



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

August 9, 2001

Mr. Karl Busche
City of San Leandro
Environmental Services Division
835 East 14th Street
San Leandro, CA 94577

AUG 23 2001
SND
744 ✓
10/16/01
AG

Subject: **Sump Sampling Results**
ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California
Delta Project No. D000-306

Dear Mr. Busche:

Delta Environmental Consultants, Inc. (Delta) has been authorized by ARCO Products Company to conduct soil sampling during the removal and replacement of the sump at ARCO Service Station No. 2111, located at 1156 Davis Street, San Leandro, California (Figure 1). Site details are illustrated in Figure 2. This report summarizes the sampling activities and analytical results for the sample collected during the sump removal activities.

Soil Sampling Beneath Sump

A Delta representative was on-site May 5, 2001 to conduct soil sampling during the sump removal and upgrade activities. A soil sample was collected two feet beneath the sump following its removal. The soil sample was collected using a hand operated impact sampler lined with a 6-inch clean brass sampling tube. Following the collection, the soil sample tube was capped with Teflon tape and plastic caps and stored on ice until the time the sample was received at the laboratory.

Samples were submitted to Sequoia Analytical in Sacramento, California for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary butyl ether (MTBE), purgeable hydrocarbons and diesel hydrocarbons using DHS LUFT, polychlorinated biphenyls by EPA Method 8082, volatile organic compounds by EPA Method 8260A, conventional chemistry parameters by APHA/EPA methods, volatile organic compounds by EPA Method 8010B, total metals by EPA 6000/7000 series methods, and semi-volatile organic compounds by EPA Method 8270C. The sump analytical results are summarized in Table 1. A copy of the laboratory analytical reports with chain-of-custody documentation is included in Enclosure A.

Remarks/Signatures

The interpretations contained in this document represent our professional opinions and 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.

Mr. Karl Busche
City of San Leandro
August 9, 2001
Page 2

AUG 23 2001

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

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Brett Bardsley

Brett A. Bardsley
Staff Geologist

Steven W. Meeks

Steven W. Meeks, P.E.
Project Manager
California Registered Civil Engineer No. C057461



BAB (LRP007.306.doc)
Enclosures

Cc: Mr. Paul Supple-Atlantic Richfield Company
Mr. Amir Gholami-Alameda County Health Care Services Agency
Mr. Mike Bakaldin-San Leandro Fire Department, HazMat Program

TABLE 1
SOIL CHEMICAL ANALYTICAL DATA

ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California

Sample ID	Date Collected	Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	TPHg (mg/kg)	TPHd (mg/kg)	MTBE (mg/kg)	PCB (mg/kg)	TRPH (mg/kg)	VOC ¹ (mg/kg)	VOC ² (mg/kg)	SVOC (mg/kg)	Total Metals (mg/kg)
Sump	5/5/2001	2	<0.025	<0.025	0.0616	0.209	305	465	<0.25	ND	543	ND	0.637 ^a , 1.11 ^b , 4.47 ^c , 0.575 ^d , 9.81 ^e , 3.30 ^f , 0.219 ^g	0.51 ^h , 0.61 ⁱ	38 ^h , 52 ^o , 9.7 ^h , 69 ^h

Explanation:

BTEX = benzene, toluene, ethylbenzene, and total xylenes
 TPHg = total petroleum hydrocarbons as gasoline
 TPHd = total petroleum hydrocarbons as diesel
 MTBE = methyl tertiary butyl ether
 PCB = polychlorinated biphenyls
 TRPH = total recoverable petroleum hydrocarbons (oil & grease)
 VOC = volatile organic compounds
 VOC¹
 VOC²
 SVOC = semi-volatile organic compounds
 Total Metals

Analytical Methods

DHS LUFT
 DHS LUFT
 DHS LUFT
 DHS LUFT
 EPA Method 8082
 APHA/EPA Methods

 EPA Method 8010
 EPA Method 8280A
 EPA Method 8270C
 EPA 6000/7000 Series Methods

^a = sec-butylbenzene, ^b = p-isopropyltoluene, ^c = naphthalene.

^d = n-propylbenzene, ^e = 1,2,4-trimethylbenzene,

^f = 1,3,5-trimethylbenzene, ^g = m,p-xylene

^h = chromium, ⁱ = nickel, ^o = lead, ^h = zinc

^h = 2-methylnaphthalene

ND = Non detect (see laboratory reports for specific detection levels)



R.3.W.

