

February 1, 2001

3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-6021 U.S.A. 916/638-2085 FAX. 916/638-8385

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Mr. Hernan Gomez
City of Oakland
Fire Services Agency
1605 Martin Luther King Jr. Way
Oakland, CA 94612

Subject: Tank Basin, Product Line and Dispenser Island Sampling Results

ARCO Station No. 6148 5131 Shattuck Avenue Oakland, California

Delta Project No. D000-315

Dear Mr. Gomez:

Delta Environmental Consultants, Inc. (Delta) has been authorized by ARCO Products Company to conduct soil sampling during the removal and replacement of underground storage tanks (USTs), product distribution lines and product dispenser islands at ARCO Service Station No. 6148, located at 5131 Shattuck Avenue, Oakland, California (Figure 1). Site details are illustrated in Figure 2. This report summarizes the sampling activities and analytical results for samples collected during the UST, product line and dispenser removal, and upgrade activities. Field activities were performed in accordance with Delta's field methods and procedures outlined in Enclosure A.

Underground Storage Tank Removal

On November 14, 2000, three 12,000-gallon underground storage tanks were excavated and inspected upon removal. Paradiso Mechanical, Inc. was contracted by ARCO to obtain all necessary tank removal permits, make all required preliminary notifications and to clean, remove and dispose of the removed USTs. Ecology Control Industries transported the tanks to their facility in Richmond, California under a uniform hazardous waste manifest. Pertinent information concerning the UST removal activities is summarized below:

Lead Agency: City of Oakland, Fire Services Agency

Agency Contact Name: Hernan E. Gomez Agency Phone Number: (510) 238-7253

UST Cleaning Contractor: Paradiso Mechanical, Inc.

Final Disposition of Rinseate: DeMenno Kerdoon, 2000 North Alameda Street, Compton, CA 90222

(Uniform Hazardous Waste Manifest included in Enclosure B)

Final Disposition of USTs: Ecology Control Industries, 255 Par Road, Richmond, CA 94801

(Uniform Hazardous Waste Manifest included in Enclosure B)

Mr. Hernan Gomez City of Oakland Fire Services Agency February 1, 2001 Page 2

Soil Sampling Beneath Product Lines and Dispenser Island

A Delta representative was on site November 14, 2000 to conduct soil sampling during product line and dispenser removal and upgrade activities. A representative from the City of Oakland was on site to observe the sampling. Soil samples were collected beneath the dispensers following their removal. Dispenser soil samples DP-1 through DP-6 were collected at a depth of 2.0 feet below surface grade (bsg). Product line soil samples L-1 through L-10 were collected within the product line trench at depths ranging from 2.0 to 3.0 feet bsg. The soil sample locations are shown in Figure 3. All dispenser pump and product line soil samples were collected using an impact sampler equipped with brass liners, as outlined in Enclosure A.

Following collection, the soil sample tubes were capped with Teflon® tape and plastic caps and stored on ice until the time the samples were received at the laboratory. Samples were submitted to Sequoia Analytical Laboratory (Sequoia) in Sacramento, California for analysis of benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) using EPA Method 8020, and total petroleum hydrocarbons (TPH) as gasoline using EPA Method 8015 Modified. Detectable concentrations of MTBE were confirmed using EPA Method 8260. Soil sample analytical results are summarized in Table 1.

In soil samples collected during the November 14, 2000 sampling event, the laboratory reported detectable concentrations of benzene ranging from 0.014 milligrams per kilogram (mg/kg) in soil sample DP-1 to 0.0226 mg/kg in soil sample DP-4. The laboratory reported detectable concentrations of TPH as gasoline ranging from 1.15 mg/kg in L-10 to 2,390 mg/kg in DP-5. The laboratory reported detectable concentrations of MTBE ranging from 0.0835 mg/kg in DP-3 to 1.92 mg/kg in DP-4. A copy of the November 14, 2000 laboratory analytical report with chain-of-custody documentation is included in Enclosure C.

Soil Sampling Beneath Abandoned Product Lines and Dispenser Island

During the initial product line sampling investigation, a formerly abandoned dispenser island was discovered east of the station building. A Delta representative was on site December 22, 2000 to conduct soil sampling during excavation and removal of the abandoned product lines and dispenser island. A representative from the City of Oakland was on site to observe the sampling. Soil samples were collected beneath the dispensers following their removal. Dispenser soil samples DP-7 and DP-8 were collected at depths of 4.0 feet bsg, respectively. Product line soil samples PL-11 through PL-13 were collected within the product line trench at depths ranging from 4.0 to 5.0 feet bsg. The soil sample locations are shown in Figure 3. All dispenser pump and product line soil samples were collected using a hand auger and impact sampler equipped with brass liners, as outlined in Enclosure A.

Following collection, the soil sample tubes were capped with Teflon® tape and plastic caps and stored on ice until the time the samples were received at the laboratory. Samples were submitted to Sequoia for analysis of BTEX and MTBE using EPA Method 8020, and TPH as gasoline using EPA Method 8015 Modified. Detectable concentrations of MTBE were confirmed using EPA Method 8260. Soil sample analytical results are summarized in Table 1.

Mr. Hernan Gomez City of Oakland Fire Services Agency February 1, 2001 Page 3

In soil samples collected during the December 22, 2000 sampling event, the laboratory reported no detectable concentrations of benzene, TPH as gasoline and MTBE. A copy of the December 22, 2000 laboratory analytical report with chain-of-custody documentation is included in Enclosure B.

Soil Sampling Beneath Underground Storage Tanks

A Delta representative was on-site November 14, 2000 to conduct soil sampling following the removal of three 12,000-gallon underground storage tanks. A representative from the City of Oakland was on-site to observe the sampling. Soil samples were collected from the North, South and Center of all three USTs following their removal. Tank samples T1-N, T1-Center, T1-S, T2-N, T2-Center, T2-S, T3-N, T3-Center and T3-S were collected at depths of 16.0 feet bsg. The soil sample locations are shown in Figure 2. All tank soil samples were collected using brass tubes directly from the backhoe as outlined in Enclosure A.

Following collection, the soil sample tubes were capped with Teflon® tape and plastic caps and stored on ice until the time the samples were received at the laboratory. Samples were submitted to Sequoia for analysis of BTEX and MTBE by EPA Method 8020, and TPH as gasoline using EPA Method 8015M. Detectable concentrations of MTBE were confirmed using EPA Method 8260. Soil sample analytical results are summarized in Table 1.

In the tank basin soil samples collected during the November 14, 2000 sampling event, the laboratory reported detectable concentrations of benzene ranging from 0.0175 milligrams per kilogram (mg/kg) in soil sample T2-Center to 0.0299 mg/kg in soil sample T2-N. The laboratory reported detectable concentrations of TPH as gasoline ranging from 14.8 mg/kg in T2-N to 4,470 mg/kg in T1-N. The laboratory reported detectable concentrations of MTBE ranging from 0.0103 mg/kg in T2-Center to 1.21 mg/kg in T2-N. A copy of the November 14, 2000 laboratory analytical report with chain-of-custody documentation is included in Enclosure B.

Soil Management and Stockpile Sampling

A total of approximately 552.42 tons (370 cubic yards) of overburden was excavated from the gasoline UST basin, dispensers and lines prior to removing the three tanks. Soil removed during excavation and removal activities was stockpiled on site for disposal profile analysis. Four-point composite soil samples from the stockpiles were collected in brass tubes for each approximate 50 cubic yards of soil and delivered to Sequoia for analyses. Soil samples were analyzed for BTEX, TPH as gasoline and lead to ensure results met waste acceptance guidelines at Forward Landfill in Manteca, California. Soil stockpile analytical results are presented in Table 2. A copy of the laboratory analytical report with chain-of-custody documentation is included in Enclosure D. The soil was removed from the site on December 1, 2000, January 4, 2001 and January 5, 2001 by Dillard Trucking, Inc. and transported to Forward Landfill. A copy of the completion letter for soil removed is included in Enclosure E.

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Remarks/Signatures

The interpretations contained in this document represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydro-geologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact Steve Meeks at (916) 536-2613.

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Trevor L. Atkinson Project Engineer

Steven W. Meeks, P.E.

Project Manager

California Registered Civil Engineer No. C057461

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Enclosures

cc: Mr. Paul Supple - ARCO Products Company

Ms. Susan Hugo - Alameda County Health Care Services



TABLE 1
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS

ARCO Service Station No. 6148 5131 Shattuck Boulevard Oakland, California

		Depth	TPH as Gasoline	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE [8020]	MTBE [8260]
Sample ID	Date	(ft)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dispenser Isla	ınd Samples								
DP-1	11/14/00	2.0	5.32	0.014	0.0638	0.011	0.318	0.193	<0.5
DP-2	11/14/00	2.0	132	<0.1	0.265	0.86	14.5	1.63	1.02
DP-3	11/14/00	2.0	<1.0	<0.005	< 0.005	<0.005	0.0203	0.0835	<0.5
DP-4	11/14/00	2.0	5.16	0.0226	0.134	0.0564	0.7999	1.92	1.57
DP-5	11/14/00	2.0	2,390	<1.0	1.18	8.68	140	<10	NA
DP-6	11/14/00	2.0	<2.0	<0.01	<0.01	<0.01	0.0165	<0.1	NA
DP-7	12/22/00	4.0	<1.0	<0.005	<0.005	<0.005	0.00581	<0.05	NA
DP-8	12/22/00	4.0	<1.0	<0.005	<0.005	<0.005	0.00834	<0.05	NA
Product Line	Samples								
L-1	11/14/00	2.0	3.55	<0.005	<0.005	<0.005	0.0135	<0.05	NA
L-2	11/14/00	2.0	<2.0	<0.005	<0.005	<0.005	<0.005	0.504	0.608
L-3	11/14/00	2.0	<2.0	<0.01	<0.01	< 0.01	<0.01	<0.1	NA
L-4	11/14/00	3.0	<2.0	<0.01	<0.01	<0.01	<0.01	<0.1	NA
L-5	11/14/00	2.0	<1.0	< 0.005	< 0.005	<0.005	0.0102	<0.05	NA
L-6	11/14/00	2.0	5.8	<0.005	0.0106	0.0184	0.0207	<0.05	NA
L-7	11/14/00	3.0	<2.0	< 0.01	< 0.01	<0.01	0.0237	<0.1	NA
L-8	11/14/00	3.5	<1.0	<0.005	<0.005	< 0.005	< 0.005	<0.05	NA
L-9	11/14/00	2.0	13.2	< 0.005	0.00757	0.118	0.123	< 0.05	NA
L-10	11/14/00	2.5	1.15	<0.005	<0.005	<0.005	< 0.005	<0.05	NA
PL-11	12/22/00	5.0	<1.0	< 0.005	<0.005	< 0.005	0.00667	<0.05	NA
PL-12	12/22/00	4.0	<1.0	<0.005	<0.005	<0.005	0.00560	<0.05	NA
PL-13	12/22/00	4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	NA
Tank Basin Sa	amples								
T1-N	11/14/00	16.0	4,470	<2.0	105	73	404	<20	NA
T1-Center	11/14/00	16.0	961	<1.0	<1.0	<1.0	<1.0	<10	NA
T1-S	11/14/00	16.0	<200	<1.0	<1.0	<1.0	<1.0	<10	NA
T2-N	11/14/00	16.0	14.8	0.0299	0.025	0.2	0.655	1.21	1.13
T2-Center	11/14/00	16.0	33.1	0.0175	<0.01	<0.01	2.1	0.103	1.08
T2-S	11/14/00	16.0	<2.0	<0.01	<0.01	<0.01	0.0188	<0.1	NA
T3-N	11/14/00	16.0	<2.0	<0.01	<0.01	<0.01	0.0264	<0.1	NA
T3-Center	11/14/00	16.0	<2.0	<0.01	<0.01	<0.01	0.0102	<0.1	NA
T3-S	11/14/00	16.0	<2.0	<0.01	<0.01	<0.01	<0.01	<0.1	NA

TPH = Total petroleum hydrocarbons.

