

Karel Detterman
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Connell Automobile Dealership**
3093 Broadway
Oakland, California
ACEH Case No. 199

RECEIVED

8:59 am, Nov 06, 2012

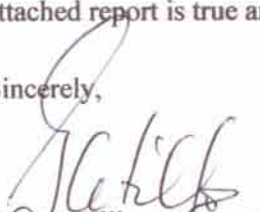
Alameda County
Environmental Health

Dear Karel Detterman:

The Hill Family Trust & Linden Broadway Property Trust (Trusts) have retained Pangea Environmental Services, Inc. (Pangea) as the environmental consultant for the project referenced above. Pangea is submitting the attached report on behalf of the Trusts.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely,



George Hill
Hill Family Trust

October 2, 2012

VIA ALAMEDA COUNTY FTP SITE

Mr. Karel Detterman, PG
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502



Re: **Groundwater Monitoring and Remediation Report – Second Half 2012**
Connell Automobile Dealership
3093 Broadway
Oakland, California
ACEH Case No. 199

Dear Ms. Detterman:

On behalf of the Hill Family Trust and Hawthorne Broadway LLC, Pangea Environmental Services, Inc., (Pangea) has prepared this *Groundwater Monitoring and Remediation Progress Report – Second Half 2012* for the subject site. This report describes groundwater monitoring, site remediation, and other site activities. This report presents the second groundwater monitoring results since insitu remediation commenced in April 2011. Monitoring results suggests that site remediation has remediated site free product and continues to decrease hydrocarbon concentrations in groundwater in key wells.

Pangea is notifying ACEH that cleanup costs now exceed the available cost recovery limit of \$1.5MM for this unauthorized release of petroleum hydrocarbons. The responsible parties wish to maximize the benefit of future resources used for groundwater monitoring and site remediation.

To help accelerate site cleanup and reduce overall cleanup costs, Pangea submitted a workplan for enhanced site remediation to ACEH dated January 18, 2012. The workplan proposed using a bio-organic catalyst (BOC) to help desorb subsurface hydrocarbons for capture by the DPE/AS system and to enhance biodegradation of site hydrocarbons. BOC is enjoying increasing use for hydrocarbon remediation, and a similar product was recently introduced by Regensis called PetroCleanze™.

This letter notifies ACEH that Pangea plans to begin implementation of the workplan for enhanced site remediation. Section 2722 in Title 23 of the California Code of Regulation stipulates that a responsible party may implement proposed corrective action if no regulatory comments have been received within 60 days of submission, as long as written notification is provided to the lead regulatory agency stating the responsible party's intent regarding the proposed corrective action and their willingness to comply with agency conditions or required mitigation provided in the future. If you have questions, please call (510) 435-8664.

Sincerely,

Pangea Environmental Services, Inc.

A handwritten signature in blue ink that reads "Bob Clark-Riddell".

Bob Clark-Riddell, P.E.
Principal Engineer

Attachments: *Groundwater Monitoring and Remediation Report – Second Half 2012*

cc: SWRCB/RWQCB Geotracker (electronic copy)
Mr. George Hill, Geotracker
Mr. Gordon Linden, Geotracker

PANGEA Environmental Services, Inc.

1710 Franklin Street, Suite 200, Oakland, CA 94612 Telephone 510.836.3700 Facsimile 510.836.3709 www.pangeaenv.com



**GROUNDWATER MONITORING AND REMEDIATION REPORT
SECOND HALF 2012**

**Connell Automobile Dealership
3093 Broadway
Oakland, California
ACEH Case No. 469**

October 2, 2012

Prepared for:

Hill Family Trust
C/O Mr. George Hill
305 Sheridan Avenue
Piedmont, California 94611

and

Hawthorne Broadway LLC
C/O Mr. Gordon Linden
150 La Salle Avenue
Piedmont, California 94611


Prepared by:

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, California 94612

Written by:




Morgan Gillies
Project Manager


Bob Clark-Riddell, P.E.
Principal Engineer

PANGEA Environmental Services, Inc.

INTRODUCTION

As required by Alameda County Environmental Health (ACEH), Pangea has prepared this *Groundwater Monitoring and Remediation Report – Second Half 2012* for the subject site. On behalf of the Hill Family Trust and Hawthorne Broadway LLC, Pangea conducted groundwater monitoring and sampling, inspected wells for separate-phase hydrocarbons (SPH) and performed remediation system operation and sampling during this half year at the site (Figure 1). The purpose of the monitoring and sampling is to evaluate groundwater flow direction, concentrations of dissolved hydrocarbons in groundwater, and thickness of SPH. The purpose of the remediation system is to clean up petroleum hydrocarbons from a historic fuel release. Current analytical data and groundwater elevations are shown on Figure 2. The contaminant distribution and trends are illustrated on Figures 3 through 9. Current and historical data are summarized on Tables 1 and 2. SPH thickness and removal volumes are summarized on Table 3. Site remediation data are summarized on Tables 4 and 5.

SITE DESCRIPTION AND BACKGROUND

The site is located on the east side of “Pill Hill” south of Hawthorne Avenue, between Broadway and Webster Street. The northern portion of the site is occupied by the auto repair shop, offices and showrooms of the Connell automobile dealership, while the southern portion of the site is occupied by parking lots. The ground surface elevation ranges from approximately 80 to 100 feet above mean sea level (msl) and slopes southeastwards towards the base of “Pill Hill” at Broadway. Three underground storage tanks (USTs) that previously contained gasoline, diesel, and waste oil were removed from the upper (northwest) portion of the site in December 1989. Soil and groundwater assessment have been ongoing since 1990.

Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system removed approximately 1,421 pounds of hydrocarbons. Manual removal of separate-phase hydrocarbons (SPH) from monitoring wells has removed a total of approximately 950 pounds (156 gallons) of SPH since 1991. Chemicals of concern at the site are petroleum hydrocarbons (i.e. diesel and gasoline), the lead scavenger 1, 2-dichloroethane, and fuel-related semi-volatile organic compounds (e.g., naphthalene). In some prior analytical results from the site, extractable hydrocarbons have been quantified as total petroleum hydrocarbons as motor oil (TPHmo), although these hydrocarbons may represent the heavier fraction of diesel contamination. Methyl tertiary butyl ether (MTBE) is not a constituent of concern at this site.

On February 27 through April 4, 2007, Pangea installed two groundwater monitoring wells (MW-16A and MW-16B) to monitor groundwater during remediation and installed fifteen remediation wells (AS-1A, AS-1B, AS-2A, AS-3A, AS-3B, AS-4A, RW-1, RW-2, RW-3A, RW-3B, RW-4, RW-5, MW-17A,

MW-17B and VE-1) to implement air sparging (AS) and dual phase extraction (DPE). New wells installed at the site were labeled according to the depths of their screen intervals: shallow (A-zone) wells have screen intervals above approximately 30 feet below grade surface (bgs), which generally straddle the top of the water table, while deeper (B-zone) wells are screened below approximately 30 feet bgs to target deeper contamination. After delays associated with the UST Cleanup Fund and prospective property sale, operation of the DPE system began on April 26, 2011 and operation of the AS system began on May 29, 2011.

In August 2008, Pangea conducted additional downgradient soil and groundwater assessment per ACEH direction. No petroleum hydrocarbons were detected above reporting limits in analyzed soil or groundwater from boring SB-1. Based on these and historical results, the lateral extent of hydrocarbon contamination appears to be adequately characterized.

GROUNDWATER MONITORING AND SAMPLING

On August 27 and 28, 2012, Pangea gauged depth-to-water and inspected for SPH in select site monitoring wells. During this monitoring event, Pangea expanded the monitoring program to help evaluate remedial progress at the site as summarized on Table A in Appendix A. Samples are not collected from wells with SPH or insufficient water. Therefore, during this monitoring event Pangea gauged 18 wells and sampled 10 wells.

Prior to sampling the wells, groundwater levels and SPH thickness were measured to evaluate groundwater elevation, flow direction, and the presence of free product in groundwater at the site. Before well purging, the dissolved oxygen (DO) concentration was measured in each well by lowering a down-well sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection, approximately three well-casing volumes of groundwater were purged using a disposable bailer, PVC bailer, an electric submersible pump or new polyethylene tubing with check valve (although fewer casing volumes were purged if the well dewatered). During well purging, field technicians measured and recorded groundwater pH, conductivity, and temperature. Groundwater samples were collected from each well with a disposable bailer and decanted into the appropriate containers supplied by the analytical laboratory. Samples were labeled, placed in protective plastic bags, stored on crushed ice at or below 4 degrees Celsius, and transported under chain-of-custody to the laboratory. Groundwater monitoring field data sheets are presented as Appendix B.

MONITORING RESULTS

Current groundwater elevation and analytical data are summarized on Figure 2. Current and historical data are described below and summarized on Tables 1 and 2. In accordance with the monitoring program, groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; total petroleum hydrocarbons as diesel (TPHd) and motor oil (TPHmo) by EPA Method 8015C with silica gel cleanup; and benzene, toluene, ethylbenzene, xylenes (BTEX) and MTBE by EPA Method 8021B. During the first quarter of each year, groundwater samples are also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8010. Table 1 summarizes current and historical analytical results for TPHg, BTEX and HVOCs and presents dissolved oxygen field measurement data. This quarter, DO concentrations ranged from 0.62 milligrams per liter (mg/L) in well VE-1 to 2.91 mg/L in well RW-3A. Table 2 summarizes extractable hydrocarbons (TPHd and TPHmo) and semi-volatile organic compounds (SVOCs). Laboratory analyses were performed by McCampbell Analytical of Pittsburg, California, a State-certified laboratory. The laboratory analytical report and chain of custody are included in Appendix C.

Groundwater Flow Direction

Based on depth-to-water measurements from August 27, 2012, the inferred groundwater flow direction beneath the upper portion of the site (repair shop) is primarily *northeastwards*. The inferred groundwater flow direction in the lower portion of the site (parking lot) is *eastwards* to *northeastwards*, while groundwater flow beneath Broadway appears to be more *northerly*. The inferred flow direction this event is consistent with previous monitoring events. Depth-to-water and groundwater elevation data are presented in Table 1 and on Figure 2.

Hydrocarbon and Fuel Oxygenate Distribution in Groundwater

Current hydrocarbon analytical results are summarized on Figure 2. The lateral distribution of TPHg and benzene in groundwater is illustrated on Figures 4 and 5, respectively. TPHg concentration trends in groundwater for the upper and lower plume areas are graphed on Figures 6 and 7, respectively. Benzene concentration trends in groundwater for the upper and lower plume areas are graphed on Figures 8 and 9, respectively. These graphs illustrate concentration reductions in key site wells since remediation implementation. The lack of measurable SPH (discussed below) also reflects the effectiveness of DPE/AS remediation. A cross section illustrating pre-remediation conditions and conceptual DPE/AS activity is shown on Figure 10.

The maximum TPHg and benzene concentrations detected this quarter were 140,000 µg/L and 7,600 µg/L in well MW-4. The maximum TPHd concentration (610,000 µg/L) this quarter was detected in well MW-1. *Historic low* or near *historic low* hydrocarbon concentrations were detected in wells MW-15, MW-

16B, MW-17A, RW-2, RW-3A and RW-4. *This reduction in hydrocarbon concentrations is likely due to operation of the remediation system at the site.* The extent of benzene in groundwater (Figure 5) has been reduced compared to prior monitoring events.

MTBE was not detected in any of the sampled wells this quarter. Historically, MTBE has not been considered a compound of concern at the site, and has only been detected during three prior monitoring events, and only in well MW-4.

Separate-Phase Hydrocarbon Removal

During this monitoring event, no SPH was measured in any wells with historic free product (MW-1, MW-6, MW-14, MW-15 and RW-2). The lack of measurable SPH reflects the effectiveness of DPE/AS remediation. Approximately 962 pounds (158 gallons) of SPH have been removed via manual SPH removal, which began in December 1991. Table 3 presents the SPH thickness measurements, amount of SPH removed from the wells, and cumulative volume of SPH removal. Additional but unquantifiable SPH removal has been provided by the DPE/AS remediation system.

REMEDIATION SYSTEM SUMMARY

Dual Phase Extraction/Air Sparging System

The dual phase extraction (DPE) remediation system simultaneously extracts groundwater and soil vapor from site remediation wells. The remediation system layout is shown on Figure 3. Extraction and treatment is performed using a 25 hp liquid ring vacuum pump with a 400 cubic foot per minute (cfm) thermal catalytic oxidizer. To maximize groundwater depression, a “stinger” (vacuum tube inserted below the water table) is used to both depress the water table and extract soil vapor in each of the 15 remediation wells (MW-1, MW-6, MW-10, MW-14, MW-15, MW-16B, MW-17A/B, RW-1 through RW-5 and VE-1). Well construction details are summarized on Table A in Appendix A. Extracted vapors are routed through an air/water separator and then treated by the electric catalytic oxidizer. The treated vapor is discharged to the atmosphere in accordance with Bay Area Air Quality Management District (BAAQMD) requirements. Groundwater captured within the air/water separator is pumped through two 1,000-lb canisters of granular activated carbon plumbed in series. The treated groundwater is discharged into the sewer in accordance with East Bay Municipal Utility District’s (EBMUD) requirements.

