/07	10/18/07
Lab ID :	Benzene	ND	0.15 mg/m³	10/11/07	10/18/07
STR07101203-02A	Toluene	ND	0.15 mg/m³	10/11/07	10/18/07
	Ethylbenzene	ND	0.15 mg/m³	10/11/07	10/18/07
	m,p-Xylene	ND	0.15 mg/m³	10/11/07	10/18/07
	o-Xylene	ND	0.15 mg/m³	10/11/07	10/18/07

Gasoline Range Organics (GRO) C4-C13

Note: Concentrations of air in Tedlar Bags are at 21 degrees Celsius and 25.07 inches of mercury.

ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

10/22/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *23-Oct-07*

QC Summary Report

Work Order: 07101203

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **07101831.D** Batch ID: **MS08A1018B** Analysis Date: **10/18/2007 19:52**

Sample ID: **MBLK MS08A1018B** Units : **mg/m³** Run ID: **MSD_08_071018B** Prep Date: **10/18/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	1.59		2		80	75	128			
Surr: Toluene-d8	2.25		2		113	80	120			
Surr: 4-Bromofluorobenzene	1.83		2		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **07101805.D** Batch ID: **MS08A1018B** Analysis Date: **10/18/2007 09:55**

Sample ID: **GLCS MS08A1018B** Units : **mg/m³** Run ID: **MSD_08_071018B** Prep Date: **10/18/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	390	10	400		98	70	130			
Surr: 1,2-Dichloroethane-d4	9.46		10		95	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	9.04		10		90	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *23-Oct-07*

QC Summary Report

Work Order: 07101203

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **07101831.D** Batch ID: **MS08A1018A** Analysis Date: **10/18/2007 19:52**

Sample ID: **MBLK MS08A1018A** Units : **mg/m³** Run ID: **MSD_08_071018B** Prep Date: **10/18/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.59		2		80	75	128			
Surr: Toluene-d8	2.25		2		113	80	120			
Surr: 4-Bromofluorobenzene	1.83		2		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **07101804.D** Batch ID: **MS08A1018A** Analysis Date: **10/18/2007 09:33**

Sample ID: **LCS MS08A1018A** Units : **mg/m³** Run ID: **MSD_08_071018B** Prep Date: **10/18/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.85	0.1	10		99	70	130			
Benzene	10	0.1	10		100	70	130			
Toluene	10.1	0.1	10		101	80	120			
Ethylbenzene	9.67	0.1	10		97	80	120			
m,p-Xylene	9.51	0.1	10		95	70	130			
o-Xylene	9.49	0.1	10		95	70	130			
Surr: 1,2-Dichloroethane-d4	10.1		10		101	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	9.31		10		93	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR07101203

Report Due By : 5:00 PM On : 22-Oct-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : C. Hill

PO :

Client's COC # : 18504 Job : USA 57

Cooler Temp	Samples Received	Date Printed
20 °C	12-Oct-07	**12-Oct-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_A	VOC_A							Sample Remarks
STR07101203-01A	USA57 A SYSINF	AR	10/11/07 07:11	1	0	6	GAS-N/C	BTEX/MTBE							TEDLAR
STR07101203-02A	USA57 A EFF	AR	10/11/07 07:00	1	0	6	GAS-N/C	BTEX/MTBE							TEDLAR

Comments: Security seals intact. Ice n/a. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Sauvageau	Elizabeth Sauvageau	Alpha Analytical, Inc.	10-12-07 9:50

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus ENV
Address 3330 Cameron Pk DR
City, State, Zip Cameron Pk CA
Phone Number 530 676 [illegible] Fax 530 676 [illegible]

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 of 1

Client Name USA 57	P.O. #	Job #
Address	EMail Address	
City, State, Zip Oakland	Phone #	Fax #

Required QC Level? I II III IV
EDD / EDF? YES ___ NO ___
Global ID # ___

Analyses Required

Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by CHILL / Lab ID Number (Office Use Only)	Report Attention Scott / Sample Description	TAT	Field Filtered	Total and type of containers ** See below	Gro BTEX	MTBE					REMARKS
0700	10/1/07	AR	STR07101203-01	USA57 A SYS INF	STD		1-T	X	X					
0700	)	AR	-02	USA57 A EFF	)		1-T	X	X					