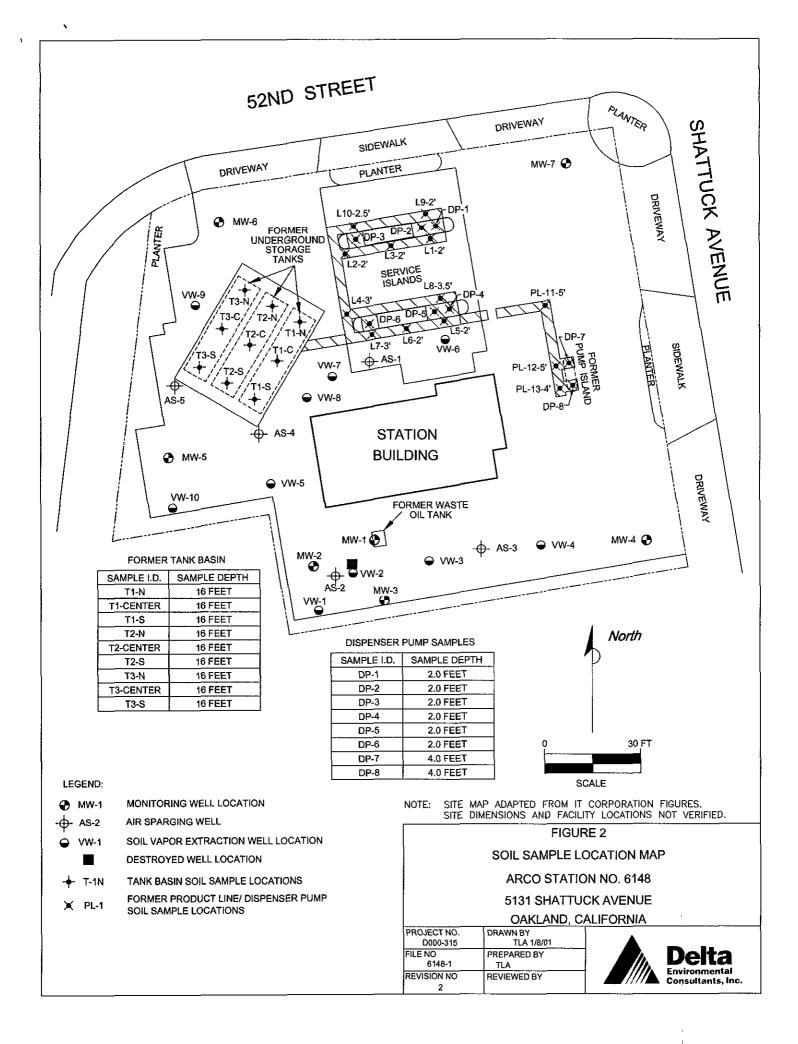
MTBE = Methyl tertiary butyl ether

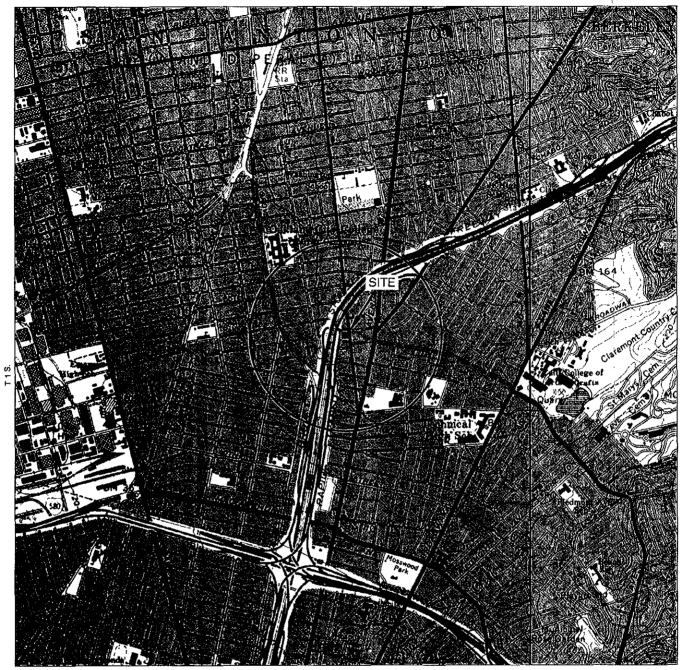
TABLE 2
SOIL STOCKPILE SAMPLE LABORATORY ANALYTICAL RESULTS

ARCO Service Station No. 6148 5131 Shattuck Boulevard Oakland, California

Sample ID	Date	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Lead (mg/kg)
Soil Stockpile	Results (Co	mposite)					
SP-1	11/17/01	19.9	<0.005	<0.005	0.0495	0.124	<10
SP-2	11/17/01	24.8	< 0.005	0.0208	0.133	0.610	<10
SP-3	11/17/01	41.6	<0.005	<0.005	0.132	0.419	<10
SP-4	11/17/01	11.9	< 0.005	<0.005	0.0352	0.0311	<10
SP-5	11/17/01	42	<0.005	<0.005	0.158	0.470	<10
SP-6	11/17/01	14.2	<0.005	<0.005	0.0478	0.116	<10
STK-A,B,C,D	12/22/00	30.4	<0.005	<0.005	0.0834	0.345	12.3

TPH = Total petroleum hydrocarbons.





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GENERAL NOTES:
BASE MAP FROM U.S.G.S.
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FIGURE 1 SITE TOPOGRAPHIC MAP ARCO STATION NO. 6148 5131 SHATTUCK AVENUE OAKLAND, CA

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ENCLOSURE A

Field Methods and Procedures

FIELD METHODS AND PROCEDURES

ARCO Station No. 6148 1156 Davis Street, San Leandro, California

1.1 Health and Safety Plan

Delta personnel performed fieldwork in accordance with a Health and Safety Plan developed for the site. This plan described the basic safety requirements for the subsurface investigation at the site. The Health and Safety Plan was applicable to personnel and subcontractors of Delta. Personnel at the site were informed of the contents of the Health and Safety Plan prior to beginning work. A copy of the Health and Safety Plan was kept at the work site and was available for reference by appropriate parties during the work. The Delta geologist acted as the Site Safety Officer.

1.2 Soil Sampling and Contamination Reduction

Soil sampling was performed under the direction of Delta geologists. To reduce the chances of cross-contamination between samples, all sampling equipment was either steam-cleaned or washed with a non-phosphatic detergent between each sample location. To reduce cross-contamination between samples, the sampler was washed in a soap solution and double-rinsed between each sampling event.

1.3 Soil Sample Collection

Soil at the sample location was excavated to a depth of approximately 6 inches above the sampling depth. At this depth, a hand operated impact sampler lined with a 6-inch clean brass sampling tube was used to collect the soil sample. That part of the soil sample collected in the brass tube within the impact sampler was sealed with Teflon® sheeting and plastic caps, labeled, and stored on ice at approximately 4° C for transport to the laboratory.

1.4 Product Distribution Lines and Dispenser Sampling

Soil samples were collected following the removal of the product distribution lines and dispensers. Samples were collected approximately 1 foot below the backfill/native soil interface within the product line trench. If ground water was encountered above the base of the excavation, soil samples were collected from the sidewalls of the excavations immediately above ground water. Following removal of the dispensers, one soil sample was collected approximately 2 feet below the backfill/native soil interface beneath each dispenser.

1.5 Soil Stockpile Sampling

Four soil samples were collected from each 50 cubic yards of stockpiled soil, with each set of four samples being composited in the laboratory prior to analyses. Soil samples were collected in 2-inch diameter brass tubes, which were sealed with Teflon® sheeting and plastic caps. The samples were labeled, stored in an ice chest and cooled to approximately 4°C for transport to the laboratory.

FIELD METHODS AND PROCEDURES

ARCO Station No. 6148 1156 Davis Street, San Leandro, California

2.0 ANALYTICAL PROCEDURES

Selected soil samples submitted to the laboratory were analyzed for BTEX and MTBE by EPA Method 8021, TPH as gasoline by EPA Method 8015 and total lead using EPA Method 6010.

3.0 QUALITY ASSURANCE PLAN

This section describes the field and analytical procedures followed throughout the investigation.

3.1 General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample was collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of soil samples used on this project can be found in Section 1.0 (Methods).

3.2 Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures ensured sample integrity and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis had a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, were recorded on the borehole log or in the field records. A California-certified laboratory analyzed the samples.

A chain-of-custody form was used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples were shipped, the person in custody of them relinquished the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verified sample integrity and confirmed that the samples were collected in the proper container, preserved correctly, and that there was an adequate volume for analysis.

If these conditions were met, the sample was assigned a unique log number for identification throughout analysis and reporting. The log number was recorded on the chain-of-custody form and in the legally-required logbook maintained by the laboratory in the laboratory. The sample description, date received, client's name, and other relevant information were also recorded.