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



QUADRANGLE LOCATION



SCALE 1:24,000

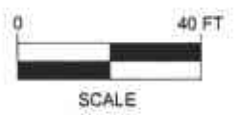
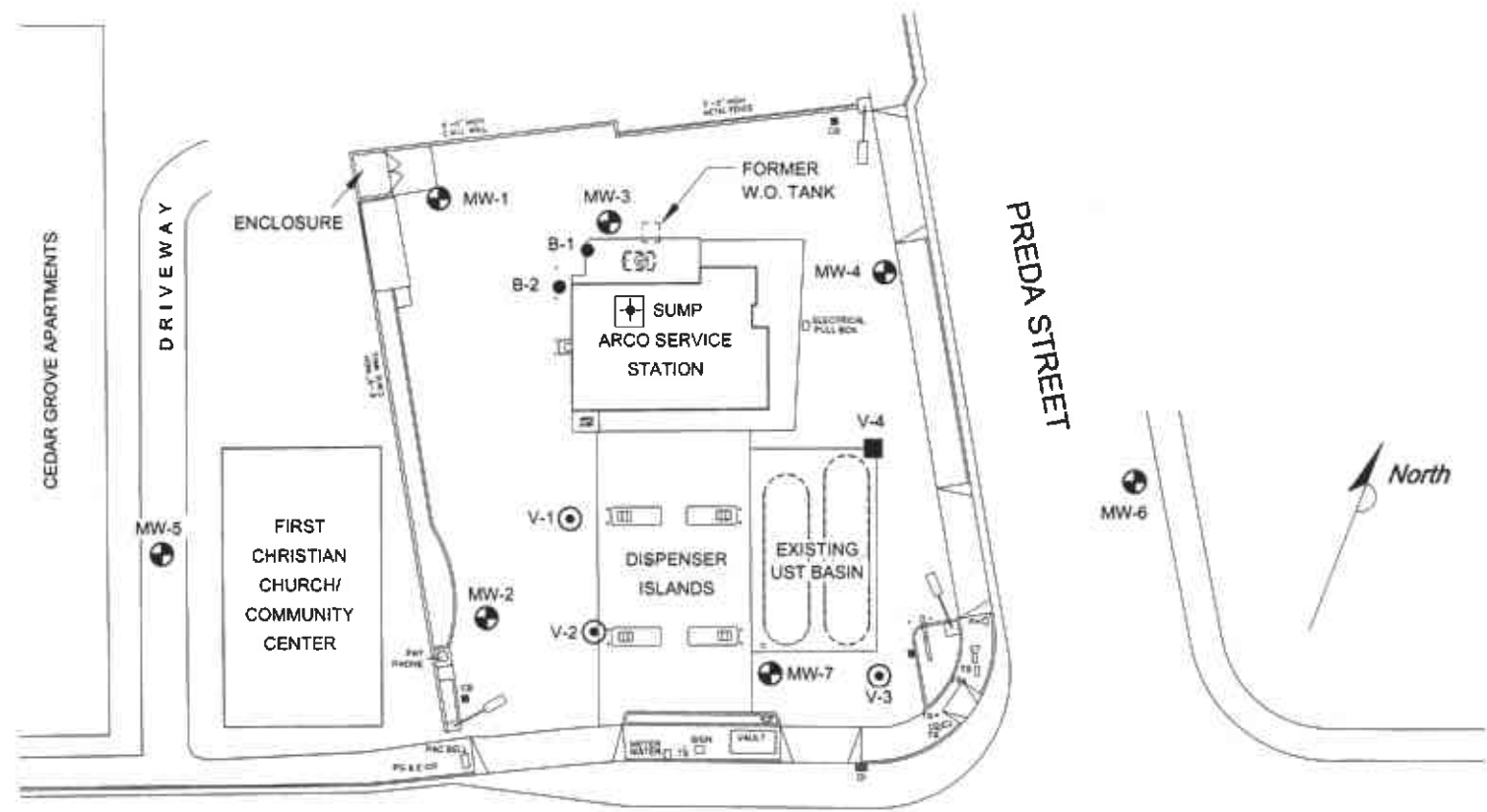
FIGURE 1
 SITE TOPOGRAPHIC MAP
 ARCO STATION NO. 2111
 1156 DAVIS STREET
 SAN LEANDRO, CA

PROJECT NO. D000-305	DRAWN BY TLA 11/03/00
FILE NO. 2111-1A	PREPARED BY TLA
REVISION NO.	REVIEWED BY



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- LEGEND:**
- MW-1 MONITORING WELL LOCATION
 - ⊙ V-1 VAPOR EXTRACTION WELL LOCATION
 - B-1 SOIL BORING LOCATION
 - V-4 DESTROYED WELL LOCATION
 - ⊕ SUMP SUMP SAMPLE LOCATION

**FIGURE 2
SITE MAP**

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

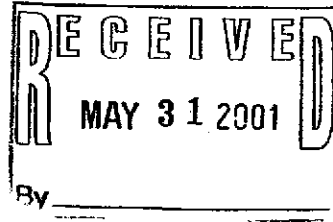
PROJECT NO. 0000-300	DRAWN BY TLA 8/20/01
FILE NO. 2111-1	PREPARED BY TLA
REVISION NO. 2	REVIEWED BY

Delta
Environmental
Consultants, Inc.



May 29 , 2001

Steven Meeks
Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: ARCO 2111, San Leandro, CA / S105096



Enclosed are the results of analyses for samples received by the laboratory on 05/04/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Client Services Representative

Lito Diaz
Laboratory Director

CA ELAP Certificate Number 1624





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SUMP	S105096-01	Soil	05/04/01 09:30	05/04/01 16:30





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**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
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Purgeable Hydrocarbons	305	5.00	mg/kg	5	1050097	05/07/01	05/07/01	DHS LUFT	zP-03
Benzene	ND	0.0250	"	"	"	"	"	"	"
Toluene	ND	0.0250	"	"	"	"	"	"	"
Ethylbenzene	0.0616	0.0250	"	"	"	"	"	"	"
Xylenes (total)	0.209	0.0250	"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	0.250	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		<i>101 %</i>		<i>60-140</i>					





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Diesel Hydrocarbons (C10-C24) by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Extractable Hydrocarbons	465	200	mg/kg	200	1050182	05/14/01	05/15/01	DHS LUFT	zD-15
<i>Surrogate: Pentacosane</i>		%	50-150		"	"	"	"	zS-01





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

Polychlorinated Biphenyls by EPA Method 8082
Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
PCB-1016	ND	20.0	ug/kg	1	1050164	05/11/01	05/17/01	EPA 8082	
PCB-1221	ND	80.0	"	"	"	"	"	"	
PCB-1232	ND	20.0	"	"	"	"	"	"	
PCB-1242	ND	20.0	"	"	"	"	"	"	
PCB-1248	ND	20.0	"	"	"	"	"	"	
PCB-1254	ND	20.0	"	"	"	"	"	"	
PCB-1260	ND	20.0	"	"	"	"	"	"	
PCB-1268	ND	20.0	"	"	"	"	"	"	
Surrogate: TCMX		113 %		50-150	"	"	"	"	
Surrogate: Decachlorobiphenyl		118 %		50-150	"	"	"	"	





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Benzene	ND	0.100	mg/kg	1	1050192	05/15/01	05/15/01	EPA 8260A	
Bromobenzene	ND	0.100	"	"	"	"	"	"	
Bromochloromethane	ND	0.100	"	"	"	"	"	"	
Bromodichloromethane	ND	0.100	"	"	"	"	"	"	
Bromoform	ND	0.100	"	"	"	"	"	"	
Bromomethane	ND	0.500	"	"	"	"	"	"	
n-Butylbenzene	ND	0.100	"	"	"	"	"	"	
sec-Butylbenzene	0.637	0.100	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.100	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.100	"	"	"	"	"	"	
Chlorobenzene	ND	0.100	"	"	"	"	"	"	
Chloroethane	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.200	"	"	"	"	"	"	
Chloromethane	ND	0.500	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.100	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.100	"	"	"	"	"	"	
Dibromochloromethane	ND	0.100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.100	"	"	"	"	"	"	
Dibromomethane	ND	0.100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.100	"	"	"	"	"	"	
Ethylbenzene	ND	0.100	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.100	"	"	"	"	"	"	
Isopropylbenzene	ND	0.100	"	"	"	"	"	"	
p-Isopropyltoluene	1.11	0.100	"	"	"	"	"	"	
Methylene chloride	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.100	"	"	"	"	"	"	
Naphthalene	4.47	0.500	"	"	"	"	"	"	

