# RECEIV



Atlantic Richfield Company (a BP affiliated company)

P.O. Box 1257 San Ramon, California 94583 Phone: (925) 275-3801

Fax: (925) 275-3815

14 September 2007

Re: Soil and Ground-Water Investigation Report Atlantic Richfield Company Station #2162

15135 Hesperian Boulevard San Leandro, California ACEH Case #RO0000190



3:30 pm, Sep 18, 2007

Alameda County Environmental Health



"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Submitted by:

Paul Supple

**Environmental Business Manager** 

# SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station #2162 15135 Hesperian Boulevard San Leandro, California

# Prepared for:

Mr. Paul Supple Environmental Business Manager Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583

# Prepared by:

BROADBENT & ASSOCIATES, INC. 1324 Mangrove Ave., Suite 212 Chico, California 95926 (530) 566-1400 www.broadbentinc.com

14 September 2007

Project No. 06-08-620

Broadbent & Associates, Inc. 1324 Mangrove Ave., Suite 212 Chico, CA 95926 Voice (530) 566-1400 Fax (530) 566-1401



14 September 2007

Project No. 06-08-620

Atlantic Richfield Company P.O. Box 1257 San Ramon, CA 94583 Submitted via ENFOS

Attn.: Mr. Paul Supple

Re: Soil & Ground-Water Investigation Report, Atlantic Richfield Company Station #2162, 15135 Hesperian Boulevard, San Leandro, California; ACEH Case # RO0000190

Dear Mr. Supple:

Broadbent & Associates, Inc. (BAI) is pleased to submit this *Soil & Ground-Water Investigation Report* for Atlantic Richfield Company Station #2162 (herein referred to as Station #2162) located at 15135 Hesperian Boulevard, San Leandro, California (Site). This report presents a description of field activities conducted and results obtained from drilling soil and ground-water borings in five areas on the Site. This work was conducted in accordance with the *Work Plan for Onsite Soil and Ground-Water Investigation* (BAI, 15 May 2007), as approved by Alameda County Environmental Health Services (ACEH) in their letter dated 29 May 2007.

Should you have questions or require additional information, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.

Senior Engineer

Robert H. Miller, P.G., C.HG.

About I Mil

Principal Hydrogeologist

Enclosures

cc:

Mr. Stephen Plunkett, ACEH (Submitted via ACEH ftp Site)

Mr. Karl Busche, City of San Leandro Environmental Services Division (Electronic copy

uploaded to GeoTracker)

ARIZONA CALIFORNIA

NEVADA

TEXAS

ROBERT H.

MILLER

No. 4893

# SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station #2162 15135 Hesperian Boulevard San Leandro, California

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### SOIL & GROUND-WATER INVESTIGATION REPORT

Atlantic Richfield Company Station #2162 15135 Hesperian Boulevard San Leandro, California

#### 1.0 INTRODUCTION

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, Broadbent & Associates, Inc. (BAI) has prepared this Soil & Ground-Water Investigation Report for additional soil and ground-water characterization at the Atlantic Richfield Company Station #2162, located at 15135 Hesperian Boulevard, San Leandro, California (Site). This soil and ground-water investigation was completed to further evaluate the presence of petroleum hydrocarbons contamination immediately down gradient of the UST pit and waste oil tank pit and along the southern Site boundary between monitoring wells MW-3 and MW-4, as requested by Alameda County Environmental Health (ACEH). Investigation activities were conducted in accordance with the BAI *Work Plan for Onsite Soil and Ground-Water Investigation* dated 15 May 2007, as approved by ACEH in their letter dated 29 May 2007. This report includes discussions on the Site Background, Site Geology and Hydrogeology, Field Activities Performed, Results of Investigation, and Conclusions and Recommendations.

# 2.0 SITE BACKGROUND

The Site is an active ARCO-brand gasoline retail station that consists of a station building, four 10,000-gallon, double-wall fiberglass underground storage tanks (USTs), and eight pump dispensers on four dispenser islands. The Site is located on the west side of Hesperian Boulevard south of Ruth Court in Oakland, California (Figure 1). The land use in the immediate vicinity of the Site is commercial. The Site is predominantly covered with concrete and asphalt.

A UST leak was reported in September of 1991. The USTs were removed and replaced with four, double-wall fiberglass, 10,000 gallon tanks in late 1991/early 1992. Approximately 100 cubic yards (approximately 130 tons) of contaminated soil and approximately 50,000 gallons of water from the UST excavation were removed during these activities. A limited soil vapor performance test was reportedly completed in late 1991 to determine if Soil Vapor Extraction (SVE) was feasible at the Site. Results of the test using vapor wells VW-1 and VW-2 in the southern portion of the Site showed that SVE was not an effective remediation technique due to an insufficient radius of influence by the SVE test system. Periodic ground-water monitoring at the Site began in 1992, when four monitoring wells were installed.

Product lines and dispensers were again replaced with upgrades in January 2003. Approximately 140 cubic yards (183 tons) of soil were excavated and removed from the Site during this upgrade of the product lines and dispensers. Of the soil samples collected during the upgrade, sample S-L4-3.5 yielded a Total Petroleum Hydrocarbons as Gasoline (TPH-g) concentration of 200 milligrams per kilogram (mg/kg), toluene concentration of 2.1 mg/kg, Ethylbenzene concentration of 1.4 mg/kg, and a total xylenes concentration of 1.5 mg/kg. Sample S-L1-3.5 yielded a benzene concentration of 0.072 mg/kg. Samples S-L3-3.5, S-L1-3.5, and S-D5-3 yielded concentrations of methyl tertiary butyl ether (MTBE) of 0.55 mg/kg, 0.14 mg/kg, and 0.093 mg/kg, respectively.

Ground water at the Site has been monitored periodically since 1992 through a network of four monitoring wells: Wells MW-1 and MW-2 are adjacent to the USTs; Wells MW-3 and MW-4 are located downgradient near the southern boundary of the Site (Figure 2). Historic water level elevations have yielded potentiometric ground-water flow directions mostly consistent to the southwest at hydraulic gradients ranging from 0.002 ft/ft to 0.013 ft/ft. Concentrations of TPHg/Gasoline-Range Organics (GRO) have been non-detect and/or below the Environmental Screening Level (ESL) of 100 micrograms per liter (µg/l) for ground water that is a current or potential drinking water resource since July 2002. The maximum TPH-g/GRO concentration was detected in well MW-2 at a concentration of 2,100 µg/L in October 1999. Concentrations of benzene, toluene, Ethylbenzene, and total xylenes (BTEX) have been non-detect and/or below the ESLs since December 2000. The maximum benzene concentration in ground-water at the Site was detected in well MW-3 at a concentration of 12 µg/L in May 1996. Maximum concentrations for toluene, Ethylbenzene, and xylenes were 3.2 µg/L (MW-3, 6/23/1999), 45 μg/L (MW-2, 2/26/1996), and 28 μg/L (MW-2, 2/26/1996), respectively. The wells have shown a decreasing trend in MTBE concentrations since 1996. MTBE has not been detected in well MW-1 since July 2002 or well MW-2 since 2000. The maximum MTBE concentration was detected in well MW-3 at a concentration of 1,900 µg/L in June 1997. Concentrations in MW-3 have shown a decreasing trend from June 1997 to 4.3 µg/L in July 2006. The MTBE concentration in well MW-4 has shown a decreasing trend from July 2002 to non-detect since August 2005. Results of periodic ground-water monitoring and sampling since 2000 are summarized in Table 1 and Table 2. Historic ground-water flow direction and gradient calculations since 2000 are summarized in Table 3.

A Request for Case Closure was prepared on 4 June 2004 by URS Corporation. That request stated that the six criteria for closure of a low-risk ground-water site were met by the conditions found at Station #2162. The following criteria have been exemplified by the ground-water monitoring trends and remediation activities performed onsite: 1) The leak has been stopped and ongoing sources, including free product, have been removed or remediated; 2) The Site has been adequately characterized; 3) The dissolved hydrocarbon plume is not migrating; 4) No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; 5) The Site presents no significant threat to human health; and 6) The Site presents no significant risk to the environment.

# 3.0 SITE GEOLOGY AND HYDROGEOLOGY

According to the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report (California Regional Water Quality Control Board – San Francisco Bay Region/SFRWQCB, June 1999), the Site is located within the San Leandro Sub-Area, near the northern boundary of the San Lorenzo Sub-Area, in the East Bay Plain of the San Francisco Basin. These Sub-Areas share the same hydrogeologic characteristics, yet are separated by the junction of the surface trace between the San Leandro and San Lorenzo alluvial fans. These Sub-Areas consist primarily of alluvial fan sediments with the distinction of the Yerba Buena Mud extending west into the San Leandro and San Lorenzo Sub-Areas, unlike the northern Sub-Areas. The Yerba Buena Mud forms a major aquitard between the shallow and deep aquifers throughout much of

Page 3

southwestern area of the East Bay Plain. The San Leandro and San Lorenzo Sub-Areas alluvial fans are finer grained and produce less groundwater than the Niles Cone basin to the south.

Throughout most of the Alameda County portion of the East Bay Plain, from Hayward north to Albany, water level contours show that the general direction of ground water flow is from east to west or from the Hayward Fault to the San Francisco Bay. Ground-water flow direction generally correlates to topography. Flow direction and velocity are also influenced by buried stream channels that typically are oriented in an east-west direction. In the southern end of the study area however, near the San Lorenzo Sub-Area, the direction of flow may not be this simple. According to information presented in *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, the small set of water level measurements available seemed to show that the ground water in the upper aquifers may be flowing south, with the deeper aquifers, the Alameda Formation, moving north. The nearest surface water drainage is the Estudillo Canal, located approximately 1,100 feet southeast of the Site. The Estudillo Canal's overall general flow direction is from east to west; however, specific flow directions of the canal vary to the southwest near the Site, eventually turning to the west-northwest prior to entering the San Francisco Bay via the San Leandro Flood Control Channel.

The Site elevation is approximately 33 feet above mean sea level. The water table fluctuates seasonally with recorded static depths to water in monitor wells at the Site ranging between a historic minimum depth below ground surface (bgs) of 7.10 ft (MW-3 on 4/14/2005) and maximum of 10.08 feet bgs (MW-4 on 10/9/2002). Historically, depth-to-water measurements have typically ranged between 7.0 and 9.5 feet bgs (Table 1). Ground-water flow direction during the third quarter 2006 monitoring event on 31 July 2006 was to the south-southwest at a gradient of 0.003 ft/ft (Figure 2). Historic ground-water flow directions and gradients for the Site are summarized in Table 3. Based on this information, the local ground-water flow direction is to the southwest which is consistent with the surface topography and assumed flow direction, west towards San Francisco Bay.

According to the East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, the majority of East Bay Plain Cities (except the City of Hayward) do not have "any plans to develop local ground-water resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity." The SFRWQCB's basin plan denotes existing beneficial uses of municipal and domestic supply (MUN), industrial process supply (PROC), industrial service supply (IND), and agricultural supply (AGR) for the East Bay Plain ground-water basin.

Geologic data derived from on-site borings indicate unconsolidated sediments consisting of interbedded silts and silty clay from one to nine ft bgs. A sand and gravel unit underlies these silts and silty clays. A silt unit encountered at 13 ft bgs underlies the sand and gravel unit. Soil boring logs are provided in Appendix A. Copies of geologic cross-sections for the Site are provided in Appendix B.

### 4.0 FIELD ACTIVITIES PERFORMED

The soil and ground-water investigation was completed to characterize the present state of petroleum hydrocarbon impacted soil and ground-water onsite. On the 16<sup>th</sup> and 17<sup>th</sup> of July

2007, Stratus Environmental, Inc. (Stratus) advanced a total of five soil borings to evaluate the extent of petroleum hydrocarbon impacted soil and ground water onsite. Soil and ground-water samples were collected from each boring for laboratory analysis. The soil boring locations from this July 2007 investigation are shown in Figure 2.

# 4.1 Preliminary Field Activities

Prior to initiating field activities, Stratus obtained the necessary well drilling permit from the Alameda County Public Works Agency (See Appendix A), prepared a Site health and safety plan specific to the work scope; and cleared the Site for subsurface utilities. The utility clearance included notifying Underground Service Alert (USA) of the work a minimum of 48 hours prior to initiating the field investigation, and additionally securing the services of a private utility locating company to confirm the absence of underground utilities at each boring location. Boreholes were physically cleared to a minimum of five feet below ground surface (bgs) using an air knife rig. At boring CB-2 a three-quarter inch metal pipe was encountered at 18 inches bgs. Consequently, boring CB-2 was moved 18 inches southeast and found to be clear.

# 4.2 Soil Boring Advancement

On the 16<sup>th</sup> and 17<sup>th</sup> of July 2007, Stratus field personnel observed Resonant Sonic International Drilling (RSI) of Woodland, California advance a total of five soil borings. Each boring was physically cleared to a minimum depth of five feet bgs using an air knife. RSI utilized a direct-push drill rig to reach a maximum depth of 16 feet at each boring location.

A Stratus field geologist classified the soils according to the Unified Soil Classification System (USCS) and examined the soils using visual and manual methods for parameters including odor, staining, color, grain size, and moisture content. Soil samples were collected for analysis from each of the five borings at depths of 7.5 to 8 ft. bgs, 11.5 to 12 ft. bgs and 15.5 to 16 ft. bgs, with the exception of boring CB2, where no soil sample was collected between 7.5 to 8 ft. bgs. Each sample was retained in sampling tubes, covered at each end with Teflon sheeting, capped with plastic end caps, labeled, and placed into an ice-filled cooler for preservation.

# 4.3 Ground-Water Sampling

Ground-water samples were collected from the five borings to determine the presence of hydrocarbon contamination immediately down gradient of the UST pit, in the vicinity of the waste oil tank pit, and along the southern Site boundary between monitoring wells MW-3 and MW-4. Ground water was encountered between 10 and 11 feet at each boring. A temporary well screen was placed into each boring after ground water was encountered. Water samples were subsequently collected utilizing a disposable bailer. The samples were collected in appropriately preserved containers and placed into an ice-filled cooler for preservation.

# 4.4 Investigation-Derived Residuals Management

Residual solids and liquids generated during the Site investigation activities were stored temporarily onsite in Department of Transportation-approved 55-gallon drums pending

analytical results and profiling. Following characterization and profiling, Belshire Environmental Services was scheduled to transport the investigation-derived residuals to an RM-approved facility for treatment or disposal.

# 5.0 RESULTS OF INVESTIGATION

# 5.1 Soil Analytical Results

Soil samples were shipped to TestAmerica Analytical Testing Corporation (Morgan Hill), a California State-certified laboratory, under chain-of-custody protocol. Samples were analyzed for GRO (hydrocarbon chain lengths between C4-C12) by LUFT GCMS methodology; diesel range organics (DRO, hydrocarbon chain lengths between C10-C36) by EPA Method 8015B-SVOA; and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tert-butyl ether (MTBE), ethyl tert-butyl ether (ETBE), tert-Amyl methyl ether (TAME), Di-isopropyl ether (DIPE), 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromoethane (EDB), tert-Butyl alcohol (TBA), and ethanol using EPA Method 8260B; and for total solids using method SM2540B. The reporting limits for sample CB5 11.5'-12' were raised due to high hydrocarbon background. Each sample that was found to contain concentrations of DRO above the laboratory reporting limit was in the requested fuel range but did not resemble the reference chromatogram for diesel fuel. No other significant irregularities were encountered during laboratory analysis of the soil samples. A copy of the laboratory analytical report, including chain-of-custody documentation, is provided in Appendix A. The laboratory analytical results are tabulated in Table 4 and summarized below:

- GRO was detected above laboratory reporting limits in five of the 14 soil samples collected at concentrations ranging from 0.65 mg/kg (CB3 7.5'-8') to 1,100 mg/kg (CB5 11.5'-12');
- DRO was detected above laboratory reporting limits in 11 of the 14 soil samples collected at concentrations ranging from 1.6 mg/kg (CB3 15.5'-16') to 1,300 mg/kg (CB2 11.5'-12');
- Total Xylenes were detected above laboratory reporting limits in soil sample CB2 11.5'-12' at a concentration of 0.0071 mg/kg; and
- MTBE was detected above laboratory reporting limits soil sample CB3 7.5'-8' at a concentration of 0.0063 mg/kg.

The remaining analytes were not detected above their respective reporting limits in the 14 soil samples collected.

# 5.2 Ground-Water Analytical Results

Ground-water samples were shipped to TestAmerica Analytical Testing Corporation (Morgan Hill), a California State-certified laboratory, under chain-of-custody protocol. Samples were analyzed for GRO (hydrocarbon chain lengths between C4-C12) by LUFT GCMS methodology; DRO (hydrocarbon chain lengths between C10-C36) by EPA Method 8015B-SVOA; and for

BTEX, MTBE, ETBE, TAME, DIPE, 1,2-DCA, EDB, TBA, and ethanol using EPA Method 8260B. Each sample that was found to contain concentrations of DRO above the laboratory reporting limit was in the requested fuel range but did not resemble the reference chromatogram for diesel fuel. No other significant irregularities were encountered during laboratory analysis of the ground-water samples. A copy of the laboratory analytical report, including chain-of-custody documentation, is provided in Appendix A. The laboratory analytical results are tabulated in Table 5 and summarized below:

- GRO was detected above laboratory reporting limits in three of the five ground-water samples collected at concentrations ranging from 490 μg/L (CB3-W and CB5-W) to 1,900 μg/L (CB2-W);
- DRO was detected above laboratory reporting limits in four of the five ground-water samples collected at concentrations ranging from 220 μg/L (CB4-W) to 2,000 μg/L (CB2-W);
- Benzene was detected above laboratory reporting limits in three of the five ground-water samples collected at concentrations ranging from 1.0 μg/L (CB4-W) to 12 μg/L (CB2-W);
- Ethylbenzene was detected above laboratory reporting limits in two of the five ground-water samples collected at concentrations of 0.92 μg/L (CB3-W) and 110 μg/L (CB2-W);
- Total Xylenes were detected above laboratory reporting limits in ground-water sample CB2-W at a concentration of 140 μg/L;
- MTBE was detected above laboratory reporting limits in three of the five ground-water samples collected at concentrations ranging from 0.82 μg/L (CB3-W) to 70 μg/L (CB5-W); and
- TAME was detected above laboratory reporting limits in ground-water sample CB5-W at a concentration of 3.9  $\mu$ g/L.

The remaining analytes were not detected above their respective reporting limits in the five ground-water samples collected.

# 6.0 CONCLUSIONS

On behalf of the Atlantic Richfield Company, RM – a BP affiliated company, BAI prepared this Soil & Ground-Water Investigation Report following additional soil and ground-water characterization using direct-push technology at the Atlantic Richfield Company Station #2162, located at 15315 Hesperian Boulevard, San Leandro, California. Based on the findings produced by this investigation, BAI concludes that the general objectives of the investigation were met. Furthermore, BAI identifies the following specific conclusions:

• Elevated concentrations of GRO and DRO were detected in soil samples collected just below the ground-water table from borings CB2 and CB3 in the vicinity of the former waste oil tank – 400 mg/kg GRO in sample CB3 11.5'-12', and 1,300 mg/kg DRO in sample CB2 11.5'-12'.

- Page 7
- Elevated GRO was detected at a concentration of 1,100 mg/kg in soil sample CB5 11.5'-12' collected just below the water table along the southern boundary of the Site.
- Elevated concentrations of GRO and DRO were detected in ground-water samples CB2-W, and to a lesser significance CB3-W, collected in the vicinity of the former waste oil tank GRO at 1,900 μg/L, DRO at 2,000 μg/L, benzene at 12 μg/L, ethylbenzene at 110 μg/L, total xylenes at 140 μg/L in sample CB2-W.
- GRO, DRO, and MTBE were detected in the ground-water sample CB5-W, along the southern boundary of the Site GRO at 490  $\mu$ g/L, DRO at 360  $\mu$ g/L, and MTBE at 70  $\mu$ g/L.
- Low concentrations of benzene in ground water (1.0 μg/L CB4-W to 12 μg/L in CB2-W) indicate that the hydrocarbon contamination plume is likely aged and degraded.
- The highest contaminant concentrations detected near the UST gallery in boring CB2 (GRO at 1,900 μg/L, benzene at 12 μg/L) appear to attenuate to lower concentrations in the down-gradient direction as exhibited in boring CB3 (GRO at 490 μg/L, benzene at 2.1 μg/L).

#### 7.0 RECOMMENDATIONS

Based on the field investigation observations, analytical results obtained, and to further progress towards case closure, BAI recommends that a new monitoring well be constructed along the southern boundary of the Site in the approximate location of recently advanced boring CB5. This monitoring well should be constructed similar to existing monitoring wells MW-1, MW-2, MW-4 and MW-5. Specifically, this well should be constructed with a screen interval between approximately 8 ft – 16 ft bgs. This location would serve as a sentinel well to determine the repeatable presence or absence of elevated concentrations of petroleum hydrocarbons at the down-gradient boundary of the Site. Samples should be initially collected from this and the four other existing wells on the site, and analyzed for GRO (hydrocarbon chain lengths between C4-C12) by LUFT GCMS methodology; DRO (hydrocarbon chain lengths between C10-C36) by EPA Method 8015B-SVOA; and for BTEX, MTBE, ETBE, TAME, DIPE, 1,2-DCA, EDB, TBA, and ethanol using EPA Method 8260B.

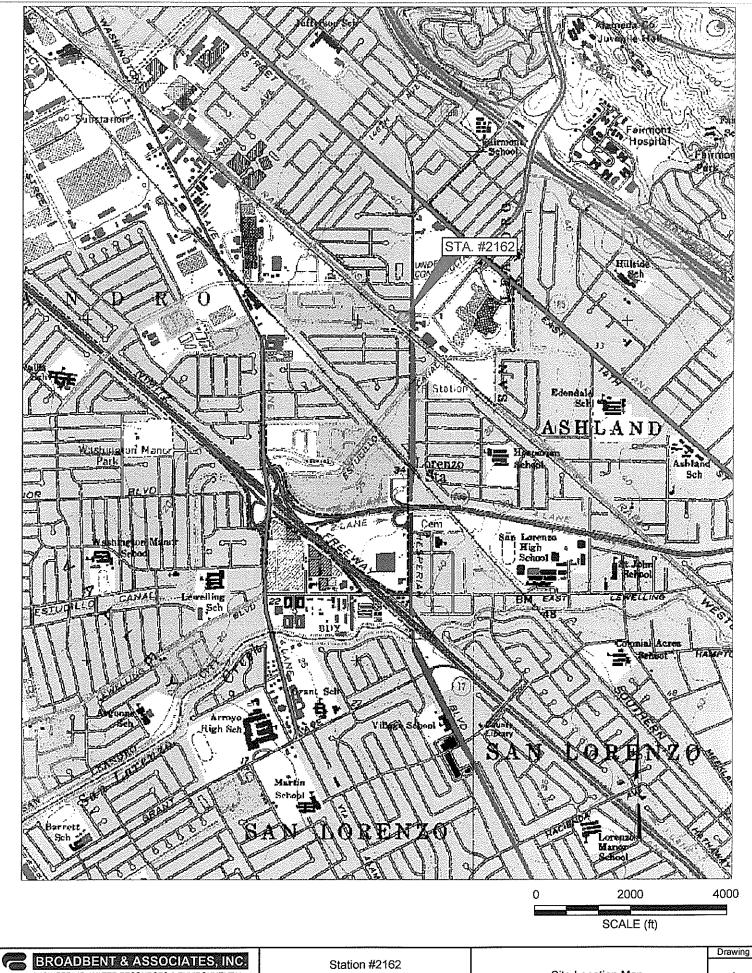
# 8.0 CLOSURE

This document has been prepared for the exclusive use of Atlantic Richfield Company. The findings presented in this report are based upon the observations of Stratus field personnel, points of investigation and results of laboratory tests performed by Test America Analytical Testing Corporation (Morgan Hill, California). Services were performed in accordance with the generally accepted standard of practice at the time this report was written. No warranty, expressed or implied, is intended. It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this investigation. Also, changes in site conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage or other factors.

# 9.0 REFERENCES

- ACEH, 29 May 2007. Fuel Leak Case No. RO0000190, ARCO #2162, 15135 Hesperian Boulevard, San Leandro, CA. Submitted to Mr. Paul Supple for Atlantic Richfield, by Mr. Steven Plunkett.
- BAI, 15 May 2007. Work Plan for Onsite Soil and Ground-Water Investigation, Atlantic Richfield Company Station #2162, 15135 Hesperian Boulevard, (San Leandro), California; ACEH Case No. R00000190. Submitted to Mr. Steven Plunkett of ACEH on behalf of BP.
- SFRWQCB, June 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report.
- URS, 4 June 2005. Request for Case Closure, Atlantic Richfield Company Service Station #2162, 15135 Hesperian Boulevard, San Leandro, California. Submitted to Ms. Eva Chu of ACEH on behalf of BP.

