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Environmental Health

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February 28, 2007
Project No. E2111-03

Mr. Robert E. Cave
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Re: Source Test Report
Application Number: 09947 and Plant Number: 16189
ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California 94577

Dear Mr. Cave:

Stratus Environmental Inc. (Stratus) has prepared this letter, on behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), to present the results of source testing conducted during the start-up of a dual phase extraction (DPE) system, air stripper (AS) system, and a groundwater extraction and treatment (GET) system at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (see Figure 1). The start-up operations of the remediation systems were conducted on January 29, 2007, in accordance with the requirements identified in Bay Area Air Quality Management District (BAAQMD) authority to construct (Plant Number 16189, dated March 9, 2006), City of San Leandro sewer discharge permit (No. SD-036 dated July 7, 2006) and Stratus' *Start-up Notification letter* dated January 24, 2007.

Upon start-up, petroleum hydrocarbon laden soil vapors and groundwater were extracted from wells V-1, V-2, V-3, MW-1, MW-3, and MW-7 (see Figure 2) using the 20-horsepower (hp) liquid ring pump on the DPE system. Soil vapors were separated from groundwater in the knockout tank of the DPE system, which were then routed through two 2,000-pound vapor phase carbon vessels, in series, prior to discharge to the atmosphere. Groundwater in the knockout tank was transferred into an oil-water separator/holding tank pending treatment using the AS and the aqueous phase carbon vessels. Groundwater was also extracted from well MW-2 using a ¾-hp electric submersible pump and stored in the oil-water separator/holding tank pending treatment using the AS and the aqueous phase carbon vessels. The groundwater from the oil-water separator/holding tank was routed through an AS that incorporates a series of stripper trays where the petroleum hydrocarbons are volatilized by ambient air. Ambient air is drawn into the AS using a 7.5-hp blower that applies vacuum on the positive side of the

AS. Volatilized petroleum hydrocarbons are routed through the two 2,000-pound vapor phase carbon vessels prior to discharge to the atmosphere. Two 2,000-pound aqueous phase carbon vessels are used to remove residual petroleum hydrocarbons post AS, prior to discharge to the sanitary sewer. A process flow illustration for the soil vapor and groundwater extraction and treatment is presented in Figure 3.

SYSTEM START-UP AND OPERATION

Upon start-up of the remediation systems, the following parameters were monitored and recorded on field data sheets on a daily basis until a request for a revised monitoring frequency of bi-monthly (once every 15 days) was approved by BAAQMD (on February 1, 2007):

- Soil vapor extraction flow rate and temperature on the positive side of the liquid ring pump of the DPE system,
- Air flow rate and temperature on the positive side of the AS blower,
- Influent air flow rate and temperature to the first carbon adsorption vessel,
- Applied vacuum to the extraction wells,
- Effluent totalizer readings after AS treatment and after carbon treatment, and
- PID measurements for organic vapors before and after carbon treatment and between carbon vessels.

In accordance with BAAQMD permit requirements, one set of influent (positive side of the liquid ring pump, positive side of the AS blower, inlet to the first carbon vessel), mid-fluent (between first and second carbon vessels), and effluent air samples were collected on the start-up day (January 29, 2007). In addition, a water sample influent to the AS was also collected on the start-up day and for two consecutive days after the start-up. The air samples were analyzed by TestAmerica Analytical Testing Corporation, a state certified laboratory (ELAP #1210), for gasoline range organics (GRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8015/8021. The water samples were analyzed for GRO by USEPA Method 8015, and for BTEX, MTBE, ethyl tert-butyl ether (ETBE), tertiary amyl methyl ether (TAME), di-isopropyl ether (DIPE), and tertiary butyl alcohol (TBA) by USEPA Method 8260B. Tabulated summaries of field measurements and analytical results are presented in Tables 1 through 4. Copies of field data sheets are included in Appendix A and certified analytical reports with chain of custody documentation are included in Appendix B.

During the first week of operation (January 29 through February 2, 2007), the soil vapor flow rates measured on the discharge side of the liquid ring pump (at 02111DPEAINF, see Figure 3) of the DPE system were in the range of approximately 49.30 to 69.88 cfm (Table 1), the soil vapor flow rates on the discharge side of the AS blower (at 02111ASAEFF) were in the range of approximately 112.27 to 192.85 cfm, and the soil vapor flow rates prior to the entry to the first carbon vessel (at 02111ASYSINF) were in the range of approximately 198 to 210 cfm. The effluent soil vapor flow rate (at 02111AEFF) was assumed to be equal to the flow rate flow rate entering the carbon vessels.

The petroleum hydrocarbon concentrations measured using a photo-ionization detector (PID) were in the range of approximately 67 to 431 parts per million by volume (ppmv) at sample port 02111DPEAINF, 7 to 151 ppmv at sample port 02111ASAEFF, and 23 to 79.5 ppmv at sample port 02111ASYSINF. Petroleum hydrocarbon concentrations measured using a PID were below detectable levels (0 ppmv) for the effluent air (02111AEFF). The initial (on January 29, 2007) petroleum hydrocarbon concentrations, measured using a PID, at the sample port between the carbon vessels (02111AGAC1) were at 84 ppmv, which during subsequent visits declined to less than 5 ppmv. In the 02111AGAC1 samples collected on January 29 and 30, 2007, petroleum hydrocarbons were below laboratory reporting limits. The initial high concentration measured at sample port 02111AGAC1 was probably from the glue or other construction materials that may have been used in making the piping joints or connections to the carbon vessels.

In the laboratory analyzed air samples collected on January 29, 2007, the influent (02111DPEAINF) GRO and benzene concentrations were at 340 milligrams per cubic meter (mg/m^3) and $9.7 \text{ mg}/\text{m}^3$, respectively (Table 2). Petroleum hydrocarbon concentrations were below laboratory reporting limits in the effluent air sample collected on January 29, 2007. Based on the flow rates measured and the effluent concentrations for January 29, 2007, the GRO and benzene mass emission rates were estimated to be less than 0.164 pounds per day (lbs/day) and less than 0.002 pounds per day (Table 3).

The GRO, benzene, and MTBE concentrations in the AS influent water sample (02111ASWINF) on the start-up day (January 29, 2007) were at 2,000 micrograms per liter ($\mu\text{g}/\text{L}$), $35 \mu\text{g}/\text{L}$, and $1,300 \mu\text{g}/\text{L}$, respectively (see Table 4). The GRO, benzene, and MTBE concentrations in the AS influent water sample collected on January 30, 2007, were at $330 \mu\text{g}/\text{L}$, less than $12 \mu\text{g}/\text{L}$, and $440 \mu\text{g}/\text{L}$, respectively, and for samples collected on January 31, 2007, the concentrations were at $300 \mu\text{g}/\text{L}$, less than $12 \mu\text{g}/\text{L}$, and $490 \mu\text{g}/\text{L}$, respectively.

Based on the field data collected until February 1, 2007, and the effluent air results for January 29, 2007, Stratus in an e-mail correspondence to BAAQMD on February 1, 2007,

Mr. Robert E. Cave, BAAQMD
Source Test Report (Plant No. 16189)
ARCO Facility No. 2111
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requested to modify the monitoring frequency from daily to bimonthly basis. BAAQMD subsequently approved this request in an e-mail correspondence on the same day.

The field and analytical data collected during the first week of operation of the remediation systems appear to be in compliance with the requirements identified in the BAAQMD authority to construct. Hence, Stratus requests BAAQMD to issue a permit to operate.

Stratus will continue to operate the DPE system in accordance with BAAQMD requirements and conduct bi-monthly site visits to verify system operation, optimize system performance, and conduct routine maintenance. In addition, influent and effluent air and water samples will be collected on a monthly basis and forwarded to a state-certified laboratory for chemical analysis. The analytical results of air samples and the performance of the DPE system will be summarized in quarterly monitoring reports that will be prepared and submitted by Broadbent & Associates, Inc.

If you have any questions, please contact Kiran Nagaraju at (530) 676-6007.

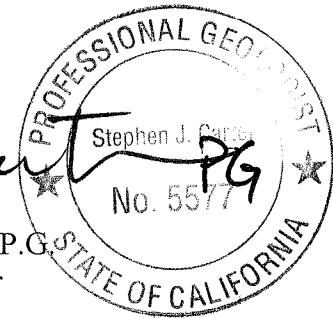
Sincerely,

STRATUS ENVIRONMENTAL, INC.



Kiran Nagaraju
Staff Engineer

JR Jay R. Johnson, P.G.
Project Manager



Attachments	Table 1	DPE and AS System Parameters
	Table 2	Flow Rate and Analytical Summary of Air Samples
	Table 3	Emission Rates and Destruction Efficiencies
	Table 4	Groundwater Analytical Data Summary
	Figure 1	Site Location Map
	Figure 2	Site Plan
	Figure 3	Process Flow Diagram
	Appendix A	Field Data Sheets
	Appendix B	Certified Analytical Report with Chain-of-Custody Documentation

cc: Mr. Paul Supple, Atlantic Richfield Company
Ms. Tiffany Treece, City of San Leandro
Mr. Rob Miller, Broadbent and Associates, Inc.

Table 1
DPE and AS System Parameters
 ARCO Facility No. 2111
 1156 Davis Street
 San Leandro, California

Date	Hour Meter Reading	System Uptime	Influent Air (after DPE liquid ring pump, measured at 2111DPEAINF)			Air Stripper Air (measured at 2111ASAEFF)			System Influent Air (influent to 1st Carbon vessel, measured at 2111ASYSINF)			Effluent Stack (2111AEFF)		
			Flow Rate	Temp.	PID	Flow Rate	Temp.	PID	Flow Rate	Temp.	PID	Flow Rate ²	Temp.	PID
			cfm	deg F	ppmv	cfm	deg F	ppmv	cfm	deg F	ppmv	cfm	deg F	ppmv
1/29/2007 8:00	13.60	NA	Start-up of the remediation system											
1/29/2007 8:00	13.60	NA	64.08	160	431	174.25	102	151	198.00	106.5	47	198.00	58	0
1/30/2007 4:45	33.80	97.3%	54.12	151	67	192.85	98	7	200.00	70	23	200.00	56	0
1/31/2007 5:30	60.30	100.0%	49.30	159	110	190.23	105	76	210.00	100	79.5	210.00	83	0
2/1/2007 5:15	82.30	92.6%	62.37	160	203	112.27	113	10	200.00	108	65	200.00	88	0
2/2/2007 5:00	106.70	100.0%	69.88	160	195	127.63	115	10	200.00	108	70	200.00	87	0

Notes:

DPE = dual phase extraction system

AS = Air Stripper

cfm = cubic feet per minute

deg F = degree Fahrenheit

ppmv = parts per million by volume

02111DPEAINF = Air sample collected on the positive side of the liquid ring pump.

02111ASAEFF = Air sample collected from the effluent sample port of the air stripper

02111ASYSINF = Air sample representative of air flow from the liquid ring pump and also the air stripper. This sample is collected before the first carbon vessel.

¹System uptime is calculated as the difference of hour meter reading of two consecutive site visits over the actual number of calendar days between those two site visits.

For e.g. : If the hour meter readings on 01/29/07 at 0800 hours is 13.60 and the hour meter reading on 1/30/07 at 0600 hours is 33.80, then system uptime is calculated as:

$$= \frac{(33.80 - 13.60) \text{ hours}}{(1/30/07 0600 - 1/29/07 0800) \text{ days}} \times \frac{\text{days}}{\text{hours}} = 100\%$$

²Effluent flow rate is assumed to be equal to the system influent air flow rate

Table 2
Flow Rate and Analytical Summary of Air Samples
 ARCO Facility No. 2111
 1156 Davis Street
 San Leandro, California

Date	System Influent			Sample ID	Analytical Results (mg/m ³)					
	Flow Rate ¹		Temp. (°F)		GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	(acfm)	(scfm)								
01/29/07	198.00	184.54	106.50	02111DPEAINF	340	9.7 [1]	<1.0	<1.0	<2.0	58
				02111ASAEFF	<10	0.19	<0.10	0.10	<0.20	5.1
				02111ASYSINF	77	<0.50	<0.50	<0.50	<1.0	9.4
				02111AGAC1	<10	<0.10	<0.10	<0.10	<0.20	<0.50
				02111AEFF	<10	<0.10	<0.10	<0.10	<0.20	<0.50
01/30/07	200.00	199.25	70.00	02111DPEAINF	NS	NS	NS	NS	NS	NS
				02111ASAEFF	NS	NS	NS	NS	NS	NS
				02111ASYSINF	NS	NS	NS	NS	NS	NS
				02111AGAC1	<10	<0.10	<0.10	<0.10	<0.20	<0.50
				02111AEFF	NS	NS	NS	NS	NS	NS

Notes:

02111DPEAINF = Air sample collected on the positive side of the liquid ring pump.

02111ASAEFF = Air sample collected from the effluent sample port of the air stripper

02111ASYSINF = Air sample representative of air flow from the liquid ring pump and also the air stripper. This sample is collected before the first carbon vessel.

02111AGAC1 = Air sample collected between the first and the second carbon vessel

02111AEFF = Air sample collected after the second carbon vessel and is representative of the air discharged to the atmosphere

GRO - gasoline range organics

BTEX = Benzene, toluene, ethylbenzene, and total xylenes

MTBE = Methyl tertiary butyl ether

acfm = actual cubic feet per minute

scfm = standard cubic feet per minute

Temp. = Temperature in degrees Fahrenheit

mg/m³ = milligrams per cubic meter

NS = Not sampled

Analytical Laboratory:

Test America (ELAP #1210)

Analytical Methods:

GRO, BTEX, and MTBE analyzed by EPA Method 8015B/8021B

¹ Flow rate (acfm) measured using standard calibrated devices is converted to standard flow rate (scfm) using the following formula:

$$\text{Temperature Corrected influent flow rate} = \text{Measured flow rate} * \{(460 \text{ R} + 68 \text{ deg F}) / (\text{deg F} + 460 \text{ R})\}$$

Since flow rate is measured on the positive side of the liquid ring blower package, flow is corrected only for temperature

[1] Primary and confirm results varied by more than 40% RPD

Table 3
Emission Rates and Destruction Efficiencies

ARCO Facility No. 2111
1156 Davis Street
San Leandro, California

Date	System Influent Flow Rate (scfm) ¹	Effluent Flow Rate ² (acfm)	Influent (mg/m ³)			Effluent concentration (mg/m ³)			Emissions Rate to Atmosphere (lbs/day)			Dest. Removal Efficiency %	
			GRO	C ₆ H ₆	MTBE	GRO	C ₆ H ₆	MTBE	GRO	C ₆ H ₆	MTBE	GRO	C ₆ H ₆
01/29/07	184.54	184.54	77	<0.50	9.4	<10	<0.10	<0.50	<0.164	<0.002	<0.008	>87.01%	--

Notes:

GRO = Gasoline Range Organics C4-C12

Dest. = Destruction

C₆H₆ = Benzene

¹ Corrected for temperature.