Sequoia Analytical - Sacramento

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds by EPA Method 8260A
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
n-Propylbenzene	0.575	0.100	mg/kg	1	1050192	05/15/01	05/15/01	EPA 8260A	
Styrene	ND	0.100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.100	"	"	"	"	"	"	
Tetrachloroethene	ND	0.100	"	"	"	"	"	"	
Toluene	ND	0.100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.100	"	"	"	"	"	"	
Trichloroethene	ND	0.100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	9.81	0.100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	3.30	0.100	"	"	"	"	"	"	
Vinyl chloride	ND	0.500	"	"	"	"	"	"	
m,p-Xylene	0.219	0.100	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		96.8 %		60-140	"	"	"	"	
Surrogate: 1,2-DCA-d4		98.8 %		60-140	"	"	"	"	
Surrogate: Toluene-d8		103 %		60-140	"	"	"	"	
Surrogate: 4-BFB		94.4 %		60-140	"	"	"	"	





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

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Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
TRPH	543	50.0	mg/kg	1	1050191	05/14/01	05/14/01	SM 5520E&F	





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds by EPA Method 8010B
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Chloromethane	ND	0.050	mg/kg	100	1E11010	05/11/01	05/11/01	EPA 8010B	
Vinyl chloride	ND	0.050	"	"	"	"	"	"	
Bromomethane	ND	0.050	"	"	"	"	"	"	
Chloroethane	ND	0.050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.025	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.025	"	"	"	"	"	"	
Methylene chloride	ND	0.25	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.025	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.025	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.025	"	"	"	"	"	"	
Chloroform	ND	0.025	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.025	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.025	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.025	"	"	"	"	"	"	
Trichloroethene	ND	0.025	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.025	"	"	"	"	"	"	
Bromodichloromethane	ND	0.025	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.025	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.025	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.025	"	"	"	"	"	"	
Tetrachloroethene	ND	0.025	"	"	"	"	"	"	
Dibromochloromethane	ND	0.025	"	"	"	"	"	"	
1,2-Dibromoethane	ND	0.025	"	"	"	"	"	"	
Chlorobenzene	ND	0.025	"	"	"	"	"	"	
Bromoform	ND	0.025	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.025	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.025	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.025	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.025	"	"	"	"	"	"	
Surrogate: 1-Chloro-2-fluorobenzene		72.0 %		50-150	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.4 %		50-150	"	"	"	"	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Cadmium	ND	0.50	mg/kg	1	1E21024	05/21/01	05/22/01	EPA 6010A	
Chromium	38	0.50	"	"	"	"	05/22/01	"	
Nickel	52	1.0	"	"	"	"	05/22/01	"	
Lead	9.7	1.0	"	"	"	"	05/22/01	"	
Zinc	69	1.0	"	"	"	"	05/22/01	"	





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Acenaphthene	ND	0.10	mg/kg	1	1E22005	05/22/01	05/25/01	EPA 8270C	1-07
Acenaphthylene	ND	0.10	"	"	"	"	"	"	"
Anthracene	ND	0.10	"	"	"	"	"	"	"
Aniline	ND	0.10	"	"	"	"	"	"	"
Benzoic acid	ND	0.50	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.10	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.25	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.25	"	"	"	"	"	"	"
Benzo (ghi) perylene	ND	0.10	"	"	"	"	"	"	"
Benzo[a]pyrene	ND	0.10	"	"	"	"	"	"	"
Benzyl alcohol	ND	0.10	"	"	"	"	"	"	"
Bis(2-chloroethoxy)methane	ND	0.20	"	"	"	"	"	"	"
Bis(2-chloroethyl)ether	ND	0.10	"	"	"	"	"	"	"
Bis(2-chloroisopropyl)ether	ND	0.10	"	"	"	"	"	"	"
Bis(2-ethylhexyl)phthalate	ND	0.50	"	"	"	"	"	"	"
4-Bromophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"
Butyl benzyl phthalate	ND	0.50	"	"	"	"	"	"	"
4-Chloroaniline	ND	0.50	"	"	"	"	"	"	"
2-Chloronaphthalene	ND	0.10	"	"	"	"	"	"	"
4-Chloro-3-methylphenol	ND	0.10	"	"	"	"	"	"	"
2-Chlorophenol	ND	0.10	"	"	"	"	"	"	"
4-Chlorophenyl phenyl ether	ND	0.20	"	"	"	"	"	"	"
Chrysene	ND	0.10	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.10	"	"	"	"	"	"	"
Dibenzofuran	ND	0.10	"	"	"	"	"	"	"
Di-n-butyl phthalate	ND	0.50	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	0.50	"	"	"	"	"	"	"
2,4-Dichlorophenol	ND	0.10	"	"	"	"	"	"	"
Diethyl phthalate	ND	0.50	"	"	"	"	"	"	"
2,4-Dimethylphenol	ND	0.20	"	"	"	"	"	"	"
Dimethyl phthalate	ND	0.10	"	"	"	"	"	"	"
4,6-Dinitro-2-methylphenol	ND	0.50	"	"	"	"	"	"	"
2,4-Dinitrophenol	ND	0.50	"	"	"	"	"	"	"
2,4-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"
2,6-Dinitrotoluene	ND	0.20	"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.20	"	"	"	"	"	"	"
Fluoranthene	ND	0.10	"	"	"	"	"	"	"





