Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 1257
San Ramon, California 94583
Phone: (925) 275-3801
Fax: (925) 275-3815

13 October 2006

Re: Third Quarter 2006 Ground-Water Monitoring Report
Atlantic Richfield Company (a BP affiliated company) Station #2112
1260 Park Street
Alameda, CA
ACEH Case No.RO44

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

Submitted by:

Paul Supple
Environmental Business Manager

Third Quarter 2006 Ground-Water Monitoring Report
Atlantic Richfield Company Station #2112
1260 Park Street
Alameda, California

Prepared for

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

Prepared by

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

1324 Mangrove Avenue, Suite 212
Chico, California 95926
(530) 566-1400
www.broadbentinc.com

13 October 2006

Project No. 06-08-616

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
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BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

13 October 2006

Project No. 06-08-616

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

Attn.: Mr. Paul Supple

Re: Third Quarter 2006 Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #2112, 1260 Park Street, Alameda, California; ACEH Case No. RO44.

Dear Mr. Supple:

Provided herein is the *Third Quarter 2006 Ground-Water Monitoring Report* for Atlantic Richfield Company Station #2112 (herein referred to as Station #2112) located at 1260 Park Street, Alameda, California (Property). This report presents a summary of well redevelopment activities and ground-water monitoring results conducted during the third quarter of 2006. These activities were conducted in accordance with the letter request from Alameda County Environmental Health (ACEH) dated 20 June 2006, in order to support the request for case closure submitted in 1996. Included as an attachment to this report is the Case Closure Summary for the site, prepared by Pacific Environmental Group, Inc. and dated 20 November 1996.

Should you have questions regarding the contents of this submittal, please do not hesitate to contact us at (530) 566-1400.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.
Senior Engineer

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

PROFESSIONAL GEOLOGIST
ROBERT H. MILLER
No. 4893
10-13-06
STATE OF CALIFORNIA

Enclosures

cc: Mr. Stephen Plunkett, ACEH (Submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

STATION #2112 QUARTERLY GROUND-WATER MONITORING REPORT

Facility: #2112 Address:	1260 Park Street, Alameda, California
Environmental Business Manager:	Mr. Paul Supple
Consulting Company/Contact Person:	Broadbent & Associates, Inc./Rob Miller and Tom Venus, (530)566-1400
Consultant Project No.:	06-08-616
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) ACEH Case No. RO44

WORK PERFORMED THIS QUARTER (Third Quarter 2006):

1. Submitted Second Quarter 2006 Status Report.
2. Conducted well redevelopment and ground-water monitoring/sampling in accordance with letter request from ACEH, dated 20 June 2006. Work performed by URS.

WORK PROPOSED FOR NEXT QUARTER (Fourth Quarter 2006):

1. Submitted Third Quarter 2006 Ground-Water Monitoring Report (contained herein).
2. No environmental field work is currently planned in Fourth Quarter 2006.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	**Reassessment**
Frequency of ground-water sampling:	**A-1, A-2, A-3, A-4, and A-5 = One time, per ACEH request of 6/20/2006**
Frequency of ground-water monitoring:	**One time**
Is free product (FP) present on-site:	**No**
Current remediation techniques:	**NA**
Depth to ground water (below TOC):	**9.02 (A-4) to 11.00 (A-2) feet**
General ground-water flow direction:	**West-southwest**
Approximate hydraulic gradient:	**0.01 Feet per foot**

DISCUSSION:

During the Third Quarter of 2006 existing wells at Station #2112 were redeveloped and sampled by Blaine Tech Services on behalf of URS in accordance with the 20 June 2006 letter request from ACEH. Redevelopment activities using surging and pumping with air displacement were attempted on 14 July 2006. Wells A-1, A-2, A-4, and A-5 were able to be redeveloped in this manner. However, well A-3 was unable to be redeveloped due to an obstruction at 7.82 feet which prevented the surge block from reaching the ground water. Presently, an approximately 14-inch diameter Sycamore tree is growing within six feet from well A-3. It is considered possible that roots from this tree may have grown into the well and were the cause for the obstruction.

The total depth of wells A-2, A-4, and A-5 increased between measurements taken before and after redevelopment: Well A-2 increased from 29.76 to 29.78 feet; Well A-4 increased from 29.80 to 29.82 feet; and Well A-5 increased from 24.80 to 27.25 feet. The total depth of well A-1 did not change (29.69 feet) following redevelopment. Approximately 71 gallons of ground water were evacuated from well A-1; approximately 70 gallons from well A-2; approximately 78 gallons from well A-4; and approximately 54 gallons from well A-5. The initial total well depth in A-5 was possibly due to a significant accumulation of silt. None of the wells de-watered during redevelopment. Field notes from well development are provided within Appendix A.

On 17 July 2006 ground-water monitoring/sampling activities took place on wells A-1, A-2, A-4, and A-5. Again the obstruction noted above prevented monitoring/sampling in well A-3. Ground-water flow direction was towards the west-southwest at an approximate gradient of 0.01 ft/ft. Ground-water elevations are noted on Table 1, attached. Field notes from ground-water elevation monitoring are presented within Appendix A. Potentiometric gound-water elevation contours and the calculated gradient and flow direction arrow are presented in the attached Drawing 1.

Diesel range organics (DRO) were detected above the laboratory reporting limit in three of the four wells sampled at concentrations of 52 µg/L in A-1, 120 µg/L in A-2, and 120 µg/L in A-5. However, the laboratory noted that although the hydrocarbons were detected within the requested fuel range, they did not resemble the requested fuel (Test America note "PT"). Furthermore, for the sample from A-2, the laboratory noted that the surrogate recovery was above the acceptance limits, and that matrix interference was suspected (Test America notes "LH,AY"). The laboratory noted that there was insufficient sample quantity for the matrix spike and duplicate matrix spike for the laboratory control sample duplicate (Test America note "DU"), and that although the relative percent difference exceeded the method control limit, the percent recoveries were within limits (Test America note "RB"). No other quality assurance/quality control issues were noted. The laboratory analytical report, including chain of custody documentation, is included within Appendix A.

Gasoline range organics (GRO) and the gasoline constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX) were not detected above their respective laboratory reporting limits in the four wells sampled. Methyl tert-butyl ether (MTBE) and tert-Amyl methly ether (TAME) were detected in one well sampled (A-1) at 22 µg/L and 3.3 µg/L. respectively. 1,2-Dichloroethane (1,2 DCA) was detected in two of the four wells sampled at concentrations of 0.76 µg/L in A-1 and 1.2 µg/L in A-2. The remaining fuel additives ethanol, tert-Butyl alcohol (TBA), Di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and 1,2-dibromomethane (EDB) were not detected above their laboratory reporting limits in the four wells sampled. Laboratory analytical results are summarized within Table 1 and Table 2, attached.

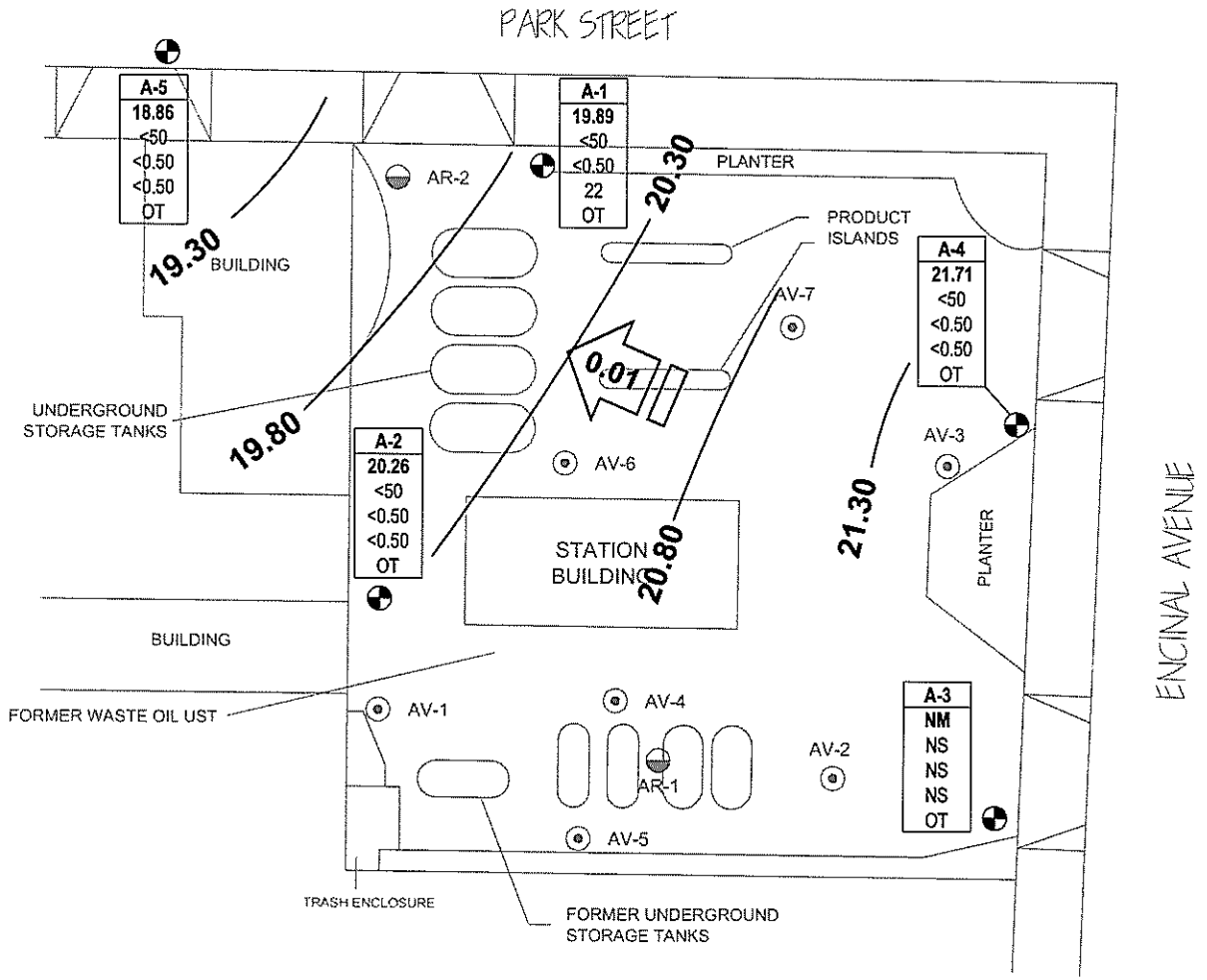
BAI concludes that the concentrations detected are consistent with the results previously reported. A copy of the Case Closure Summary, ARCO Service Station 2112, 1260 Park Street at Encinal Avenue, Alameda, California (Pacific Environmental Group, Inc., 20 November 1996) is provided as Appendix B. A copy of the GeoTracker Upload Confirmation for this report is provided as Appendix C.

CLOSURE:

The findings presented in this report are based upon: observations of URS/Blaine Tech Services field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by Test America (Morgan Hill, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

Drawing 1. Ground-Water Elevation Contour and Analytical Summary Map, 17 July 2006, Station #2112, 1260 Park Street, Alameda, California



LEGEND:

A-1	MONITORING WELL LOCATION
AR-1	GROUND-WATER EXTRACTION WELL LOCATION
AV-1	VAPOR EXTRACTION WELL LOCATION
20.30	GROUND-WATER ELEVATION CONTOURS (FT MSL)
0.01	GROUND-WATER FLOW DIRECTION AND GRADIENT (FT/FT)
Well ELEV GRO Benzene MTBE OT	WELL DESIGNATION GROUND-WATER ELEVATION (FT MSL) GRO, BENZENE AND MTBE CONCENTRATIONS IN GROUND WATER (µg/L) SAMPLING FREQUENCY
NM/MS	NOT MEASURED/NOT SAMPLED
<	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
OT	ONE TIME, PER ACEH REQUEST OF 6/20/2006

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

0 40 80
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 06-08-616 Date: 09/11/06

Station #2112
1260 Park Street
Alameda, California

Ground-Water Elevation Contour and Analytical Summary Map
17 July 2006

Drawing
1

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Station #2112, 1260 Park Street, Alameda, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)							DO (mg/L)	pH
								DRO/ TPHd	GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MtBE		
A-1																
7/17/2006	--	a	30.81	--	--	10.92	19.89	52	<50	<0.50	<0.50	<0.50	<0.50	22	--	6.6
A-2																
7/17/2006	--		31.26	--	--	11.00	20.26	120	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.1
A-3																
7/17/2006	--	c	30.20	--	--	--	--	--	--	--	--	--	--	--	--	--
A-4																
7/17/2006	--	a,b	30.73	--	--	9.02	21.71	<47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.0
A-5																
7/17/2006	--	a	29.53	--	--	10.67	18.86	120	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.0

ABBREVIATIONS & SYMBOLS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
ft bgs = Feet below ground surface
ft MSL = Feet above mean sea level
BTEX = Benzene, toluene, ethylbenzene and xylenes
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
GRO = Gasoline range organics, range C4-C12
GWE = Groundwater elevation measured in ft MSL
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
NP = Not purged before sampling
P = Purged before sampling
TOC = Top of casing measured in ft MSL
TPH-g = Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 8015, Modified
µg/L = Micrograms per liter
SEQ/SEQM = Sequoia Analytical/Sequoia Morgan Hill Laboratories

FOOTNOTES:
a = Hydrocarb. in req. fuel range, but doesn't resemble req. fuel
b = Surrogate recovery above the acceptance limits. Matrix interference suspected
c = Well obstructed

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

Table 2. Summary of Fuel Additives Analytical Data

Station #2112, 1260 Park Street, Alameda, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
A-1									
7/17/2006	<300	<20	22	<0.50	<0.50	3.3	0.76	<0.50	
A-2									
7/17/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	
A-3									
7/17/2006	--	--	--	--	--	--	--	--	
A-4									
7/17/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
A-5									
7/17/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

ABBREVIATIONS & SYMBOLS:
< = Not detected at or above specified laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
µg/L = micrograms per liter

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

Table 3. Historical Ground-Water Flow Direction and Gradient

Station #2112, 1260 Park Street, Alameda, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/17/2006	West	0.01

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

APPENDIX A

URS GROUND-WATER SAMPLING DATA PACKAGE (INCLUDES LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION, FIELD AND LABORATORY PROCEDURES, AND FIELD DATA SHEETS)

URS

August 11, 2006

Mr. Rob Miller
Broadbent & Associates, Inc.
2000 Kirman Avenue
Reno, NV 89502

Groundwater Sampling Data Package
ARCO Service Station #2112
1260 Park Street
Alameda, CA
Field Work Performed: 07/17/06

General Information
Data Submittal Prepared/Reviewed by: Alok Kolekar
Phone Number: 510-874-3152
On-Site Supplier Representative: Blaine Tech
Scope of Work Performed: Groundwater Monitoring in accordance with 3rd Quarter 2006 protocols as identified in the Quarterly Monitoring Program Table in the Field and Laboratory Procedures Attachment.
Variations from Work Scope: Well A-3 was not gauged or sampled due to insufficient water in well.

This submittal presents the tabulation of data collected in association with routine groundwater monitoring. The attachments include, at a minimum, sampling procedures, field data collected, laboratory results, chain of custody documentation, and waste management activities. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations. Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Alok D. Kolekar, P.E.
Project Manager

cc: Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
Tel: 510.893.3600
Fax: 510.874.3268

URS

Attachments

Field and Laboratory Procedures
Laboratory Report
Chain of Custody Documentation
Field Data Sheets
    Well Gauging Data
    Well Monitoring Data Sheets

FIELD & LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

10 August, 2006

Alok Kolekar
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #2112, Alameda, CA
Work Order: MPG0565

Enclosed are the results of analyses for samples received by the laboratory on 07/18/06 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate # 1210

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

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www.testamericainc.com

URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	MPG0565-01	Water	07/17/06 11:15	07/18/06 16:40
A-2	MPG0565-02	Water	07/17/06 12:00	07/18/06 16:40
A-4	MPG0565-03	Water	07/17/06 13:40	07/18/06 16:40
A-5	MPG0565-04	Water	07/17/06 13:10	07/18/06 16:40
TB-2112-07172006	MPG0565-05	Water	07/17/06 00:00	07/18/06 16:40

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

These samples were received with no custody seals.