² Effluent Flow rate = System Influent Flow Rate

Sample Calculations

$$\text{Emission Rate (lbs/day)} = \frac{89.81 \text{ cu ft}}{\text{min}} \times \frac{10 \text{ mg}}{\text{cu meter}} \times \frac{0.028 \text{ cu meter}}{\text{cu ft}} \times \frac{\text{lb}}{454000 \text{ mg}} \times \frac{1,440 \text{ min}}{\text{day}}$$

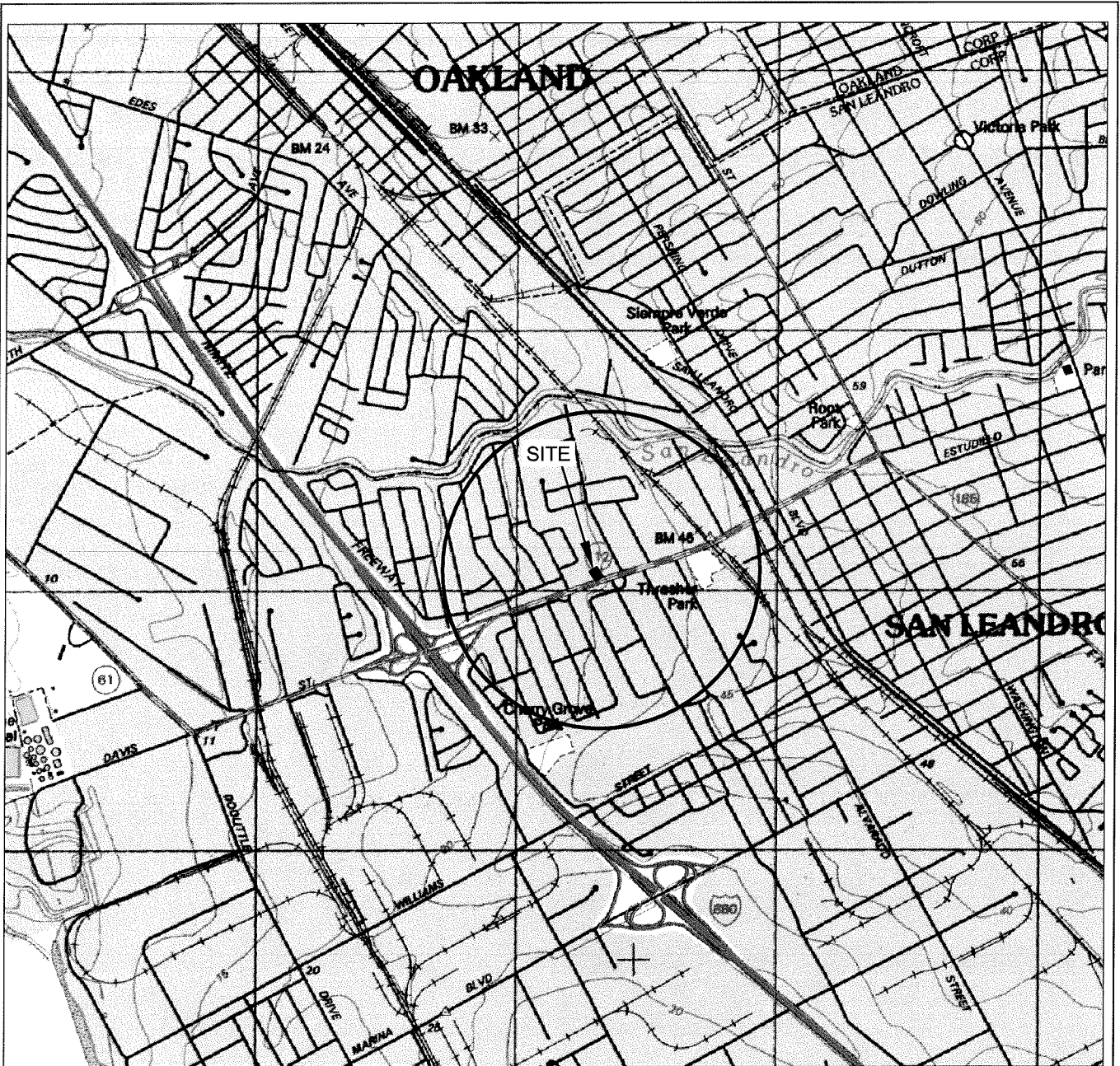
$$\text{Dest. Removal Efficiency, \%} = \frac{\text{Influent} - \text{Effluent}}{\text{Influent}}$$

Table 4
Groundwater Analytical Data Summary
 ARCO Facility No. 2111
 1156 Davis Street
 San Leandro, California

Date	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)
01/29/07	02111DPEWINF	480	<5.0	<5.0	<5.0	<5.0	720	4,600	<5.0	<5.0	<5.0
	02111MW2WINF	930	41	<5.0	27	10	1,300	1,500	<5.0	<5.0	<5.0
	02111ASWINF	2,000	35	<12	23	14	1,300	1,800	<12	<12	<12
	02111ASWEFF	92	<0.50	<0.50	<0.50	<0.50	150	1,900	<0.50	<0.50	<0.50
	02111WGAC1	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50
	02111WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50
	02111WEFF	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50
01/30/07	02111DPEWINF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111MW2WINF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111ASWINF	330 [1][2]	<12	31	<12	25	440	3,600	<12	<12	<12
	02111ASWEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WGAC1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
01/31/07	02111DPEWINF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111MW2WINF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111ASWINF	300 [2]	<12	<12	<12	<12	490	3,200	<12	<12	<12
	02111ASWEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WGAC1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02111WEFF	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 4
Groundwater Analytical Data Summary
 ARCO Facility No. 2111
 1156 Davis Street
 San Leandro, California

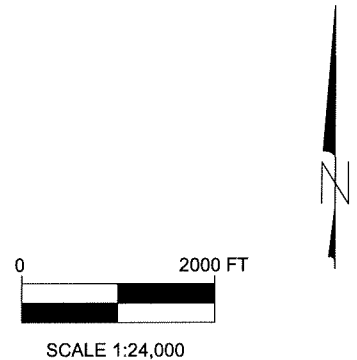
Date	Sample ID	GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
<u>Notes:</u>											
02111DPE WINF = Sample representative of water collected in the knockout tank of the DPE system											
02111MW2WINF = Sample representative of water collected at the manifold for well MW-2 (well has submersible pump)											
02111ASWINF = Sample representative of water that is transferred from oil/water separator to the air stripper. This is influent to the air stripper (Note: Water from well MW-2 and from the knockout tank are collected in the oil/water separator and then transferred to air stripper)											
02111ASWEFF = Sample representative of effluent water collected after treatment using the air stripper and before it enters the first carbon vessel											
02111WGAC1 = Sample collected between the first and second carbon vessels.											
02111WEFF = Sample representative of treated water (after second carbon vessel) that is discharged to the sewer.											
GRO = Gasoline Range Organics C4-C13						<u>Analytical Laboratory:</u>					
BTEX = Benzene, toluene, ethylbenzene, and total xylenes						Test America (ELAP #1210)					
MTBE = Methyl tertiary butyl ether						<u>Analytical Methods:</u>					
TBA = Tertiary butyl alcohol						GRO analyzed by EPA Method 8015B/DHS LUFT					
DIPE = Di-isopropyl ether						BTEX and Oxygenates analyzed by EPA Method 8260B					
ETBE = Ethyl tertiary butyl ether											
TAME = Tertiary amyl methyl ether											
µg/L = micrograms per liter											
[1] Initial analysis within holding time but required dilution											
[2] Hydrocarbon result partly due to individual peak(s) in quant. range											



GENERAL NOTES:
 BASE MAP FROM U.S.G.S., 7.5 MINUTE TOPOGRAPHIC
 SAN LEANDRO, CA. PHOTO REVISED 1980



QUADRANGLE LOCATION



ARCO 2111 Site Location Map.dwg
Feb. 20, 2007

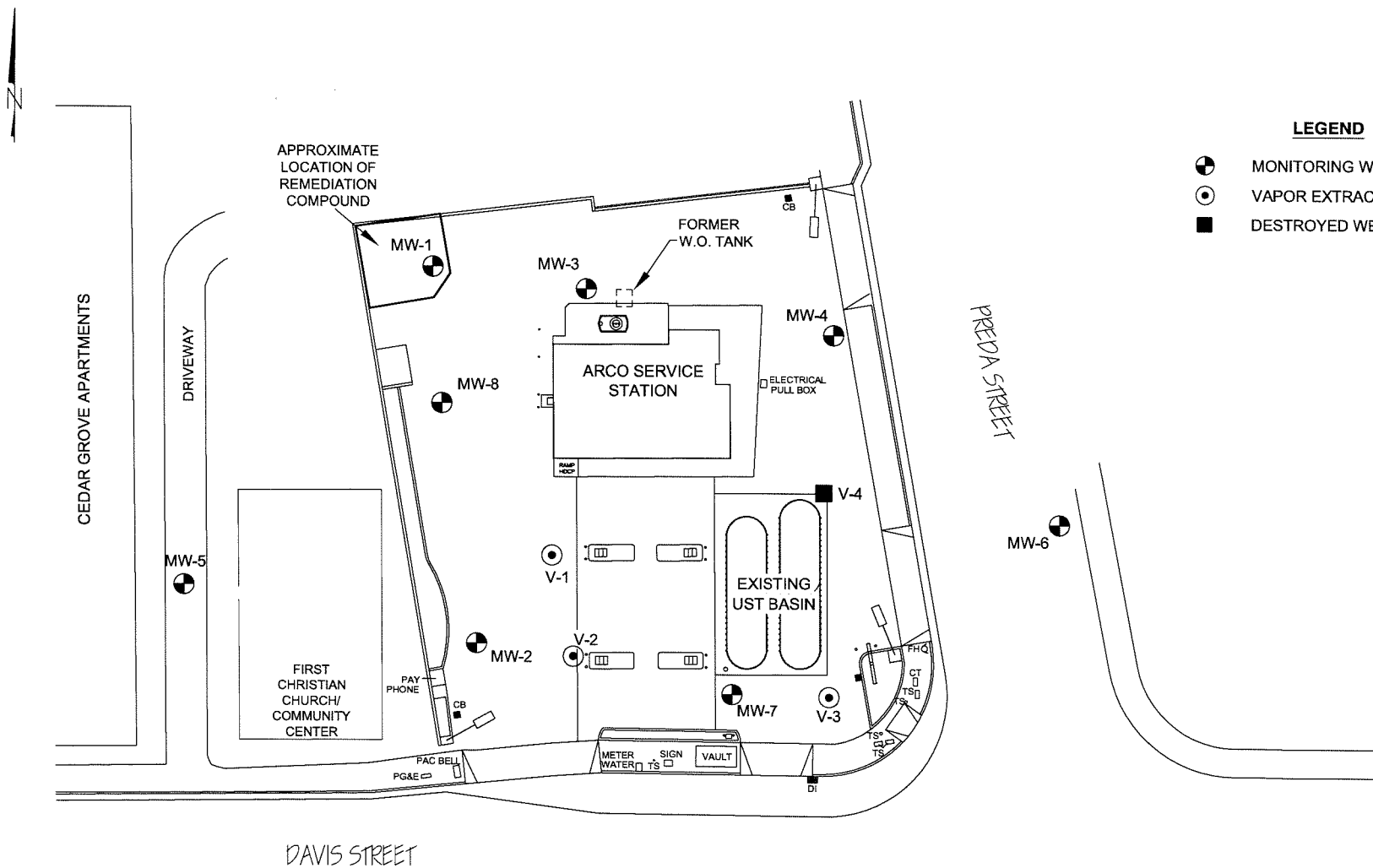
.JMP
ARCO2111

STRATUS
 ENVIRONMENTAL, INC.

ARCO SERVICE STATION NO. 2111
 1156 DAVIS STREET
 SAN LEANDRO, CALIFORNIA
 SITE LOCATION MAP

FIGURE
1
 PROJECT NO.
 U2111

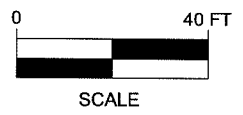
ARCO2111 JMP REV Feb. 20, 2007 BB 2111 Siteplan.dwg



LEGEND

- MONITORING WELL LOCATION
- ⊙ VAPOR EXTRACTION WELL LOCATION
- DESTROYED WELL LOCATION

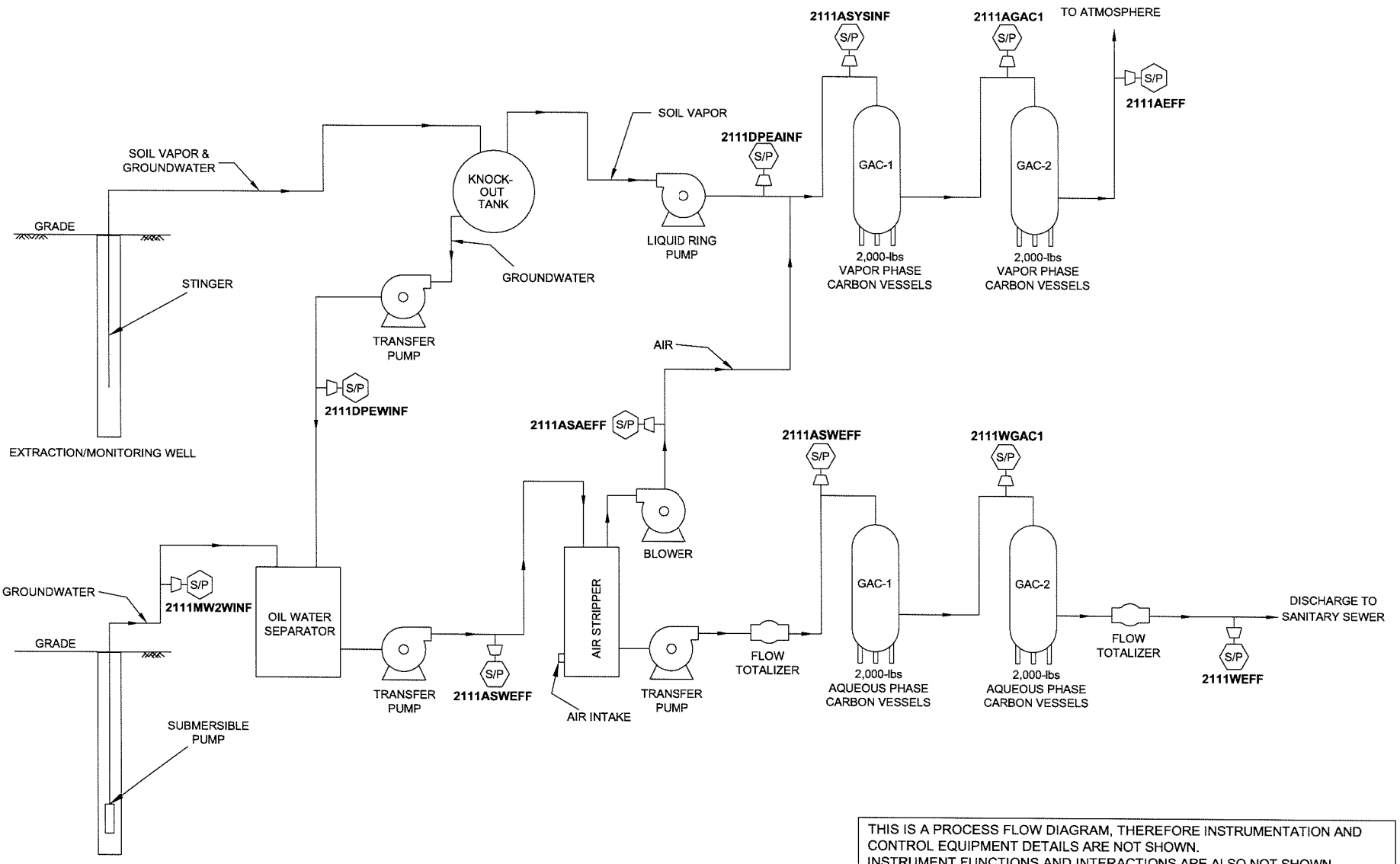
NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES.
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



ARCO SERVICE STATION NO. 2111
1156 DAVIS STREET
SAN LEANDRO, CALIFORNIA

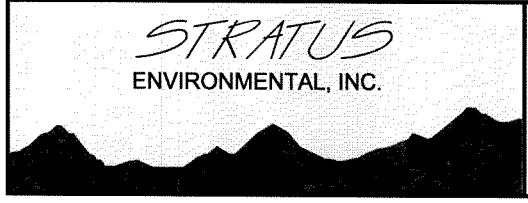
SITE PLAN

FIGURE
2
PROJECT NO.
U2111



GROUNDWATER EXTRACTION & TREATMENT SYSTEM
NOT TO SCALE

THIS IS A PROCESS FLOW DIAGRAM, THEREFORE INSTRUMENTATION AND CONTROL EQUIPMENT DETAILS ARE NOT SHOWN. INSTRUMENT FUNCTIONS AND INTERACTIONS ARE ALSO NOT SHOWN. EQUIPMENT SIZES ARE NOT PROPORTIONAL AND ARE NOT INDICATIVE OF FINAL SIZES.