ENCLOSURE B General Permits, Uniform Hazardous Waste Manifests and Certificates of Disposal

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ř	Printed/Typed Name	Signature		•	Month Day Year
R	19. Discrapancy Indication Space			<u> </u>	
F					
۲				•	•
<u>i</u>	26. Facility Owner or Operator Certification of receipt of hazardous	materials covered by this manife	in beton as noted in	Dam 19.	· · · · · · · · · · · · · · · · · · ·
7	Printed/Typed Name	Signature	, , ,		Month Day Year .
<u>'</u>			<u></u> - ;		
١,	· DO	NOT WRITE BELOY	w this line.)	A	

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802: WITHIN CALIFORNIA, CALL 1-800-852-7550

ENCLOSURE C

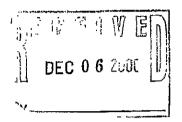
Soil Sample Laboratory Analytical Reports



December 05, 2000

Steven Meeks
Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 6148, Oakland, CA

Sandra R. Hansa



Enclosed are the results of analyses for samples received by the laboratory on 11/14/00 15:47. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sandra R. Hanson

Client Services Representative

Lito Diaz

Laboratory Director

CA ELAP Certificate Number 2374



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670

Project Manager: Steven Meeks

Reported: 12/05/00 10:43

ANALYTICAL REPORT FOR SAMPLES

Project Number: N/A

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-1-2'	S011228-01	Soil	11/14/00 00:00	11/14/00 15:47
DP-2-2'	S011228-02	Soil	11/14/00 00:00	11/14/00 15:47
DP-3-2'	S011228-03	Soil	11/14/00 00:00	11/14/00 15:47
DP-4-2'	S011228-04	Soil	11/14/00 00:00	11/14/00 15:47
DP-5-2'	S011228-05	Soil	11/14/00 00:00	11/14/00 15:47
DP-6-2'	S011228-06	Soil	11/14/00 00:00	11/14/00 15:47
T1N-16'	S011228-07	Soil	11/14/00 00:00	11/14/00 15:47
T] Center-16'	S011228-08	Soil	11/14/00 00:00	11/14/00 15:47
T1S-16'	S011228-09	Soil	11/14/00 00:00	11/14/00 15:47
T2N-16'	S011228-10	Soil	11/14/00 00:00	11/14/00 15:47
T2-Center-16'	S011228-11	Soil	11/14/00 00:00	11/14/00 15:47
T2-S-16'	S011228-12	Soil	11/14/00 00:00	11/14/00 15:47
T3-N-16 ¹	S011228-13	Soil	11/14/00 00:00	11/14/00 15:47
T3-Center-16'	S011228-14	Soil	11/14/00 00:00	11/14/00 15:47
T3-S-16'	S011228-15	Soil	11/14/00 00:00	11/14/00 15:47
L-1-2'	S011228-16	Soil	11/14/00 00:00	11/14/00 15:47
L-2-2'	S011228-17	Soil	11/14/00 00:00	11/14/00 15:47
L-3-2'	S011228-18	Soil	11/14/00 00:00	11/14/00 15:47
L-4-3'	S011228-19	Soil	11/14/00 00:00	11/14/00 15:47
L-5-2'	S011228-20	Soil	11/14/00 00:00	11/14/00 15:47
L-6-2'	S011228-21	Soil	11/14/00 00:00	11/14/00 15:47
L-7-3'	S011228-22	Soil	11/14/00 00:00	11/14/00 15:47
L-8-3.5'	S011228-23	Soil	11/14/00 00:00	11/14/00 15:47
L-9-2'	S011228-24	Soil	11/14/00 00:00	11/14/00 15:47
L-10-2.5'	8011228-25	Soil	11/14/00 00:00	11/14/00 15:47



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Sacramento

		· · · · · · · · · · · · · · · · · · ·							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DP-1-2' (S011228-01) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:	:47					
Purgeable Hydrocarbons	5.32	1.00	mg/kg	1	0110300	11/21/00	11/21/00	DHS LUFT	P-02
Benzene	0.0140	0.00500	U	П	u	ir .	#	Ø	
Toluene	0.0638	0.00500	Ħ	11		н	а	u	
Ethylbenzene	0.0110	0.00500		U	l)	n	u	U	
Xylenes (total)	0.318	0.00500	11	IJ	It	ri.	U	II	
Methyl tert-butyl ether	0.193	0.0500		h	н	II .	"	II .	
Surrogate: a,a,a-Trifluoroto	luene	103 %	60-1	140		n	11	"	_
DP-2-2' (S011228-02) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:	47				<u> </u>	
Purgeable Hydrocarbons	132	20.0	mg/kg	20	0110300	11/21/00	11/21/00	DHS LUFT	P-02
Benzene	ND	0.100	Ħ	H	n	u	11	r r	
Toluene	0.265	0.100	U	17	¥	((b	ĸ	
Ethylbenzene	0.860	0.100	ti	И	п	0	н	*1	
Xylenes (total)	14.5	0.100	IJ	**	41	u	11	ri	
Methyl tert-butyl ether	1.63	1.00	Ü	11	U	19	11	u	
Surrogate: a,a,a-Trifluorotoi	luene	99.5 %	60-1	40	"	"	n	"	
DP-3-2' (S011228-03) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:	47		•			
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	0110300	11/21/00	11/21/00	DHS LUFT	
Benzene	ND	0.00500	ti	н	u	n	11	Ħ	
Toluene	ND	0.00500	u	ц	u	li	ŧŧ	п	
Ethylbenzene	ND	0.00500	н	41	ħ	н	н	11	
Xylenes (total)	0.0203	0.00500		ú	D	11	11	0	
Methyl tert-butyl ether	0.0835	0.0500	**	n	19	11	n	b	
Surrogate: a,a,a-Trifluorotol	luene	108 %	60-1	40	п	11	n	tt .	



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DP-4-2' (S011228-04) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15	:47				,	
Purgeable Hydrocarbons	5.16	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	P-01
Benzene	0.0226	0.0100	n	ti	ti	N	Û	U	
Toluene	0.134	0.0100	11	II	14	u		11	
Ethylbenzene	0.0564	0.0100	9	11	11	ŧI	μ	10	
Xylenes (total)	0.799	0.0100	If .	И	u	n	If	ri .	
Methyl tert-butyl ether	1.92	0.100	Ð		11	U	11	ti	
Surrogate: a,a,a-Trifluoroto	luene	95.0 %	60-	140	#	"	ti	···	
DP-5-2' (S011228-05) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15	:47					
Purgeable Hydrocarbons	2390	200	mg/kg	100	0110306	11/22/00	11/22/00	DHS LUFT	P-01
Benzene	ND	1.00	U	В	ti .	II	11	Ħ	
Toluene	1.18	1.00	It	11	ų.	4	11	U	
Ethylbenzene	8.68	1.00	lt .	ħ	IJ	n	u	n	
Xylenes (total)	140	1 00	11	11	н	11	n	ч	
Methyl tert-butyl ether	ND	10.0		17	ti		11		_
Surrogate: a,a,a-Trifluoroto	luene	92.0 %	60-	140	"	"	"	rt	
DP-6-2' (S011228-06) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:	:47					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	n	Ħ	ir .	u	D	н	
Toluene	` ND	0.0100	"	"	n	n	i7	11	
Ethylbenzene	ND	0.0100	Ħ	!!	II	II.	11	li .	
Xylenes (total)	0.0165	0.0100	B	41	U	Ħ	u	ŧI	
Methyl tert-butyl ether	ND	0.100	71	ŧ	н	0	11	11	
Surrogate: a,a,a-Trifluorotoi	luene	92.0 %	60-3	40	14	μ	Ħ	п	



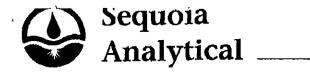
Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

		quota Ana	uyuca	- Daci a	HIVIEU				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T1N-16' (S011228-07) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1	5:47					
Purgeable Hydrocarbons	4470	400	mg/kg	200	0110306	11/22/00	11/22/00	DHS LUFT	P-01
Benzene	ND	2.00	17	**	u	lt.	11	W.	
Toluene	105	2.00	P	Đ	n	"	**	B)	
Ethylbenzene	73.0	2.00	Ħ	II	17	Ħ	4	ħ	
Xylenes (total)	404	2.00	**	u	14.	u	a	31	
Methyl tert-butyl ether	ND	20.0	tt	lt .	11		H	<u>.</u>	
Surrogate: a,a,a-Trifluorotoli	iene	113 %	60-	140	"	ff	n	#	
T1 Center-16' (S011228-08)	Soil Sampled: 11/14/00 (00:00 Receiv	ed: 11/14	I/00 1 5 :47					
Purgeable Hydrocarbons	961	200	mg/kg	100	0110306	11/22/00	11/22/00	DHS LUFT	P-04
Benzene	ND	1.00	ii	н	11	II	17	11	
Toluene	ND	1.00	tı	11	II .	IJ	11	u	
Ethylbenzene	ND	1.00	19	#1	11	Ħ	u	U	
Xylenes (total)	ND	1.00	Ħ	ŧı	H.	11	U	19	
Methyl tert-butyl ether	ND	10.0	u	p	н	"	Ð		
Surrogate: a,a,a-Trifluorotolu	iene	96.5 %	60-	140	"	u	"	"	
T1S-16' (S011228-09) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15	:47				•	
Purgeable Hydrocarbons	ND	200	mg/kg	100	0110306	11/22/00	11/22/00	DHS LUFT	•
Benzene	ND	1.00	si .	11	И	0	If	le .	
Toluene	ND	1.00	U	și.	Ħ	II .	l)	π	
Ethylbenzene	ND	1.00	II.	#1	*1	n.	H	ti	
Xylenes (total)	ND	1.00	ŧ	ø	n	**	ţı	¥	
Methyl tert-butyl ether	ND	10.0	91	ĮI	11	11	ti ii	ı	
Surrogate: a,a,a-Trifluorotolu	ene	92.0 %	60-	140	"	u	"	"	



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

		quota Ana	ary treats		шене				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T2N-16' (S011228-10) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1:	5:47					
Purgeable Hydrocarbons	14.8	2.00	mg/kg	1	011 0 306	I 1/22/00	11/22/00	DHS LUFT	P-02
Benzene	0.0299	0.0100	U	н	u	D	**	u	
Toluene	0.0250	0.0100	11	11	11	lt .	41	It	
Ethylbenzene	0.200	0.0100	H		"	16	"	u	
Xylenes (total)	0.655	0.0100	11		IT	ч	Ħ	Ħ	
Methyl tert-butyl ether	1.21	0.100	n	n	11	U	*	Ħ	
Surrogate: a,a,a-Trifluorotoli	uene	95.5 %	60-	140	"	t r	n	ıt	
T2-Center-16' (S011228-11)	Soil Sampled: 11/14/00	00:00 Receiv	ved: 11/14	1/00 15:47					
Purgeable Hydrocarbons	33.1	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	P-02
Benzene	0.0175	0.0100	1)	I)	11	n	н	17	
Toluene	ND	0.0100	a	IP .	ų	U	14	ji	
Ethylbenzene	ND	0.0100	17	18	U	JP	a	н	
Xylenes (total)	2.10	0.0100	N	"	15	(1	**	и	
Methyl tert-butyl ether	0.103	0.100	44	D	It		la .	, n	
Surrogate: a,a,a-Trifluorotolu	iene	92.0 %	60-	140	"	"	"	n	
T2-S-16' (S011228-12) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1:	5:47					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	n	'n	11	W	lt .	n	
Toluene	ND	0.0100	4	μŧ	ii.	ш	ft	18	
Ethylbenzene	ND	0.0100	H	u	IJ)1	ч	II	
Xylenes (total)	0.0188	0.0100	н	u	II	11	D	II.	
Methyl tert-butyl ether	ND	0.100	nt	U	lt .	u	B	17	
Surrogate: a,a,a-Trifluorotolu	uene	96.5 %	60	140	n	11	#	"	