TestAmerica
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FAX (408) 782-6308
www.testamericainc.com

URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Total Purgeable Hydrocarbons by GC/MS (CA LUFT)

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MPG0565-01) Water Sampled: 07/17/06 11:15 Received: 07/18/06 16:40									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6G21002	07/21/06	07/21/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*60-145*		"	"	"	"	
A-2 (MPG0565-02) Water Sampled: 07/17/06 12:00 Received: 07/18/06 16:40									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6G21002	07/21/06	07/21/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*60-145*		"	"	"	"	
A-4 (MPG0565-03) Water Sampled: 07/17/06 13:40 Received: 07/18/06 16:40									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6G21002	07/21/06	07/21/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*60-145*		"	"	"	"	
A-5 (MPG0565-04) Water Sampled: 07/17/06 13:10 Received: 07/18/06 16:40									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	6G21024	07/21/06	07/22/06	LUFT GCMS	
Surrogate: 1,2-Dichloroethane-d4		*120 %*	*60-145*		"	"	"	"	

TestAmerica
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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Extractable Hydrocarbons by EPA 8015B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MPG0565-01) Water Sampled: 07/17/06 11:15 Received: 07/18/06 16:40									
Diesel Range Organics (C10-C36)	**52**	47	ug/l	1	6G21018	07/21/06	08/08/06	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		*75 %*	*30-115*		"	"	"	"	
A-2 (MPG0565-02) Water Sampled: 07/17/06 12:00 Received: 07/18/06 16:40									
Diesel Range Organics (C10-C36)	**120**	47	ug/l	1	6G21018	07/21/06	08/08/06	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		*121 %*	*30-115*		"	"	"	"	*LH,AY*
A-4 (MPG0565-03) Water Sampled: 07/17/06 13:40 Received: 07/18/06 16:40									
Diesel Range Organics (C10-C36)	ND	47	ug/l	1	6G21018	07/21/06	08/08/06	EPA 8015B-SVOA	
Surrogate: n-Octacosane		*75 %*	*30-115*		"	"	"	"	
A-5 (MPG0565-04) Water Sampled: 07/17/06 13:10 Received: 07/18/06 16:40									
Diesel Range Organics (C10-C36)	**120**	47	ug/l	1	6G21018	07/21/06	08/08/06	EPA 8015B-SVOA	PT
Surrogate: n-Octacosane		*80 %*	*30-115*		"	"	"	"	

TestAmerica
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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MPG0565-01) Water Sampled: 07/17/06 11:15 Received: 07/18/06 16:40									
tert-Amyl methyl ether	**3.3**	0.50	ug/l	1	6G21002	07/21/06	07/21/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	**0.76**	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**22**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*60-145*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*60-115*		"	"	"	"	
Surrogate: Dibromofluoromethane		*100 %*	*75-130*		"	"	"	"	
Surrogate: Toluene-d8		*88 %*	*70-130*		"	"	"	"	
A-2 (MPG0565-02) Water Sampled: 07/17/06 12:00 Received: 07/18/06 16:40									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6G21002	07/21/06	07/21/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	**1.2**	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*60-145*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*60-115*		"	"	"	"	
Surrogate: Dibromofluoromethane		*104 %*	*75-130*		"	"	"	"	
Surrogate: Toluene-d8		*92 %*	*70-130*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Volatile Organic Compounds by EPA Method 8260B

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-4 (MPG0565-03) Water Sampled: 07/17/06 13:40 Received: 07/18/06 16:40									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6G21002	07/21/06	07/21/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*	*60-145*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90 %*	*60-115*		"	"	"	"	
Surrogate: Dibromofluoromethane		*106 %*	*75-130*		"	"	"	"	
Surrogate: Toluene-d8		*90 %*	*70-130*		"	"	"	"	
A-5 (MPG0565-04) Water Sampled: 07/17/06 13:10 Received: 07/18/06 16:40									
tert-Amyl methyl ether	ND	0.50	ug/l	1	6G21024	07/21/06	07/22/06	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	300	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*120 %*	*60-145*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*85 %*	*60-115*		"	"	"	"	
Surrogate: Dibromofluoromethane		*110 %*	*75-130*		"	"	"	"	
Surrogate: Toluene-d8		*86 %*	*70-130*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21002 - EPA 5030B P/T / LUFT GCMS										
Blank (6G21002-BLK1)				Prepared & Analyzed: 07/21/06						
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	*2.51*		"	*2.50*		*100*	*60-145*			
Laboratory Control Sample (6G21002-BS1)				Prepared & Analyzed: 07/21/06						
Gasoline Range Organics (C4-C12)	816	50	ug/l	700		117	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.41*		"	*2.50*		*96*	*60-145*			
Laboratory Control Sample (6G21002-BS2)				Prepared & Analyzed: 07/21/06						
Gasoline Range Organics (C4-C12)	453	50	ug/l	440		103	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.36*		"	*2.50*		*94*	*60-145*			
Matrix Spike (6G21002-MS1)	**Source: MPG0564-02**			Prepared & Analyzed: 07/21/06						
Gasoline Range Organics (C4-C12)	8560	500	ug/l	7000	910	109	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.51*		"	*2.50*		*100*	*60-145*			
Matrix Spike Dup (6G21002-MSD1)	**Source: MPG0564-02**			Prepared & Analyzed: 07/21/06						
Gasoline Range Organics (C4-C12)	8500	500	ug/l	7000	910	108	75-140	0.7	20	
Surrogate: 1,2-Dichloroethane-d4	*2.47*		"	*2.50*		*99*	*60-145*			
Batch 6G21024 - EPA 5030B P/T / LUFT GCMS										
Blank (6G21024-BLK1)				Prepared: 07/21/06 Analyzed: 07/22/06						
Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Surrogate: 1,2-Dichloroethane-d4	*2.91*		"	*2.50*		*116*	*60-145*			
Laboratory Control Sample (6G21024-BS1)				Prepared: 07/21/06 Analyzed: 07/22/06						
Gasoline Range Organics (C4-C12)	816	50	ug/l	700		117	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.65*		"	*2.50*		*106*	*60-145*			

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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Total Purgeable Hydrocarbons by GC/MS (CA LUFT) - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21024 - EPA 5030B P/T / LUFT GCMS										
Laboratory Control Sample (6G21024-BS2)				Prepared: 07/21/06 Analyzed: 07/22/06						
Gasoline Range Organics (C4-C12)	457	50	ug/l	440		104	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.52*		"	*2.50*		*101*	*60-145*			
Matrix Spike (6G21024-MS1)	**Source: MPG0642-01**			Prepared: 07/21/06 Analyzed: 07/22/06						
Gasoline Range Organics (C4-C12)	8180	500	ug/l	7000	99	115	75-140			
Surrogate: 1,2-Dichloroethane-d4	*2.59*		"	*2.50*		*104*	*60-145*			
Matrix Spike Dup (6G21024-MSD1)	**Source: MPG0642-01**			Prepared: 07/21/06 Analyzed: 07/22/06						
Gasoline Range Organics (C4-C12)	8300	500	ug/l	7000	99	117	75-140	1	20	
Surrogate: 1,2-Dichloroethane-d4	*2.62*		"	*2.50*		*105*	*60-145*			

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1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21018 - EPA 3510C / EPA 8015B-SVOA										
Blank (6G21018-BLK1)				Prepared: 07/21/06 Analyzed: 08/08/06						
Diesel Range Organics (C10-C36)	ND	50	ug/l							
Surrogate: n-Octacosane	*19.0*		"	*50.0*		*38*	*30-115*			
Laboratory Control Sample (6G21018-BS1)				Prepared: 07/21/06 Analyzed: 08/08/06						
Diesel Range Organics (C10-C36)	377	50	ug/l	500		75	40-140			
Surrogate: n-Octacosane	*47.5*		"	*50.0*		*95*	*30-115*			
Laboratory Control Sample Dup (6G21018-BSD1)				Prepared: 07/21/06 Analyzed: 08/08/06						**DU**
Diesel Range Organics (C10-C36)	662	50	ug/l	1000		66	40-140	55	35	RB
Surrogate: n-Octacosane	*82.1*		"	*100*		*82*	*30-115*			

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URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21002 - EPA 5030B P/T / EPA 8260B										
Blank (6G21002-BLK1)				Prepared & Analyzed: 07/21/06						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.51*		"	*2.50*		*100*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99*	*60-115*			
Surrogate: Dibromofluoromethane	*2.52*		"	*2.50*		*101*	*75-130*			
Surrogate: Toluene-d8	*2.42*		"	*2.50*		*97*	*70-130*			
Laboratory Control Sample (6G21002-BS1)				Prepared & Analyzed: 07/21/06						
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0		104	65-135			
Benzene	9.34	0.50	"	10.0		93	70-125			
tert-Butyl alcohol	218	20	"	200		109	60-135			
Di-isopropyl ether	11.1	0.50	"	10.0		111	70-130			
1,2-Dibromoethane (EDB)	10.9	0.50	"	10.0		109	85-125			
1,2-Dichloroethane	10.3	0.50	"	10.0		103	75-125			
Ethanol	217	300	"	200		108	15-150			
Ethyl tert-butyl ether	10.8	0.50	"	10.0		108	65-130			
Ethylbenzene	9.30	0.50	"	10.0		93	80-130			
Methyl tert-butyl ether	10.7	0.50	"	10.0		107	50-140			
Toluene	9.68	0.50	"	10.0		97	70-120			
Xylenes (total)	28.0	0.50	"	30.0		93	85-125			
Surrogate: 1,2-Dichloroethane-d4	*2.41*		"	*2.50*		*96*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.54*		"	*2.50*		*102*	*60-115*			
Surrogate: Dibromofluoromethane	*2.44*		"	*2.50*		*98*	*75-130*			
Surrogate: Toluene-d8	*2.57*		"	*2.50*		*103*	*70-130*			

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1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

TestAmerica - Morgan Hill, CA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21002 - EPA 5030B P/T / EPA 8260B										
Matrix Spike (6G21002-MS1)	**Source: MPG0564-02**			Prepared & Analyzed: 07/21/06						
tert-Amyl methyl ether	132	5.0	ug/l	100	15	117	65-135			
Benzene	93.6	5.0	"	100	ND	94	70-125			
tert-Butyl alcohol	2230	200	"	2000	45	109	60-135			
Di-isopropyl ether	112	5.0	"	100	ND	112	70-130			
1,2-Dibromoethane (EDB)	112	5.0	"	100	ND	112	85-125			
1,2-Dichloroethane	109	5.0	"	100	ND	109	75-125			
Ethanol	3520	3000	"	2000	ND	176	15-150			LM
Ethyl tert-butyl ether	110	5.0	"	100	ND	110	65-130			
Ethylbenzene	99.5	5.0	"	100	ND	100	80-130			
Methyl tert-butyl ether	1440	5.0	"	100	1300	140	50-140			
Toluene	93.9	5.0	"	100	ND	94	70-120			
Xylenes (total)	288	5.0	"	300	ND	96	85-125			
Surrogate: 1,2-Dichloroethane-d4	*2.51*		"	*2.50*		*100*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99*	*60-115*			
Surrogate: Dibromofluoromethane	*2.48*		"	*2.50*		*99*	*75-130*			
Surrogate: Toluene-d8	*2.42*		"	*2.50*		*97*	*70-130*			
Matrix Spike Dup (6G21002-MSD1)	**Source: MPG0564-02**			Prepared & Analyzed: 07/21/06						
tert-Amyl methyl ether	131	5.0	ug/l	100	15	116	65-135	0.8	25	
Benzene	92.6	5.0	"	100	ND	93	70-125	1	15	
tert-Butyl alcohol	2260	200	"	2000	45	111	60-135	1	35	
Di-isopropyl ether	111	5.0	"	100	ND	111	70-130	0.9	35	
1,2-Dibromoethane (EDB)	110	5.0	"	100	ND	110	85-125	2	15	
1,2-Dichloroethane	107	5.0	"	100	ND	107	75-125	2	10	
Ethanol	3630	3000	"	2000	ND	182	15-150	3	35	LM
Ethyl tert-butyl ether	108	5.0	"	100	ND	108	65-130	2	35	
Ethylbenzene	98.7	5.0	"	100	ND	99	80-130	0.8	15	
Methyl tert-butyl ether	1420	5.0	"	100	1300	120	50-140	1	25	
Toluene	91.7	5.0	"	100	ND	92	70-120	2	15	
Xylenes (total)	285	5.0	"	300	ND	95	85-125	1	15	
Surrogate: 1,2-Dichloroethane-d4	*2.47*		"	*2.50*		*99*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.44*		"	*2.50*		*98*	*60-115*			
Surrogate: Dibromofluoromethane	*2.48*		"	*2.50*		*99*	*75-130*			
Surrogate: Toluene-d8	*2.45*		"	*2.50*		*98*	*70-130*			

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1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21024 - EPA 5030B P/T / EPA 8260B										
Blank (6G21024-BLK1)				Prepared: 07/21/06 Analyzed: 07/22/06						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	300	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.91*		"	*2.50*		*116*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.08*		"	*2.50*		*83*	*60-115*			
Surrogate: Dibromofluoromethane	*2.76*		"	*2.50*		*110*	*75-130*			
Surrogate: Toluene-d8	*2.19*		"	*2.50*		*88*	*70-130*			
Laboratory Control Sample (6G21024-BS1)				Prepared: 07/21/06 Analyzed: 07/22/06						
tert-Amyl methyl ether	10.4	0.50	ug/l	10.0		104	65-135			
Benzene	9.59	0.50	"	10.0		96	70-125			
tert-Butyl alcohol	215	20	"	200		108	60-135			
Di-isopropyl ether	11.5	0.50	"	10.0		115	70-130			
1,2-Dibromoethane (EDB)	10.7	0.50	"	10.0		107	85-125			
1,2-Dichloroethane	11.3	0.50	"	10.0		113	75-125			
Ethanol	233	300	"	200		116	15-150			
Ethyl tert-butyl ether	10.9	0.50	"	10.0		109	65-130			
Ethylbenzene	9.97	0.50	"	10.0		100	80-130			
Methyl tert-butyl ether	10.9	0.50	"	10.0		109	50-140			
Toluene	9.54	0.50	"	10.0		95	70-120			
Xylenes (total)	29.7	0.50	"	30.0		99	85-125			
Surrogate: 1,2-Dichloroethane-d4	*2.65*		"	*2.50*		*106*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99*	*60-115*			
Surrogate: Dibromofluoromethane	*2.56*		"	*2.50*		*102*	*75-130*			
Surrogate: Toluene-d8	*2.47*		"	*2.50*		*99*	*70-130*			

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1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6G21024 - EPA 5030B P/T / EPA 8260B										
Matrix Spike (6G21024-MS1)	**Source: MPG0642-01**			Prepared: 07/21/06 Analyzed: 07/22/06						
tert-Amyl methyl ether	109	5.0	ug/l	100	ND	109	65-135			
Benzene	97.8	5.0	"	100	ND	98	70-125			
tert-Butyl alcohol	2950	200	"	2000	700	112	60-135			
Di-isopropyl ether	120	5.0	"	100	ND	120	70-130			
1,2-Dibromoethane (EDB)	108	5.0	"	100	ND	108	85-125			
1,2-Dichloroethane	132	5.0	"	100	23	109	75-125			
Ethanol	2420	3000	"	2000	ND	121	15-150			
Ethyl tert-butyl ether	112	5.0	"	100	ND	112	65-130			
Ethylbenzene	104	5.0	"	100	ND	104	80-130			
Methyl tert-butyl ether	174	5.0	"	100	60	114	50-140			
Toluene	96.6	5.0	"	100	ND	97	70-120			
Xylenes (total)	301	5.0	"	300	ND	100	85-125			
Surrogate: 1,2-Dichloroethane-d4	*2.59*		"	*2.50*		*104*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.48*		"	*2.50*		*99*	*60-115*			
Surrogate: Dibromofluoromethane	*2.52*		"	*2.50*		*101*	*75-130*			
Surrogate: Toluene-d8	*2.47*		"	*2.50*		*99*	*70-130*			
Matrix Spike Dup (6G21024-MSD1)	**Source: MPG0642-01**			Prepared: 07/21/06 Analyzed: 07/22/06						
tert-Amyl methyl ether	109	5.0	ug/l	100	ND	109	65-135	0	25	
Benzene	98.0	5.0	"	100	ND	98	70-125	0.2	15	
tert-Butyl alcohol	3060	200	"	2000	700	118	60-135	4	35	
Di-isopropyl ether	120	5.0	"	100	ND	120	70-130	0	35	
1,2-Dibromoethane (EDB)	108	5.0	"	100	ND	108	85-125	0	15	
1,2-Dichloroethane	133	5.0	"	100	23	110	75-125	0.8	10	
Ethanol	2530	3000	"	2000	ND	126	15-150	4	35	
Ethyl tert-butyl ether	112	5.0	"	100	ND	112	65-130	0	35	
Ethylbenzene	104	5.0	"	100	ND	104	80-130	0	15	
Methyl tert-butyl ether	174	5.0	"	100	60	114	50-140	0	25	
Toluene	98.1	5.0	"	100	ND	98	70-120	2	15	
Xylenes (total)	306	5.0	"	300	ND	102	85-125	2	15	
Surrogate: 1,2-Dichloroethane-d4	*2.62*		"	*2.50*		*105*	*60-145*			
Surrogate: 4-Bromofluorobenzene	*2.51*		"	*2.50*		*100*	*60-115*			
Surrogate: Dibromofluoromethane	*2.56*		"	*2.50*		*102*	*75-130*			
Surrogate: Toluene-d8	*2.45*		"	*2.50*		*98*	*70-130*			