ARCO SERVICE STATION NO. 2111
1156 DAVIS STREET
SAN LEANDRO, CALIFORNIA
PROCESS FLOW DIAGRAM

FIGURE
3
PROJECT NO.
U2111

APPENDIX A

FIELD DATA SHEETS

ARCO FACILITY NO. 2111
1156 Davis Street
San Leandro, California
Dual Phase Extraction and Air Stripper System



Date: 1/29/07
Onsite Time: 0615 hrs
Offsite Time: 1200 hrs
Equipment Manufacturer/Model# _____

Technician: Chill / Kiran
Weather Conditions: Cold & Clear
Ambient Temperature: ~ 60°F

System Information	
System Status Upon Arrival:	Operational <input type="checkbox"/> Non-Operational <input checked="" type="checkbox"/>
System Status Upon Departure:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
Electric Meter Reading:	_____ Start-up @ 0800 hrs
Hour Meter Reading:	<u>13.6</u>
Totalizer Reading Prior to Air Stripper:	<u>NA</u> PID Calibration Date: <u>1/26/07</u>
Totalizer Reading After Air Stripper:	<u>4300</u>

Field Measurements					
Parameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "wc					
Air Velocity, FPM	<u>1305</u>	<u>1996</u>			
Pipe Diameter, inches	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>	
Air Flow Rate, cfm			<u>198</u>		
Applied Vacuum, "wc	<u>21" Hg</u>	<u>22" WC</u>	<u>NA</u>	<u>NA</u>	
Temperature, deg F	<u>160</u>	<u>102</u>	<u>106.5</u>	<u>58</u>	
PID Readings, ppmv	<u>431</u>	<u>151</u>	<u>47</u>	<u>0</u>	PID for GAC-1: <u>84 ppmv</u>

Other Readings/Measurements						
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	Depth to Water, feet bgs	Well dia., "
V-1	<u>1/4</u>	<u>6</u>	<u>18.9</u>	<u>18</u>	<u>15.55</u>	<u>4</u>
V-2	}	<u>12</u>	<u>19</u>	<u>18.5</u>	<u>15.06</u>	<u>4</u>
V-3		<u>15</u>	<u>19.3</u>	<u>19</u>	<u>14.76</u>	<u>4</u>
MW-1		<u>15</u>	<u>26</u>	<u>25.5</u>	<u>17.0</u>	<u>4</u>
MW-3		<u>18</u>	<u>26.2</u>	<u>25.7</u>	<u>16.18</u>	<u>4</u>
MW-7		<u>18</u>	<u>26</u>	<u>26</u>	<u>15.35</u>	<u>4</u>
MW-8		<u>5</u>	<u>39</u>	<u>25.4</u>	<u>15.82</u>	<u>2</u>

Signature: Kiran Nagaraja

Date: 1/29/07

ARCO FACILITY NO. 2111
1156 Davis Street
San Leandro, California
Dual Phase Extraction and Air Stripper System



Sampling Information (monthly)			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF	1/29/07 0915	02111AGAC1	1/29/07 0910
02111ASAEFF	1/29/07 0917	02111AEFF	1/29/07 0909
02111ASYSINF	1/29/07 0913		
Analyses Required: GRO, BTEX, and MTBE			

Operation & Maintenance Notes
MW-8 → Just air flow

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature: *Kiran Nagaraj* Date: 1/29/07

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Groundwater Treatment System



Date: 1/29/07
 Onsite Time: 0615
 Offsite Time: 1200

Technician: Chill / Kiran
 Weather Conditions: Cold & Clear
 Ambient Temperature: ~ 60°F

System Status Upon Arrival: Operational Non-operational *start-up @ 0800hrs*
 System Status At Departure: Operational Non-operational
 Transfer Pump: Operational Non-operational

Transfer Pump Hour Meter Reading: NA
3000 upon arrival
 Effluent Flow Totalizer Reading: 5000 @ departure
 No. of Carbon Vessels: 2 - 2,000lbs
 Lead Carbon Vessel Pressure (psi): 0

Effluent Water Characteristics (Quarterly by Field Instrument)	
pH:	<u>7.80</u>
Temperature:	<u>14.8</u>

Well ID	Hour Meter Reading	Totalizer Reading	Total Depth	Pump Depth	DTW @ startup
MW-2	NA	542 prior to startup			15.12
		1800 @ departure			

Sampling Information			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEWINF	1/29/07 0920	02111MW2WINF	1/29/07 1015
02111ASWINF	} 0925 0940 1000 0915		
02111ASWEFF			
02111WGAC1			
02111WEFF			

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO, BTEX, & 5-Oxys	Monthly	INF & EFF	EPA Method 8260B

Notes: MW-2 shut down @ departure. Not re-actting at panel. Need to evaluate floats or controller for the submersible pump.

Signature: Kiran Nagaraju Date: 1/29/07

Site Address: Davis
 City: SAW Leominster
 Sampled By: Ryan/CHILL

ORIGINAL

Site Number: AWO 2111
 Project No. E2111
 Project PM JAA
 Date Sampled 1-29-07

Site Contact Phone No.

Water Level Data					Purge Volume Calculations				Well Purge Method				Sample Record			Field Data	
Well ID	Time	Depth to water feet	Top of Screen feet	Total Depth of Well feet	Casing Water Column (A)	Well Diameter (inches)	Multiplier Value (B)	Three Casing Volumes (gallons)	Actual Water Purged (gallons)	No Purge	Bailer	Pump	Other	DTW At Sample Time	Sample I.D.	Sample Time	Dissolved Oxygen (mg/L)
MW-2	15:50	15.12			Pump	4"	11										
MW-6		15.82		39	Stinger	2"	11	25.4		Flat Cut							
MW-3		16.18		20.20	"	4"	11	25.7		Cut Angle - Holes							
MW-4					Stinger	4"		19		Cut Angle - Holes							
V-3		14.76		19.3		4"											
MW-7		15.35		26		4"		26		Cut Angle - Holes							
V-2		15.06		19		4"		19		Cut Angle - Holes							
V-1		15.55		18.4		4"		18		Cut Angle - Holes							
MW-1		17.0		26		4"		25.5		Cut Angle - Holes							

(A) Casing water Column
 Depth wtr. Depth to Bottom

Multiplier Values
 2"=0.5 4"=2.0 6"=4.4

ORIGINAL

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System



Date: 1/30/07
 Onsite Time: 0445
 Offsite Time: 0600
 Equipment Manufacturer/Model# _____

Technician: Chill
 Weather Conditions: Clear
 Ambient Temperature: 40

System Information	
System Status Upon Arrival:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
System Status Upon Departure:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
Electric Meter Reading:	<u>1063</u>
Hour Meter Reading:	<u>33.8</u>
Totalizer Reading Prior to Air Stripper:	<u>NA</u>
Totalizer Reading After Air Stripper:	<u>6730</u>
PID Calibration Date:	<u>1/26/07</u>

Field Measurements					
Parameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYISNF)	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "wc					
Air Velocity, FPM	<u>1102</u>	<u>2209</u>			
Pipe Diameter, inches	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>	
Air Flow Rate, cfm			<u>200</u>		
Applied Vacuum, "wc	<u>21</u>		<u>NA</u>	<u>NA</u>	
Temperature, deg F	<u>151</u>	<u>98</u>	<u>70</u>	<u>56</u>	
PID Readings, ppmv	<u>67</u>	<u>7</u>	<u>23</u>	<u>φ</u>	PID for GAC-1: <u>3ppmv</u>

Other Readings/Measurements					
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	
V-1	<u>1/4</u>	<u>4</u>			
V-2	<u>1/4</u>	<u>15</u>			
V-3	<u>1/4</u>	<u>14</u>			
MW-1	<u>100</u>	<u>16</u>			
MW-3	<u>1/4</u>	<u>15</u>			
MW-7	<u>1/4</u>	<u>18</u>			
MW-8	<u>1/4</u>	<u>φ</u>			

Signature: [Signature] Date: 1-30-07

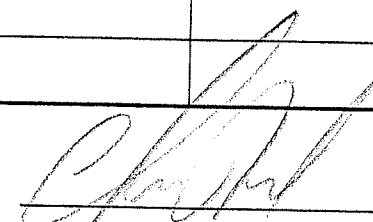
ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System

 ORIGINAL

Sampling Information (monthly)			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	1/30/07 0508
02111ASAEFF		02111AEFF	
02111ASYSINF			
Analyses Required: GRO, BTEX, and MTBE			

Operation & Maintenance Notes

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature: 

Date: 1-30-07

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Groundwater Treatment System

 ORIGINAL

Date: 1/30/07
 Onsite Time: _____
 Offsite Time: _____

Technician: chill
 Weather Conditions: Clear
 Ambient Temperature: 40

System Status Upon Arrival: Operational Non-operational
 System Status At Departure: Operational Non-operational
 Transfer Pump: Operational Non-operational

Transfer Pump Hour Meter Reading: NA

Effluent Flow Totalizer Reading: 6200

No. of Carbon Vessels: 2

Lead Carbon Vessel Pressure (psi): 0

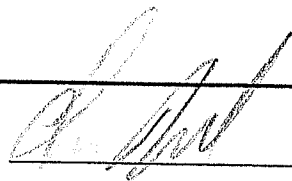
Effluent Water Characteristics (Quarterly by Field Instrument)	
pH:	_____
Temperature:	_____

Well ID	Hour Meter Reading	Totalizer Reading	Total Depth	Pump Depth
MW-2	NA	1800		pump - off

Sampling Information			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEWINF		02111MW2WINF	
02111ASWINF	1/30/07 0525		
02111ASWEFF			
02111WGAC1			
02111WEFF			

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO, BTEX, & 5-Oxys	Monthly	INF& EFF	EPA Method 8260B

Notes:

Signature: 

Date: 1/30/07

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System



Date: 1/31/07
 Onsite Time: 0530
 Offsite Time: 0900
 Equipment Manufacturer/Model# _____

Technician: Chill
 Weather Conditions: cloudy
 Ambient Temperature: ~ 45

System Information	
System Status Upon Arrival:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
System Status Upon Departure:	Operational <input type="checkbox"/> Non-Operational <input type="checkbox"/>
Electric Meter Reading:	<u>1630</u>
Hour Meter Reading:	<u>60.3</u>
Totalizer Reading Prior to Air Stripper:	<u>NA</u>
Totalizer Reading After Air Stripper:	<u>9080</u>
PID Calibration Date:	<u>1/31/7</u>

Field Measurements					
Parameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "wc					
Air Velocity, FPM	<u>1004</u>	<u>2179</u>			
Pipe Diameter, inches	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>	
Air Flow Rate, cfm			<u>210</u>		
Applied Vacuum, "wc	<u>22" Hg</u>		<u>NA</u>	<u>NA</u>	
Temperature, deg F	<u>159</u>	<u>105</u>	<u>100</u>	<u>83</u>	
PID Readings, ppmv	<u>110</u>	<u>76</u>	<u>79.5</u>	<u>0</u>	PID for GAC-1: 1ppmv

Other Readings/Measurements					
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	
V-1		<u>5</u>			
V-2		<u>14</u>			
V-3		<u>15</u>			
MW-1		<u>16</u>			
MW-3		<u>14</u>			
MW-7		<u>18</u>			
MW-8		<u>0</u>			

Signature:

Date: 1/31/7

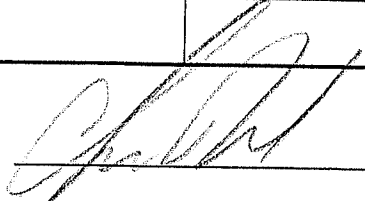
ARCO FACILITY NO. 2111
1156 Davis Street
San Leandro, California
Dual Phase Extraction and Air Stripper System

ORIGINAL

Sampling Information (monthly)			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	
02111ASAEFF		02111AEFF	
02111ASYSINF			
Analyses Required: GRO, BTEX, and MTBE			

Operation & Maintenance Notes

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature: 

Date: 1/31/7

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Groundwater Treatment System



Date: 1/31/7
 Onsite Time: 0530
 Offsite Time: 0900

Technician: Chill
 Weather Conditions: Cloudy
 Ambient Temperature: 45

System Status Upon Arrival: Operational Non-operational
 System Status At Departure: Operational Non-operational
 Transfer Pump: Operational Non-operational

Transfer Pump Hour Meter Reading: NA

Effluent Flow Totalizer Reading: 8560

No. of Carbon Vessels: 2

Lead Carbon Vessel Pressure (psi): 0

Effluent Water Characteristics (Quarterly by Field Instrument)	
pH:	_____
Temperature:	_____

Well ID	Hour Meter Reading	Totalizer Reading	Total Depth	Pump Depth	
MW-2	NA	1800	27'	25'	off

Sampling Information			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEWINF		02111MW2WINF	
02111ASWINF	1/31/07 0745		
02111ASWEFF			
02111WGAC1			
02111WEFF			

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO, BTEX, & 5-Oxys	Monthly	INF & EFF	EPA Method 8260B

Notes:

Signature: [Signature]

Date: 1/31/7

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System

 ORIGINAL

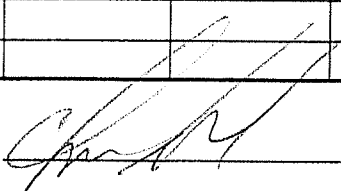
Date: 2/1/07
 Onsite Time: 0515
 Offsite Time: 0630
 Equipment Manufacturer/Model# _____

Technician: Chill
 Weather Conditions: clear
 Ambient Temperature: 240

System Information	
System Status Upon Arrival:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
System Status Upon Departure:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
Electric Meter Reading:	<u>2126</u>
Hour Meter Reading:	<u>823</u>
Totalizer Reading Prior to Air Stripper:	<u>NA</u>
Totalizer Reading After Air Stripper:	<u>17690</u>
PID Calibration Date:	<u>1/31/07</u>

Field Measurements					
Parameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "wc					
Air Velocity, FPM	<u>1270</u>	<u>1286</u>			
Pipe Diameter, inches	<u>3</u>	<u>4</u>	<u>4</u>	<u>3</u>	
Air Flow Rate, cfm			<u>200</u>		
Applied Vacuum, "wc	<u>20" Hg</u>		<u>NA</u>	<u>NA</u>	
Temperature, deg F	<u>160</u>	<u>113</u>	<u>108</u>	<u>88</u>	
PID Readings, ppmv	<u>203</u>	<u>10</u>	<u>65</u>	<u>0</u>	<u>PID for GAC-1: 0ppmv</u>

Other Readings/Measurements						
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs		
V-1						
V-2						
V-3						
MW-1						
MW-3						
MW-7						

Signature: 

Date: 2/1/07

ARCO FACILITY NO. 2111
1156 Davis Street
San Leandro, California
Groundwater Treatment System