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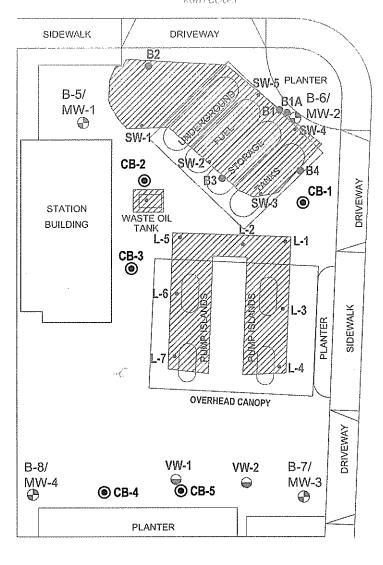
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL 1324 Mangrove Ave. Suite 212, Chico, California Project No.: 06-08-620 Date: 9/14/07

15135 Hesperian Boulevard San Leandro, California

Site Location Map

1

# 机用石气混合



PESPERAN BOLLEVADO

#### LEGEND

CB-5 SOIL/GROUND-WATER BORING (STRATUS 2007)

B-8/ MW-4 MONITORING WELL RESNA (SEPTEMBER 1992)

VW-2 ⊖ SOIL VAPOR EXTRACTION WELL (ROUX ASSOCIATES, INC., 1991)

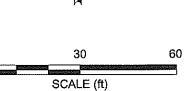
B4 SOIL BORING (ROUX ASSOCIATES, INC., 1991)

SW-5 • SIDEWALL SOIL SAMPLE

L-7 PRODUCT LINE SAMPLE

FORMER UNDERGROND STORAGE TANK AND PRODUCT LINE EXCAVATIONS

NOTE: SITE MAP ADAPTED FROM URS CORPORATION AND RESNA FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.





ENGINEERING, WATER RESOURCES & ENVIRONMENTAL 1324 Mangrove Ave. Suite 212, Chico, California Project No.: 06-08-620 Date: 09/13/07

Station #2162 15135 Hesperian Boulevard San Leandro, California

Site Sketch with Boring Locations

2

Drawing

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2162, 15135 Hesperian Blvd., San Leandro, CA

,	***************************************			Top of	Bottom of	10.11.10.	Water Level			Concentra	tions in (µs	g/L)	······································		
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		ро	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-1															
6/20/2000			31.19	8.0	16.0	8.33	22.86	<50	<0.5	0.8	<0.5	<1.0	<10		
9/29/2000		18	31.19	8.0	16.0	9.07	22,12	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
12/17/2000			31.19	8.0	16.0	8.69	22.5	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
3/23/2001	-		31.19	8.0	16.0	8.19	23.0	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
6/20/2001			31.19	8.0	16.0	8.97	22.22	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1 × 5 · 1 · 1	
9/22/2001			31.19	8.0	16.0	9.56	21.63	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
12/28/2001			31.19	8.0	16.0	8.4	22.79	<50	<0.5	<0.5	<0.5	0.63	<2.5		
3/14/2002		100000000000000000000000000000000000000	31.19	8.0	16.0	8.05	23.14	<50	<0.5	<0.5	<0.5	<0.5	170		
4/18/2002			31.19	8.0	16.0	8.27	22.92	<50	<0.5	<0.5	<0.5	<0.5	<u></u>	10000	
7/19/2002	NP	to the second se	31.19	8.0	16.0	8.88	22.31	<50	<0.5	<0.5	<0.5	<0.5	11	1.0	8.2
10/09/02	NP	a	31.19	8.0	16.0						-				
03/28/03	NP	a, c	31.19	8.0	16.0								-		
4/7/2003	NP		31.19	8.0	16.0	8.28	22.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.9
7/9/2003	NP	The state of the s	31.19	8.0	16.0	8.62	22.57	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	7.2
10/08/2003		d, e	31.13	8.0	16.0	9.19	21.94	- 	7	<b></b>					-
01/13/2004			31.13	8.0	16.0	8.35	22.78		- 1	=					-
04/05/2004			33.70	8.0	16.0	7.29	26.41	77.00							
07/12/2004	NP		33.70	8.0	16.0	9.00	24.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.8	7.0
10/19/2004	-		33.70	8.0	16.0	9.47	24.23			-	-			laveiroisis I Lave <del>s T</del> orra	
01/11/2005			33.70	8.0	16.0	7.64	26.06								
04/14/2005			33.70	8.0	16.0	7.35	26.35								10 T 13 T
08/01/2005	-		33.70	8.0	16.0	8.21	25.49								
7/31/2006			33.70	8.0	16.0	8.10	25.6								-
MW-2															
6/20/2000			30.38	8.0	16.0	7.38	23.0								
9/29/2000	<b>_</b>		30.38	8.0	16.0	8.08	22.3	266	<0.5	<0.5	<0.5	<0.5	<2.5		::::::::::::::::::::::::::::::::::::::
12/17/2000		Duzeg DetDam vellugit, ses Pilleke etkel A	30.38	8.0	16.0	7.8	22.58	175	<0.5	<0.5	0.659	<0.5	<2.5		
3/23/2001	12 min 17 8	215 X 5 2 5 2 5 2	30.38	8.0	16.0	7.23	23.15	351	<0.5	<0.5	0.912	<0.5	<2.5		-13
6/20/2001		Tang bigus konsulyan varoukti kini sar	30.38	8.0	16.0	7.98	22,4	360	<0.5	<0.5	0.74	<0.5	<2.5		
9/22/2001			30.38	8.0	16.0	8.55	21.83	190	<0.5	<0.5	<0.5	<0.5	<2.5		
	I	1	1	1		Line and the	1	1	1		I	I	1	1	1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses Station #2162, 15135 Hesperian Blvd., San Leandro, CA

				Top of	Bottom of		Water Level			Concentra	tions in (µ;	g/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		DO	
Sample Date	P/NP	Comments	(feet msl)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msi)	TPHg	Benzene	Toluene	Benzene	Xylenes	МТВЕ	(mg/L)	pН
MW-2 Cont.												,			
12/28/2001			30.38	8.0	16.0	7.53	22.85	130	<0.5	0.93	<0.5	0.51	<b> </b> <2.5		
3/14/2002			30.38	8.0	16.0	7.17	23.21	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
4/18/2002			30.38	8.0	16.0	7.31	23.07	74	<0.5	<0.5	<0.5	<0.5		10.00	
7/19/2002	P		30,38	8.0	16.0	7.93	22.45	<50	<0.5	<0.5	<0.5	<0.5	<2.5	1.1	7.6
10/9/2002	P		30.38	8.0	16.0	8.55	21.83	<50	<0.5	<0.5	<0.5	<0.5	<2,5	0.7	7.3
03/28/03	P	c	30.38	8.0	16.0	7.3	23.08	<50	<0.50	0.83	<0.50	<0.50	<0.50	1,48	7.7
4/7/2003	P		30.38	8.0	16.0	7.36	23.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	7.0
7/9/2003	P		30.38	8.0	16.0	7.71	22.67	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.5	7.6
10/08/2003			30.38	8.0	16.0	8.25	22.13	7. 15. 22.000							
01/13/2004	-		30.38	8.0	16.0	7.55	22.83								-
04/05/2004			32.97	8.0	16.0	7.29	25.68	-	<b></b>			-			
07/12/2004	NP		32.97	8.0	16.0	8.09	24.88	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	7.2
10/19/2004			32.97	8.0	16.0	8.29	24.68			<b></b>					
01/11/2005			32.97	8.0	16.0	6.81	26.16						-		
04/14/2005			32.97	8.0	16.0	6.69	26.28	•	100 mg 100 m 100 mg 100 mg	<b></b>				7	
08/01/2005			32.97	8.0	16.0	7.40	25.57		:						
7/31/2006			32.97	8.0	16.0	7.22	25.75		-						324
MW-3															
6/20/2000			30.3	8.0	15.0	7.75	22.55								
9/29/2000			30.3	8.0	15.0	8.46	21.84	<50	<0.5	<0.5	<0.5	<0.5	128	100	
12/17/2000			30.3	8.0	15.0	8.01	22.29	<50	<0.5	<0.5	<0.5	<0.5	46.7		
3/23 <i>/</i> 2001			30.3	8.0	15.0	7.7	22.6	<50	<0.5	<0.5	<0.5	<0.5	26.8		
6/20/2001		, , , , , , , , , , , , , , , , , , , ,	30.3	8.0	15.0	8,23	22.07	<50	<0.5	<0.5	<0.5	<0.5	30		
9/22/2001			30.3	8.0	15.0	8.89	21.41	<50	<0.5	<0.5	<0.5	<0.5	12		
12/28/2001			30.3	8.0	15.0	7.83	22.47	<50	<0.5	<0.5	<0.5	<0.5	6.2		
3/14/2002			30.3	8.0	15.0	7.48	22.82	<50	<0.5	<0.5	<0.5	<0.5	47		4-14
4/18/2002			30.3	8.0	15.0	7.62	22.68	<50	<0.5	<0.5	<0.5	<0.5	***		
7/19/2002	P	b (TPH-g)	30.3	8.0	15.0	8.23	22.07	100	<1.0	<1.0	<1.0	<1.0	330	0.9	7.6
10/9/2002	P		30.3	8.0	15.0	8.83	21.47	<50	<0.5	<0.5	<0.5	<0.5	61	0.5	7.4
03/28/03	P	c	30.3	8.0	15,0	7.85	22.45	52	<0.50	1.2	<0.50	<0.50	45	1.42	7.6

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2162, 15135 Hesperian Blvd., San Leandro, CA

				Top of	Bottom of		Water Level			Concentra	tions in (μ	2/L)			
Well and			тос	Screen	Screen	DTW	Elevation	GRO/			Ethyl-	Total		ОО	
Sample Date	P/NP	Comments	(feet msi)	(ft bgs)	(ft bgs)	(feet bgs)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	(mg/L)	pН
MW-3 Cont.													<del></del>		
4/7/2003	P		30.3	8.0	15.0	7.71	22.59	56	<0.50	<0.50	<0.50	<0.50	56	1.1	6.8
7/9/2003	P	The first of the f	30.3	8.0	15.0	8.0	22.3	<500	<5.0	<5.0	<5.0	<5.0	87	1.6	7.4
10/08/2003	P		30.30	8.0	15.0	8.59	21.71	<50	<0.50	<0.50	<0.50	<0.50	25	0.9	-
01/15/2004	P	Duri ure in the substitute of	30.30	8.0	15.0	7.90	22.40	<50	<0.50	<0.50	<0.50	<0.50	9.8	2.9	7.3
04/05/2004	P		32,89	8.0	15.0	7.61	25.28	<50	<0.50	<0.50	<0.50	<0.50	15	1.5	7.0
07/12/2004	P	A Televisia yeni di en respecto in servici de pro	32.89	8.0	15.0	8.45	24.44	<50	<0.50	<0.50	<0.50	<0.50	7.3	1.6	6.9
10/19/2004	P		32.89	8.0	15.0	8.95	23.94	<50	<0.50	<0.50	<0.50	<0.50	5.0	0.96	7.1
01/11/2005	P	Transition per participation of terms	32.89	8.0	15.0	7.27	25.62	<50	<0.50	<0.50	<0.50	<0.50	2.3		7.2
04/14/2005	P		32.89	8.0	15.0	7.10	25.79	<50	<0.50	<0.50	<0.50	1.5	5.6	20	7.2
08/01/2005	P	Jargai Nobel Annober (1944), Marchell (1941), Alle (1941)	32.89	8.0	15.0	7.71	25.18	<50	<0.50	<0.50	<0.50	<0.50	5.2	1.18	7.0
7/31/2006	P		32.89	8.0	15.0	7.64	25.25	<50	<0.50	<0.50	<0.50	<0.50	4.3	1.70	6.8
MW-4						1 + 1 + 1 + 1 + 2 + 2 + 3 + 3 + 3 + 4 + 4 + 4 + 4 + 4 + 4 + 4	where the same of the same	ST SECTIONS		, e., u., a e a a	~~~	y	altered Margare		0.0
			00.00							·					İ
6/20/2000			30.39	10.0	18.0	8.87	21.52	The state of the state of							
9/29/2000 12/17/2000			30,39	10.0	18.0	9.61	20.78	<50	1.02	<0.5	<0.5	<0.5	12.2	-	
3/23/2001			30.39	10.0	18.0	9.17	21.22	<50	<0.5	<0.5	<0.5	<0.5	5.81		
6/20/2001			30.39	10.0	18.0	8.7	21.69	<50	<0.5	<0.5	<0.5	<0.5	3.04		
9/22/2001	— Szervezekkökköj	CONTROL OF THE PROPERTY OF THE	30.39	10.0	18.0	9.51	20.88	<50	<0,5	<0.5	<0.5	<0.5	<2.5		
12/28/2001			30.39	10,0	18.0	10.06	20:33	<50	<0.5	<0.5	<0.5	<0.5	5.2		-
A THE STANDARD STANDARD STANDARD STANDARD	 Causa : 0.000000000000		30.39	10.0	18.0	8.86	21.53	<50	<0.5	<0.5	<0.5	<0.5	4.3	-	***
3/14/2002	_		30.39	10.0	18.0	8.52	21.87	<50	<0.5	<0.5	<0.5	<0.5	5.1		
4/18/2002		l záklászenek venszek kilentvetke.	30.39	10.0	18.0	8.76	21.63	<50	<0.5	<0.5	<0.5	<0.5			
7/19/2002	NP		30.39	10.0	18,0	9.39	21.00	<50	<0.5	<0.5	<0.5	<0.5	30	1.8	7.8
10/9/2002	NP		30.39	10.0	18.0	10,08	20.31	<50	<0.5	<0.5	<0.5	<0.5	28	1.0	8.0
03/28/03	NP	C	30.39	10.0	18.0	8.88	21.51	<50	<0.50	1.3	<0.50	<0.50	4.4	0.98	7.2
4/7/2003	NP	residente majorita (la popular na	30.39	10.0	18.0	8.78	21.61	<50	<0.50	<0.50	<0.50	<0.50	14	1.1	7.0
7/9/2003	NP		30.39	10.0	18.0	9.14	21.25	<50	<0.50	<0.50	<0.50	<0.50	1.8	1.6	7.4
10/08/2003	NP		30,39	10.0	18.0	9.77	20.62	<50	<0.50	<0.50	<0.50	<0.50	3.1	2.6	6.4
01/15/2004	P		30.39	10.0	18.0	8.68	21.71	<50	1.4	0.84	<0.50	1.5	6.6	2.9	7.1
04/05/2004	NP	de esta parella de esta esta esta esta esta esta esta est	33.97	10.0	18.0	8.77	25.20	<50	<0.50	<0.50	<0.50	<0.50	1.3	1.2	7.0
07/12/2004	NP		33.97	0.01	18,0	9.46	24.51	<50	<0.50	<0.50	<0.50	<0.50	1.0	2.5	6.6

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #2162, 15135 Hesperian Blvd., San Leandro, CA

				Top of	Bettom of		Water Level			Concentra	tions in (με	;/L)			
Well and Sample Date	P/NP	Comments	TOC (feet msl)	Screen (ft bgs)	Screen (ft bgs)	DTW (feet bgs)	Elevation (feet msl)	GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	МТВЕ	DO (mg/L)	рН
MW-4 Cont.														manufunding display.	
10/19/2004	NP		33.97	10.0	18.0	9.91	24.06	<50	<0.50	<0.50	<0.50	<0.50	4.4	1.21	7.9
01/11/2005	P		33.97	10.0	18.0	7.80	26.17	59	2.0	<0.50	<0.50	<0.50	11	0.9	7.1
04/14/2005	NP		33.97	10.0	18.0	8.07	25.90	<50	<0.50	<0.50	<0.50	<0.50	0.64	2.8	7.4
08/01/2005	NP		33.97	10.0	18.0	8.58	25.39	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.48	5.7
7/31/2006	P		33.97	10.0	18.0	8.75	25.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50		6.7

#### SYMBOLS AND ABBREVIATIONS:

- --- = Not analyzed/applicable/measured/available
- < = Not detected at or above laboratory reporting limit

DO = Dissolved oxygen

DTW = Depth to water in feet below ground surface

ft bgs = feet below ground surface

GRO = Gasoline Range Organics, range C4-C12

GWE = Groundwater elevation measured in feet above mean sea level

mg/L = Milligrams per liter

MTBE = Methyl tert butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing measured in feet above mean sea level

TPH-g = Total petroleum hydrocarbons as gasoline

ug/L = Micrograms per liter

#### FOOTNOTES:

a = Well not accessable - car parked over.

b = Hydrocarbon pattern is present in the requested fuel quantitation range but does not represent the pattern of the requested fuel

c =TPH-g, BTEX and MTBE analyzed by EPA method 8260 beginning on 1st Quarter 2003 sampling event (3/28/03)

d = Guaged with stinger in well

e = Well casing lowered 0.06 feet during well repairs on 9/17/2003

#### NOTES:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPHg was changed to GRO. The resulting data may be impacted by the potential of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Well were surveyed to NAVD'88 datum by URS Corporation on February 23, 2004.

Values for DO and pH were obtained through field measurements.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 2. Summary of Fuel Additives Analytical Data Station #2162, 15135 Hesperian Blvd., San Leandro, CA

Well and					ons in (µg/L)	i Lealidro,			
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1									
4/7/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0,50	<0.50	
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
07/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
3/28/2003	<100	<20	<0.50	<0,50	<0.50	<0.50	<0.50	<0.50	
4/7/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	minutes and the control of the contr
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
07/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0,50	<0.50	
MW-3									
3/28/2003	<100	<20	45	<0.50	<0.50	0.73	<0.50	<0,50	
4/7/2003	<100	<20	56	<0.50	<0.50	0.72	<0.50	<0.50	
7/9/2003	<1,000	<200	87	<5.0	<5.0	<5.0	<5.0	<5.0	
10/08/2003	<100	<20	25	<0.50	<0.50	<0.50	<0.50	<0.50	
01/15/2004	<100	<20	9.8	<0.50	<0.50	<0.50	<0,50	<0.50	a (TBA and EDB)
04/05/2004	<100	<20	15	<0.50	<0.50	<0.50	<0,50	<0.50	
07/12/2004	<100	<20	7.3	<0.50	<0.50	<0.50	<0.50	<0.50	
10/19/2004	<100	<20	5.0	<0.50	<0.50	<0.50	<0.50	<0.50	
01/11/2005	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	b
04/14/2005	<100	<20	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	
08/01/2005	<100	<20	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	b
7/31/2006	<300	<20	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	c
MW-4									
3/28/2003	<100	<20	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	
4/7/2003	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	personer i terre i arteriata a terre i con i con i con i con avenue e entretadore i sur oficial.
7/9/2003	<100	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
10/08/2003	<100	<20	3.1	<0.50	<0.50	<0.50	<0.50	<0.50	
01/15/2004	<100	<20	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	a (TBA and EDB)
04/05/2004	<100	<20	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
07/12/2004	<100	<20	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	
10/19/2004	<100	<20	4.4	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data Station #2162, 15135 Hesperian Blvd., San Leandro, CA

Well and				Concentration	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-4 Cont.									
01/11/2005	<100	<20	11	<0.50	<0.50	<0.50	<0.50	<0.50	b
04/14/2005	<100	<20	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	
08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
7/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

#### SYMBOLS AND ABBREVIATIONS:

< = Not detected at or above specified laboratory reporting limit

--- = Not analyzed/applicable/measured/available

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-butyl alcohol

ug/L = Micrograms per liter

#### FOOTNOTES:

a = The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.

b = The calbration verification for ethanol was within method limits but outside contract limits.

c = LCS rec, above meth. control limits. Analyte ND. Data not impacted.

#### NOTES:

All fuel oxygenate compounds analyzed using EPA Method 8260B

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 3. Historical Ground-Water Flow Direction and Gradient Station #2162, 15135 Hesperian Blvd., San Leandro, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/23/2001	Southwest	0.011
6/20/2001	Southwest	0.013
9/22/2001	Southwest	0.012
12/28/2001	Southwest	0.010
3/14/2002	Southwest	0.011
4/18/2002	Southwest	0.012
7/19/2002	Southwest	0.012
10/9/2002	Southwest	0.013
3/28/2003	Southwest	0.013
4/7/2003	Southwest	0.011
7/9/2003	Southwest	0.010
10/8/2003	Southwest	0.010
1/15/2004	Southwest	0.008
4/5/2004	South-Southwest	0.004
7/12/2004	South and Southwest	0.003 and 0.005
10/19/2004	Southwest	0.004
1/11/2005	Southwest (a) to Southeast (b)	0.005 to 0.004
4/14/2005	Southeast	0.004
8/1/2005	Southwest	0.002
7/31/2006	South-Southwest	0.003

# FOOTNOTES:

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

a = Direction at underground storage tanksb = Direction at dispensers

# Table 4 Summary of Depth-Discrete Soil Sampling Data Atlantic Richfield Company Station No. 2162 15135 Hesperian Boulevard, San Leandro, California (ACEH Case No. RO0000190)

			Laboratory Analytical Results (mg/kg)										%			
							Total			*						Total
Boring I.D.	Date	GRO	DRO	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TBA	TAME	Ethanol	EDB	1,2 DCA	Solids
CB1-7.5'-8'	7/17/2007	<0.13	4.5	<0.0063	< 0.0063	<0.0063	<0.0063	< 0.0063	<0.0063	<0.0063	<0.025	<0.0063	<0.13	<0.0063	<0.0063	79
CB1-11.5'-12'	7/17/2007	<0.12	<1.2	<0.0060	<0.0060	< 0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.024	<0.0060	<0.12	<0.0060	<0.0060	83
CB1-15.5'-16'	7/17/2007	< 0.13	<1.3	<0.0064	< 0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.026	<0.0064	<0.13	<0.0064	<0.0064	78
CB2 11.5'-12'	7/17/2007	2.9	1,300	<0.0058	<0.0058	<0.0058	0.0071	<0.0058	<0.0058	<0.0058	<0.023	<0.0058	<0.12	<0.0058	<0.0058	87
CB2 15.5'-16'	7/17/2007	< 0.13	2.3	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.025	<0.0063	<0.13	<0.0063	<0.0063	79
CB3 7.5'-8'	7/17/2007	0.65	2.2	<0.0061	<0.0061	<0.0061	<0.0061	0.0063	<0.0061	<0.0061	<0.024	<0.0061	<0.12	<0.0061	<0.0061	82
CB3 11.5'-12'	7/17/2007	400	12	<0.061	<0.061	<0.061	<0.061	<0.031	<0.031	<0.031	<6.1	<0.031	<12	<0.031	<0.031	82
CB3 15.5'-16'	7/17/2007	<0.13	1.6	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.025	<0.0063	<0.13	<0.0063	<0.0063	79
CB4 7.5'-8'	7/17/2007	<0.12	5.6	<0.0058	<0.0058	< 0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.023	<0.0058	<0.12	<0.0058	<0.0058	87
CB4 11.5'-12'	7/17/2007	3.8	2.0	<0.0062	<0.0062	< 0.0062	<0.0062	<0.0062	<0.0062	<0.0062	<0.025	<0.0062	<0.12	<0.0062	<0.0062	81
CB4 15.5'-16'	7/17/2007	<0.13	1.8	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.026	<0.0064	<0.13	<0.0064	<0.0064	78
CB5 7.5'-8'	7/17/2007	<0.12	26	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.023	<0.0059	<0.12	<0.0059	<0.0059	85
CB5 11.5'-12'	7/17/2007	1,100	18	<0.60	<0.60	<0.60	<0.60	< 0.30	< 0.30	<0.30	<60	<0.30	<120	<0.30	<0.30	83
CB5 15.5'-16'	7/17/2007	<0.13	<1.3	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	<0.026	<0.0065	<0.13	<0.0065	<0.0065	77

Bolded values indicate concentrations above laboratory detection limits

GRO = Gasoline Range Organics, C4-C12

MTBE = Methyl tert-butyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tertiary amyl methyl ether

1,2 DCA = 1,2 Dichloroethane

DRO = Diesel Range Organics, C10-C36

DIPE = Di-isopropyl ether

TBA = Tertiary butyl alcohol

EDB = 1,2-Dibromoethane

# Table 5 Summary of Depth-Discrete Ground-Water Sampling Data Atlantic Richfield Company Station No. 2162 15135 Hesperian Boulevard, San Leandro, California (ACEH Case No. RO0000190)

			Laboratory Analytical Results (μg/l)												
							Total		,						
Boring I.D.	Date	GRO	DRO	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TBA	TAME	Ethanol	EDB	1,2 DCA
CB1-W	7/17/2007	<50	<47	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<300	<0.50	<0.50
CB2-W	7/17/2007	1,900	2,000	12	<2.5	110	140	<2.5	<2.5	<2.5	<100	<2.5	<1,500	<2.5	<2.5
CB3-W	7/17/2007	490	440	<0.50	<0.50	0.92	<0.50	0.82	<0.50	<0.50	<20	<0.50	<300	< 0.50	< 0.50
CB4-W	7/17/2007	<50	220	1.0	<0.50	<0.50	<0.50	20	<0.50	<0.50	<20	<0.50	<300	< 0.50	<0.50
CB5-W	7/17/2007	490	360	2.1	<0.50	<0.50	<0.50	70	<0.50	<0.50	<20	3.9	<300	<0.50	<0.50

Bolded values indicate concentrations above laboratory detection limits

GRO = Gasoline Range Organics, C4-C12

MTBE = Methyl tert-butyl ether

ETBE = Ethyl tert-butyl ether

TAME = Tertiary amyl methyl ether

1,2 DCA = 1,2 Dichloroethane

DRO = Diesel Range Organics, C10-C36

DIPE = Di-isopropyl ether

TBA = Tertiary butyl alcohol

EDB = 1,2-Dibromoethane

# APPENDIX A

STRATUS SITE ASSESSMENT FIELD DATA PACKAGE
(Includes Field Data Sheets, Boring Logs, Site Plan with Field Modifications, Well Permit, and Laboratory Analytical Report with Chain-of-Custody Documentation)

11



AUG 0 7 2007

BY: 100

03330 Cameron Park Drive, Ste 550

Cameron Park Drive, Ste 550 Cameron Park, California 95682 (530) 676-6004 ~ Fax: (530) 676-6005

August 3, 2007

Mr. Tom Venus Broadbent & Associates, Inc. 1324 Mangrove Avenue Chico, California 95926

Re: On-Site Soil and Ground-Water Investigation Data Package, ARCO Service Station No.