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	CHILL	Stratus	101107	1505
Received by	[signature]	Mike Gilbert	Alpha	101107	1505
Relinquished by					
Received by	E Sauvageau	E. Sauvageau	Alpha	10-12-07	9:50
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 10/12/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	120	50 µg/L	10/11/07	10/15/07
USA57 W INF	Tertiary Butyl Alcohol (TBA)	18	10 µg/L	10/11/07	10/15/07
Lab ID :	Methyl tert-butyl ether (MTBE)	3.8	0.50 µg/L	10/11/07	10/15/07
STR07101220-01A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	10/11/07	10/15/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	10/11/07	10/15/07
	Benzene	25	0.50 µg/L	10/11/07	10/15/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	10/11/07	10/15/07
	Toluene	1.6	0.50 µg/L	10/11/07	10/15/07
	Ethylbenzene	3.3	0.50 µg/L	10/11/07	10/15/07
	m,p-Xylene	6.5	0.50 µg/L	10/11/07	10/15/07
	o-Xylene	2.2	0.50 µg/L	10/11/07	10/15/07
Client ID :	TPH-P (GRO)	ND	50 µg/L	10/11/07	10/15/07
USA57 W EFF	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	10/11/07	10/15/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	10/11/07	10/15/07
STR07101220-02A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	10/11/07	10/15/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	10/11/07	10/15/07
	Benzene	ND	0.50 µg/L	10/11/07	10/15/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	10/11/07	10/15/07
	Toluene	ND	0.50 µg/L	10/11/07	10/15/07
	Ethylbenzene	ND	0.50 µg/L	10/11/07	10/15/07
	m,p-Xylene	ND	0.50 µg/L	10/11/07	10/15/07
	o-Xylene	ND	0.50 µg/L	10/11/07	10/15/07

Gasoline Range Organics (GRO) C4-C13

ND = Not Detected
Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

10/19/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR07101220 **Project:** USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07101220-01A	USA57 W INF	Aqueous	2
07101220-02A	USA57 W EFF	Aqueous	2

10/19/07

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 17-Oct-07

QC Summary Report

Work Order: 07101220

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101504.D** Batch ID: **MS09W1015B** Analysis Date: **10/15/2007 10:44**

Sample ID: **MBLK MS09W1015B** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	8.74		10		87	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	11		10		110	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101503.D** Batch ID: **MS09W1015B** Analysis Date: **10/15/2007 10:20**

Sample ID: **GLCS MS09W1015B** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	424	50	400		106	70	130			
Surr: 1,2-Dichloroethane-d4	8.68		10		87	75	128			
Surr: Toluene-d8	10.7		10		107	80	120			
Surr: 4-Bromofluorobenzene	10.5		10		105	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101515.D** Batch ID: **MS09W1015B** Analysis Date: **10/15/2007 15:09**

Sample ID: **07101220-02AGS** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2130	250	2000	0	107	60	131			
Surr: 1,2-Dichloroethane-d4	44.5		50		89	75	128			
Surr: Toluene-d8	52.7		50		105	80	120			
Surr: 4-Bromofluorobenzene	54.8		50		110	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101516.D** Batch ID: **MS09W1015B** Analysis Date: **10/15/2007 15:32**

Sample ID: **07101220-02AGSD** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2130	250	2000	0	107	60	131	2132	0.1(20)	
Surr: 1,2-Dichloroethane-d4	45.1		50		90	75	128			
Surr: Toluene-d8	51.3		50		103	80	120			
Surr: 4-Bromofluorobenzene	52.9		50		106	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 17-Oct-07

QC Summary Report

Work Order: 07101220

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101504.D** Batch ID: **MS09W1015A** Analysis Date: **10/15/2007 10:44**

Sample ID: **MBLK MS09W1015A** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	8.74		10		87	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	11		10		110	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101502.D** Batch ID: **MS09W1015A** Analysis Date: **10/15/2007 09:55**

Sample ID: **LCS MS09W1015A** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.14	0.5	10		91	70	130			
Benzene	10.4	0.5	10		104	70	130			
Toluene	11.1	0.5	10		111	80	120			
Ethylbenzene	11.9	0.5	10		119	80	120			
m,p-Xylene	11.2	0.5	10		112	70	130			
o-Xylene	11.3	0.5	10		113	70	130			
Surr: 1,2-Dichloroethane-d4	9.28		10		93	75	128			
Surr: Toluene-d8	10.4		10		104	80	120			
Surr: 4-Bromofluorobenzene	9.54		10		95	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101513.D** Batch ID: **MS09W1015A** Analysis Date: **10/15/2007 14:20**