Date: 2/1/7
Onsite Time: _____
Offsite Time: _____

Technician: Chill
Weather Conditions: Clear
Ambient Temperature: 40

System Status Upon Arrival: Operational Non-operational
System Status At Departure: Operational Non-operational
Transfer Pump: Operational Non-operational

Transfer Pump Hour Meter Reading: NA
Effluent Flow Totalizer Reading: 16860
No. of Carbon Vessels: 2
Lead Carbon Vessel Pressure (psi): 0

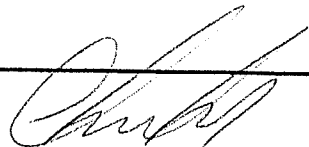
Effluent Water Characteristics (Quarterly by Field Instrument)
pH: _____
Temperature: _____

Well ID	Hour Meter Reading	Totalizer Reading	Total Depth	Pump Depth	
MW-2	-	1800	pump off		

Sampling Information			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEWINF		02111MW2WINF	
02111ASWINF			
02111ASWEFF			
02111WGAC1			
02111WEFF			

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO, BTEX, & 5-Oxys	Monthly	INF & EFF	EPA Method 8260B

Notes:

Signature:  Date: 2/1/7

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System

 ORIGINAL

Date: 2-2-07 Technician: CHILL
 Onsite Time: 0500 Weather Conditions: Clear
 Offsite Time: 0630 Ambient Temperature: 45°
 Equipment Manufacturer/Model#: Air Flow Meter
PID

System Information	
System Status Upon Arrival:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
System Status Upon Departure:	Operational <input checked="" type="checkbox"/> Non-Operational <input type="checkbox"/>
Electric Meter Reading:	<u>07778</u>
Hour Meter Reading:	<u>106.7</u>
Totalizer Reading Prior to Air Stripper:	<u>NA not installed yet</u> PID Calibration Date: <u>2-2-07</u>
Totalizer Reading After Air Stripper:	<u>26490</u>

Field Measurements					
Parameter	Influent (after blower, 2111DPEAINF)	Air Stripper (2111ASAEFF)	System Influent (2111ASYSINF)	Stack Air Flow (2111AEFF)	Comments
Differential Pressure, "wc	—	30	—	—	
Air Velocity, FPM	1423	1462	NM	NM	
Pipe Diameter, inches	3	4	4	3	
Air Flow Rate, cfm	—	—	200	—	
Applied Vacuum, "wc	20" Hg	0.45	NA	NA	
Temperature, deg F	160	115	108	87	
PID Readings, ppmv	195	10	70	8	PID for GAC-1: 3.0

Other Readings/Measurements					
Well ID	% Open	Applied Vac., "Hg	Total depth, feet bgs	Stinger Depth, feet bgs	
V-1	1/4	12		25.5	
V-2	1/4	12		18.5	
V-3	1/4	12		19	
MW-1	1/4	13		21.5	
MW-3	1/4	15		25.7	
MW-7	1/4	14		26	
MW-8	1/4	14		15.4	

Signature:  Date: 2-2-07

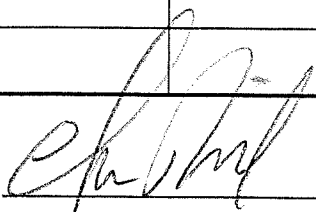
ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Dual Phase Extraction and Air Stripper System

 ORIGINAL

Sampling Information (monthly)			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEAINF		02111AGAC1	
02111ASAEFF		02111AEFF	
02111ASYSINF			
Analyses Required: GRO, BTEX, and MTBE			

Operation & Maintenance Notes
i) MW-8 Shortened Stinger BY 10' Re-adjust

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8015
BTEX	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B
MTBE	Monthly	02111DPEAINF, 02111ASAINF, 02111ASYSINF, 02111AGAC1, & 02111AEFF	EPA Method 8260B

Signature: 

Date: 2-2-07

ARCO FACILITY NO. 2111
 1156 Davis Street
 San Leandro, California
 Groundwater Treatment System

Date: 2-2-07
 Onsite Time: 0500
 Offsite Time: 0830

Technician: CHILL
 Weather Conditions: Clear
 Ambient Temperature: 45

System Status Upon Arrival: Operational Non-operational
 System Status At Departure: Operational Non-operational
 Transfer Pump: Operational Non-operational

Transfer Pump Hour Meter Reading: NA
 Effluent Flow Totalizer Reading: 25480
 No. of Carbon Vessels: 2
 Lead Carbon Vessel Pressure (psi): 2

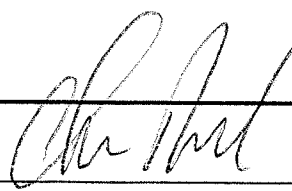
Effluent Water Characteristics (Quarterly by Field Instrument) pH: _____ Temperature: _____

Well ID	Hour Meter Reading	Totalizer Reading	Total Depth	Pump Depth
MW-2	<u>1900</u>			

Sampling Information			
Sample ID	Date & Time	Sample ID	Date & Time
02111DPEWINF		02111MW2WINF	
02111ASWINF			
02111ASWEFF			
02111WGAC1			
02111WEFF			

Lab Parameters	Sampling Frequency	Sample Location	Analytical Method
GRO, BTEX, & 5-Oxys	Monthly	INF & EFF	EPA Method 8260B

Notes:

Signature:  Date: 2-2-07

APPENDIX B

**CERTIFIED ANALYTICAL REPORTS WITH
CHAIN-OF-CUSTODY DOCUMENTATION**

12 February, 2007

Jay Johnson
Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park, CA 95682

RE: ARCO #2111, San Leandro, CA
Work Order: MQA1045

Enclosed are the results of analyses for samples received by the laboratory on 01/29/07 13:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQA1045 Reported: 02/12/07 14:41
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEAINF	MQA1045-01	Vapor	01/29/07 09:20	01/29/07 13:35
02111ASAEFF	MQA1045-02	Vapor	01/29/07 09:25	01/29/07 13:35
02111ASYSINF	MQA1045-03	Vapor	01/29/07 09:40	01/29/07 13:35
02111AGAC1	MQA1045-04	Vapor	01/29/07 10:00	01/29/07 13:35
02111AEFF	MQA1045-05	Vapor	01/29/07 10:15	01/29/07 13:35

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEAINF (MQA1045-01) Vapor Sampled: 01/29/07 09:20 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	340	100	mg/m ³ Air	10	7A31011	01/31/07	01/31/07 18:12	EPA 8015B/8021B	
Benzene	9.7	1.0	"	"	"	"	"	"	PI
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	58	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %		70-125	"	"	"	"	
Gasoline Range Organics (C4-C12)	98	24	ppmv	10	"	"	"	"	
Benzene	3.1	0.31	"	"	"	"	"	"	PI
Toluene	ND	0.27	"	"	"	"	"	"	
Ethylbenzene	ND	0.23	"	"	"	"	"	"	
Xylenes (total)	ND	0.47	"	"	"	"	"	"	
Methyl tert-butyl ether	16	1.4	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %		70-125	"	"	"	"	
02111ASAEFF (MQA1045-02) Vapor Sampled: 01/29/07 09:25 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	ND	10	mg/m ³ Air	1	7A31011	01/31/07	01/31/07 16:39	EPA 8015B/8021B	
Benzene	0.19	0.10	"	"	"	"	"	"	
Toluene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	0.10	0.10	"	"	"	"	"	"	
Xylenes (total)	ND	0.20	"	"	"	"	"	"	
Methyl tert-butyl ether	5.1	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		100 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %		70-125	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	"	"	"	"	"	
Benzene	0.060	0.031	"	"	"	"	"	"	
Toluene	ND	0.027	"	"	"	"	"	"	
Ethylbenzene	0.024	0.023	"	"	"	"	"	"	
Xylenes (total)	ND	0.047	"	"	"	"	"	"	
Methyl tert-butyl ether	1.4	0.14	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99 %		70-125	"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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02111ASYSINF (MQA1045-03) Vapor **Sampled: 01/29/07 09:40** **Received: 01/29/07 13:35**

Gasoline Range Organics (C4-C12)	77	50	mg/m ³ Air	5	7A31011	01/31/07	01/31/07 10:55	EPA 8015B/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	9.4	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93 %		70-125	"	"	"	"	
Gasoline Range Organics (C4-C12)	22	12	ppmv	5	"	"	"	"	
Benzene	ND	0.16	"	"	"	"	"	"	
Toluene	ND	0.13	"	"	"	"	"	"	
Ethylbenzene	ND	0.12	"	"	"	"	"	"	
Xylenes (total)	ND	0.24	"	"	"	"	"	"	
Methyl tert-butyl ether	2.6	0.69	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93 %		70-125	"	"	"	"	

02111AGAC1 (MQA1045-04) Vapor **Sampled: 01/29/07 10:00** **Received: 01/29/07 13:35**

Gasoline Range Organics (C4-C12)	ND	10	mg/m ³ Air	1	7A31011	01/31/07	01/31/07 10:26	EPA 8015B/8021B	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
Xylenes (total)	ND	0.20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %		70-125	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	"	"	"	"	"	
Benzene	ND	0.031	"	"	"	"	"	"	
Toluene	ND	0.027	"	"	"	"	"	"	
Ethylbenzene	ND	0.023	"	"	"	"	"	"	
Xylenes (total)	ND	0.047	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.14	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %		70-125	"	"	"	"	

TestAmerica - Morgan Hill, CA

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Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111AEFF (MQA1045-05) Vapor Sampled: 01/29/07 10:15 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	ND	10	mg/m ³ Air	1	7A31011	01/31/07	01/31/07 11:40	EPA 8015B/8021B	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
Xylenes (total)	ND	0.20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96 %	65-140		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96 %	70-125		"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	"	"	"	"	"	
Benzene	ND	0.031	"	"	"	"	"	"	
Toluene	ND	0.027	"	"	"	"	"	"	
Ethylbenzene	ND	0.023	"	"	"	"	"	"	
Xylenes (total)	ND	0.047	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.14	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96 %	65-140		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96 %	70-125		"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A31011 - EPA 5030B [P/T] / EPA 8015B/8021B

Blank (7A31011-BLK1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	ND	50	mg/m ³ Air							
Gasoline Range Organics (C4-C12)	ND	12	ppmv							
Benzene	ND	0.50	mg/m ³ Air							
Benzene	ND	0.16	ppmv							
Toluene	ND	0.50	mg/m ³ Air							
Toluene	ND	0.13	ppmv							
Ethylbenzene	ND	0.50	mg/m ³ Air							
Ethylbenzene	ND	0.12	ppmv							
Xylenes (total)	ND	1.0	mg/m ³ Air							
Xylenes (total)	ND	0.24	ppmv							
Methyl tert-butyl ether	ND	2.5	mg/m ³ Air							
Methyl tert-butyl ether	ND	0.69	ppmv							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	39.4		mg/m ³ Air	40.0		98	65-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	6.60		ppmv	6.70		99	65-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	40.2		mg/m ³ Air	40.0		100	70-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.63		ppmv	5.59		101	70-125			

Laboratory Control Sample (7A31011-BS1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	240	50	mg/m ³ Air	275		87	70-115			
Gasoline Range Organics (C4-C12)	68.2	12	ppmv	78.0		87	70-115			
Benzene	4.74	0.50	mg/m ³ Air	4.85		98	80-150			
Benzene	1.49	0.16	ppmv	1.52		98	80-150			
Toluene	21.6	0.50	mg/m ³ Air	23.5		92	75-125			
Toluene	5.73	0.13	ppmv	6.25		92	75-125			
Ethylbenzene	4.04	0.50	mg/m ³ Air	4.70		86	75-135			
Ethylbenzene	0.933	0.12	ppmv	1.08		86	75-135			
Xylenes (total)	25.2	1.0	mg/m ³ Air	26.5		95	75-135			
Xylenes (total)	5.81	0.24	ppmv	6.12		95	75-135			
Methyl tert-butyl ether	4.84	2.5	mg/m ³ Air	6.50		74	60-140			
Methyl tert-butyl ether	1.35	0.69	ppmv	1.81		75	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.7		mg/m ³ Air	40.0		119	65-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.99		ppmv	6.70		119	65-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	40.9		mg/m ³ Air	40.0		102	70-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.72		ppmv	5.59		102	70-125			

TestAmerica - Morgan Hill, CA

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Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A31011 - EPA 5030B [P/T] / EPA 8015B/8021B

Laboratory Control Sample Dup (7A31011-BSD1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	237	50	mg/m ³ Air	275		86	70-115	1	35	
Gasoline Range Organics (C4-C12)	67.3	12	ppmv	78.0		86	70-115	1	35	
Benzene	4.45	0.50	mg/m ³ Air	4.85		92	80-150	6	35	
Benzene	1.40	0.16	ppmv	1.52		92	80-150	6	35	
Toluene	5.60	0.13	"	6.25		90	75-125	2	30	
Toluene	21.1	0.50	mg/m ³ Air	23.5		90	75-125	2	30	
Ethylbenzene	3.90	0.50	"	4.70		83	75-135	4	30	
Ethylbenzene	0.900	0.12	ppmv	1.08		83	75-135	4	30	
Xylenes (total)	24.5	1.0	mg/m ³ Air	26.5		92	75-135	3	30	
Xylenes (total)	5.65	0.24	ppmv	6.12		92	75-135	3	30	
Methyl tert-butyl ether	4.81	2.5	mg/m ³ Air	6.50		74	60-140	0.6	30	
Methyl tert-butyl ether	1.34	0.69	ppmv	1.81		74	60-140	0.7	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	46.7		<i>mg/m³ Air</i>	40.0		117	65-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.82		<i>ppmv</i>	6.70		117	65-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.3		<i>mg/m³ Air</i>	40.0		103	70-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.77		<i>ppmv</i>	5.59		103	70-125			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1045
Reported:
02/12/07 14:41

Notes and Definitions

PI Primary and confirm results varied by > than 40% RPD
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Chain of Custody Record

Project Name: ARCO 2111
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda > 2111
 State or Lead Regulatory Agency: RWQCB - San Francisco
 Requested Due Date (mm/dd/yy): See comments

REVISED
11/30/07

On-site Time: <u>0615</u>	Temp: <u>~65° F</u>
Off-site Time: <u>1200</u>	Temp: <u>~70° F</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>1156 Davis Street, San Francisco SAN LEANDRO</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor Project No.:
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G0C28 - 0023</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or OOC (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>03-O & M</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis			Sample Point Lat/Long and Comments
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	MTBE	
1	02111DPEAINF	0920	1/29/07		x		01							x	x	x	Please analyze air samples 02111ASYSINF and 02111AEFF on a 24-hour TAT & also 02111AGACI
2	02111ASAEFF	0925	1/29/07		x		02							x	x	x	
3	02111ASYSINF	0940	1/29/07		x		03							x	x	x	
4	02111AGACI	1000	1/29/07		x		04							x	x	x	
5	02111AEFF	1015	1/29/07		x		05							x	x	x	
6																	
7																	
8																	
9																	
10																	

Sampler's Name: <u>KIRAN NARAYAN</u>	Relinquished By / Affiliation: <u>Kiran Narayan</u>	Date: <u>1/29/07</u>	Time: <u>134</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/29/07</u>	Time: <u>13:33</u>
Sampler's Company: <u>STRATUS ENVIRONMENTAL</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Please cc results to miller@broadbentinc.com

Custody Seals In Place: Yes/No 0 | Temp Blank: Yes/No 0 | Cooler Temp on Receipt: 0 °F/C | Trip Blank: Yes/No 0 | MS/MSD Sample Submitted: Yes/No 0



bp
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 2111
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda > 2111
 State or Lead Regulatory Agency: RWQCB - San Francisco
 Requested Due Date (mm/dd/yy): See comments