2162, located at 15135 Hesperian Boulevard, San Leandro, California (utility locating and

assessment activities performed between May 30 and July 17, 2007)

# General Information

Data Submittal Prepared / Reviewed by: Collin Fischer / Scott Bittinger

Phone Number: (530) 313-9965

On-Site Supplier Representative: Scott Bittinger

Scope of Work Performed: Health and safety meeting. Meet with manager of auto repair shop to discuss work and collect business card. Meet with utility locating contractor at site to clear boring locations. Borings were subsequently marked for USA clearance.

Variations from Work Scope: Proposed CB-2 boring location modified due to suspected nearby locations of product line and fuel UST's.

Weather Conditions: Cloudy, warm
Unusual Field Conditions: None noted

Date: July 11, 2007 Arrival: 18:00 Departure: 18:15

On-Site Supplier Representative: Scott Bittinger

Scope of Work Performed: Check work area for USA marks. Recall USA for remark of

companies with no paint marks at site. Variations from Work Scope: None noted

Weather Conditions: Sunny, warm
Unusual Field Conditions: None noted

On-Site Supplier Representative: Collin Fischer

Scope of Work Performed: Health and safety meeting. Set up and remove exclusion zones. Cored concrete at 6 drilling locations. Air knifed 5 boring locations (CB-1, CB-2, CB-3, CB-4 and CB-5) to five feet bgs..

Variations from Work Scope: Encountered a 3/4" metal pipe at 18" while clearing boring CB-2. Location moved 18" SE.

Weather Conditions: Overcast, warm Unusual Field Conditions: None noted

On-Site Supplier Representative: Collin Fischer and Scott Bittinger

Scope of Work Performed: Health and safety meeting. Set up and remove exclusion zones. Completed 5 Direct-Push Borings to 16 feet bgs. (CB-1, CB-2, CB-3, CB-4 and CB-5) collecting soil and groundwater samples.

Variations from Work Scope: Borings completed to 16 feet bgs. Instead of 15 feet bgs.

Weather Conditions: Sunny, warm Unusual Field Conditions: None noted

This submittal presents the tabulation of data collected in association with the completion of 5 Direct-Push borings. The attachments include field data sheets, boring logs, drilling permit, site plan, chain of custody documentation and certified analytical results. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Collin Fischer Staff Geologist

Scott Bittinger, P.G. Project Geologist Scott G. Bittinge

#### Attachments:

- Field Data Sheets
- Boring Logs
- Site Plan
- Drilling Permit
- Chain-of-Custody Documentation
- Certified Analytical Results

Cc: Paul Supple, BP/Arco

Onsite 8:40 to locate Hilites frank borings.
His meeting & falk to man store employer.
Site is a small gas station that has an auto repair shop,

Talk to manager about the work & collect Card.

3 of the 5 borings will be on concrete

Borelose will likely only beg 7-8' from wask oil that UST. Can't tell exact boundary of UST complex because entire north side of site is covered with concrete. UST complex (fuel) is firsten west than illustrated on site plan.

OPFS/ 9:45,

Swith Bithur

States Environmental, Inc.

A160 2162

7-11-07

Onsite 6:00 to check USA mailes.

Re-called USA for 1e-mark of Companies with no paint

Sunny, 70 Pan

Offsile 6:15

Scott Bitting

Strakes Environmental, Ire,

# Field Data Sheet

ite: Arw Ubl	Date: 7/10/07 OVERCUST GUARM
ersonnel on site: Colling FS4152	Description of the second
otes: 02% exserv	
1745 est onsite safer meeting,	Sure &ALE
1815 STUTT WORK	
045 -> BUCOUNTERTER PLPE O	18", CAN OFFICE, WROTER A DEAPER
mark 1 gly promoter Ca	CR-Z
102 -> move to CB-3	
	( 208 h 8AU)
14 > PAUL SUPPLE ASELVES OF	NSITE. V2:20 LEAVE
VOB WHIRE FROM BROADS	BUT B MARRINGER
	Chester warter The The
-> All 460/65 CLEARED TO	CA ATEL
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011	18" S
Collin Fischer	
Value 7	
STRATUS ENVIRONMEN	et as
DIO CONTINE	STAL

Field Data Sheet

Data Officet
Site: ARCO 2162  Date: 7/17/07 Sawry, warran
Personnel on site: Collin Eischer Scott Bittinger
Notes:
0545 -7 liver Hause
0630-7 ONSLEE, SCOTTATILUES 1250 50715)*
COD - 9 DELLOWS ACTURE SUPPER MERATICE STUT
MOUR TO CB-2
1940-9 CB-2 just more to CB-1
1045 5 CB-1 DOVE, have to CB-4 D 1115
1306 -> Dang M ALL & OFRSHE ( B 15
gallin Fischer
Whatian
o o o o o o o o o o o o o o o o o o o
CTP Marine Court of
STRATUS ENVIRON MONTON, INC.

Client	ARCO Station 2162	Date	July 17, 2007			
Address	15135 Hesperian Boulevard	Drilling Co.	RSI rig type: Direct Push			
	San Leandro, CA	Driller	Jose Velasco			
Project No.	E2162-01	Method	Direct Push Hole Diameter: 2 inches			
Logged By:	Collin Fischer	Sampler:	Continuous Casing			
Well Pack	sand: N/A	Well Construction	Casing Material: N/A Screen Interval: N/A			
	bent.: N/A	-	Casing Diameter: N/A. Screen Slot Size: N/A			
	grout: N/A	Depth to GW:	V first encountered = 10 feet			

Sample		DI	Sar	nple					
Туре	No.	Blow Count		Recov.	Well Details	Depth Scale	Lithologic Column	Descriptions of Materials and Conditions	PID (PPM)
						1 2 3 4	Air Knife Fill		
					,	5 6	CL	Silty Clay, CL, (5Y 2.5/1), black, dry, non plastic, hard, 85% clay 15% silt.	
s	CB-1	N/A	0954	80%		7 7 8	SM	Silty Sand with Clay, SM, (2.5Y 4/3), olive brown, moist, fine grained medium dense, 70 % sand 20% silt 10% clay.  Silty Clay, CL, (2.5Y 4/3), olive brown, moist, medium plasticity, hard	
						9 10 11	SM	80% clay 20% silt  Silty Sand trace Clay, SM, (5Y 3/2), dark olive grey, wet medium-fine grained, soft, 70% sand 30% silt trace clay	
S	CB-1 11.5'-12'	N/A	0956	100%		12 13		Silty Sand with Gravel, SM, (2.5Y 4/3), olive brown, wet medium-fine grained sand, medium grained gravel, dense 60% sand 30 % silt 10% gravel.	
						14 — 15	CL	Silty Clay, (2.5Y 4/3), olive brown, wet, low plasticity, soft, 80% clay 20% silt.	
S	CB-1 15.5'-16'	N/A	0958	100%		16 — — 17 — — 18			
						19 19 20			
								Comments: Continuously sampled starting at 5 feet bgs.  STRATUS	
								ENVIRONMENTAL, INC.	

Boring No. CB-2

Sheet: 1 of 1

J	IL DOM	10 LO	G		Borning	NO. CL	3-2	Sileet: 1 of 1		
Clie	nt	ARCC	) Station	n 2162		Dat	ıte	July 17, 2007		
Address		15135	Hespe	rian Bou	ulevard	-	illing Co.	RSI rig type: Direct Push		
		<b></b>	eandro,			<del></del>	iller	Jose Velasco		
Project No.				<del></del>			ethod	Direct Push Hole Diameter: 2 inches		
Project No. <u>E2162-0</u> : Logged By: Collin Fis					-	mpler:				
								Continuous Casing		
vveii	l Pack	sand:				_ vveli C	Jonstruction	Casing Material: N/A Screen Interval: N/A		
		bent.:				_		Casing Diameter: N/A. Screen Slot Size: N/A		
		grout:	N/A			_ De	epth to GW:	√ first encountered = 10 feet static = N/A		
		<del></del>			T					
	Sample	Blow	Sar	mple	Well	Depth	Lithologic		PID	
Type	No.	Count	Time	Recov.	Details	Scale	Column	Descriptions of Materials and Conditions	(PPM)	
						l —,				
		<del> </del>	<del> </del>	<del> </del>		_1	Air			
					]	2	Knife			
					'		Fill			
		ļ	<b></b>	!	-	³				
				,	!	<b>—</b> 4				
		<b>†</b>			<b>∤</b> . !			No Recovery		
						5				
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			ļ	<b></b>		6				
		!			'	—¸ '				
	************		<del> </del>	<del> </del>	<u> </u>		1 .			
s	CB-2	N/A	N/A	0%	[ !	— <sup>(-(</sup> -	Janaa Paris	Silty Sand with Clay, SM, (5Y 2.5/2), black, moist, coarse grained, dense		
	7.5'-8'	1			'		ļ '	80% sand 15% silt 5% clay.		
		!	<b></b>	<u> </u> !	ן '	9	SM			
		'		!	'		اسمه	Classical City City City City City City City City		
	<del> </del>	ļ	ļ		!	10	I provide the	Clay with Silt, CL, (5Y 3/1), very dark grey, moist, medium plasticity, firm hydrocarbon staining, hydrocarbon odor, 95% clay 5% silt.		
		1			1	11	CL	inydrodarbon staining, nydrodarbon odor, 35 % day 5 % siit.		
			·				المتحمرا	Silty Sand with Clay, SM, (5Y 4/1), dark grey, wet, medium-fine grained		
S	CB-2	N/A	0836	80%	, ,	12	ľ '	medium dense, hydrocarbon odor, 60% sand 35% silt 5% clay.		
	11.5'-12'						CNA			
	<b></b>	ļl	<b> </b>		<b> </b>	13	SM	Silty Sand with Gravel trace Clay, SM, (5Y 3/2), dark olive grey, wet		
			'			14		coarse grained, loose, hydrocarbon odor		
								60% sand 30% silt 10% gravel trace clay.		
		ļ!	<b></b>			15				
-	25.0			220/			ML	Clayey Silt, ML, (2.5Y 4/2), dark grayish brown, wet, non plastic, soft		
<u>s</u>	CB-2 15.5'-16'	N/A	0839	80%		16		60% silt 40% clay.		
	10.0-10				į I	17				
			i			l — I	[			
			L'			18	!			
			i '			l — !	!			
	<del> </del>	<del> </del>	<u> </u>			_ <sup>19</sup>	!			
			'			20				
	<del></del>	4								
								Comments: Continuously sampled starting at 5 feet bgs.		
								STRATUS		
								ENVIRONMENTAL, INC.		

Boring No. CB-3

Sheet: 1 of 1

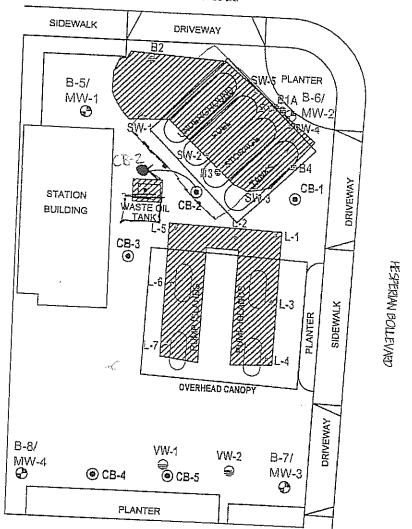
Client		<u>ARCO</u>	Station	1 2162		Date		July 17, 2007	
Address				rian Bou	ulevard	Drilling Co.		RSI rig type: Direct Push	
			eandro,			– Dril	-	Jose Velasco	***************************************
Project No. E2162-01 Logged By: Collin Fischer			<del></del>	ethod	Direct Push Hole Diameter: 2 inches				
			:			mpler:	Continuous Casing		
	Pack	sand:						Casing Material: N/A Screen Interval: N/A	
•••	1 201.	bent.:					J011011 00110		
		grout:				- D	epth to GW:		<del></del>
		grout.	IWA				∌рш ю ⊙үү.	: V first encountered = 11 feet  ▼ static = N/A	
•	Sample	T	Sai	mple		T	T		Т
Туре		- Blow Count		T	Well	Depth	Lithologic	Described as a State Louis In and Conditions	PID
Туре	NO.	Count	Hinte	Recov.	Details	Scale	Column	Descriptions of Materials and Conditions	(PPM)
			<u> </u>	<u> </u>	1	_1			
							Air Knife		7
		<b></b>	<del> </del>		1		Fill		
					]	_3	'		
		'				<b> </b>			
				<del> </del>	.	_4			
				]]	] '	5		,	
					1 '		January 1		
		<b> </b>	ļ	<del> </del>	'	<u></u> 6	<u></u>	Clayey Silt with Sand, ML, (5Y 3/2), dark olive grey, dry, low plasticity	- <del> </del>
		<u> </u>			]	7		stiff, 70% silt 20% clay 10% sand.	
	CD 2		0720	500/	j 1		ML		
S	CB-3 7.5'-8'	N/A	0730	50%	1 /	8	,		
			<u> </u>		1 /	9	استر		
					1 /				1
				<del> </del> -	1	10		Clay trace Silt, CL, (5Y 4/1), dark grey, moist, medium plasticity, stiff hydrocarbon staining, hydrocarbon odor, 97% clay 3% silt.	
			<u></u> '	<u>                                     </u>		11			İ
٠	00.2		0726	1200/	į į				1
<u>s</u>	CB-3 11,5'-12'	N/A	0/30	100%	į !	12		Silty sand trace Clay, SM, (5Y 3/2), dark olive grey, wet, medium-fine grained	
			Ĺ		, ,	13		medium dense, hydrocarbon odor, hydrocarbon staining	
					, ,			80% sand 17% sift 3% clay	
		<del> </del>	<u> </u>		, ,	14	SM		·
			<u> </u>			15		Silty Sand with Clay, SM, (5Y 4/4), dark yellowish brown, moist	
_	20.0		2720	1000/	1 1		'	medium-fine grained, medium dense, 70% sand 20% silt 10% clay.	
S	CB-3 15.5'-16'	N/A	0738	100%	1 1	16	'		
						17	'		
			ĺ '				!		
			·	<del> </del>		— <sup>18</sup>			
				<u>                                     </u>	į l	19			
		İ							
								Comments: Continuously sampled starting at 5 feet bgs.	İ
								STRATUS	
								ENVIRONMENTAL, INC.	ļ
							,		

Client ARCO Station 2162 Date July 17, 2007	
711.00 Classification 2019 17, 2007	
Address 15135 Hesperian Boulevard Drilling Co. RSI rig type: Direct Push	
San Leandro, CA Driller Jose Velasco	
Project No. E2162-01 Method Direct Push Hole Diameter: 2 inches	
Logged By: Collin Fischer Sampler: Continuous Casing	
Well Pack sand: N/A Well Construction Casing Material: N/A Screen Interval: N/A	
bent.: N/A Casing Diameter; N/A. Screen Slot Size: N/A	
grout: N/A Depth to GW: Virst encountered = 11 feet static = N/A	
Sample Blow Sample Well Depth Lithologic	5.5
Type No. Count Time Recov. Details Scale Column Descriptions of Materials and Conditions	PID (PPM)
Fill	
Silty Clay, CL, (10YR 3/4), dark yellowish brown, dry, low plasticity	***************************************
7 stiff, 65% caly 35% silt	
S CB-4 N/A 1122 70%	
7.5'-8'	
Clay with Silt, CL., (10YR 3/3), dark brown, dry, high plasticity, stiff	
11 \ 90% clay 10% silt	
S CB-4 N/A 1124 75% Silty Sand with clay, SM, (2.5Y 3/2), very dark grayish brown, wet	4
11.5'-12' fine grained, medium dense, hydrocarbon staining, hydrocarbon odor	
13 60% sand 30% silt 10% clay.	
SM Sand with Silt, Gravel and Clay, SM, (5Y 3/2), dark olive grey, wet	
medium grained, loose, hydrocarbon staining, hydrocarbon odor	
S CB-4 N/A 1127 90% Clay, CL, (2.5Y 4/4), olive brown, moist, high plasticity, hard	
15.5'-16' CL. hydrocarbon staining, slight hydrocarbon odor, 100% clay	
19	***************************************
20	
Comments: Continuously sampled starting at 5 feet bgs.	
STRATUS	<del></del>
ENVIRONMENTAL, INC.	

Client	ARCO Station 2162	Date	July 17, 2007
Address	15135 Hesperian Boulevard	Drilling Co.	RSI rig type: Direct Push
	San Leandro, CA	Driller	Jose Velasco
Project No.	E2162-01	Method	Direct Push Hole Diameter: 2 inches
Logged By:	Collin Fischer	Sampler:	Continuous Casing
Well Pack	sand: N/A	Well Construction	Casing Material: N/A Screen Interval: N/A
	bent.: N/A	_	Casing Diameter: N/A. Screen Slot Size: N/A
	grout: N/A	Depth to GW:	V first encountered = 11 feet static = N/A
Sample	Sample		

	Sample	Blow	San	nple	Well	Depth	Lithologic		PID
Туре	No.	Count	Time	Recov.	Details	Scale	Column	Descriptions of Materials and Conditions	(PPM)
						_ <sub>1</sub>			
				<del> </del>			Air		
						_2	Knife		
						3	Fill		
						l			
				ļ		_4			
						6		Silty Clay, CL, (10YR 3/6), dark yellowish brown, dry, low plasticity	
						7		hard, 65% caly 35% silt	
	OD 5		4007	4000/					
s	CB-5 7.5'-8'	N/A	1207	100%		8		Clay with Silt, CL, (2.5Y 4/2), dark grayish brown, dry, low plasticity, firm	
						9	CL	90% clay 10% silt	
						-,			
						10		Clay with Silt, CL, (2.5Y 3/3), dark olive brown, dry, low plasticity, firm	
						11	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	hydrocarbon staining, hydrocarbon odor, 90% clay 10% silt	
s	CB-5	N/A	1209	100%		12		Silty Sand trace gravel, SM, (2.5Y 2.5/1), black, wet, medium grained, loose	
	11.5'-12'	1.01.1.						hydrocarbon staining, hydrocarbon odor, 70% sand 30% silt	
						13	SM		
						— <sub>14</sub>		Silty Sand, SM, (2.5Y 2.5/1), black, wet, medium grained, loose	
							ر ـ	hydrocarbon staining, hydrocarbon odor, 70% sand 30% silt	†
						15			
s	CB-5	N/A	1212	100%		16		Clay, CL, (10YR 3/4), dark yellowish brown, moist, high plasticity, firm	
	15.5'-16'						CL	100 % clay	
						— <sup>17</sup>			
						18			
						 19			
						18			
						20			
								Comments: Continuously sampled starting at 5 feet bgs.	
								, , , , ,	
								STRATUS	
								ENVIRONMENTAL, INC.	





LEGEND

CB-5 @ PROPOSED SOIL/GROUNDWATER BORING

B-8/
MW-4 MONITORING WELL RESNA SEPTEMBER 1992

VW-2 → SOIL VAPOR EXTRACTION WELL (ROUX ASSOCIATES, INC., 1991)

B4 SOIL BORING (ROUX ASSOCIATES, INC., 1991)

SW-5 SIDEWALL SOIL SAMPLE

L-7 • PRODUCT LINE SAMPLE

FORMER UNDERGROND STORAGE TANK AND PRODUCT LINE EXCAVATIONS

NOTE: SITE MAP ADAPTED FROM URS CORPORATION AND RESNA FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



BROADBENT & ASSOCIATES, INC.

ENGINEERING, WATER RESOURCES & ENVIRONMENTAL 1324 Mangrove Ave. Suite 212, Chico, California Project No.: 06-08-620 Date: 10/04/06

Station #2162 15135 Hesperian Boulevard San Leandro, California

Proposed Boring Locations

3

Drawing

#### Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 07/03/2007 By jamesy

Permit Numbers: W2007-0748 Permits Valid from 07/16/2007 to 07/20/2007

Application Id:

1183491143255

City of Project Site:San Leandro

Site Location: **Project Start Date:**  15135 Hesperian Blvd, San Leandro, CA 07/16/2007

Completion Date:07/20/2007

Applicant:

Stratus Environmental Inc. - Scott Bittinger

Phone: 530-676-2062

**Property Owner:** 

3330 Cameron Park Drive #550, Cameron Park, CA 95682 BP/ ARCO

Phone: 925-275-3306

6 CenterPointe Dr., La Palma, CA 90623

Client: \*\* same as Property Owner \*

Total Due:

\$200.00

Receipt Number: WR2007-0298

**Total Amount Paid:** 

\$200.00

PAID IN FULL

Payer Name: Stratus Paid By: CHECK

#### Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes

Driller: RSI Drilling - Lic #: 802334 - Method: DP

Work Total: \$200.00

#### Charlingtions

Specification	2115		744	•	
Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
Number			Boreholes		
W2007-	07/03/2007	10/14/2007	5	3.00 in.	20.00 ft
0748					

#### Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 5. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

#### Alameda County Public Works Agency - Water Resources Well Permit

- 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

126

# Atlantic Richfield Company A BP affiliated company

Chain of Custody Record

-	7	Station	4	2160
roject Name:	19/10	James	44	01100

Project Name: Avo Station # 2162
BP BU/AR Region/Enfos Segment: BP Avanua West Gast > Relail > Alanda > 2162 State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy): J

Alameda Covity

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On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lab N	Vame: Test America	·,,					BP/AR Facility No	.: '	2167	,	-,		<del></del>					С	onsult	ant/C	ontra	ctor:	Stru	Jus E	nui/on men	fal Juci	
Addr		***					BP/AR Facility Ad	dress	: 15	135	Hes	Mia	n B	lud	Sav	r Lea	metro	A							Dr. \$55		
	Morgan Hill, CA 9	5037					Site Lat/Long:			<b>X</b>		<del> </del>	<del></del>	· · · · ·		1				G	mer	mf	ank	, 0	4 9548	2	
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Tele/						-	Enfos Project No.:	- (	50	C 2	<u>C-</u>	06	17												Tolonson		
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A BP affiliated company

Chain of Custody Record

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Project Name:	Avio	Station	# 2166
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BP BU/AR Region/Enfos Segment: BP Amazius) West Gout > Peti 1 > Alumatu State or Lead Regulatory Agency:

Alameda County Health Carl Services Requested Due Date (mm/dd/yy):

	PageOf
On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Lau Name: 1837 Ambica	BP/AR Facility No.: 2167					
Address: 885 Javis Dr.	DDPAD Table 411 CD 15		Consultant/Contractor: 5th	who Environment	Libra	
Morgan Hill. (4 9503)	BP/AR Facility Address: 15135 Hespeian Blu	Address: 3330 Camon Pork Dr. #550				
Lab PM: Lisq Race	One Davidong.		Cameon Park	, CA 95682		
Tele/Fax: 408-782-8156	California Global ID No.: TO60010	0084	Consultant/Contractor Proje	ct No: 15-2167		
BP/AR EBM: Paul Saule	Enfos Project No.: GOC 2C- 0017		Consultant/Contractor PM:	Jan Tokenson		
Address: 2010 Crow Canyon Pl. # 150	Provision of OOC (circle one)	•	Tele/Fax: 530-676	-6000		
San Ramon, 4	Phase/WBS: Ol- 455c55 merl		Report Type & QC Level:	Level 1 WEDE		
Tele/Fax: 925-275-3506	Sub Phase/Task: 03-analytical	***************************************	E-mail EDD To: Crewith	B str bing at		
Lab Bottle Order No.	Cost Element: 01 - Contractor Labor		Invoice to: Consultant or BI	Of Atlantia Pichfield	Cox (circ	le one)
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Cooler Temp on Receipt:

°F/C

Trip Blank: Yes / No

MS/MSD Sample Submitted: Yes /

Atlantic .	
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Company	y

A BP affiliated company

Chain of Custody Record

Project Name:	Arw	Station	#	216	2

BP BU/AR Region/Enfos Segment: BP American West Goart > Rebii > Alamada > 16 State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

On-site Time:	Temp:	
Off-site Time:	Temp:	
Sky Conditions:		
Meteorological Events:		
Wind Speed:	Direction:	

Lab Name: 1837 America		BP/AR Facility No.											UND ENVION		
Address: 985 Javis Dr.		BP/AR Facility Add	dress:	15135	Hesperia	n Blu	d. 3	San Lea	ndo				Park Dr. #		
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Lab PM: Lisa Race		California Global II	D No.		TOL	0010	008	4		Consultan	t/Contrac	ctor Proje	ect No.: 13-216	7	
Tele/Fax: 408-787-8156		Enfos Project No.:	G	067	2C-06	17				Consultan	t/Contrac	ctor PM:	Jay Johns	<u>~</u>	
BP/AR EBM: Paul Supall		Provision or OOC	(circle	one)						Tele/Fax:	5	30-676	-6000		
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Item No. Sample Description judge	Soil/Solid Water/Liquid Air	Laboratory No.	No. of Containers	Unpreserved H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub> HCI (Vox 5)	Methanol		EKO TPHD	Dex Nexs	6-4014 12-50-4	EDG			Point Lat/Long Comments	and
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2 August, 2007

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

RE: ARCO #2162, San Leandro, CA

Work Order: MQG0624

Enclosed are the results of analyses for samples received by the laboratory on 07/17/07 19:25. 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.