TestAmerica
ANALYTICAL TESTING CORPORATION

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.testamericainc.com

URS Corporation [Arco]	Project: ARCO #2112, Alameda, CA	MPG0565
1333 Broadway, Suite 800	Project Number: G0C29-0004	**Reported:**
Oakland CA, 94612	Project Manager: Alok Kolekar	08/10/06 09:55

Notes and Definitions

RB	RPD exceeded method control limit; % recoveries within limits.
PT	Hydrocarb. in req. fuel range, but doesn't resemble req. fuel
LM	MS and/or MSD above acceptance limits. See Blank Spike(LCS).
LH,AY	Surrogate recovery above the acceptance limits. Matrix interference suspected.
DU	Insufficient sample quantity for matrix spike/dup matrix spike
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name: Analytical for QMR sampling

BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > Central > 11104 > HistoricalBL

State or Lead Regulatory Agency: California Regional Water Quality Control Board - San Fr

Requested Due Date (mm/dd/yy): 10 Day TAT*

BF SA 071706

On-site Time: 0935	Temp: 75
Off-site Time: 1345	Temp:
Sky Conditions: clear	
Meteorological Events:	
Wind Speed:	Direction:

Lab Name: Sequoia	BP/AR Facility No.: 2112	Consultant/Contractor: URS
Address: 885 Jarvis Drive	BP/AR Facility Address: 1260 Park St., Alameda, CA 94501	Address: 1333 Broadway, Suite 800
Morgan Hill, CA 95037	Site Lat/Long:	Oakland, CA 94612
Lab PM: Lisa Race / Katt Min	California Global ID No.:	Consultant/Contractor Project No.:
Tele/Fax: 408.782.8156 / 408.782.6308	Enfos Project No.:	Consultant/Contractor PM: Alok Kolekar
BP/AR PM Contact:	Provision or RCOP: Provision	Tele/Fax: 510.874.3152 / 510.874.3268
Address:	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
	Sub Phase/Task: 03 - Analytical	E-mail EDD To: jane_field@urscorp.com
Tele/Fax:	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Company

Lab Bottle Order No: 11104

MPG0565

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: HCl	Preservative: Methanol	Requested Analysis: GRO / BTEX (8260)	Requested Analysis: MTBE, TAME, ETBE, DIPE, TBA (8260)	Requested Analysis: EDB (8260)	Requested Analysis: Ethanol (8260)	Requested Analysis: EDC (8260)	Requested Analysis: DRO (8015)	Sample Point Lat/Long and Comments
1	A-1	1115	07/17/06		X		01	3				X		X	X	X	X	X	X	
2	A-2	1200			X		02	3				X		X	X	X	X	X	X	
3	A-4	1340			X		03	3				X		X	X	X	X	X	X	
4	A-5	1350			X		04	3				X		X	X	X	X	X	X	
5	TB-2112-07172006				X		05	2				4								ON HOLD
6																				
7																				
8																				
9																				
10																				

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: S. Carmack		07/17/06	1710		7/17/06	1745
Sampler's Company: BlazeTech Services	BP/S	7/18/06	1553		7/18/06	1553
Shipment Date:	State of California	7/18/06	1640	M. H	7/18/06	1640
Shipment Method:						
Shipment Tracking No:						

Instructions:

Ice In Place Yes No

Temp Blank Yes No

Cooler Temperature on Receipt 4.0 °F/C

Trip Blank Yes No

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP/ARCO 2112
REC. BY (PRINT): Feluz
WORKORDER: MPG0565

DATE REC'D AT LAB: July 18, 2006
TIME REC'D AT LAB: 1640
DATE LOGGED IN: 7-20-06

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

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / (Absent) Intact / Broken*	01		A-1	6 VOAs	HCL	—	Water	7/17/06	
					2 Ambers	—	—	Water		
2. Chain-of-Custody	(Present) / Absent*	02		A-2			—			
3. Traffic Reports or Packing List:	Present / (Absent)	03		A-4			—			
4. Airbill:	Airbill / Sticker Present / (Absent)	04		A-5			—			
		05		TB-2112-071706	2 VOAs	HCL	—		7/17/06	
5. Airbill #:										
6. Sample Labels:	(Present) / Absent									
7. Sample IDs:	(Listed) / Not Listed on Chain-of-Custody									
8. Sample Condition:	(Intact) / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree?	(Yes) / No*									
10. Sample received within hold time?	Yes / (No*)									
11. Adequate sample volume received?	(Yes) / No*									
12. Proper preservatives used?	(Yes) / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes)	(Yes) / No*									
14. Read Temp: 4.0°C Corrected Temp: 4.0°C Is corrected temp 4 +/-2°C? (Yes) / No**										

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): METALS (OFF ON ICE) or Problem COC

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

7/18/06

WELL GAUGING DATA

Project # 060717-SC1 Date 07/17/06 Client ARCO 2112

Site 1260 Park St. Alameda, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB ~~or~~ TOC	Notes
A-1	1045	3					10.92	29.68		
A-2	1034	3					11.00	27.76		
A-4	1022	3					9.02	29.78		
A-5	1038	3					10.67	27.79	↓	
A-3	1028	3		No water in well definite obstruction			—	7.82		

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060717-SC1	Station # 1260 Park St Alameda CA
Sampler: ~~CA~~ S. Carmack	Date: 07/17/06
Well I.D.: ~~S~~ A-1	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 29.68	Depth to Water: 10.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method:
- Bailer
- Disposable Bailer
- X Positive Air Displacement
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

7.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 21.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1102	80.3	6.1	798	7.0	clear, odor
1104	69.8	6.4	715	14.0	turbid, no odor
1106	69.5	6.6	712	21.0	" " "

Did well dewater? Yes (No) Gallons actually evacuated: 21.0

Sampling Time: 1115 Sampling Date: 07/17/06

Sample I.D.: A-1 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: See COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060717-SC1	Station # 1260 Park St. Alameda CA
Sampler: S-Carrasco	Date: 07/17/06
Well I.D.: A-2	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 29.76	Depth to Water: 10.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method:
- Bailer
- Disposable Bailer
- X Positive Air Displacement
- Electric Submersible
- Extraction Pump
- Other: ___

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Other: ___

Top of Screen: ___

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

7.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 21.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1147	68.4	7.2	757	7.0	brownish turbid, no odor
1149	67.9	7.1	763	14.0	" " " "
1151	67.8	7.1	740	21.0	" " " "

Did well dewater? Yes (No) Gallons actually evacuated: 21.0

Sampling Time: 1200 Sampling Date: 07/17/06

Sample I.D.: A-2 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: See CoC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060717-SC1	Station # 1260 Park St
Sampler: S. Carmack	Date: 07/17/06
Well I.D.: A-4	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 29.78	Depth to Water: 9.02
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method:
- Bailer
- Disposable Bailer
- X Positive Air Displacement
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

7.7 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 23.1 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1225	68.6	7.2	764	7.7	turbid/no odor
1227	68.2	7.0	~~SSS~~ 758	15.4	" " "
1229	~~Temp~~ 68.0	7.0	742	23.1	" " "

Did well dewater? Yes (No) Gallons actually evacuated: 23.1

Sampling Time: 1340 Sampling Date: 07/17/06

Sample I.D.: A-4 Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: See COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 060717-SC1	Station # 1260 Park St. Alameda, CA
Sampler: S. Carrasco	Date: 07/17/06
Well I.D.: A-5	Well Diameter: 2 3 4 6 8 ____
Total Well Depth: 24.79	Depth to Water: 10.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method:
- Bailer
- Disposable Bailer
- X Positive Air Displacement
- Electric Submersible
- Extraction Pump
- Other: _____

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

5.3 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 15.9 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1255	68.9	6.8	766	5.3	cloudy brown
1257	68.7	6.9	768	10.6	" "
1259	68.6	7.0	758	15.9	cloudier brown

Did well dewater? Yes (No)

Gallons actually evacuated: 15.9

Sampling Time: 1310

Sampling Date: 07/17/06

Sample I.D.: A-5

Laboratory: Pace Sequoia Other TA

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol

Other: See COC

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

ARCO 2112

Station #

1260 Park St. ~~Oakland~~ Alameda, CA (SC)

Station Address

Total Gallons Collected From Groundwater Monitoring Wells: 81-2

added equip. rinse water 5 | any other adjustments ____

TOTAL GALS. RECOVERED 86 | loaded onto BTS vehicle # 22

BTS event # 060717-SC | time 1345 | date 07/17/06

signature [signature]

* *

REC'D AT ____ time ____ date __/__/__

unloaded by signature ____

WELLHEAD INSPECTION CHECKLIST
BP / GEM

Date 07/17/06

Site Address 1260 Park St. Alameda CA

Job Number 060717-SC1 Technician S. Gruenk

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
A-1							X	
A-2	X (5")						X	
A-4								
A-5							Y	
A-3	(5") X						X	

NOTES: A1 ⇒ Lock rusted - cut off - No spares on Truck 22 - Needs to be replaced. A2 ⇒ Lid has hole where bolt is ripped out (1/2 bolts missing)
A3 ⇒ both bolts stripped
A-5 - Christy box

WELL DEVELOPMENT DATA SHEET

Project #: 060714-PC1	Client: URS
Developer: PC	Date Developed: 7/14/06
Well I.D. A-1	Well Diameter: (circle one) 2 (3) 4 6
Total Well Depth:	Depth to Water:
Before 29.69 After 29.69	Before 10.63 After 16.20
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

7.1	X	10	=	71
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☑ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 3" surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW: NOTATIONS:
1000	Surged well for 15min. w/ 3" surge block					
1015	Begin Purge w/ DAD pump					
1022	63.8	7.2	733	>1000	7.1 gal	14.90 brown, silty
1028	65.1	7.1	731	>1000	14.2	16.45 slightly clearer, silty
1035	65.3	7.1	678	154	21.3	17.61 cloudy
1042	65.6	7.2	668	91	28.4	17.61 clearing
1048	65.6	7.1	658	75	35.5	17.91 ↓
1055	65.2	7.2	648	208	42.6	18.05 cloudy
1102	65.4	7.2	639	64	49.7	18.30 ↓
1108	65.4	7.3	633	45	56.8	18.32 clear
1115	65.4	7.4	630	23	63.9	18.10 ↓
1122	65.2	7.2	629	14	71.0	18.29
		Purge ended				

Did Well Dewater? No | If yes, note above. | Gallons Actually Evacuated: 71

WELL DEVELOPMENT DATA SHEET

Project #: 060714-PC1	Client: URS
Developer: PC	Date Developed: 7/14/06
Well I.D. A2	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 29.76 After 29.78	Depth to Water: Before 16.71 After 16.51
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

⇒ 10 min. spent removing mud/dirt from well box. ~.5gal

7	X	10	=	70
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☐ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 3" surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft) DTW?	NOTATIONS:
1140	Surge well for 15 min						
1202	Begin Purge w/ PAD						
1210	66.9	7.1	913	71000	7 gal	15.90	dark brown, silty
1207	67.8	7.1	880	847	14	16.60	↓ ↓
1214	69.8	7.2	796	515	21	16.90	cloudy
1220	68.6	7.2	781	281	28	17.12	
1227	67.6	7.2	772	210	35	17.25	
1233	70.4	7.3	757	164	42	19.60	
1239	69.7	7.4	752	44	49	20.21	
1245	68.1	7.2	740	14	56	20.35	clear
1252	67.6	7.1	741	5	63	20.80	
1259	67.7	7.1	737	4	70	20.84	
	Purge ended						

Did Well Dewater? NO | If yes, note above. | Gallons Actually Evacuated: 70

WELL DEVELOPMENT DATA SHEET

Project #: 060714-PC1	Client: URS
Developer: PC	Date Developed: 7/14/06
Well I.D. A-3	Well Diameter: (circle one) 2 3 4 6 ___
Total Well Depth: Before 7.82 After	Depth to Water: Before After
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

⇒ 7.82' to obstruction or bottom
- sounder showed mud/foot material
- 1/2" black irrigation tubing removed - stuck in obstruction or well bottom

1 Case Volume	X	Specified Volumes	=	gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☐ Positive Air Displacement

Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
		Attempted to get through obstruction w/ surge block unsuccessfully ~1 hour				
Did Well Dewater?		If yes, note above.		Gallons Actually Evacuated:		

WELL DEVELOPMENT DATA SHEET

Project #: 060714.PC1	Client: URS
Developer: PC	Date Developed: 7/14/06
Well I.D. 14	Well Diameter: (circle one) 2 (3) 4 6
Total Well Depth: Before 29.80 After 29.82	Depth to Water: Before 8.76 After 15.60
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
$\{12 \times (d^2/4) \times \pi\} / 231$	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

7.8	X	10	=	78
1 Case Volume		Specified Volumes		gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☒ Positive Air Displacement

Type of Installed Pump _____
Other equipment used 3" surge block

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft) DTW: NOTATIONS:
750	Surged well for 15 min. w/ 3" surge block					
808	Begin Purge w/ PAD Pump					
813	66.8	6.0	725	>1000	7.8 gal	12.90 Brown, silty
820	66.5	6.7	635	>1000	15.6	14.72 slightly cleaner, silty
828	66.2	7.0	607	>1000	23.4	16.39 clearing, cloudy
835	66.3	7.1	574	526	31.2	16.82 ↓ ↓
842	66.1	7.1	559	~~559~~ 310	39	17.30 cloudy
850	66.3	7.1	570	239	46.8	17.70
857	66.3	7.1	552	353	54.6	18.22
904	66.0	7.1	545	226	62.4	18.18
912	65.9	7.2	543	93	70.2	18.42
920	65.9	7.2	538	102	78.0	18.70
	Purge Ended					

Did Well Dewater? No If yes, note above. Gallons Actually Evacuated: 78

WELL DEVELOPMENT DATA SHEET

Project #: 0602 714-PC1	Client: URS
Developer: PC	Date Developed: 7/14/06
Well I.D. A-5	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 24.80 After 24.25	Depth to Water: Before 10.33 After 18.16
Reason not developed:	If Free Product, thickness:
Additional Notations: Initial TWD above possibly false due to high thickness of silt	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

5.4 (1 Case Volume) X 10 (Specified Volumes) = 54 gallons

Purging Device:
- ☐ Bailer
- ☐ Suction Pump
- ☐ Electric Submersible
- ☑ Positive Air Displacement

Type of Installed Pump
Other equipment used 3" Surgeblak

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft.) DTW?	NOTATIONS:
1325	Surged well for 15 min						
1345	Begin Purge w/ PAD Pump						
1352	69.3	7.7	576	>1000	5.4	16.90	grey, silty, thick
Pump clogged, completely disassembled - all 3' of pump packed w/ sandy silt							
1420	69.2	7.6	579	>1000	10.8	17.80	grey silty
1436	68.3	7.6	580	>1000	16.2	16.12	
Moved out of way for tennant - unclog pump							
1455 1505	68.5	7.8	583	>1000	21.6	17.21	grey, thick
1515	69.3	7.7	596	>1000	27	18.92	↓ ↓
1522	unclog pump, clear bucket of sediment						
1528	resume Purge 1535 Move for customer			1540 resume Purge			
1550	68.6	7.7	586	>1000	32.4	17.18	grey, silty, thinner
1556	68.1	7.7	589	>1000	37.8	18.20	↓ ↓

Did Well Dewater? NO If yes, note above.
Gallons Actually Evacuated: 54

1.

WELL DEVELOPMENT DATA SHEET

Well I.D. A-5	PAGE 2 OF 2
Project #: 060714-PC1	Client: URS

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED:	(ft) DTW:	NOTATIONS:
1600	68.1	7.7	581	71000	43.2 gal	18.60	Silty, grey
1608	Move for customer, nuclear pump.						
1610	68.1	7.6	598	71000	48.6 gal	18.72	
1614	68.0	7.8	602	71000	54	1880	
	End Purge						

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

Arco 2112
Station #

1260 Park St., Alameda
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

273

added equip. rinse water 20

any other adjustments

TOTAL GALS. RECOVERED 293

loaded onto BTS vehicle # 64

BTS event #	time	date
060714-PC1	1200	7/14/06

signature

* *

REC'D AT	time	date
BTS		7/14/06

unloaded by
signature

WELLHEAD INSPECTION CHECKLIST
BP / GEM

Date 7/14/06

Site Address 1260 Park st., Alameda

Job Number 060714-Pc1 Technician P. Cornish

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
A-1							A	
A-2		A					A	
A-3				A		A	A	
A-4				A		A	A	
A-5	A	A	A					

NOTES: A-4 1/2 tabs broken 1/2 tabs str. A-1 - large vault ~36"x36" 4/4 bolts Missing
A-3 " " str. A-2 lid damaged; 1/2 bolts Missing 1/2 tabs str.