On-site Time: <u>0615</u>	Temp: <u>≈ 65° F</u>
Off-site Time: <u>1200</u>	Temp: <u>570° F</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>1156 Davis Street, Sacramento</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor Project No.:
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G0C28</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or OOC (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>03-O & M</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Lab Bottle Order No:				Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis			Sample Point Lat/Long and Comments
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	MTBE	
1	02111DPEAINF	0920	1/29/07		x		01					x	x	x			
2	02111ASAEFF	0925	1/29/07		x		02					x	x	x	Please analyze air samples 02111ASYSINF and 02111AEFF on a 24-hour TAT & also 02111AGACI		
3	02111ASYSINF	0940	1/29/07		x		03					x	x	x			
4	02111AGACI	1000	1/29/07		x		04					x	x	x			
5	02111AEFF	1015	1/29/07		x		01					x	x	x			
6																	
7																	
8																	
9																	
10																	

Sampler's Name: <u>KIRAN NAGARAJU</u>	Relinquished By / Affiliation: <u>Kiran Nagaraju</u>	Date: <u>1/29/07</u>	Time: <u>134</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/29/07</u>	Time: <u>13:30</u>
Sampler's Company: <u>STRATUS ENVIRONMENTAL</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Please cc results to rmiller@broadbentinc.com

Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: ARCO 2111
 REC. BY (PRINT) [Signature]
 WORKORDER: WPT1045

DATE REC'D AT LAB: 1/29/07
 TIME REC'D AT LAB: 13:35
 DATE LOGGED IN: 1-29-07

For Regulatory Purposes?
 DRINKING WATER YES NO
 WASTE WATER YES NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="checkbox"/> Absent Intact / Broken*								<div style="font-size: 2em; font-weight: bold; transform: rotate(-45deg); display: inline-block;"> [Signature] 1/29/07 </div>
2. Chain-of-Custody <input checked="" type="checkbox"/> Present / Absent*								
3. Traffic Reports or Packing List: Present / <input checked="" type="checkbox"/> Absent								
4. Airbill: Airbill / Sticker Present / <input checked="" type="checkbox"/> Absent								
5. Airbill #:								
6. Sample Labels: <input checked="" type="checkbox"/> Present / Absent								
7. Sample IDs: <input checked="" type="checkbox"/> Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: <input checked="" type="checkbox"/> Intact / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <input checked="" type="checkbox"/> Yes / No*								
10. Sample received within hold time? <input checked="" type="checkbox"/> Yes / No*								
11. Adequate sample volume received? <input checked="" type="checkbox"/> Yes / No*								
12. Proper preservatives used? <input checked="" type="checkbox"/> Yes / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / <input checked="" type="checkbox"/> No*								
14. Read Temp: 6.0 Corrected Temp: <u>6.0</u> Is corrected temp 4 +/-2°C? <input checked="" type="checkbox"/> Yes / No**								

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE
 or Problem COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

13 February, 2007

Jay Johnson
Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park, CA 95682

RE: ARCO #2111, San Leandro, CA
Work Order: MQA1043

Enclosed are the results of analyses for samples received by the laboratory on 01/29/07 13:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQA1043 Reported: 02/13/07 13:19
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111DPEWINF	MQA1043-01	Water	01/29/07 09:20	01/29/07 13:35
02111ASWINF	MQA1043-02	Water	01/29/07 09:25	01/29/07 13:35
02111ASWEFF	MQA1043-03	Water	01/29/07 09:40	01/29/07 13:35
02111WGAC1	MQA1043-04	Water	01/29/07 10:00	01/29/07 13:35
02111WEFF	MQA1043-05	Water	01/29/07 09:15	01/29/07 13:35
02111MW2WINF	MQA1043-06	Water	01/29/07 10:15	01/29/07 13:35

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1043
Reported:
02/13/07 13:19

Total Purgeable Hydrocarbons by GC/MS (CA LUFT) TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111DPEWINF (MQA1043-01) Water Sampled: 01/29/07 09:20 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	480	250	ug/l	5	7B06022	02/06/07	02/07/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-145		"	"	"	"	
02111ASWINF (MQA1043-02) Water Sampled: 01/29/07 09:25 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	2000	1200	ug/l	25	7A30003	01/30/07	01/30/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-145		"	"	"	"	
02111ASWEFF (MQA1043-03) Water Sampled: 01/29/07 09:40 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	92	50	ug/l	1	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		97 %	60-145		"	"	"	"	
02111WGAC1 (MQA1043-04) Water Sampled: 01/29/07 10:00 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	60-145		"	"	"	"	
02111WEFF (MQA1043-05) Water Sampled: 01/29/07 09:15 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7A30003	01/30/07	01/30/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		104 %	60-145		"	"	"	"	
02111MW2WINF (MQA1043-06) Water Sampled: 01/29/07 10:15 Received: 01/29/07 13:35									
Gasoline Range Organics (C4-C12)	930	500	ug/l	10	7B03008	02/03/07	02/03/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		92 %	60-145		"	"	"	"	

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MQA1043
Reported:
02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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02111DPEWINF (MQA1043-01) Water **Sampled: 01/29/07 09:20** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	5.0	ug/l	10	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	4600	200	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	720	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

90 % 60-145

Surrogate: 4-Bromofluorobenzene

75 % 60-120

Surrogate: Dibromofluoromethane

96 % 75-130

Surrogate: Toluene-d8

86 % 70-130

02111ASWINF (MQA1043-02) Water **Sampled: 01/29/07 09:25** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	12	ug/l	25	7A30003	01/30/07	01/30/07	EPA 8260B	
Benzene	35	12	"	"	"	"	"	"	
tert-Butyl alcohol	1800	500	"	"	"	"	"	"	
Di-isopropyl ether	ND	12	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	12	"	"	"	"	"	"	
Ethylbenzene	23	12	"	"	"	"	"	"	
Methyl tert-butyl ether	1300	12	"	"	"	"	"	"	
Toluene	ND	12	"	"	"	"	"	"	
Xylenes (total)	14	12	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4

96 % 60-145

Surrogate: 4-Bromofluorobenzene

89 % 60-120

Surrogate: Dibromofluoromethane

96 % 75-130

Surrogate: Toluene-d8

102 % 70-130

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MQA1043
Reported:
02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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02111ASWEFF (MQA1043-03) Water **Sampled: 01/29/07 09:40** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	0.50	ug/l	1	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	1900	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	150	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		92 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92 %		70-130	"	"	"	"	

02111WGAC1 (MQA1043-04) Water **Sampled: 01/29/07 10:00** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	0.50	ug/l	1	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		73 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		93 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		88 %		70-130	"	"	"	"	

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MQA1043
Reported:
02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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02111WEFF (MQA1043-05) Water **Sampled: 01/29/07 09:15** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	0.50	ug/l	1	7A30003	01/30/07	01/30/07	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		108 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %		70-130	"	"	"	"	

02111MW2WINF (MQA1043-06) Water **Sampled: 01/29/07 10:15** **Received: 01/29/07 13:35**

tert-Amyl methyl ether	ND	5.0	ug/l	10	7B03008	02/03/07	02/03/07	EPA 8260B	
Benzene	41	5.0	"	"	"	"	"	"	
tert-Butyl alcohol	1500	200	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	27	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	1300	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	10	5.0	"	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>		92 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		74 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		91 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		88 %		70-130	"	"	"	"	

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Project Manager: Jay Johnson

MQA1043
Reported:
02/13/07 13:19

Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A30003 - EPA 5030B P/T / LUFT GCMS

Blank (7A30003-BLK1)

Prepared & Analyzed: 01/30/07

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.40		"	2.50		96	60-145			

Laboratory Control Sample (7A30003-BS2)

Prepared & Analyzed: 01/30/07

Gasoline Range Organics (C4-C12)	494	50	ug/l	500		99	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.33		"	2.50		93	60-145			

Laboratory Control Sample Dup (7A30003-BSD2)

Prepared & Analyzed: 01/30/07

Gasoline Range Organics (C4-C12)	522	50	ug/l	500		104	75-140	6	20	
Surrogate: 1,2-Dichloroethane-d4	2.43		"	2.50		97	60-145			

Batch 7B03008 - EPA 5030B P/T / LUFT GCMS

Blank (7B03008-BLK1)

Prepared & Analyzed: 02/03/07

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.34		"	2.50		94	60-145			

Laboratory Control Sample (7B03008-BS2)

Prepared & Analyzed: 02/03/07

Gasoline Range Organics (C4-C12)	528	50	ug/l	500		106	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.42		"	2.50		97	60-145			

Laboratory Control Sample Dup (7B03008-BSD2)

Prepared & Analyzed: 02/03/07

Gasoline Range Organics (C4-C12)	501	50	ug/l	500		100	75-140	5	20	
Surrogate: 1,2-Dichloroethane-d4	2.31		"	2.50		92	60-145			

Batch 7B06022 - EPA 5030B P/T / LUFT GCMS

Blank (7B06022-BLK1)

Prepared: 02/06/07 Analyzed: 02/07/07

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.42		"	2.50		97	60-145			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1043
Reported:
02/13/07 13:19

Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B06022 - EPA 5030B P/T / LUFT GCMS

Laboratory Control Sample (7B06022-BS1)

Prepared & Analyzed: 02/06/07

Gasoline Range Organics (C4-C12)	545	50	ug/l	500		109	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.39		"	2.50		96	60-145			

Matrix Spike (7B06022-MS1)

Source: MQA1023-02

Prepared: 02/06/07 Analyzed: 02/07/07

Gasoline Range Organics (C4-C12)	1230	50	ug/l	500	780	90	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50		96	60-145			

Matrix Spike Dup (7B06022-MSD1)

Source: MQA1023-02

Prepared: 02/06/07 Analyzed: 02/07/07

Gasoline Range Organics (C4-C12)	1280	50	ug/l	500	780	100	75-140	4	20	
Surrogate: 1,2-Dichloroethane-d4	2.60		"	2.50		104	60-145			

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MQA1043
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02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A30003 - EPA 5030B P/T / EPA 8260B

Blank (7A30003-BLK1)

Prepared & Analyzed: 01/30/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.40		"	2.50		96	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.13		"	2.50		85	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.40		"	2.50		96	75-130			
<i>Surrogate: Toluene-d8</i>	2.44		"	2.50		98	70-130			

Laboratory Control Sample (7A30003-BS1)

Prepared & Analyzed: 01/30/07

tert-Amyl methyl ether	8.35	0.50	ug/l	10.0		84	65-135			
Benzene	9.07	0.50	"	10.0		91	70-125			
tert-Butyl alcohol	190	20	"	200		95	60-135			
Di-isopropyl ether	8.76	0.50	"	10.0		88	70-130			
Ethyl tert-butyl ether	8.45	0.50	"	10.0		84	65-130			
Ethylbenzene	9.76	0.50	"	10.0		98	70-130			
Methyl tert-butyl ether	7.83	0.50	"	10.0		78	50-140			
Toluene	9.46	0.50	"	10.0		95	70-120			
Xylenes (total)	30.1	0.50	"	30.0		100	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.30		"	2.50		92	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.43		"	2.50		97	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.42		"	2.50		97	75-130			
<i>Surrogate: Toluene-d8</i>	2.47		"	2.50		99	70-130			

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MQA1043
Reported:
02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A30003 - EPA 5030B P/T / EPA 8260B

Matrix Spike (7A30003-MS1)

Source: MQA0680-07

Prepared & Analyzed: 01/30/07

tert-Amyl methyl ether	10.4	0.50	ug/l	10.0	ND	104	65-135			
Benzene	9.96	0.50	"	10.0	ND	100	70-125			
tert-Butyl alcohol	181	20	"	200	ND	90	60-135			
Di-isopropyl ether	9.67	0.50	"	10.0	ND	97	70-130			
Ethyl tert-butyl ether	9.98	0.50	"	10.0	ND	100	65-130			
Ethylbenzene	9.70	0.50	"	10.0	ND	97	70-130			
Methyl tert-butyl ether	9.04	0.50	"	10.0	ND	90	50-140			
Toluene	11.2	0.50	"	10.0	ND	112	70-120			
Xylenes (total)	29.4	0.50	"	30.0	ND	98	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.44		"	2.50		98	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.67		"	2.50		107	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.65		"	2.50		106	75-130			
<i>Surrogate: Toluene-d8</i>	2.77		"	2.50		111	70-130			

Matrix Spike Dup (7A30003-MSD1)

Source: MQA0680-07

Prepared & Analyzed: 01/30/07

tert-Amyl methyl ether	10.9	0.50	ug/l	10.0	ND	109	65-135	5	25	
Benzene	10.1	0.50	"	10.0	ND	101	70-125	1	15	
tert-Butyl alcohol	176	20	"	200	ND	88	60-135	3	35	
Di-isopropyl ether	10.0	0.50	"	10.0	ND	100	70-130	3	35	
Ethyl tert-butyl ether	10.3	0.50	"	10.0	ND	103	65-130	3	35	
Ethylbenzene	9.67	0.50	"	10.0	ND	97	70-130	0.3	15	
Methyl tert-butyl ether	9.66	0.50	"	10.0	ND	97	50-140	7	25	
Toluene	11.4	0.50	"	10.0	ND	114	70-120	2	15	
Xylenes (total)	30.3	0.50	"	30.0	ND	101	80-125	3	15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.49		"	2.50		100	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.79		"	2.50		112	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.80		"	2.50		112	75-130			
<i>Surrogate: Toluene-d8</i>	2.70		"	2.50		108	70-130			

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MQA1043
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02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B03008 - EPA 5030B P/T / EPA 8260B

Blank (7B03008-BLK1)

Prepared & Analyzed: 02/03/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.34		"	2.50		94	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.01		"	2.50		80	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.19		"	2.50		88	75-130			
<i>Surrogate: Toluene-d8</i>	2.25		"	2.50		90	70-130			

Laboratory Control Sample (7B03008-BS1)

Prepared & Analyzed: 02/03/07

tert-Amyl methyl ether	7.91	0.50	ug/l	10.0		79	65-135			
Benzene	8.18	0.50	"	10.0		82	70-125			
tert-Butyl alcohol	190	20	"	200		95	60-135			
Di-isopropyl ether	9.35	0.50	"	10.0		94	70-130			
Ethyl tert-butyl ether	8.73	0.50	"	10.0		87	65-130			
Ethylbenzene	8.64	0.50	"	10.0		86	70-130			
Methyl tert-butyl ether	8.04	0.50	"	10.0		80	50-140			
Toluene	8.35	0.50	"	10.0		84	70-120			
Xylenes (total)	27.8	0.50	"	30.0		93	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.40		"	2.50		96	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.39		"	2.50		96	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.41		"	2.50		96	75-130			
<i>Surrogate: Toluene-d8</i>	2.33		"	2.50		93	70-130			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1043
Reported:
02/13/07 13:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B03008 - EPA 5030B P/T / EPA 8260B

Matrix Spike (7B03008-MS1)	Source: MQA1024-04			Prepared & Analyzed: 02/03/07						
tert-Amyl methyl ether	8.21	0.50	ug/l	10.0	ND	82	65-135			
Benzene	7.86	0.50	"	10.0	ND	79	70-125			
tert-Butyl alcohol	216	20	"	200	ND	108	60-135			
Di-isopropyl ether	9.41	0.50	"	10.0	ND	94	70-130			
Ethyl tert-butyl ether	8.76	0.50	"	10.0	ND	88	65-130			
Ethylbenzene	8.99	0.50	"	10.0	ND	90	70-130			
Methyl tert-butyl ether	8.00	0.50	"	10.0	ND	80	50-140			
Toluene	8.57	0.50	"	10.0	ND	86	70-120			
Xylenes (total)	29.5	0.50	"	30.0	ND	98	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.38		"	2.50		95	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.31		"	2.50		92	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.40		"	2.50		96	75-130			
<i>Surrogate: Toluene-d8</i>	2.29		"	2.50		92	70-130			