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### ANALYTICAL REPORT FOR SAMPLES

CB3-W         MQG0624-01         Water         07/17/07 08:10         07/17/07 19:25           CB3 7.5'-8'         MQG0624-02         Soil         07/17/07 07:30         07/17/07 19:25           CB3 11.5'-12'         MQG0624-03         Soil         07/17/07 07:36         07/17/07 19:25           CB3 15.5'-16'         MQG0624-04         Soil         07/17/07 09:05         07/17/07 19:25           CB2-W         MQG0624-05         Water         07/17/07 08:36         07/17/07 19:25           CB2-W         MQG0624-06         Soil         07/17/07 08:36         07/17/07 19:25           CB2 15.5'-16'         MQG0624-07         Soil         07/17/07 08:36         07/17/07 19:25           CB1- 7.5'-8'         MQG0624-09         Soil         07/17/07 09:54         07/17/07 19:25           CB1- 1.5'-12'         MQG0624-09         Soil         07/17/07 09:54         07/17/07 19:25           CB1- 1.5'-12'         MQG0624-11         Soil         07/17/07 09:54         07/17/07 19:25           CB1- 1.5'-12'         MQG0624-12         Water         07/17/07 19:25         07/17/07 19:25           CB4-W         MQG0624-13         Soil         07/17/07 11:2         07/17/07 19:25           CB4-W         MQG0624-13         Soil         07/17/07 11:2 </th <th>Sample ID</th> <th>Laboratory ID</th> <th>Matrix</th> <th>Date Sampled</th> <th>Date Received</th>	Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CB3 11.5'-12'         MQG0624-03         Soil         07/17/07 07:36         07/17/07 19:25           CB3 15.5'-16'         MQG0624-04         Soil         07/17/07 07:36         07/17/07 19:25           CB2-W         MQG0624-05         Water         07/17/07 09:05         07/17/07 19:25           CB2 11.5'-12'         MQG0624-06         Soil         07/17/07 08:36         07/17/07 19:25           CB1-W         MQG0624-07         Soil         07/17/07 08:36         07/17/07 19:25           CB1-W         MQG0624-08         Water         07/17/07 09:54         07/17/07 19:25           CB1- T.5'-8'         MQG0624-09         Soil         07/17/07 09:54         07/17/07 19:25           CB1- 11.5'-12'         MQG0624-10         Soil         07/17/07 09:54         07/17/07 19:25           CB1- 15.5'-16'         MQG0624-11         Soil         07/17/07 09:54         07/17/07 19:25           CB4-W         MQG0624-11         Soil         07/17/07 09:58         07/17/07 19:25           CB4 7.5'-8'         MQG0624-12         Water         07/17/07 11:24         07/17/07 19:25           CB4 11.5'-12'         MQG0624-13         Soil         07/17/07 11:24         07/17/07 19:25           CB5 7.5'-8'         MQG0624-16         Water         07/17	CB3-W	MQG0624-0	1 Water	07/17/07 08:10	07/17/07 19:25
CB3 15.5'-16'         MQG0624-04         Soil         07/17/07 07:36         07/17/07 19:25           CB2-W         MQG0624-05         Water         07/17/07 09:05         07/17/07 19:25           CB2 11.5'-12'         MQG0624-06         Soil         07/17/07 08:36         07/17/07 19:25           CB2 15.5'-16'         MQG0624-07         Soil         07/17/07 08:36         07/17/07 19:25           CB1-W         MQG0624-08         Water         07/17/07 09:54         07/17/07 19:25           CB1-T.5'-8'         MQG0624-09         Soil         07/17/07 09:54         07/17/07 19:25           CB1-11.5'-12'         MQG0624-10         Soil         07/17/07 09:58         07/17/07 19:25           CB4-W         MQG0624-11         Soil         07/17/07 09:58         07/17/07 19:25           CB4-W         MQG0624-12         Water         07/17/07 11:45         07/17/07 19:25           CB4-W         MQG0624-13         Soil         07/17/07 11:2         07/17/07 19:25           CB4 11.5'-12'         MQG0624-13         Soil         07/17/07 11:2         07/17/07 19:25           CB4 15.5'-16'         MQG0624-16         Water         07/17/07 11:2         07/17/07 19:25           CB5-W         MQG0624-16         Water         07/17/07 12:30	CB3 7.5'-8'	MQG0624-0	2 Soil	07/17/07 07:30	07/17/07 19:25
CB2-W         MQG0624-05         Water         07/17/07 09:05         07/17/07 19:25           CB2 11.5'-12'         MQG0624-06         Soil         07/17/07 08:36         07/17/07 19:25           CB2 15.5'-16'         MQG0624-07         Soil         07/17/07 08:36         07/17/07 19:25           CB1-W         MQG0624-08         Water         07/17/07 10:25         07/17/07 19:25           CB1-7.5'-8'         MQG0624-09         Soil         07/17/07 09:54         07/17/07 19:25           CB1-11.5'-12'         MQG0624-10         Soil         07/17/07 09:56         07/17/07 19:25           CB4-W         MQG0624-11         Soil         07/17/07 09:58         07/17/07 19:25           CB4 7.5'-8'         MQG0624-12         Water         07/17/07 11:45         07/17/07 19:25           CB4 11.5'-12'         MQG0624-13         Soil         07/17/07 11:22         07/17/07 19:25           CB5-W         MQG0624-16         Water         07/17/07 12:30         07/17/07 19:25           CB5 7.5'-8'         MQG0624-16         Water         07/17/07 12:30         07/17/07 19:25           CB5 7.5'-8'         MQG0624-17         Soil         07/17/07 12:30         07/17/07 19:25	CB3 11.5'-12'	MQG0624-0	3 Soil	07/17/07 07:36	07/17/07 19:25
CB2 11.5'-12'	CB3 15.5'-16'	MQG0624-0	4 Soil	07/17/07 07:36	07/17/07 19:25
CB2 15.5'-16'       MQG0624-07       Soil       07/17/07 08:36       07/17/07 19:25         CB1-W       MQG0624-08       Water       07/17/07 09:54       07/17/07 19:25         CB1- 7.5'-8'       MQG0624-09       Soil       07/17/07 09:54       07/17/07 19:25         CB1- 11.5'-12'       MQG0624-10       Soil       07/17/07 09:56       07/17/07 19:25         CB1- 15.5'-16'       MQG0624-11       Soil       07/17/07 09:58       07/17/07 19:25         CB4-W       MQG0624-12       Water       07/17/07 11:45       07/17/07 19:25         CB4 7.5'-8'       MQG0624-13       Soil       07/17/07 11:22       07/17/07 19:25         CB4 11.5'-12'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:07       07/17/07 19:25	CB2-W	MQG0624-0	5 Water	07/17/07 09:05	07/17/07 19:25
CB1-W       MQG0624-08       Water       07/17/07 10:25       07/17/07 19:25         CB1- 7.5'-8'       MQG0624-09       Soil       07/17/07 09:54       07/17/07 19:25         CB1- 11.5'-12'       MQG0624-10       Soil       07/17/07 09:56       07/17/07 19:25         CB1- 15.5'-16'       MQG0624-11       Soil       07/17/07 09:58       07/17/07 19:25         CB4-W       MQG0624-12       Water       07/17/07 11:45       07/17/07 19:25         CB4 7.5'-8'       MQG0624-13       Soil       07/17/07 11:22       07/17/07 19:25         CB4 15.5'-16'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB2 11.5'-12'	MQG0624-0	6 Soil	07/17/07 08:36	07/17/07 19:25
CB1- 7.5'-8'  CB1- 11.5'-12'  MQG0624-10  MQG0624-11  Soil  07/17/07 09:56  07/17/07 19:25  CB1- 15.5'-16'  MQG0624-11  Soil  07/17/07 09:58  07/17/07 19:25  CB4-W  MQG0624-12  Water  07/17/07 11:45  07/17/07 19:25  CB4 11.5'-12'  MQG0624-13  Soil  07/17/07 11:22  07/17/07 19:25  CB4 11.5'-12'  MQG0624-14  Soil  07/17/07 11:22  07/17/07 19:25  CB4 15.5'-16'  MQG0624-15  Soil  07/17/07 11:27  07/17/07 19:25  CB5-W  MQG0624-16  MQG0624-17  Soil  07/17/07 12:30  07/17/07 19:25  CB5 11.5'-12'  MQG0624-18  Soil  07/17/07 12:07  07/17/07 19:25  CB5 11.5'-12'  MQG0624-18  Soil  07/17/07 12:09  07/17/07 19:25	CB2 15.5'-16'	MQG0624-0	7 Soil	07/17/07 08:36	07/17/07 19:25
CB1- 11.5'-12'       MQG0624-10       Soil       07/17/07 09:56       07/17/07 19:25         CB1- 15.5'-16'       MQG0624-11       Soil       07/17/07 09:58       07/17/07 19:25         CB4-W       MQG0624-12       Water       07/17/07 11:45       07/17/07 19:25         CB4 7.5'-8'       MQG0624-13       Soil       07/17/07 11:22       07/17/07 19:25         CB4 11.5'-12'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB5-W       MQG0624-15       Soil       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB1-W	MQG0624-0	8 Water	07/17/07 10:25	07/17/07 19:25
CB1- 15.5'-16'       MQG0624-11       Soil       07/17/07 09:58       07/17/07 19:25         CB4-W       MQG0624-12       Water       07/17/07 11:45       07/17/07 19:25         CB4 7.5'-8'       MQG0624-13       Soil       07/17/07 11:22       07/17/07 19:25         CB4 11.5'-12'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB4 15.5'-16'       MQG0624-15       Soil       07/17/07 11:27       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB1- 7.5'-8'	MQG0624-0	9 Soil	07/17/07 09:54	07/17/07 19:25
CB4-W MQG0624-11 Soil 07/17/07 19:25  CB4-W MQG0624-12 Water 07/17/07 11:45 07/17/07 19:25  CB4 7.5'-8' MQG0624-13 Soil 07/17/07 11:22 07/17/07 19:25  CB4 11.5'-12' MQG0624-14 Soil 07/17/07 11:24 07/17/07 19:25  CB4 15.5'-16' MQG0624-15 Soil 07/17/07 11:27 07/17/07 19:25  CB5-W MQG0624-16 Water 07/17/07 12:30 07/17/07 19:25  CB5 7.5'-8' MQG0624-17 Soil 07/17/07 12:07 07/17/07 19:25  CB5 11.5'-12' MQG0624-18 Soil 07/17/07 12:09 07/17/07 19:25	CB1- 11.5'-12'	•	0 Soil	07/17/07 09:56	07/17/07 19:25
CB4 7.5'-8'       MQG0624-13       Soil       07/17/07 11:22       07/17/07 19:25         CB4 11.5'-12'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB4 15.5'-16'       MQG0624-15       Soil       07/17/07 11:27       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB1- 15.5'-16'	MQG0624-1	l Soil	07/17/07 09:58	07/17/07 19:25
CB4 11.5'-12'       MQG0624-14       Soil       07/17/07 11:24       07/17/07 19:25         CB4 15.5'-16'       MQG0624-15       Soil       07/17/07 11:27       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB4-W	MQG0624-1	2 Water	07/17/07 11:45	07/17/07 19:25
CB4 15.5'-16'       MQG0624-15       Soil       07/17/07 11:27       07/17/07 19:25         CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB4 7.5'-8'	MQG0624-1	3 Soil	07/17/07 11:22	07/17/07 19:25
CB5-W       MQG0624-16       Water       07/17/07 12:30       07/17/07 19:25         CB5 7.5'-8'       MQG0624-17       Soil       07/17/07 12:07       07/17/07 19:25         CB5 11.5'-12'       MQG0624-18       Soil       07/17/07 12:09       07/17/07 19:25	CB4 11.5'-12'	MQG0624-1	4 Soil	07/17/07 11:24	07/17/07 19:25
CB5 7.5'-8' MQG0624-17 Soil 07/17/07 12:07 07/17/07 19:25 CB5 11.5'-12' MQG0624-18 Soil 07/17/07 12:09 07/17/07 19:25	CB4 15.5'-16'	MQG0624-1	5 Soil	07/17/07 11:27	07/17/07 19:25
CB5 11.5'-12' MQG0624-18 Soil 07/17/07 12:09 07/17/07 19:25	CB5-W	MQG0624-1	6 Water	07/17/07 12:30	07/17/07 19:25
<b>C</b>	CB5 7.5'-8'	MQG0624-1	7 Soil	07/17/07 12:07	07/17/07 19:25
CB5 15.5'-16' MQG0624-19 Soil 07/17/07 12:12 07/17/07 19:25	CB5 11.5'-12'	MQG0624-1	8 Soil	07/17/07 12:09	07/17/07 19:25
	CB5 15.5'-16'	MQG0624-1	9 Soil	07/17/07 12:12	07/17/07 19:25

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.





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB3-W (MQG0624-01) Water Sam	pled: 07/17/07 08:10	Receive	ed: 07/17/07	19:25					
Gasoline Range Organics (C4-C12)	490	50	ug/l	I	7G24009	07/24/07	07/24/07	LUFT GCMS	•
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12	5	"	11	ıı	"	
Surrogate: Dibromofluoromethane		98 %	75-12	0	"	"	"	"	
Surrogate: Toluene-d8		104 %	80-12	0	"	it	H	"	
Surrogate: 4-Bromofluorobenzene		99 %	60-13	5	n	n	"	rr	
CB3 7.5'-8' (MQG0624-02) Soil San	pled: 07/17/07 07:30	Receiv	ed: 07/17/07	19:25					
Gasoline Range Organics (C4-C12)	0.65	0.12	mg/kg dry	. 1	7G21003	07/17/07	07/21/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		107%	65-13	5	n	**	n	n	
Surrogate: 4-Bromofluorobenzene		100 %	60-12	9	"	n	n	"	
Surrogate: Dibromofluoromethane	· 5 4	105 %	70-12	9	"	"	"	n	
Surrogate: Toluene-d8		104 %	75-12	)	"	"	"	n	
CB3 11.5'-12' (MQG0624-03) Soil S	ampled: 07/17/07 07:	36 Rec	eived: 07/17/	07 19:2	5				
Gasoline Range Organics (C4-C12)	400	3.1	mg/kg dry	1	7G17039	07/17/07	07/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		96 %	65-13.	5	IT	11	n	n	
Surrogate: 4-Bromofluorobenzene		144 %	60-12	7	n	"	"	rr .	LH,AY
Surrogate: Dibromofluoromethane		92 %	70-12	)	"	u	"	n	
Surrogate: Toluene-d8		96 %	75-12	)	"	"	н	n	
CB3 15.5'-16' (MQG0624-04) Soil S	ampled: 07/17/07 07:	36 Rec	eived: 07/17/	07 19:2:	5				
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	l	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		110%	65-13.	5	"	rr	11	**	
Surrogate: 4-Bromofluorobenzene		100 %	60-12	)	u	u	n	rr	
Surrogate: Dibromofluoromethane		103 %	70-12	)	"	"	"	tr .	
Surrogate: Toluene-d8		103 %	75-12	)	n	"	"	H	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
CB2-W (MQG0624-05) Water Samp	pled: 07/17/07 09:05	Receive	ed: 07/17/07	19:25					
Gasoline Range Organics (C4-C12)	1900	250	ug/l	5	7G24009	07/24/07	07/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-12:	5	11	п	11	и	
Surrogate: Dibromofluoromethane		107 %	75-120	)	"	n	v	"	
Surrogate: Toluene-d8		104 %	80-120	)	"	p	n	"	
Surrogate: 4-Bromofluorobenzene		105 %	60-133	5	"	n	"	"	
CB2 11.5'-12' (MQG0624-06) Soil Sa	ampled: 07/17/07 08:	36 Rec	eived: 07/17/	07 19:2	5				
Gasoline Range Organics (C4-C12)	2.9	0.12	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		112%	65-135	5	п	11	p	"	
Surrogate: 4-Bromofluorobenzene		117%	60-120	)	n	n	n	n	
Surrogate: Dibromofluoromethane	A.	101%	70-120	)	n	**	"	"	
Surrogate: Toluene-d8	•	103 %	75-120	)	"	u	"	u	
CB2 15.5'-16' (MQG0624-07) Soil Sa	ampled: 07/17/07 08:	36 Rec	eived: 07/17/	07 19:2	5				
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	l	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		107 %	65-135	ī	"	"	11	"	
Surrogate: 4-Bromofluorobenzene		95 %	60-120	)	н	"	u	"	
Surrogate: Dibromofluoromethane		102 %	70-120	)	,,	n	n	"	
Surrogate: Toluene-d8		104 %	75-120	)	n	"	n	n .	
CB1-W (MQG0624-08) Water Samp	oled: 07/17/07 10:25	Receive	d: 07/17/07 1	9:25					
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	7G24009	07/24/07	07/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		114%	60-125	;	"	"	"	"	
Surrogate: Dibromofluoromethane		113%	75-120	)	n	н	n	n	
Surrogate: Toluene-d8		100 %	80-120	)	"	"	"	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	F Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB1- 7.5'-8' (MQG0624-09) Soil	Sampled: 07/17/07 09:54	Recei	ived: 07/17/0	7 19:25					***************************************
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	l	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		110%	65-13	5	11	"	n	"	
Surrogate: 4-Bromofluorobenzene		98 %	60-12	0	н	rt	n	"	
Surrogate: Dibromofluoromethane		102 %	70-12	0	,,	"	n	"	
Surrogate: Toluene-d8		102 %	75-12	0	n	n	v	**	
CB1-11.5'-12' (MQG0624-10) Soil	l Sampled: 07/17/07 09:	56 Re	ceived: 07/17	7/07 19:	25				
Gasoline Range Organics (C4-C12)	ND	0.12	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		112%	65-13	5	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98 %	60-12	0	"	**	n	"	
Surrogate: Dibromofluoromethane	: 44, "	101 %	70-12	0	"	"	"	"	
Surrogate: Toluene-d8	1796	101 %	75-12	0	"	"	H	"	
CB1- 15.5'-16' (MQG0624-11) Soil	Sampled: 07/17/07 09:	58 Re	ceived: 07/17	//07 19:	25				
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		115%	65-13	5	n	ıı	"	n	
Surrogate: 4-Bromofluorobenzene		101%	60-12	0	"	u	н	n	
Surrogate: Dibromofluoromethane		106 %	70-12	0	"	"	"	"	
Surrogate: Toluene-d8		102 %	75-12	0	n	"	"	"	
CB4-W (MQG0624-12) Water S	ampled: 07/17/07 11:45	Receive	ed: 07/17/07	19:25					
Gasoline Range Organics (C4-C12)	ND	50	ug/l	l	7G24009	07/24/07	07/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-12	5	"	n	"	11	
Surrogate: Dibromofluoromethane		102 %	75-12	)	n	v	n .	n	
Surrogate: Toluene-d8		99 %	80-12	)	"	"	"	n .	
Surrogate: 4-Bromofluorobenzene		94 %	60-13	5	"	"	"	n .	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB4 7.5'-8' (MQG0624-13) Soil	Sampled: 07/17/07 11:22	Receiv	/ed: 07/17/0	7 19:25					
Gasoline Range Organics (C4-C12)	ND	0.12	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		112%	65-13	35	11	n	rr	u	
Surrogate: 4-Bromofluorobenzene		96 %	60-12	20	n	"	n	"	
Surrogate: Dibromofluoromethane		105 %	70-12	20	"	"	"	"	
Surrogate: Toluene-d8	•	101 %	75-12	20	"	,,	"	и	
CB4 11.5'-12' (MQG0624-14) Soil	Sampled: 07/17/07 11:	24 Rec	eived: 07/17	/07 19:2	5				
Gasoline Range Organics (C4-C12	2) 3.8	0.12	mg/kg dry	1	7G25030	07/17/07	07/25/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		106 %	65-13	35	n	"	"	"	
Surrogate: 4-Bromofluorobenzene		128 %	60-12	20	n	,,	u	n	LH,AY
Surrogate: Dibromofluoromethane	A.C.	105 %	70-12	20	"	"	"	n	
Surrogate: Toluene-d8		107 %	75-12	20	Ħ	"	"	v	
CB4 15.5'-16' (MQG0624-15) Soil	Sampled: 07/17/07 11:2	27 Rec	eived: 07/17	/07 19:2	5				
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		114%	65-13	5	"	"	"	v	
Surrogate: 4-Bromofluorobenzene		103 %	60-12	0	"	"	n	n	
Surrogate: Dibromofluoromethane		105 %	70-12	0	"	"	n	"	
Surrogate: Toluene-d8		104%	75-12	0	"	"	"	"	
CB5-W (MQG0624-16) Water S	Sampled: 07/17/07 12:30	Receive	d: 07/17/07	19:25					
Gasoline Range Organics (C4-C12	2) 490	50	ug/l	1	7G24009	07/24/07	07/24/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		99 %	60-12	5	"	"	"	"	
Surrogate: Dibromofluoromethane		99 %	75-12	0	"	"	"	н	
Surrogate: Toluene-d8		103 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	60-13	5	"	"	"	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB5 7.5'-8' (MQG0624-17) Soil	Sampled: 07/17/07 12:07	Receiv	/ed: 07/17/07	19:25					
Gasoline Range Organics (C4-C12)	ND	0.12	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		114%	65-13:	5	"	"	"	п	
Surrogate: 4-Bromofluorobenzene		97%	60-120	)	"	"	"	u	
$Surrogate:\ Dibromofluoromethane$		104 %	70-120	) '	11	"	"	"	
Surrogate: Toluene-d8	•	101 %	75-120	)	ti .	"	n	"	
CB5 11.5'-12' (MQG0624-18) Soi	Sampled: 07/17/07 12:	09 Rec	eived: 07/17/	07 19:2	5				
Gasoline Range Organics (C4-C1	2) 1100	30	mg/kg dry	10	7G17039	07/17/07	07/26/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		93 %	65-133	)	11	"	"	υ	
Surrogate: 4-Bromofluorobenzene		116%	60-120	)	Ħ	"	11	n	
$Surrogate:\ Dibromofluoromethane$		93 %	70-120	)	"	"	"	"	
Surrogate: Toluene-d8	, and a second s	97 %	75-120	)	n	н	n	"	
CB5 15.5'-16' (MQG0624-19) Soil	Sampled: 07/17/07 12:	12 Rec	eived: 07/17/	07 19:2	5				
Gasoline Range Organics (C4-C12)	ND	0.13	mg/kg dry	1	7G23002	07/17/07	07/23/07	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4	•	107 %	65-135	5	"	"	"	n	
Surrogate: 4-Bromofluorobenzene		99 %	60-120	)	"	"	"	υ	
Surrogate: Dibromofluoromethane		107 %	70-120	)	"	"	"	n	
Surrogate: Toluene-d8		102 %	75-120	)	"	"	"	н	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Extractable Hydrocarbons by EPA 8015B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB3-W (MQG0624-01) Water Sa	mpled: 07/17/07 08:10	Receive	ed: 07/17/07	19:25					
Diesel Range Organics (C10-C36)	440	47	ug/l	1	7G24020	07/24/07	07/30/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		82 %	30-11	15	n	11	'n	"	
CB3 7.5'-8' (MQG0624-02) Soil S:	ampled: 07/17/07 07:30	Receiv	/ed: 07/17/0	7 19:25					
Diesel Range Organics (C10-C36)	2.2	1.2	mg/kg dry	1	7G20025	07/20/07	07/20/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		81 %	40-12	20	rr rr	"	**	"	
CB3 11.5'-12' (MQG0624-03) Soil	Sampled: 07/17/07 07:	:36 Rec	eived: 07/17	/07 19:2	5				
Diesel Range Organics (C10-C36)	12	1.2	mg/kg dry	i	7G20025	07/20/07	07/20/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane	18 8/1	94 %	40-12	20	,,	· n	"	n	
CB3 15.5'-16' (MQG0624-04) Soil	Sampled: 07/17/07 07:	:36 Rec	eived: 07/17	/07 19:2	5				
Diesel Range Organics (C10-C36)	1.6	1.3	mg/kg dry	1	7G20025	07/20/07	07/20/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		94 %	40-12	20	11	н	n	и	
CB2-W (MQG0624-05) Water San	mpled: 07/17/07 09:05	Receive	d: 07/17/07	19:25					
Diesel Range Organics (C10-C36)	2000	140	ug/l	3	7G24020	07/24/07	07/30/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		134 %	30-11	5	"	"	"	"	LH,AY
CB2 11.5'-12' (MQG0624-06) Soil	Sampled: 07/17/07 08:	36 Rec	eived: 07/17	/07 19:2	5				
Diesel Range Organics (C10-C36)	1300	58	mg/kg dry	50	7G20025	07/20/07	07/23/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		1240 %	40-12	0	"	"	"	#	LH.AY
CB2 15.5'-16' (MQG0624-07) Soil	Sampled: 07/17/07 08:	36 Rec	eived: 07/17.	/07 19:2	5				
Diesel Range Organics (C10-C36)	2.3	1.3	mg/kg dry	l	7G20025	07/20/07	07/23/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		84 %	40-12	0	"	31	"	II	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Extractable Hydrocarbons by EPA 8015B TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Danasad	A a1 J	No. d.	N1
					Daten	Prepared	Analyzed	Method	Note
CB1-W (MQG0624-08) Water	Sampled: 07/17/07 10:25	Receive	ed: 07/17/07	19:25					
Diesel Range Organics (C10-C36)	ND	47	ug/l	1	7G24020	07/24/07	08/01/07	EPA 8015B-SVOA	
Surrogate: n-Octacosane		86 %	30-11	5	"	v	v	n	
CB1- 7.5'-8' (MQG0624-09) Soil	Sampled: 07/17/07 09:5	4 Recei	ived: 07/17/0	7 19:25					
Diesel Range Organics (C10-C36	3.5	1.3	mg/kg dry	ı	7G20025	07/20/07	07/23/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		91%	40-12	20	lt .	rr .	0	"	
CB1- 11.5'-12' (MQG0624-10) So	il Sampled: 07/17/07 09	):56 Re	ceived: 07/1	7/07 19:	25				
Diesel Range Organics (C10-C36)	ND	1.2	mg/kg dry	1	7G20025	07/20/07	07/23/07	EPA 8015B-SVOA	
Surrogate: n-Octacosane	at the second	86 %	40-12	0	11	. "	rr .	"	
CB1- 15.5'-16' (MQG0624-11) So	il Sampled: 07/17/07 09	:58 Re	ceived: 07/1	7/07 19::	25				
Diesel Range Organics (C10-C36)	ND	1.3	mg/kg dry	1	7G20025	07/20/07	07/20/07	EPA 8015B-SVOA	
Surrogate: n-Octacosane		86 %	40-12	0	u	"	"	и	
CB4-W (MQG0624-12) Water	Sampled: 07/17/07 11:45	Receive	ed: 07/17/07	19:25					
Diesel Range Organics (C10-C36	220	47	ug/l	l	7G24020	07/24/07	07/30/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		97 %	30-11	5	"	"	"	"	
CB4 7.5'-8' (MQG0624-13) Soil	Sampled: 07/17/07 11:22	Receiv	ed: 07/17/07	19:25					
Diesel Range Organics (C10-C36	) 5.6	1.2	mg/kg dry	1	7G20025	07/20/07	07/21/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		103 %	40-12	0	"	"	"	"	
CB4 11.5'-12' (MQG0624-14) Soi	l Sampled: 07/17/07 11:	24 Rec	eived: 07/17,	/07 19:2	5				
Diesel Range Organics (C10-C36	) 2.0	1.2	mg/kg dry	l	7G20025	07/20/07	07/21/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		83 %	40-12	0	n	11	n	n.	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Extractable Hydrocarbons by EPA 8015B TestAmerica - Morgan Hill, CA