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

	560	juoia Ana	ily ilcai	- Sacia	шене				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T3-N-16' (S011228-13) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1	5:47					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	0	N	1#	1j	п	IJ	
Toluene	ND	0.0100	•	н	(1	11	15	11	
Ethylbenzene	ND	0.0100	e	n	и	t)	11	п	
Xylenes (total)	0.0264	0.0100	II.	11	11	11	ţI	11	
Methyl tert-butyl ether	ND	0.100		71	11	"	!!		
Surrogate: a,a,a-Trifluorotolu	ene	97.5 %	60-	140	n	ff	"	H	
T3-Center-16' (S011228-14)	Soil Sampled: 11/14/00 0	0:00 Receiv	ed: 11/1	1/00 15:47					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	18	lī	11	U	17	И	
Toluene	ND	0.0100	U	77	Ħ	4	17	Ħ	
Ethylbenzene	ND	0.0100	U	#1	11	U	17	н	
Xylenes (total)	0.0102	0.0100	u	n	11	l)	н	11	
Methyl tert-butyl ether	ND	0.100	II .	11	u	11	**	11	
Surrogate: a,a,a-Trifluorotolu	ene	105 %	60-	140	"	n	"	p	
T3-S-16' (S011228-15) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1	5:47					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	Ħ	D	14	Ħ	n)ı	
Toluene	ND	0.0100	n	u	ıt	п	н	н	
Ethylbenzene	ND	0.0100	16	II	11	u	U	Ħ	
Xylenes (total)	ND	0.0100	11	0	n	Ħ	II	n	
Methyl tert-butyl ether	ND	0.100	41	- to	n	4		Ħ	
Surrogate: a,a,a-Trifluorotolu	ene	103 %	60-	140	u	n	"	н	



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Sacramento

	K.	requota Alla	ary ticar	- Dater a	ALK VAR CO				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L-1-2' (S011228-16) Soil	Sampled: 11/14/00 00:00	Received: 11/1	14/00 15:4	17					
Purgeable Hydrocarbons	3.55	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	P-03
Benzene	ND	0.00500	н	II	11	II	11	"	
Toluene	ND	0.00500	"	lt .	Ħ	U	If	"	
Ethylbenzene	ND	0.00500	U	н	11	U	It	41	
Xylenes (total)	0.0135	0.00500	"	п	n	l y	18	U	
Methyl tert-butyl ether	ND	0.0500	h		<u> </u>	It	u	1)	
Surrogate: a,a,a-Trifluorot	oluene	97.0 %	60-	140	#	ı	μ	H	
L-2-2' (S011228-17) Soil	Sampled: 11/14/00 00:00	Received: 11/1	14/00 15:4	7					
Purgeable Hydrocarbons	ND	2.00	mg/kg	I	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	η	Ħ	ŧı	lt	ţi	U	
Toluene	ND	0.0100	It	11	a)	Ħ	u	Ų	
Ethylbenzene	ND	0.0100	It	u	n	ţI	П	q	
Xylenes (total)	ND	0.0100	19	n	**	ш	U	11	
Methyl tert-butyl ether	0.504	0.100	u i	by .	fl	Ш	II.	†í	
Surrogate: a,a,a-Trifluorot	oluene	103 %	60	140	"	n	"	,,	•
L-3-2' (S011228-18) Soil	Sampled: 11/14/00 00:00	Received: 11/1	4/00 15:4	7					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	u	U	ŧr	19	11	H	
Toluene	ND	0.0100	ti .	π	1 11	и	39	н	
Ethylbenzene	ND	0.0100	41	H	#	11	ir	11	
Xylenes (total)	ND	0.0100	ŧ	н	W	¥	n,	11	
Methyl tert-butyl ether	ND	0.100	4)	**	#	n	Ħ	n	
Surrogate: a,a,a-Trifluorot	oluene	104 %	60	140	n	a	II	n	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L-4-3' (S011228-19) Soil	Sampled: 11/14/00 00:00		14/00 15:4	7					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	ŧI.	n	11	ij	If		
Toluene	ND	0.0100	O.	В	a	D	¥f	α	
Ethylbenzene	ND	0.0100	**	şı	n	H	74	ш	
Xylenes (total)	ND	0.0100	ħ	u	W	91	44	n.	
Methyl tert-butyl ether	ND	0.100	11	11	14	TI TI	11	n	
Surrogate: a,a,a-Trifluoroi	oluene	103 %	60-1	140	"	"	n	11	
L-5-2' (\$011228-20) Soil	Sampled: 11/14/00 00:00	Received: 11/1	14/00 15:4	7					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	·
Benzene	ND	0.00500	Ħ	U	U	11	58	U	
Toluene	ND	0.00500	It	4)	**	Ħ	U	11	
Ethylbenzene	ND	0.00500	u	U	n	ч	11	0	
Xylenes (total)	0.0102	0.00500	11	H	17	0	0	hr	
Methyl tert-butyl ether	ND	0.0500	0	11	ti	II	77	91	
Surrogate: a.a.a-Trifluorot	oluene	97.5 %	60-1	40	11	п	н	u	
L-6-2' (S011228-21) Soil	Sampled: 11/14/00 00:00	Received: 11/1	4/00 15:4	7					
Purgeable Hydrocarbons	5.80	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	P-03
Benzene	ND	0.00500	" -	Ħ	Ħ	ł)	ii.	Ħ	
Toluene	0.0106	0.00500	IJ	ĺΤ	u	ti	le .	ч	
Ethylbenzene	0.0184	0.00500	b	11	u	U	H	u	
Xylenes (total)	0.0207	0.00500	11	n	a	19	11	tr .	
Methyl tert-butyl ether	ND	0.0500	h	ų	11	11	u	U	
Surrogate: a,a,a-Trifluorot	oluene	95.0 %	60-1	40	"	"	"	"	



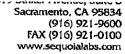
Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Propared	Analyzed	Method	Notes
L-7-3' (S011228-22) Soil	Sampled: 11/14/00 00:00	Received: 11/1	14/00 15:4	7					
Purgeable Hydrocarbons	ND	2.00	mg/kg	1	0110306	11/22/00	11/22/00	DHS LUFT	
Benzene	ND	0.0100	M	11	If	IJ	11	11	
Toluene	ND	0.0100	ĸ	1)	ŧI	U	l v	Ħ	
Ethylbenzene	ND	0.0100	u	B†	τι	11	17	Ħ	
Xylenes (total)	0.0237	0.0100	II	и	11	и	31	11	
Methyl tert-butyl ether	ND	0.100	U		((iş .	11		
Surrogate: a,a,a-Trifluorot	oluene	103 %	60-	140	"	"	tt	n	
L-8-3.5' (S011228-23) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15	:47					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	
Benzene	ND	0.00500	şt	U	સ	11	11	tl	
Toluene	ND	0.00500	u	n	ti	ıı .	11	ii.	
Ethylbenzene	ND	0.00500	u	*	u	9	11	"	
Xylenes (total)	ND	0.00500	11	n	ţI	Н	73	u	
Methyl tert-butyl ether	ND	0.0500	a	"	0 _	IF.	11	ti	
Surrogate: a,a,a-Trifluorot	oluene	101 %	60-	140	"	"	"	"	
L-9-2' (S011228-24) Soil	Sampled: 11/14/00 00:00	Received: 11/1	4/00 15:4	7					
Purgeable Hydrocarbons	13.2	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	P-03
Benzene	ND	0.00500		H	u	n	Ħ	u	
Toluene	0.00757	0.00500	Ð	п	a	н	#1		
Ethylbenzene	0.118	0.00500	**	rs -	10	l t	ч	n ,	
Xylenes (total)	0.123	0.00500	Ħ	Į)	11	11	n n	D	
Methyl tert-butyl ether	ND	0.0500	It	1)	J#	"	П	#	
Surrogate: a,a,a-Trifluorot	oluene	96.0 %	60-	140	#	н	0	rt	-





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

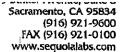
Project Number: N/A

Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method ·	Notes
L-10-2.5' (S011228-25) Soil	Sampled: 11/14/00 00:00	Received: 1	1/14/00 1	5:47					
Purgeable Hydrocarbons	1.15	1.00	mg/kg	1	0110352	11/27/00	11/27/00	DHS LUFT	P-03
Benzene	ND	0.00500	"	a	U	It	II.	1)	
Toluene	ND	0.00500	ft	ŧ	lt	п	u	Ð	
Ethylbenzene	ND	0.00500	Ħ	. 0	17	Œ	H .	Ħ	
Xylenes (total)	ND	0.00500	11	11	¥f	U	п	Ħ	
Methyl tert-butyl ether	ND	0.0500	u		11	Ŋ	II	Ħ	***************************************
Surrogate: a,a,a-Trifluorotolt	tene	99.5 %	60	140	н	"	H	n	





Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

MTBE Confirmation by EPA Method 8260A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DP-1-2' (\$011228-01) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:4	47					O-04
Methyl tert-butyl ether	ND	0.500	mg/kg	1	0110374	11/30/00	11/30/00	EPA 82 60A	
Surrogate: 1,2-DCA-d4		93.2 %	60-1-	40	17	#	n	"	
DP-2-2' (S011228-02) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:4	47					O- 04
Methyl tert-butyl ether	1.02	0.500	mg/kg	1	0110374	11/30/00	11/30/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		93.2 %	60-1	40	"	IF.	n	n	
DP-3-2' (S011228-03) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:4	47					O-04
Methyl tert-butyl ether	ND	0.500	mg/kg	l	0110374	11/30/00	11/30/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		90.4 %	60-1-	40	11	11	"	н	
DP-4-2' (S011228-04) Soil	Sampled: 11/14/00 00:00	Received: 11	/14/00 15:4	47					O -04
Methyl tert-butyl ether	1.57	0.500	mg/kg	1	0110374	11/30/00	12/01/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		95.6 %	60-14	40	"	a	"	u	
T2N-16' (S011228-10) Soil	Sampled: 11/14/00 00:00	Received: 11	1/14/00 15:	47					O-04
Methyl tert-butyl ether	1.13	0.500	mg/kg	l	0110374	11/30/00	12/01/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		88.4 %	60-1	40	n	**	11	μ	
T2-Center-16' (S011228-11) Soil Sampled: 11/14/00	00:00 Receiv	ved: 11/14/0	00 15:47					O-0 4
Methyl tert-butyl ether	1.08	0.500	mg/kg	1	0110374	11/30/00	12/01/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		90.4 %	60-14	40	"	η	it	rr .	
L-2-2' (S011228-17) Soil	Sampled: 11/14/00 00:00 I	Received: 11/1	4/00 15:47						O-04
Methyl tert-butyl ether	0.608	0.500	mg/kg	1	0110374	11/30/00	12/01/00	EPA 8260A	
Surrogate: 1,2-DCA-d4		86.4 %	60-14	40	"	· ·	"	ıt	
		•							