Matrix Spike Dup (7B03008-MSD1)	Source: MQA1024-04			Prepared & Analyzed: 02/03/07						
tert-Amyl methyl ether	8.48	0.50	ug/l	10.0	ND	85	65-135	3	25	
Benzene	7.89	0.50	"	10.0	ND	79	70-125	0.4	15	
tert-Butyl alcohol	217	20	"	200	ND	108	60-135	0.5	35	
Di-isopropyl ether	9.67	0.50	"	10.0	ND	97	70-130	3	35	
Ethyl tert-butyl ether	8.99	0.50	"	10.0	ND	90	65-130	3	35	
Ethylbenzene	9.00	0.50	"	10.0	ND	90	70-130	0.1	15	
Methyl tert-butyl ether	8.30	0.50	"	10.0	ND	83	50-140	4	25	
Toluene	8.80	0.50	"	10.0	ND	88	70-120	3	15	
Xylenes (total)	29.8	0.50	"	30.0	ND	99	80-125	1	15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.42		"	2.50		97	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.30		"	2.50		92	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.46		"	2.50		98	75-130			
<i>Surrogate: Toluene-d8</i>	2.32		"	2.50		93	70-130			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1043
Reported:
02/13/07 13:19

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



bp
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 2111
 BP BU/AR Region/Entos Segment: BP > Americas > West > Retail > Alameda > 2111
 State or Lead Regulatory Agency: RWQCB - San Francisco
 Requested Due Date (mm/dd/yy): See comments

REVISED

1130107

On-site Time: <u>0615</u>	Temp: <u>10000 5 65°F</u>
Off-site Time: <u>1200</u>	Temp: <u>70°F</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>1156 Davis Street, San Francisco SAN LEANDRO</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor Project No.:
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Entos Project No.: <u>G0C28 - 0023</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or OOC (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>03-O & M</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No. <u>114A043</u>	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	CRO	BTEX	5-Oxygenates			
1	02111DPEW-INF	<u>0920</u>	1/29/07	X			01						X	X	X				
2	02111ASWINF	<u>0925</u>	1/29/07	X			02						X	X	X				
3	02111ASWEFF	<u>0940</u>	1/29/07	X			03						X	X	X				
4	02111WGAC1	<u>1000</u>	1/29/07	X			04						X	X	X				
5	02111WEFF	<u>0915</u>	1/29/07	X			01						X	X	X				
6	02111MW2WINF	<u>1015</u>	1/29/07	X			04						X	X	X				
7																			
8																			
9																			
10																			

WATER
 Please analyze 6 samples 02111ASWINF and 02111WEFF on a 24-hour TAT. Five oxygenates requested are MTBE, TBA, DIPE, ETBE, and TAME.

Sampler's Name: <u>KIRAN NAGARAJU</u>	Relinquished By / Affiliation: <u>Kiran Nagaraju</u>	Date: <u>1/29/07</u>	Time:	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/29/07</u>	Time: <u>13:20</u>
Sampler's Company: <u>STRATUS ENVIRONMENTAL, INC.</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No.:						

Special Instructions: Please cc results to rmiller@broadbentinc.com

Custody Seals In Place: Yes No | Temp Blank: Yes No | Cooler Temp on Receipt: 60 °F/C | Trip Blank: Yes No | MS/MSD Sample Submitted: Yes No



bp
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 2111
 BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda > 2111
 State or Lead Regulatory Agency: RWQCB - San Francisco
 Requested Due Date (mm/dd/yy): See comments

On-site Time: <u>0615</u>	Temp: <u>10000 5 65°F</u>
Off-site Time: <u>1200</u>	Temp: <u>70°F</u>
Sky Conditions: <u>Clear</u>	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>TestAmerica</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Stratus Environmental, Inc.</u>
Address: <u>885 Jarvis Drive</u>	BP/AR Facility Address: <u>1156 Davis Street, Sacramento</u>	Address: <u>3330 Cameron Park Drive, Suite 550</u>
<u>Morgan Hill, CA 95937</u>	Site Lat/Long:	<u>Cameron Park, CA 95682</u>
Lab PM: <u>Lisa Race</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor Project No.:
Tele/Fax: <u>408-782-8156 408-782-6308 (fax)</u>	Enfos Project No.: <u>G0C28</u>	Consultant/Contractor PM: <u>Jay Johnson</u>
BP/AR PM Contact: <u>Paul Supple</u>	Provision or OOC (circle one) <u>Provision</u>	Tele/Fax: <u>(530) 676-6000 / (530) 676-6005</u>
Address: <u>2010 Crow Canyon Place, Suite 150</u>	Phase/WBS: <u>03-O & M</u>	Report Type & QC Level: <u>Level 1 with EDF</u>
<u>San Ramon, CA</u>	Sub Phase/Task: <u>03-Analytical</u>	E-mail EDD To: <u>cjewitt@stratusinc.net</u>
Tele/Fax: <u>925-275-3506</u>	Cost Element: <u>01-Contractor labor</u>	Invoice to: <u>Atlantic Richfield Co.</u>

Item No.	Sample Description	Time	Date	Matrix			Laboratory No. <u>119A1043</u>	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments				
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO	BTEX	5-Oxygenates							
1	02111DPEW-INF	0920	1/29/07	X			01						X	X	X								
2	02111ASWINF	0925	1/29/07	X			02						X	X	X								Please analyze air samples 02111ASWINF and 02111WEFF on a 24-hour TAT. Five oxygenates requested are MTBE, TBA, DIPE, ETBE, and TAME.
3	02111ASWEFF	0940	1/29/07	X			03						X	X	X								
4	02111WGAC1	1000	1/29/07	X			04						X	X	X								
5	02111WEFF	0915	1/29/07	X			05						X	X	X								
6	02111MW2WINF	1015	1/29/07	X			04						X	X	X								
7																							
8																							
9																							
10																							

Sampler's Name: <u>KIRAN NAGARAJU</u>	Relinquished By / Affiliation: <u>Kiran Nagaraju</u>	Date: <u>1/29/07</u>	Time:	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/29/07</u>	Time: <u>13:20</u>
Sampler's Company: <u>STRATUS ENVIRONMENTAL, INC.</u>						
Shipment Date:						
Shipment Method:						
Shipment Tracking No.:						

Special Instructions: Please cc results to rmler@broadbentinc.com

Custody Seals In Place: Yes No | Temp Blank: Yes No | Cooler Temp on Receipt: 6 °F/C | Trip Blank: Yes No | MS/MSD Sample Submitted: Yes No

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: ARCO 2111
 REC. BY (PRINT) Shawm
 WORKORDER: 1401643

DATE REC'D AT LAB: 1/21/07
 TIME REC'D AT LAB: 03:35
 DATE LOGGED IN: 1-29-07

For Regulatory Purposes?
 DRINKING WATER YES / NO NO
 WASTE WATER YES / NO NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <u>Absent</u> Intact / Broken*								<div style="font-size: 2em; transform: rotate(-45deg); opacity: 0.5;"> Banned 1/21/07 VOB-6 sands SD </div>
2. Chain-of-Custody <u>Present</u> / Absent*								
3. Traffic Reports or Packing List: Present / <u>Absent</u>								
4. Airbill: Airbill / Sticker Present / <u>Absent</u>								
5. Airbill #:								
6. Sample Labels: <u>Present</u> / Absent								
7. Sample IDs: <u>Listed</u> / Not Listed on Chain-of-Custody								
8. Sample Condition: <u>Intact</u> / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <u>Yes</u> / No*								
10. Sample received within hold time? <u>Yes</u> / No*								
11. Adequate sample volume received? <u>Yes</u> / No*								
12. Proper preservatives used? <u>Yes</u> / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) <u>Yes</u> / No*								
14. Read Temp: <u>6.0</u> Corrected Temp: <u>6.0</u> Is corrected temp 4 +/-2°C? <u>Yes</u> / No**								

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE
 or Problem COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

16 February, 2007

Jay Johnson
Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park, CA 95682

RE: ARCO #2111, San Leandro, CA
Work Order: MQB0017

Enclosed are the results of analyses for samples received by the laboratory on 01/31/07 08:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQB0017 Reported: 02/16/07 10:02
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQB0017-01	Water	01/30/07 05:25	01/31/07 08:15

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with intact custody seals.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQB0017 Reported: 02/16/07 10:02
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Total Purgeable Hydrocarbons by GC/MS (CA LUFT)
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
02111ASWINF (MQB0017-01RE1) Water	Sampled: 01/30/07 05:25	Received: 01/31/07 08:15								CL
Gasoline Range Organics (C4-C12)	330	200		ug/l	4	7B14025	02/14/07	02/15/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		90 %		60-145		"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0017
Reported:
02/16/07 10:02

Volatile Organic Compounds by EPA Method 8260B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0017-01) Water Sampled: 01/30/07 05:25 Received: 01/31/07 08:15									
tert-Amyl methyl ether	ND	12	ug/l	25	7B07011	02/07/07	02/08/07	EPA 8260B	
Benzene	ND	12	"	"	"	"	"	"	
tert-Butyl alcohol	3600	500	"	"	"	"	"	"	
Di-isopropyl ether	ND	12	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	12	"	"	"	"	"	"	
Ethylbenzene	ND	12	"	"	"	"	"	"	
Methyl tert-butyl ether	440	12	"	"	"	"	"	"	
Toluene	31	12	"	"	"	"	"	"	
Xylenes (total)	25	12	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		82 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		93 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		82 %		70-130	"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0017
Reported:
02/16/07 10:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
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Batch 7B07011 - EPA 5030B P/T / EPA 8260B

Blank (7B07011-BLK1)

Prepared & Analyzed: 02/07/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.27		"	2.50		91	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.07		"	2.50		83	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.33		"	2.50		93	75-130			
<i>Surrogate: Toluene-d8</i>	2.03		"	2.50		81	70-130			

Laboratory Control Sample (7B07011-BS1)

Prepared & Analyzed: 02/07/07

tert-Amyl methyl ether	10.6	0.50	ug/l	10.0		106	65-135			
Benzene	10.8	0.50	"	10.0		108	70-125			
tert-Butyl alcohol	171	20	"	200		86	60-135			
Di-isopropyl ether	11.1	0.50	"	10.0		111	70-130			
Ethyl tert-butyl ether	10.7	0.50	"	10.0		107	65-130			
Ethylbenzene	11.2	0.50	"	10.0		112	70-130			
Methyl tert-butyl ether	11.5	0.50	"	10.0		115	50-140			
Toluene	10.6	0.50	"	10.0		106	70-120			
Xylenes (total)	35.2	0.50	"	30.0		117	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.09		"	2.50		84	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.24		"	2.50		90	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.21		"	2.50		88	75-130			
<i>Surrogate: Toluene-d8</i>	2.18		"	2.50		87	70-130			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0017
Reported:
02/16/07 10:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B07011 - EPA 5030B P/T / EPA 8260B

Matrix Spike (7B07011-MS1)	Source: MQB0017-01			Prepared & Analyzed: 02/07/07						
tert-Amyl methyl ether	267	12	ug/l	250	ND	107	65-135			
Benzene	253	12	"	250	5.2	99	70-125			
tert-Butyl alcohol	8540	500	"	5000	3600	99	60-135			
Di-isopropyl ether	271	12	"	250	ND	108	70-130			
Ethyl tert-butyl ether	265	12	"	250	ND	106	65-130			
Ethylbenzene	260	12	"	250	ND	104	70-130			
Methyl tert-butyl ether	744	12	"	250	440	122	50-140			
Toluene	237	12	"	250	31	82	70-120			
Xylenes (total)	808	12	"	750	25	104	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.12</i>		<i>"</i>	<i>2.50</i>		<i>85</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.17</i>		<i>"</i>	<i>2.50</i>		<i>87</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.16</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.14</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>70-130</i>			

Matrix Spike Dup (7B07011-MSD1)	Source: MQB0017-01			Prepared & Analyzed: 02/07/07						
tert-Amyl methyl ether	271	12	ug/l	250	ND	108	65-135	1	25	
Benzene	258	12	"	250	5.2	101	70-125	2	15	
tert-Butyl alcohol	8860	500	"	5000	3600	105	60-135	4	35	
Di-isopropyl ether	273	12	"	250	ND	109	70-130	0.7	35	
Ethyl tert-butyl ether	266	12	"	250	ND	106	65-130	0.4	35	
Ethylbenzene	262	12	"	250	ND	105	70-130	0.8	15	
Methyl tert-butyl ether	759	12	"	250	440	128	50-140	2	25	
Toluene	251	12	"	250	31	88	70-120	6	15	
Xylenes (total)	810	12	"	750	25	105	80-125	0.2	15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.17</i>		<i>"</i>	<i>2.50</i>		<i>87</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.16</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.26</i>		<i>"</i>	<i>2.50</i>		<i>90</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.20</i>		<i>"</i>	<i>2.50</i>		<i>88</i>	<i>70-130</i>			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0017
Reported:
02/16/07 10:02

Notes and Definitions

PV Hydrocarbon result partly due to individ. peak(s) in quant. range
CL Initial analysis within holding time but required dilution
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

PROBLEM CHAIN-OF-CUSTODY

MQB0017

DATE/TIME 1/30/07

DATE RECEIVED 1/30/07

CLIENT BP

TURN AROUND TIME 10

CLIENT SERVICES REP LISA

ANALYST SACRAMENTO

PROBLEM

The refrigerator (ID Front) Froze over and
2 out of 6 VOAs broke. temp got to -13°C

RESOLUTION

Client Instruction* Noted. Enough left to analyze
samples

Telephone Number of Client: _____

Client Contact for Instruction: _____

Date and Time of Instruction: _____

Date & Time Form Given to Sample Control: _____

CLIENT SERVICES REP. SIGNATURE: _____

DATE/TIME: _____

*If client does not return call within 24 hours, please route this form to the Laboratory Director.