The air sparging (AS) system consists of a 7.5 hp Ingersoll-Rand rotary-screw air compressor capable of injecting 28 cfm of air and reaching pressures of 125 psig. Injection into the six air sparge wells (AS-1A/B, AS-2A, AS-3A/B and AS-4A) is controlled by timer-activated solenoid valves and individual well needle valves on the well flow meters. The remediation system layout is shown on Figure 3.

Operation and Performance

DPE and AS system operation commenced on April 26, 2011 and May 29, 2011, respectively. The DPE system was initially operated to target elevated impact within the lower portion of the site, and then expanded to the upper portion of the site to enhance contaminant mass removal rates. More recently the DPE remediation was focused on the upper portion of the site. AS was initiated on wells AS-3A, AS-3B and AS-4A near the lower portion of the site, and later to upper plume wells AS-1A, AS-1B, and AS-2A. System operation and performance data is summarized on Tables 4 and 5.

As of September 14, 2012, the DPE system operated for a total of about 9,048 hours (approximately 377 days). Laboratory analytical and performance data indicates that soil vapor removal rates observed during this reporting period ranged from 2.5 to 45.4 lbs/day TPHg and 0.14 to 1.49 lbs/day benzene. As of September 14, 2012, the vapor-phase portion of the DPE system removed a total of approximately 7,908 lbs TPHg and 491 lbs benzene. As of September 14, 2012, the groundwater portion of the DPE system removed approximately 41 lbs TPHg and 4 lbs benzene.

The DPE/AS system is monitored in accordance with air permit requirements of the *Permit to Operate* issued by the Bay Area Air Quality Management District (BAAQMD) and groundwater discharge requirements of the *Wastewater Discharge Permit* issued by East Bay Municipal Utility District.

FUTURE SITE ACTIVITIES

Enhanced Site Remediation

Cleanup costs for this site now exceed the available cost recovery limit of \$1.5MM from the UST Cleanup Fund for this unauthorized release of petroleum hydrocarbons. The responsible parties wish to maximize the benefit of future resources used for groundwater monitoring and site remediation.

Based on the effectiveness of the DPE/AS remediation, Pangea plans to continue operation and optimization of the DPE/AS system to target residual elevated impact. Future DPE/AS system will focus on residual impact in the upper and lower plume areas.

In addition, to help accelerate site cleanup and reduce overall cleanup costs, Pangea now plans to implement the *Workplan for Enhanced Remediation* dated January 18, 2012. The workplan proposed using a bio-organic catalyst (BOC) to help desorb subsurface hydrocarbons for capture by the DPE/AS system and to enhance biodegradation of site hydrocarbons. BOC is enjoying increasing use for hydrocarbon remediation, and a similar product was recently introduced by Regenesis called PetroCleanze™. The proposed products are safe and inexpensive, and the Water Board has approved their use at other sites. The products will help desorb the contamination from site soil and accelerate

contaminant extraction and biodegradation. The products will be injected into site wells and the DPE system will then pull the products across the residual impact area toward the extraction wells. Air sparging in deeper wells to further distribute the products and simultaneously provide dissolved oxygen to further stimulate biodegradation. Air sparging will also agitate the products to create bubbles and help ‘activate’ the surfactant qualities of the products, bringing together the product’s enzymes, oxygen and contaminants for enhanced biodegradation.

This letter notifies ACEH that Pangea plans to begin implementation of the Workplan for Enhanced Remediation. Section 2722 in Title 23 of the California Code of Regulation stipulates that a responsible party may implement proposed corrective action if no regulatory comments have been received within 60 days of submission, as long as written notification is provided to the lead regulatory agency stating the responsible party’s intent regarding the proposed corrective action and their willingness to comply with agency conditions or required mitigation provided in the future.

Groundwater Monitoring

Pangea will conduct groundwater monitoring in accordance with the semi-annual monitoring program presented in Appendix A. The monitoring program includes gauging of depth-to-water, inspection for SPH, measurement of dissolved oxygen, and water sample collection. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015C/8021B and for TPHd/TPHmo by EPA Method 8015 with silica gel cleanup. During the first quarter of each year, groundwater samples will also be analyzed for HVOCs by EPA Method 8010. Pangea will summarize groundwater monitoring activities and results in a Groundwater Monitoring and Remediation Report.

Electronic Reporting

This report will be uploaded to the Alameda County FTP site. The report, laboratory data, and other applicable information will also be uploaded to the SWRCB’s Geotracker database. As requested, report hard copies will no longer be provided to ACEH or the RWQCB.

ATTACHMENTS

Figure 1 – Vicinity Map

Figure 2 – Groundwater Elevation and Hydrocarbon Concentration Map

Figure 3 – Remediation System Layout

Figure 4 – TPHg Distribution in Groundwater

Figure 5 – Benzene Distribution in Groundwater

Figure 6 - TPHg Concentration Trends in Groundwater for Upper Plume Area

Figure 7 – TPHg Concentration Trends in Groundwater for Lower Plume Area

Figure 8 – Benzene Concentration Trends in Groundwater for Upper Plume Area

Figure 9 – Benzene Concentration Trends in Groundwater for Lower Plume Area

Figure 10 – Cross Section with Remediation Illustration (Pre-Remediation)

Table 1 – Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs and Dissolved Oxygen

Table 2 – Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs

Table 3 – Separate-Phase Hydrocarbon Removal

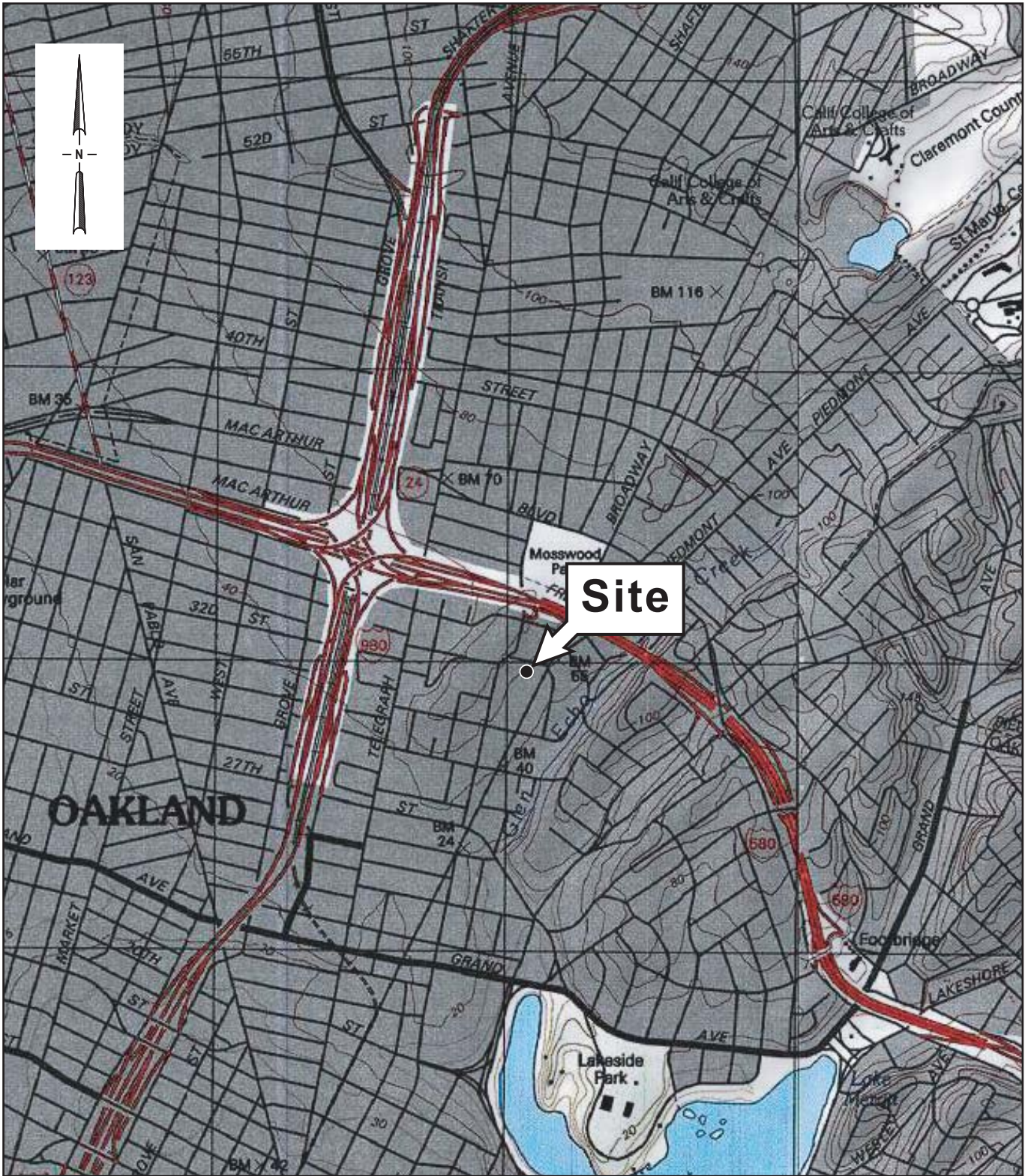
Table 4 – SVE (DPE) Performance Data

Table 5 – GWE (DPE) Performance Data

Appendix A – Well Monitoring Protocol

Appendix B – Groundwater Monitoring Field Data Sheets

Appendix C – Laboratory Analytical Report



SOURCE: TOPOI MAPS



SCALE : 1" = 1/4 MILE

Figure 1

Connell Automobile Dealership
 3093 Broadway
 Oakland, California



Vicinity Map

WEBSTER STREET

HAWTHORNE STREET

BROOK STREET

BROADWAY

LF2 LF3

CPT-3

CPT-16

SB-12/CPT-17

MW-13

Connell Automobile Dealership
3093 Broadway

Office Building

Auto Repair

shed

parking lot

parking lot

parking lot

parking lot

EXPLANATION

- MW-2 ● Monitoring well location
- RW-1 ▨ Remediation/monitoring well location
- Well ID
- ELEV Groundwater Elevation
- TPH₉ Hydrocarbon concentrations in groundwater in micrograms per liter (ug/L)
- Benzene
- MTBE
- NS Not sampled
- NM Not measured
- CPT-16 ⊕ Penetration test boring
- SB-1 ⊙ Soil Boring
- LF2 ⊗ Abandoned monitoring well location (installed by Levine-Fricke)
- Approximate groundwater flow direction
- Groundwater elevation contour, in feet (relative to an arbitrary datum)

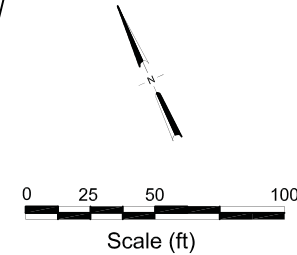


Figure 2

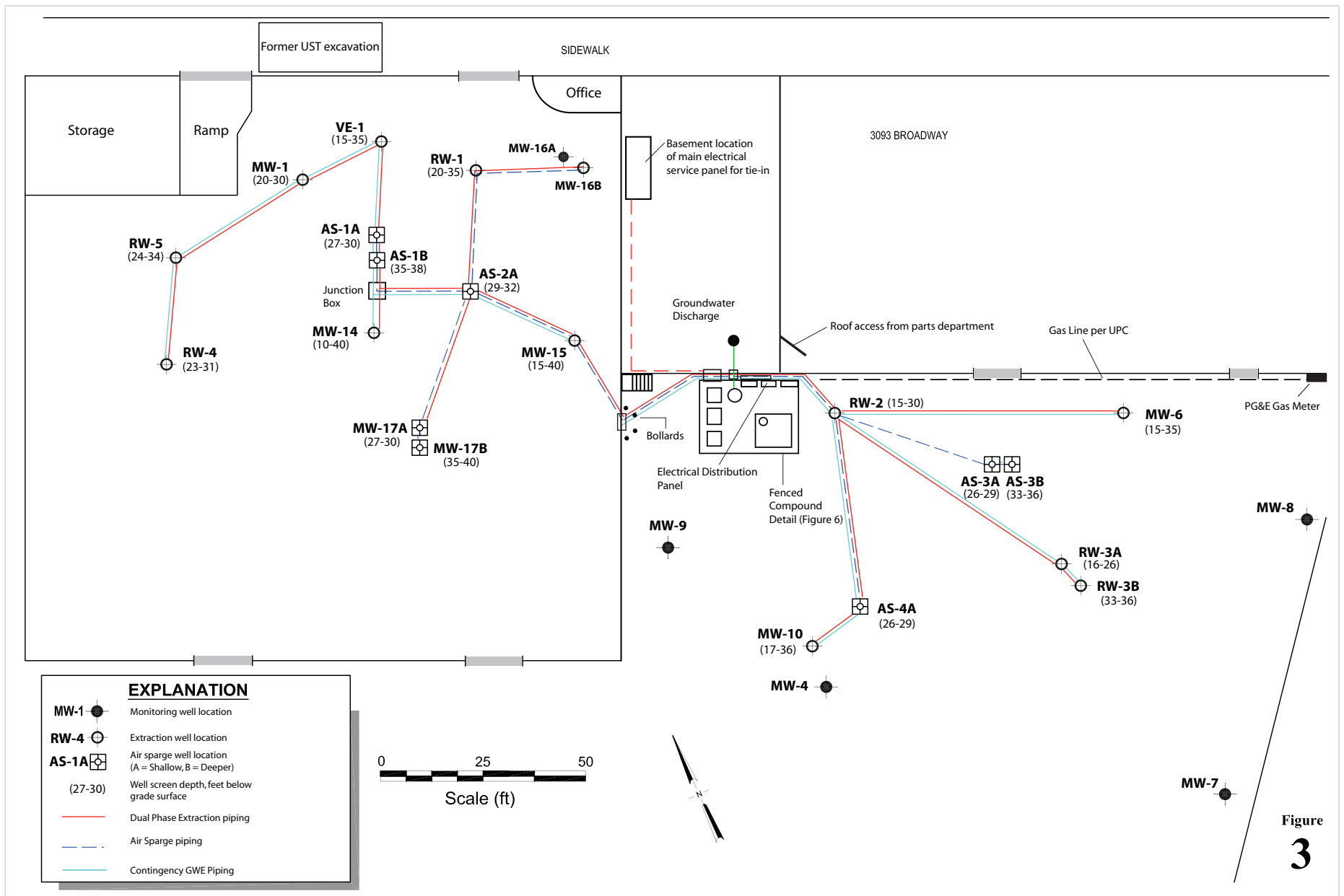
Basemap from Subsurface Consultants, Inc. and Cambria Environmental Technology, Inc.