Sample ID: **07101220-02AMS** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	49.3	1.3	50	0	99	62	139			
Benzene	53.2	1.3	50	0	106	70	130			
Toluene	53.2	1.3	50	0	106	67	130			
Ethylbenzene	59.3	1.3	50	0	119	70	130			
m,p-Xylene	53.4	1.3	50	0	107	69	130			
o-Xylene	54.8	1.3	50	0	110	70	130			
Surr: 1,2-Dichloroethane-d4	50.9		50		102	75	128			
Surr: Toluene-d8	49.9		50		99.9	80	120			
Surr: 4-Bromofluorobenzene	48.3		50		97	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071015\07101514.D** Batch ID: **MS09W1015A** Analysis Date: **10/15/2007 14:45**

Sample ID: **07101220-02AMSD** Units : **µg/L** Run ID: **MSD_09_071015A** Prep Date: **10/15/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	48.2	1.3	50	0	96	62	139	49.25	2.1(20)	
Benzene	52.8	1.3	50	0	106	70	130	53.21	0.9(20)	
Toluene	54.4	1.3	50	0	109	67	130	53.19	2.2(20)	
Ethylbenzene	59.3	1.3	50	0	119	70	130	59.25	0.1(20)	
m,p-Xylene	54.3	1.3	50	0	109	69	130	53.39	1.7(20)	
o-Xylene	55.5	1.3	50	0	111	70	130	54.81	1.3(20)	
Surr: 1,2-Dichloroethane-d4	49.1		50		98	75	128			
Surr: Toluene-d8	51.1		50		102	80	120			
Surr: 4-Bromofluorobenzene	48.4		50		97	80	120			

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *17-Oct-07*

QC Summary Report

Work Order: 07101220

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR07101220

Report Due By : 5:00 PM On : 22-Oct-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : **Yes**

Sampled by : CHILL

PO :

Client's COC # : 18503 Job : USA 57

Cooler Temp	Samples Received	Date Printed
4 °C	12-Oct-07	**12-Oct-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_W	VOC_W							Sample Remarks
STR07101220-01A	USA57 W INF	AQ	10/11/07 06:35	5	0	6	GAS-C	BTEX/OXY_C							
STR07101220-02A	USA57 W EFF	AQ	10/11/07 06:30	5	0	6	GAS-C	BTEX/OXY_C							

Comments: Security seals intact. Frozen ice. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	K Murray	K Murray	**Alpha Analytical, Inc.**	10/12/07 0940

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stantec
Address 3330 Cameron Park Dr
City, State, Zip Cameron Park
Phone Number 5306766644 Fax 5306766605

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ____ CA X NV ____ WA ____
ID ____ OR ____ OTHER ____

Page # 1 of 1

Client Name USA 57	P.O. #	Job #	
Address	EMail Address		
City, State, Zip Oakland	Phone #	Fax #	

Analyses Required

Required QC Level? I II III IV

EDD / EDF? YES ____ NO ____

Global ID # ____

Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by CHCL / Lab ID Number (Office Use Only)	Report Attention Scott / Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO-BTEX	5 oxys	REMARKS
0635	10/11/07	AR	STR07101220-01	USA57 W INF	std		5-V	X	X	
0630	"	"	02	USA57 W EFF	std		5-V	X	X	

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		CHCL	Stantec	10/11/07	1505
Received by		Mike Hitchcock	Alpha	10/11/07	1505
Relinquished by					
Received by	K Murray	K Murray	AAI	10/12/07	0935
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 11/07/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	1,600	75 mg/m³	11/06/07	11/08/07
00057 A SYS INF	Methyl tert-butyl ether (MTBE)	ND	0.75 mg/m³	11/06/07	11/08/07
Lab ID :	Benzene	2.6	0.75 mg/m³	11/06/07	11/08/07
STR07110724-01A	Toluene	1.2	0.75 mg/m³	11/06/07	11/08/07
	Ethylbenzene	0.81	0.75 mg/m³	11/06/07	11/08/07
	m,p-Xylene	2.3	0.75 mg/m³	11/06/07	11/08/07
	o-Xylene	ND	0.75 mg/m³	11/06/07	11/08/07
Client ID :	TPH-P (GRO)	73	15 mg/m³	11/06/07	11/08/07
00057 A SYS EFF	Methyl tert-butyl ether (MTBE)	ND	0.15 mg/m³	11/06/07	11/08/07
Lab ID :	Benzene	ND	0.15 mg/m³	11/06/07	11/08/07
STR07110724-02A	Toluene	ND	0.15 mg/m³	11/06/07	11/08/07
	Ethylbenzene	ND	0.15 mg/m³	11/06/07	11/08/07
	m,p-Xylene	ND	0.15 mg/m³	11/06/07	11/08/07
	o-Xylene	ND	0.15 mg/m³	11/06/07	11/08/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in Tedlar Bags are at 21 degrees Celsius and 25.77 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