APPENDIX B

CASE CLOSURE SUMMARY, ARCO SERVICE STATION 2112,
1260 PARK STREET AT ENCINAL AVENUE, ALAMEDA, CALIFORNIA.
PREPARED BY PACIFIC ENVIRONMENTAL GROUP, 11/20/1996

PACIFIC
ENVIRONMENTAL
GROUP, INC.

Case Closure Summary

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Alameda County Health Care Services Agency

Prepared for

Mr. Paul Supple
ARCO Products Company

November 20, 1996

Prepared by

Pacific Environmental Group, Inc.
2025 Gateway Place, Suite 440
San Jose, California 95110

Project 330-106.6A

PROFESSIONAL CERTIFICATION

Case Closure Summary

ARCO Service Station 2112

1260 Park Street at Encinal Avenue

Alameda, California

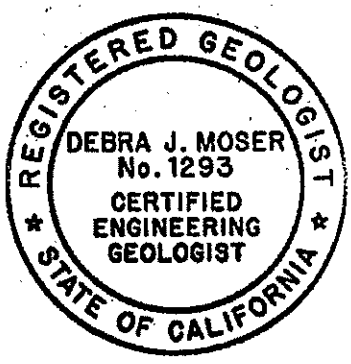
Alameda County Health Care Services Agency

November 20, 1996

Pacific Environmental Group, Inc. (PACIFIC) has performed investigative and remedial activities for ARCO Products Company (ARCO) at the ARCO Service Station 2112 located at 1260 Park Street in Alameda, California.

This Case Closure Summary has been prepared by PACIFIC staff under the professional supervision of the Senior Geologist whose seal and signature appear hereon.

Kelly C. Brown
Project Manager



Debra J. Moser
Senior Geologist
CEG 1293

cc: Mr. Paul Supple, ARCO Products Company
Mr. Kevin Graves, Regional Water Quality Control Board, S.F. Bay Region

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Date: November 14, 1996

Agency Name:Alameda County Health Care Services Agency	Address: 1131 Harbor Bay Pkwy.
City/State/Zip: Alameda, CA 94502	Phone: (510) 567-6700
Responsible Staff Person: Ms. Susan Hugo	Title:

II. Case Information

Site Facility Name: ARCO Service Station 2112		
Site Facility Address: 1260 Park Street, Alameda, California		
RB LUSTIS Case No: N/A	Local Case No: N/A	LOP Case No: N/A
URF Filing Date: Initial Report: Unknown	SWEEPS No: N/A	
Responsible Parties	**Addresses**	**Phone Numbers**
ARCO Products Company	P.O. Box 6549	(510) 299-8891
Attn.: Mr. Paul Supple	Moraga, CA 94570	

III. Tank Information

Tank I.D. No.	Size in Gallons	Contents	Closed in place/ Removed?	Date
1	4,000	Gasoline	Replaced	7/90
2	4,000	Gasoline	Replaced	7/90
3	6,000	Gasoline	Replaced	7/90
4	6,000	Gasoline	Replaced	7/90
5	10,000	Gasoline	Replaced	7/90
6	unknown	Used Oil	Removed	7/90
Former gasoline USTs were replaced with four double-walled 10,000-gallon USTs in a new complex in 7/90.				
Used oil UST was removed in 7/90. Product lines were also replaced in 7/90 and 8/90.				

IV. Release and Site Characterization Information

Cause and type of release: Release from former underground USTs and lines.		
Site characterization complete? Yes	Date approved by oversight agency: N/A	
Monitoring wells installed? Yes	Number: 5	Proper screened interval? Yes
Highest GW depth below ground surface: 6.76 ft	Lowest: 18.43 ft	Flow direction: West
Most sensitive current use: Unknown		

Are drinking water wells affected? No	Aquifer name: Unknown
Is surface water affected? No	Nearest affected SW name: Unknown
Off-site beneficial use impacts: Unknown.	

V. Treatment/disposal Methods (attach any additional info.)

Treatment and Disposal of Affected Material			
Material	Amount (Include Units)	Action (Treatment or Disposal Method)	Date
Tanks	two-4,000, two-6,000, and	Excavation and Replacement	7/90 & 8/90
	one-10,000 gl Gas, one used oil		
Piping/Islands	160 feet/2 islands	Excavation and Replacement	7/90
Free Product	NA	NA	NA
Soil	1,200 cubic yards	Over Excavation	7/90 & 8/90
Soil	54.9 g gas/0.09 g benzene	Soil Vapor Extraction	11/94 to 8/95
Groundwater	945,200 g water	Groundwater Extraction	6/94 to 8/95
	0.13 g gas/0.02 g benzene		

Maximum Documented Contaminant Concentrations -- Before and After Cleanup

Optional: See Tables in Attachment A and B on contaminant locations and concentrations.

Contaminant	Soil (ppm)		Water (ppm)		Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After		Before	After	Before	After
TPPH-g	23,000	NA	6,700	ND	1,2-DCA	NA	NA	NA	NA
TEPH-d	NA	NA	NA	NA	Oil & Grease	NA	NA	NA	NA
Benzene	210	NA	1,900	ND	Lead	NA	NA	NA	NA
Toluene	1,100	NA	1,700	ND	MTBE	NA	NA	ND	ND
Ethylbenzene	940	NA	240	ND	Motor Oil	NA	NA	NA	NA
Xylenes	2,700	NA	1,300	ND					

Comments: NA = Not analyzed. ND = Not detected. **See attached tables**

VI. Closure

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Yes		
Site management requirements: None		
Should corrective action be reviewed if land use changes? No		
Monitoring wells decommissioned: No	Decommissioned: 0	Retained: 5
List enforcement actions taken: None		
SVE Wells AV-1 through AV-7 were installed and used as part of the SVE remedial system.		
GWE Wells AR-1 and AR-2 were installed and used as part of the GWE remedial system. The		
remedial systems were operated from June 94 through August 95. The systems were shut down		
due to reaching asymptotic mass removal rates and low to non-detect influent concentrations		
Impacted soils were excavated and removed during UST replacement activities in 7/90 and 8/90.		
List enforcement actions rescinded: None		

VII. Additional Comments, Data, etc.

Remediation and site assessment are complete. Groundwater levels have reached the depth of highest soil impact, with hydrocarbon concentrations remaining non-detect for at least three sampling events and at just above the detection limits prior to the past three quarters. Therefore, the hydrocarbon sources in soil and groundwater at the site have been removed.

Soils from the former and present UST complexes were transported and disposed of at State licensed landfills. Clean fill material was imported and used to backfill the former UST excavation.

Site closure was requested and tentatively approved by Ms. Susan Hugo with the ACHCSA during a meeting with PACIFIC and ARCO.

Conclusion:
Concentrations for TPPH-g and benzene are non-detect for groundwater in all wells for the past four quarters of sampling, except Well A-1 which contained very low concentrations of benzene between 1.2 and 4.9 ppb, between February and November 1995. TPPH-g has been non-detect in Well A-1. The soil source was removed by over excavation during UST replacement and during operation of the SVE remedial system. The groundwater source has been removed by operation of the GWE remedial system and the natural biodegradation process.

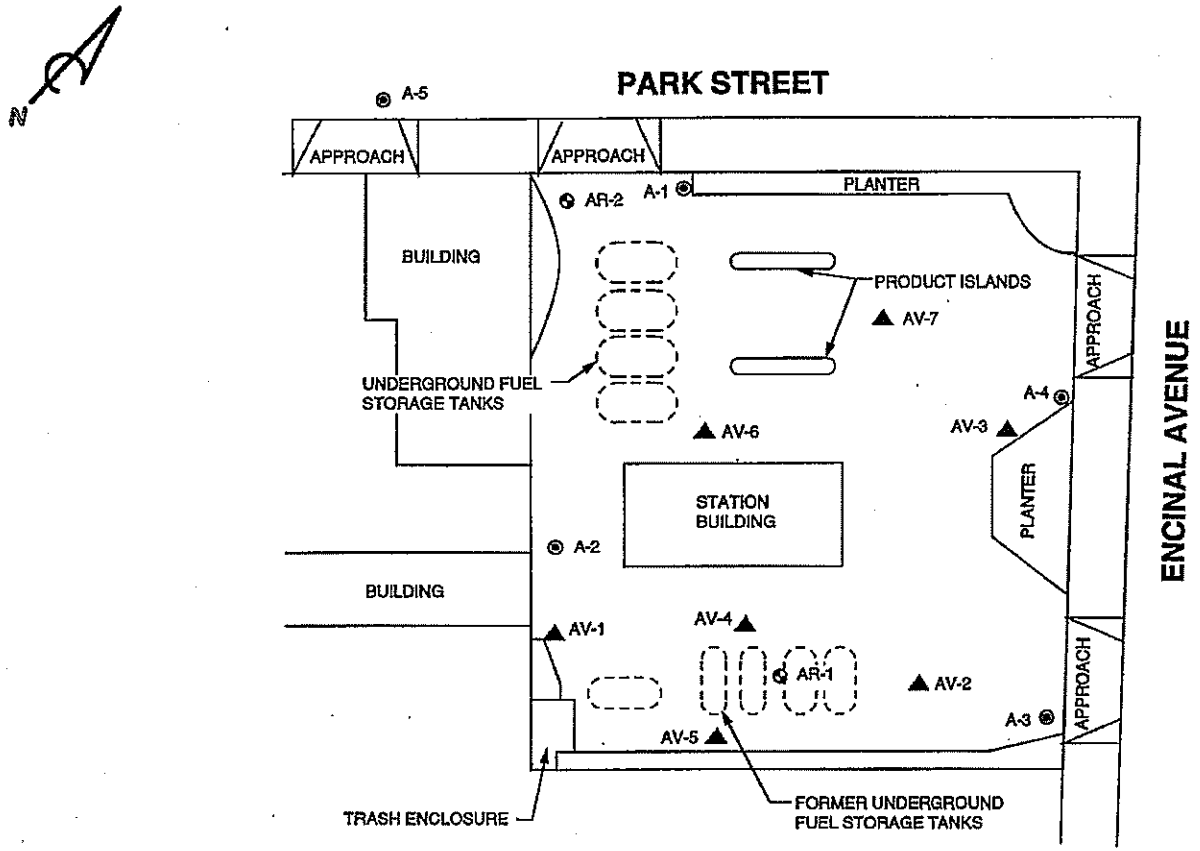
VIII. Local Agency Representative Data

Agency:	Address:
City/State/Zip:	Phone:
Responsible Staff Person:	Title:

IX. Consultant Report Summary

Report	Consulting Firm	Title	Date
Final Closure	**See the attached document list in Table 1**		
Final RAP			
Initial RAP			
Site Assessment			
Other Reports (list in reverse chronological order)			

Attachments:
Table 1 - Site Document List
Figure 1 - Site Map
Attachment A - Historical Soil Analytical Data Tables and Figures (copy)
Attachment B - Historical Groundwater Elevation and Groundwater Analytical Data Tables (copy)
Attachment C - Historical Remedial System Operation Performance Tables and Figures(copy)



LEGEND

- A-4 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- AR-1 ◉ GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- AV-2 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION

PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE
0 30 60 FEET

ARCO SERVICE STATION 2112
1260 Park Street at Encinal Avenue
Alameda, California

SITE MAP

FIGURE: 1

PROJECT: 330-106.6A

ATTACHMENT A

HISTORICAL SOIL ANALYTICAL DATA TABLES AND FIGURES (COPY)

TABLE 1
RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES
ARCO Station 2112
1260 Park Street
Alameda, California

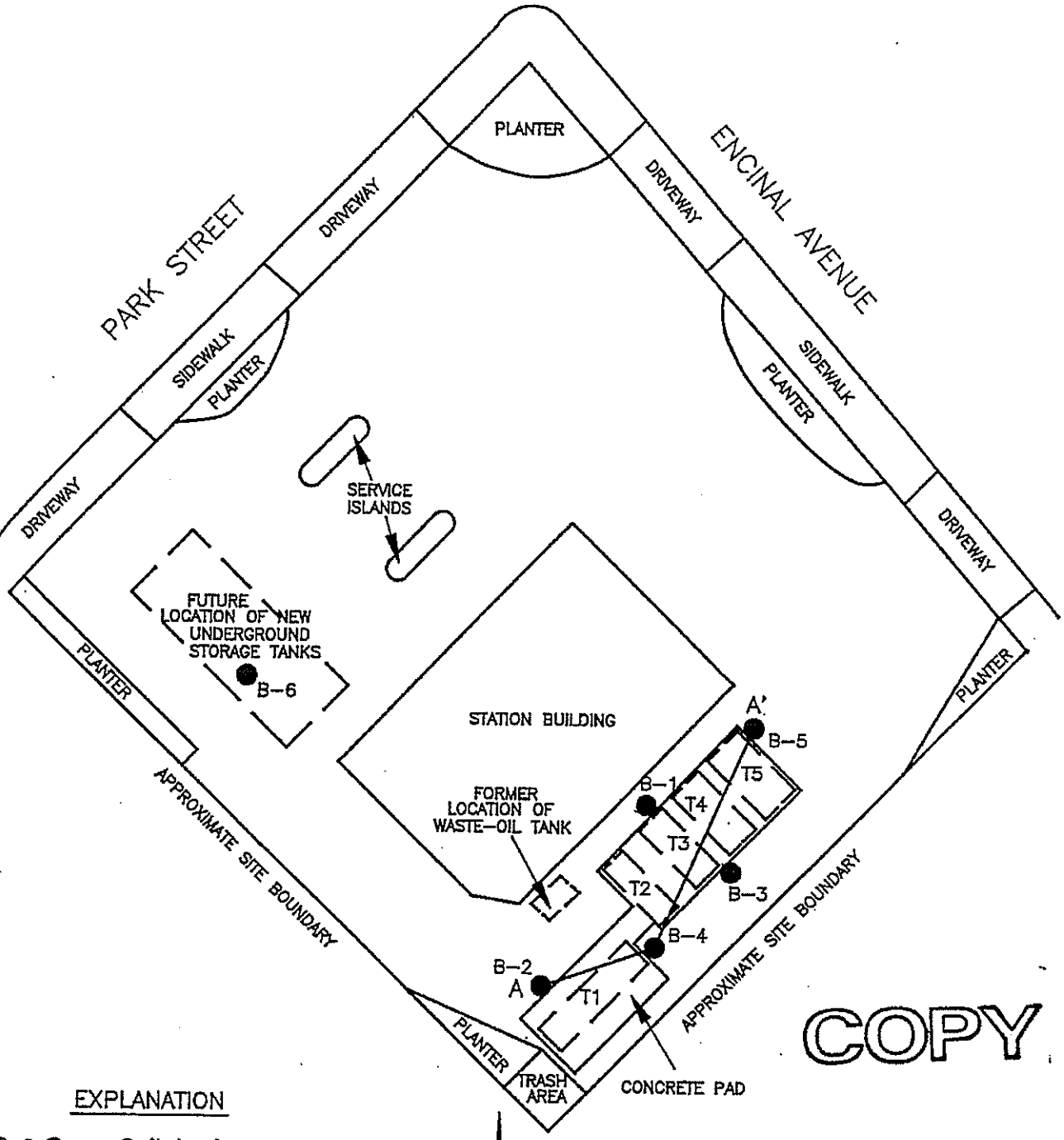
Sample Number	TPHg	B	T	E	X
S-6-B1	12	0.16	0.34	0.14	1.3
S-10-B1	1,700	15	72	22	180
S-6-B2	<2.0	<0.050	<0.050	<0.050	<0.050
S-11-B2	570	3.9	13	11	82
S-6-B3	<2.0	0.097	<0.050	<0.050	0.20
S-11-B3	10,000	47	350	120	940
S-6-B4	<2.0	0.063	0.096	<0.050	0.20
S-11-B4	21,000	210	1,100	320	2,600
S-6-B5	3.7	<0.050	0.081	<0.050	0.18
S-11-B5	5,400	8.8	27	66	160
S-5.5-B6	<2.0	<0.050	<0.050	<0.050	<0.050
S-10-B6	<2.0	<0.050	<0.050	<0.050	<0.050

Results in milligrams per kilogram or parts per million

TPHg = Total petroleum hydrocarbons as gasoline
B = benzene E = ethylbenzene T = toluene X = total xylene isomers
< = indicates less than the reported limit

Sample identification:

S-10-B6
- Boring number
- Approximate sample depth in feet
- Soil sample



COPY

EXPLANATION

B-6 ● = Soil boring (Applied GeoSystems, January 23, 1990)

T5 = Existing underground storage tanks

A' = Cross Section

A

N

Approximate Scale

30 15 0 30 60

feet

Source: Modified from plan supplied by ARCO.