Connell Automobile Dealership
3093 Broadway
Oakland, California



Groundwater Elevation and Hydrocarbon Concentration Map

August 27-28, 2012



WEBSTER STREET

HAWTHORNE STREET

BROOK STREET

BROADWAY

LF2 LF3

former USTs sidewalk LF4

Connell Automobile Dealership
3093 Broadway
Office Building

Auto Repair Shop

MW-11
NS

MW-1
81,000

MW-16A
NS

MW-16B
16,000

RW-5
14,000

MW-14
44,000

MW-15
790

RW-4
15,000

MW-17A
19,000

RW-2
44,000

AS-2B
23,000

MW-6
NS

MW-17B
10,000

MW-9
NS

AS-3A

MW-8
NS

MW-10
140,000

AS-4A

100,000

MW-7
NS

MW-3
NS

MW-5
NS

CPT-16

SB-12/CPT-17

MW-13
NS

EXPLANATION

- MW-2 ● Monitoring well location
- RW-1 ▨ Remediation/monitoring well location
- 81,000 TPHg Concentration (µg/L), most recent data
- 1,000 TPHg Isoconcentration in water, queried where uncertain
- CPT-16 ⊕ Penetration test boring
- SB-1 ⊙ Soil Boring
- LF2 ⊗ Abandoned monitoring well location (installed by Levine-Fricke)
- NS Not sampled

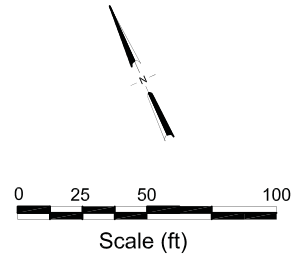


Figure 4

Basemap from Subsurface Consultants, Inc. and Cambria Environmental Technology, Inc.

Connell Automobile Dealership
3093 Broadway
Oakland, California



TPHg Distribution in Groundwater

WEBSTER STREET

HAWTHORNE STREET

BROOK STREET

BROADWAY

LF2

LF3

CPT-3

CPT-16

SB-1

SB-12/CPT-17

MW-13

MW-11
NS

MW-1
4,000

MW-16A
NS

MW-15B
3,900

MW-5
940

AS-1A

AS-1B

MW-14
2,800

AS-2A

MW-15
4.9

RW-4
370

MW-17A
530

MW-17B
NS

RW-2
5,700

AS-3B

MW-6
NS

MW-9
NS

MW-10
NS

MW-4
1,600

AS-4A

RW-3A
1,200

RW-3B
NS

MW-8
NS






MW-2
NS

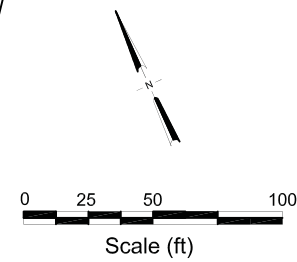
MW-3
NS

MW-5
NS

MW-7
NS

EXPLANATION

	Monitoring well location		CPT-16
	Remediation/monitoring well location		SB-1
4,000	Benzene Concentration (µg/L), most recent data		LF2
100	Benzene Isoconcentration in water, queried where uncertain	NS	Not sampled



Figure

Basemap from Subsurface Consultants, Inc. and Cambria Environmental Technology, Inc.

Connell Automobile Dealership
 3093 Broadway
 Oakland, California



en ene Distribution in Groundwater

TPHg Concentrations in Groundwater for Upper Plume Area 3093 Broadway, Oakland

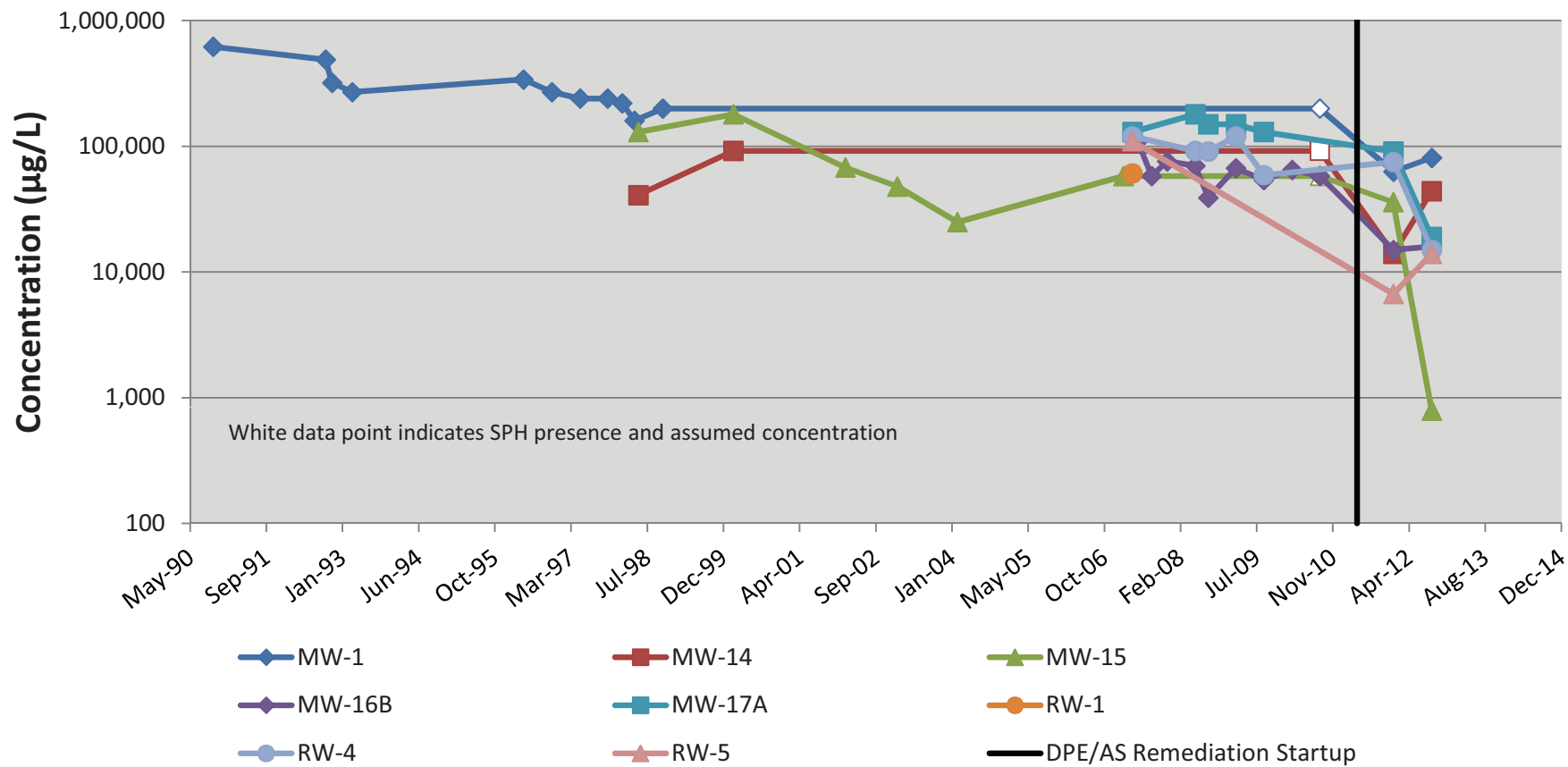


Figure 6 - TPHg Concentration Trends in Groundwater for Upper Plume Area

Benzene Concentrations in Groundwater for Upper Plume Area 3093 Broadway, Oakland