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Semivolatile Organic Compounds by EPA Method 8270C
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SUMP (S105096-01) Soil Sampled: 05/04/01 09:30 Received: 05/04/01 16:30									
Fluorene	ND	0.10	mg/kg	1	1E22005	05/22/01	05/25/01	EPA 8270C	
Hexachlorobenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.20	"	"	"	"	"	"	
Hexachloroethane	ND	0.20	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.10	"	"	"	"	"	"	
Isophorone	ND	0.20	"	"	"	"	"	"	
2-Methylnaphthalene	0.51	0.20	"	"	"	"	"	"	
2-Methylphenol	ND	0.10	"	"	"	"	"	"	
4-Methylphenol	ND	0.10	"	"	"	"	"	"	
Naphthalene	0.61	0.10	"	"	"	"	"	"	
2-Nitroaniline	ND	0.50	"	"	"	"	"	"	
3-Nitroaniline	ND	0.50	"	"	"	"	"	"	
4-Nitroaniline	ND	0.50	"	"	"	"	"	"	
Nitrobenzene	ND	0.20	"	"	"	"	"	"	
2-Nitrophenol	ND	0.10	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.10	"	"	"	"	"	"	
4-Nitrophenol	ND	0.50	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.20	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.10	"	"	"	"	"	"	
Pentachlorophenol	ND	0.50	"	"	"	"	"	"	
Phenanthrene	ND	0.10	"	"	"	"	"	"	
Phenol	ND	0.10	"	"	"	"	"	"	
Pyrene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.10	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.10	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		62.2 %		25-121	"	"	"	"	
<i>Surrogate: Phenol-d6</i>		59.4 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		64.3 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		64.9 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		65.2 %		19-122	"	"	"	"	
<i>Surrogate: p-Terphenyl-d14</i>		71.8 %		18-137	"	"	"	"	





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**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
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Batch 1050097 - EPA 5030B (MeOH)

Blank (1050097-BLK1)

Prepared & Analyzed: 05/07/01

Purgeable Hydrocarbons	ND	1.00	mg/kg							
Benzene	ND	0.00500	"							
Toluene	ND	0.00500	"							
Ethylbenzene	ND	0.00500	"							
Xylenes (total)	ND	0.00500	"							
Methyl tert-butyl ether	ND	0.0500	"							
Surrogate: a,a,a-Trifluorotoluene	0.205		"	0.200		102	60-140			

LCS (1050097-BS1)

Prepared & Analyzed: 05/07/01

Benzene	0.208	0.00500	mg/kg	0.200		104	70-130			
Toluene	0.226	0.00500	"	0.200		113	70-130			
Ethylbenzene	0.238	0.00500	"	0.200		119	70-130			
Xylenes (total)	0.606	0.00500	"	0.600		101	70-130			
Methyl tert-butyl ether	0.192	0.0500	"	0.200		96.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	0.228		"	0.200		114	60-140			

Matrix Spike (1050097-MS1)

Source: S105088-17

Prepared & Analyzed: 05/07/01

Benzene	0.159	0.00500	mg/kg	0.200	ND	79.5	60-140			
Toluene	0.172	0.00500	"	0.200	ND	86.0	60-140			
Ethylbenzene	0.189	0.00500	"	0.200	ND	94.5	60-140			
Xylenes (total)	0.480	0.00500	"	0.600	ND	80.0	60-140			
Methyl tert-butyl ether	0.149	0.0500	"	0.200	ND	74.5	60-140			
Surrogate: a,a,a-Trifluorotoluene	0.208		"	0.200		104	60-140			

Matrix Spike Dup (1050097-MSD1)

Source: S105088-17

Prepared & Analyzed: 05/07/01

Benzene	0.151	0.00500	mg/kg	0.200	ND	75.5	60-140	5.16	25	
Toluene	0.162	0.00500	"	0.200	ND	81.0	60-140	5.99	25	
Ethylbenzene	0.176	0.00500	"	0.200	ND	88.0	60-140	7.12	25	
Xylenes (total)	0.451	0.00500	"	0.600	ND	75.2	60-140	6.23	25	
Methyl tert-butyl ether	0.150	0.0500	"	0.200	ND	75.0	60-140	0.669	25	
Surrogate: a,a,a-Trifluorotoluene	0.181		"	0.200		90.5	60-140			





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Diesel Hydrocarbons (C10-C24) by DHS LUFT - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1050182 - EPA 3550B									
Blank (1050182-BLK1)					Prepared: 05/14/01 Analyzed: 05/15/01				
Extractable Hydrocarbons	ND	1.00	mg/kg						
Surrogate: Pentacosane	0.783		"	0.667		117 50-150			
LCS (1050182-BS1)					Prepared: 05/14/01 Analyzed: 05/15/01				
Extractable Hydrocarbons	17.0	1.00	mg/kg	16.7		102 60-140			
Surrogate: Pentacosane	0.793		"	0.667		119 50-150			
LCS Dup (1050182-BSD1)					Prepared: 05/14/01 Analyzed: 05/15/01				
Extractable Hydrocarbons	15.8	1.00	mg/kg	16.7		94.6 60-140	7.32	40	
Surrogate: Pentacosane	0.770		"	0.667		115 50-150			
Matrix Spike (1050182-MS1)					Source: S105088-05 Prepared: 05/14/01 Analyzed: 05/15/01				
Extractable Hydrocarbons	24.8	1.00	mg/kg	16.7	8.53	97.4 50-150			
Surrogate: Pentacosane	0.790		"	0.667		118 50-150			
Matrix Spike Dup (1050182-MSD1)					Source: S105088-05 Prepared: 05/14/01 Analyzed: 05/15/01				
Extractable Hydrocarbons	22.4	1.00	mg/kg	16.7	8.53	83.1 50-150	10.2	50	
Surrogate: Pentacosane	0.740		"	0.667		111 50-150			





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1050164 - EPA 3550B

Blank (1050164-BLK1)

Prepared: 05/11/01 Analyzed: 05/17/01

PCB-1016	ND	20.0	ug/kg							
PCB-1221	ND	80.0	"							
PCB-1232	ND	20.0	"							
PCB-1242	ND	20.0	"							
PCB-1248	ND	20.0	"							
PCB-1254	ND	20.0	"							
PCB-1260	ND	20.0	"							
PCB-1268	ND	20.0	"							
Surrogate: TCMX	17.8		"	16.7		107	50-150			
Surrogate: Decachlorobiphenyl	17.8		"	16.7		107	50-150			

LCS (1050164-BS1)

Prepared: 05/11/01 Analyzed: 05/17/01

PCB-1016	303	20.0	ug/kg	333		91.0	50-150			
PCB-1260	301	20.0	"	333		90.4	50-150			
Surrogate: TCMX	18.5		"	16.7		111	50-150			
Surrogate: Decachlorobiphenyl	18.6		"	16.7		111	50-150			

LCS Dup (1050164-BSD1)