Atlantic Richfield Company

bp
A BP affiliated company

Chain of Custody Record

Project Name: ARCO 2111
 BP BU/AR Region/Enfos Segment: BP America's West Retail
 State or Lead Regulatory Agency: RWRCB
 Requested Due Date (mm/dd/yy): Standard TPT

On-site Time: <u>0445</u>	Temp:
Off-site Time: <u>0600</u>	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>Test Americas</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Stratus</u>
Address: <u>885 Jarvis Drive</u> <u>Morgan Hill CA 95037</u>	BP/AR Facility Address: <u>1156 Davis Street</u> <u>San Jose CA 95128</u>	Address: <u>3330 Cameron Pk Dr</u> <u>Cameron Pk CA 95632</u>
Lab PM: <u>Liza Kule</u>	Site Lat/Long:	Consultant/Contractor Project No.: <u>E211</u>
Tele/Fax: <u>408 782 8156</u>	California Global ID No.: <u>T0600101764</u>	Consultant/Contractor PM: <u>JAY</u>
BP/AR EBM: <u>PAUL SUPPLE</u>	Enfos Project No.: <u>GOC28</u>	Tele/Fax: <u>530 626 6004</u>
Address: <u>2010 Crow Canyon Pl</u> <u>San Ramon CA</u>	Provision or OOC (circle one)	Report Type & QC Level: <u>1-EDF</u>
Tele/Fax: <u>925 275 3506</u>	Phase/WBS: <u>03-01M</u>	E-mail EDD To: <u>CJewitt@StratusInc.com</u>
	Sub Phase/Task: <u>03 LABS</u>	Invoice to: Consultant or BP or <u>Atlantic Richfield Co.</u> (circle one)
	Cost Element: <u>01</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis					Sample Point Lat/Long and Comments	
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol							
1	<u>0211 ASWINK</u>	<u>0529</u>	<u>13007</u>	<u>X</u>			<u>MQB0017</u>	<u>01</u>	<u>6</u>											<u>5 oxy's</u> <u>MTBE, TBA, DPE</u> <u>ETBE</u> <u>TAME</u>
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

2.7°C

Sampler's Name: <u>Chris Hill</u>	Relinquished By / Affiliation: <u>[Signature] Stratus</u>	Date: <u>3/30/07</u>	Time: <u>1001</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/30/07</u>	Time: <u>1001</u>
Sampler's Company: <u>Stratus</u>						
Shipment Date: <u>1-30-07</u>						
Shipment Method: <u>Stratus</u>						
Shipment Tracking No:						

Special Instructions: EC Results Rmiller@brand.bentinc.com

Custody Seals In Place: Yes / No | Temp Blank: Yes No | Cooler Temp on Receipt: 5 °F | Trip Blank: Yes No | MS/MSD Sample Submitted: Yes / No

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: Arco
 REC. BY (PRINT) A.M.
 WORKORDER: MQB0017

DATE REC'D AT LAB: 1-31-07
 TIME REC'D AT LAB: 8:15
 DATE LOGGED IN: 2/1/07

For Regulatory Purposes?
 DRINKING WATER YES/NO
 WASTE WATER YES/NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) <u>Present</u> / Absent <u>Intact</u> / Broken*								<div style="position: absolute; top: 0; right: 0; text-align: right;"> 0211 ASW INF 2 of 6 Broken </div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> 1-31-07 AM. see COC </div>
2. Chain-of-Custody <u>Present</u> / Absent*								
3. Traffic Reports or Packing List: <u>Present</u> / Absent								
4. Airbill: <u>Airbill</u> / Sticker <u>Present</u> / Absent								
5. Airbill #: <u>CA-Overnight</u>								
6. Sample Labels: <u>Present</u> / Absent								
7. Sample IDs: <u>Listed</u> / Not Listed on Chain-of-Custody								
8. Sample Condition: <u>Intact</u> / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <u>Yes</u> / No*								
10. Sample received within hold time? <u>Yes</u> / No*								
11. Adequate sample volume received? <u>Yes</u> / No*								
12. Proper preservatives used? <u>Yes</u> / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) <u>Yes</u> / No*								
14. Read Temp: <u>5°C</u> Corrected Temp: <u>5°C</u> Is corrected temp 4 +/-2°C? <u>Yes</u> / No**								

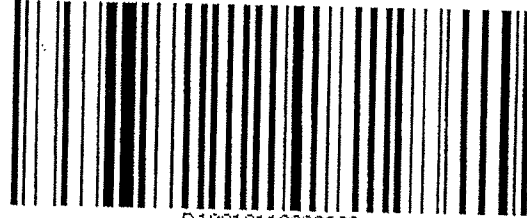
(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE
 or Problem COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

California Overnight Shipping Label



1-800-334-5000 / www.calover.com



D10010119090209

Date Printed 1/30/2007

Tracking#D10010119090209

Shipped From:

TEST AMERICA - SACRAMENTO
819 STRIKER AVENUE 8
SACRAMENTO, CA 95834

Sent By: TIM ALBRIGHT

Phone#: (916)921-9600

wgt(lbs): 40

Reference:

Decl. Value: \$0.00

Ship To Company:

TESTAMERICA - MORGAN HILL
885 JARVIS DR
MORGAN HILL, CA 95037
SAMPLE CONTROL (408)776-9600

Service: **S**

Sort Code: **SJC**

Special Services:

Lisa Race

From: Sandy Hayes [shayes@stratusinc.net]
Sent: Monday, February 05, 2007 10:30 AM
To: Lisa Race
Subject: RE: problem COC for ARCO#2111 - MQB0017
Attachments: 2111 COC.pdf

REVISED

Hi Lisa,

The correct Enfos # is G0C28-0023...I've attached a revised copy.

Thanks,
Sandy

Sandy Hayes
Stratus Environmental, Inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682
shayes@stratusinc.net
Phone: 530-676-6004
Fax: 530.676.6005

-----Original Message-----

From: Lisa Race [mailto:lrace@testamericainc.com]
Sent: Monday, February 05, 2007 10:16 AM
To: knagaraju@stratusinc.net; scarter@stratusinc.net; Sandy Hayes; Scott Bittinger
Subject: problem COC for ARCO#2111 - MQB0017

Please complete the ENFOS # for this project.

Lisa Race
Senior Project Manager, Morgan Hill, CA
TestAmerica Analytical Testing Corporation
Tel.: 408-776-9600
Direct.: 408-782-8156
Fax: 408-782-6308
e-mail: lrace@testamericainc.com
NOTE NEW E-MAIL ADDRESS

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2/5/2007

Atlantic Richfield Company

bp
A BP affiliated company

Chain of Custody Record

REVISED

Page 1 of 1

Project Name: ARCO 2111
 BP BU/AR Region/Enfos Segment: BP Americas West Retail
 State or Lead Regulatory Agency: RWRCB
 Requested Due Date (mm/dd/yy): Standard THT

On-site Time: <u>0445</u>	Temp:
Off-site Time: <u>0600</u>	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>Test Americas</u>	BP/AR Facility No.: <u>2M1</u>	Consultant/Contractor: <u>Stratus</u>
Address: <u>885 Juvius Drive</u> <u>Morgan Hill CA 95037</u>	BP/AR Facility Address: <u>1156 Davis Street</u> <u>San Francisco</u>	Address: <u>3330 Cameron Pl DE</u> <u>Cameron PA 15812</u>
Lab PM: <u>Lisa Ruse</u>	Site Lat/Long:	Consultant/Contractor Project No.: <u>E211</u>
Tele/Fax: <u>408 782 8156</u>	California Global ID No.: <u>F0600101764</u>	Consultant/Contractor PM: <u>JAY</u>
BP/AR EBM: <u>PAUL SUPPLE</u>	Enfos Project No.: <u>6028-0023</u>	Tele/Fax: <u>530 626 6004</u>
Address: <u>2010 Crow Canyon Place</u> <u>San Ramon CA</u>	Provision of OOC (circle one)	Report Type & QC Level: <u>1-EDR</u>
Tele/Fax: <u>925 274 3506</u>	Phase/WBS: <u>03-0/M</u>	E-mail EDD To: <u>CJewitt@StratusInc.com</u>
Lab Bottle Order No:	Sub Phase/Task: <u>03 LAB</u>	Invoice to: Consultant or BP or Atlantic Richfield Co. (circle one)
	Cost Element: <u>01</u>	

Item No.	Sample Description	Time	Date	Matrix			Laboratory No.	No. of Containers	Preservative					Requested Analysis	Comments
				Soil/Solid	Water/Liquid	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol		
1	0211 ASWINE	0525	13007		X		MQB0017	6							5 oxys MTBE, TBA, DIPK Sample Point Lat/Long and ETBE TAME
2							01	6			X				
3															
4															
5															
6															
7															
8															
9															
10															

2.7 °C

Sampler's Name: <u>Chris Hill</u>	Requisitioned By: <u>[Signature]</u>	Affiliation: <u>Stratus</u>	Date: <u>3/30/07</u>	Time: <u>1001</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>1/30/07</u>	Time: <u>1001</u>
Shipment Date: <u>1-30-07</u>							
Shipment Method: <u>Stratus</u>							
Shipment Tracking No:							
Special Instructions: <u>EC Results R Miller @ buard.bentline.com</u>							

Custody Seals In Place: (Yes/No) | Temp Blank: Yes (No) | Cooler Temp on Receipt: 5 °C | Trip Blank: Yes (No) | MS/MSD Sample Submitted: Yes (No)

31 January, 2007

Jay Johnson
Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park, CA 95682

RE: ARCO #2111, San Leandro, CA
Work Order: MQA1078

Enclosed are the results of analyses for samples received by the laboratory on 01/31/07 08:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQA1078 Reported: 01/31/07 15:56
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111AGAC1	MQA1078-01	Vapor	01/30/07 05:08	01/31/07 08:15

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with intact custody seals.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQA1078 Reported: 01/31/07 15:56
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Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
02111AGAC1 (MQA1078-01) Vapor Sampled: 01/30/07 05:08 Received: 01/31/07 08:15									
Gasoline Range Organics (C4-C12)	ND	10	mg/m ³ Air	1	7A31011	01/31/07	01/31/07 13:21	EPA 8015B/8021B	
Benzene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
Xylenes (total)	ND	0.20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97 %		70-125	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.4	ppmv	"	"	"	"	"	
Benzene	ND	0.031	"	"	"	"	"	"	
Toluene	ND	0.027	"	"	"	"	"	"	
Ethylbenzene	ND	0.023	"	"	"	"	"	"	
Xylenes (total)	ND	0.047	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.14	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93 %		65-140	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96 %		70-125	"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1078
Reported:
01/31/07 15:56

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7A31011 - EPA 5030B [P/T] / EPA 8015B/8021B

Blank (7A31011-BLK1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	ND	50	mg/m ³ Air							
Gasoline Range Organics (C4-C12)	ND	12	ppmv							
Benzene	ND	0.50	mg/m ³ Air							
Benzene	ND	0.16	ppmv							
Toluene	ND	0.50	mg/m ³ Air							
Toluene	ND	0.13	ppmv							
Ethylbenzene	ND	0.50	mg/m ³ Air							
Ethylbenzene	ND	0.12	ppmv							
Xylenes (total)	ND	1.0	mg/m ³ Air							
Xylenes (total)	ND	0.24	ppmv							
Methyl tert-butyl ether	ND	2.5	mg/m ³ Air							
Methyl tert-butyl ether	ND	0.69	ppmv							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	39.4		mg/m ³ Air	40.0		98	65-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	6.60		ppmv	6.70		99	65-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	40.2		mg/m ³ Air	40.0		100	70-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.63		ppmv	5.59		101	70-125			

Laboratory Control Sample (7A31011-BS1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	240	50	mg/m ³ Air	275		87	70-115			
Gasoline Range Organics (C4-C12)	68.2	12	ppmv	78.0		87	70-115			
Benzene	4.74	0.50	mg/m ³ Air	4.85		98	80-150			
Benzene	1.49	0.16	ppmv	1.52		98	80-150			
Toluene	21.6	0.50	mg/m ³ Air	23.5		92	75-125			
Toluene	5.73	0.13	ppmv	6.25		92	75-125			
Ethylbenzene	4.04	0.50	mg/m ³ Air	4.70		86	75-135			
Ethylbenzene	0.933	0.12	ppmv	1.08		86	75-135			
Xylenes (total)	25.2	1.0	mg/m ³ Air	26.5		95	75-135			
Xylenes (total)	5.81	0.24	ppmv	6.12		95	75-135			
Methyl tert-butyl ether	4.84	2.5	mg/m ³ Air	6.50		74	60-140			
Methyl tert-butyl ether	1.35	0.69	ppmv	1.81		75	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.7		mg/m ³ Air	40.0		119	65-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.99		ppmv	6.70		119	65-140			
<i>Surrogate: 4-Bromofluorobenzene</i>	40.9		mg/m ³ Air	40.0		102	70-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.72		ppmv	5.59		102	70-125			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1078
Reported:
01/31/07 15:56

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7A31011 - EPA 5030B [P/T] / EPA 8015B/8021B

Laboratory Control Sample Dup (7A31011-BSD1)

Prepared & Analyzed: 01/31/07

Gasoline Range Organics (C4-C12)	237	50	mg/m ³ Air	275		86	70-115	1	35	
Gasoline Range Organics (C4-C12)	67.3	12	ppmv	78.0		86	70-115	1	35	
Benzene	4.45	0.50	mg/m ³ Air	4.85		92	80-150	6	35	
Benzene	1.40	0.16	ppmv	1.52		92	80-150	6	35	
Toluene	5.60	0.13	"	6.25		90	75-125	2	30	
Toluene	21.1	0.50	mg/m ³ Air	23.5		90	75-125	2	30	
Ethylbenzene	3.90	0.50	"	4.70		83	75-135	4	30	
Ethylbenzene	0.900	0.12	ppmv	1.08		83	75-135	4	30	
Xylenes (total)	24.5	1.0	mg/m ³ Air	26.5		92	75-135	3	30	
Xylenes (total)	5.65	0.24	ppmv	6.12		92	75-135	3	30	
Methyl tert-butyl ether	4.81	2.5	mg/m ³ Air	6.50		74	60-140	0.6	30	
Methyl tert-butyl ether	1.34	0.69	ppmv	1.81		74	60-140	0.7	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>46.7</i>		<i>mg/m³ Air</i>	<i>40.0</i>		<i>117</i>	<i>65-140</i>			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>7.82</i>		<i>ppmv</i>	<i>6.70</i>		<i>117</i>	<i>65-140</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>41.3</i>		<i>mg/m³ Air</i>	<i>40.0</i>		<i>103</i>	<i>70-125</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.77</i>		<i>ppmv</i>	<i>5.59</i>		<i>103</i>	<i>70-125</i>			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682


Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQA1078
Reported:
01/31/07 15:56

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Atlantic Richfield Company

 A BP affiliated company

Chain of Custody Record

Project Name: Amco 2111
 BP BU/AR Region/Enfos Segment: BP America's West Retail
 State or Lead Regulatory Agency: RW/RCS - SAN Fran
 Requested Due Date (mm/dd/yy): 24 APR 04

On-site Time: <u>0445</u>	Temp:
Off-site Time: <u>0600</u>	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: <u>FEST America</u>	BP/AR Facility No.: <u>2111</u>	Consultant/Contractor: <u>Statues</u>
Address: <u>884 TAVUS DRIVE MAYMA HILL CA 95937</u>	BP/AR Facility Address: <u>1156 DAVIS ST SAN LEANDRO</u>	Address: <u>3330 Cameron Plz DR Cameron Plz CA 95682</u>
Lab PM: <u>Lisa Rule</u>	Site Lat/Long:	California Global ID No.: <u>TOP000101764</u>
Tele/Fax: <u>408 782 8156</u>	Enfos Project No.: <u>GDC28</u>	Consultant/Contractor Project No.: <u>15211</u>
BP/AR EBM: <u>Power Supply</u>	Provision or OOC (circle one)	Consultant/Contractor PM: <u>JAY</u>
Address: <u>2110 Crow Canyon Place #150 SAN Ramon</u>	Phase/WBS: <u>03-0/1</u>	Tele/Fax: <u>530 676 6004</u>
Tele/Fax: <u>924 277 3506</u>	Sub Phase/Task: <u>03 LAB</u>	Report Type & QC Level: <u>1 - EDF</u>
	Cost Element: <u>01</u>	E-mail EDD To: <u>CJewitt@StatuesInc.com</u>
		Invoice to: Consultant or BP of <u>Atlantic Richfield Co</u> (circle one)

Lab Bottle Order No:				Matrix			Preservative					Requested Analysis						Sample Point Lat/Long and Comments					
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	CEP	BTEX	MTBE							
1	02111 AGAC 1	0508	13007		X		2111-1078	1						X	X	X							24 HR TAG
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Sampler's Name: <u>Chris Hill</u>		Relinquished By / Affiliation: <u>Statues</u>		Date: <u>1/30/03</u>	Time: <u>1005</u>	Accepted By / Affiliation: <u>[Signature]</u>		Date: <u>1/30/03</u>	Time: <u>1001</u>
Sampler's Company: <u>Statues</u>		[Signature]		Date: <u>1/30/03</u>	Time: <u>1516</u>	[Signature]		Date: <u>1/31/03</u>	Time: <u>8:5</u>
Shipment Date: <u>1-30-07</u>		Shipment Method: <u>Statues</u>		Shipment Tracking No:					