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB4 15.5'-16' (MQG0624-15) Soil	Sampled: 07/17/07 11:	27 Rec	eived: 07/1	7/07 19:2	5	_			
Diesel Range Organics (C10-C36)	1.8	1.3	mg/kg dry	1	7G20025	07/20/07	07/21/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		89 %	40-1	20	"	"	"	u	
CB5-W (MQG0624-16) Water Sa	ampled: 07/17/07 12:30	Receive	ed: 07/17/07	19:25					
Diesel Range Organics (C10-C36)	360	47	ug/l	1	7G24020	07/24/07	07/30/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		93 %	30-1	15	**	"	"	"	
CB5 7.5'-8' (MQG0624-17) Soil S	Sampled: 07/17/07 12:07	Receiv	ed: 07/17/0	7 19:25					
Diesel Range Organics (C10-C36)	26	2.3	mg/kg dry	2	7G20025	07/20/07	07/23/07	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane	al C	110%	40-1	20	n	. 4	μ	Ħ	
CB5 11.5'-12' (MQG0624-18) Soil	Sampled: 07/17/07 12:0	09 Rec	eived: 07/1'	7/07 19:2:	5				
Diesel Range Organics (C10-C36)	18	1.2	mg/kg dry	1	7G20025	07/20/07	07/21/07	EPA 8015B-SVOA	РТ
Surrogate: n-Octacosane		91%	40-1.	20	n	"	rr	"	
CB5 15.5'-16' (MQG0624-19) Soil	Sampled: 07/17/07 12:	12 Rec	eived: 07/17	7/07 19:2:	5				
Diesel Range Organics (C10-C36)	ND	1.3	mg/kg dry	l	7G20025	07/20/07	07/21/07	EPA 8015B-SVOA	
Surrogate: n-Octacosane		85 %	40-1.	20	"	"	"	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB3-W (MQG0624-01) Water S	ampled: 07/17/07 08:10	Receive	ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	0.50	ug/l	1	7G24009	07/24/07	07/24/07	EPA 8260B	·
Benzene	ND	0.50	D	11	41	н	II .	bt .	
tert-Butyl alcohol	ND	20	н	Ħ	U	ti	ii	н	
Di-îsopropyl ether	ND	0.50	и	H	D	0	Q	n	
1,2-Dibromoethane (EDB)	ND	0.50	n	н	D	0	ŋ	71	
1,2-Dichloroethane	ND	0.50	fi .	н	H	O	H	ti.	
Ethanol	ND	300	11	**	ıt	U.	II	o o	
Ethyl tert-butyl ether	ND	0.50	O	0	u	P	и	O .	
Ethylbenzene	0.92	0.50	ø	Ð	н	И	п	II:	
Methyl tert-butyl ether	0.82	0.50	Q	U	н	И	71	j <del>t</del>	
Toluene	ND	0.50	11	"	U	н	11	н	
Xylenes (total)	ND,,/*	0.50	II .	n	U	. 11	ø	н	
Surrogate: Dibromofluoromethane		98%	75-120	)	u	11	"	и	
Surrogate: 1,2-Dichloroethane-d4		103 %	60-12.	5	"	u	"	u	
Surrogate: Toluene-d8		104 %	80-120	)	"	"	"	v	
Surrogate: 4-Bromofluorobenzene		99 %	60-13.	5	<b>"</b> ,	n	"	H	
CB3 7.5'-8' (MQG0624-02) Soil S	Sampled: 07/17/07 07:30	Receiv	ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	0.0061	mg/kg dry	l	7G21003	07/17/07	07/21/07	EPA 8260B	
Benzene	ND	0.0061	в	D	0	†I	0	Ħ	
tert-Butyl alcohol	ND	0.024	H	Þ	ų	Ü	If	ti .	
Di-isopropyl ether	ND	0.0061	h	u	11	tr.	н	U	
1,2-Dibromoethane (EDB)	ND	0.0061	11	Ħ	B	It	и	P	
1,2-Dichloroethane	ND	0.0061	11	q		H	11	и	
Ethanol	ND	0.12	O	U	n	N	o o	н	
Ethyl tert-butyl ether	ND	0.0061	U .	ø	n	н	0	н	
Ethylbenzene	ND	0.0061	R	P	σ	ø	0	n	
Methyl tert-butyl ether	0.0063	0.0061	в	н	0	ø	If	Ð	
Toluene	ND	0.0061	"	н	0	17	ıı	U	
Xylenes (total)	ND	0.0061	н	н	n	B	II	II.	
Surrogate: Dibromofluoromethane		105 %	70-120	)	tr	"	rr	n	
Surrogate: 1,2-Dichloroethane-d4		107 %	65-133	<del>,</del>	"	"	н	tt	
Surrogate: Toluene-d8		104 %	75-120	)	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		100 %	60-120	)	tt	**	u	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
CB3 11.5'-12' (MQG0624-03) Soil	Sampled: 07/17/07 (	7:36 Rec	eived: 07/17.	/07 19:25	5				
tert-Amyl methyl ether	ND	0.031	mg/kg dry	1	7G17039	07/17/07	07/24/07	EPA 8260B	
Benzene	ND	0.061	н	"	D	O	0	n	
tert-Butyl alcohol	ND	6.1	ŧI	11	н	e	I+	11	
Di-isopropyl ether	ND	0.031	u.	4 H	н	R	И	0	
1,2-Dibromoethane (EDB)	ND	0.031	U	O	н	h	n	I <del>t</del>	
1,2-Dichloroethane	, ND	0.031	tt .	D	ft.	'n	ti	и	
Ethanol	ND	12	Þ	#	U	t)	U	n .	ME
Ethyl tert-butyl ether	ND	0.031	н	H	U	0	O	rı .	
Ethylbenzene	ND	0.061	н	н	tr	0	tr.	1)	
Methyl tert-butyl ether	ND	0.031	ţI	*1	lı	I†	И	(I	
Toluene	ND	0.061	D	o o	н	и	11	II.	
Xylenes (total)	ND	0.061	ff	II		, h	11	N	
Surrogate: Dibromofluoromethane		92 %	70-12	0	n	u	n	n	
Surrogate: 1,2-Dichloroethane-d4		96 %	65-13	5	"	n	"	n.	
Surrogate: Toluene-d8		96 %	75-12	0	"	"	rr .	u	
Surrogate: 4-Bromofluorobenzene		144 %	60-12	0	н	**	11	"	LH,AY
CB3 15.5'-16' (MQG0624-04) Soil	Sampled: 07/17/07 0	7:36 Rec	eived: 07/17/	07 19:25	5				
tert-Amyl methyl ether	ND	0.0063	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0063	71	#	H	u	н	U	
tert-Butyl alcohol	ND	0.025	11	ij	н	lt .	и	u	
Di-isopropyl ether	ND	0.0063	ø	0	"	н	н	D .	
I,2-Dibromoethane (EDB)	ND	0.0063	()	O	þi	ļi	u	H	
1,2-Dichloroethane	ND	0.0063	n	"	11	#1	U	H	
Ethanol	ND	0.13	H	If	ų	ŧ	0	स	IC
Ethyl tert-butyl ether	ND	0.0063	н	н	U	0	0	0	`
Ethylbenzene	ND	0.0063	н	ц	17	D	II	11	
Methyl tert-butyl ether	ND	0.0063	Ħ	11	I)	It .	н	O.	
Toluene	ND	0.0063	ħ	ti	11	и	Ħ	m	
Xylenes (total)	ND	0.0063	U	O	н	н	1)		
Surrogate: Dibromofluoromethane		103 %	70-120	)	11	11	n .	11	
Surrogate: 1,2-Dichloroethane-d4		110%	65-13.	5	n	v	"	"	
Surrogate: Toluene-d8		103 %	75-120	)	n	n	н	и	
Surrogate: 4-Bromofluorobenzene		100 %	60-120		"	"	"	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
CB2-W (MQG0624-05) Water	Sampled: 07/17/07 09:05	Receiv	ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	2.5	ug/l	5	7G24009	07/24/07	07/24/07	EPA 8260B	
Benzene	12	2.5		н	U	U	D	h	
tert-Butyl alcohol	ND	100		ŧı	и	B	н	0	
Di-isopropyl ether	ND	2.5	O	7	N	#	н	ii.	
1,2-Dibromoethane (EDB)	ND	2.5	e e	"	*1	н	Ħ	н	
1,2-Dichloroethane	, ND	2.5	11	Ħ	U	**	0	II.	
Ethanol	ND	1500	н	и	e	0	"	n .	
Ethyl tert-butyl ether	ND	2.5	н	н	17	U	lt .	11	
Ethylbenzene	110	2.5	ij	h	pt pt	II.	н	σ	
Methyl tert-butyl ether	ND	2.5	U	ø	h	H	)1	ų	
Toluene	ND	2.5	(1	"	"	н	н	17	
Xylenes (total)	140,,~	2.5		U .	0	. н	11	н	
Surrogate: Dibromofluoromethane	?	107 %	75-12	0	n	11	n	и	
Surrogate: 1,2-Dichloroethane-d4		106 %	60-12	5	"	n	п	"	
Surrogate: Toluene-d8		104 %	80-12	0	"	u	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	60-13	5	"	n	"	n	
CB2 11.5'-12' (MQG0624-06) So	il Sampled: 07/17/07 08:	:36 Rec	eived: 07/17.	07 19:2	5				
tert-Amyl methyl ether	ND	0.0058	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0058	"	U	н	н	*1	н	
tert-Butyl alcohol	ND	0.023	u	U	H	н	0	þi	
Di-isopropyl ether	ND	0.0058	D	P	o	ŧı	ų	11	
1,2-Dibromoethane (EDB)	ND	0.0058	H	I+	U	U	H	11	
1,2-Dichloroethane	ND	0.0058	н	H	u	u	н	0	
Ethanol	ND	0.12	н	и	P	D	и	tt.	IC
Ethyl tert-butyl ether	ND	0.0058	łı	łI	Ħ	Ħ	н	If	
Ethylbenzene	ND	0.0058	"	IJ	н	h	đ	'n	
Methyl tert-butyl ether	ND	0.0058	O	U	н	Ħ	0	н	
Toluene	ND	0.0058	D	D	11	н	ti .	11	
Xylenes (total)	0.0071	0.0058	P	It	0	O	#	ti .	
Surrogate: Dibromofluoromethane		101 %	70-12	0	"	"	ıı	"	
Surrogate: 1,2-Dichloroethane-d4		112%	65-13	5	"	"	"	"	
Surrogate: Toluene-d8		103 %	75-12	0	"	"	n	rr .	
Surrogate: 4-Bromofluorobenzene		117%	60-12	0	n	"	n	"	
		,	, ·-	-					





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Note
CB2 15.5'-16' (MQG0624-07) Soil	Sampled: 07/17/07 08	:36 Rec	eived: 07/17/	07 19:2	5				
tert-Amyl methyl ether	ND	0.0063	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0063	· ·	n	"	н	н	11	
tert-Butyl alcohol	ND	0.025	lt .	i;	ŧ	н	Ħ	н	
Di-isopropyl ether	ND	0.0063	н	Į.	0	Ħ	0	н	
1,2-Dibromoethane (EDB)	ND	0.0063	н	И	0	tr.	U	М	
1,2-Dichloroethane	ND	0.0063	tı	u	17	Q	1)	**	
Ethanol	ND	0.13	e	н	н	t†	И	U	IC
Ethyl tert-butyl ether	ND	0.0063	0	Ħ	н	R	н	O	
Ethylbenzene	ND	0.0063	ø	0	ii	H	н	e	
Methyl tert-butyl ether	ND	0.0063	D	Ü	ţ1	н	†I	H	
Toluene	ND	0.0063	D	17	ii.	*1	U	и	
Xylenes (total)	ND,,~	0.0063	H	н	"	11		н	
Surrogate: Dibromofluoromethane		102 %	70-12	0	u	и	"	"	
Surrogate: 1,2-Dichloroethane-d4		107 %	65-13.	5	"	"	"	,,	
Surrogate: Toluene-d8		104 %	75-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95 %	60-12	0	"	"	n	n	
CB1-W (MQG0624-08) Water Sa	mpled: 07/17/07 10:25	Receive	ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	0.50	ug/l	1	7G24009	07/24/07	07/24/07	EPA 8260B	
Benzene	ND	0.50	h	н	D	0	Ħ	0	
tert-Butyl alcohol	ND	20	ħ	'n	н	В	и	O.	
Di-isopropyl ether	ND	0.50	ч	ø	þ	ıt	#1	B	
1,2-Dibromoethane (EDB)	ND	0.50	"	U	H	н	v	н	
I,2-Dichloroethane	ND	0.50	D	P	"	t1	"	н	
Ethanol	ND	300	и	#	U	ø	U.	O .	
Ethyl tert-butyl ether	ND	0.50	н	N	0	O	B	Ü	
Ethylbenzene	ND	0.50	n	п	It.	IP.	þ	n	
Methyl tert-butyl ether	ND	0.50	11	н	н	н	11	н	
Toluene	ND	0.50	u u	"	•	H	n	u	
Xylenes (total)	ND	0.50	U	o .	н	11	U	н	
Surrogate: Dibromofluoromethane		113 %	75-120	)	į;	ti.	"	ft.	
Surrogate: 1,2-Dichloroethane-d4		114%	60-12:	5	u	"	"	"	
Surrogate: Toluene-d8		100 %	80-120	)	n	n	"	u .	
Surrogate: 4-Bromofluorobenzene		98 %	60-133	5	"	"	"	"	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
CB1- 7.5'-8' (MQG0624-09) Soil	Sampled: 07/17/07 09:	54 Rece	ived: 07/17/0	7 19:25		· · ·			
tert-Amyl methyl ether	ND	0.0063	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0063	"	н	ır	"	"	н	
tert-Butyl alcohol	ND	0.025	11	н	H	"	n	11	
Di-isopropyl ether	ND	0.0063	11	<b>†1</b>	И	P	и	0	
1,2-Dibromoethane (EDB)	ND	0.0063	o o	0	ii	н	н	O .	
1,2-Dichloroethane	ND	0.0063	O	"	†1	H	#1	H	
Ethanol	ND	0.13	0	IP	11	સ	n	H.	IC
Ethyl tert-butyl ether	ND	0.0063	tt .	Iř	0	ŧı	0	н	
Ethylbenzene	ND	0.0063	н	н	0	fi	U	ü	
Methyl tert-butyl ether	ND	0.0063	н	'n	ŧ	U	H	ti	
Toluene	ND	0.0063	a	11	и	tr	н	O	
Xylenes (total)	ND,	0.0063	()	17	11	"	н	U	
Surrogate: Dibromofluoromethane		102 %	70-12	0	n	"	Ħ	"	
Surrogate: 1,2-Dichloroethane-d4		110 %	65-13.	5	"	11	**	"	
Surrogate: Toluene-d8		102 %	75-12	0	n	n	u	п	
Surrogate: 4-Bromofluorobenzene		98 %	60-12	0	n	"	"	n	
CB1-11.5'-12' (MQG0624-10) Soi	il Sampled: 07/17/07 0	9:56 Re	ccived: 07/17	/07 19:2	!5				
tert-Amyl methyl ether	ND	0.0060	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0060	11	U	н	н	ti	H	
tert-Butyl alcohol	ND	0.024	tt	Is	ŧI	Ħ	σ	и	
Di-isopropyl ether	ND	0.0060	Įŧ.	D	0	9	O	н	
1,2-Dibromoethane (EDB)	ND	0.0060	jt .	н	D	0	n	a	
1,2-Dichloroethane	ND	0.0060	н	н	"	U	ır	ri .	
Ethanol	ND	0.12	н	н	17	U	IT	91	IC
Ethyl tert-butyl ether	ND	0.0060	н	'n	D	Įį.	и	ø	
Ethylbenzene	ND	0.0060	h	'n	It	e e	ıı.	U	
Methyl tert-butyl ether	ND	0.0060	tt	a	μ	It.	ıı	11	
Toluene	ND	0.0060	n	23	н	μ	11	It	
Xylenes (total)	ND	0.0060	n	IJ	н	ji	11	н	
Surrogate: Dibromofluoromethane		101 %	70-126	7	Ħ	rt	,,	fr.	,
Surrogate: 1,2-Dichloroethane-d4		112 %	65-13.	5	v	11	"	11	
Surrogate: Toluene-d8		101 %	75-126	9	"	"	n	u	
Surrogate: 4-Bromofluorobenzene		98 %	60-120	)	u	"	"	u	





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Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB1- 15.5'-16' (MQG0624-11) Soil						tum and	<i>,</i>		
tert-Amyl methyl ether	ND		mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0064	"		1025002	#	01123101	LI A 0200D	
tert-Butyl alcohol	ND	0.026	II.	u.	Ð	Ħ	à	lt.	
Di-isopropyl ether	ND	0.0064	н	H	0	11	o o	и	
1,2-Dibromoethane (EDB)	ND	0.0064	н	H	o	0	U	н	
1,2-Dichloroethane	ND	0.0064	,,	н	11	"	It	U	
Ethanol	ND	0.13	U	tr.	н	D	μ	0	IC
Ethyl tert-butyl ether	ND	0.0064	0	ti .	н	н	н	0	
Ethylbenzene	ND	0.0064	R	0	ţ1	н	11	н	
Methyl tert-butyl ether	ND	0.0064	н	н	0	ŧi.	9	и	
Toluene	ND	0.0064	н	и	O	n	0	n	
Xylenes (total)	ND	0.0064	н	н	P	. 0	II .	a	
Surrogate: Dibromofluoromethane		106 %	70-12	?	"	**	"	"	
Surrogate: 1,2-Dichloroethane-d4		115%	65-13.	5	"	"	"	"	
Surrogate: Toluene-d8		102 %	75-12	9	"	n	n	n	
Surrogate: 4-Bromofluorobenzene		101 %	60-12	7	"	"	n	"	
CB4-W (MQG0624-12) Water Sa	mpled: 07/17/07 11:45	Receive	ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	0.50	ug/l	1	7G24009	07/24/07	07/24/07	EPA 8260B	
Benzene	1.0	0.50	"		D	O	и	1)	
tert-Butyl alcohol	ND	20	Ħ	н	h	lr .	H	II.	
Di-isopropyl ether	ND	0.50	ti .	Ħ	н	p+	jı ,	tr	
1,2-Dibromoethane (EDB)	ND	0.50	11	13	ıı		H	н	
1,2-Dichloroethane	ND	0.50	0	0	"	н	11	н	
Ethanol	ND	300	e	U	d	н	U	н	
Ethyl tert-butyl ether	ND	0.50	U	P	9	ıl	0	şi .	
Ethylbenzene	ND	0.50	н	H	0	O	j+	u	
Methyl tert-butyl ether	20	0.50	"	N	n	0	н	"	
Toluene	ND	0.50	ti	**	и	*	n n	и	
Xylenes (total)	ND	0.50	0	11	н	"	<u> </u>	и	
Surrogate: Dibromofluoromethane		102 %	75-120	)	11	rr	u	"	
Surrogate: 1,2-Dichloroethane-d4		108 %	60-123	5	"	"	"	"	
Surrogate: Toluene-d8		99 %	80-120	)	"	v	"	В	
Surrogate: 4-Bromofluorobenzene		94 %	60-133	5	"	"	"	"	