Prepared: 05/11/01 Analyzed: 05/17/01

PCB-1016	327	20.0	ug/kg	333		98.2	50-150	7.62	50	
PCB-1260	329	20.0	"	333		98.8	50-150	8.89	50	
Surrogate: TCMX	19.9		"	16.7		119	50-150			
Surrogate: Decachlorobiphenyl	19.8		"	16.7		119	50-150			

Matrix Spike (1050164-MS1)

Source: S105096-01

Prepared: 05/11/01 Analyzed: 05/17/01

PCB-1016	270	20.0	ug/kg	333	ND	81.1	50-150			
PCB-1260	263	20.0	"	333	ND	79.0	50-150			
Surrogate: TCMX	17.3		"	16.7		104	50-150			
Surrogate: Decachlorobiphenyl	17.3		"	16.7		104	50-150			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 1050164 - EPA 3550B

Matrix Spike Dup (1050164-MSD1)	Source: S105096-01			Prepared: 05/11/01		Analyzed: 05/17/01			
PCB-1016	282	20.0	ug/kg	333	ND	84.7	50-150	4.35	50
PCB-1260	284	20.0	"	333	ND	85.3	50-150	7.68	50
Surrogate: TCMX	18.2		"	16.7		109	50-150		
Surrogate: Decachlorobiphenyl	18.3		"	16.7		110	50-150		





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds 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
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Batch 1050192 - EPA 5030B [MeOH]

Prepared & Analyzed: 05/15/01

Blank (1050192-BLK1)

Benzene	ND	0.100	mg/kg							
Bromobenzene	ND	0.100	"							
Bromochloromethane	ND	0.100	"							
Bromodichloromethane	ND	0.100	"							
Bromoform	ND	0.100	"							
Bromomethane	ND	0.500	"							
n-Butylbenzene	ND	0.100	"							
sec-Butylbenzene	ND	0.100	"							
tert-Butylbenzene	ND	0.100	"							
Carbon tetrachloride	ND	0.100	"							
Chlorobenzene	ND	0.100	"							
Chloroethane	ND	0.500	"							
Chloroform	ND	0.200	"							
Chloromethane	ND	0.500	"							
2-Chlorotoluene	ND	0.100	"							
4-Chlorotoluene	ND	0.100	"							
Dibromochloromethane	ND	0.100	"							
1,2-Dibromoethane	ND	0.100	"							
Dibromomethane	ND	0.100	"							
1,2-Dibromo-3-chloropropane	ND	0.500	"							
1,2-Dichlorobenzene	ND	0.100	"							
1,3-Dichlorobenzene	ND	0.100	"							
1,4-Dichlorobenzene	ND	0.100	"							
Dichlorodifluoromethane	ND	0.500	"							
1,1-Dichloroethane	ND	0.100	"							
1,2-Dichloroethane	ND	0.100	"							
1,1-Dichloroethene	ND	0.100	"							
cis-1,2-Dichloroethene	ND	0.100	"							
trans-1,2-Dichloroethene	ND	0.100	"							
1,2-Dichloropropane	ND	0.100	"							
1,3-Dichloropropane	ND	0.100	"							
2,2-Dichloropropane	ND	0.100	"							
1,1-Dichloropropene	ND	0.100	"							
Ethylbenzene	ND	0.100	"							
Hexachlorobutadiene	ND	0.100	"							
Isopropylbenzene	ND	0.100	"							

Sequoia Analytical - Sacramento

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

Volatile Organic Compounds 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
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Batch 1050192 - EPA 5030B [MeOH]

Blank (1050192-BLK1)

Prepared & Analyzed: 05/15/01

p-Isopropyltoluene	ND	0.100	mg/kg							
Methylene chloride	ND	0.500	"							
Methyl tert-butyl ether	ND	0.100	"							
Naphthalene	ND	0.500	"							
n-Propylbenzene	ND	0.100	"							
Styrene	ND	0.100	"							
1,1,1,2-Tetrachloroethane	ND	0.100	"							
1,1,2,2-Tetrachloroethane	ND	0.100	"							
Tetrachloroethene	ND	0.100	"							
Toluene	ND	0.100	"							
1,2,3-Trichlorobenzene	ND	0.100	"							
1,2,4-Trichlorobenzene	ND	0.100	"							
1,1,1-Trichloroethane	ND	0.100	"							
1,1,2-Trichloroethane	ND	0.100	"							
Trichloroethene	ND	0.100	"							
Trichlorofluoromethane	ND	0.500	"							
1,2,3-Trichloropropane	ND	0.100	"							
1,2,4-Trimethylbenzene	ND	0.100	"							
1,3,5-Trimethylbenzene	ND	0.100	"							
Vinyl chloride	ND	0.500	"							
m,p-Xylene	ND	0.100	"							
<i>Surrogate: Dibromofluoromethane</i>	2.35		"	2.50		94.0	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	2.40		"	2.50		96.0	60-140			
<i>Surrogate: Toluene-d8</i>	2.53		"	2.50		101	60-140			
<i>Surrogate: 4-BFB</i>	2.22		"	2.50		88.8	60-140			

LCS (1050192-BS1)

Prepared & Analyzed: 05/15/01

Benzene	2.69	0.100	mg/kg	2.50		108	70-130			
Chlorobenzene	2.68	0.100	"	2.50		107	70-130			
1,1-Dichloroethene	3.04	0.100	"	2.50		122	70-130			
Toluene	2.69	0.100	"	2.50		108	70-130			
Trichloroethene	2.80	0.100	"	2.50		112	70-130			
<i>Surrogate: Dibromofluoromethane</i>	2.64		"	2.50		106	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	2.72		"	2.50		109	60-140			
<i>Surrogate: Toluene-d8</i>	2.73		"	2.50		109	60-140			
<i>Surrogate: 4-BFB</i>	2.44		"	2.50		97.6	60-140			

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Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds 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
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Batch 1050192 - EPA 5030B [MeOH]

Matrix Spike (1050192-MS1)

Source: S105149-30

Prepared & Analyzed: 05/15/01

Benzene	2.13	0.100	mg/kg	2.50	ND	85.2	60-140			
Chlorobenzene	2.20	0.100	"	2.50	ND	88.0	60-140			
1,1-Dichloroethene	1.98	0.100	"	2.50	ND	79.2	60-140			
Toluene	2.19	0.100	"	2.50	ND	87.6	60-140			
Trichloroethene	2.23	0.100	"	2.50	ND	89.2	60-140			
Surrogate: Dibromofluoromethane	2.16		"	2.50		86.4	60-140			
Surrogate: 1,2-DCA-d4	2.20		"	2.50		88.0	60-140			
Surrogate: Toluene-d8	2.23		"	2.50		89.2	60-140			
Surrogate: 4-BFB	2.05		"	2.50		82.0	60-140			