11/14/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *12-Nov-07*

QC Summary Report

Work Order: 07110724

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **07110806.D** Batch ID: **MS08A1108B** Analysis Date: **11/08/2007 11:34**

Sample ID: **MBLK MS08A1108B** Units : **mg/m³** Run ID: **MSD_08_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	1.87		2		94	75	128			
Surr: Toluene-d8	2.2		2		110	80	120			
Surr: 4-Bromofluorobenzene	1.84		2		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **07110805.D** Batch ID: **MS08A1108B** Analysis Date: **11/08/2007 11:02**

Sample ID: **GLCS MS08A1108B** Units : **mg/m³** Run ID: **MSD_08_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	396	10	400		99	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10		99	75	128			
Surr: Toluene-d8	10.2		10		102	80	120			
Surr: 4-Bromofluorobenzene	9.47		10		95	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date: *12-Nov-07*

QC Summary Report

Work Order: 07110724

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **07110806.D** Batch ID: **MS08A1108A** Analysis Date: **11/08/2007 11:34**

Sample ID: **MBLK MS08A1108A** Units : **mg/m³** Run ID: **MSD_08_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.87		2		94	75	128			
Surr: Toluene-d8	2.2		2		110	80	120			
Surr: 4-Bromofluorobenzene	1.84		2		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **07110804.D** Batch ID: **MS08A1108A** Analysis Date: **11/08/2007 10:41**

Sample ID: **LCS MS08A1108A** Units : **mg/m³** Run ID: **MSD_08_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.92	0.1	10		99	70	130			
Benzene	10.4	0.1	10		104	70	130			
Toluene	10.4	0.1	10		104	80	120			
Ethylbenzene	10.1	0.1	10		101	80	120			
m,p-Xylene	9.89	0.1	10		99	70	130			
o-Xylene	9.77	0.1	10		98	70	130			
Surr: 1,2-Dichloroethane-d4	10.7		10		107	75	128			
Surr: Toluene-d8	10		10		100	80	120			
Surr: 4-Bromofluorobenzene	8.93		10		89	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07110724

Report Due By : 5:00 PM On : 15-Nov-07

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

EDD Required : **Yes**

Sampled by : CHILL

PO :

Client's COC # : 18499 Job : USA 57

Cooler Temp	Samples Received	Date Printed
20 °C	07-Nov-07	**07-Nov-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_A	VOC_A						Sample Remarks
STR07110724-01A	00057 A SYS INF	AR	11/06/07 07:22	1	0	6	GAS-N/C	BTEX/MTBE						Tedlar
STR07110724-02A	00057 A SYS EFF	AR	11/06/07 07:20	1	0	6	GAS-N/C	BTEX/MTBE						Tedlar

Comments: Security seals intact. Ice N/A. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	K Murray	K Murray	**Alpha Analytical, Inc.**	11/7/07 1010

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus ENV
Address 3330 Cameron Pk Dr #550
City, State, Zip Cameron Pk
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 of 1

Client Name: USA 57	P.O. #	Job #
Address	EMail Address	
City, State, Zip: Oakland	Phone #	Fax #

Sampled by: CHILL
Report Attention: Scott

Analyses Required: GRO-BTEX, MTBE

Required QC Level? I II III IV
EDD / EDF? YES ___ NO ___
Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO-BTEX	MTBE						REMARKS
0722	11/6/07	AR	STR07110724-01	00057 A SYS INF	STD		1-T	X	X						
0720	11/6/07	AR	02	00057 A SYS EFF	STD		1-T	X	X						

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	CHILL	Stratus	110607	1430
Received by	[signature]	Lisa de Silva	ALPHA	110607	1430
Relinquished by					
Received by	K Murray	K Murray	AAI	11/7/07	1005
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received 11/07/07