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Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB4 7.5'-8' (MQG0624-13) Soil	Sampled: 07/17/07 11:22	Receiv	/ed: 07/17/0	7 19:25					
tert-Amyl methyl ether	ND	0.0058	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0058	"	11	И	It .	н	0	
tert-Butyl alcohol	ND	0.023	U	o	н	H	n	0	
Di-isopropyl ether	ND	0.0058	U.	n •	Ħ	н	ŧı.	11	
1,2-Dibromoethane (EDB)	ND	0.0058	If	H	0	ļi	11	п	
1,2-Dichloroethane	ND	0.0058	н	H	9	ţı	0	ц	
Ethanol	ND	0.12	н	Į.	U	0	U	H	IC
Ethyl tert-butyl ether	ND	0.0058	н	"	tr	U	U	н	
Ethylbenzene	ND	0.0058	h	н	tr	0	P	ti .	
Methyl tert-butyl ether	ND	0.0058	Ħ	н	ft	O	ff.	0	
Toluene	ND	0.0058	11	н	h	0	И	U	
Xylenes (total)	ND	0.0058	n	11	н	II:	н		
Surrogate: Dibromofluoromethane		105 %	70-1.	20	"	"	11	"	
Surrogate: 1,2-Dichloroethane-d4		112%	65-1.	3 <i>5</i>	"	rr r	0	"	
Surrogate: Toluene-d8		101 %	75-1.	20	"	"	n	"	
Surrogate: 4-Bromofluorobenzene		96 %	60-1	20	n	11	υ	rt	
CB4 11.5'-12' (MQG0624-14) Soi	l Sampled: 07/17/07 11:	24 Rec	eived: 07/17	7/07 19:2	5				
tert-Amyl methyl ether	ND	0.0062	mg/kg dry	1	7G25030	07/17/07	07/25/07	EPA 8260B	
Benzene	ND	0.0062	н	,,	и	**	и	U	
tert-Butyl alcohol	ND	0.025	11	łı	tt .	)f	н	ı)	
Di-isopropyl ether	ND	0.0062	<b>{</b> I	11	и	p.	11	B	
1,2-Dibromoethane (EDB)	ND	0.0062	O	0	'n	и	11	п	
1,2-Dichloroethane	ND	0.0062	U	U	*1	н	U	n .	
Ethanol	ND	0.12	tt.	U	U	**	U	н	
Ethyl tert-butyl ether	ND	0.0062	l*	Ħ	0	u	D	н	
Ethylbenzene	ND	0.0062	И	и	ø	Ø	B	a a	
Methyl tert-butyl ether	ND	0.0062	N	н	O	Ø	If	O .	
Toluene	ND	0.0062	И	"	0	o	И	0	
Xylenes (total)	ND	0.0062	H	н	Ił .	H .	H		
Surrogate: Dibromofluoromethane		105 %	70-12	20	u	u	ff	tt	
Surrogate: 1,2-Dichloroethane-d4		106 %	65-13	35	"	"	"	"	
Surrogate: Toluene-d8		107 %	75-12	20	"	"	n	"	
$Surrogate: \ 4-Bromofluorobenzene$		128 %	60-12	20	"	"	n	rr .	LH, $AY$





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB4 15.5'-16' (MQG0624-15) Soil	Sampled: 07/17/07 11	:27 Rec	eived: 07/17	/07 19:2	5				
tert-Amyl methyl ether	ND	0.0064	mg/kg dry	ţ	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0064	O	U	n	И	н	0	
tert-Butyl alcohol	ND	0.026	P	11	ţ1	И	ŧI	B	
Di-isopropyl ether	ND	0.0064	R	R	ø	fl	ŧI	tt .	
1,2-Dibromoethane (EDB)	ND	0.0064	b	и	Ø	Ħ	ii .	и	
1,2-Dichloroethane	, ND	0.0064	,	и	0	11	0	н	
Ethanol	ND	0.13	н	11	n	0	n	11	IC
Ethyl tert-butyl ether	ND	0.0064	н	н	11	0	R	41	
Ethylbenzene	ND	0.0064	ij	Ħ	Ħ	v	II	(i	
Methyl tert-butyl ether	ND	0.0064	17	11	н	H	ч	D	
Toluene	ND	0.0064	U	t)	N	н	H	U	
Xylenes (total)	ND.	0.0064	U		н	, н	. 11	II.	
Surrogate: Dibromofluoromethane		105 %	70-12	0	"	11	и	"	
Surrogate: 1,2-Dichloroethane-d4		114%	65-13	5	v	"	"	"	
Surrogate: Toluene-d8		104 %	75-12	0	"	n	11	n	
Surrogate: 4-Bromofluorobenzene		103 %	60-12	0	"	"	"	u	
CB5-W (MQG0624-16) Water Sa	ampled: 07/17/07 12:30	Receive	d: 07/17/07	19:25					
tert-Amyl methyl ether	3.9	0.50	ug/l	ı	7G24009	07/24/07	07/24/07	EPA 8260B	
Benzene	2.1	0.50	U	U	н	B	ti	If	
tert-Butyl alcohol	ND	20	u u	D	11	н	11	H	
Di-isopropyl ether	ND	0.50	II.	P	tı	'n	0	н	
1,2-Dibromoethane (EDB)	ND	0.50	If	n	0	tı	n	н	
1,2-Dichloroethane	ND	0.50	н	ft	U	11	11	11	
Ethanol	ND	300	H	и	U	u	n	ŧI	
Ethyl tert-butyl ether	ND	0.50	и	и	ø	U	D	ti	
Ethylbenzene	ND	0.50	и	и	U	u	H	11	
Methyl tert-butyl ether	70	0.50	н	"	U.	0	ji	U	
Toluene	ND	0.50	н	н	IP.	P	И	U	
Xylenes (total)	ND	0.50	fl	н	lt .	jt .	n .	H	
Surrogate: Dibromofluoromethane		99 %	75-12	0	"	**	11	"	
Surrogate: 1,2-Dichloroethane-d4		99 %	60-12	5	"	"	"	"	
Surrogate: Toluene-d8		103 %	80-12	0	и	ır	n	tr	
Surrogate: 4-Bromofluorobenzene		103 %	60-13	5	11	"	"	11	





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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB5 7.5'-8' (MQG0624-17) Soil	Sampled: 07/17/07 12:07	Receiv	/ed: 07/17/07	19:25					
tert-Amyl methyl ether	ND	0.0059	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	<del>*************************************</del>
Benzene	ND	0.0059	h	)1	11	ø	U	н	
tert-Butyl alcohol	ND	0.023	н	п	Ħ	II	l†	u	
Di-isopropyl ether	ND	0.0059	1)		N	Iŧ	н	0	
1,2-Dibromoethane (EDB)	ND	0.0059	11	U	н	H	н	H.	
1,2-Dichloroethane	ND	0.0059	11	lt.	11	#1	Ħ	st.	
Ethanol	ND	0.12	н	h	1)	*1	U	н	IC
Ethyl tert-butyl ether	ND	0.0059	н	н	17	U	u	ti	
Ethylbenzene	ND	0.0059	11	<b>₹I</b>	j#	U	и	Ø	
Methyl tert-butyl ether	ND	0.0059	n	ij	"	B	н	0	
Toluene	ND	0.0059	n	U	И	н	11	O	
Xylenes (total)	ND	0.0059		"	11	. "	ti	R	
Surrogate: Dibromofluoromethane		104 %	70-120	)	II	"	н	n .	
Surrogate: 1,2-Dichloroethane-d4		114%	65-13.	5	"	11	"	"	
Surrogate: Toluene-d8		101%	75-126	)	"	11	"	n	
Surrogate: 4-Bromofluorobenzene		97 %	60-120	)	n	n	"	n	
CB5 11.5'-12' (MQG0624-18) Soi	il Sampled: 07/17/07 12:	09 Rec	eived: 07/17/	07 19:2	5				BF
tert-Amyl methyl ether	ND	0.30	mg/kg dry	10	7G17039	07/17/07	07/26/07	EPA 8260B	
Benzene	ND	0.60	11	**	u	н	н	It	
tert-Butyl alcohol	ND	60	0	ø	н	μ	t)	lt.	
Di-isopropyl ether	ND	0.30	U	ø	Ħ	н	n	pi .	
1,2-Dibromoethane (EDB)	ND	0.30	u u	o	स	Ħ	U	n	
1,2-Dichloroethane	ND	0.30	li .	O.	q	11	U	U	
Ethanol	ND	120		)+	q	U	H*	0	
Ethyl tert-butyl ether	ND	0.30		н	0	O	H	Q	
Ethylbenzene	ND	0.60	"	н	It	Ð	ļi	O O	
Methyl tert-butyl ether	ND	0.30	†I	Ħ	B	н	н	н	
Toluene	ND	0.60	11	11	"	H	n	ıı	
Xylenes (total)	ND	0.60	"		Ħ	н	0	н	
Surrogate: Dibromofluoromethane		93 %	70-120	)	ŧ	ıŗ	"	v	
Surrogate: 1,2-Dichloroethane-d4		93 %	65-135	5	n	n	"	"	
Surrogate: Toluene-d8		97 %	75-120	)	"	0	"	u	
Surrogate: 4-Bromofluorobenzene		116%	60-120	)	n	"	"	rr .	





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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
CB5 15.5'-16' (MQG0624-19) Soil	Sampled: 07/17/07 1	2:12 Rec	eived: 07/1	7/07 19:2	5				****
tert-Amyl methyl ether	ND	0.0065	mg/kg dry	1	7G23002	07/17/07	07/23/07	EPA 8260B	
Benzene	ND	0.0065	М	н	0	11	U	16	
tert-Butyl alcohol	ND	0.026	н	ļ	1)	U	ø	н	
Di-isopropyl ether	ND	0.0065	t)	in 4	ţŧ	D	B	ii	
1,2-Dibromoethane (EDB)	ND	0.0065	11	tr	н	It	16	0	
1,2-Dichloroethane	ND	0.0065	0	v	n	н	и	0	
Ethanol	ND	0.13	0	U	н	H	n	It	IC
Ethyl tert-butyl ether	ND	0.0065	ff.	tr.	Ð	H	ŧı	н	
Ethylbenzene	ND	0.0065	н	н	ø	Ħ	0	н	
Methyl tert-butyl ether	ND	0.0065	и	b	u u	U	U	n	
Toluene	ND	0.0065	11	h	"	U	P	11	
Xylenes (total)	ND.	0.0065	11	н	bţ	"	ŧt	tt.	
Surrogate: Dibromofluoromethane		107 %	70-1	20	**	u	"	e	
Surrogate: 1,2-Dichloroethane-d4		107 %	65-1	35	"	"	"	"	
Surrogate: Toluene-d8		102 %	75-1	20	n	"	II	"	
Surrogate: 4-Bromofluorobenzene		99 %	60-1	20	n	"	"	#	





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#### Conventional Chemistry Parameters by APHA/EPA Methods TestAmerica - Morgan Hill, CA

	•	oorting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB3 7.5'-8' (MQG0624-02) Soil	Sampled: 07/17/07 07:30 1	Receive	d: 07/17	//07 19:25					
Total Solids	82	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB3 11.5'-12' (MQG0624-03) Soil	Sampled: 07/17/07 07:36	Rece	ived: 07/	/17/07 19:2	5				
Total Solids	82	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB3 15.5'-16' (MQG0624-04) Soil	Sampled: 07/17/07 07:36	Rece	ived: 07/	17/07 19:2	5				
Total Solids	, 79	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB2 11.5'-12' (MQG0624-06) Soil	Sampled: 07/17/07 08:36	Recei	ived: 07/	17/07 19:2	5				
Total Solids	87	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB2 15.5'-16' (MQG0624-07) Soil	Sampled: 07/17/07 08:36	Recei	ived: 07/	17/07 19:2:	5				
Total Solids	79	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB1- 7.5'-8' (MQG0624-09) Soil	Sampled: 07/17/07 09:54	Receiv	ed: 07/1	7/07 19:25					
Total Solids	79	1.0	%	l	7G23010	07/20/07	07/23/07	SM2540B	
CB1- 11.5'-12' (MQG0624-10) So	il Sampled: 07/17/07 09:56	Rece	eived: 07	/17/07 19:2	25				
Total Solids	83	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB1- 15.5'-16' (MQG0624-11) Soi	il Sampled: 07/17/07 09:58	Rece	ived: 07	/17/07 19:2	25				
Total Solids	78	1.0	%	1	7G23010	07/20/07	07/23/07	SM2540B	
CB4 7.5'-8' (MQG0624-13) Soil	Sampled: 07/17/07 11:22 I	Receive	d: 07/17	/07 19:25					
Total Solids	87	1.0	%	1	7G24006	07/23/07	07/24/07	SM2540B	





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Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Conventional Chemistry Parameters by APHA/EPA Methods TestAmerica - Morgan Hill, CA

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CB4 11.5'-12' (MQG0624-14) Soil	Sampled: 07/17/07 11:24	Rece	ived: 07	/17/07 19:2	5				
Total Solids CB4 15.5'-16' (MQG0624-15) Soil	81 Sampled: 07/17/07 11:27	1.0 Rece	% ived: 07/	l /17/07 19:2	7G24006 5	07/23/07	07/24/07	SM2540B	
Total Solids CB5 7.5'-8' (MQG0624-17) Soil S	78 Sampled: 07/17/07 12:07	1.0 Receive	% ed: 07/17	.l 7/07 19:25	7G24006	07/23/07	07/24/07	SM2540B	
Total Solids CB5 11.5'-12' (MQG0624-18) Soil	. 85 Sampled: 07/17/07 12:09	1.0 Rece	% ived: 07/	l /17/07 19:2:	7G24006 5	07/23/07	07/24/07	SM2540B	
Total Solids CB5 15.5'-16' (MQG0624-19) Soil	83 Sampled: 07/17/07 12:12	1.0 Rece	% ived: 07/	1 17/07 19:2:	7G24006 <b>5</b>	07/23/07	07/24/07	SM2540B	
Total Solids	77 .:C	1.0	%	1	7G24006	07/23/07	07/24/07	SM2540B	





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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 7G17039 - EPA 5030B/503	5A MeOH / LUF	Γ GCMS							
Blank (7G17039-BLK1)	A-1		Prepared:	07/17/07	Analyzeo	l: 07/24/07	***************************************		
Gasoline Range Organics (C4-C12)	ND	2.5 mg/kg we	t						
Surrogate: 1,2-Dichloroethane-d4	0.00223	"	0.00251		89	65-135			
Surrogate: 4-Bromofluorobenzene	0.00262	υ	0.00251		104	60-120			
Surrogate: Dibromofluoromethane	: 0.00224	n	0.00251		89	70-120			
Surrogate: Toluene-d8	0.00248	u	0.00251		99	75-120			
Laboratory Control Sample (7G1703	9-BS2)		Prepared &	& Analyz	ed: 07/23/	07			
Gasoline Range Organics (C4-C12)	36.6	2.5 mg/kg we	t 50.2		73	45-135			
Surrogate: 1,2-Dichloroethane-d4	0.00214	"	0.00251		85	65-135			
Surrogate: 4-Bromofluorobenzene	0.00259€	n n	0.00251		103	60-120			
Surrogate: Dibromofluoromethane	0.00238	,,	0.00251		95	70-120			
Surrogate: Toluene-d8	0.00245	n	0.00251		98	75-120			
Laboratory Control Sample Dup (7G	17039-BSD2)		Prepared &	& Analyz	ed: 07/23/	07			
Gasoline Range Organics (C4-C12)	28.1	2.5 mg/kg we	t 50.1		56	45-135	26	40	
Surrogate: 1,2-Dichloroethane-d4	0.00219	n	0.00250		88	65-135			
Surrogate: 4-Bromofluorobenzene	0.00254	"	0.00250		102	60-120			
Surrogate: Dibromofluoromethane	0.00236	"	0.00250		94	70-120			
Surrogate: Toluene-d8	0.00248	rr rr	0.00250		99	75-120			
Batch 7G21003 - EPA 5030B P/T	/ LUFT GCMS								
Blank (7G21003-BLK1)			Prepared:	07/17/07	Analyzed	: 07/21/07			
Gasoline Range Organics (C4-C12)	ND	0.10 mg/kg we	t					***************************************	
Surrogate: 1,2-Dichloroethane-d4	0.00544	"	0.00500		109	65-135			
Surrogate: 4-Bromofluorobenzene	0.00508	"	0.00500		102	60-120			
Surrogate: Dibromofluoromethane	0.00526	"	0.00500		105	70-120			
Surrogate: Toluene-d8	0.00508	"	0.00500		102	75-120			





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

### 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
Batch 7G21003 - EPA 5030B P/T	/ LUFT GCMS								
Laboratory Control Sample (7G2100	3-BS2)		Prepared &	Analyze	:d: 07/21/	07			
Gasoline Range Organics (C4-C12)	0.973	0.10 mg/kg wet	1.00		97	45-135	•		
Surrogate: 1,2-Dichloroethane-d4	0.00538	U	0.00500		108	65-135			
Surrogate: 4-Bromofluorobenzene	0.00516	"	0.00500		103	60-120			
Surrogate: Dibromofluoromethane	. 0.00514	u	0.00500		103	70-120			
Surrogate: Toluene-d8	0.00512	tt .	0.00500		102	75-120			
Laboratory Control Sample Dup (70	(21003-BSD2)		Prepared &	z Analyze	d: 07/21/	07			
Gasoline Range Organics (C4-C12)	0.836	0.10 mg/kg wet	1.00		84	45-135	15	40	
Surrogate: 1,2-Dichloroethane-d4	0.00536	n .	0.00500		107	65-135			
Surrogate: 4-Bromofluorobenzene	0.00516₹~	u	0.00500		103	60-120			
Surrogate: Dibromofluoromethane	0.00504	n	0.00500		101	70-120			
Surrogate: Toluene-d8	0.00516	u	0.00500		103	75-120			
Batch 7G23002 - EPA 5030 (pres	48h)/5035 / LUFT	GCMS							
Blank (7G23002-BLK1)			Prepared &	. Analyze	d: 07/23/0	07			
Gasoline Range Organics (C4-C12)	ND	0.10 mg/kg wet					··		
Surrogate: 1,2-Dichloroethane-d4	0.00512	ŧ	0.00500		102	65-135			
Surrogate: 4-Bromofluorobenzene	0.00490	"	0.00500		98	60-120			
Surrogate: Dibromofluoromethane	0.00486	"	0.00500		97	70-120			
Surrogate: Toluene-d8	0.00508	и	0.00500		102	75-120			
Laboratory Control Sample (7G2300	2-BS2)		Prepared &	Analyze	d: 07/23/0	)7			
Gasoline Range Organics (C4-C12)	1.01	0.10 mg/kg wet	1.00		101	45-135			
Surrogate: 1,2-Dichloroethane-d4	0.00512	"	0.00500		102	65-135			
Surrogate: 4-Bromofluorobenzene	0.00526	rr rr	0.00500		105	60-120			
Surrogate: Dibromofluoromethane	0.00506	п	0.00500		101	70-120			
Surrogate: Toluene-d8	0.00522	n	0.00500		104	75-120			





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### 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
Batch 7G23002 - EPA 5030 (pres	48h)/5035 / LUF	T GCMS								
Laboratory Control Sample Dup (7G	23002-BSD2)			Prepared &	& Analyze	ed: 07/23/	07			
Gasoline Range Organics (C4-C12)	0.993	0.10	mg/kg wet	1.00		99	45-135	1	40	
Surrogate: 1,2-Dichloroethane-d4	0.00518		п	0.00500		104	65-135			
Surrogate: 4-Bromofluorobenzene	0.00510		"	0.00500		102	60-120			
Surrogate: Dibromofluoromethane	. 0.00498		"	0.00500		100	70-120			
Surrogate: Toluene-d8	0.00516		n	0.00500		103	75-120			
Batch 7G24009 - EPA 5030B P/T	/ LUFT GCMS									
Blank (7G24009-BLK1)				Prepared &	k Analyze	d: 07/24/	07			
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	2.68		"	2.50		107	60-125	· · · · · · · · · · · · · · · · · · ·		
Surrogate: Dibromofluoromethane	2.65		n	2.50		106	75-120			
Surrogate: Toluene-d8	2.49		"	2.50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2.49		n	2.50		100	60-135			
Laboratory Control Sample (7G2400	9-BS2)	Prepared & Analyzed: 07/24/07								
Gasoline Range Organics (C4-C12)	405	50	ug/l	500	<del>-</del>	81	65-120			
Surrogate: 1,2-Dichloroethane-d4	2.52		"	2.50		101	60-125			
Surrogate: Dibromofluoromethane	2.43		**	2.50		97	75-120			
Surrogate: Toluene-d8	2.60		"	2.50		104	80-120			
Surrogate: 4-Bromofluorobenzene	2.59		#	2.50		104	60-135			
Laboratory Control Sample Dup (7G	24009-BSD2)			Prepared &	k Analyze	d: 07/24/0	07			
Gasoline Range Organics (C4-C12)	409	50	ug/l	500		82	65-120	1	20	
Surrogate: 1,2-Dichloroethane-d4	2.67		"	2.50		107	60-125			
Surrogate: Dibromofluoromethane	2.50		и	2.50		100	75-120			
Surrogate: Toluene-d8	2.58		**	2.50		103	80-120			
Surrogate: 4-Bromofluorobenzene	2.70		"	2.50		108	60-135			





Project: ARCO #2162, San Leandro, CA

Spike

0.00500

0.00500

0.00500

97

102

103

60-120

70-120

75-120

Source

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

RPD

%REC

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

Reporting

0.00484

0.00510

0.00514

		respondi	Oprice	Doutee		MCLC		IG D	
Analyte	Result	Limit Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7G25030 - EPA 5030 (pres	48h)/5035 / LUF	T GCMS							
Blank (7G25030-BLK1)			Prepared &	& Analyze	ed: 07/25/	07			
Gasoline Range Organics (C4-C12)	ND	0.10 mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.00518	u	0.00500		104	65-135			
Surrogate: 4-Bromofluorobenzene	0.00402	"	0.00500		80	60-120			
Surrogate: Dibromofluoromethane	. 0.00494	"	0.00500		99	70-120			
Surrogate: Toluene-d8	0.00468	п	0.00500		94	75-120			
Laboratory Control Sample (7G2503		Prepared & Analyzed: 07/25/07							
Gasoline Range Organics (C4-C12)	0,703	0.10 mg/kg wet	1.00		70	45-135			
Surrogate: 1,2-Dichloroethane-d4	0.00500	"	0.00500		100	65-135			********
Surrogate: 4-Bromofluorobenzene	0.00476√	n	0.00500		95	60-120			
Surrogate: Dibromofluoromethane	0.00488	n	0.00500		98	70-120			
Surrogate: Toluene-d8	0.00514	"	0.00500		103	75-120			
Laboratory Control Sample Dup (7G	25030-BSD2)		Prepared &	& Analyze	d: 07/25/	07			
Gasoline Range Organics (C4-C12)	0.799	0.10 mg/kg wet	00.1		80	45-135	13	40	
Surrogate: 1,2-Dichloroethane-d4	0.00532	"	0.00500	***************************************	106	65-135	*		

Surrogate: 4-Bromofluorobenzene

Surrogate: Dibromofluoromethane

Surrogate: Toluene-d8





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

# Extractable Hydrocarbons by EPA 8015B - Quality Control TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G20025 - EPA 3550B / EPA 8015	B-SVOA									
Blank (7G20025-BLK1)				Prepared	& Analyz	ed: 07/20/	07			
Diesel Range Organics (C10-C36)	ND	1.0	mg/kg wet					··		
Surrogate: n-Octacosane	1.49		řř.	1.67		90	40-120	<del></del>		
Laboratory Control Sample (7G20025-BS1)				Prepared a	& Analyz	ed: 07/20/	07			
Diesel Range Organics (C10-C36)	13.4	1.0	mg/kg wet	16.7		80	65-120			
Surrogate: n-Octacosane	1.42		0	1.67		85	40-120			
Laboratory Control Sample Dup (7G20025-E	BSD1)			Prepared a	& Analyz	ed: 07/20/	07			
Diesel Range Organics (C10-C36)	13.2	1.0	mg/kg wet	16.7		79	65-120	ı	40	
Surrogate: n-Octacosane	1.39		"	1.67		84	40-120			
Batch 7G24020 - EPA 3510C / EPA 8015										
Blank (7G24020-BLK1)				Prepared:	07/24/07	Analyzed	l: 07/30/07			
Diesel Range Organics (C10-C36)	ND	50	ug/l							
Surrogate: n-Octacosane	35.9	······································	"	50.0		72	30-115			
Laboratory Control Sample (7G24020-BS1)				Prepared:	07/24/07	Analyzed	1: 07/30/07			
Diesel Range Organics (C10-C36)	344	50	ug/l	500		69	40-115	*******		
Surrogate: n-Octacosane	28.7		"	50.0		57	30-115			
Laboratory Control Sample Dup (7G24020-B	SD1)			Prepared:	07/24/07	Analyzec	I: 07/30/07			
Diesel Range Organics (C10-C36)	347	50	ug/l	500		69	40-115	0.7	25	
Surrogate: n-Octacosane	30.8		n	50.0		62	30-115			