Applied GeoSystems

PROJECT 69048-1

GENERALIZED SITE PLAN
ARCO Station 2112
1260 Park Street
Alameda, California

PLATE
2

TABLE 1

SOIL ANALYTICAL DATA
(EXCAVATIONS)

SAMPLE I.D.	SAMPLE DATE	ANALYZED DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AX1-1-6	26-Jul-90	26-Jul-90	14	<0.005	<0.005	<0.005	1
AX1-1-10	10-Aug-90	21-Aug-90	27.	0.12	1.1	0.7	4.4
AX1-2-6	26-Jul-90	26-Jul-90	1700	<0.005	16	4.8	76
AX1-2*-10	10-Aug-90	19-Aug-90	7700.	60.	360.	150.	930.
AX1-3-6	26-Jul-90	26-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX1-3-10	09-Aug-90	21-Aug-90	15000.	130.	850.	330.	1900.
AX1-3-12	26-Jul-90	26-Jul-90	23000	150	490	940	2700
AX1-4-6	26-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX1-4-12	26-Jul-90	26-Jul-90	1.2	<0.005	0.011	0.018	0.062
AX1-5-6	26-Jul-90	26-Jul-90	<1	0.019	<0.005	<0.005	0.032
AX1-6-6	26-Jul-90	26-Jul-90	<1	0.067	0.011	0.042	0.055
AX1-6-10	10-Aug-90	18-Aug-90	1000.	2.0	24.	18.	110.
AX1-7-6	26-Jul-90	27-Jul-90	50	<0.005	<0.005	<0.005	<0.005
AX1-7*-10	10-Aug-90	21-Aug-90	9400.	96.	570.	200.	1200.

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPM = Parts Per Million

Notes: 1. All data shown as <x are reported as ND (NONE DETECTED).
2. BTEX data analyzed on July 26, 27 and 31, 1990 by NET are reported in micrograms per kilogram.
3. The last number of the Sample I.D. corresponds to the approximate depth below existing grade that the sample was collected.
4. For sample locations, see Plate 3.
5. TPH-G concentration for AX1-8-10' appear to be the more volatile constituents of diesel.

TABLE 1

SOIL ANALYTICAL DATA
(EXCAVATIONS)

SAMPLE I.D.	SAMPLE DATE	ANALYZED DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AX1-8-10	27-Jul-90	27-Jul-90	7,300	20	130	98	650
AX1-8*-10	10-Aug-90	18-Aug-90	320.	<0.4	<0.4	3.8	12.
AX1-9-10	27-Jul-90	27-Jul-90	<1	0.014	<0.005	0.020	0.017
AX1-9*-10	10-Aug-90	18-Aug-90	1.6	0.037	0.057	0.01	0.051
AX1-10-10	27-Jul-90	27-Jul-90	2,700	36	51	180	320
AX1-10*-10	10-Aug-90	18-Aug-90	120.	0.56	4.3	2.5	15.
AX1-11-10	27-Jul-90	27-Jul-90	<1	12	6	14	35
AX2-1-6	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	0.007	0.007
AX2-1-12	31-Jul-90	31-Jul-90	2.0	0.024	0.073	0.048	0.110
AX2-2-11	31-Jul-90	31-Jul-90	2.0	0.470	0.180	0.005	0.013
AX2-3-6	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-3-11.5	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-4-6	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-4-11	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-5-6	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-5-11	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005
AX2-6-11	31-Jul-90	31-Jul-90	<1	0.013	0.011	<0.005	<0.005
AX2-7-11	31-Jul-90	31-Jul-90	<1	<0.005	<0.005	<0.005	<0.005

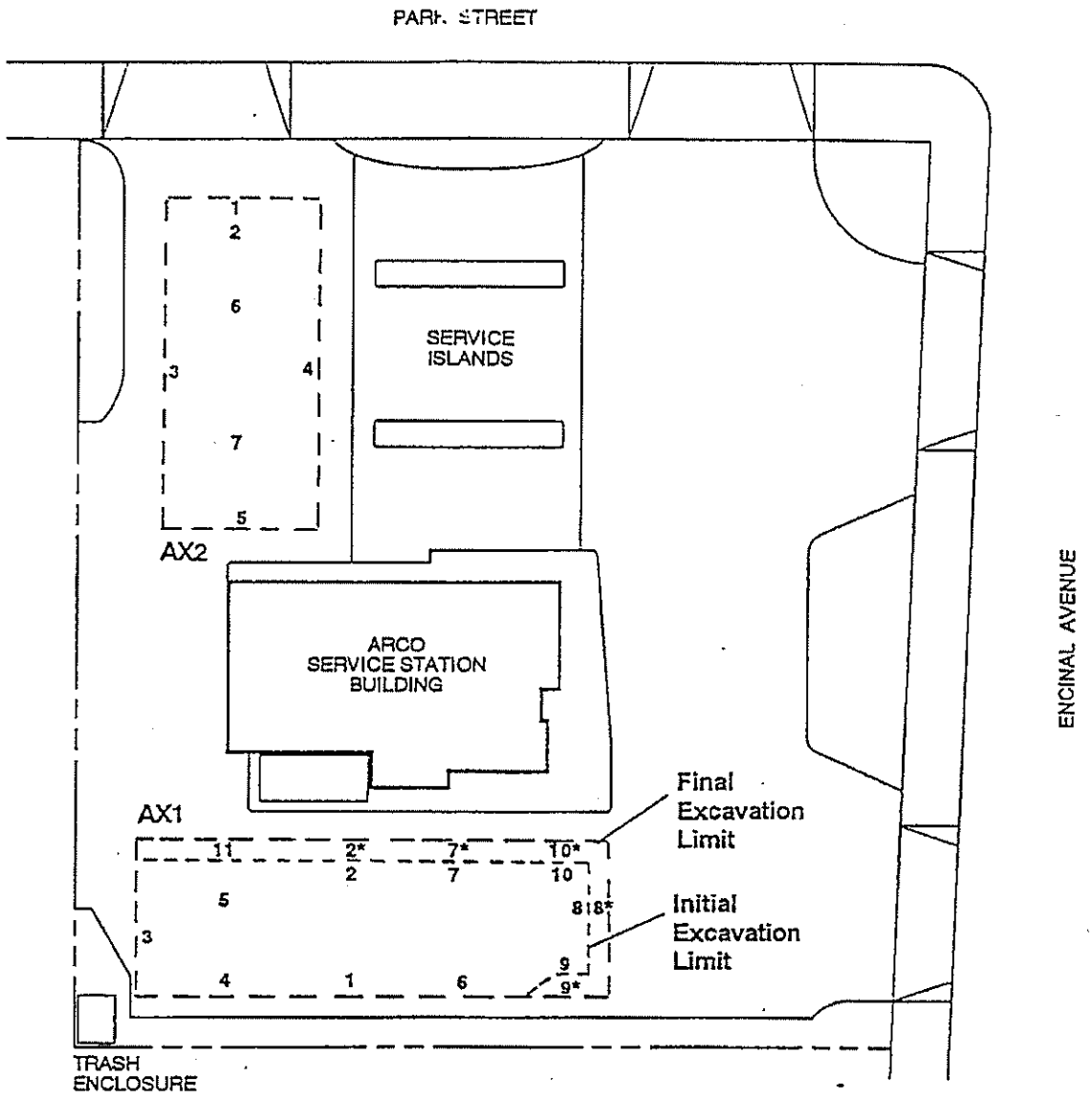
TABLE 2

SOIL ANALYTICAL DATA
(TRENCHING)

SAMPLE I.D.	SAMPLE DATE	ANALYZED DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AT-1	17-Aug-90	20-Aug-90	2000.	<0.8	23.	28.	210.
AT-2	17-Aug-90	20-Aug-90	6.7	0.023	0.088	0.11	0.84
AT-3	17-Aug-90	20-Aug-90	<1.	<0.005	<0.005	<0.005	<0.005
AT-4	17-Aug-90	20-Aug-90	5.8	0.034	0.12	0.057	0.52
AT-7-2	08-Aug-90	16-Aug-90	2.0	0.008	0.017	0.008	0.061
AT-8-2.5	08-Aug-90	16-Aug-90	14.	0.11	0.15	0.28	1.6
AT-9-9.5	20-Aug-90	29-Aug-90	<1.	<0.01	<0.01	<0.01	<0.01
AT-10-2.5	15-Aug-90	17-Aug-90	<1	<0.003	<0.003	<0.003	<0.003
AT-10-9.5	20-Aug-90	28-Aug-90	<1.	<0.005	<0.005	0.008	0.014
AT-11-2.5	15-Aug-90	17-Aug-90	<1	<0.003	<0.003	<0.003	<0.003
AT-12-2.5	15-Aug-90	17-Aug-90	<1	<0.003	<0.003	<0.003	<0.003

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPM = Parts Per Million

Notes: 1. All data shown as <x are reported as ND (none detected).
2. BTEX data analyzed on August 17, 1990 by Superior are reported in micrograms per kilograms.
3. The last number of the Sample I.D. corresponds to the approximate depth below existing grade that the sample was collected. AT-1 and AT-3 were collected at 3.5 feet below existing grade. AT-2 and AT-4 were collected at 2.5 feet below existing grade.
4. For sample locations, see Plate 4.



EXPLANATION

AX1 — Excavated area and designation

1 — Sample location and designation

N

COPY

0 30 60

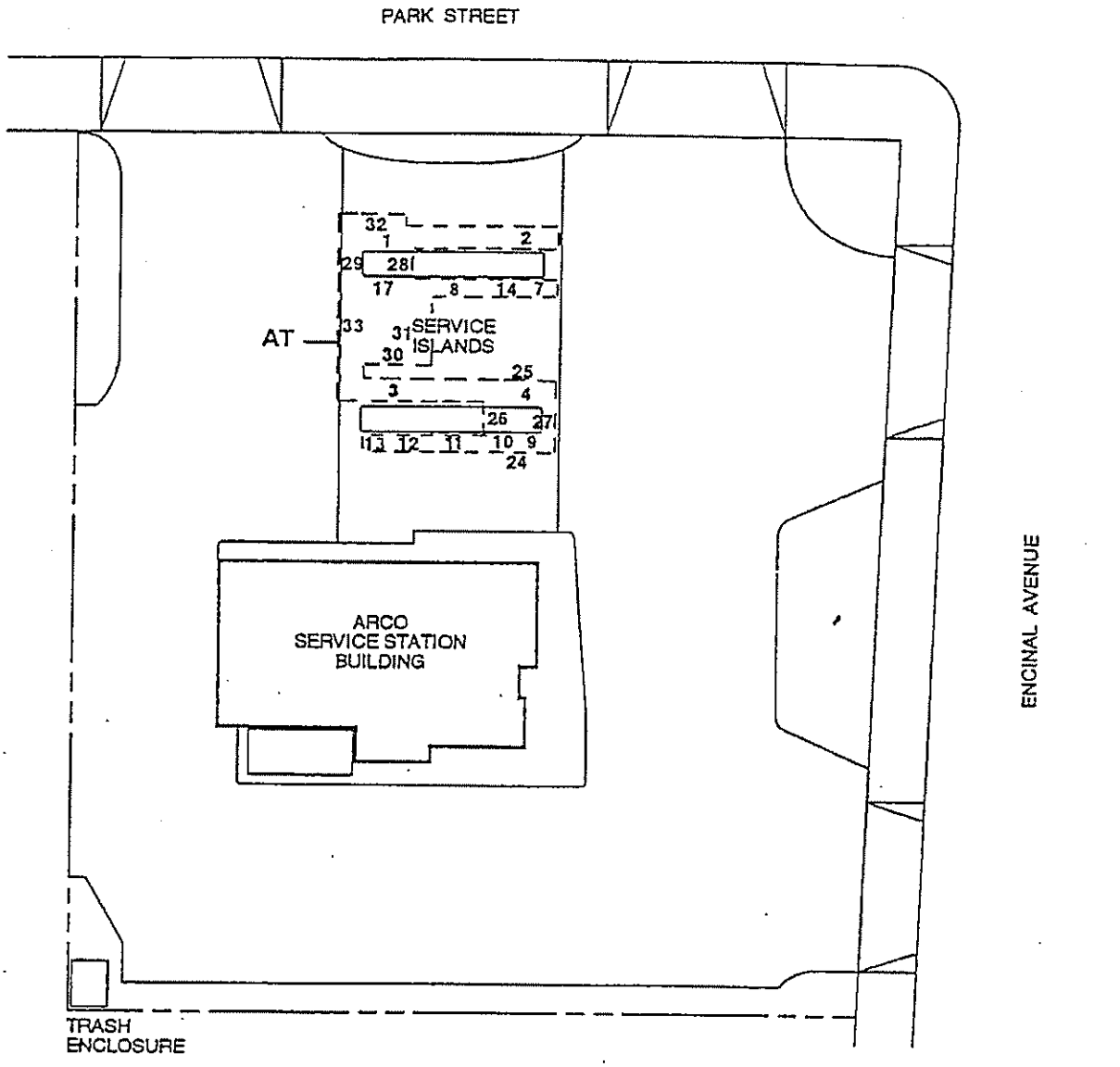
Scale in Feet

GeoStrategies Inc.

Excavation Soil Sample Map
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE 3

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7920	RG/CEG 12/92	10/90		



EXPLANATION

AT — Trench excavation and designation

1 — Sample location and designation

N

COPY

0 30 60

Scale in Feet

GeoStrategies Inc.

Trench Soil Sample Map
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE 4

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7920	CEG 1262	10/90		

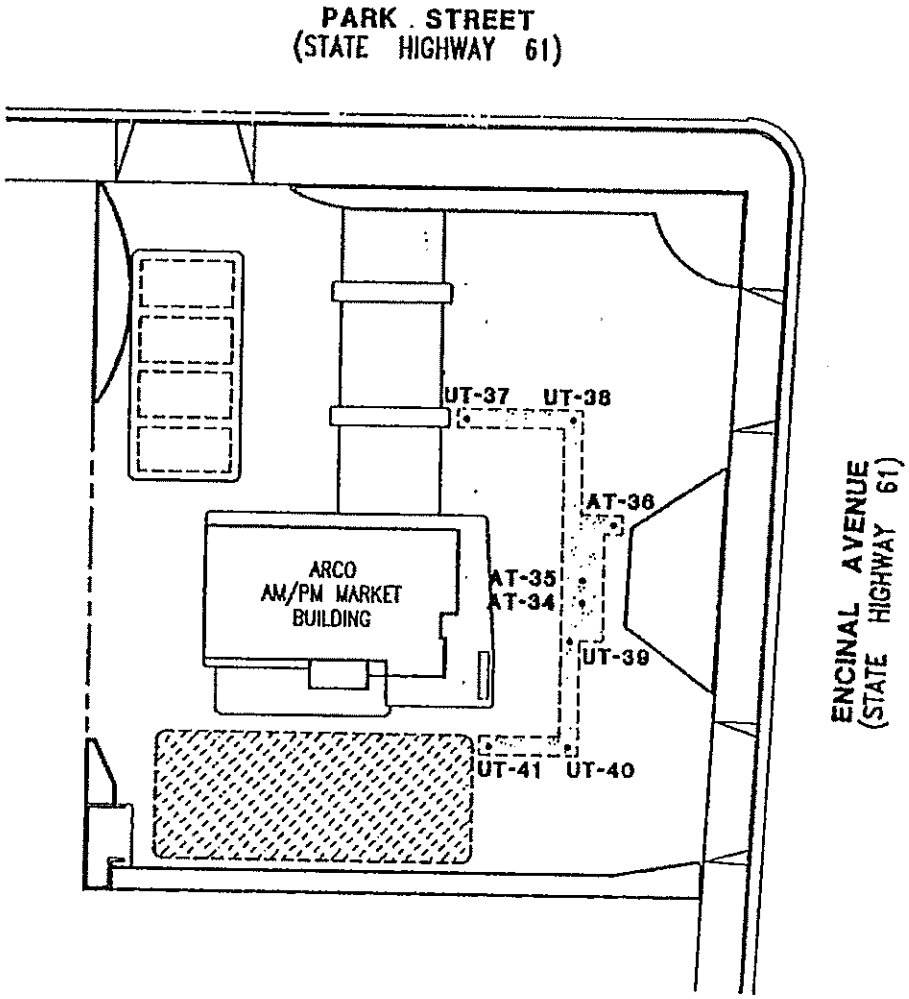
TABLE 1

SOIL ANALYTICAL DATA
(Trench Samples)

SAMPLE NO	DEPTH (FT)	SAMPLE DATE	ANALYSIS DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AT-34	3.0	25-Oct-90	25-Oct-90	<1.0	<0.003	<0.003	<0.003	<0.003
AT-35	3.0	25-Oct-90	25-Oct-90	<1.0	<0.003	<0.003	<0.003	<0.003
AT-36	3.0	25-Oct-90	25-Oct-90	15000	71	710	200	1300
UT-37	4.0	05-Mar-91	08-Mar-91	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
UT-38	4.0	05-Mar-91	08-Mar-91	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
UT-39	4.0	05-Mar-91	08-Mar-91	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
UT-40	3.5	05-Mar-91	08-Mar-91	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
UT-41	3.5	05-Mar-91	08-Mar-91	<1.0	<0.0050	<0.0050	<0.0050	<0.0050

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPM = Parts Per Million

Notes: 1. BTEX for samples AT-34 through AT-36 were reported in parts per billion (ppb).
2. All data shown as <x are reported as ND (none detected).