Matrix Spike Dup (1050192-MSD1)

Source: S105149-30

Prepared & Analyzed: 05/15/01

Benzene	2.14	0.100	mg/kg	2.50	ND	85.6	60-140	0.468	25	
Chlorobenzene	2.21	0.100	"	2.50	ND	88.4	60-140	0.454	25	
1,1-Dichloroethene	1.89	0.100	"	2.50	ND	75.6	60-140	4.65	25	
Toluene	2.19	0.100	"	2.50	ND	87.6	60-140	0	25	
Trichloroethene	2.21	0.100	"	2.50	ND	88.4	60-140	0.901	25	
Surrogate: Dibromofluoromethane	2.13		"	2.50		85.2	60-140			
Surrogate: 1,2-DCA-d4	2.14		"	2.50		85.6	60-140			
Surrogate: Toluene-d8	2.23		"	2.50		89.2	60-140			
Surrogate: 4-BFB	2.06		"	2.50		82.4	60-140			





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1050191 - EPA 3550B.										
Blank (1050191-BLK1)										
Prepared & Analyzed: 05/14/01										
TRPH	ND	50.0	mg/kg							
LCS (1050191-BS1)										
Prepared & Analyzed: 05/14/01										
TRPH	2200	50.0	mg/kg	2500		88.0	70-130			
LCS Dup (1050191-BSD1)										
Prepared & Analyzed: 05/14/01										
TRPH	2180	50.0	mg/kg	2500		87.2	70-130	0.913	30	
Matrix Spike (1050191-MS1)										
Source: S105170-01 Prepared & Analyzed: 05/14/01										
TRPH	2520	50.0	mg/kg	2500	ND	101	60-140			
Matrix Spike Dup (1050191-MSD1)										
Source: S105170-01 Prepared & Analyzed: 05/14/01										
TRPH	2620	50.0	mg/kg	2500	ND	105	60-140	3.89	30	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Volatile Organic Compounds by EPA Method 8010B - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E11010 - EPA 5030B [MeOH]

Blank (1E11010-BLK1)

Prepared & Analyzed: 05/11/01

Chloromethane	ND	0.050	mg/kg							
Vinyl chloride	ND	0.050	"							
Bromomethane	ND	0.050	"							
Chloroethane	ND	0.050	"							
Trichlorofluoromethane	ND	0.025	"							
1,1-Dichloroethene	ND	0.025	"							
Methylene chloride	ND	0.25	"							
trans-1,2-Dichloroethene	ND	0.025	"							
1,1-Dichloroethane	ND	0.025	"							
cis-1,2-Dichloroethene	ND	0.025	"							
Chloroform	ND	0.025	"							
1,1,1-Trichloroethane	ND	0.025	"							
Carbon tetrachloride	ND	0.025	"							
1,2-Dichloroethane	ND	0.025	"							
Trichloroethene	ND	0.025	"							
1,2-Dichloropropane	ND	0.025	"							
Bromodichloromethane	ND	0.025	"							
cis-1,3-Dichloropropene	ND	0.025	"							
trans-1,3-Dichloropropene	ND	0.025	"							
1,1,2-Trichloroethane	ND	0.025	"							
Tetrachloroethene	ND	0.025	"							
Dibromochloromethane	ND	0.025	"							
1,2-Dibromoethane	ND	0.025	"							
Chlorobenzene	ND	0.025	"							
Bromoform	ND	0.025	"							
1,1,2,2-Tetrachloroethane	ND	0.025	"							
1,3-Dichlorobenzene	ND	0.025	"							
1,4-Dichlorobenzene	ND	0.025	"							
1,2-Dichlorobenzene	ND	0.025	"							
Surrogate: 1-Chloro-2-fluorobenzene	0.510		"	0.500		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.596		"	0.500		119	50-150			





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds by EPA Method 8010B - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E11010 - EPA 5030B [MeOH]

Blank (1E11010-BLK2)

Prepared & Analyzed: 05/17/01

Chloromethane	ND	0.050	mg/kg							
Vinyl chloride	ND	0.050	"							
Bromomethane	ND	0.050	"							
Chloroethane	ND	0.050	"							
Trichlorofluoromethane	ND	0.025	"							
1,1-Dichloroethene	ND	0.025	"							
Methylene chloride	ND	0.25	"							
trans-1,2-Dichloroethene	ND	0.025	"							
1,1-Dichloroethane	ND	0.025	"							
cis-1,2-Dichloroethene	ND	0.025	"							
Chloroform	ND	0.025	"							
1,1,1-Trichloroethane	ND	0.025	"							
Carbon tetrachloride	ND	0.025	"							
1,2-Dichloroethane	ND	0.025	"							
Trichloroethene	ND	0.025	"							
1,2-Dichloropropane	ND	0.025	"							
Bromodichloromethane	ND	0.025	"							
cis-1,3-Dichloropropene	ND	0.025	"							
trans-1,3-Dichloropropene	ND	0.025	"							
1,1,2-Trichloroethane	ND	0.025	"							
Tetrachloroethene	ND	0.025	"							
Dibromochloromethane	ND	0.025	"							
1,2-Dibromoethane	ND	0.025	"							
Chlorobenzene	ND	0.025	"							
Bromoform	ND	0.025	"							
1,1,2,2-Tetrachloroethane	ND	0.025	"							
1,3-Dichlorobenzene	ND	0.025	"							
1,4-Dichlorobenzene	ND	0.025	"							
1,2-Dichlorobenzene	ND	0.025	"							
Surrogate: 1-Chloro-2-fluorobenzene	0.479		"	0.500		95.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.351		"	0.500		70.2	50-150			





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

**Volatile Organic Compounds by EPA Method 8010B - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E11010 - EPA 5030B [MeOH]

LCS (1E11010-BS1)

Prepared & Analyzed: 05/11/01

1,1-Dichloroethene	1.16	0.025	mg/kg	1.00		116	65-135			
Trichloroethene	1.10	0.025	"	1.00		110	70-130			
Chlorobenzene	1.08	0.025	"	1.00		108	70-130			
Surrogate: 1-Chloro-2-fluorobenzene	0.634		"	0.500		127	50-150			
Surrogate: 4-Bromofluorobenzene	0.742		"	0.500		148	50-150			