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

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

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

Blank (7G17039-BLK1)				Prepared: 07/17	7/07 Analyze	d: 07/24/07
tert-Amyl methyl ether	ND	0.025	mg/kg wet			
Benzene	ND	0.050	o			
tert-Butyl alcohol	ND	5.0	#			
Di-isopropyl ether	ND	0.025	"			
1,2-Dibromoethane (EDB)	ND	0.025	"			
1,2-Dichloroethane	ND	0.025	ξI			
Ethanol	15.1	10	ø			
Ethyl tert-butyl ether	ND	0.025	IF			
Ethylbenzene	ND	0.050	I+			
Methyl tert-butyl ether	ND 🐔	0.025	и			
Гoluene	ND	0.050	н			
(ylenes (total)	ND	0.050	†1			
urrogate: Dibromofluoromethane	0.00224		**	0.00251	89	70-120
urrogate: 1,2-Dichloroethane-d4	0.00223		"	0.00251	89	65-135
urrogate: Toluene-d8	0.00248		u	0.00251	99	75-120
urrogate: 4-Bromofluorobenzene	0.00262		u	0.00251	104	60-120
aboratory Control Sample (7G1703	89-BS1)			Prepared & An	alyzed: 07/23	/07
rt-Amyl methyl ether	0.906	0.025	mg/kg wet	1.00	90	65-140
enzene	0.938	0.050	N	1.00	93	70-140
rt-Butyl alcohol	18.6	5.0	*1	20.1	92	75-130
i-isopropyl ether	0.936	0.025	#1	1.00	93	60-135
,2-Dibromoethane (EDB)	0.950	0.025	0	1.00	95	70-145
2-Dichloroethane	0.923	0.025	0	1.00	92	75-130
Ethanol	23.3	10	R	20,1	116	50-150
thyl tert-butyl ether	0.956	0.025	н	1.00	95	70-125
thylbenzene	0.968	0.050	и	1.00	96	75-140
Aethyl tert-butyl ether	0.846	0.025	**	1.00	84	75-130
`oluene	0.910	0.050	ti	1.00	91	75-135
(ylenes (total)	2.88	0.050	ø	10.8	96	75-145
urrogate: Dibromofluoromethane	0.00236		,,	0.00251	94	70-120
urrogate: 1,2-Dichloroethane-d4	0.00238		"	0.00251	95	65-135
Gurrogate: Toluene-d8	0.00241		"	0.00251	96	75-120
urrogate: 4-Bromofluorobenzene	0.00245		"	0.00251	98	60-120





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

### 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 Limît	Notes	
Batch 7G17039 - EPA 5030B/503	5A MeOH / EPA	8260B									
Laboratory Control Sample Dup (70	G17039-BSD1)	Prepared & Analyzed: 07/23/07									
tert-Amyl methyl ether	1.03	0.025	mg/kg wet	1.00		103	65-140	13	25		
Benzene	1.03	0.050	O	1.00		103	70-140	9	25		
tert-Butyl alcohol	19.9	5.0	H	20.0		99	75-130	7	25		
Di-isopropyl ether	1.09	0.025	н	1.00		109	60-135	15	40		
1,2-Dibromoethane (EDB)	1.03	0.025	и	00.1		103	70-145	8	30		
1,2-Dichloroethane	1.08	0.025	н	1.00		108	75-130	16	25		
Ethanol	31.7	10	tj	20.0		158	50-150	31	30	BA, LC	
Ethyl tert-butyl ether	1.00	0.025	11	1.00		100	70-125	5	30		
Ethylbenzene	1.03	0.050	a	1.00		103	75-140	6	30		
Methyl tert-butyl ether	1,01%	0.025	0	1.00		101	75-130	17	25		
Toluene	1.09	0.050	n	1.00		109	75-135	18	25		
Xylenes (total)	3.01	0.050	IT	3.00		100	75-145	4	30		
Surrogate: Dibromofluoromethane	0.00233		11	0.00250		93	70-120	· · · · · · · · · · · · · · · · · · ·			
Surrogate: 1,2-Dichloroethane-d4	0.00244		**	0.00250		98	65-135				
Surrogate: Toluene-d8	0.00239		11	0.00250		96	75-120				
Surrogate: 4-Bromofluorobenzene	0.00238		"	0.00250		95	60-120				
Batch 7G21003 - EPA 5030B P/I	'/ EPA 8260B										
Blank (7G21003-BLK1)				Prepared:	07/17/07	Analyzed	: 07/21/07				
tert-Amyl methyl ether	ND	0.0050	mg/kg wet	·····							
Benzene	ND	0.0050	н								
tert-Butyl alcohol	ND	0.020	н								
Di-isopropyl ether	ND	0.0050	អ							•	
1,2-Dibromoethane (EDB)	ND	0.0050	0								
1,2-Dichloroethane	ND	0.0050	11								
Ethanol	ND	0.10	H								
Ethyl tert-butyl ether	ND	0.0050	ff.								
Ethylbenzene	ND	0.0050	н								
Methyl tert-butyl ether	ND	0.0050									
Toluene	ND	0.0050	н								
Xylenes (total)	ND	0.0050	31								
Surrogate: Dibromofluoromethane	0.00526		н	0.00500		105	70-120				
Surrogate: 1,2-Dichloroethane-d4	0.00544		n	0.00500		109	65-135				
Surrogate: Toluene-d8	0.00508		"	0.00500		102	75-120				
Surrogate: 4-Bromofluorobenzene	0.00508		"	0.00500		102	60-120				

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

A 1.		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7G21003 - EPA 5030B P/T	/ EPA 8260B									
Laboratory Control Sample (7G21003	3-BS1)			Prepared	& Analyze	d: 07/21/	07			
tert-Amyl methyl ether	0.0219	0.0050	mg/kg wet	0.0200		110	65-140			
Benzene	0.0213	0.0050	B	0.0200		106	70-140			
tert-Butyl alcohol	0.402	0.020	I#	0.400		100	75-130			
Di-isopropyl ether	0.0219	0.0050	н	0.0200		110	60-135			
1,2-Dibromoethane (EDB)	0.0220	0.0050	н	0.0200		110	70-145			
1,2-Dichloroethane	0.0226	0.0050	Ħ	0.0200		113	75-130			
Ethanol	0.335	0.10	Ħ	0.400		84	50-150			
Ethyl tert-butyl ether	0.0225	0.0050	u	0.0200		112	70-125			
Ethylbenzene	0.0225	0.0050	0	0.0200		113	75-140			
Methyl tert-butyl ether	0.0223 ℃	0.0050	D	0.0200		112	75-130			
Toluene	0.0216	0.0050	lt .	0.0200		108	75-135			
Xylenes (total)	0.0651	0.0050	н	0.0600		108	75-145			
Surrogate: Dibromofluoromethane	0.00524		It	0.00500		105	70-120			
Surrogate: 1,2-Dichloroethane-d4	0.00560		"	0.00500		112	65-135			
Surrogate: Toluene-d8	0.00516		"	0.00500		103	75-120			
Surrogate: 4-Bromofluorobenzene	0.00512		u	0.00500		102	60-120			
Matrix Spike (7G21003-MS1)	Source: M(	)G0640-03	i	Prepared	& Analyze	d: 07/21/0	)7			
tert-Amyl methyl ether	0.0234	0.0050	mg/kg wet	0.0200	ND	117	65-140			
Benzene	0.0208	0.0050	n	0.0200	ND	104	70-140			
tert-Butyl alcohol	0.360	0.020	11	0.400	ND	90	75-130			
Di-isopropyl ether	0.0220	0.0050	Ħ	0.0200	ND	110	60-135			
1,2-Dibromoethane (EDB)	0.0219	0.0050	0	0.0200	ND	109	70-145			
1,2-Dichloroethane	0.0224	0.0050	0	0.0200	ND	112	75-130			
Ethanol	0.326	0.10	tr.	0.400	ND	82	50-150			
Ethyl tert-butyl ether	0.0236	0.0050	tt.	0.0200	ND	118	70-125			
Ethylbenzene	0.0216	0.0050	R	0.0200	0.000920	104	75-140			
Methyl tert-butyl ether	0.0247	0.0050	Pf	0.0200	ND	124	75-130			
Toluene	0.0204	0.0050	н	0.0200	0.000360	100	75-135			
Xylenes (total)	0.0626	0.0050	n	0.0600	0.00692	93	75-145			
Surrogate: Dibromoftuoromethane	0.00550	***************************************	"	0.00500		110	70-120	***************************************		
Surrogate: 1,2-Dichloroethane-d4	0.00568		IF	0.00500		114	65-135			
Surrogate: Toluene-d8	0.00520		"	0.00500		104	75-120			
Surrogate: 4-Bromofluorobenzene	0.00506		"	0.00500		101	60-120			





Project: ARCO #2162, San Leandro, CA

Spike

Source

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

RPD

%REC

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

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7G21003 - EPA 5030B P/T / E	EPA 8260B									
Matrix Spike Dup (7G21003-MSD1)	Source: MQ	G0640-03	;	Prepared	& Analyze	d: 07/21/	07			
tert-Amyl methyl ether	0.0222	0.0050	mg/kg wet	0.0200	ND	111	65-140	5	25	
Benzene	0.0210	0.0050	Ŋ	0.0200	ND	105	70-140	ŧ	25	
ert-Butyl alcohol	0.387	0.020	IF.	0.400	ND	97	75-130	7	25	
Di-isopropyl ether	0.0222	0.0050	"	0.0200	ND	111	60-135	1	40	
1,2-Dibromoethane (EDB)	0.0211	0.0050	n	0.0200	ND	105	70-145	4	30	
,2-Dichloroethane	0.0218	0.0050	11	0.0200	ND	109	75-130	2	25	
Ethanol	0.307	0.10	ø	0.400	ND	77	50-150	6	30	
Ethyl tert-butyl ether	0.0229	0.0050	D	0.0200	ND	114	70-125	3	30	
Ethylbenzene	0.0239	0.0050	н	0.0200	0.000920	115	75-140	10	30	
Methyl tert-butyl ether	0.0230 €	0.0050	н	0.0200	ND	115	75-130	7	25	
Toluene	0.0211	0.0050	n	0.0200	0.000360	104	75-135	4	25	
Kylenes (total)	0.0721	0.0050	11	0.0600	0.00692	109	75-145	14	30	
urrogate: Dibromofluoromethane	0.00522		"	0.00500		104	70-120			
Surrogate: 1,2-Dichloroethane-d4	0.00534		n	0.00500		107	65-135			
Surrogate: Toluene-d8	0.00508		n	0.00500		102	75-120			
urrogate: 4-Bromofluorobenzene	0.00484		"	0.00500		97	60-120			
Batch 7G23002 - EPA 5030 (pres 48	h)/5035 / EPA	8260B								
Blank (7G23002-BLK1)				Prepared	& Analyze	d: 07/23/0	)7			
ert-Amyl methyl ether	ND	0.0050	mg/kg wet	<del>-</del>	·					
Benzene	ND	0.0050	n							
ert-Butyl alcohol	ND	0.020	ti							
Di-isopropyl ether	ND	0.0050	11							
,2-Dibromoethane (EDB)	ND	0.0050	ø							
,2-Dichloroethane	ND	0.0050	"							
Ethanol	ND	0.10	μ							
Ethyl tert-butyl ether	ND	0.0050	tf							
Ethylbenzene		0.0050	,,							
anytoenzene	ND	0.0050								
Aethyl tert-butyl ether	ND ND	0.0050	łı							
Aethyl tert-butyl ether			ti 11							
Aethyl tert-butyl ether Oluene	ND	0.0050								
•	ND ND	0.0050 0.0050	ti .	0.00500		97	70-120			

0.00500

0.00500

Surrogate: 4-Bromofluorobenzene

0.00508

0.00490

Surrogate: Toluene-d8

75-120

60-120

102





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

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

Laboratory Control Sample (7G23002-	·BS1)			Prepared	& Analyze	d: 07/23	/07
tert-Amyl methyl ether	0.0207	0.0050	mg/kg wet	0.0200		104	65-140
Benzene	0.0198	0.0050	u	0.0200		99	70-140
tert-Butyl alcohol	0.372	0.020	II.	0.400		93	75-130
Di-isopropyl ether	0.0204	0.0050	It	0.0200		102	60-135
,2-Dibromoethane (EDB)	0.0209	0.0050	H	0.0200		104	70-145
,2-Dichloroethane	0.0208	0.0050	н	0.0200		104	75-130
thanol	0.349	0.10	н	0.400		87	50-150
thyl tert-butyl ether	0.0211	0.0050	н	0.0200		105	70-125
thylbenzene	0.0207	0.0050	11	0.0200		104	75-140
lethyl tert-butyl ether	0.0206∜	0.0050	11	0.0200		103	75-130
oluene	0.0202	0.0050	0	0.0200		101	75-135
ylenes (total)	0.0593	0.0050	U	0.0600		99	75-145
urrogate: Dibromofluoromethane	0.00532		n	0.00500		106	70-120
urrogate: 1,2-Dichloroethane-d4	0.00546		"	0.00500		109	65-135
rrogate: Toluene-d8	0.00524		"	0.00500		105	75-120
rrogate: 4-Bromofluorobenzene	0.00526		"	0.00500		105	60-120
atrix Spike (7G23002-MS1)	Source: MQ	G0624-19	)	Prepared	& Analyzed	1: 07/23	/07
t-Amyl methyl ether	0.0277	0.0065	mg/kg dry	0.0259	ND	107	65-140
enzene	0.0279	0.0065	**	0.0259	0.000336	106	70-140
rt-Butyl alcohol	0.508	0.026	U	0.517	ND	98	75-130
-isopropyl ether	0.0282	0.0065	11	0.0259	ND	109	60-135
2-Dibromoethane (EDB)	0.0273	0.0065	В	0.0259	ND	106	70-145
2-Dichloroethane	0.0288	0.0065	И	0.0259	ND	111	75-130
hanol	0.431	0.13	И	0.517	ND	83	50-150
hyl tert-butyl ether	0.0287	0.0065	н	0.0259	ND	111	70-125
hylbenzene	0.0306	0.0065	tı	0.0259	0.000517	116	75-140
ethyl tert-butyl ether	0.0321	0.0065	0	0.0259	0.00341	111	75-130
luene	0.0288	0.0065	Œ	0.0259	0.00111	107	75-135
rienes (total)	0.0874	0.0065	u,	0.0776	0.00222	110	75-145
rrogate: Dibromofluoromethane	0.00654		и	0.00646		101	70-120
rrogate: 1,2-Dichloroethane-d4	0.00711		"	0.00646		110	65-135
urrogate: Toluene-d8	0.00693		"	0.00646		107	75-120
rrogate: 4-Bromofluorobenzene	0.00672		"	0.00646		104	60-120





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

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

Analyte	Result	Reporting	T laria	Spike	Source	9/ DEC	%REC	ppp	RPD	NI
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7G23002 - EPA 5030 (pres 48	h)/5035 / EPA	8260B				<u>.</u>				
Matrix Spike Dup (7G23002-MSD1)	Source: M(	QG0624-19	l	Prepared	& Analyze	d: 07/23/	07			
tert-Amyl methyl ether	0.0271	0.0065	mg/kg dry	0.0259	ND	105	65-140	2	25	
Benzene	0.0278	0.0065	И	0.0259	0.000336	106	70-140	0.4	25	
tert-Butyl alcohol	0.539	0.026	Ħ	0.517	ND	104	75-130	6	25	
Di-isopropyl ether	0.0279	0.0065	н	0.0259	ND	108	60-135	0.9	40	
1,2-Dibromoethane (EDB)	0.0259	0,0065	11	0.0259	ND	100	70-145	5	30	
1,2-Dichloroethane	0.0286	0.0065	Ħ	0.0259	ND	111	75-130	0.5	25	
Ethanol	0.487	0.13	ø	0.517	ND	94	50-150	12	30	
Ethyl tert-butyl ether	0.0284	0.0065	U	0.0259	ND	110	70-125	1	30	
Ethylbenzene	0.0307	0.0065	O.	0.0259	0.000517	117	75-140	0.3	30	
Methyl tert-butyl ether	0.0304	0.0065	Ħ	0.0259	0.00341	104	75-130	6	25	
Toluene	0.0287	0.0065	H	0.0259	0.00111	106	75-135	0.4	25	
Xylenes (total)	0.0883	0.0065	"	0.0776	0.00222	111	75-145	1	30	
Surrogate: Dibromofluoromethane	0.00678		l+	0.00646		105	70-120			
Surrogate: 1,2-Dichloroethane-d4	0.00683		n	0.00646		106	65-135			
Surrogate: Toluene-d8	0.00672		n	0.00646		104	75-120			
Surrogate: 4-Bromofluorobenzene	0.00683		u	0.00646		106	60-120			
Batch 7G24009 - EPA 5030B P/T / E	PA 8260B									
Blank (7G24009-BLK1)				Prepared a	& Analyze	d: 07/24/0	)7			
tert-Amyl methyl ether	ND	0.50	ug/l	***************************************		***************************************				
Benzene	ND	0.50	н							
tert-Butyl alcohol	ND	20	ti.							
Di-isopropyl ether	ND	0.50	11							
1,2-Dibromoethane (EDB)	ND	0.50	а							
1,2-Dichloroethane	ND	0.50	()							
Ethanol	ND	300	ti							
Ethyl tert-butyl ether	ND	0.50	0							
Ethylbenzene	ND	0.50	11							
Methyl tert-butyl ether	ND	0.50	#							
Toluene	ND	0.50	n							
Xylenes (total)	ND	0.50	n							
Surrogate: Dibromofluoromethane	2.65		"	2.50		106	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.68		н	2.50		107	60-125			
Surrogate: Toluene-d8	2.49		"	2.50		100	80-120			
Surrogate: 4-Bromofluorobenzene	2.49		"	2.50		100	60-135			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis, This analytical report must be reproduced in its entirety.





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	RPD Limit	Notes
D-4-1-7624000 EDA 50200 DEC / E	D 4 02/0D									
Batch 7G24009 - EPA 5030B P/T / E							- · · · · · · · · · · · · · · · · · · ·			
Laboratory Control Sample (7G24009-B				Prepared a	& Analyze					
tert-Amyl methyl ether	11.8	0.50	ug/l	10,0		118	65-135			
Benzene	10.9	0.50		10.0		109	75-120			
tert-Butyl alcohol	212	20	н	200		106	60-135			
Di-isopropyl ether	. 11.8	0.50		10.0		118	70-130			
1,2-Dibromoethane (EDB)	11.4	0.50	D	10.0		114	80-135			
1,2-Dichloroethane	11.2	0.50	В	10.0		112	70-125			
Ethanol	215	300	и	200		108	15-150			
Ethyl tert-butyl ether	11.8	0.50	н	10.0		118	65-130			
Ethylbenzene	11.7	0.50	†I	10.0		117	75-120			
Methyl tert-butyl ether	11.4∜	0.50	"	10.0		114	50-140			
Toluene	11.8	0.50	"	10.0		118	75-120			
Xylenes (total)	36.3	0.50	D	30.0		121	75-130			
Surrogate: Dibromofluoromethane	2.49		"	2.50		100	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.46		"	2.50		98	60-125			
Surrogate: Toluene-d8	2.55		11	2.50		102	80-120			
Surrogate: 4-Bromofluorobenzene	2.58		"	2.50		103	60-135			
Matrix Spike (7G24009-MS1)	Source: MC	QG0746-03		Prepared &	& Analyze	d: 07/24/0	)7			
tert-Amyl methyl ether	12.3	0.50	ug/l	10.0	ND	123	65-135			
Benzene	10.7	0.50	U	10.0	ND	107	75-120			
tert-Butyl alcohol	243	20	0	200	28.2	108	60-135			
Di-isopropyl ether	12.0	0.50	O .	10.0	ND	120	70-130			
1,2-Dibromoethane (EDB)	11.6	0.50	tt.	10.0	ND	116	80-135			
1,2-Dichloroethane	11.4	0.50	15	10.0	ND	114	70-125			
Ethanol	195	300	и	200	ND	97	15-150			
Ethyl tert-butyl ether	12.2	0.50	н	10.0	ND	122	65-130			
Ethylbenzene	11.4	0.50	ŧı	10.0	ND	114	75-120			
Methyl tert-butyl ether	12.1	0.50	o	10.0	ND	121	50-140			
Toluene	11.6	0.50	D	10.0	ND	116	75-120			
Xylenes (total)	35.0	0.50	1+	30.0	ND	117	75-130			
Surrogate: Dibromofluoromethane	2.61		n	2.50		104	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.63		**	2.50		105	60-125			
Surrogate: Toluene-d8	2.53		**	2.50		101	80-120			
Surrogate: 4-Bromofluorobenzene	2.68		"	2.50		107	60-135			





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson

MQG0624 Reported: 08/02/07 17:19

### 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
Batch 7G24009 - EPA 5030B P/T / E	EPA 8260B									
Matrix Spike Dup (7G24009-MSD1)	Source: Me	QG0746-03		Prepared	& Analyze	ed: 07/24/	07			
tert-Amyl methyl ether	12.3	0.50	ug/l	10.0	ND	123	65-135	0.2	25	
Benzene	11.0	0.50	D	10.0	ND	110	75-120	3	20	
tert-Butyl alcohol	247	20	D	200	28.2	110	60-135	2	25	
Di-isopropyl ether	12.2	0.50	p	0.01	ND	122	70-130	2	25	
1,2-Dibromoethane (EDB)	11,8	0.50	н	10.0	ND	118	80-135	2	30	
1,2-Dichloroethane	11.7	0.50	<b>f</b> I	10.0	ND	117	70-125	2	25	
Ethanol	180	300	Ħ	200	ND	90	15-150	8	25	
Ethyl tert-butyl ether	12.3	0.50	ø	10.0	ND	123	65-130	2	25	
Ethylbenzene	11.5	0.50	ø	10.0	ND	115	75-120	1	20	
Methyl tert-butyl ether	12.0 🐔	0.50	n	10.0	ND	120	50-140	0.7	25	
Toluene	11.7	0.50	o	10.0	ND	117	75-120	0.6	25	
Xylenes (total)	35,4	0.50	11	30.0	ND	118	75-130	l	20	
Surrogate: Dibromofluoromethane	2.63		"	2.50		105	75-120			
Surrogate: 1,2-Dichloroethane-d4	2.51		"	2.50		100	60-125			
Surrogate: Toluene-d8	2.54		"	2.50		102	80-120			
Surrogate: 4-Bromofluorobenzene	2.58		ii	2.50		103	60-135			
Batch 7G25030 - EPA 5030 (pres 48	h)/5035 / EPA	8260B								
Blank (7G25030-BLK1)				Prepared of	& Analyze	d: 07/25/	07			
tert-Amyl methyl ether	ND	0.0050 n	ng/kg wet							
Benzene	ND	0.0050	R							

	Batch 7G25030 - EPA 5030	(pres 48h)/5035 / EPA	8260B
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Blank (7G25030-BLK1)				Prepared & Ar	nalyzed: 07/25/	07	
tert-Amyl methyl ether	ND	0.0050	mg/kg wet				
Benzene	ND	0.0050	k				
tert-Butyl alcohol	ND	0.020	н				
Di-isopropyl ether	ND	0.0050	н				
1,2-Dibromoethane (EDB)	ND	0.0050	ij				
1,2-Dichloroethane	ND	0.0050	U				
Ethanol	ND	0.10	v				
Ethyl tert-butyl ether	ND	0.0050	o				
Ethylbenzene	ND	0.0050	IT				
Methyl tert-butyl ether	ND	0.0050	И				
Toluene	ND	0.0050	и				
Xylenes (total)	ND	0.0050	и				
Surrogate: Dibromofluoromethane	0.00494		11	0.00500	99	70-120	·
Surrogate: 1,2-Dichloroethane-d4	0.00518		11	0.00500	104	65-135	
Surrogate: Toluene-d8	0.00468		**	0.00500	94	75-120	
Surrogate: 4-Bromofluorobenzene	0.00402		"	0.00500	80	60-120	

TestAmerica - Morgan Hill, CA

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Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