EXPLANATION

- Trench Samples
- Approximate location of trench
- Soil Stockpile

COPY

Base Map: ARCO Site Plans dated 3-19-86 and 2-21-90

0 40

Scale in Feet

GeoStrategies Inc.

SOIL SAMPLING MAP
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE 3

JOB NUMBER 792001-3

REVIEWED BY DHP

DATE 3/91

REVISED DATE

TABLE 1

SOIL ANALYSES DATA

SAMPLE NO	SAMPLE DATE	ANALYZED DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AV-1-5.5	23-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
AV-1-11	23-Sep-91	05-Oct-91	2,900	<5.0	12	6.0	34
AV-2-6	24-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
AV-2-11	24-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
AV-3-6.5	25-Sep-91	05-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
AV-3-11.5	25-Sep-91	05-Oct-91	540	5.3	12	7.6	35
A-1-5	25-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
A-1-11	25-Sep-91	05-Oct-91	730	6.4	24	11	56
A-2-12	24-Sep-91	04-Oct-91	<1.0	0.038	0.038	0.038	0.038
A-3-11.5	24-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005
A-4-11	25-Sep-91	04-Oct-91	<1.0	<0.005	<0.005	<0.005	<0.005

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPM = Parts Per Million

Note: 1. All data shown as <x are reported as ND (none detected).

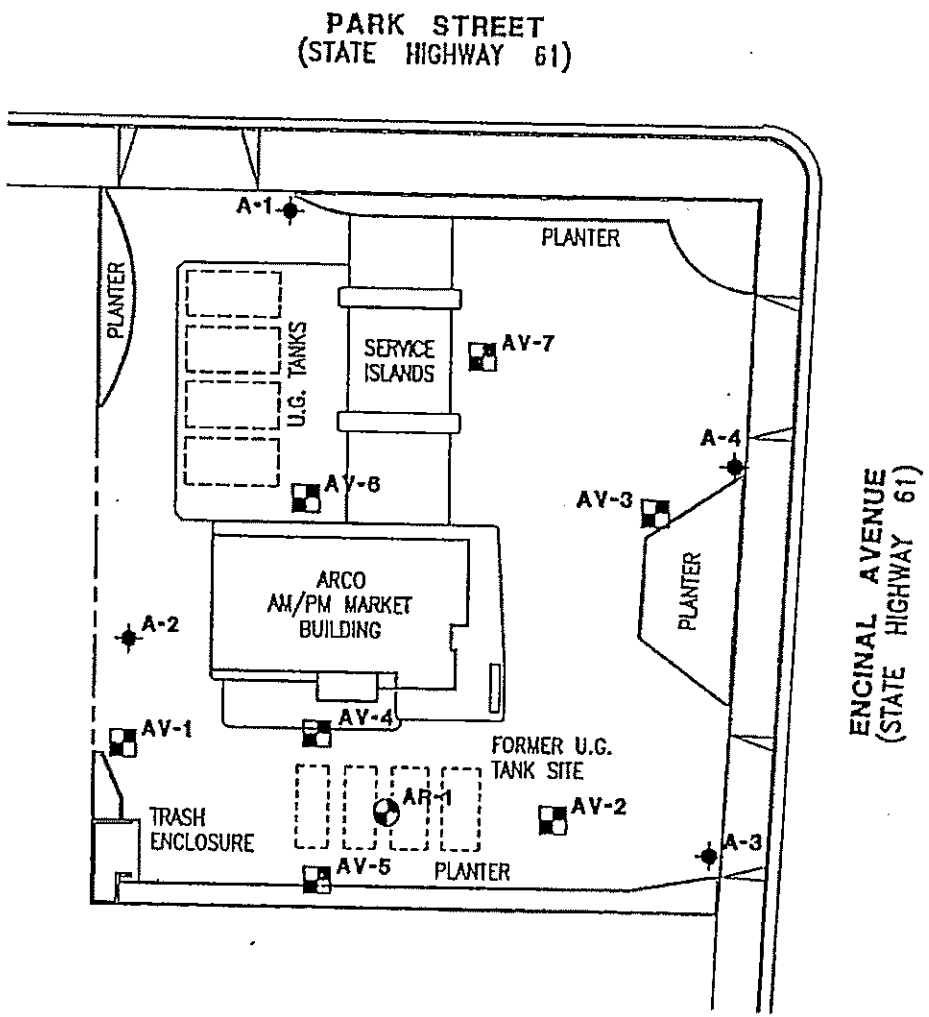
TABLE 2

SOIL ANALYSES DATA

SAMPLE NO	SAMPLE DATE	ANALYZED DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)
AV-4-10.5	02-Jan-92	06-Jan-92	21,000	190	860	290	1,700
AV-5-10.5	02-Jan-92	06-Jan-92	<1	0.0070	0.018	0.0060	0.031
AV-6-10.5	02-Jan-92	06-Jan-92	<1	<0.0050	<0.0050	<0.0050	<0.0050
AV-7-10.5	02-Jan-92	06-Jan-92	<1	<0.0050	<0.0050	<0.0050	<0.0050

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPM = Parts Per Million

Note: 1. All data shown as <x are reported as ND (not detected).



EXPLANATION

- Ground-water monitoring well
- Ground-water recovery well
- Vapor extraction well

COPY

N

0 40

Scale in Feet

Base Map: ARCO Site Plans dated 3-19-86 and 2-21-90

GeoStrategies Inc.

SITE PLAN
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE 2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
792005-5		2/92	

ATTACHMENT B

HISTORICAL GROUNDWATER ELEVATION AND GROUNDWATER ANALYTICAL DATA TABLES (COPY)

Table 2
Groundwater Elevation and Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, and MtBE)

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)
A-1	01/15/96	28.39	11.18	17.21	<50	<0.50	<0.50	<0.50	<0.50	NA
	04/08/96		10.61	17.78	<50	<0.50	<0.50	<0.50	<0.50	NA
	07/02/96		11.28	17.11	<50	<0.50	<0.50	<0.50	<0.50	<2.5
A-2	01/15/96	29.28	11.17	18.11	<50	<0.50	<0.50	<0.50	<0.50	NA
	04/08/96		10.45	18.83	<50	<0.50	<0.50	<0.50	<0.50	NA
	07/02/96		11.40	17.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5
A-3	01/15/96	27.87	8.66	19.21	---------- Well Sampled Annually ----------					
	04/08/96		7.86	20.01	---------- Well Sampled Annually ----------					
	07/02/96		9.03	18.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5
A-4	01/15/96	28.54	10.00	18.54	---------- Well Sampled Annually ----------					
	04/08/96		9.34	19.20	---------- Well Sampled Annually ----------					
	07/02/96		10.22	18.32	<50	<0.50	<0.50	<0.50	<0.50	<2.5
A-5	01/15/96	27.29	10.61	16.68	<50	<0.50	<0.50	<0.50	<0.50	NA
	04/08/96		10.59	16.70	<50	<0.50	<0.50	<0.50	<0.50	NA
	07/02/96		10.73	16.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5
AR-1	01/15/96	29.08	10.44	18.64	<50	<0.50	<0.50	<0.50	<0.50	NA
	04/08/96		9.56	19.52	<50	<0.50	<0.50	<0.50	<0.50	NA
	07/02/96		10.67	18.41	<50	<0.50	<0.50	<0.50	<0.50	<2.5
AR-2	01/15/96	28.20	11.00	17.20	<50	<0.50	<0.50	<0.50	<0.50	NA
	04/08/96		9.71	18.49	<50	<0.50	<0.50	<0.50	<0.50	NA
	07/02/96		11.15	17.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5

MtBE = Methyl tert-butyl ether
MSL = Mean sea level
TOB = Top of box
ppb = Parts per billion
NA = Not analyzed

Table A-1
Historical Groundwater Elevation Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)
A-1	10/07/91	28.39	16.47	11.92
	02/18/92		17.16	11.23
	05/22/92		17.14	11.25
	08/14/92		16.63	11.76
	10/23/92		16.28	12.11
	01/28/93		17.34	11.05
	02/24/93		18.43	9.96
	04/28/93		17.71	10.68
	05/28/93		17.18	11.21
	06/16/93		16.63	11.76
	07/27/93		16.60	11.79
	08/24/93		16.44	11.95
	09/28/93		16.66	11.73
	10/22/93		16.67	11.72
	11/16/93		16.56	11.83
	12/16/93		16.96	11.43
	02/07/94		17.62	10.77
	05/02/94		17.17	11.22
	08/05/94		11.40	16.99
	11/30/94		9.43	18.96
	02/22/95		10.76	17.63
	05/23/95		9.25	19.14
	08/09/95		11.33	17.06
	11/16/95		12.11	16.28
A-2	10/07/91	29.28	12.74	16.54
	02/18/92		11.55	17.73
	05/22/92		11.71	17.57
	08/14/92		12.54	16.74
	10/23/92		12.64	16.64
	01/28/93		10.29	18.99
	02/24/93		11.05	18.23
	04/28/93		10.91	18.37
	05/28/93		11.27	18.01
	06/16/93		12.20	17.08
	07/27/93		11.27	18.01
	08/24/93		12.25	17.03
	09/28/93		12.36	16.92
	10/22/93		12.18	17.10
	11/16/93		12.34	16.94
	12/16/93		11.74	17.54
	02/07/94		10.56	18.72
	05/02/94		11.48	17.80
	08/05/94		12.26	17.02
	11/30/94		10.93	18.35
	02/22/95		10.55	18.73
	05/23/95		11.05	18.23
	08/09/95		11.70	17.58
	11/16/95		12.64	16.64
A-3	10/07/91	27.87	10.55	17.32
	02/18/92		9.12	18.75
	05/22/92		9.41	18.46
	08/14/92		10.31	17.56
	10/23/92		10.57	17.30
	01/28/93		7.66	20.21
	02/24/93		8.28	19.59
	04/28/93		6.76	21.11

Table A-1 (continued)
Historical Groundwater Elevation Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)
A-3 (cont.)	05/28/93		8.98	18.89
	06/16/93		9.69	18.18
	07/27/93		9.66	18.21
	08/24/93		9.85	18.02
	09/28/93		10.21	17.66
	10/22/93		10.05	17.82
	11/16/93		11.20	16.67
	11/16/93		9.42	18.45
	02/07/94		8.29	19.58
	05/02/94		9.08	18.79
	08/05/94		10.02	17.85
	11/30/94		8.53	19.34
	02/22/95		7.90	19.97
	05/23/95		8.60	19.27
	08/09/95		9.30	18.57
	11/16/95		NM	--
A-4	10/07/91	28.54	11.40	17.14
	02/18/92		10.52	18.02
	05/22/92		10.45	18.09
	08/14/92		11.22	17.32
	10/23/92		11.44	17.10
	01/28/93		9.12	19.42
	02/24/93		9.91	18.63
	04/28/93		8.29	20.25
	05/28/93		9.92	18.62
	06/16/93		10.64	17.90
	07/27/93		10.81	17.73
	08/24/93		10.98	17.56
	09/28/93		11.08	17.46
	10/22/93		11.06	17.48
	11/16/93		10.27	18.27
	12/16/93		10.64	17.90
	02/07/94		9.42	19.12
	05/02/94		10.33	18.21
	08/05/94		10.94	17.60
	11/30/94		9.89	18.65
	02/22/95		9.44	19.10
	05/23/95		9.80	18.74
	08/09/95		10.39	18.15
	11/16/95		NM	--
A-5	06/26/92	27.29	10.77	16.52
	08/14/92		11.04	16.25
	10/23/92		11.12	16.17
	01/28/93		9.94	17.35
	02/24/93		10.63	16.66
	04/28/93		10.70	16.59
	05/28/93		10.35	16.94
	06/16/93		10.76	16.53
	07/27/93		10.78	16.51
	08/24/93		10.97	16.32
	09/28/93		10.90	16.39
	10/22/93		10.82	16.47
	11/16/93		10.98	16.31
	12/16/93		10.70	16.59
	02/07/94		9.96	17.33
	05/02/94		10.59	16.70

Table A-1 (continued)
Historical Groundwater Elevation Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)
A-5 (cont.)	08/05/94		10.91	16.38
	11/30/94		10.69	16.60
	02/22/95		10.71	16.58
	05/23/95		10.75	18.33
	08/09/95		10.78	18.30
	11/16/95		11.33	15.96
AR-1	10/07/91	29.08	12.09	16.99
	02/18/92		11.11	17.97
	05/22/92		10.10	18.98
	08/14/92		11.86	17.22
	10/23/92		12.12	16.96
	01/28/93		9.85	19.23
	02/24/93		14.80	14.28
	04/28/93		9.74	19.34
	05/28/93		13.52	15.56
	06/16/93		15.12	13.96
	06/27/93		13.48	15.60
	08/24/93		13.52	15.56
	09/28/93		13.90	15.18
	10/22/93		13.19	15.89
	11/16/93		12.72	16.36
	12/16/93		12.13	16.95
	02/07/94		10.03	19.05
	05/02/94		10.82	18.26
	08/05/94		12.63	16.45
	11/30/94		10.23	18.85
	02/22/95		9.90	19.18
	05/23/95		10.40	18.68
	08/09/95		11.00	18.08
	11/16/95		11.94	17.14
AR-2	06/26/92	28.20	11.54	16.66
	08/14/92		11.76	16.44
	10/23/92		11.85	16.35
	01/28/93		19.70	8.50
	02/24/93		19.58	8.62
	04/28/93		12.27	15.93
	05/28/93		14.93	13.27
	06/16/93		16.45	11.75
	07/27/93		11.65	16.55
	08/24/93		17.02	11.18
	09/28/93		11.65	16.55
	10/22/93		10.61	17.59
	11/16/93		11.63	16.57
	12/16/93		14.33	13.87
	02/07/94		10.51	17.69
	05/02/94		11.16	17.04
	05/03/94		12.03	16.17
	08/05/94		11.59	16.61
	11/30/94		9.56	18.64
	02/22/95		10.60	17.60
	05/23/95		10.95	17.25
	08/09/95		11.84	16.36
	11/16/95		11.30	16.90

MSL = Mean sea level
TOB = Top of box
NM = Not measured

Table A-2
Historical Groundwater Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
A-1	10/07/91	470	48	34	7.5	82
	02/18/92	<30	5.4	0.82	<0.3	<0.3
	05/22/92	38	15	0.92	1.3	0.51
	08/14/92	<50	14	<0.5	1.5	<0.5
	10/23/92	66	22	4.6	2	4.3
	01/28/93	750	120	120	16	96
	04/28/93	6,700	1,900	1,700	240	1,300
	08/24/93	1,800	230	88	34	160
	10/22/93	2,500	79	<10	<10	160
	02/07/94	61	24	<0.5	2.1	0.8
	05/02/94	58	17	0.7	2.2	4.2
	08/05/94	<50	5.1	1.4	0.6	2.5
	11/30/94	130	16	8.4	0.6	27
	02/22/95	<50	1.2	<0.50	<0.50	<0.50
	05/23/95	<50	4.9	0.95	0.61	3.9
	08/09/95	<50	2.3	<0.50	<0.50	0.53
	11/16/95	<50	3.3	1.5	<0.50	1.9
A-2	10/07/91	31	7.4	0.39	<0.3	0.93
	02/18/92	490	120	< 1.5	< 1.5	17
	05/22/92	100	2.4	<0.3	<0.3	0.89
	08/14/92	110	5	<0.5	<0.5	<0.5
	10/23/92	<50	<0.5	<0.5	<0.5	<0.5
	01/28/93	280	130	<2.5	<2.5	<2.5
	04/28/93	210	32	0.89	5.2	2.3
	08/24/93	<50	<0.5	<0.5	<0.5	<0.5
	10/22/93	<50	<0.5	<0.5	<0.5	<0.5
	02/07/94	<50	<0.5	<0.5	<0.5	<0.5
	05/02/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/30/94	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	<50	0.68	1.3	<0.50	0.52
	05/23/95	<50	<0.50	<0.50	<0.50	<0.50
	08/09/95	<50	<0.50	<0.50	<0.50	<0.50
	11/16/95	<50	<0.50	<0.50	<0.50	<0.50
A-3	10/07/91	<30	<0.3	<0.3	<0.3	<0.3
	02/18/92	<30	<0.3	<0.3	<0.3	<0.3
	05/22/92	<30	<0.3	<0.3	<0.3	<0.3
	08/14/92	<50	<0.5	<0.5	<0.5	<0.5
	10/23/92	<50	<0.5	<0.5	<0.5	<0.5
	01/28/93	<50	<0.5	<0.5	<0.5	<0.5
	04/28/93	<50	<0.5	<0.5	<0.5	<0.5
	08/24/93	<50	<0.5	<0.5	<0.5	<0.5
	10/22/93	<50	<0.5	<0.5	<0.5	<0.5
	02/07/94	<50	<0.5	<0.5	<0.5	<0.5
	05/02/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/30/94	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	<50	<0.50	<0.50	<0.50	<0.50
	05/23/95	<50	<0.50	<0.50	<0.50	<0.50
	08/09/95	<50	<0.50	<0.50	<0.50	<0.50
	11/16/95	----------	----------	Well Sampled Annually	----------	----------