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration		Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	430		200 µg/L	11/06/07	11/08/07
00057 W INF	Tertiary Butyl Alcohol (TBA)	41		20 µg/L	11/06/07	11/08/07
Lab ID :	Methyl tert-butyl ether (MTBE)	9.0		1.0 µg/L	11/06/07	11/08/07
STR07110726-01A	Di-isopropyl Ether (DIPE)	ND	V	2.0 µg/L	11/06/07	11/08/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	2.0 µg/L	11/06/07	11/08/07
	Benzene	140		1.0 µg/L	11/06/07	11/08/07
	Tertiary Amyl Methyl Ether (TAME)	ND	V	2.0 µg/L	11/06/07	11/08/07
	Toluene	33		1.0 µg/L	11/06/07	11/08/07
	Ethylbenzene	9.6		1.0 µg/L	11/06/07	11/08/07
	m,p-Xylene	41		1.0 µg/L	11/06/07	11/08/07
	o-Xylene	20		1.0 µg/L	11/06/07	11/08/07
Client ID :	TPH-P (GRO)	ND		50 µg/L	11/06/07	11/08/07
00057 W EFF	Tertiary Butyl Alcohol (TBA)	ND		10 µg/L	11/06/07	11/08/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	11/06/07	11/08/07
STR07110726-02A	Di-isopropyl Ether (DIPE)	ND		1.0 µg/L	11/06/07	11/08/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 µg/L	11/06/07	11/08/07
	Benzene	ND		0.50 µg/L	11/06/07	11/08/07
	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 µg/L	11/06/07	11/08/07
	Toluene	ND		0.50 µg/L	11/06/07	11/08/07
	Ethylbenzene	ND		0.50 µg/L	11/06/07	11/08/07
	m,p-Xylene	ND		0.50 µg/L	11/06/07	11/08/07
	o-Xylene	ND		0.50 µg/L	11/06/07	11/08/07

Gasoline Range Organics (GRO) C4-C13

V = Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

11/14/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR07110726 **Project:** USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07110726-01A	00057 W INF	Aqueous	2
07110726-02A	00057 W EFF	Aqueous	2

11/14/07

Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *12-Nov-07*

QC Summary Report

Work Order: 07110726

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110804.D** Batch ID: **MS09W1108B** Analysis Date: **11/08/2007 12:24**

Sample ID: **MBLK MS09W1108B** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	9.64		10		96	75	128			
Surr: Toluene-d8	10.8		10		108	80	120			
Surr: 4-Bromofluorobenzene	9.24		10		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110803.D** Batch ID: **MS09W1108B** Analysis Date: **11/08/2007 12:01**

Sample ID: **GLCS MS09W1108B** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	373	50	400		93	70	130			
Surr: 1,2-Dichloroethane-d4	9.39		10		94	75	128			
Surr: Toluene-d8	10.8		10		108	80	120			
Surr: 4-Bromofluorobenzene	9.06		10		91	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110810.D** Batch ID: **MS09W1108B** Analysis Date: **11/08/2007 14:40**

Sample ID: **07110726-02AGS** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1420	250	2000	0	71	60	131			
Surr: 1,2-Dichloroethane-d4	47.6		50		95	75	128			
Surr: Toluene-d8	53.5		50		107	80	120			
Surr: 4-Bromofluorobenzene	45.3		50		91	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110811.D** Batch ID: **MS09W1108B** Analysis Date: **11/08/2007 15:03**

Sample ID: **07110726-02AGSD** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1490	250	2000	0	74	60	131	1424	4.4(20)	
Surr: 1,2-Dichloroethane-d4	45.7		50		91	75	128			
Surr: Toluene-d8	54.5		50		109	80	120			
Surr: 4-Bromofluorobenzene	44.2		50		88	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: 12-Nov-07

QC Summary Report

Work Order: 07110726

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110804.D** Batch ID: **MS09W1108A** Analysis Date: **11/08/2007 12:24**

Sample ID: **MBLK MS09W1108A** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	9.64		10		96	75	128			
Surr: Toluene-d8	10.8		10		108	80	120			
Surr: 4-Bromofluorobenzene	9.24		10		92	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110802.D** Batch ID: **MS09W1108A** Analysis Date: **11/08/2007 11:39**

Sample ID: **LCS MS09W1108A** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.81	0.5	10		88	70	130			
Benzene	8.88	0.5	10		89	70	130			
Toluene	9.91	0.5	10		99	80	120			
Ethylbenzene	10.5	0.5	10		105	80	120			
m,p-Xylene	10.5	0.5	10		105	70	130			
o-Xylene	10.8	0.5	10		108	70	130			
Surr: 1,2-Dichloroethane-d4	9.41		10		94	75	128			
Surr: Toluene-d8	11		10		110	80	120			
Surr: 4-Bromofluorobenzene	8.71		10		87	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110808.D** Batch ID: **MS09W1108A** Analysis Date: **11/08/2007 13:55**