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Levol	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110300 - EPA 5030B (MeOH)										
Blank (0110300-BLK1)				Prepared	& Analyze	d: 11/21/	/ 00			
Purgeable Hydrocarbons	ND	1.00	mg/kg							
Benzene	ND	0.00500	11							
Toluene	ND	0.00500	11							
Ethylbenzene	ND	0.00500	a							
Xylenes (total)	ND	0.00500	u							
Methyl tert-butyl ether	ND	0.0500	W							
Surrogate: a,a,a-Trifluorotoluene	0,201	•	"	0,200		101	60-140			•
LCS (0110300-BS1)				Prepared	& Analyze	d: 11/21/	00			
Benzene	0.167	0.00500	mg/kg	0.200		83.5	70-130			
Toluene	0.199	0.00500	rt	0.200		99.5	70-130			
Ethylbenzene	0.216	0.00500	U	0.200		801	70-130			
Xylenes (total)	0.563	0.00500	tl .	0.600		93.8	70-1 30			
Methyl tert-butyl ether	0.148	0.0500	n	0.200		74.0	70-1 30			
Surrogate: a,a,a-Trifluorotoluene	0.216		ff .	0.200		108	60-140			
Matrix Spike (0110300-MS1)	Sou	arce: S01124	0-03	Prepared	& Analyze	d: 11/21/	00			
Benzene	0.125	0.00500	mg/kg	0.200	ND	62.5	60-140			
Toluene	0.157	0.00500	Ħ	0.200	ND	78.5	60 -140			
Ethylbenzene	0.177	0.00500	11	0.200	0.0141	81.4	60-140			
Xylenes (total)	0.472	0.00500	u	0.600	0.0257	74.4	60-140			
Methyl tert-butyl ether	0.109	0.0500	U	0.200	ND	54.5	60-140			Q-02
Surrogate: a,a,a-Trifluorotoluene	0.211		"	0.200		105	60-140			
Matrix Spike Dup (0110300-MSD1)	Sou	ırce: S01124	0-03	Prepared	& Analyze	d: 11/21/	00			
Benzene	0.126	0.00500	mg/kg	0.200	ND	63.0	60-140	0.797	25	
Toluene	0.157	0.00500	lt .	0.200	ND	78.5	60-140	0	25	
Ethylbenzene	0.183	0.00500	17	0.200	0.0141	84.4	60-140	3.33	25	
Xylenes (total)	0.467	0.00500	u	0.600	0.0257	73.5	60-140	1.06	25	
Methyl tert-butyl ether	0.111	0.0500	N	0.200	ND	55.5	60-140	1.82	25	Q-02
Surrogate: a,a,a-Trifluorotoluene	0.203		"	0,200		101	60-140			



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200

Project Number: N/A

Reported: 12/05/00 10:43

Rancho Cordova CA, 95670

Project Manager: Steven Meeks

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Prepared & Analyzed: 11/22/05 Prepared & Analyzed: 11/22/0	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Prepared National National		Result		Cinto	- HOVOI	Trobuit	711000	Diants			
ND 1.00 mg/kg	Batch 0110306 - EPA 5030B (MeOH)										
No	Blank (0110306-BLK1)				Prepared	& Analyze	d: 11/22/	00			
No	Purgeable Hydrocarbons										
No. No.	Benzene		0.00500								
ND 0.00500 "	Toluene	ND	0.00500	IJ							
Methyl tert-butyl ether ND 0.0500 "	Ethylbenzene										
No. No.	Xylenes (total)	ND	0.00500	19							
Prepared & Analyzed: 11/22/06 Prepared & Analyzed: 11/22/07 Prepared & Analyzed: 11/22/0	Methyl tert-butyl ether	ND	0.0500	Л							
Coluenc Colu	Surrogate: a,a,a-Trifluorotoluene	0.202		"	0.200		101	60-140			
Coluenc Colu	LCS (0110306-BS1)				Prepared	& Analyze	d: 11/22/	00		·····	
Comparison of the property o	Benzene	0.209	0.00500	m g/kg	0.200		105	70-130			
New Notes New York New York	Toluene	0.223	0,00500	9	0.200		112	70-130			
Methyl tent-butyl ether 0.205 0.0500 " 0.200 102 70-130	Ethylbenzene	0.231	0.00500	Ø	0.200		116	70-130			
Matrix Spike (0110306-MS1) Source: S011228-22 Prepared & Analyzed: 11/22/00	Xylenes (total)	0.606	0.00500	"	0.600		101	70-130			
Source: S011228-22 Prepared & Analyzed: 11/22/00	Methyl tert-butyl ether	0.205	0.0500	D	0.200		102	70-130			
Senzene 0.167 0.00500 mg/kg 0.200 ND 83.5 60-140	Surrogate: a,a,a-Trifluorotoluene	0.219		ır	0.200		109	60-14 0			
Coluene	Matrix Spike (0110306-MS1)	Son	urce: S01122	8-22	Prepared	& Analyze	d: 11/22/				
Sthylbenzene 0.193 0.00500 " 0.200 ND 96.5 60-140	Benzene	0,167	0.00500	mg/kg	0,200	ND	83.5	60-140			
No. No.	Toluene	0.180	0.00500	It	0.200	ND	90.0	60-140			
Methyl tert-butyl ether 0.171 0.0500 " 0.200 ND 85.5 60-140 Surrogate: a,a,a-Triffuorotoluene 0.197 " 0.200 ND 85.5 60-140 Matrix Spike Dup (0110306-MSD1) Source: S011228-22 Prepared & Analyzed: 11/22/00 Senzene 0.177 0.00500 mg/kg 0.200 ND 88.5 60-140 5.81 25 Toluene 0.187 0.00500 " 0.200 ND 93.5 60-140 3.81 25 Schylbenzene 0.201 0.00500 " 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 " 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Ethylbenzene	0.193	0.00500	Ħ	0.200	ND	96.5	60-14 0			
Surrogate: a,a,a-Trifluorotoluene 0.197 " 0.200 98.5 60-140 Matrix Spike Dup (0110306-MSD1) Source: S011228-22 Prepared & Analyzed: 11/22/00 Benzene 0.177 0.00500 mg/kg 0.200 ND 88.5 60-140 5.81 25 Toluene 0.187 0.00500 " 0.200 ND 93.5 60-140 3.81 25 Sthylbenzene 0.201 0.00500 " 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 " 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Xylenes (total)	0.501	0.00500	Ħ	0.600	0.0237	79.5	60-140	•		
Matrix Spike Dup (0110306-MSD1) Source: S011228-22 Prepared & Analyzed: 11/22/00 Benzene 0.177 0.00500 mg/kg 0.200 ND 88.5 60-140 5.81 25 Coluene 0.187 0.00500 0.200 ND 93.5 60-140 3.81 25 Sthylbenzene 0.201 0.00500 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 0.200 ND 88.0 60-140 2.88 25	Methyl tert-butyl ether	0.171	0.0500	11	0.200	ND	85.5	60 -140			
Benzene 0.177 0.00500 mg/kg 0.200 ND 88.5 60-140 5.81 25 Foluene 0.187 0.00500 " 0.200 ND 93.5 60-140 3.81 25 Ethylbenzene 0.201 0.00500 " 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 " 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Surrogate: a,a,a-Trifluorotoluene	0.197		It	0.200		98,5	60-140			
Toluene 0.187 0.00500 " 0.200 ND 93.5 60-140 3.81 25 Ethylbenzene 0.201 0.00500 " 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 " 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Matrix Spike Dup (0110306-MSD1)	Sou	urce: S01122	8-22	Prepared	& Analyze	d: 11/22/	00			
Sthylbenzene 0.201 0.00500 " 0.200 ND 101 60-140 4.06 25 Kylenes (total) 0.518 0.00500 " 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Benzene	0.177	0.00500	mg/kg	0.200	ND					
Kylenes (total) 0.518 0.00500 0.600 0.0237 82.4 60-140 3.34 25 Methyl tert-butyl ether 0.176 0.0500 0.200 ND 88.0 60-140 2.88 25	Foluene	0.187	0,00500	Đ	0.200	ND	93.5	60-140	3.81	25	
Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Ethylbenzene	0.201	0.00500	t)	0,200	ND	101	60-140	4.06	25	
Methyl tert-butyl ether 0.176 0.0500 " 0.200 ND 88.0 60-140 2.88 25	Xylenes (total)	0.518	0.00500	H	0.600	0.0237	82.4	60-1 40	3.34	25	
Surrogate: a.a.a-Trifluorotoluene 0.213 " 0.200 106 60-140	Methyl tert-butyl ether	0.176	0.0500	Ħ	0.200	ND	88.0	60-140	2.88	25	
	Surrogate: a,a,a-Trifluorotoluene	0.213		ıı	0.200		106	60-140		· · · · · · · · · · · · · · · · · · ·	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported: 12/05/00 10:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Sousce Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	resurt	2000	7							
Batch 0110352 - EPA 5030B (MeOH)							-			
Blank (0110352-BLK1)				Prepared	& Analyza	d: 11/27/	00			
Purgeable Hydrocarbons	ND	1.00	mg/kg							
Benzene	ND	0.00500	Ħ							
Toluene	ND	0.00500	п							
Ethylbenzene	· ND	0.00500	11							
Xylenes (total)	ND	0.00500	11							
Methyl tert-butyl ether	ND	0.0500								
Surrogate: a,a,a-Trifluorotoluene	0.200	· · · · · · · · · · · · · · · · · · ·	11	0. 200		100	60-140			
LCS (0110352-BS1)				Prepared	& Analyze	:d: 11/27/				
Benzene	0.209	0.00500	mg/kg	0.200		105	70-130			
Toluene	0.222	0.00500	19	0.200		111	70-130			
Ethylbenzene	0.230	0.00500	Ħ	0.200		115	70-130			
Kylenes (total)	0.593	0.00500	Ħ	0.600		98.8	70-130			
Methyl tert-butyl ether	0.204	0.0500	11	0.200		102	70-130			
Surrogate: a,a,a-Trifluorotoluene	0.214		H	0.200		107	60-140			
Matrix Spike (0110352-MS1)	Sou	ırce: S01122	8-25	Prepared	& Analyze	d: 11/27/0	00			
Benzene	0.185	0.00500	mg/kg	0.200	ND	92.5	60 -140			
Foluene	0.193	0,00500	u	0.200	ND	96.5	60-140			
Ethylbenzene	0.203	0.00500	ŋ	0.200	ND	101	60-140			
Xylenes (total)	0.530	0.00500	11	0.600	ND	88.3	60-140			
Methyl tert-butyl ether	0.161	0.0500	v	0.200	ND	80.5	60-140			
Surrogate: a,a,a-Trifluorotoluene	0.203		11	0.200		101	60-140			
Matrix Spike Dup (0110352-MSD1)	Sou	ırce: S01122	8-25	Prepared	& Analyze	d: 11/2 7/ 0	00			
Benzene	0.183	0.00500	mg/kg	0.200	ND	91.5	60-140	1.09	25	
l'oluene	0.195	0,00500	in .	0.200	ND	97.5	60-140	1.03	25	
Sthylbenzene	0.205	0.00500	ir	0.200	ND	102	60-1 40	0.980	25	
Xylenes (total)	0.530	0.00500	N	0 600	ND	88.3	60-140	0	25	
Methyl tert-butyl ether	0.166	0.0500	ţĺ	0 200	ИD	83.0	60-140	3.06	25	
Surrogate: a,a,a-Trifluorotoluene	0.200		п	0.200		100	60-140			
- · ·										