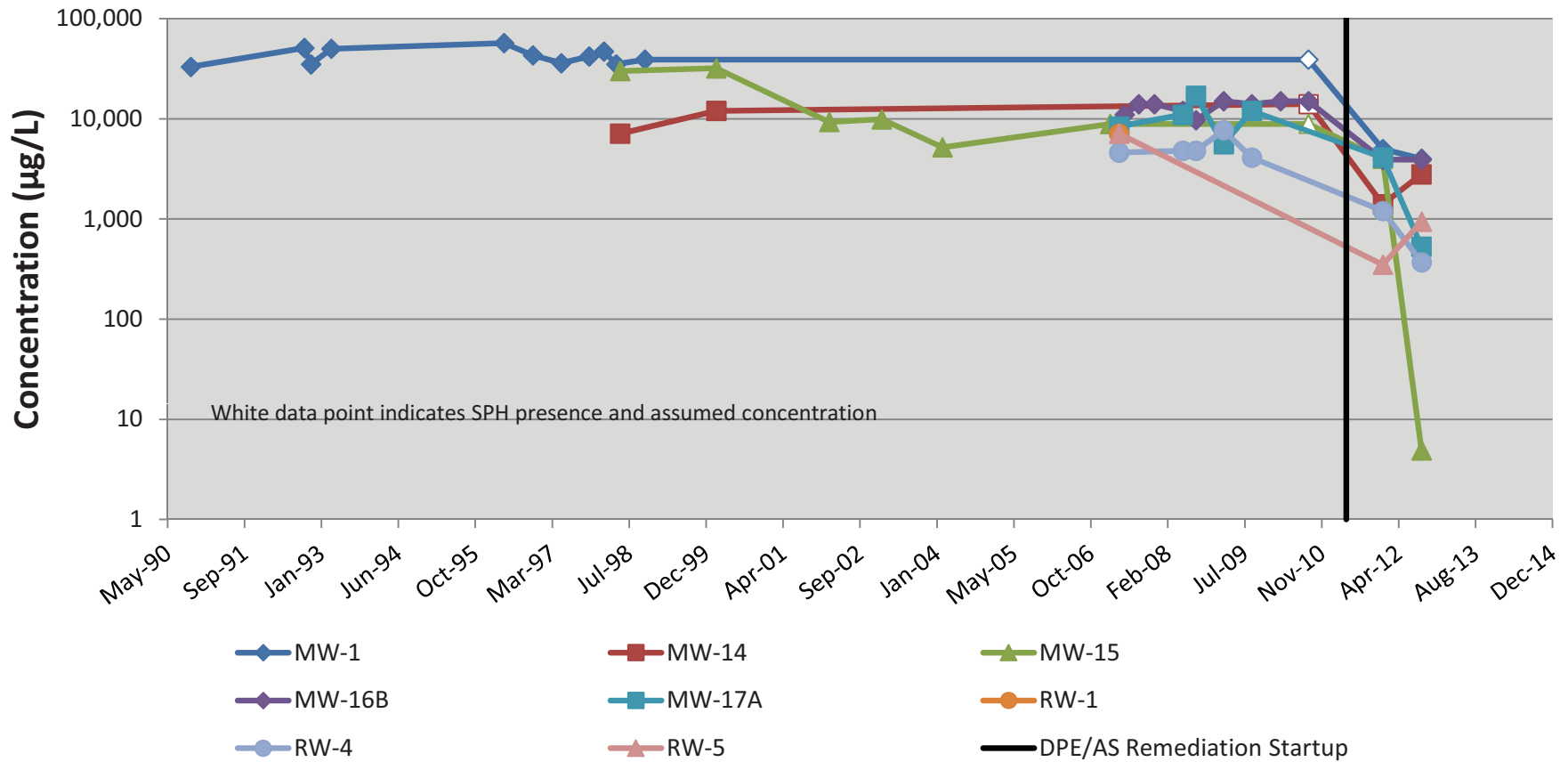


Figure 7 - Benzene Concentration Trends in Groundwater for Upper Plume Area

TPHg Concentrations in Groundwater for Lower Plume Area 3093 Broadway, Oakland

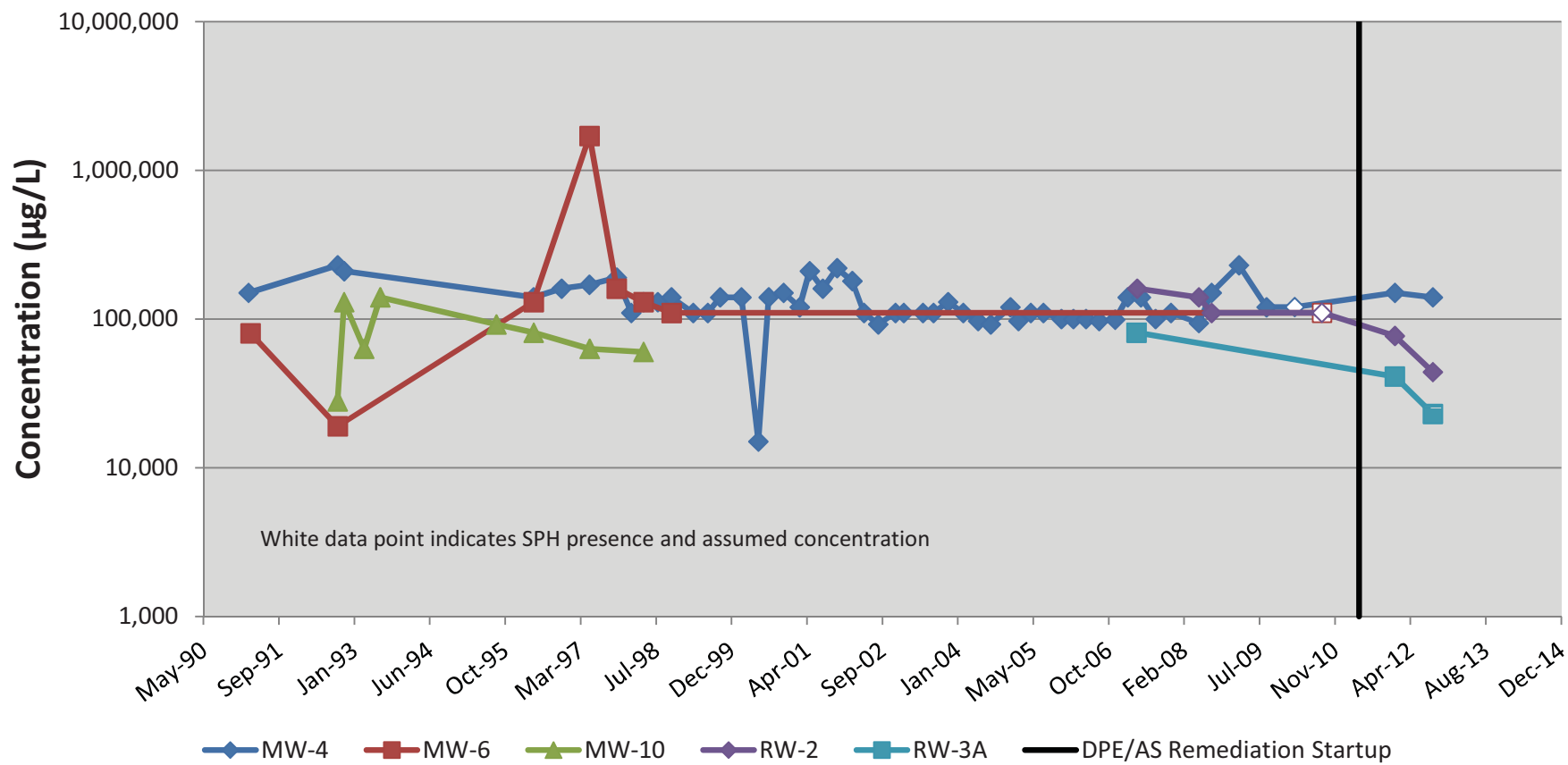


Figure 8 - TPHg Concentration Trends in Groundwater for Lower Plume Area

Benzene Concentrations in Groundwater for Lower Plume Area 3093 Broadway, Oakland

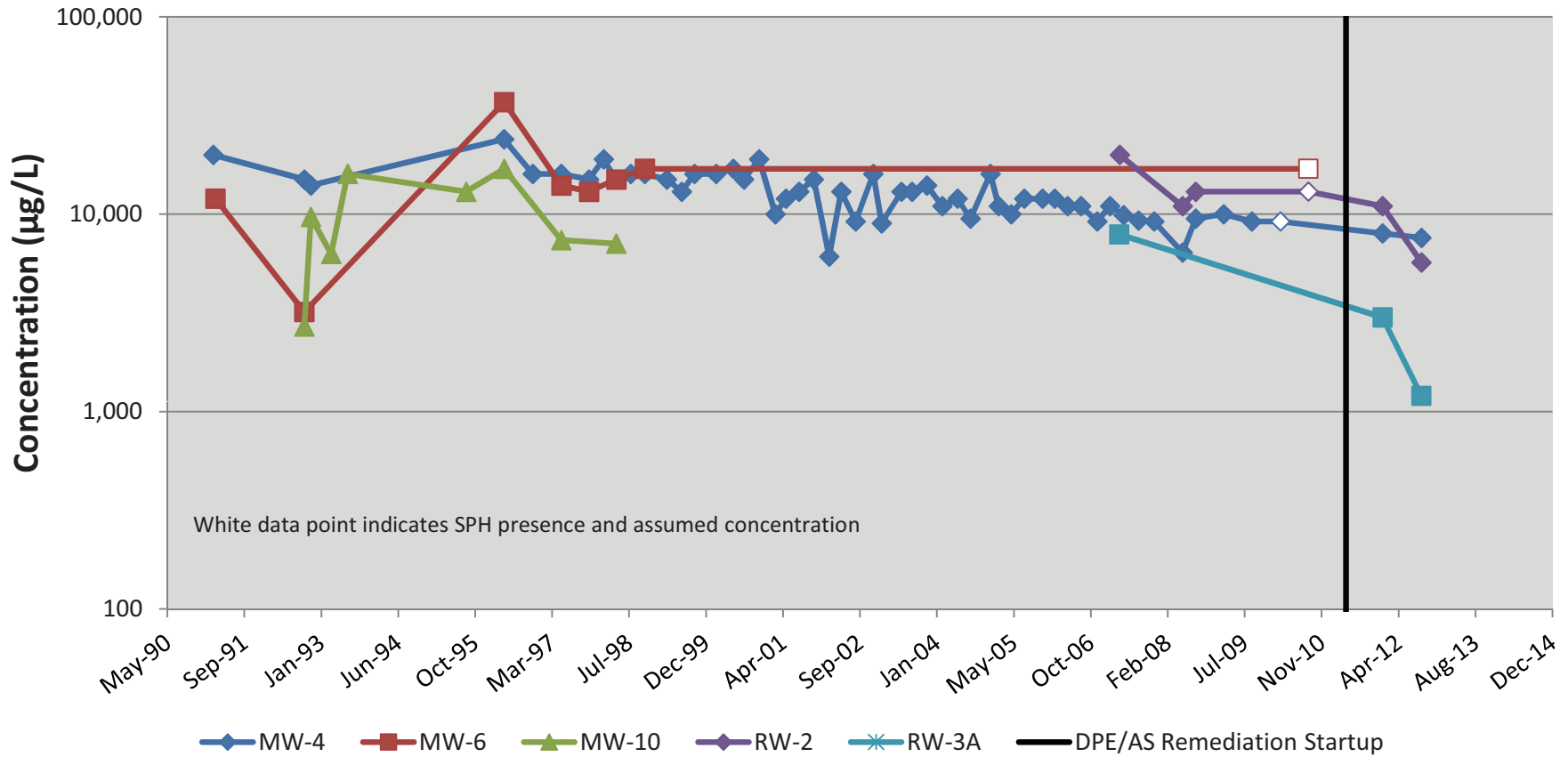
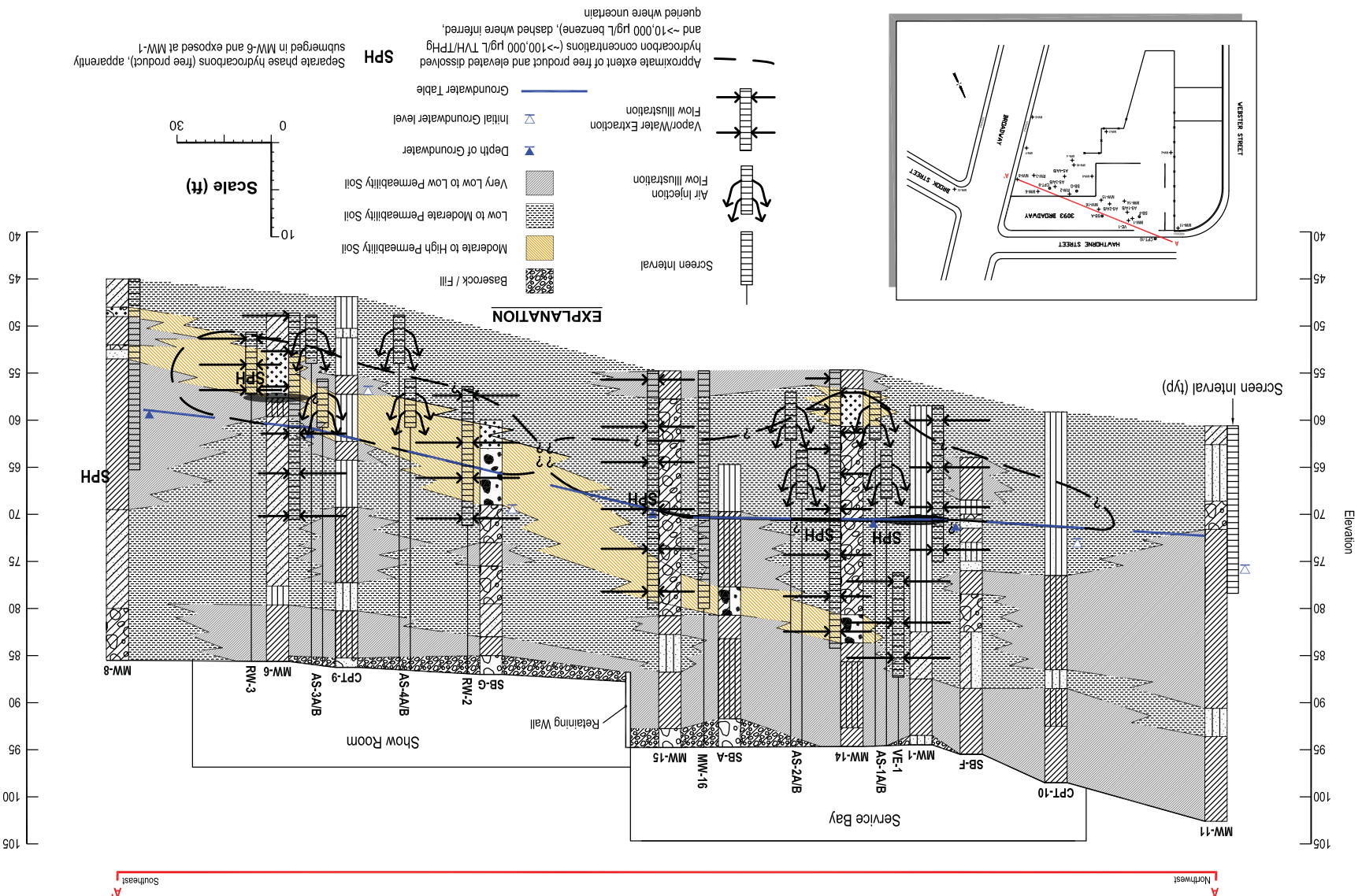
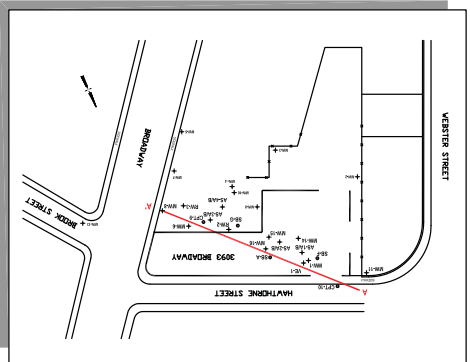