Sample ID: **07110726-02AMS** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	51.8	1.3	50	0	104	62	139			
Benzene	44.8	1.3	50	0	90	70	130			
Toluene	48.8	1.3	50	0	98	67	130			
Ethylbenzene	50.7	1.3	50	0	101	70	130			
m,p-Xylene	51.1	1.3	50	0	102	69	130			
o-Xylene	54	1.3	50	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	47.1		50		94	75	128			
Surr: Toluene-d8	54.3		50		109	80	120			
Surr: 4-Bromofluorobenzene	43.2		50		86	80	120			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **D:\HPCHEM\MS09\DATA\071108\07110809.D** Batch ID: **MS09W1108A** Analysis Date: **11/08/2007 14:18**

Sample ID: **07110726-02AMSD** Units : **µg/L** Run ID: **MSD_09_071108A** Prep Date: **11/08/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	51	1.3	50	0	102	62	139	51.81	1.6(20)	
Benzene	44.3	1.3	50	0	89	70	130	44.79	1.2(20)	
Toluene	48.6	1.3	50	0	97	67	130	48.76	0.3(20)	
Ethylbenzene	50.5	1.3	50	0	101	70	130	50.69	0.3(20)	
m,p-Xylene	50.8	1.3	50	0	102	69	130	51.14	0.7(20)	
o-Xylene	53.3	1.3	50	0	107	70	130	54.02	1.3(20)	
Surr: 1,2-Dichloroethane-d4	46.4		50		93	75	128			
Surr: Toluene-d8	54.4		50		109	80	120			
Surr: 4-Bromofluorobenzene	43.3		50		87	80	120			

Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *12-Nov-07*

QC Summary Report

Work Order: 07110726

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

CA

WorkOrder : STR07110726

Report Due By : 5:00 PM On : 15-Nov-07

Report Attention	Phone Number	EMail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

PO :

Client's COC # : 18500 Job : USA 57

EDD Required : **Yes**

Sampled by : CHILL

Cooler Temp	Samples Received	Date Printed
4 °C	07-Nov-07	07-Nov-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_W	VOC_W							Sample Remarks
STR07110726-01A	00057 W INF	AQ	11/06/07 07:35	5	0	6	GAS-C	BTEX/OXY_C							
STR07110726-02A	00057 W EFF	AQ	11/06/07 07:30	5	0	6	GAS-C	BTEX/OXY_C							

Comments: Security seals intact. Frozen ice. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	K Murray	K Murray	Alpha Analytical, Inc.	11/7/07 1120

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus ENV
Address 3330 Cameron Pk DR
City, State, Zip Cameron Pk
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ____ CA X NV ____ WA ____
ID ____ OR ____ OTHER ________

Page # 1 of 1

Client Name USA 57	P.O. #	Job #
Address	EMail Address	
City, State, Zip Oakland	Phone #	Fax #

Sampled by CHILL — Report Attention Scott

Analyses Required: GRO/BTEX, 5 OXYS

Required QC Level? I II III IV
EDD / EDF? YES ___ NO ___
Global ID # ________

Time Sampled	Date Sampled	Matrix* See Key Below	Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO/BTEX	5 OXYS						REMARKS
0735	11/6	AQ	STR07110726-01	00057 W INF	STD		5-V	X	X						
0710	)	AQ	02	00057 W EFF	STD		5-V	X	X						

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	CHILL	Stratus	11-6-07	1430
Received by	[signature]	Lisa de Silva	ALPHA	11 6 07	1430
Relinquished by					
Received by	K Murray	K Murray	AAI	11/7/07	1115
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Gowri Kowtha
Phone: (530) 676-6001
Fax: (530) 676-6005
Date Received : 11/16/07

Job#: 2007-0057-01/ USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	77	15 mg/m³	11/15/07	11/16/07
0057 A INF	Methyl tert-butyl ether (MTBE)	ND	0.15 mg/m³	11/15/07	11/16/07
Lab ID :	Benzene	ND	0.15 mg/m³	11/15/07	11/16/07
STR07111602-01A	Toluene	0.15	0.15 mg/m³	11/15/07	11/16/07
	Ethylbenzene	ND	0.15 mg/m³	11/15/07	11/16/07
	m,p-Xylene	0.93	0.15 mg/m³	11/15/07	11/16/07
	o-Xylene	0.23	0.15 mg/m³	11/15/07	11/16/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in a Tedlar Bag are at 21 degrees Celsius and 25.65 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

11/26/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *21-Nov-07*

QC Summary Report

Work Order: 07111602

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111610.D** Batch ID: **MS07A1116B** Analysis Date: **11/16/2007 12:20**