Table A-2 (continued)
Historical Groundwater Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
A-4	10/07/91	<30	0.32	0.69	<0.3	1.1
	02/18/92	<30	<0.3	<0.3	<0.3	<0.3
	05/22/92	<30	<0.3	<0.3	<0.3	<0.3
	08/14/92	<50	<0.5	<0.5	<0.5	<0.5
	10/23/92	<50	<0.5	<0.5	<0.5	<0.5
	01/28/93	<50	<0.5	<0.5	<0.5	<0.5
	04/28/93	<50	<0.5	<0.5	<0.5	<0.5
	08/24/93	<50	<0.5	<0.5	<0.5	<0.5
	10/22/93	<50	<0.5	<0.5	<0.5	<0.5
	02/07/94	<50	<0.5	<0.5	<0.5	<0.5
	05/02/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/30/94	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	<50	<0.50	<0.50	<0.50	<0.50
	05/23/95	<50	<0.50	0.59	<0.50	<0.50
	08/09/95	<50	<0.50	<0.50	<0.50	<0.50
	11/16/95		----------Well Sampled Annually----------			
A-5	06/26/92	<50	<0.5	<0.5	<0.5	<0.5
	08/14/92	<50	<0.5	<0.5	<0.5	<0.5
	10/23/92	<50	<0.5	<0.5	<0.5	<0.5
	01/28/93	<50	<0.5	<0.5	<0.5	<0.5
	04/28/93	<50	<0.5	<0.5	<0.5	<0.5
	08/24/93	<50	<0.5	<0.5	<0.5	<0.5
	10/22/93	<50	<0.5	<0.5	<0.5	<0.5
	02/07/94	<50	<0.5	0.9	<0.5	0.7
	05/02/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/30/94	<50	<0.5	<0.5	<0.5	<0.5
	02/22/95	<50	<0.50	<0.50	<0.50	<0.50
	05/23/95	<50	<0.50	<0.50	<0.50	<0.50
	08/09/95	<50	<0.50	<0.50	<0.50	<0.50
	11/16/95	<50	<0.50	<0.50	<0.50	<0.50
AR-1	10/07/91	<30	<0.3	<0.3	<0.3	<0.3
	02/18/92	<30	<0.3	<0.3	<0.3	<0.3
	05/22/92	<30	<0.3	<0.3	<0.3	<0.3
	08/14/92	<50	<0.5	<0.5	<0.5	<0.5
	10/23/92	<50	<0.5	<0.5	<0.5	<0.5
	10/22/93	150	29	2.3	7.9	7.4
	02/07/94	<50	1.3	<0.5	1	<0.5
	05/02/94	120	24	<0.5	1.9	2.7
	08/05/94	980	200	<2.5 a	55	21
	11/30/94	60	7.7	<0.5	1.2	<0.5
	02/22/95	<50	<0.50	<0.50	<0.50	<0.50
	05/23/95	310	47	1.3	11	4.4
	08/09/95	<50	8.3	<0.50	0.97	<0.50
	11/16/95	<50	<0.50	<0.50	<0.50	<0.50
AR-2	06/26/92	<50	<0.5	<0.5	<0.5	<0.5
	08/14/92	<50	<0.5	<0.5	<0.5	<0.5
	10/23/92	110	0.15	0.27	<0.5	0.56
	02/07/94	<50	<0.5	<0.5	<0.5	<0.5
	05/02/94	<50	<0.5	<0.5	<0.5	<0.5
	08/05/94	<50	<0.5	<0.5	<0.5	<0.5
	11/30/94	<50	<0.5	<0.5	<0.5	<0.5

Table A-2 (continued)
Historical Groundwater Analytical Data
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)
AR-2	02/22/95	<50	<0.50	<0.50	<0.50	<0.50
(cont.)	05/23/95	<50	4.2	<0.50	<0.50	<0.50
	08/09/95	<50	<0.50	<0.50	<0.50	<0.50
	11/16/95	<50	<0.50	<0.50	<0.50	<0.50

ppb = Parts per billion
a. Laboratory raised MRL due to high analyte concentration requiring sample dilution.
Prior to June 1995, TPPH as gasoline was reported as TPH as gasoline.

Table A-3
Historical Groundwater Analytical Data
Total Methyl t-Butyl Ether

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Well Number	Date Sampled	Methyl t-Butyl Ether (ppb)
A-1	08/09/95	<2.5
A-2	08/09/95	<2.5
A-3	08/09/95	<2.5
A-4	08/09/95	<2.5
A-5	08/09/95	<2.5
A-6	08/09/95	<2.5
AR-1	08/09/95	<2.5
AR-2	08/09/95	<2.5

ppb = Parts per billion

Table D-1
Groundwater Extraction System Performance Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Sample I.D.	Date Sampled	Totalizer Reading (gallons)	Net Volume (gallons)	Average Flow Rate (gpm)	TPPH as Gasoline: Influent Concentration (µg/L)	TPPH as Gasoline: Net Removed (lbs)	TPPH as Gasoline: Removed to Date (lbs)	Benzene: Influent Concentration (µg/L)	Benzene: Net Remove (lbs)	Benzene: Removed to Date (lbs)	Primary Carbon Loading (percent)
INFL	06/28/94	741,520	N/A	1.3	ND	0.00	0.80	ND	0.000	0.133	1.0
INFL	11/04/94 a	782,881	41,361	N/A	ND	0.00	0.80	ND	0.000	0.133	1.0
INFL	03/07/95 b	804,954	22,073	N/A	NS	0.00	0.80	NS	0.000	0.133	1.0
INFL	04/20/95	826,131	21,177	0.3	ND	0.00	0.80	ND	0.000	0.133	1.0
INFL	05/03/95	836,000	9,869	0.5	NS	0.00	0.80	NS	0.000	0.133	1.0
INFL	06/06/95	898,000	62,000	1.3	NS	0.00	0.80	NS	0.000	0.133	1.0
INFL	07/06/95 c	945,200	47,200	1.1	74	0.01	0.81	13	0.003	0.135	1.0
INFL	08/03/95 d	945,200	0	0.0	ND	0.00	0.81	3.5	0.000	0.135	1.0
REPORTING PERIOD: 01/01/96 - 03/31/96											
TOTAL POUNDS REMOVED:							0.81			0.135	
TOTAL GALLONS REMOVED:							0.13			0.018	
PERIOD POUNDS REMOVED:						0.00			0.000		
PERIOD GALLONS REMOVED:						0.00			0.000		
TOTAL GALLONS EXTRACTED:					945,200						
PERIOD GALLONS EXTRACTED:					0						
PERIOD AVERAGE FLOW RATE (gpm):					N/A						

TPPH = Total purgeable petroleum hydrocarbons
gpm = Gallons per minute
µg/L = Micrograms per liter
lbs = Pounds
N/A = Not available or not applicable
ND = Not detected above the detection limit
NS = Not sampled (system influent sampled quarterly in January, April, July, and August)
a. System shut down for repair by Pacific Environmental Group, Inc. on November 4, 1994.
b. System restarted March 7, 1995; continuous operation began on this date.
c. GWE system shut down for pulsing.
d. GWE system re-started for sampling, then temporarily shut down August 3, 1995.
Mass removed is an approximation calculated using averaged concentrations.
Pounds of hydrocarbons removed to date provided by prior consultant, GeoStrategies Incorporated.
Prior to June 1995, TPPH as gasoline was reported as TPH as gasoline.
See certified analytical reports for detection limits.

Table D-2
Soil Vapor Extraction System Performance Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Sample I.D.	Date Sampled	Hourmeter Reading (hours)	Hours of Operation (hours)	Vacuum (" H20)	Flow Rate (scfm)	TPPH as Gasoline: Influent Concentration (ppmv)	TPPH as Gasoline: Removal Rate (lbs/day)	TPPH as Gasoline: Removed to Date (lbs)	Benzene: Influent Concentration (ppmv)	Benzene: Removal Rate (lbs/day)	Benzene: Removed to Date (lbs)
INFL	11/04/94 a	N/A	N/A	N/A	210	N/A	N/A	276.7	N/A	N/A	0.18
INFL	11/14/94 a	N/A	15	68	210	38	3.0	278.6	0.72	0.05	0.22
INFL	11/16/94	N/A	38	42	210	54	4.3	284.4	0.89	0.06	0.30
INFL	11/17/94	N/A	12	42	290	43	4.7	286.7	0.46	0.04	0.32
INFL	11/30/94	N/A	39	40	240	28	2.6	292.6	0.37	0.03	0.38
INFL	12/02/94 b	N/A	36	50	240	28	2.6	296.4	ND	0.00	0.40
INFL	01/11/95 c	N/A	0	27	100	11	0.4	296.4	ND	0.00	0.40
INFL	02/02/95 d	N/A	528	36.5	170	20	0.3	304.2	ND	0.00	0.40
INFL	04/12/95 e	N/A	0	3.5 f	190	26	1.9	304.2	0.22	0.01	0.40
INFL	04/20/95	N/A	192	3.0 f	200	3.3	0.3	312.7	ND	0.00	0.45
INFL	05/03/95	0.0 g	312	4.0 f	200	ND	0.0	314.3	ND	0.00	0.45
INFL	06/06/95	764.0	764	44	210	5.9	0.5	321.6	0.092	0.01	0.55
INFL	07/06/95 h	1,201.7	438	45	210	12	0.9	334.6	0.092	0.01	0.66
INFL	08/03/95 i	1,203.3	2	43	215	11	0.9	334.6	0.18	0.01	0.66
REPORTING PERIOD: 01/01/96 - 03/31/96											
TOTAL POUNDS REMOVED:								334.6			0.66
TOTAL GALLONS REMOVED:								54.9			0.09
PERIOD POUNDS REMOVED:							0.0			0.00	
PERIOD GALLONS REMOVED:							0.0			0.00	
PERIOD AVERAGE FLOW RATE:					N/A						
TOTAL HOURS OF OPERATION:					2,375						

TPPH = Total purgeable petroleum hydrocarbons
" H20 = Inches of water
scfm = Standard cubic feet per minute
ppmv = Parts per million by volume
lbs = Pounds
N/A = Not available or not applicable
ND = Not detected

a. System started, run approx. 7 hours 11/4/94 by PACIFIC; restarted on 11/14/94.
b. System shut down pending the BAAQMDs approval of a monthly monitoring schedule.
c. System restarted with BAAQMD's approval to monitor the system on a monthly basis.
d. System down; performance values estimated by averaging two previous values.
e. System restarted on 4/12/95.
f. Vacuum measured in inches of mercury rather than inches of water.
g. Hourmeter installed 5/3/95 (initial reading = 0.0 hours).
h. SVE system shut down for pulsing.
i. SVE system restarted for sampling, then temporarily shut down 8/3/95.

Mass removed is an approximation calculated using averaged instantaneous mass removal rates.
Pounds of hydrocarbons removed to date provided by prior consultant, GeoStrategies Incorporated.
Timer disconnected on November 15, 1994; continuous operation during week initiated, shutdown weekends.
Prior to June 1995, TPPH as gasoline was reported as TPH calculated as gasoline.
See certified analytical reports for detection limits.

Table D-3
Soil Vapor Extraction Well Data

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

Date System Monitored	Well Number																			
	A-1					AV-1					AV-2					AV-3				
	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)
11/15/94	O	68	68	180 *	N/A *	O	68	68	20 *	N/A *	O	68	66	ND *	N/A *	O	64	60	4.0 *	N/A *
11/16/94	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
11/17/94	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
12/01/95	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
12/02/95	O	40	N/A	200 *	N/A *	O	40	N/A	70 *	N/A *	O	40	N/A	15 *	N/A *	O	40	N/A	10 *	N/A *
01/11/95	O	37	N/A	6.1 +	0.06 +	O	37	N/A	ND +	ND +	O	36	N/A	ND +	ND +	O	36	N/A	ND +	ND +
04/20/95	O	48	48	14 +	0.15 +	O	48	48	ND +	ND +	O	48	48	ND +	ND +	O	48	48	ND +	ND +
05/03/95	O	55	48	39 *	N/A *	O	55	50	ND *	N/A *	O	55	50	ND *	N/A *	O	55	50	ND *	N/A *
06/06/95	O	43	40	55 *	N/A *	O	43	42	65 *	N/A *	O	43	42	6 *	N/A *	O	43	42	5.5 *	N/A *
07/06/95	O	45	41	50 +	ND +	O	45	43	6 +	0.03 +	O	45	43	ND +	ND +	O	45	43	18 +	0.2 +
08/03/95 a	O	43	39	11 *	N/A *	O	43	42	12 *	N/A *	O	43	42	10 *	N/A *	O	43	41	6 *	N/A *

Date System Monitored	Well Number																			
	AV-4					AV-5					AV-6					AV-7				
	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)	Status (O/C)	Vacuum (" H20) M	Vacuum (" H20) W	TPPH as Gasoline (ppmv)	Benzene (ppmv)
11/15/94	O	64	62	300 *	N/A *	O	68	68	150 *	N/A *	O	64	64	60 *	N/A *	O	64	60	50 *	N/A *
11/16/94	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
11/17/94	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
12/01/95	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A	O	40	N/A	N/A	N/A
12/02/95	O	40	N/A	175 *	N/A *	O	40	N/A	10 *	N/A *	O	40	N/A	15 *	N/A *	O	40	N/A	30 *	N/A *
01/11/95	O	33	N/A	3.7 +	0.22 +	O	36	N/A	0.03 +	ND +	O	35	N/A	3.0 +	0.31 +	O	35	N/A	165.5 +	ND +
04/20/95	O	48	N/A	26 +	0.04 +	O	48	48	ND +	ND +	O	48	46	ND +	ND +	O	48	46	5.9 +	ND +
05/03/95	O	55	N/A	N/A *	N/A *	O	55	47	ND *	N/A *	O	55	46	ND *	N/A *	O	55	48	10 *	N/A *
06/06/95	O	43	N/A	150 *	N/A *	O	43	40	20 *	N/A *	O	43	39	8 *	N/A *	O	43	40	8 *	N/A *
07/06/95	O	45	N/A	95 +	0.43 +	O	45	41	284 +	2 +	O	45	41	ND +	0.07 +	O	45	41	4 +	0.03 +
08/03/95 a	O	43	N/A	192 *	N/A *	O	43	40	21 *	N/A *	O	43	38	2 *	N/A *	O	43	39	3 *	N/A *

TPPH	= Total purgeable petroleum hydrocarbons	M	= Vacuum measured at manifold
O	= Valve open	W	= Vacuum measured at well head
C	= Valve closed	*	= Concentration readings obtained by flame-ionization detector (FID).
" H20	= Inches of water	+	= Air bag sampled analyzed by EPA Method 8015/8020.
ppmv	= Parts per million by volume; converted from micrograms per liter.	N/A	= Not available or not applicable
Pacific Environmental Group, Inc. startup 11/4/94; prior consultant was GeoStrategies Inc.		ND	= Not detected above the detection limit
Prior to June 1995, TPPH as gasoline was reported as TPH as gasoline.		a.	Remediation systems temporarily shut down 8/3/95.