Figure 9 - Benzene Concentration Trends in Groundwater for Lower Plume Area



Figure

Pangea

Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
Monitoring Well Data												
MW-1 94.48	10/5/1990	26.40	68.08	620,000	33,000	50,000	7,900	41,000	--	--	ND	--
	3/1/1991	27.46	67.02	SPH	--	--	--	--	--	--	--	--
	10/12/1992	26.44	68.04	490,000	51,000	59,000	5,000	27,000	--	--	--	--
	11/24/1992	26.63	67.85	320,000	35,000	43,000	4,200	22,000	--	--	ND	--
	4/5/1993	23.77	70.71	270,000	50,000	58,000	4,600	25,000	--	--	ND	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	--	--	--	--	--	--
	12/4/1995	21.94	72.54	SPH	--	--	--	--	<200	--	--	--
	5/2/1996	20.65	73.83	340,000	57,000	73,000	7,200	38,000	--	--	--	--
	11/5/1996	24.29	70.19	270,000	43,000	56,000	4,500	34,000	--	--	--	--
	5/9/1997	22.79	71.69	240,000	36,000	45,000	3,300	17,900	--	--	--	--
	11/5/1997	25.06	69.42	240,000	42,000	48,000	3,600	18,800	<1,000	--	--	--
	2/9/1998	22.64	71.84	220,000	47,000	60,000	5,200	29,800	<1,000	--	ND	--
	5/1/1998	19.95	74.53	160,000	35,000	42,000	2,800	16,000	<1,000	--	ND	--
	11/3/1998	23.29	71.19	200,000	39,000	49,000	4,400	26,000	<500	--	ND	--
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--	--	--	--
	2/9/2000	23.95	70.59	SPH	--	--	--	--	--	--	--	--
	5/31/2000	22.05	72.43	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.49	71.99	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.65	69.83	SPH	--	--	--	--	--	--	--	--
	3/1/2001	24.22	70.28	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.85	70.67	SPH (0.05)	--	--	--	--	--	--	--	--
	8/1/2001	23.91	70.64	SPH (0.09)	--	--	--	--	--	--	--	--
	11/5/2001	23.95	70.67	SPH (0.18)	--	--	--	--	--	--	--	--
	2/13/2002	23.15	71.39	SPH(0.07)	--	--	--	--	--	--	--	--
	5/2/2002	23.91	70.60	SPH (0.04)	--	--	--	--	--	--	--	--
	8/4/2002	24.02	70.48	SPH (0.03)	--	--	--	--	--	--	--	--
	11/26/2002	24.47	70.05	SPH (0.05)	--	--	--	--	--	--	--	--
	1/20/2003	22.37	72.14	SPH (0.04)	--	--	--	--	--	--	--	--
	5/28/2003	21.77	72.73	SPH (0.02)	--	--	--	--	--	--	--	--
	8/5/2003	23.07	71.44	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	22.53	71.97	SPH (0.03)	--	--	--	--	--	--	--	--
	2/18/2004	22.61	71.91	SPH (0.05)	--	--	--	--	--	--	--	--
	5/27/2004	22.08	72.44	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.35	70.43	SPH (0.38)	--	--	--	--	--	--	--	--
	12/27/2004	24.62	70.21	SPH (0.44)	--	--	--	--	--	--	--	--
	2/18/2005	23.14	71.37	SPH (0.04)	--	--	--	--	--	--	--	--
	5/11/2005	22.71	71.79	SPH (0.02)	--	--	--	--	--	--	--	--
	8/3/2005	23.03	71.50	SPH (0.06)	--	--	--	--	--	--	--	--
	11/30/2005	23.98	70.52	SPH (0.03)	--	--	--	--	--	--	--	--
	2/17/2006	23.81	70.68	SPH (0.01)	--	--	--	--	--	--	--	--
	5/12/2006	21.75	72.75	SPH (0.02)	--	--	--	--	--	--	--	--
	8/7/2006	21.35	73.14	SPH (0.01)	--	--	--	--	--	--	--	--
	11/21/2006	23.38	71.13	SPH (0.04)	--	--	--	--	--	--	--	--
	2/12/2007	23.18	71.32	SPH (0.03)	--	--	--	--	--	--	--	--
	5/11/2007	22.68	71.80	--	--	--	--	--	--	--	--	0.20
	8/16/2007	23.74	70.74	--	--	--	--	--	--	--	--	0.08
	11/26/2007	24.98	69.50	--	--	--	--	--	--	--	--	0.13
	5/29/2008	23.83	70.65	--	--	--	--	--	--	--	--	0.14
	8/22/2008	25.50	69.54	SPH (0.70)	--	--	--	--	--	--	--	--
	2/19/2009	25.92	69.22	SPH (0.82)	--	--	--	--	--	--	--	--
	8/21/2009	25.98	69.12	SPH (0.77)	--	--	--	--	--	--	--	--
	2/24/2010	29.24	65.34	SPH (0.13)	--	--	--	--	--	--	--	--
	8/24/2010	26.84	68.14	SPH (0.63)	--	--	--	--	--	--	--	--
	12/20/2011	27.58	66.90	63,000	5,000	9,700	1,300	11,000	<1,000	--	--	0.83
	8/28/2011	27.63	66.85	81,000	4,000	6,500	180	16,000	<1,000	--	--	1.39
MW-2 94.85	3/1/1991	27.90	66.95	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/24/1992	27.95	66.90	<50	<0.5	1.1	<0.5	1.5	--	--	ND	--
	4/5/1993	25.99	68.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	25.63	69.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	26.76	68.09	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	25.79	69.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	23.32	71.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	24.62	70.23	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
	4/29/1998	22.22	72.63	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)	
MW-5 84.84	3/15/1991	26.31	58.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	11/10/1992	26.83	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	4/2/1993	26.62	58.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	7/21/1993	26.60	58.24	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	11/9/1993	27.24	57.60	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	8/30/1995	27.46	57.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
	5/3/1996	26.02	58.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	5/8/1997	26.76	58.08	<50	<0.5	0.5	<0.5	<0.5	--	--	--	--	
	4/29/1998	26.55	58.29	<50	<0.5	0.5	<0.5	<0.5	<2	--	ND	--	
MW-6 85.62	3/15/1991	25.82	59.80	80,000	12,000	13,000	1,100	5,400	--	--	DBCM: 160	--	
	10/12/1992	25.02	60.60	19,000	3,200	1,400	200	560	--	--	--	--	
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--	--	--	--	
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--	--	--	--	
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--	--	--	--	
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--	--	--	--	
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--	--	--	--	
	12/1/1995	27.58	58.04	SPH	--	--	--	--	<8,000,000	--	--	--	
86.94	5/3/1996	28.15	58.79	130,000	37,000	50,000	3,200	14,200	--	--	ND	--	
	5/9/1997	26.54	60.40	1,700,000	14,000	27,000	4,000	28,200	--	--	--	--	
	11/5/1997	26.16	60.78	160,000	13,000	19,000	1,900	14,300	<200	--	--	--	
	5/1/1998	22.96	62.86	130,000	15,000	23,000	1,700	13,200	<500	--	ND	--	
85.82	11/3/1998	24.35	61.47	110,000	17,000	21,000	1,800	10,700	<200	--	ND	--	
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--	--	--	--	
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--	--	--	--	
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--	--	--	--	
	2/9/2000	24.93	61.24	SPH	--	--	--	--	--	--	--	--	
	5/31/2000	23.47	62.41	SPH	--	--	--	--	--	--	--	--	
	8/8/2000	23.85	61.97	SPH	--	--	--	--	--	--	--	--	
	11/14/2000	24.61	61.21	SPH	--	--	--	--	--	--	--	--	
	3/1/2001	23.97	61.85	SPH	--	--	--	--	--	--	--	--	
	5/7/2001	23.17	62.71	SPH	--	--	--	--	--	--	--	--	
	8/1/2001	obstruction in well		--	--	--	--	--	--	--	--	--	
	11/5/2001	obstruction in well		--	--	--	--	--	--	--	--	--	
	2/13/2002	obstruction in well		--	--	--	--	--	--	--	--	--	
	5/2/2002	23.25	62.41	SPH (0.05)	--	--	--	--	--	--	--	--	
	8/4/2002	23.55	62.29	SPH (0.03)	--	--	--	--	--	--	--	--	
	11/26/2002	24.22	61.62	SPH (0.03)	--	--	--	--	--	--	--	--	
	1/20/2003	22.49	63.36	SPH (0.04)	--	--	--	--	--	--	--	--	
	5/28/2003	21.92	63.93	SPH (0.04)	--	--	--	--	--	--	--	--	
	8/5/2003	23.98	61.87	SPH (0.04)	--	--	--	--	--	--	--	--	
	11/10/2003	23.50	62.40	SPH (0.10)	--	--	--	--	--	--	--	--	
	2/18/2004	22.21	63.64	SPH (0.04)	--	--	--	--	--	--	--	--	
	5/27/2004	22.01	63.85	SPH (0.05)	--	--	--	--	--	--	--	--	
	8/19/2004	24.16	61.68	SPH (0.03)	--	--	--	--	--	--	--	--	
	12/27/2004	24.69	61.13	SPH (sheen)	--	--	--	--	--	--	--	--	
	2/18/2005	23.55	62.33	SPH (0.08)	--	--	--	--	--	--	--	--	
	5/11/2005	22.90	62.97	SPH (0.06)	--	--	--	--	--	--	--	--	
	8/3/2005	23.68	62.19	SPH (0.06)	--	--	--	--	--	--	--	--	
	11/30/2005	24.17	61.67	SPH (0.02)	--	--	--	--	--	--	--	--	
	2/17/2006	23.89	61.95	SPH (0.03)	--	--	--	--	--	--	--	--	
	5/12/2006	22.66	63.18	SPH (0.03)	--	--	--	--	--	--	--	--	
	8/7/2006	22.83	63.01	SPH (0.02)	--	--	--	--	--	--	--	--	
	11/21/2006	23.92	61.92	SPH (0.02)	--	--	--	--	--	--	--	--	
	2/12/2007	23.97	61.87	SPH (0.02)	--	--	--	--	--	--	--	--	
	5/11/2007	23.54	62.28	--	--	--	--	--	--	--	--	0.70	
	8/16/2007	24.18	61.64	--	--	--	--	--	--	--	--	0.63	
	11/26/2007	Unable to gauge or sample-Vehicle parked over well											
	5/29/2008	24.29	61.53	--	--	--	--	--	--	--	--	0.48	
	8/22/2008	24.80	61.02	--	--	--	--	--	--	--	--	2.55	
	2/19/2009	24.96	60.86	SPH (0.07)+	--	--	--	--	--	--	--	1.88	
	8/21/2009	25.10	60.74	SPH (0.03)	--	--	--	--	--	--	--	--	
	2/24/2010	26.71	59.13	SPH (0.03)	--	--	--	--	--	--	--	--	
	8/24/2010	26.13	59.73	SPH (0.05)	--	--	--	--	--	--	--	--	
	12/19/2011	25.19	60.63	Insufficient water to sample								--	--
	8/27/2012	24.16	61.66	Insufficient water to sample								--	--
MW-7 85.41	3/15/1991	21.63	63.78	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	11/24/1992	21.52	63.89	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	4/2/1993	20.08	65.33	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	
	7/21/1993	19.59	65.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--	