LCS (1E11010-BS2)

Prepared & Analyzed: 05/17/01

1,1-Dichloroethene	1.30	0.025	mg/kg	1.00		130	65-135			
Trichloroethene	1.24	0.025	"	1.00		124	70-130			
Chlorobenzene	1.02	0.025	"	1.00		102	70-130			
Surrogate: 1-Chloro-2-fluorobenzene	0.597		"	0.500		119	50-150			
Surrogate: 4-Bromofluorobenzene	0.375		"	0.500		75.0	50-150			

Matrix Spike (1E11010-MS1)

Source: S105096-01

Prepared & Analyzed: 05/11/01

1,1-Dichloroethene	1.15	0.025	mg/kg	1.00	ND	115	60-140			
Trichloroethene	1.12	0.025	"	1.00	ND	112	60-140			
Chlorobenzene	1.05	0.025	"	1.00	ND	105	60-140			
Surrogate: 1-Chloro-2-fluorobenzene	0.533		"	0.500		107	50-150			
Surrogate: 4-Bromofluorobenzene	0.587		"	0.500		117	50-150			

Matrix Spike Dup (1E11010-MSD1)

Source: S105096-01

Prepared & Analyzed: 05/11/01

1,1-Dichloroethene	0.927	0.025	mg/kg	1.00	ND	92.7	60-140	21.5	25	
Trichloroethene	1.05	0.025	"	1.00	ND	105	60-140	6.45	25	
Chlorobenzene	0.929	0.025	"	1.00	ND	92.9	60-140	12.2	25	
Surrogate: 1-Chloro-2-fluorobenzene	0.457		"	0.500		91.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.629		"	0.500		126	50-150			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E21024 - EPA 3050B

Blank (1E21024-BLK1)		Prepared: 05/21/01 Analyzed: 05/22/01								
Cadmium	ND	0.50	mg/kg							
Chromium	ND	0.50	"							
Lead	ND	1.0	"							
Nickel	ND	1.0	"							
Zinc	ND	1.0	"							

LCS (1E21024-BS1)		Prepared: 05/21/01 Analyzed: 05/22/01								
Cadmium	51.2	0.50	mg/kg	50.0		102	80-120			
Chromium	48.1	0.50	"	50.0		96.2	80-120			
Lead	47.0	1.0	"	50.0		94.0	80-120			
Nickel	46.4	1.0	"	50.0		92.8	80-120			
Zinc	49.2	1.0	"	50.0		98.4	80-120			

LCS Dup (1E21024-BSD1)		Prepared: 05/21/01 Analyzed: 05/22/01								
Cadmium	50.7	0.50	mg/kg	50.0		101	80-120	0.981	20	
Chromium	47.9	0.50	"	50.0		95.8	80-120	0.417	20	
Lead	49.2	1.0	"	50.0		98.4	80-120	4.57	20	
Nickel	50.1	1.0	"	50.0		100	80-120	7.67	20	
Zinc	48.4	1.0	"	50.0		96.8	80-120	1.64	20	

Matrix Spike (1E21024-MS1)		Source: W105428-02		Prepared: 05/21/01 Analyzed: 05/22/01						
Cadmium	50.6	0.50	mg/kg	50.0	0.69	99.8	80-120			
Chromium	52.6	0.50	"	50.0	7.6	90.0	80-120			
Lead	643	1.0	"	50.0	380	526	80-120			Q-03
Nickel	68.3	1.0	"	50.0	15	107	80-120			
Zinc	228	1.0	"	50.0	120	216	80-120			Q-02

Matrix Spike Dup (1E21024-MSD1)		Source: W105428-02		Prepared: 05/21/01 Analyzed: 05/22/01						
Cadmium	50.7	0.50	mg/kg	50.0	0.69	100	80-120	0.197	20	
Chromium	50.6	0.50	"	50.0	7.6	86.0	80-120	3.88	20	
Lead	726	1.0	"	50.0	380	692	80-120	12.1	20	Q-03
Nickel	64.4	1.0	"	50.0	15	98.8	80-120	5.88	20	
Zinc	236	1.0	"	50.0	120	232	80-120	3.45	20	Q-02





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E22005 - EPA 3550B Sonication

Blank (1E22005-BLK1)

Prepared: 05/22/01 Analyzed: 05/25/01

Acenaphthene	ND	0.10	mg/kg							
Acenaphthylene	ND	0.10	"							
Anthracene	ND	0.10	"							
Aniline	ND	0.10	"							
Benzoic acid	ND	0.50	"							
Benzo (a) anthracene	ND	0.10	"							
Benzo (b) fluoranthene	ND	0.25	"							
Benzo (k) fluoranthene	ND	0.25	"							
Benzo (ghi) perylene	ND	0.10	"							
Benzo[a]pyrene	ND	0.10	"							
Benzyl alcohol	ND	0.10	"							
Bis(2-chloroethoxy)methane	ND	0.20	"							
Bis(2-chloroethyl)ether	ND	0.10	"							
Bis(2-chloroisopropyl)ether	ND	0.10	"							
Bis(2-ethylhexyl)phthalate	ND	0.50	"							
4-Bromophenyl phenyl ether	ND	0.20	"							
Butyl benzyl phthalate	ND	0.50	"							
4-Chloroaniline	ND	0.50	"							
2-Chloronaphthalene	ND	0.10	"							
4-Chloro-3-methylphenol	ND	0.10	"							
2-Chlorophenol	ND	0.10	"							
4-Chlorophenyl phenyl ether	ND	0.20	"							
Chrysene	ND	0.10	"							
Dibenz (a,h) anthracene	ND	0.10	"							
Dibenzofuran	ND	0.10	"							
Di-n-butyl phthalate	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.20	"							
3,3'-Dichlorobenzidine	ND	0.50	"							
2,4-Dichlorophenol	ND	0.10	"							
Diethyl phthalate	ND	0.50	"							
2,4-Dimethylphenol	ND	0.20	"							
Dimethyl phthalate	ND	0.10	"							
4,6-Dinitro-2-methylphenol	ND	0.50	"							
2,4-Dinitrophenol	ND	0.50	"							

Sequoia Analytical - Sacramento

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E22005 - EPA 3550B Sonication