Sample ID: **MBLK MS07A1116B** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	1.71		2		86	75	128			
Surr: Toluene-d8	2.01		2		101	80	120			
Surr: 4-Bromofluorobenzene	2.12		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111607.D** Batch ID: **MS07A1116B** Analysis Date: **11/16/2007 11:12**

Sample ID: **GLCS MS07B1116B** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	411	10	400		103	70	130			
Surr: 1,2-Dichloroethane-d4	9.14		10		91	75	128			
Surr: Toluene-d8	9.95		10		100	80	120			
Surr: 4-Bromofluorobenzene	10.5		10		105	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *21-Nov-07*

QC Summary Report

Work Order: 07111602

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111610.D** Batch ID: **MS07A1116A** Analysis Date: **11/16/2007 12:20**

Sample ID: **MBLK MS07A1116A** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.71		2		86	75	128			
Surr: Toluene-d8	2.01		2		101	80	120			
Surr: 4-Bromofluorobenzene	2.12		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111608.D** Batch ID: **MS07A1116A** Analysis Date: **11/16/2007 11:35**

Sample ID: **LCS MS07A1116A** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.51	0.1	10		85	70	130			
Benzene	10	0.1	10		100	70	130			
Toluene	10.6	0.1	10		106	80	120			
Ethylbenzene	10.4	0.1	10		104	80	120			
m,p-Xylene	10.5	0.1	10		105	70	130			
o-Xylene	10.2	0.1	10		102	70	130			
Surr: 1,2-Dichloroethane-d4	9.44		10		94	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	10.3		10		103	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07111602

Report Due By : 5:00 PM On : 27-Nov-07

Report Attention	Phone Number	EMail Address
Gowri Kowtha	(530) 676-6001 x	gkowtha@stratusinc.net

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

EDD Required : **Yes**

Sampled by : M. Morgan

PO :

Client's COC # : 14926 Job : 2007-0057-01/ USA 57

Cooler Temp	Samples Received	Date Printed
20 °C	16-Nov-07	**16-Nov-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_A	VOC_A						Sample Remarks
STR07111602-01A	0057 A INF	AR	11/15/07 09:10	1	0	6	GAS-N/C	BTEX/MTBE						TEDLAR

Comments: Security seals intact. Ice n/a. Send copy of receipt checklist with final report. :

	Signature	Print Name	Company	Date/Time
Logged in by:	E Sauvageau	E. Sauvageau	Alpha Analytical, Inc.	11-16-07 9:46

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus Environmental Inc.
Address 3330 Cameron Park Dr. #550
City, State, Zip Cameron Park, CA 95682
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 of 1

14926

Client Name	P.O. #	Job #
USA 57		2007-0057-01
Address	**EMail Address**	
City, State, Zip	**Phone #**	**Fax #**
Oakland, CA		

Analyses Required

Required QC Level? I II III IV

EDD / EDF? YES X NO ___

Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by MN Morgan / Lab ID Number (Office Use Only)	Report Attention Gowri Kowtha / Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO	BTEX	MTBE					REMARKS
0905	11/5/07	AR		0057AEFF	24hr		1-T	X	X	X					24hr TAT
0910	11/5/07	AR	STR0711602-01	0057AINF	Standard		1-T	X	X	X					STAT

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		Martin Morgan	Stratus	11/5/07	1250
Received by		Mike Lorton	Alpha	11/5/07	1250
Relinquished by					
Received by	E. Sauvageau	E. Sauvageau	Alpha	11/16/07	9:46
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Gowri Kowtha
Phone: (530) 676-6001
Fax: (530) 676-6005
Date Received : 11/16/07

Job#: 2007-0057-01/ USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH-P (GRO)	ND	15 mg/m³	11/15/07	11/16/07
0057 A EFF	Methyl tert-butyl ether (MTBE)	ND	0.15 mg/m³	11/15/07	11/16/07
Lab ID :	Benzene	ND	0.15 mg/m³	11/15/07	11/16/07
STR07111601-01A	Toluene	ND	0.15 mg/m³	11/15/07	11/16/07
	Ethylbenzene	ND	0.15 mg/m³	11/15/07	11/16/07
	m,p-Xylene	ND	0.15 mg/m³	11/15/07	11/16/07
	o-Xylene	ND	0.15 mg/m³	11/15/07	11/16/07

Gasoline Range Organics (GRO) C4-C13
Note: Concentrations of air in a Tedlar Bag are at 21 degrees Celsius and 25.65 inches of mercury.
ND = Not Detected

Roger Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

11/16/07
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *19-Nov-07*

QC Summary Report

Work Order: 07111601

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111610.D** Batch ID: **MS07A1116B** Analysis Date: **11/16/2007 12:20**