Special Instructions: EC Results Miller @ broadbent inc. com

Custody Seals In Place: (Yes) / No | Temp Blank: Yes / (No) | Cooler Temp on Receipt: NA °F/C | Trip Blank: Yes / (No) | MS/MSD Sample Submitted: Yes / (No)

TEST AMERICA SAMPLE RECEIPT LOG

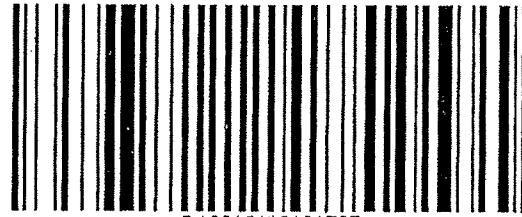
CLIENT NAME: <u>Arco</u>	DATE REC'D AT LAB: <u>1-31-07</u>	For Regulatory Purposes?
REC. BY (PRINT) <u>A.M.</u>	TIME REC'D AT LAB: <u>8:15</u>	DRINKING WATER YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
WORKORDER: _____	DATE LOGGED IN: _____	WASTE WATER YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION / ETC.)
1. Custody Seal(s) <input checked="" type="radio"/> Present / <input type="radio"/> Absent <input checked="" type="radio"/> Intact / <input type="radio"/> Broken*								1-31-07 A.M. See Col
2. Chain-of-Custody <input checked="" type="radio"/> Present / <input type="radio"/> Absent*								
3. Traffic Reports or Packing List: <input checked="" type="radio"/> Present / <input type="radio"/> Absent								
4. Airbill: Airbill / Sticker <input type="radio"/> Present / <input type="radio"/> Absent								
5. Airbill #: <u>CA. Overnight</u>								
6. Sample Labels: <input checked="" type="radio"/> Present / <input type="radio"/> Absent								
7. Sample IDs: <input checked="" type="radio"/> Listed / <input type="radio"/> Not Listed on Chain-of-Custody								
8. Sample Condition: <input checked="" type="radio"/> Intact / <input type="radio"/> Broken* / <input type="radio"/> Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / <input type="radio"/> No*								
10. Sample received within hold time? <input checked="" type="radio"/> Yes / <input type="radio"/> No*								
11. Adequate sample volume received? <input checked="" type="radio"/> Yes / <input type="radio"/> No*								
12. Proper preservatives used? <input checked="" type="radio"/> Yes / <input type="radio"/> No* <u>NA</u>								
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / <input checked="" type="radio"/> (No)								
14. Read Temp: <u>NA</u> Corrected Temp: _____ Is corrected temp 4 +/-2°C? Yes / <input type="radio"/> No**								

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE
 or Problem COC Air bag

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

California Overnight Shipping Label



D10010119101725

Date Printed 1/30/2007

Tracking#D10010119101725

Shipped From:

TEST AMERICA - SACRAMENTO
819 STRIKER AVENUE 8
SACRAMENTO, CA 95834

Sent By: TIM ALBRIGHT

Phone#: (916)921-9600

wgt(lbs): 1

Reference:

Decl. Value: \$0.00

Ship To Company:

TESTAMERICA - MORGAN HILL
885 JARVIS DR
MORGAN HILL, CA 95037
SAMPLE CONTROL (408)776-9600

Service: **S**

Sort Code: **SJC**

Special Services:

15 February, 2007

Jay Johnson
Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park, CA 95682

RE: ARCO #2111, San Leandro, CA
Work Order: MQB0043

Enclosed are the results of analyses for samples received by the laboratory on 02/01/07 07:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQB0043 Reported: 02/15/07 15:06
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
02111ASWINF	MQB0043-01	Water	01/31/07 07:45	02/01/07 07:30

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with no custody seals.

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043
Reported:
02/15/07 15:06

Total Purgeable Hydrocarbons by GC/MS (CA LUFT)
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0043-01RE1) Water Sampled: 01/31/07 07:45 Received: 02/01/07 07:30									
Gasoline Range Organics (C4-C12)	300	100	ug/l	2	7B14008	02/14/07	02/14/07	LUFT GCMS	PV
Surrogate: 1,2-Dichloroethane-d4		96 %	60-145		"	"	"	"	

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043
Reported:
02/15/07 15:06

Volatile Organic Compounds by EPA Method 8260B
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
02111ASWINF (MQB0043-01) Water Sampled: 01/31/07 07:45 Received: 02/01/07 07:30									
tert-Amyl methyl ether	ND	12	ug/l	25	7B07011	02/07/07	02/08/07	EPA 8260B	
Benzene	ND	12	"	"	"	"	"	"	
tert-Butyl alcohol	3200	500	"	"	"	"	"	"	
Di-isopropyl ether	ND	12	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	12	"	"	"	"	"	"	
Ethylbenzene	ND	12	"	"	"	"	"	"	
Methyl tert-butyl ether	490	12	"	"	"	"	"	"	
Toluene	ND	12	"	"	"	"	"	"	
Xylenes (total)	ND	12	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96 %		60-145	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		77 %		60-120	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %		75-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		80 %		70-130	"	"	"	"	

Stratus Environmental Inc. [Arco] 3330 Cameron Park Dr., Suite 550 Cameron Park CA, 95682	Project: ARCO #2111, San Leandro, CA Project Number: G0C28-0023 Project Manager: Jay Johnson	MQB0043 Reported: 02/15/07 15:06
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**Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control
TestAmerica - Morgan Hill, CA**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7B14008 - EPA 5030B P/T / LUFT GCMS										
Blank (7B14008-BLK1) Prepared & Analyzed: 02/14/07										
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50		96	60-145			
Laboratory Control Sample (7B14008-BS2) Prepared & Analyzed: 02/14/07										
Gasoline Range Organics (C4-C12)	527	50	ug/l	500		105	75-140			
Surrogate: 1,2-Dichloroethane-d4	2.45		"	2.50		98	60-145			
Laboratory Control Sample Dup (7B14008-BSD2) Prepared & Analyzed: 02/14/07										
Gasoline Range Organics (C4-C12)	490	50	ug/l	500		98	75-140	7	20	
Surrogate: 1,2-Dichloroethane-d4	2.48		"	2.50		99	60-145			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043
Reported:
02/15/07 15:06

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B07011 - EPA 5030B P/T / EPA 8260B

Blank (7B07011-BLK1)

Prepared & Analyzed: 02/07/07

tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.27		"	2.50		91	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.07		"	2.50		83	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.33		"	2.50		93	75-130			
<i>Surrogate: Toluene-d8</i>	2.03		"	2.50		81	70-130			

Laboratory Control Sample (7B07011-BS1)

Prepared & Analyzed: 02/07/07

tert-Amyl methyl ether	10.6	0.50	ug/l	10.0		106	65-135			
Benzene	10.8	0.50	"	10.0		108	70-125			
tert-Butyl alcohol	171	20	"	200		86	60-135			
Di-isopropyl ether	11.1	0.50	"	10.0		111	70-130			
Ethyl tert-butyl ether	10.7	0.50	"	10.0		107	65-130			
Ethylbenzene	11.2	0.50	"	10.0		112	70-130			
Methyl tert-butyl ether	11.5	0.50	"	10.0		115	50-140			
Toluene	10.6	0.50	"	10.0		106	70-120			
Xylenes (total)	35.2	0.50	"	30.0		117	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.09		"	2.50		84	60-145			
<i>Surrogate: 4-Bromofluorobenzene</i>	2.24		"	2.50		90	60-120			
<i>Surrogate: Dibromofluoromethane</i>	2.21		"	2.50		88	75-130			
<i>Surrogate: Toluene-d8</i>	2.18		"	2.50		87	70-130			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043
Reported:
02/15/07 15:06

Volatile Organic Compounds by EPA Method 8260B - Quality Control
TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B07011 - EPA 5030B P/T / EPA 8260B

Matrix Spike (7B07011-MS1)		Source: MQB0017-01			Prepared & Analyzed: 02/07/07					
tert-Amyl methyl ether	267	12	ug/l	250	ND	107	65-135			
Benzene	253	12	"	250	5.2	99	70-125			
tert-Butyl alcohol	8540	500	"	5000	3600	99	60-135			
Di-isopropyl ether	271	12	"	250	ND	108	70-130			
Ethyl tert-butyl ether	265	12	"	250	ND	106	65-130			
Ethylbenzene	260	12	"	250	ND	104	70-130			
Methyl tert-butyl ether	744	12	"	250	440	122	50-140			
Toluene	237	12	"	250	31	82	70-120			
Xylenes (total)	808	12	"	750	25	104	80-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.12</i>		<i>"</i>	<i>2.50</i>		<i>85</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.17</i>		<i>"</i>	<i>2.50</i>		<i>87</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.16</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.14</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>70-130</i>			
Matrix Spike Dup (7B07011-MSD1)		Source: MQB0017-01			Prepared & Analyzed: 02/07/07					
tert-Amyl methyl ether	271	12	ug/l	250	ND	108	65-135	1	25	
Benzene	258	12	"	250	5.2	101	70-125	2	15	
tert-Butyl alcohol	8860	500	"	5000	3600	105	60-135	4	35	
Di-isopropyl ether	273	12	"	250	ND	109	70-130	0.7	35	
Ethyl tert-butyl ether	266	12	"	250	ND	106	65-130	0.4	35	
Ethylbenzene	262	12	"	250	ND	105	70-130	0.8	15	
Methyl tert-butyl ether	759	12	"	250	440	128	50-140	2	25	
Toluene	251	12	"	250	31	88	70-120	6	15	
Xylenes (total)	810	12	"	750	25	105	80-125	0.2	15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>2.17</i>		<i>"</i>	<i>2.50</i>		<i>87</i>	<i>60-145</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>2.16</i>		<i>"</i>	<i>2.50</i>		<i>86</i>	<i>60-120</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>2.26</i>		<i>"</i>	<i>2.50</i>		<i>90</i>	<i>75-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>2.20</i>		<i>"</i>	<i>2.50</i>		<i>88</i>	<i>70-130</i>			

Stratus Environmental Inc. [Arco]
3330 Cameron Park Dr., Suite 550
Cameron Park CA, 95682

Project: ARCO #2111, San Leandro, CA
Project Number: G0C28-0023
Project Manager: Jay Johnson

MQB0043
Reported:
02/15/07 15:06

Notes and Definitions

PV Hydrocarbon result partly due to individ. peak(s) in quant. range
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



Chain of Custody Record

Project Name: ARCO 2111
BP BU/AR Region/Enfos Segment: BP > Americas > West > Retail > Alameda > 2111
State or Lead Regulatory Agency: RWQCB - San Francisco
Requested Due Date (mm/dd/yy): Standard TAA

Table with 2 columns: Time and Temp. On-site Time: 0530, Temp: 45; Off-site Time: 0900, Temp: 50; Sky Conditions: Clear; Meteorological Events; Wind Speed; Direction.

Lab Name: TestAmerica, Address: 885 Jarvis Drive, Morgan Hill, CA 95937, Lab PM: Lisa Race, BP/AR Facility No.: 2111, BP/AR Facility Address: 1156 Davis Street, San Leandro, Site Lat/Long, California Global ID No.: T0600101764, Enfos Project No.: G0C28-0023, Provision or OOC (circle one) Provision, Phase/WBS: 03-O & M, Sub Phase/Task: 03-Analytical, Cost Element: 01-Contractor labor, Consultant/Contractor: Stratus Environmental, Inc., Address: 3330 Cameron Park Drive, Suite 550, Cameron Park, CA 95682, Consultant/Contractor Project No., Consultant/Contractor PM: Jay Johnson, Tele/Fax: (530) 676-6000 / (530) 676-6005, Report Type & QC Level: Level 1 with EDF, E-mail EDD To: cjewitt@stratusinc.net, Invoice to: Atlantic Richfield Co.

Table with columns: Item No., Sample Description, Time, Date, Matrix (Soil/Solid, Water/Liquid, Air), Laboratory No. (M080043), No. of Containers (6), Preservative (Unpreserved, H2SO4, HNO3, HCl, Methanol), Requested Analysis (GRO BTK, 5 oxy S), Sample Point Lat/Long and Comments (5 oxy S, TBA, ETBE, MTBE, TAME Dipe).

Sampler's Name: Chris Hill, Sampler's Company: Stratus, Shipment Date: 1-31-07, Shipment Method: Station, Shipment Tracking No., Relinquished By / Affiliation: Chris Hill, Date: 1/31/07, Time: 1230, Accepted By / Affiliation: Chris Hill, Date: 1/31/07, Time: 1521.

Special Instructions: Please cc results to rmiller@broadbentinc.com
Custody Seals In Place: Yes / (No) | Temp Blank: Yes / (No) | Cooler Temp on Receipt: 4 °F (C) | Trip Blank: Yes / (No) | MS/MSD Sample Submitted: Yes / (No)

TEST AMERICA SAMPLE RECEIPT LOG

CLIENT NAME: Arco
 REC. BY (PRINT) A.M.
 WORKORDER: 44B0093

DATE REC'D AT LAB: 2-1-07
 TIME REC'D AT LAB: 7:30
 DATE LOGGED IN: 2-1-07

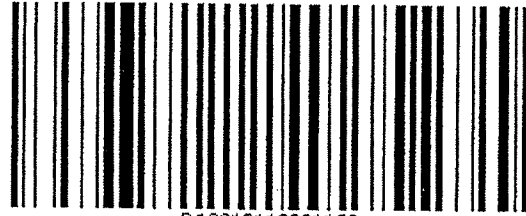
For Regulatory Purposes?
 DRINKING WATER YES/NO
 WASTE WATER YES/NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*								2-1-07 A.M. See COC
2. Chain-of-Custody <input checked="" type="radio"/> Present / Absent*								
3. Traffic Reports or Packing List: <input checked="" type="radio"/> Present / Absent								
4. Airbill: <input checked="" type="radio"/> Airbill / Sticker <input type="radio"/> Present / Absent								
5. Airbill #: <u>See Attached</u>								
6. Sample Labels: <input checked="" type="radio"/> Present / Absent								
7. Sample IDs: <input checked="" type="radio"/> Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: <input checked="" type="radio"/> Intact / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / No*								
10. Sample received within hold time? <input checked="" type="radio"/> Yes / No*								
11. Adequate sample volume received? <input checked="" type="radio"/> Yes / No*								
12. Proper preservatives used? <input checked="" type="radio"/> Yes / No*								
13. Trip Blank / Temp Blank Received? (circle which, if yes) <input checked="" type="radio"/> Yes / No*								
14. Read Temp: <u>4°C</u> Corrected Temp: <u>4°C</u> Is corrected temp 4 +/-2°C? <input checked="" type="radio"/> Yes / No**								

(Acceptance range for samples requiring thermal pres.)
 **Exception (if any): METALS / DFF ON ICE
 or Problem COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

California Overnight Shipping Label



D10010119261123

Date Printed 1/31/2007

Tracking#D10010119261123

Shipped From:
 TEST AMERICA - SACRAMENTO
 819 STRIKER AVENUE 8
 SACRAMENTO, CA 95834

Sent By: TIM ALBRIGHT
Phone#: (916)921-9600
wgt(lbs): 33
Reference:
Decl. Value: \$0.00

<p><i>Ship To Company:</i> TESTAMERICA - MORGAN HILL 885 JARVIS DR MORGAN HILL, CA 95037 SAMPLE CONTROL (408)776-9600</p>	<p><i>Service:</i> S <i>Sort Code:</i> SJC <i>Special Services:</i></p>
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