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

Laboratory Control Sample (7G2503	30-BS1)			Prepared &	k Analyze	ed: 07/25	07	
tert-Amyl methyl ether	0.0209	0.0050	mg/kg wet	0.0200		104	65-140	
Benzene	0.0209	0.0050	ø	0.0200		104	70-140	
tert-Butyl alcohol	0.420	0.020	IP	0.400		105	75-130	
Di-isopropyl ether	0.0226	0.0050	*	0.0200		113	60-135	
1,2-Dibromoethane (EDB)	0.0221	0.0050	l#	0.0200		110	70-145	
1,2-Dichloroethane	0.0218	0.0050	И	0.0200		109	75-130	
Ethanol	0.549	0.10	þi	0.400		137	50-150	
Ethyl tert-butyl ether	0.0203	0.0050	Ħ	0.0200		102	70-125	
Ethylbenzene	0.0214	0.0050	11	0.0200		107	75-140	
Methyl tert-butyl ether	0.0212⊀	0.0050	ø	0.0200		106	75-130	
Toluene	0.0205	0.0050	O	0.0200		103	75-135	
Xylenes (total)	0.0637	0.0050	17	0.0600		106	75-145	
Surrogate: Dibromofluoromethane	0.00532		"	0.00500		106	70-120	 ***************************************
Surrogate: 1,2-Dichloroethane-d4	0.00506		"	0.00500		101	65-135	
Surrogate: Toluene-d8	0.00490		11	0.00500		98	75-120	
Surrogate: 4-Bromofluorobenzene	0.00494		"	0.00500		99	60-120	
Matrix Spike (7G25030-MS1)	Source: MQ	G0717-04		Prepared &	. Analyze	d: 07/25/	07	
ert-Amyl methyl ether	0.0218	0.0050	mg/kg wet	0.0200	ND	109	65-140	
Benzene	0.0219	0.0050	II.	0.0200	ND	109	70-140	
ert-Butyl alcohol	0.421	0.020	Ir	0.400	ND	105	75-130	
Di-isopropyl ether	0.0237	0.0050	je .	0.0200	ND	119	60-135	
1,2-Dibromoethane (EDB)	0.0229	0.0050	II.	0.0200	ND	114	70-145	
1,2-Dichloroethane	0.0218	0.0050	н	0.0200	ND	109	75-130	
Ethanol	0.530	0.10	11	0.400	ND	132	50-150	
Ethyl tert-butyl ether	0.0211	0.0050	11	0.0200	ND	106	70-125	
Ethylbenzene	0.0226	0.0050	u	0.0200	ND	113	75-140	
Methyl tert-butyl ether	0.0215	0.0050	ø	0.0200	ND	108	75-130	
Toluene	0.0221	0.0050	U	0.0200	ND	110	75-135	
Xylenes (total)	0.0676	0.0050	U	0.0600	ND	113	75-145	
Surrogate: Dibromofluoromethane	0.00518		"	0.00500		104	70-120	
Surrogate: 1,2-Dichloroethane-d4	0.00516		"	0.00500		103	65-135	
Surrogate: Toluene-d8	0.00498		"	0.00500		100	75-120	
Surrogate: 4-Bromofluorobenzene	0.00516		"	0.00500		103	60-120	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7G25030 - EPA 5030 (pres 48	h)/5035 / EPA	8260B				·	<del></del>			
Matrix Spike Dup (7G25030-MSD1)	Source: MQ	G0717-04		Prepared &	& Analyze	ed: 07/25/	07			
tert-Amyl methyl ether	0.0210	0.0050	mg/kg wet	0.0200	ND	105	65-140	4	25	
Benzene	0.0216	0.0050	O	0.0200	ND	108	70-140	1	25	
tert-Butyl alcohol	0.415	0.020	P	0.400	ND	104	75-130	2	25	
Di-isopropyl ether	0.0235	0.0050	и	0.0200	ND	117	60-135	1	40	
1,2-Dibromoethane (EDB)	0.0227	0.0050	n	0.0200	ND	114	70-145	0.7	30	
1,2-Dichloroethane	0.0218	0.0050	n	0.0200	ND	109	75-130	0	25	
Ethanol	0.554	0.10	ti.	0.400	ND	139	50-150	4	30	
Ethyl tert-butyl ether	0.0212	0.0050	0	0.0200	ND	106	70-125	0.6	30	
Ethylbenzene	0.0226	0.0050	ff.	0.0200	ND	113	75-140	0	30	
Methyl tert-butyl ether	0,0213⊀	0.0050	μ	0.0200	ND	106	75-130	1	25	
Toluene	0.0217	0.0050	н	0.0200	ND	108	75-135	2	25	
Xylenes (total)	0.0672	0.0050	n	0.0600	ND	112	75-145	0.5	30	
Surrogate: Dibromofluoromethane	0.00526		II	0.00500		105	70-120	*******		
- ·										

0.00500

0.00500

0.00500

102

103

107

65-135

75-120

60-120

0.00512

0.00514

0.00534

Surrogate: 1,2-Dichloroethane-d4

Surrogate: 4-Bromofluorobenzene

Surrogate: Toluene-d8





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7G23010 - General Prepa	ration / SM2540B									
Blank (7G23010-BLK1)				Prepared:	07/20/07	Analyzed	: 07/23/07			
Total Solids	ND	1.0	%							
Duplicate (7G23010-DUP1)	Source: Mo	QG0624-09		Prepared:	07/20/07	Analyzed	07/23/07			
Total Solids	79.5	1.0	%		79.4			0.05	20	
Batch 7G24006 - General Prepa	ration / SM2540B									
Blank (7G24006-BLK1)				Prepared:	07/23/07	Analyzed	07/24/07			
Total Solids	ND	1.0	%							
Duplicate (7G24006-DUP1)	Source: Me	QG0624-14		Prepared:	07/23/07	Analyzed	07/24/07			
Total Solids	80.8,~	1.0	%		80.5			0.3	20	





Project: ARCO #2162, San Leandro, CA

Project Number: G0C2C-0017 Project Manager: Jay Johnson MQG0624 Reported: 08/02/07 17:19

#### Notes and Definitions

PT Hydrocarb. in req. fuel range, but doesn't resemble req. fuel

MB Analyte present in the method blank

LQ LCS recovery above method control limits.

LH,AY Surrogate recovery above the acceptance limits. Matrix interference suspected.

IC Calib. verif. is within method limits but outside contract limits

BF Reporting limits raised due to high hydrocarbon background

BA Relative percent difference out of control

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 ompany

A BP affiliated company

Chain of Custody Record

Project Name:

BP BU/AR Region/Enfos Segment: BP State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

On-site Time: Temp: Off-site Time: Temp: Sky Conditions: Meteorological Events: Wind Speed: Direction:

	-			Direction.				
Lab Name: Test America	BP/AR Facility No.: 2147							
Address: 885 Tarvis Dr.	BP/AR Facility Address: 15125 Iles miss. 21	Consultatio Contractor: Tracks Francisco de la lace						
Morgan Hill, CA 95037	Site Lat/Long:	or Jan Leandro	Address: 3330 Camom Park Dr. \$1550					
Lab PM: Lisa Race		n. n.(	Cameon Park	( ) (A 95687				
Tele/Fax: 408-782-8156	California Global ID No.: T0600101 Enfos Project No.: GOC 2C - 0017	<u> </u>	Consultant/Contractor Proje	ect No.: B-216 Z				
BP/AR EBM: Paul Supple	Provision of OOC (circle one)	t - L	Consultant/Contractor PM: Jay Johnson					
Address: 2010 Cow Canyon Pl. # 150	Phase/WBS: Ol- assessment		Tele/Fax: 730-676-6000					
San Ramon, a	Sub Phase/Task: 03-analytical		Report Type & QC Level:	level 1 W/BOF				
Tele/Fax: 925-275-3506	Cost Element: 01 - contractor Labor		E-mail EDD To: Citait	Cotatisinent				
Lab Bottle Order No: Matrix	Preservative		Invoice to: Consultant or B	Por Atlantic Richfield Co. (circle one)				
		Requ	ested Analysis					
Item No. Sample Description Date Date Air Air	No. of Containers Unpreserved HANO, HCI (W355) Methanol	GRO 17PHD 84ex 50ers	etori 12-50A EDB	Sample Point Lat/Long and Comments				
1 CB3-W - 8:10 7-17 V			<u> </u>					
2 (B3 7.58' 7.30 7-17 V	┟╼╼╼╼═╢╬╢╧╁╼┼╼╁╩╂╼╁	VVVV	VV					
	-02   V	VVVV						
	-03							
4 56-5 155-16 7:34 7-17	-04							
5 CB2-W 9:05 7-17 V			<u> </u>					
6 CB 2 [1,31-12] 9:36 217 V		VVVV						
	-06 1 V	1000						
	-07	VVVX						
8 CB1-W · LOVES 7-17 V	-08 7 /	V///						
9 61- 35-45 0954 7-17 1	-09							
10 BL- 115'-121 0956 7-17 V	-10	100	VVV					
Sampler's Name: Collin Fisher / Scott Bittingen			VVV	-				
Sampler's Company: Status Environ mental, Inc.	Relinquished By / Affiliation	Date Time	Accepted By / Af	filiation Date Time				
Shipment Date: 7-17-03	<u> </u>	7/17 1445	Chenell Te	STAMERICA 7/1 1445				
Shipment Method: delivered to lab	Cheny TestAmerica	7/12 /620	Day Tras	2/19/2 150				
Shipment Tracking No:	Dry Usa	7/17 1925	AT JUNE /TA	MH 7/17/07 1825				
pecial Instructions:	<u> </u>	<u> </u>	V					
Custody Seals In Place: Yes / No )   Temp Blank: Yes / No	Cooler Temp on Receipt: 5.4°F/C	1 0 - 51						
	L Cooler Temp our Receipt. J. T. T.C.	Trip Blank: Y	(es/No)   MS/MSD	Sample Submitted: Vec / No.				

MS/MSD Sample Submitted: Yes / No

BP COC Rev. 5-10

	~~3	
Page	of	_

Atlantic Richfie	
Richfie	eld
Compar	

A BP affiliated company

Chain of Custody Record
Project Name: Avo Station # 2162

Project Name: Avo Station # 2162

BP BU/AR Region/Enfos Segment: BP American West Grant > Relation > Alana, Aprenius) West Coast ) Kem 1 17 Americas Alameda County Health Carl Services 8-1-07 Ageng State or Lead Regulatory Agency:

Requested Due Date (mm/dd/yy):

On-site Time:	Temp:	Ç
Off-site Time:	Temp:	
Sky Conditions:		
Meteorological Events:		
Wind Sneed:	Direction:	

I =6 X	lame: Test America					Innua resident	-	) ej -	7						11	•			~(	· -		1	<del>'''''''</del>
Address: 985 Javins Do					BP/AR Facility No.: 2162								Consultant/Contractor: Strukes Environ mental, Inc.										
Address: 885 Javis Dr.						BP/AR Facility Address: 15135 Hesperian Blud, San Learch								Address: 3330 Cambon Park Dr. \$550									
Morgan Hill, CA 95037						Site Lat/Long:								Cameon Park, CA 95482									
Lab P						California Global ID No.: 7 TO600100084													t No.: 13-2				
Tele/F						Enfos Project No.: GOC 2C - Obl 7								Cons	ultan	t/Conti	actor I	'Μ: ,	Jay Joh	MYN)			
11	REBM: Paul Supple			············	(									Tele/Fax: 530-676-6000									
Addre	ss: 2010 Crow Caryon Pl.		<u> </u>										Report Type & QC Level: fevel   w/FDF										
	San Ramon, C	4				Sub Phase/Task: (									E-ma	ail ED	D To:	Cita	u.H	Copalis	ineinst		
Tele/F	ax: 925-275-35	0 <i>b</i>				Cost Element: 0	- u	24/1	ector 6	bor					Invo	ice to:	Cons	ultant o	or BP	or Atlantic	Richfield	Co. (circ	le one)
Lab E	Sottle Order No:			N N	/atrix				Prese	rvativ	<b>e</b>			Req	uestec	l Ana	lysis					- D-KK	
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid Air	Laboratory No. MQGの624	No. of Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HCI (Vezi5)	Methanol	6/60	TAHD	5000 News	e to H	12-204	25%			Samp	ole Point l Comn		and
1	(BI-155-16)	9.58	7-11	V		-11	1	V				1.	11	./.	1,1	1	X						
2	CB4-W -	11:45	7-17	<b>l</b> .	<del>/                                      </del>		7		1				<b> </b>		رٔ ا		+	-					
		-				-12	<u>/</u>	<u>v</u>	╂	-		$+\nu$		7/		4	<del>')</del>  -	+	₩				
3	Cby = 7.5'-8'	11:22		V/		-13	<u> </u>	is ^				1	<b>V</b>	VV	1	V	<u> </u>						
4	CBY 11.5'-12'	11:24	7-11	1		-14	Į.	1				1		1	1/	1/1							
5	CBV 15.51-161	11:27	7-17	1		-15	1	1/				V		7/1	10	0	7			·····			
6	CBS-W .	12:30		l	4	-16	7	V				V	V	V	10	1/	7						
7	SB5 75-81	12:01	7-17	V		-17	İ	V				V	1	\V\st	1								
8	CBS 1151421	Zuch	1	1		-18	1	V!				V		NU	0	V	1						
9	Ch5 15.5'-161	1212	7-1-1	1		-19	ķ.	V				V	M	X /	10	<u>/</u>							
10																	ļ						İ
Samp	ler's Name: Coilin Fischer 7:	Swlt 1	3itting	4		Reling	uishe	d By	/ Affiliati	on		a	ate	Time	Accepted By / Affiliation Date Time						Time		
Samp	ler's Company: Status Fivi	rom mon	al. Inc			Collan 20	-Col	w	بالأرا			17	7-	<u> </u> 445		r L	ساروم	//		Tein	meria	רואד	1445
Shipn	nent Date: [-17-0]		<del>-</del> j								1620		9	اعد	Tu	45	*		ว่ไปจ	1620			
Shipment Method: delatived blan				( <del>///</del>					1925		-	1:			γm++		7/17/07	1825					
Shipment Tracking No:														V									
reci	al Instructions:																					***************************************	
	wistody Seals In Place: Yes /	No)	Tem	Blan	ık: Yes //i	No   Cooler	Tem	p on	Receipt	: 5-4	· °F/C	) [	Tr	ip Blank	c: Yes	/No	<u>)  </u>	MS	/MSI	Sample S	Submitte	l: Yes/N	lo
					-							<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>				-					<del></del>		

### TEST AMERICA SAMPLE RECEIPT LOG

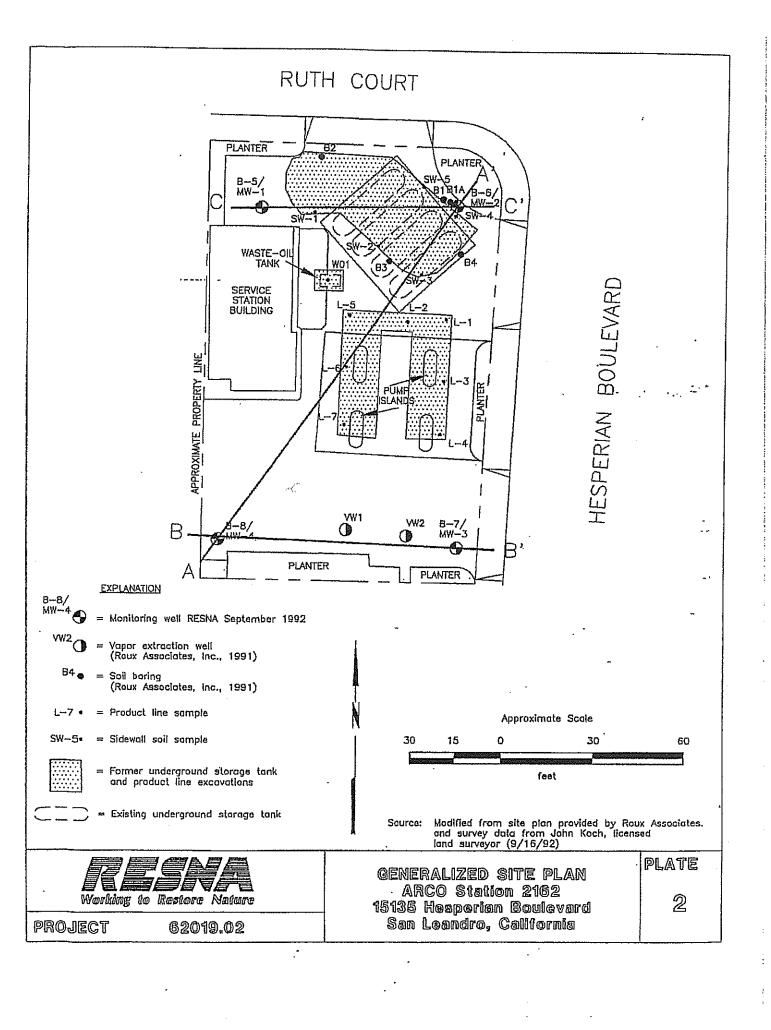
CLIENT NAME: REC. BY (PRINT) WORKORDER:	ARCD #2162 JULIE MOGO624		DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	7/20	25			For Regulatory Purposes? DRINKING WATER YES / N			
CIRCLE THE APPRO	PRIATE RESPONSE	LAB SAMPLE#	CLIENT ID	CONTAINER DESCRIPTION	PRESER VATIVE	рН	SAMPLE	l i	REMARKS: CONDITION (ETC.)		
Custody Seal(s)	Present / Absent		CB3_W	2(L)A		*****	W	7/17/07			
	Intact / Broken*			5 VOAs	41CL	7	<b>V</b>	1			
2. Chain-of-Custody	Présent / Absent*		CB3 7.5'-8'	1 Phoistic cone			S				
3. Traffic Reports or			11.5'_12'								
Packing List:	Present / Absent		√ 15.5'_16'	$\overline{}$	$\overline{\mathbf{A}}$		V				
4. Airbill:	Airbill / Sticker		CB2_W	2(L) A	_		W				
	Present / Absent)			G VOAS	HCL						
5. Airbill #:		,	CB2 11.5'-12'	1 plastic core			S				
6. Sample Labels:	Présent / Absent		√ 15.5′_16′	<b>₩</b>	$\rightarrow$		1				
7. Sample IDs:	Lised / Not Listed		CBI_W	24)A	Į		W				
	on Chain-of-Custody			5 VAS	HOT		$\lor$				
8. Sample Condition:	In(act / Broken* /		CB1 7.5'-8'	1 plastic care			9				
	Leaking"		11.5' -12'	1							
9. Does information on	- · · · · · · · · · · · · · · · · · · ·		V 15.5'.16	1	$\downarrow$		$\downarrow$				
traffic reports and s	' -		CB4-W	1(L)A			W/				
agree?	Yes / No*		<u> </u>	5 VOAS	HUL		$  \downarrow  $				
10. Sample received withi	_		CB4 7.5'-6'	1 plastic core			5				
hold lime? .	Yes / No*		11.5 - 12'	1							
<ol><li>Adequate sample volu</li></ol>			V 15.5'-16'	$\vee$	$\vee$		4				
received?	Y69€ / No*		W5-W	1(L)A			W				
12. Proper preservatives ι	<del></del>			5 VOA5	HUL		<b>₩</b>				
13. Trip Blank / Temp Blan	ا سم		CB5 7.5'-B'	1 plastic care			8				
(circle which, if yes)	Yes / No*)	<del></del>	11.6'-12'								
14. Read Temp:	5.40		V 15.5'_16'	$\forall$			<u> </u>	$-\sqrt{1}$	in the state of th		
Corrected Temp:											
Is corrected temp 4 +/					= 10	7					
(Acceptance range for samples re-	· • • • • • • • • • • • • • • • • • • •			Intie	7118	1					
**Exception (if any): MET	ALS / DFF ON ICE			7.00					books		
or Problem COC			STORY OF THE STATE						7.4.7		
SRL Raylation 8	TO SEE COMES CONTROL TO BE AND ADDRESS OF THE PROPERTY OF THE	"IF CIRC	LED, CONTACT PROJEC	T MANAGER	ATTA ON	CH R	ECORD O	F RESOLU	TION.		

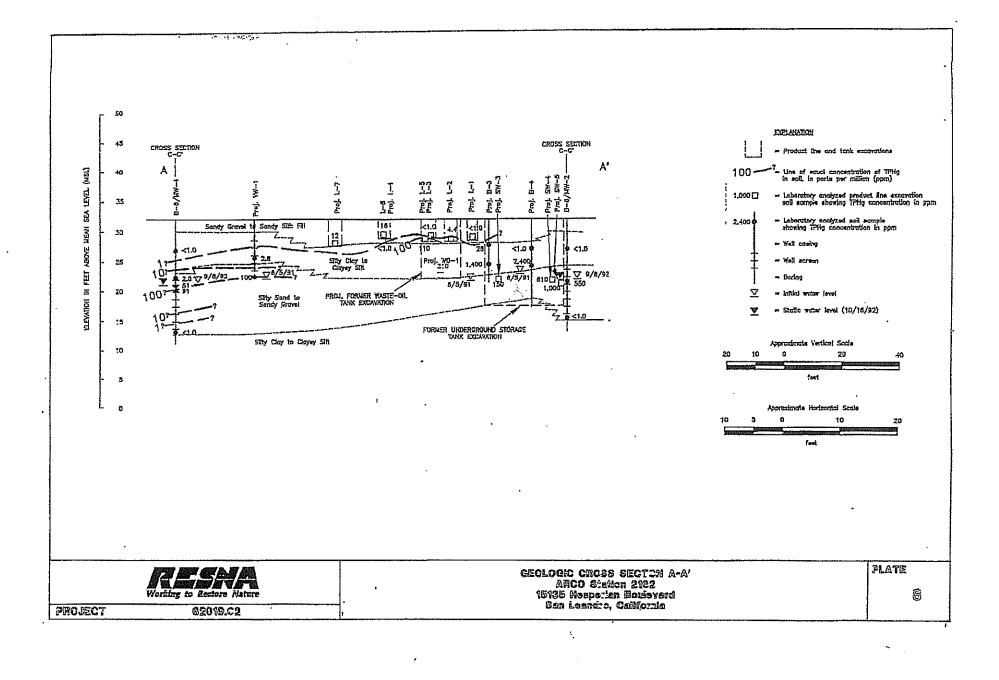
SRL Revision 8 Centeres Rev 7 (07/19/05)

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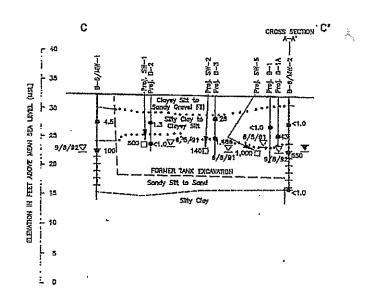
# APPENDIX B GEOLOGIC CROSS-SECTIONS

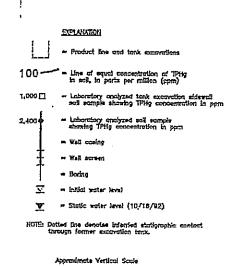
14 T





CROSS SECTION **EXPLANATION** - Une of equal concentration of Timig in soil, in parts per million (ppm; - 35 <u>ज</u> - Laboratory analyzed soil sample showing TPHs concentration in page Sity Sond to Sond: Fili F 70 - Well conlag Striy Clay to Clayey Stit - Well account <1.0 ELEWATION IN THEI ADOVE NEAR SEA - 25 = Boring - Stelle water level (10/18/92) Cloyey SEt Approximate Vertical Scale Clayey SEt Approximate Horizontal Scale fest PLATE GEOLOGIC CROSS SECTOR B-B' ARCO Station 2762 9 15735 Nesperien Bouleyard Worlding to Restore Paters San Leanero, California PROJECT 82019.02





10 5 Q 10 20

fect.

Approximete Horizontal Scale

RESHA

Geologic Gross Sector C.C' Arco Station 2122 15135 Resperien Boulavard San Leandro, California PLATE

10

PROJECT

62019.02

## APPENDIX C GEOTRACKER UPLOAD CONFIRMATION REPORTS

#### **Electronic Submittal Information**

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 3720755577

Date/Time of Submittal: 9/17/2007 5:09:38 PM

Facility Global ID: T0600100084 Facility Name: ARCO #2162

Submittal Title: Soil & Water Samples 0707

Submittal Type: Soil & Water Investigation Report

Click here to view the detections report for this upload.

ARCO #2162 Regional Board - Case #: 01-0091 15135 HESPERIAN SAN FRANCISCO BAY RWQCB (REGION 2) SAN LEANDRO, CA 94578 Local Agency (lead agency) - Case #: RO0000190 ALAMEDA COUNTY LOP - (SP) CONF# QUARTER 3720755577 Soil & Water Samples 0707 Q3 2007 SUBMITTED BY SUBMIT DATE **STATUS** Broadbent & Associates, Inc. PENDING REVIEW 9/17/2007 SAMPLE DETECTIONS REPORT # FIELD POINTS SAMPLED 19 # FIELD POINTS WITH DETECTIONS 18 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL 5 SAMPLE MATRIX TYPES SOIL, WATER METHOD QA/QC REPORT METHODS USED 8260FA,8260TPH,A2540G,SW8015B,SW8260B TESTED FOR REQUIRED ANALYTES? LAB NOTE DATA QUALIFIERS QA/QC FOR 8021/8260 SERIES SAMPLES TECHNICAL HOLDING TIME VIOLATIONS 2 METHOD HOLDING TIME VIOLATIONS 2 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 1 LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK - MATRIX SPIKE Ν - MATRIX SPIKE DUPLICATE N - BLANK SPIKE Υ - SURROGATE SPIKE - NON-STANDARD SURROGATE USED WATER SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%

BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%

SURROGATE SPIKES % RECOVERY BETWEEN 85-115%

Υ

N

#### SOIL SAMPLES FOR 8021/8260 SERIES MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Υ SURROGATE SPIKES % RECOVERY BETWEEN 70-125% Ν BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% n/a FIELD QC SAMPLES SAMPLE COLLECTED DETECTIONS > REPDL QCTB SAMPLES N 0 **QCEB SAMPLES** Ν 0 QCAB SAMPLES Ν 0

Logged in as BROADBENT-C (CONTRACTOR)

ref.

CONTACT SITE ADMINISTRATOR.