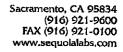
Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 12/05/00 10:43

MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110374 - EPA 5030B [MeOH]										-
Blank (0110374-BLK1)			-	Prepared	& Analyzo	d: 11/30/	00			
Methyl tert-butyl ether	ND	0.500	mg/kg	-						
Surrogate: 1,2-DCA-d4	2.33		"	2.50	** ** , , 1 , 1 , 1 , 2 , 2 , 2	93.2	60-140	, , , , , , , , , , , , , , , , , , ,		
LCS (0110374-BS1)				Prepared	& Analyza	d: 11/30/	00			
Methyl tert-butyl ether	2.50	0.500	mg/kg	2,50		100	70-130			
Surrogate: 1,2-DCA-d4	2.52		"	2.50		101	60-140			
Matrix Spike (0110374-MS1)	Sou	rce: S01134	0-02	Prepared	& Analyze	d: 11/30/	00			
Methyl tert-butyl ether	2.76	0.500	mg/kg	2.50	ND	95.0	60-140			
Surrogate: 1,2-DCA-d4	2.36		"	2.50		94.4	60-140			
Matrix Spike Dup (0110374-MSD1)	Sou	rce: S01134	0-02	Prepared	& Analyze	d: 11/30/	00			
Methyl tert-butyl ether	2.66	0.500	mg/kg	2,50	ND	91.0	60-140	3.69	25	
Surrogate: 1,2-DCA-d4	2.29		"	2.50		91.6	60-140			



3164 Gold Camp Drive Ste. 200

Rancho Cordova CA, 95670

Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

12/05/00 10:43

Notes and Definitions

O-04 This sample was analyzed outside the EPA recommended holding time.

P-01 Chromatogram Pattern: Gasoline C6-C12

P-02 Chromatogram Pattern: Weathered Gasoline C6-C12

P-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12

P-04 Chromatogram Pattern: Weathered Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12

Q-02 The RPD and/or spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

ARCO	Proct Division	ICIS of Atlantic	Comp -Akhilek (Dany (Company	•			Task O	rder No.									_				C	hain of Custody
ARCO Facility	y no.61	48		Cit (Fi	y acility)	nel	nd			Project (Consu	manag Itani)	er 5	Ter	ســـــــــــــــــــــــــــــــــــــ	ME	ck	5						Laboralory name
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Consultant na	ame	He	1					Address (Consulta	n1)3164	Bu	W	ine		<u>r</u>	Pu	neho	o Co	inch	hu	C	CF CF		Contract number
				Matrix		Prese	rvation	0 0	60		8015	15 m	0	36				_	8		2		Method of shipment
Sample I.D.	Lab no.	Container no	Soil	Water	Other	îce	Acid	Sampling date	Sampling time	BTEX 602/EPM 6020)	BTEXTPH EPA M602/8024/8015	TPH Modified 8015 € Gas A Diesel	Os and Gresse 418.1 □ 413.2 □	TPH EPA 418.1/3M50	EPA 601/8010	EPA 824/8240	EPA 625/8270	TCLP Semì Metals⊡ VOA⊡ VOA⊡	CAN METALS ETH 60107000 TTLCCI STLCCI	Lead Ong JOHS C Lead EPA 74207421 C	mtok sulu		
JP-1-X		1	X			X		11-1400	1024	X		X		S		 	B- C				X		Special detection Limit/reporting
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DP-4-21		3	X			X			1059	X		X						oxp			V		Special QA/QC
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Relinquished	by			`			Date		Time	Rece	ived by	<u> </u>					Date			Time		-	Standard 10 Business Days

AHCO	Prod!	UCTS of Atlantic	Com Richfield			•		Task O	rder No.											C.,,,		Chain of Custody
ARCO Facili	ty no.	148	3	Ci (F	ty acility)	akla	nll			Project (Consu	maneg	*4	٠	· in	7	42		· • • • • • • • • • • • • • • • • • • •				Laboratory name
ARCO engin							Telephon (ARCO)	10 NO.		Telephi (Consu	one no	711.	. 521	- 2	113	Fax	I NO.	OII	- /	Vr.C		
Consultant n	ame	Ha					1(1.1.00)	Address (Consulta	nt) 3/64	Go				DR		Z.v.	nsultan Cho	19710	61	der der	7385 -	Copyract number
		Ġ		Matrix		Prese	rvation					S/M		Ж					8			Method of shipment
Sample I.D.	Тар по.	Container no	Soil	Water	Other	ice	Acid	Sampling date	Sampling time	BTEX 602/EPM-6020	BTEX/TPH EPA M602/8020/B015	TPH Modified 8015/71 Gas-C Diesel □	Oll and Grease 413.1 □ 413.2 □	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCUP Semi	CAN METALS ETA 8010/1000	Lead Org./DHS C Lead EPA 7420/7421 C	MTBE	
<u>r-l-Σ,</u>		1	Ӽ			X		11-14:00	1035	×		X		S			8-1	6			又	Special detection Limit/reporting
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1-3.21			X			X			1043	X		X					-1	8			V	_
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L-5-2'		<u> </u>	<u>X</u>	<u> </u>		<u>K</u>	ļ		1103	又		X					-2	0			Y	
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-10 47		1				<u>v</u>	 -	1-14.00	1141	人		<u> </u>			<u> </u>		2	>			X	8260 Ff
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																						Priority Rush 1 Business Day
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Prest plaising	hoy 4						//74 Date	W	1547 Time	Receiv	ed by		J a	102	_ر		14	0		15	47_	Expedited 5 Business Days
Ralinquished	by						Date		Time	Receiv	ed by		·			C	Pale			Time		Standard 10 Business Days





January 04, 2001

Steven Meeks
Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 6148, Oakland, CA / S012359

Sandra RHansa

Enclosed are the results of analyses for samples received by the laboratory on 12/22/00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

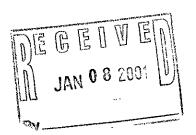
Sandra R. Hanson

Client Services Representative

Lito Diaz

Laboratory Director

CA ELAP Certificate Number 1624







3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number N/A

Project Manager: Steven Meeks

Reported: 01/04/01 08:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PL-11-5.0	S012359-01	Soil	12/22/00 10:45	12/22/00 14:50
PL-12-5.0	S012359-02	Soil	12/22/00 11:00	12/22/00 14:50
PL-13-4.0	S012359-03	Soil	12/22/00 11:15	12/22/00 14:50
DP-7-4.0	S012359-04	Soil	12/22/00 11:35	12/22/00 14:50
DP-8-4.0	S012359-05	Soil	12/22/00 11:55	12/22/00 14:50

Page 1 of 5



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 01/04/01 08:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PL-11-5.0 (S012359-01) Soil	Sampled: 12/22/00 10:45	Received:	12/22/00	14:50					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	1010018	01/02/01	01/02/01	DHS LUFT	
Benzene	ND	0.00500	Ħ	**	"	H	**	n	
Toluene	ND	0.00500	11	11	19	ti	Ħ	II.	
Ethylbenzene	ND	0.00500	"	rr .	**	n	**	11	
Xylenes (total)	0.00667	0.00500	11	n	th	n	te	11	
Methyl tert-butyl ether	ND	0.0500	u	u	Ħ		lt .	11	
Surrogate: a,a,a-Trifluorotolu	ene	101 %	60-	140	"	"	"	"	
PL-12-5.0 (S012359-02) Soil	Sampled: 12/22/00 11:00	Received:	12/22/00	14:50					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	1010018	01/02/01	01/02/01	DHS LUFT	
Benzene	ND	0.00500	n	n	n	n	n	n	
Toluene	ND	0.00500	11	**	19	H	**	tt	
Ethylbenzene	ND	0.00500	**	ŧr	19	ri	**	н	
Xylenes (total)	0.00560	0.00500	11	ŧr.	**	11	39	11	
Methyl tert-butyl ether	ND	0.0500	u	n	"	n	rr	ii	
Surrogate: a,a,a-Trifluorotolue	ene	105 %	60-	140	"	"	n	н	
PL-13-4.0 (S012359-03) Soil	Sampled: 12/22/00 11:15	Received:	12/22/00	14:50					·
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	1010018	01/02/01	01/02/01	DHS LUFT	
Benzene	ND	0.00500	#	**	n	Ħ	11	Ħ	
Toluene	ND	0.00500	11	10	н	Ħ	**	n	
Ethylbenzene	ND	0.00500	Ħ	11	11	11	11	íř	
Xylenes (total)	ND	0.00500	*1	Ħ	**	IJ	**	ti	
Methyl tert-butyl ether	ND	0.0500	н	tt .	11	D	**		
Surrogate: a,a,a-Trifluorotolu	ene	109 %	60-	140	11	"	n	"	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

01/04/01 08:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DP-7-4.0 (S012359-04) Soil	Sampled: 12/22/00 11:35	Received: 1	2/22/00 1	4:50					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	1010018	01/02/01	01/02/01	DHS LUFT	
Benzene	ND	0.00500	U	Ħ	n	II .	17	U .	
Toluene	ND	0.00500	11	Ħ	Ħ	II.	19	II.	
Ethylbenzene	ND	0.00500	u	*1	н	н	19	n .	
Xylenes (total)	0.00581	0.00500	Ħ	tr .	n	н	**	U	
Methyl tert-butyl ether	ND	0.0500	"	ŧr	Ħ	II	19	tt	
Surrogate: a,a,a-Trifluorotoli	iene	101 %	60-	140	"	"	"	"	
DP-8-4.0 (S012359-05) Soil	Sampled: 12/22/00 11:55	Received: 1	2/22/00 1	4:50					
Purgeable Hydrocarbons	ND	1.00	mg/kg	1	1010018	01/02/01	01/02/01	DHS LUFT	
Benzene	ND	0.00500	н	tř	н	н	11	tt .	
Toluene	ND	0.00500	Ħ	Ħ	н	n	11	tt.	
Ethylbenzene	ND	0.00500	**	11	**	tt.	n	n	
Xylenes (total)	0.00834	0.00500	"	11	**	tt .	11	**	
Methyl tert-butyl ether	ND	0.0500	11	11	ft.	tr	U	**	
Surrogate: a,a,a-Trifluorotoli	iene	109 %	60-	140	n	"	"	"	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported: 01/04/01 08:28