Blank (1E22005-BLK1)

Prepared: 05/22/01 Analyzed: 05/25/01

2,4-Dinitrotoluene	ND	0.20	mg/kg							
2,6-Dinitrotoluene	ND	0.20	"							
Di-n-octyl phthalate	ND	0.20	"							
Fluoranthene	ND	0.10	"							
Fluorene	ND	0.10	"							
Hexachlorobenzene	ND	0.20	"							
Hexachlorobutadiene	ND	0.20	"							
Hexachlorocyclopentadiene	ND	0.20	"							
Hexachloroethane	ND	0.20	"							
Indeno (1,2,3-cd) pyrene	ND	0.10	"							
Isophorone	ND	0.20	"							
2-Methylnaphthalene	ND	0.20	"							
2-Methylphenol	ND	0.10	"							
4-Methylphenol	ND	0.10	"							
Naphthalene	ND	0.10	"							
2-Nitroaniline	ND	0.50	"							
3-Nitroaniline	ND	0.50	"							
4-Nitroaniline	ND	0.50	"							
Nitrobenzene	ND	0.20	"							
2-Nitrophenol	ND	0.10	"							
N-Nitrosodimethylamine	ND	0.10	"							
4-Nitrophenol	ND	0.50	"							
N-Nitrosodiphenylamine	ND	0.20	"							
N-Nitrosodi-n-propylamine	ND	0.10	"							
Pentachlorophenol	ND	0.50	"							
Phenanthrene	ND	0.10	"							
Phenol	ND	0.10	"							
Pyrene	ND	0.20	"							
1,2,4-Trichlorobenzene	ND	0.20	"							
2,4,5-Trichlorophenol	ND	0.10	"							
2,4,6-Trichlorophenol	ND	0.10	"							
Surrogate: 2-Fluorophenol	2.87		"	5.00		57.4	25-121			
Surrogate: Phenol-d6	2.83		"	5.00		56.6	24-113			
Surrogate: Nitrobenzene-d5	1.98		"	3.33		59.5	23-120			
Surrogate: 2-Fluorobiphenyl	2.13		"	3.33		64.0	30-115			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E22005 - EPA 3550B Sonication

Blank (1E22005-BLK1)

Prepared: 05/22/01 Analyzed: 05/25/01

Surrogate: 2,4,6-Tribromophenol	2.79		mg/kg	5.00		55.8	19-122			
Surrogate: p-Terphenyl-d14	2.16		"	3.33		64.9	18-137			

LCS (1E22005-BS1)

Prepared: 05/22/01 Analyzed: 05/25/01

Acenaphthene	1.89	0.10	mg/kg	3.33		56.8	31-137			
4-Chloro-3-methylphenol	2.95	0.10	"	5.00		59.0	26-103			
2-Chlorophenol	2.67	0.10	"	5.00		53.4	25-102			
1,4-Dichlorobenzene	1.70	0.20	"	3.33		51.1	28-104			
2,4-Dinitrotoluene	1.93	0.20	"	3.33		58.0	28-89			
4-Nitrophenol	2.48	0.50	"	5.00		49.6	11-114			
N-Nitrosodi-n-propylamine	2.06	0.10	"	3.33		61.9	41-126			
Pentachlorophenol	3.13	0.50	"	5.00		62.6	17-109			
Phenol	2.62	0.10	"	5.00		52.4	26-90			
Pyrene	2.00	0.20	"	3.33		60.1	35-142			
1,2,4-Trichlorobenzene	1.80	0.20	"	3.33		54.1	38-107			
Surrogate: 2-Fluorophenol	2.73		"	5.00		54.6	25-121			
Surrogate: Phenol-d6	2.66		"	5.00		53.2	24-113			
Surrogate: Nitrobenzene-d5	1.90		"	3.33		57.1	23-120			
Surrogate: 2-Fluorobiphenyl	1.97		"	3.33		59.2	30-115			
Surrogate: 2,4,6-Tribromophenol	2.96		"	5.00		59.2	19-122			
Surrogate: p-Terphenyl-d14	2.07		"	3.33		62.2	18-137			

LCS Dup (1E22005-BSD1)

Prepared: 05/22/01 Analyzed: 05/25/01

Acenaphthene	1.99	0.10	mg/kg	3.33		59.8	31-137	5.15	40	
4-Chloro-3-methylphenol	3.10	0.10	"	5.00		62.0	26-103	4.96	40	
2-Chlorophenol	2.91	0.10	"	5.00		58.2	25-102	8.60	40	
1,4-Dichlorobenzene	1.85	0.20	"	3.33		55.6	28-104	8.45	40	
2,4-Dinitrotoluene	2.07	0.20	"	3.33		62.2	28-89	7.00	40	
4-Nitrophenol	3.10	0.50	"	5.00		62.0	11-114	22.2	40	
N-Nitrosodi-n-propylamine	2.01	0.10	"	3.33		60.4	41-126	2.46	40	
Pentachlorophenol	3.49	0.50	"	5.00		69.8	17-109	10.9	40	
Phenol	2.88	0.10	"	5.00		57.6	26-90	9.45	40	
Pyrene	2.00	0.20	"	3.33		60.1	35-142	0	40	
1,2,4-Trichlorobenzene	1.99	0.20	"	3.33		59.8	38-107	10.0	40	
Surrogate: 2-Fluorophenol	3.00		"	5.00		60.0	25-121			
Surrogate: Phenol-d6	2.81		"	5.00		56.2	24-113			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 05/29/01 14:27
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**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 1E22005 - EPA 3550B Sonication

LCS Dup (1E22005-BSD1)

Prepared: 05/22/01 Analyzed: 05/25/01

Surrogate: Nitrobenzene-d5	2.04		mg/kg	3.33		61.3	23-120		
Surrogate: 2-Fluorobiphenyl	2.02		"	3.33		60.7	30-115		
Surrogate: 2,4,6-Tribromophenol	3.00		"	5.00		60.0	19-122		
Surrogate: p-Terphenyl-d14	1.98		"	3.33		59.5	18-137		





Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
05/29/01 14:27

Notes and Definitions

- I-07 Sample was extracted outside of the EPA recommended holding time.
- Q-02 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- Q-03 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
- zD-15 Chromatogram Pattern: Unidentified Hydrocarbons C10-C24
- zP-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
- zS-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
- 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