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Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-7 (continued)	11/9/1993	20.65	64.76	<50	<0.5	1	<0.5	1.7	--	--	ND	--
	8/30/1995	18.78	66.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	19.47	65.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/2/1996	17.15	68.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/8/1996	18.48	66.93	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/4/1996	18.69	66.72	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	17.44	67.97	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	17.72	67.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	8/7/1997	18.49	66.92	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	18.86	66.55	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	17.56	67.85	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	4/29/1998	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	8/4/1998	17.24	68.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/2/1998	17.91	67.50	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	3/26/1999	16.42	68.99	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	7/1/1999	17.90	67.51	85	<0.5	1.1	0.55	2.5	<0.5	--	5	--
	9/21/1999	18.91	66.50	<50	0.7	1.8	<0.5	1.5	<5.0	--	ND	4.32
	2/9/2000	16.74	68.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--
	5/31/2000	16.21	69.20	<50	3	6	1	9	<0.5	--	ND	--
	8/8/2000	16.92	68.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.43
	11/14/2000	17.00	68.41	<50	<0.5	0.63	<0.5	<0.5	<5.0	--	ND	0.44
	3/1/2001	17.09	68.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	5/7/2001	17.19	68.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.51
	8/1/2001	17.25	68.16	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	17.50	67.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.80
	5/2/2002	17.30	68.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	8/4/2002	17.58	67.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	11/26/2002	18.35	67.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.28
	1/20/2003	15.84	69.57	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.61
	5/28/2003	15.19	70.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.74
	8/5/2003	17.00	68.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.61
	11/10/2003	16.54	68.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	2/18/2004	16.47	68.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.74
	5/27/2004	15.93	69.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	8/19/2004	18.05	67.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.71
	12/27/2004	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	2.0
	2/18/2005	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.93
	5/11/2005	15.79	69.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.18
	8/3/2005	17.52	67.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.89
	11/30/2005	19.57	65.84	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.70
	2/17/2006	16.82	68.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<1.0	0.99
	5/12/2006	15.86	69.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.11
	8/7/2006	17.52	67.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.33
	11/21/2006	18.67	66.74	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.39
	2/12/2007	18.20	67.21	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5 ⁷	0.75
	5/11/2007	17.73	67.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.93
	8/16/2007	18.86	66.55	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.66
	11/26/2007	19.51	65.90	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.59
	5/29/2008	18.58	66.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.71
	8/22/2008	19.35	66.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.45
	2/19/2009	18.30	67.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	ND	1.90
	8/21/2009	18.50	66.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.42
	2/24/2010	19.27	66.14	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	1.19
	8/24/2010	20.68	64.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.06
	12/19/2011	18.88	66.53	--	--	--	--	--	--	--	--	--
	8/27/2012	17.85	67.56	--	--	--	--	--	--	--	--	--
MW-8 85.50	10/12/1992	27.70	57.80	70	20	1	1	3	--	--	--	--
	11/25/1992	27.62	57.88	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/8/1993	26.64	58.86	490	15	45	5.1	73	--	--	ND	--
	7/21/1993	26.60	58.90	180	2.5	3	<0.5	1.9	--	--	ND	--
	11/11/1993	27.18	58.32	310	23	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	26.35	59.15	660	360	6.8	13	2.8	--	--	--	--
	12/4/1995	26.72	58.78	250	46	0.9	4.9	<0.5	--	--	ND	--
	5/3/1996	25.47	60.03	69	110	<0.5	<0.5	1.5	--	--	ND	--
	8/8/1996	26.41	59.09	120	11	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	26.77	58.73	110	20	<1	1	<1	--	--	ND	--
	2/6/1997	25.84	59.66	67	51	<0.5	0.56	<0.5	<2	--	ND	--
	5/9/1997	26.39	59.11	110	59	<0.5	<0.5	<0.5	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-8 (continued)	8/7/1997	26.72	58.78	<50	12	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	26.82	58.68	<50	9.4	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	25.57	59.93	<50	6	<0.5	<0.5	<0.5	<2	--	--	--
	5/1/1998	25.64	59.86	430	490	7.1	27	26	<10	--	ND	--
	8/5/1998	25.96	59.54	140	19	<0.5	5.2	5.3	<2	--	ND	--
	11/3/1998	26.27	59.23	150	110	1.1	4.3	4.5	<2	--	ND	--
	3/31/1999	20.93	64.57	54	170	1.5	4.1	1.9	4.4	--	1,1 DCA: 0.7	--
	7/1/1999	26.59	58.91	140	58	0.9	3	2.3	<0.5	--	5	--
	9/21/1999	26.89	58.61	670	170	2.6	11	7.9	<5	--	ND	2.61
	2/9/2000	26.60	58.90	300	60	1.2	4.8	1.2	<5.0	--	<0.5	--
	8/8/2000	26.43	59.07	270	56	1.2	4.1	1.0	<5.0	--	ND	0.25
	11/14/2000	26.60	58.90	330	64	1.3	3.5	0.60	< 5.0	--	ND	0.51
	3/1/2001	26.41	59.09	400	140	<0.5	<0.5	0.55	<5.0	--	ND	--
	5/7/2001	26.55	58.95	240	37	0.71	2.5	0.77	<5.0	--	ND	0.49
	8/1/2001	26.71	58.79	130	5.2	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	26.67	58.83	140	3.3	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	26.15	59.35	1,100	440	0.087	0.66	2.0	<5.0	--	ND	0.71
	5/2/2002	26.63	58.87	90	3.9	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	8/4/2002	26.80	58.70	120	2.4	0.77	<0.5	<0.5	<5.0	--	ND	0.44
	11/26/2002	27.50	58.00	85	3.7	<0.5	<0.5	<0.5	<5.0	--	ND	0.48
	1/20/2003	24.93	60.57	90	3.9	0.67	<0.5	<0.5	<5.0	--	ND	0.65
	5/28/2003	24.28	61.22	120	1.4	<0.5	<0.5	<0.5	<5.0	--	ND	0.71
	8/5/2003	26.51	58.99	150 ^f	<0.5	<0.5	<0.5	<0.5	<5.0	--	<1.0	0.67
	11/10/2003	26.04	59.46	50	0.84	<0.5	<0.5	<0.5	<5.0	--	--	0.70
	2/18/2004	25.97	59.53	52	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.69
	5/27/2004	25.31	60.19	75	0.76	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	8/19/2004	27.55	57.95	72	1.7	<0.5	<0.5	<0.5	<5.0	--	--	1.41
	12/27/2004	26.50	59.00	160	22	0.74	2.2	0.55	<5.0	--	--	0.2
	2/18/2005	26.00	59.50	130	27	0.70	2.3	0.69	<5.0	47	<1.0	0.91
	5/11/2005	25.47	60.03	550	190	2.5	2.9	9.3	<5.0	--	--	1.22
	8/3/2005	26.31	59.19	240	36	0.86	3.1	1.2	<5.0	--	--	1.05
	11/30/2005	26.51	58.99	160	28	1.7	2.0	1.3	<5.0	--	--	0.71
	2/17/2006	26.11	59.39	200	39	0.67	2.7	1.6	<5.0	37	<1.0	0.64
	5/12/2006	25.38	60.12	770	260	7.40	5.1	5.8	<5.0	--	--	0.19
	8/7/2006	26.10	59.40	320	52	1.0	2.7	1.2	<5.0	--	--	0.17
	11/21/2006	26.43	59.07	54	9.2	<0.5	0.56	0.64	<5.0	--	--	0.22
	2/12/2007	26.29	59.21	1,000	310	5.1	25	27	<5.0	25	<0.5 ⁷	0.37
	5/11/2007	26.23	59.27	300	48	0.74	2.9	1.2	<5.0	--	--	0.55
	8/16/2007	26.81	58.69	700	190	2.3	10	1.9	<10	--	--	0.59
	11/26/2007	26.99	58.51	130	33	0.74	0.93	<0.5	<5.0	--	--	0.51
	5/29/2008	26.70	58.80	510	100	0.93	1.2	<0.5	<10	--	--	0.97
	8/22/2008	27.03	58.47	100	19	<0.5	<0.5	<0.5	<5.0	--	--	2.88
2/19/2009	26.74	58.76	120	29	0.56	<0.5	<0.5	<5.0	19	ND	2.12	
8/21/2009	26.72	58.78	81	11	<0.5	<0.5	<0.5	<5.0	--	--	2.20	
2/24/2010	29.09	56.41	88	14	0.70	<0.5	<0.5	<5.0	17	<0.5	1.73	
8/24/2010	28.35	57.15	120	11	0.95	<0.5	<0.5	<5.0	--	--	1.29	
12/19/2011	27.52	57.98	--	--	--	--	--	--	--	--	--	
8/27/2012	26.70	58.80	--	--	--	--	--	--	--	--	--	
MW-9 90.37	11/24/1992	23.51	66.86	19,000	180	590	23	2,000	--	--	TCM: 15	--
	4/5/1993	21.14	69.23	2,300	48	4	0.6	13	--	--	TCM: 2	--
	7/21/1993	21.54	68.83	2,300	170	8.1	15	<0.5	--	--	ND	--
	11/10/1993	27.53	62.84	4,400	69	7.3	21	9.7	--	--	ND	--
	8/30/1995	19.59	70.78	3,200	3,900	49	80	22.8	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	<2	--	--	--
	5/2/1996	18.63	71.74	<1300	2,600	<13	200	<13	--	--	ND	--
	11/5/1996	20.69	69.68	1,800	280	<5	65	<5	--	--	ND	--
	5/9/1997	19.96	70.41	1,100	160	<0.5	42	<0.5	--	--	--	--
	8/8/1997	20.84	69.53	570 ^{1,2}	<0.5	<0.5	<0.5	0.78 ³	<2	--	ND	--
	11/5/1997	21.55	68.82	490 ¹	<0.5	<0.5	6	<0.5	<2	--	--	--
	2/9/1998	20.21	70.16	270 ¹	48	17	5.8	<0.5	<2	--	--	--
	5/1/1998	19.27	71.10	550	70	<0.5	22	2.2	<2	--	ND	--
	8/5/1998	19.35	71.02	550 ¹	88	<0.5	13	1.9 ²	<2	--	ND	--
	11/2/1998	20.43	69.94	580	<0.5	<0.5	7.5 ³	1.6 ³	<2	--	ND	--
	3/25/1999	18.46	71.91	1,100	160	<0.5	21	2.1 ³	5.7 ⁴	--	ND	--
	7/1/1999	19.95	70.42	540	100	7.4	26	16.9	<1.3	--	5	--
	9/21/1999	21.15	69.22	2,700	320	98	88	47	<20	--	ND	5.86
2/9/2000	21.08	69.29	1,600	81	3.6	19	18	<5.0	--	<0.5	--	
5/31/2000	19.11	71.26	1,500	170	13	25	<1.0	<0.5	--	ND	--	
8/8/2000	19.86	70.51	1,300	140	2.1	19	<0.5	<5.0	--	ND	2.4	
11/14/2000	20.90	69.47	1,700	250	2.6	44	2.1	< 5.0	--	ND	0.29	
3/1/2001	20.45	69.92	1,800	170	5.6	30	2.5	<20	--	ND	0.31	

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-9 (continued)	5/7/2001	19.83	70.54	1,500	120	2.6	24	<0.5	<5.0	--	ND	0.18
	8/1/2001	20.02	70.35	2,600	280	4.8	50	<0.5	<5.0	--	ND	--
	11/5/2001	19.85	70.52	2,200	170	4.5	100	0.54	<5.0	--	ND	--
	2/13/2002	19.80	70.57	1,800	98	3	58	1.5	<5.0	--	ND	0.53
	5/2/2002	19.93	70.44	1,100	82	1.4	20	<0.5	<10	--	ND	0.28
	8/4/2002	20.20	70.17	1,200	130	2.5	50	0.58	<10	--	ND	0.51
	11/26/2002	20.37	70.00	1,200	150	3.3	48	<2.5	<25	--	ND	0.53
	1/20/2003	17.93	72.44	840	110	1.2	31	0.76	<5.0	--	ND	0.31
	5/28/2003	17.25	73.12	1,100	40	1.9	3.0	<0.5	<20	--	ND	0.60
	8/5/2003	19.03	71.34	1,100 ^b	62	0.99	25	<0.5	<5.0	--	<10	0.54
	11/10/2003	18.65	71.72	1,500	120	7.6	41	<1.0	<10	--	--	0.62
	2/18/2004	18.41	71.96	820	50	1.2	19	<0.5	<5.0	--	--	0.58
	5/27/2004	17.89	72.48	730	36	2.0	11	1.6	<5.0	--	--	0.90
	8/19/2004	20.14	70.23	1,200	95	2.5	24	<0.5	<25	--	--	0.98
	12/27/2004	21.65	68.72	720	25	14	2.0	3.5	<15	--	--	2.5
	2/18/2005	19.97	70.40	600	24	<0.5	3.8	<0.5	<5.0	220	<5.0	0.88
	5/11/2005	19.41	70.96	510	11	<0.5	1.6	<0.5	<5.0	--	--	0.95
	8/3/2005	19.35	71.02	620	26	5.7	4.0	<0.5	<5.0	--	--	0.65
	11/30/2005	20.96	69.41	1,300	120	2.9	22	<0.5	<10	--	--	0.49
	2/17/2006	19.13	71.24	540	11	<0.5	1.1	<0.5	<5.0	160	<10	0.70
	5/12/2006	17.70	72.67	600	12	0.54	1.7	<0.5	<5.0	--	--	0.30
	8/7/2006	18.82	71.55	600	31	1.8	4.2	<0.5	<5.0	--	--	0.24
	11/21/2006	20.10	70.27	670	32	2.6	3.4	<0.5	<5.0	--	--	0.25
	2/12/2007	20.48	69.89	520	14	0.74	1.2	<0.5	<5.0	210	<5 ⁷	0.51
	5/11/2007	19.55	70.82	710	4.8	1.8	<0.5	<0.5	<10	--	--	0.60
	8/16/2007	20.83	69.54	740	6.8	1.3	0.86	<0.5	<5.0	--	--	0.40
	11/26/2007	21.79	68.58	550	5.8	1.0	0.66	<0.5	<5.0	--	--	0.54
	5/29/2008	20.70	69.67	1,200	4.9	2.9	1.2	<0.5	<5.0	--	--	0.68
	8/22/2008	21.61	68.76	780	11	4.5	1.7	<0.5	<25	--	--	2.17
	2/19/2009	21.91	68.46	420	3.4	<0.5	<0.5	<0.5	<5.0	120	ND	1.94
	8/21/2009	21.97	68.40	610	17	0.89	<0.5	<0.5	<5.0	--	--	2.14
	2/24/2010	25.65	64.72	270	6.6	0.95	<0.5	<0.5	<5.0	75	<1.7	1.60
	8/24/2010	22.92	67.45	740	21	1.5	<0.5	<0.5	<5.0	--	--	1.10
12/19/2011	22.63	67.74	--	--	--	--	--	--	--	--	--	
8/27/2012	20.74	69.63	--	--	--	--	--	--	--	--	--	
MW-10 88.60	10/12/1992	21.55	67.05	28,000	2,700	3,800	210	1,300	--	--	--	--
	11/24/1992	21.86	66.74	130,000	9,700	19,000	1,400	8,400	--	--	ND	--
	4/5/1993	19.14	69.46	63,000	6,300	14,000	1,100	7,500	--	--	ND	--
	7/21/1993	19.79	68.81	140,000	16,000	31,000	2,200	13,000	--	--	ND	--
	8/30/1995	17.99	70.61	92,000	13,000	24,000	1,800	9,100	--	--	--	--
	5/3/1996	17.04	71.56	81,000	17,000	29,000	2,100	8,500	--	--	ND	--
	5/9/1997	18.36	70.24	63,000	7,400	13,000	940	4,100	--	--	--	--
	5/1/1998	15.84	72.76	60,000	7,100	14,000	1,100	5,300	<250	--	ND	--
MW-11 102.06	11/24/1992	33.65	68.41	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	12/8/92***	33.37	68.69	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	33.37	68.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	31.03	71.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	31.90	70.16	160	<0.5	1.8	<0.5	<0.5	--	--	ND	--
	11/9/1993	32.60	69.46	80	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	28.92	73.14	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	28.00	74.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	29.93	72.13	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/29/1998	27.22	74.84	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
MW-13 84.06	11/24/1992	26.05	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	12/8/92***	25.08	58.98	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	25.08	58.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	24.64	59.42	<50	<0.5	0.9	<0.5	<0.5	--	--	ND	--
	7/21/1993	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	24.23	59.83	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	23.30	60.76	<50	49	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	23.80	60.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/3/1996	23.19	60.87	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/8/1996	23.44	60.62	<50	32	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	24.04	60.02	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	23.24	60.82	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	23.46	60.60	<50	81	<0.5	<0.5	<0.5	--	--	--	--
	8/8/1997	23.92	60.14	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	24.27	59.79	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	22.89	61.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--