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1010018 - EPA 5030B (MeOH)										
Blank (1010018-BLK1)	·····			Prepared	& Analyze	d: 01/02/	01			
Purgeable Hydrocarbons	ND	1.00	mg/kg		· · · ·					
Benzene	ND	0.00500	n							
Toluene	ND	0 00500	n							
Ethylbenzene	ND	0.00500	. "							
Xylenes (total)	ND	0.00500	n							
Methyl tert-butyl ether	ND	0.0500	п							
Surrogate. a,a,a-Trifluorotoluene	0 198		"	0.200		99.0	60-140			
LCS (1010018-BS1)				Prepared	& Analyze	d: 01/02/	01			
Benzene	0 195	0.00500	mg/kg	0.200		97 5	70-130			
Toluene	0.207	0.00500	n	0.200		103	70-130			
Ethylbenzene	0.212	0.00500	n	0.200		106	70-130			
Xylenes (total)	0.573	0 00500	n	0 600		95 5	70-130			
Methyl tert-butyl ether	0.170	0.0500	n	0.200		85.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	0.206		"	0.200		103	60-140			
Matrix Spike (1010018-MS1)	So	urce: S01235	9-01	Prepared	& Analyze	d: 01/02/	01			
Benzene	0.173	0.00500	mg/kg	0.200	ND	86 5	60-140			
Toluene	0.145	0 00500	n	0.200	ND	72.5	60-140			
Ethylbenzene	0.212	0 00500	n	0.200	ND	106	60-140			
Xylenes (total)	0.516	0.00500	H	0.600	0.00667	84 9	60-140			
Methyl tert-butyl ether	0.155	0.0500	47	0.200	ND	77.5	60-140			
Surrogate: a,a,a-Trifluorotoluene	0.224		"	.0 200		112	60-140			
Matrix Spike Dup (1010018-MSD1)	So	urce: S01235	59-01	Prepared	& Analyze	d: 01/02/	01			
Benzene	0.173	0 00500	mg/kg	0.200	ND	86.5	60-140	0	25	
Toluene	0.184	0.00500	19	0.200	ND	92.0	60-140	23.7	25	
Ethylbenzene	0.191	0.00500	57	0.200	ND	95.5	60-140	10.4	25	
Xylenes (total)	0.496	0.00500	11	0.600	0.00667	81.6	60-140	3.95	25	
Methyl tert-butyl ether	0.165	0.0500	,,	0.200	ND	82.5	60-140	6.25	25	
Surrogate: a,a,a-Trifluorotoluene	0.232		n	0 200		116	60-140			





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

01/04/01 08:28

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference

AHCO		UCIS	COM			,	- 27 G. C.	Task O	rder No.			-								*		Chain of Custody
ARCO Facilit	(6148	3	Cit (Fi	ty acility) (OAKL	400	CA		Project (Consu	mana itant)	ger	SY	SVE	. 1	VE &	EKS.					Laboratory name
ARCO engine	Ber PA	tur s	NAPU	k			(ARCO)	1 CA 2005 299	3-8891	Teleph (Consu	one no itant)	911	2 L 3	4) 7	つらい	- Fa	X NO. onsultar	n 9	161	63X	5395	SEQUOIA Contract number
Consultant n	ame	Der			JU.			Address (Consulta	ant) 316	ų (60L	₹ <u>0</u>	CA	MP	#26)) 	R1	VLA	W	CAR	OVA	
				Matrix		Pres	ervation				20 8	200		W.		'		_ ₹\$	900			Method of shipment
Sample I.D.	Lab no.	Container no.	Soil	Water	Other	Ice	Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEXTPH MT&E EPA M602/8020/8015	TPH Modified 8015 Gas Diesel	Oil and Grease 413.1 413.2	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Semi Metals □ VOA □ VOA □	CAM Metals EPA 60 TTLC STLC	Lead Ony JOHS 7420/7421		Method of shipment HAWD DELIV.
PL-11-5.0	•	1	X			X		12/22/00	10:45		×					22	59		ı			Special detection Limit/reporting
PL-12-5-0		ı	x			×			11:00		X							02				MTSE BY
PL-13-4.0		1	×			X			11:15		×						-	02	,			8260
DP-7. 4.0			×			×	·,		11:35		X						-	OC				Special QA/QC
D6-8-4'0		1	X			X	` . ge	1	11:55		X							-D'	5	,		
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Condition of :		pige	7			<u> </u>	Date	1	Time	Tempo Recei	_	receive		7	_	13) C					Rush 2 Business Days
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Relinquished	61	<i>V</i>					Date		Time	Receiv	ved by	laboret	ty/	ll		1	Date	z z -	00	Time	70	Standard 10 Business Days
Distribution: W APC-3292 (2-	/hite co	py — Lat	oratory;	Canary o	ору — А	RCO Envi	onmental I	Engineering; F	Pink copy — (Consult	ant		<u></u>	· ·					•			

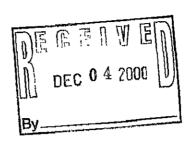
ENCLOSURE D

Soil Stockpile Samples Laboratory Analytical Reports



November 30, 2000

Steven Meeks
Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 6148, Oakland, CA



Enclosed are the results of analyses for samples received by the laboratory on 11/17/00 11:27. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

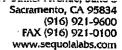
Sancha R Hansa

Sandra R. Hanson Client Services Representative

CA ELAP Certificate Number 2374

Lito Diaz

Laboratory Director





Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 11/30/00 11:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-1A,B,C,D (COMPOSITE)	S011291-01	Soil	11/17/00 00:00	11/17/00 11:27
SP-2A,B,C,D (COMPOSITE)	S011291-02	Soil	11/17/00 00:00	11/17/00 11:27
SP-3A,B,C,D (COMPOSITE)	S011291-03	Soil	11/17/00 00:00	11/17/00 11:27
SP-4A,B,C,D (COMPOSITE)	\$011291-04	Soil	11/17/00 00:00	11/17/00 11:27
SP-5A,B,C,D (COMPOSITE)	S011291-05	Soil	11/17/00 00:00	11/17/00 11:27
SP-6A,B,C,D (COMPOSITE)	S011291-06	`Soil	11/17/00 00:00	11/17/00 11:27



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: N/A
Project Manager: Steven Meeks

Reported: 11/30/00 11:38

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

		equota An	uij tieu	1 5000100					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1A,B,C,D (COMPOSITE) (S01129	1-01) Soil Sa	impled: 11/17/0	00:00	Received:	11/17/00	11:27			
Purgeable Hydrocarbons	19.9	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-03
Benzene	ND	0.00500	u	H	ų	Ш	Ħ	u	
Toluene	ND	0.00500	p	н	U	lτ	e1	u	
Ethylbenzene	0.0495	0.00500	11	ď	"	11	U	11	
Xylenes (total)	0.124	0.00500	nt	U	lt	u	u .	ħ	
Surrogate: a,a,a-Trifluorotoluene		88.5 %	60	-140	77	"	"	If .	·
SP-2A,B,C,D (COMPOSITE) (S01129	1-02) Soil Sa	mpled: 11/17/0	00:00	Received:	11/17/00	11:27			
Purgeable Hydrocarbons	24.8	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-04
Benzene	מא	0.00500	II.	11	11	n	**	u,	
Toluene	0.0208	0.00500	İT	#1	17	H	11	W .	
Ethylbenzene	0.133	0.00500	19	U	it .)ı	1)	lt	
Xylenes (total)	0.610	0.00500	**	D	#	11	11	11	
Surrogate: a,a,a-Trifluorotoluene		92.5 %	60	-140	u	и	н	o	
SP-3A,B,C,D (COMPOSITE) (S01129	1-03) Soil Sa	mpled: 11/17/0	00:00	Received:	11/17/00	11:27			
Purgeable Hydrocarbons	41.6	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-03
Benzene	ND	0.00500	Ħ	It	lt	ч	t e	И	
Toluene	ND	0.00500	11	1)		u	t s	н	
Ethylbenzene	0.132	0.00500	*1	D	Ħ	u	IT	H	
Xylenes (total)	0.419	0.00500	ų	It		Ø	11	U	
Surrogate: a,a,a-Trifluorotoluene		85.5 %	60	-140	"	"	,,	11	
SP-4A,B,C,D (COMPOSITE) (S01129	1-04) Soil Sa	mpled: 11/17/0	00:00	Received:	11/17/00 1	11:27			
Purgeable Hydrocarbons	11.9	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-03
Benzene	ND	0.00500	"	"	ŢĴ	10	n	11	
Toluene	ND	0.00500	В	н	11	'n	tí	и	
Ethylbenzene	0.0352	0.00500	ų.	11	U	*	ŧI	v	
Xylenes (total)	0.0311	0.00500	11	41	n	Ħ	U	U	
Surrogate: a,a,a-Trifluorotoluene		95.5 %	60-	-140	11	и	п	r)	



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200

Project Number: N/A

Reported: 11/30/00 11:38

Rancho Cordova CA, 95670 Project Manager: Steven Meeks

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-5A,B,C,D (COMPOSITE) (S01129)	1-05) Soil Sam	pled: 11/17/0	0 00:00	Received:	11/17/00	11:27			
Purgeable Hydrocarbons	42.0	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-03
Benzene	ND	0.00500	ŧ	lt	11	B	Ħ	u	
Toluene	ND	0.00500	40	R	19	n	Ħ	u	
Ethylbenzene	0.158	0.00500	U	15	U	**	u	II .	
Xylenes (total)	0.470	0.00500	ij	п	U	11	u _	.,,	
Surrogate: a,a,a-Trifluorotoluene		99.0 %	60-	140	"	**	"	"	
SP-6A,B,C,D (COMPOSITE) (S01129)	1-06) Soil Sam	pled: 11/17/0	0 00:00	Received:	11/17/00 1	11:27			
Purgeable Hydrocarbons	14.2	1.00	mg/kg	1	0110362	11/28/00	11/28/00	DHS LUFT	P-03
Benzene	ND	0.00500	U	11	ut.	II.	11	II .	
Toluene	ND	0.00500	p	11	11	It	(s	U	
Ethylbenzene	0.0478	0.00500	D	IJ	ŧi	Ħ	II	ų	
Xylenes (total)	0.116	0.00500	1t	ti	II.	11	U	н	
Surrogate: a,a,a-Trifluorotoluene		91.0 %	60-	140	п	n	n	н	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported: 11/30/00 11:38

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1A,B,C,D (COMPOSITE) (S011291-0	1) Soil Sampl	ed: 11/17/0	00:00	Received:	11/17/00	11:27			
Lead	ND	10.0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01
SP-2A,B,C,D (COMPOSITE) (S011291-	2) Soil Sampl	ed: 11/17/0	00:00	Received	11/17/00	11:27	ŕ		
Lead	ND	10.0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01
SP-3A,B,C,D (COMPOSITE) (S011291-0	3) Soil Sampl	ed: 11/17/0	00:00	Received:	11/17/00	11:27			
Lead	ND	10,0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01
SP-4A,B,C,D (COMPOSITE) (S011291-0	4) Soil Sampl	e d: 11/17/0	00:00	Received:	11/17/00	11:27			
Lead	ND	10.0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01
SP-5A,B,C,D (COMPOSITE) (S011291-0	5) Soil Sampl	ed: 11/17/0	0 00:00	Received:	11/17/00	11:27			•
Lead	ND	10.0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01
SP-6A,B,C,D (COMPOSITE) (S011291-0	6) Soil Sampl	ed: 11/17/0	0 00:00	Received:	11/17/00	11:27			
Lead	ND	10.0	mg/kg	4	0110349	11/28/00	11/29/00	EPA 6010A	R-01