Sample ID: **MBLK MS07A1116B** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	10								
Surr: 1,2-Dichloroethane-d4	1.71		2		86	75	128			
Surr: Toluene-d8	2.01		2		101	80	120			
Surr: 4-Bromofluorobenzene	2.12		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111607.D** Batch ID: **MS07A1116B** Analysis Date: **11/16/2007 11:12**

Sample ID: **GLCS MS07B1116B** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	411	10	400		103	70	130			
Surr: 1,2-Dichloroethane-d4	9.14		10		91	75	128			
Surr: Toluene-d8	9.95		10		100	80	120			
Surr: 4-Bromofluorobenzene	10.5		10		105	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date: *19-Nov-07*

QC Summary Report

Work Order: 07111601

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111610.D** Batch ID: **MS07A1116A** Analysis Date: **11/16/2007 12:20**

Sample ID: **MBLK MS07A1116A** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.71		2		86	75	128			
Surr: Toluene-d8	2.01		2		101	80	120			
Surr: 4-Bromofluorobenzene	2.12		2		106	80	120			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **C:\HPCHEM\MS07\DATA\071116\07111608.D** Batch ID: **MS07A1116A** Analysis Date: **11/16/2007 11:35**

Sample ID: **LCS MS07A1116A** Units : **mg/m³** Run ID: **MSD_07_071116A** Prep Date: **11/16/2007**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.51	0.1	10		85	70	130			
Benzene	10	0.1	10		100	70	130			
Toluene	10.6	0.1	10		106	80	120			
Ethylbenzene	10.4	0.1	10		104	80	120			
m,p-Xylene	10.5	0.1	10		105	70	130			
o-Xylene	10.2	0.1	10		102	70	130			
Surr: 1,2-Dichloroethane-d4	9.44		10		94	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	10.3		10		103	80	120			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA **RUSH!**

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR07111601

Report Due By : 5:00 PM On : 16-Nov-07

Client:
Stratus Environmental
3330 Cameron Park Drive
Suite 550
Cameron Park, CA 95682-8861

Report Attention	Phone Number	EMail Address
Gowri Kowtha	(530) 676-6001 x	gkowtha@stratusinc.net

EDD Required : **Yes**

Sampled by : M. Morgan

PO :

Client's COC # : 14926 Job : 2007-0057-01/ USA 57

Cooler Temp	Samples Received	Date Printed
20 °C	16-Nov-07	**16-Nov-07**

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles Alpha	Sub	TAT	Requested Tests TPH/P_A	VOC_A							Sample Remarks
STR07111601-01A	0057 A EFF	AR	11/15/07 09:05	1	0	1	GAS-N/C	BTEX/MTBE							TEDLAR

Comments: Security seals intact. Ice n/a. Send copy of receipt checklist with final report. ASAP TAT. :

	Signature	Print Name	Company	Date/Time
Logged in by:	Elizabeth Sauvageau	Elizabeth Sauvageau	**Alpha Analytical, Inc.**	11-16-07 9:36

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
Name Stratus Environmental Inc.
Address 3330 Cameron Park Dr. #550
City, State, Zip Cameron Park, CA 95682
Phone Number 5306766004 Fax 5306766005

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, Nevada 89431-5778
Phone (775) 355-1044
Fax (775) 355-0406

Samples Collected From Which State?
AZ ___ CA X NV ___ WA ___
ID ___ OR ___ OTHER ___

Page # 1 of 1

14926

Client Name	P.O. #	Job #
USA 57		2007-0057-01
Address	EMail Address	
City, State, Zip Oakland, CA	Phone #	Fax #

Analyses Required

Required QC Level? (I) II III IV

EDD / EDF? YES X NO ___

Global ID # ___

Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by / Lab ID Number (Office Use Only)	Report Attention / Sample Description	TAT	Field Filtered	Total and type of containers ** See below	GRO	BTEX	MTBE					REMARKS
0905	11/5/07	AR	STR0711160l -01	Gowri Kontha / 0057AEFF	24hr		1-T	X	X	X					24hr TAT
0910	11/5/07	AR		0057AINF	Standard		1-T	X	X	X					STAT

ADDITIONAL INSTRUCTIONS:

	Signature	Print Name	Company	Date	Time
Relinquished by		Martin Morgan	Stratus	11/5/07	1250
Received by		Mike Kirkham	Alpha	11/5/07	1250
Relinquished by					
Received by	E. Sauvageau	E. Sauvageau	Alpha	11-16-07	9:36
Relinquished by					
Received by					

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.