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Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-13 (continued)	4/29/1998	22.27	61.79	<50	24	<0.5	<0.5	<0.5	<2	--	ND	--
	8/4/1998	22.75	61.31	120	200	<1	<1	<1	<4	--	ND	--
	11/3/1998	23.90	60.16	59 ¹	33	<0.5	<0.5	<0.5	<2	--	ND	--
	3/31/1999	23.11	60.95	130	0.56	<0.5	<0.5	<0.5	<2	--	ND	--
	7/1/1999	23.40	60.66	160	370	19	1.2	3.5	<1	--	5	--
	9/21/1999	21.91	62.15	370	150	1.0	0.8	0.8	<5.0	--	ND	3.76
	2/9/2000	23.84	60.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--
	8/8/2000	23.31	60.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	1.76
	11/14/2000	24.00	60.06	<50	<0.5	0.52	<0.5	<0.5	<5.0	--	ND	0.49
	3/1/2001	23.93	60.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	5/7/2001	23.93	60.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.59
	8/1/2001	24.10	59.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	24.02	60.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.55
	5/2/2002	23.97	60.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.63
	8/4/2002	24.19	59.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	11/26/2002	24.78	59.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.47
	1/20/2003	22.10	61.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.53
	5/28/2003	21.72	62.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.75
	8/5/2003	23.99	60.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.59
	11/10/2003	23.47	60.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.70
	2/18/2004	22.58	61.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.52
	5/27/2004	21.95	62.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.84
	8/19/2004	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	12/27/2004	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	5.5
	2/18/2005	23.15	60.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.97
	5/11/2005	22.68	61.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.05
	8/3/2005	23.04	61.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.12
	11/30/2005	23.65	60.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	2.28
	2/17/2006	23.07	60.99	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<1.0	1.35
	5/12/2006	22.02	62.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.39
	8/7/2006	22.61	61.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.24
	11/21/2006	23.11	60.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.94
	2/12/2007	23.27	60.79	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5 ⁷	0.52
	5/11/2007	23.07	60.99	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.79
	8/16/2007	23.67	60.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.84
	11/26/2007	24.13	59.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	5/29/2008	23.81	60.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.07
	8/22/2008	24.13	59.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	3.32
	2/19/2009	23.97	60.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	ND	2.61
	8/21/2009	23.75	60.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.97
	2/24/2010	26.64	57.42	930	330	1.3	<0.5	0.99	<45	<0.5	<0.5	1.88
	8/24/2010	25.43	58.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	---	---	1.41
	12/19/2011	24.65	59.41	--	--	--	--	--	--	--	--	--
	8/27/2012	23.86	60.20	--	--	--	--	--	--	--	--	--
MW-14 94.66	5/26/1998	21.67	72.99	41,000	7,100	11,000	720	3,900	<1000	--	ND	--
	7/1/1999	22.95	71.71	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.13	70.53	92,000	12,000	17,000	1,300	8,700	<140	--	<0.5	--
	5/31/2000	22.09	72.57	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.88	71.78	SPH	--	--	--	--	--	--	--	--
	11/14/2000	23.90	70.76	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.97	70.69	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.45	71.23	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.57	71.12	SPH (0.06)	--	--	--	--	--	--	--	--
	11/5/2001	23.50	71.18	SPH (0.03)	--	--	--	--	--	--	--	--
	2/13/2002	22.99	71.70	SPH (0.04)	--	--	--	--	--	--	--	--
	5/2/2002	23.51	71.17	SPH (0.02)	--	--	--	--	--	--	--	--
	8/4/2002	23.61	71.06	SPH (0.01)	--	--	--	--	--	--	--	--
	1/20/2003	22.35	72.31	SPH (sheen)	--	--	--	--	--	--	--	--
	5/28/2003	21.95	72.74	SPH (0.04)	--	--	--	--	--	--	--	--
	8/5/2003	23.03	71.66	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	22.70	72.02	SPH (0.07)	--	--	--	--	--	--	--	--
	2/18/2004	22.37	72.32	SPH (0.04)	--	--	--	--	--	--	--	--
	5/27/2004	21.78	72.92	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.13	70.57	SPH (0.05)	--	--	--	--	--	--	--	--
	12/27/2004	24.19	70.47	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.24	71.46	SPH (0.05)	--	--	--	--	--	--	--	--
	5/11/2005	22.77	71.92	SPH (0.04)	--	--	--	--	--	--	--	--
	8/3/2005	23.17	71.51	SPH (0.02)	--	--	--	--	--	--	--	--
	11/30/2005	24.02	70.66	SPH (0.02)	--	--	--	--	--	--	--	--

Pangea

Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-14 (continued)	2/17/2006	23.87	70.81	SPH (0.02)	--	--	--	--	--	--	--	--
	5/12/2006	21.74	72.93	SPH (0.01)	--	--	--	--	--	--	--	--
	8/7/2006	21.66	73.01	SPH (0.01)	--	--	--	--	--	--	--	--
	11/21/2006	23.41	71.27	SPH (0.03)	--	--	--	--	--	--	--	--
	2/12/2007	23.45	71.23	SPH (0.03)	--	--	--	--	--	--	--	--
	5/11/2007	22.95	71.71	--	--	--	--	--	--	--	--	0.41
	8/16/2007	24.14	70.52	--	--	--	--	--	--	--	--	0.29
	11/26/2007	24.94	69.72	--	--	--	--	--	--	--	--	0.11
	5/29/2008	24.02	70.64	--	--	--	--	--	--	--	--	0.33
	8/22/2008	24.97	69.69	--	--	--	--	--	--	--	--	0.37
	2/19/2009	25.20	69.46	SPH (0.05)†	--	--	--	--	--	--	--	0.29
	8/21/2009	25.23	69.43	--	--	--	--	--	--	--	--	0.15
	2/24/2010	28.39	68.67	SPH (0.03)	--	--	--	--	--	--	--	--
	8/24/2010	26.31	68.38	SPH (0.04)	--	--	--	--	--	--	--	--
	12/20/2011	25.67	68.99	14,000	1,400	2,600	220	2,100	<300	--	--	0.73
8/28/2012	23.57	71.09	44,000	2,800	5,700	260	7,900	<500	--	--	0.89	
MW-15 94.76	5/26/1998	21.87	72.89	130,000	30,000	38,000	2,500	12,600	<1000	--	ND	--
	7/1/1999	22.25	72.51	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.42	70.34	180,000	32,000	37,000	2,800	14,000	<200	--	<0.5	--
	5/31/2000	22.40	72.36	SPH	--	--	--	--	--	--	--	--
	8/8/2000	23.17	71.59	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.15	70.61	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.99	70.77	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.50	71.26	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.62	71.14	SPH (sheen)	--	--	--	--	--	--	--	--
	11/5/2001	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	2/13/2002	23.09	71.67	68,000	9,300	8,500	760	2,600	<200	--	ND	0.59
	5/2/2002	23.59	71.17	SPH (sheen)	--	--	--	--	--	--	--	--
	8/4/2002	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	11/26/2002	24.59	70.17	SPH (sheen)	--	--	--	--	--	--	--	--
	1/20/2003	22.08	72.68	48,000	9,900	10,000	1,000	3,600	<1,200	--	ND	0.24
	5/28/2003	21.68	73.08	SPH (sheen)	--	--	--	--	--	--	--	--
	8/5/2003	24.05	70.71	SPH (sheen)	--	--	--	--	--	--	--	--
	11/10/2003	23.68	71.08	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2004	23.51	71.25	25,000	5,200	3,600	390	1,100	<1,000	--	--	0.63
	5/27/2004	22.98	71.78	SPH (sheen)	--	--	--	--	--	--	--	--
	8/19/2004	25.31	69.45	SPH (sheen)	--	--	--	--	--	--	--	0.42
	12/27/2004	24.46	70.30	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.27	71.57	SPH (0.10)	--	--	--	--	--	--	--	--
	5/11/2005	22.80	72.03	SPH (0.09)	--	--	--	--	--	--	--	--
	8/3/2005	23.29	71.48	SPH (0.01)	--	--	--	--	--	--	--	--
	11/30/2005	24.11	70.69	SPH (0.05)	--	--	--	--	--	--	--	--
	2/17/2006	23.91	70.87	SPH (0.03)	--	--	--	--	--	--	--	--
	5/12/2006	21.88	72.90	SPH (0.03)	--	--	--	--	--	--	--	--
	8/7/2006	22.05	72.72	SPH (0.01)	--	--	--	--	--	--	--	--
11/21/2006	23.70	71.06	--	--	--	--	--	--	--	--	0.15	
2/12/2007	23.80	70.96	58,000	8,900	8,000	800	2,500	<1,000	99	<5'	0.22	
5/11/2007	23.28	71.48	--	--	--	--	--	--	--	--	0.49	
8/16/2007	24.38	70.38	--	--	--	--	--	--	--	--	0.41	
11/26/2007	25.30	69.46	--	--	--	--	--	--	--	--	0.27	
5/29/2008	24.32	70.44	--	--	--	--	--	--	--	--	0.47	
8/22/2008	25.24	69.52	--	--	--	--	--	--	--	--	2.49	
2/19/2009	25.59	69.17	SPH (0.08)†	--	--	--	--	--	--	--	0.53	
8/21/2009	25.61	69.15	--	--	--	--	--	--	--	--	0.47	
2/24/2010	28.51	66.28	SPH (0.04)	--	--	--	--	--	--	--	--	
8/24/2010	26.53	68.26	SPH (0.04)	--	--	--	--	--	--	--	--	
12/19/2011	26.18	68.58	36,000	4,000	4,100	770	4,600	<1,000	--	--	0.67	
8/28/2012	24.35	70.41	790	4.9	8.5	1.9	98	<5.0	--	--	1.96	
MW-16A	5/17/2007	25.12	--	1,700	3.1	4.1	21	25	<30	--	--	0.94
	8/16/2007	26.02	--	920	3.4	22	13	13	<5.0	--	--	0.62
	11/26/2007	26.16	--	870	2.0	16	6.9	10	<5.0	--	--	0.55
	5/29/2008	25.73	--	600	2.9	14	8.2	14	<5.0	--	--	0.48
	8/22/2008	26.11	--	1,300	9.2	45	29	100	<17	--	--	0.94
	2/19/2009	26.32	--	1,300	12	17	7.0	33	<10	<0.5	Chloroform: 1.0	0.88
	8/21/2009	26.28	--	1,500	20	73	50	230	<30	--	--	1.02
	2/24/2010	29.08	--	Insufficient water to sample	--	--	--	--	--	--	--	3.19
	8/24/2010	27.40	--	3,400	210	48	11	27	<10	--	--	2.78
	12/19/2011	29.20	--	SPH (Sheen)	--	--	--	--	--	--	--	--
	2/18/2012	26.93	--	49,000	100	270	370	5,900	<500	<5.0	ND	--
	8/27/2012	28.75	--	--	--	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)	
MW-16B	5/17/2007	28.98	--	110,000	11,000	3,300	1,300	7,700	<500	--	--	0.65	
	8/16/2007	31.02	--	58,000	14,000	1,500	1,100	4,100	<1,000	--	--	0.66	
	11/26/2007	30.00	--	76,000	14,000	1,900	1,200	2,700	<1,000	--	--	0.61	
	5/29/2008	29.95	--	70,000	12,000	1,600	1,300	1,900	<500	--	--	0.51	
	8/22/2008	32.02	--	39,000	9,700	480	870	1,600	<500	--	--	0.93	
	2/19/2009	31.70	--	67,000	15,000	1,300	1,400	2,500	<500	1,100	ND	0.97	
	8/21/2009	31.62	--	54,000	14,000	2,300	1,500	2,800	<1,000	--	--	1.05	
	2/24/2010	35.05	--	65,000	15,000	3,500	1,500	3,900	<500	1,200	EDB: 33	1.08	
	8/24/2010	33.36	--	58,000	15,000	3,800	1,500	3,700	<1,000	---	---	---	0.65
	12/20/2011	36.68	--	15,000	3,900	1,000	140	740	<170	---	---	---	0.73
	8/28/2012	28.10	--	16,000	3,900	1,200	350	930	<170	--	--	---	2.21
	MW-17A	4/12/2007	23.87	--	130,000	8,400	31,000	3,100	17,000	<4,000	--	--	--
5/29/2008		24.05	--	180,000	11,000	24,000	1,600	9,600	<3,500	--	--	2.12	
8/22/2008		24.96	--	150,000	17,000	30,000	1,700	16,000	<2,700	--	--	0.94	
2/19/2009		25.29	--	150,000	5,600	26,000	1,900	12,000	<3,000	800	EDB: 410	0.97	
8/21/2009		25.37	--	130,000	12,000	21,000	1,600	12,000	<2,500	--	--	0.81	
2/24/2010		28.39	--	Insufficient water to sample			---	---	---	---	---	---	---
8/24/2010		26.30	--	Insufficient water to sample			---	---	---	---	---	---	1.20
12/20/2011		25.52	--	91,000	4,100	16,000	2,000	15,000	<1,500	--	--	---	0.32
8/27/2012		23.43	--	19,000	530	1,300	96	4,400	<250	--	--	---	1.98
MW-17B		4/12/2007	23.14	--	3,200	130	470	70	470	<200	--	--	--
	5/29/2008	24.30	--	53	<0.5	2.1	<0.5	3.3	<5.0	--	--	2.78	
	8/22/2008	25.19	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.41	
	2/19/2009	25.51	--	150	3.6	14	0.82	11	<15	0.81	TCM: 0.51	1.12	
	8/21/2009	25.44	--	350	4.0	13	3.3	26	<5.0	--	--	1.15	
	2/24/2010	28.53	--	54	1.5	4.8	0.51	4.0	<5.0	4.9	EDB: 0.89	1.02	
	8/24/2010	26.48	--	<50	<0.5	1.5	<0.5	<0.5	<5.0	---	---	---	0.96
	12/19/2011	26.58	--	--	--	--	--	--	--	--	--	--	
	8/27/2012	23.45	--	--	--	--	--	--	--	--	--	--	
	REMEDIATION WELLS												
AS-1A	4/11/2007	22.61	--	230,000	40,000	51,000	2,900	18,000	<2,400	--	--	--	
AS-1B	4/11/2007	23.69	--	230,000	28,000	27,000	3,500	15,000	<2,400	--	--	--	
AS-2A	4/16/2007	22.71	--	300,000	34,000	57,000	5,700	35,000	<5,000	--	--	--	
AS-3A	4/12/2007	15.79	--	7,900	470	1,100	210	1,200	<350	--	--	--	
AS-3B	4/12/2007	20.31	--	50,000	2,000	4,800	1,400	8,200	<900	--	--	--	
AS-4A	4/16/2007	15.18	--	20,000	4,300	1,200	460	890	<500	--	--	--	
RW-1	4/11/2007	23.37	--	61,000	7,100	12,000	970	4,300	<1,000	--	--	--	
RW-2	4/16/2007	16.66	--	160,000	20,000	30,000	3,700	19,000	<2,400	--	--	--	
	5/29/2008	17.66	--	140,000	11,000	16,000	2,100	8,700	<2,000	--	--	1.46	
	8/22/2008	18.51	--	110,000	13,000	19,000	2,700	13,000	<1,800	--	--	0.95	
	2/19/2009	18.87	--	SPH (0.08) [†]	--	--	--	--	--	--	--	0.79	
	8/21/2009	18.89	--	SPH (0.31) [†]	--	--	--	--	--	--	--	0.71	
	2/24/2010	25.05	--	SPH (0.04)	--	--	--	--	--	--	--	---	
	8/24/2010	19.79	--	SPH (0.04)	--	--	--	--	--	--	--	---	
	12/19/2011	19.71	--	77,000	11,000	11,000	1,400	12,000	<2,100	--	--	---	0.42
8/27/2012	18.26	--	44,000	5,700	4,100	1,200	5,600	<900	--	--	---	2.06	
RW-3A	4/12/2007	15.40	--	81,000	7,900	16,000	1,800	8,400	<1,500	--	--	--	
	12/19/2011	18.37	--	41,000	3,000	2,700	89	6,500	<750	--	--	0.43	
	8/27/2012	17.11	--	23,000	1,200	2,600	310	4,800	<500	--	--	2.91	
RW-3B	4/12/2007	24.06	--	5,100	340	330	37	400	<150	--	--	--	
RW-4	4/11/2007	22.50	--	120,000	4,600	23,000	2,400	16,000	<2,500	--	--	--	
	5/29/2008	23.72	--	92,000	4,800	15,000	1,900	14,000	<1,800	--	--	1.09	
	8/22/2008	24.69	--	91,000	4,800	13,000	1,800	13,000	<1,600	--	--	0.94	
	2/19/2009	24.98	--	120,000	7,700	19,000	2,300	13,000	<2,700	110	EDB: 240	0.76	
	8/21/2009	25.15	--	59,000	4,100	9,300	370	7,300	<1,500	--	--	0.80	
	2/24/2010	28.65	--	Insufficient water to sample			---	---	---	---	---	---	---
	8/24/2010	26.02	--	Insufficient water to sample			---	---	---	---	---	---	0.72
	12/20/2011	25.80	--	75,000	1,200	8,800	1,400	13,000	<1,000	--	--	---	0.62
	8/28/2012	23.02	--	15,000	370	1,700	280	1,400	<450	--	--	---	1.70