Project: ARCO 6148, Oakland, CA

3164 Gold Camp Drive Ste. 200

Project Number: N/A

Reported:

Rancho Cordova CA, 95670

Project Manager: Steven Meeks

11/30/00 11:38

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0110362 - EPA 5030B (MeOH)										
Blank (0110362-BLK1)				Prepared	& Analyze	d: 11/28/0	00			
Purgeable Hydrocarbons	ND	1.00	mg/kg							
Benzene	ND	0.00500	lı							
Toluene	ND	0.00500	n							
Ethylbenzene	ND	0.00500	71							
Xylenes (total)	ND	0.00500	Ħ		_					
Surrogate: a,a,a-Trifluorotoluene	0.190		"	0.200		95.0	60-140			
LCS (0110362-BS1)				Prepared of	& Analyze	d: 11/28/0	00			
Benzene	0.202	0.00500	mg/kg	0.200		101	70-130			
Toluene	0.217	0.00500	tr	0.200		108	70-130			
Ethylbenzene	0.225	0,00500	n	0.200		112	70-130			
Xylenes (total)	0.480	0.00500	76	0.600		80.0	70-1 30			
Surrogate: a,a,a-Trifluorotoluene	0.206		11	0.200		103	60-140			
Matrix Spike (0110362-MS1)	Sou	urce: S01134	1-06	Prepared:	11/28/00	Analyzed	: 11/29/00			
Surrogate: a,a,a-Trifluorotoluene	0.159		mg/kg	0.200		79.5	60-1 40			
Matrix Spike Dup (0110362-MSD1)	Sou	ırce: S01134	1-06	Prepared:	11/28/00	Analyzed	11/29/00			
Surrogaie: a,a,a-Trifluoroioluene	0.176		mg/kg	0.200		88.0	60-140	***		





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

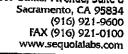
Project Number: N/A

Project Manager: Steven Meeks

Reported: 11/30/00 11:38

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110349 - EPA 3050B										
Datch 0110345 - EFA 3030B										-,
Blank (0110349-BLK1)				Prepared:	11/28/00	Analyzed:	11/29/00			
Lead	ND	2.50	mg/kg							
LCS (0110349-BS1)				Prepared:	11/28/00	Analyzed	11/29/00			
Lead	48.3	2.50	mg/kg	50.0	•	96.6	80-120			
Matrix Spike (0110349-MS1)	Sou	rce: S01128	6-01	Prepared:	11/28/00	Analyzed:	11/29/00			
Lead	47.8	10.0	mg/kg	50.0	ND	95.6	80-120			
Matrix Spike Dup (0110349-MSD1)	Sou	ırce: S01128	6-01	Prepared:	11/28/00	Analyzed:	11/29/00			
Lead	44.0	10.0	mg/kg	50.0	ND	88.0	80-120	8.28	20	





3164 Gold Camp Drive Stc. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A
Project Manager: Steven Meeks

Reported: 11/30/00 11:38

Notes and Definitions

P-03 Chromatogram	Pattern: Unidentified	Hydrocarbons C6-C12
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P-04 Chromatogram Pattern: Weathered Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12

R-01 The reporting limit for this analyte has been raised to account for matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

AHCU	Prod Division	UCTS of Allemik	Com Richtleid	Pany (Company	O			Tas	k Or	der No.					-							·		hain of Custody
ARCO Facilit	y no.	143		Ci (F	ty acility) (DAKL	nd				Project (Consu	manag	er <	<u> </u>	'n	1	k.		*****		••	•		Laboratory name
ARCO engin							Telephon (ARCO)	e no.			Telepho	one no	<u>رر.</u> ۱۱:	521	<u>- //</u>	166	Fa:	Ono.	91	1.13	TU-0	336	,	Seprem
Consultani n	arne D	14,	سا					Address (Consultant)3/64			(Consultant) 916-536-26) 5 Gold Cing DR R							insultar	10 //6 	7 - 69 - 7 7	2	Contract number		
				Matrix		Prese	rvation							1					8	ş				Method of shipment
Sample 1.D.	Lab no.	Container no.	Soil	Water	Other	lce	Acid	Sampling date		Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas (1) Diesei (1)	Oll and Grease 413.1 🗀 413.2 🗅	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Semi Metalic VOAD VOAD	CAM NETALS ETA 6010/7000	Lead Org./DHS □ Lead EPA 7420/7421 □	Tech		/
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Relinquished					·		Date	00		Time	Tempe	rature n	BCBIVed	116	<u></u>				e#-31			10-		Rush 2 Business Days [
Relinquished by							Date Time			Received by 1127									Expedited 5 Business Days					
Relinquished	by						Date			Time	Receiv	ed by					C	ate			Time			Standard 10 Business Days [

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant APC-3292 (2-91)





December 29, 2000

Steven Meeks
Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 6148, Oakland, CA / S012358

Enclosed are the results of analyses for samples received by the laboratory on 12/22/00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

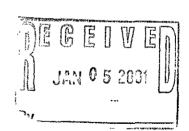
Sandra R. Hanson

Client Services Representative

CA ELAP Certificate Number 1624

Sandra RHansa

Lito Diaz Laboratory Director







3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

12/29/00 13:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
STK-A,B,C,D (Composite)	S012358-01	Soil	12/22/00 00:00	12/22/00 14:50



Sequoia Analytical - Sacramento





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

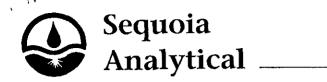
Project Manager Steven Meeks

Reported: 12/29/00 13:46

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STK-A,B,C,D (Composite) (S012358-01)	Soil Sampled	l: 12/22/00 0	0:00 Re	ceived: 12	/22/00 14:	50			
Purgeable Hydrocarbons	30.4	1.00	mg/kg	1	0120338	12/29/00	12/29/00	DHS LUFT	P-03
Benzene	ND	0.00500	H	II .	11	11	Ħ	н	
Toluene	ND	0.00500	Ħ	п	*	11	Ħ	n	
Ethylbenzene	0.0834	0.00500	H	11	n	11	tt	II .	
Xylenes (total)	0.345	0.00500		**	h	"		n	
Surrogate: a,a,a-Trifluorotoluene		107 %	60-	140	"	#	11	"	





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

12/29/00 13:46

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STK-A,B,C,D (Composite) (S012358-01) Soil	Sampled	12/22/00 0	0:00 Re	ceived: 12	/22/00 14::	50			
Lead	12.3	10.0	mg/kg	4	0120308	12/27/00	12/27/00	EPA 6010A	







3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager Steven Meeks

Reported: 12/29/00 13:46

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0120338 - EPA 5030B (MeOH)										
Blank (0120338-BLK1)				Prepared	& Analyze	ed: 12/29/	00			
Purgeable Hydrocarbons	ND	1 00	mg/kg							
Benzene	ND	0.00500	ır							
Toluene	ND	0.00500	ıt							
Ethylbenzene	ND	0 00500	U							
Xylenes (total)	ND	0.00500	11							
Surrogate: a,a,a-Trifluorotoluene	0.211		"	0.200		105	60-140			
LCS (0120338-BS1)				Prepared	& Analyze	d: 12/29/	00			
Benzene	0.204	0.00500	mg/kg	0.200		102	70-130			
Toluene	0.215	0.00500	**	0.200		108	70-130			
Ethylbenzene	0.221	0.00500	II	0.200		110	70-130			
Xylenes (total)	0.580	0 00500	ш	0.600		96.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	0.214		"	0.200		107	60-140			



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager Steven Meeks

Reported: 12/29/00 13:46

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0120308 - EPA 3050B									, .	
Blank (0120308-BLK1)				Prepared	& Analyze	ed: 12/27/	00			
Lead	ND	2.50	mg/kg							
LCS (0120308-BS1)										
Lead	50.0	2.50	mg/kg	50.0		100	80-120			
Matrix Spike (0120308-MS1)	Sou	ırce: S01233	5-01	Prepared						
Lead	54.7	10.0	mg/kg	50.0	ND	89.8	80-120			
Matrix Spike Dup (0120308-MSD1)	Sou	rce: S01233	5-01	Prepared	& Analyza	ed: 12/27/	00			
Lead	55.5	10.0	mg/kg	50.0	ND	91.4	80-120	1.45	20	







3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: ARCO 6148, Oakland, CA

Project Number: N/A

Project Manager: Steven Meeks

Reported:

12/29/00 13:46

Notes and Definitions

Chromatogram Pattern: Unidentified Hydrocarbons C6-C12

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

P-03

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

	ARCO Facili								Task Or								·····			*04.	·	(Chain of Custody
			614		(Fa	y acility)	6AK	MNI) CA		Project (Consu	manag Itant)	jer <	>TE	VE	N	VEE	K					Laboratory name
	ARCO engin		Ati	SUF	PUE	-		(ARCO)	ne no. 925 299	-8991	Telepho (Consu	one no. Itanti	911	6	348 2	2099	- Fax	no. osulter	AIL	. 63	ζy) ~	9335	SEQUOLA Contract number
	Consultant n		DEL						Address (Consultar	10 316	,46	20U) Cy	M	DC	l. 7	20)	NA.	t H	7,0	2110 VS	Contract humber
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	Sample 1.D	Lab no.	Container	Soil	Water	Other	lce	Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas Diesel	Oil and Great 13.1	TPH EPA 418.1/9	EPA 601/801	EPA 624/8240	EPA 625/8270	TCLP Semi	CAW Menake	Lead Org./DHS Control	LOND (TILC	DELIVERED
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APC-3292 (2-91)

ENCLOSURE E

Completion Letter for Soil Removed

Dillard Trucking, Inc. dba

Dillard Environmental Services

P. O. Box 579 · Byron, CA 94514 Phone (925) 634-6850 - Fax (925) 634-0569 EPA #CAD982523433 - D.T.S.C. #1715 - CA LIC #624665-A HAZ

Via Fax (916) 638-8385

January 29, 2001

Attn: Steve Meeks Delta Environmental Consultants, Inc. 3164 Gold Camp Dr., Suite 200 Ranch Cordova, CA 95670

RE: ARCO #06148

5131 Shattuck Avenue

Oakland, CA

Dear Mr. Meeks:

Please be advised that a total of 552.42 tons of non-hazardous soil from the referenced site has been removed. The soil was transported for disposal to Forward Landfill in Manteca, California on 12/01/00, 12/05/00, 01/04/01, 01/05/01.

Should you have any questions, please do not hesitate to call.

Sincerely,

Dillard Trucking, Inc. dba, DILLARD ENVIRONMENTAL SERVICES

Lynette Smith

Lynette Smith