Figure D-1
Groundwater Extraction System Mass Removal Trend

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

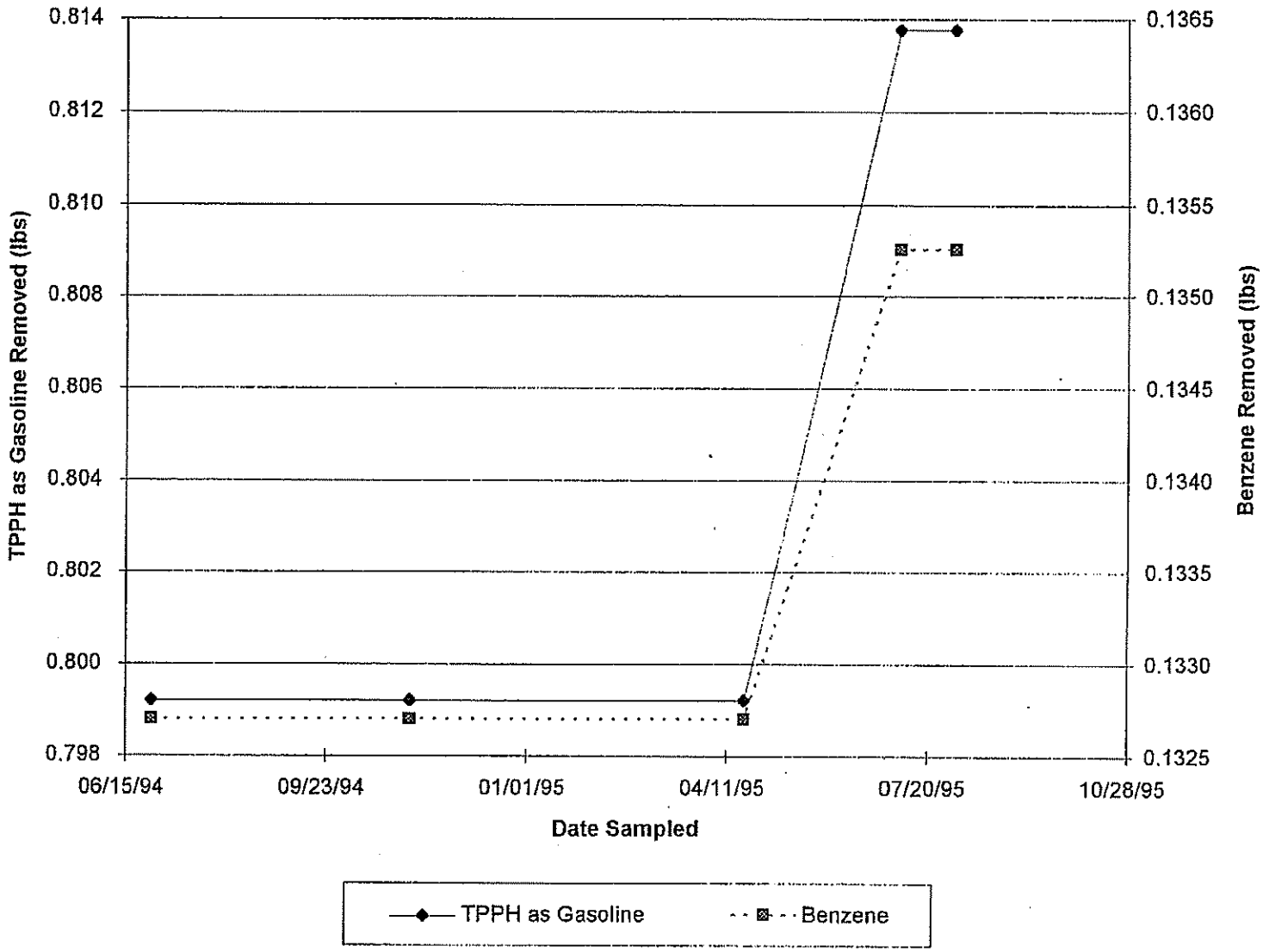


Figure D-2
Groundwater Extraction System Hydrocarbon Concentrations

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

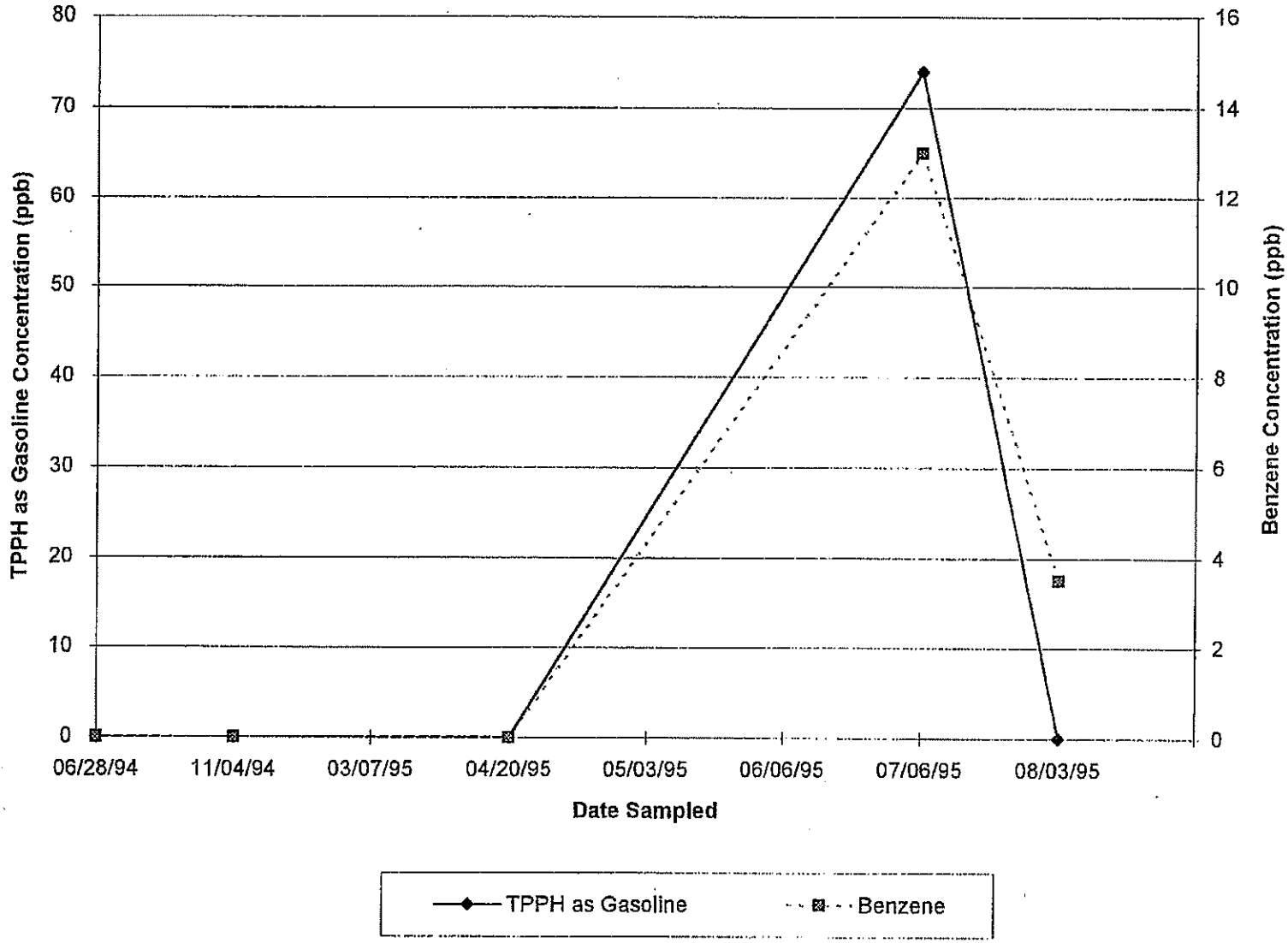


Figure D-3
Soil Vapor Extraction System Mass Removal Trend

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California

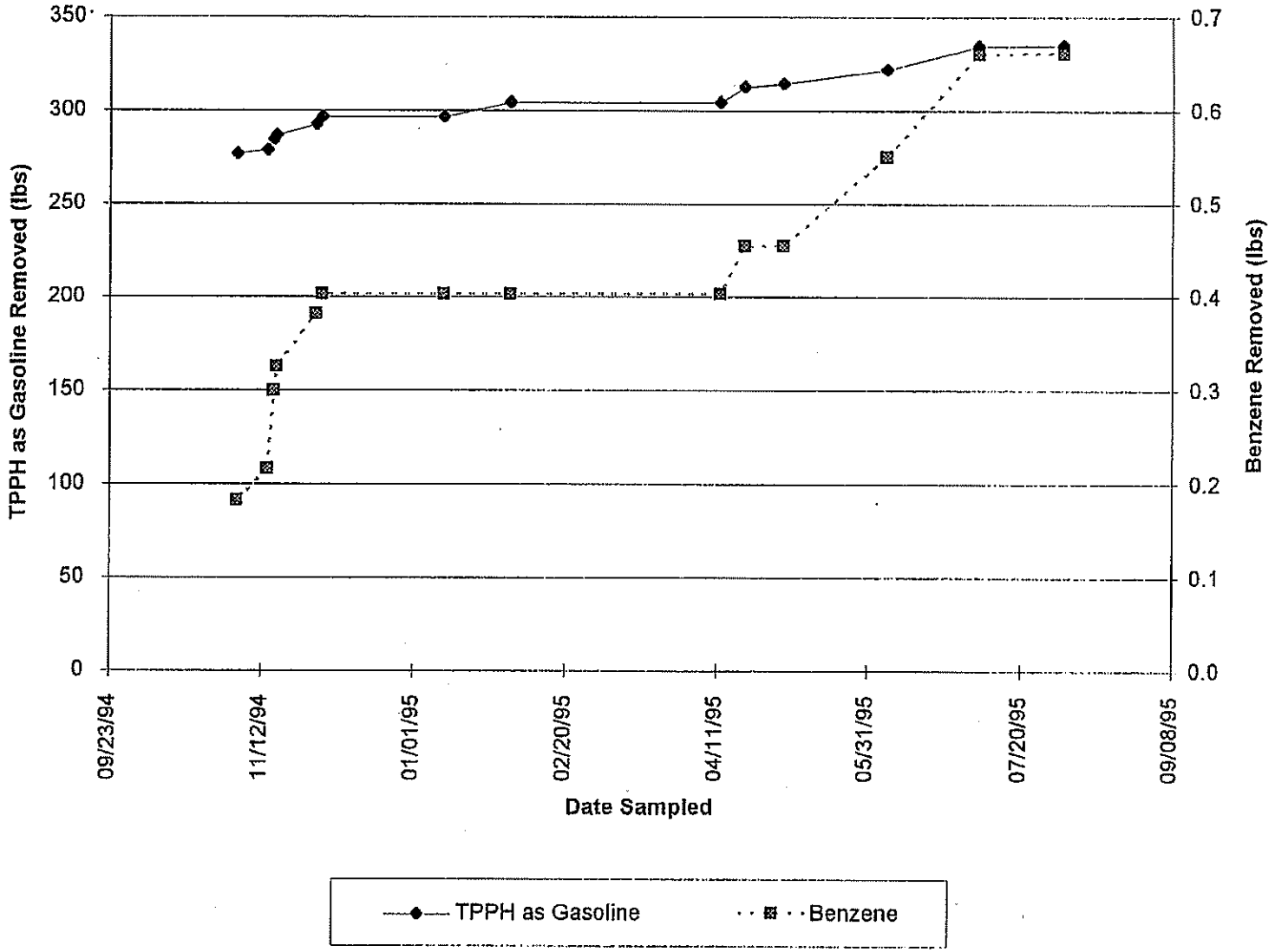
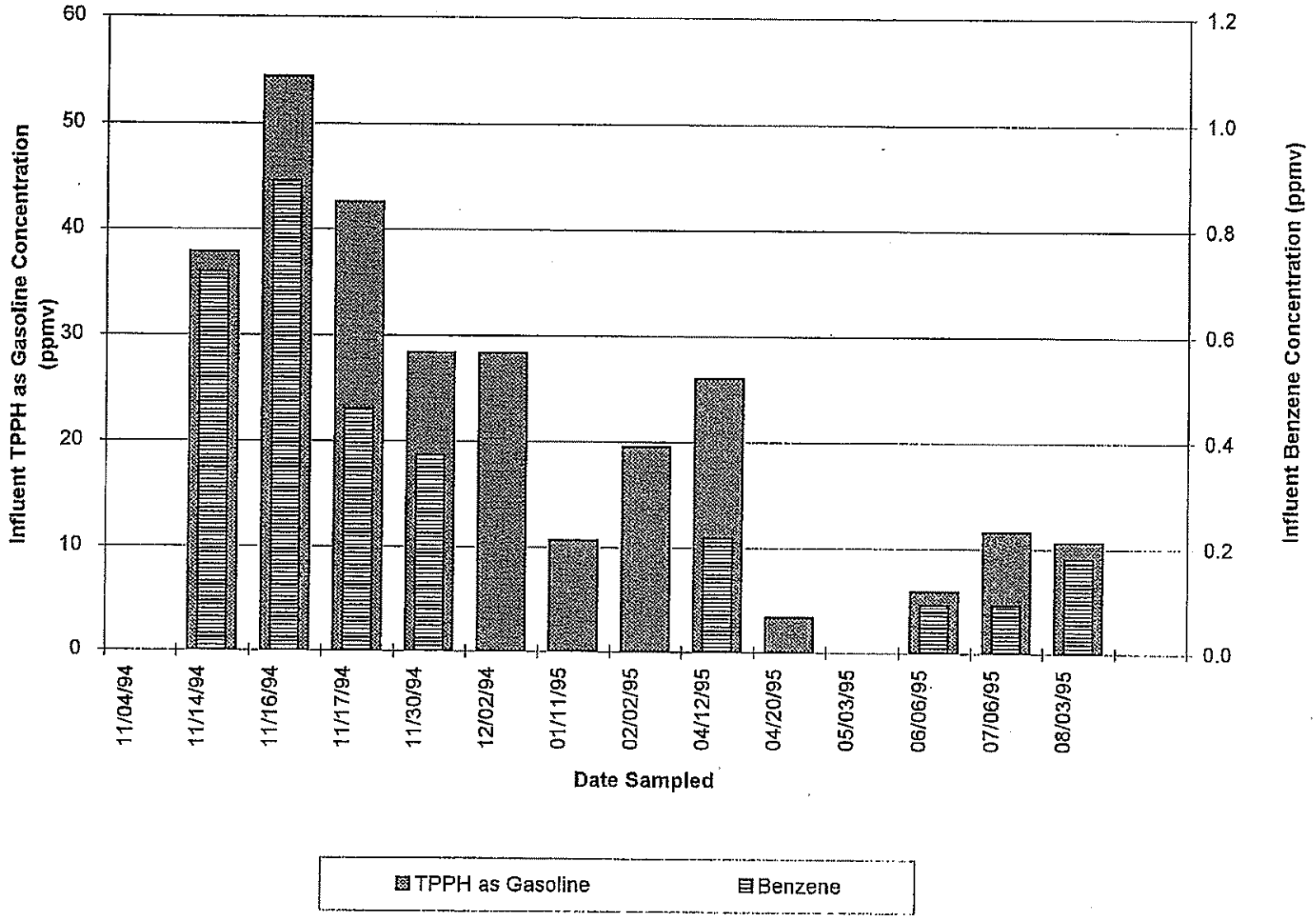


Figure D-4
Soil Vapor Extraction System Hydrocarbon Concentrations

ARCO Service Station 2112
1260 Park Street at Encinal Avenue
Alameda, California



APPENDIX C

GEOTRACKER UPLOAD CONFIRMATION

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Confirmation Number: 1299455761
Date/Time of Submittal: 10/24/2006 3:48:51 PM
Facility Global ID: T0600100083
Facility Name: ARCO #2112
Submittal Title: 3Q 06 GW Monitoring
Submittal Type: GW Monitoring Report

Click here to view the detections report for this upload.

ARCO #2112
1260 PARK
ALAMEDA, CA 94501

Regional Board - Case #: 01-0090
SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency (lead agency) - Case #: RO0000044
ALAMEDA COUNTY LOP - **(SP)**

CONF #	TITLE	QUARTER
1299455761	3Q 06 GW Monitoring	Q3 2006

SUBMITTED BY	SUBMIT DATE	STATUS
Broadbent & Associates, Inc.	10/24/2006	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	4
# FIELD POINTS WITH DETECTIONS	3
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	0
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FA,8260TPH,SW8015B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	8
METHOD HOLDING TIME VIOLATIONS	8
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	N
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

Logged in as BROADBENT-C (CONTRACTOR) CONTACT SITE ADMINISTRATOR.

#2/12

Electronic Submittal Information

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Submittal Title:	**3Q 06 GEO_WELL**
Submittal Date/Time:	**10/20/2006 5:58:17 PM**
Confirmation Number:	7848528802

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CONTACT SITE ADMINISTRATOR.