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
RW-5	4/11/2007	22.37	--	110,000	7,100	13,000	2,000	9,800	<2,000	--	--	--
	12/20/2011	26.32	--	6,700	350	880	93	980	<120	--	--	0.63
	8/28/2012	22.81	--	14,000	940	2,100	140	1,900	<300	--	--	1.96
VE-1	4/11/2007	33.02	--	260,000	35,000	42,000	3,600	17,000	<4,000	--	--	--
	12/20/2011	33.38	--	90,000	9,700	18,000	1,400	14,000	<1,000	--	--	0.62
	8/27/2012	31.60	--	Unable to sample due to sludge present during purging								--

Grab Groundwater Sampling Data

SB-1-40-GW	8/5/2008	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--
CPT-1****	10/6/1992	--	--	490	20	60	10	60	--	1	--	--
CPT-3	10/6/1992	--	--	50	<0.4	<0.4	3	3	--	<4	--	--
CPT-4	10/6/1992	--	--	1,100	60	50	80	15	--	110	--	--
CPT-5	10/6/1992	--	--	600,000	2,300	53,000	8,000	43,000	--	730	--	--
CPT-7	10/6/1992	--	--	1,700,000	40,000	120,000	25,000	120,000	--	2,900	--	--
CPT-9	10/7/1992	--	--	2,100,000	49,000	140,000	28,000	145,000	--	620	--	--
CPT-10	10/7/1992	--	--	190,000	13,000	16,000	3,900	18,000	--	1,400	--	--
CPT-11	10/7/1992	--	--	2,000	200	50	30	70	--	11	--	--
CPT-12	10/7/1992	--	--	130,000	4,100	10,000	2,600	10,000	--	9	--	--
CPT-13(MW-10)	10/7/1992	--	--	28,000	2,700	3,800	210	1,300	--	150	--	--
CPT-17 (B-12)	10/6/1992	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<1	ND	--
B (boring)	5/16/1998	--	--	140	37	0.64	6.6	1.7	<2	17	--	--
C (boring)	5/16/1998	--	--	<50	0.72	<0.5	<0.5	<0.5	<2	210	--	--
G (boring)	5/16/1998	--	--	590,000	15,000	25,000	2,100	10,800	<500	880	--	--
AS-4B-50	3/1/2007	50.0	--	88	7.2	7.1	1.2	3.5	<5.0	--	--	--
RW-4	3/25/2007	--	--	5,700	94	590	120	950	<50	--	--	--

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

µg/L = micrograms per liter = parts per billion = ppb

-- = Not measured or not analyzed

ND = Not detected above laboratory reporting limit; see laboratory reports for individual reporting limits.

SPH = Separate-phase hydrocarbons encountered in well (value in parentheses is thickness in feet)

TVH = Total Volatile Hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B

MTBE = Methyl tertiary butyl ether by EPA Method 8021B

HVOCs = Halogenated volatile organic compounds by EPA Method 8010

1,2-DCA = 1,2 Dichloroethane by EPA Method 8010

DCB = 1, 3 Dichlorobenzene

DBCM = Dibromochloromethane

MCB = Chlorobenzene

TCM = Trichlorofluoromethane

EDB = 1,2-Dibromoethane

DO = Dissolved oxygen, measured in the field.

<n = Chemical not present at a concentration in excess of detection limit shown.

* = Suspect laboratory contamination contributing to test result.

** = Fuel fingerprint analysis indicates MTBE is not present in the free product sample collected from this well.

*** = Duplicate sample sent to a different chemical laboratory.

**** = CPT-2, 6, 8, 14, 15 and 16 were not sampled.

1 = Sample exhibits fuel pattern which does not resemble standard

2 = Lighter hydrocarbons than indicated standard

3 = Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two.

4 = Detection may potentially be a false positive, to be checked during the next event.

5 = One or more of the following substances found: Acetone, 1,2-Dibromoethane, 1,3,5-Trimethylbenzene, 2-Chlorotoluene, 1,2,4-Trimethylbenzene, n-Butylbenzene, and Naphthalene.

See laboratory results for details.

6 = Confirmed by GC/MS.

7 = Detection levels for 2-chloroethyl vinyl ether are twice the indicated detection level which is applicable to all other target HVOCs.

† = SPH thickness not used to calculate groundwater elevation because SPH not present in well until after beginning purge.

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-1	10/5/1990	26.40	68.08	<500	--	--	--	--	--
94.48	3/1/1991	27.46	67.02	SPH	--	--	--	--	--
	10/12/1992	26.44	68.04	--	--	--	--	--	--
	11/24/1992	26.63	67.85	4,600	--	--	--	--	--
	4/5/1993	23.77	70.71	25,000	--	--	--	--	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	630	1,200	1
	12/4/1995	21.94	72.54	SPH	--	--	--	--	--
	5/2/1996	20.65	73.83	32,000	--	--	250	640	ND
	11/5/1996	24.29	70.19	--	--	--	--	--	--
	5/9/1997	22.79	71.69	28,000	--	--	280	650	2
	11/5/1997	25.06	69.42	28,000	--	--	720	1,500	ND
	2/9/1998	22.64	71.84	27,000	--	--	160	570	3
	5/1/1998	19.95	74.53	29,000	--	--	--	--	--
	5/27/1998	--	--	--	--	--	120	630	4
	11/3/1998	23.29	71.19	37,000	--	--	500	1,100	ND?
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--
	2/9/2000	23.95	70.59	--	SPH	--	--	--	--
	5/31/2000	22.05	72.43	--	SPH	--	--	--	--
	11/14/2000	24.65	69.83	--	SPH	--	--	--	--
	3/1/2001	24.22	70.28	--	SPH	--	--	--	--
	5/7/2001	23.85	70.67	--	SPH	--	--	--	--
	8/1/2001	23.91	70.64	--	SPH	--	--	--	--
	11/5/2001	23.95	70.67	--	SPH	--	--	--	--
	2/13/2002	23.15	71.39	--	SPH (0.07)	--	--	--	--
	5/2/2002	23.91	70.60	--	SPH (0.04)	--	--	--	--
	8/4/2002	24.02	70.48	--	SPH (0.03)	--	--	--	--
	11/26/2002	24.47	70.05	--	SPH (0.05)	--	--	--	--
	1/20/2003	22.37	72.14	--	SPH (0.04)	--	--	--	--
	5/28/2003	21.77	72.73	--	SPH (0.02)	--	--	--	--
	8/5/2003	23.07	71.44	--	SPH (0.04)	--	--	--	--
	11/10/2003	22.53	71.97	--	SPH (0.03)	--	--	--	--
	2/18/2004	22.61	71.91	--	SPH (0.05)	--	--	--	--
	5/27/2004	22.08	72.44	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.35	70.43	--	SPH (0.38)	--	--	--	--
	12/27/2004	24.62	70.21	--	SPH (0.44)	--	--	--	--
	2/18/2005	23.14	71.37	--	SPH (0.04)	--	--	--	--
	5/11/2005	22.71	71.79	--	SPH (0.02)	--	--	--	--
	8/3/2005	23.03	71.50	--	SPH (0.06)	--	--	--	--
	11/30/2005	23.98	70.52	--	SPH (0.03)	--	--	--	--
	2/17/2006	23.81	70.68	--	SPH (0.01)	--	--	--	--
	5/12/2006	21.75	72.75	--	SPH (0.02)	--	--	--	--
	8/7/2006	21.35	73.14	--	SPH (0.01)	--	--	--	--
	11/21/2006	23.38	71.13	--	SPH (0.04)	--	--	--	--
	2/12/2007	23.18	71.32	--	SPH (0.03)	--	--	--	--
	5/11/2007	22.68	71.80	--	--	--	--	--	--
	8/16/2007	23.74	70.74	--	--	--	--	--	--
	11/26/2007	24.98	69.50	--	--	--	--	--	--
	5/29/2008	23.83	70.65	--	--	--	--	--	--
	8/22/2008	25.50	69.54	--	SPH (0.70)	--	--	--	--
	2/19/2009	25.92	69.22	--	SPH (0.82)	--	--	--	--
	8/21/2009	25.98	69.12	--	SPH (0.77)	--	--	--	--
	2/24/2010	29.24	65.34	--	SPH (0.13)	--	--	--	--
	8/24/2010	26.84	68.14	--	SPH (0.63)	--	--	--	--
	12/20/2011	27.58	66.90	--	240,000	95,000	--	--	--
	8/28/2012	27.63	66.85	--	610,000	140,000	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-2 94.81	3/1/1991	27.86	66.95	<50	--	--	--	--	--
	11/24/1992	27.91	66.90	<50	--	--	--	--	--
	4/5/1993	25.95	68.86	870	--	--	--	--	--
	7/21/1993	25.59	69.22	<50	--	--	--	--	--
	11/10/1993	26.72	68.09	240	--	--	--	--	--
	8/30/1995	25.75	69.06	150	--	--	--	--	--
	5/3/1996	23.28	71.53	<50	--	--	--	--	--
	5/8/1997	24.58	70.23	<50	--	--	--	--	--
	4/29/1998	22.18	72.63	<47	--	--	--	--	--
MW-3 90.08	3/1/1991	23.17	66.91	<50	--	--	--	--	--
	11/25/1992	23.01	67.07	160	--	--	--	--	--
	4/5/1993	22.11	67.97	<50	--	--	--	--	--
	7/21/1993	23.93	66.15	<50	--	--	--	--	--
	11/10/1993	23.14	66.94	<50	--	--	--	--	--
	8/30/1995	20.61	69.47	<50	--	--	--	--	--
	5/3/1996	18.43	71.65	<50	--	--	--	--	--
	5/8/1997	19.77	70.31	<50	--	--	--	--	--
	4/29/1998	17.92	72.16	<47	--	--	--	--	--
MW-4 88.84	3/1/1991	23.79	65.05	<500	--	--	--	--	--
	10/12/1992	22.48	66.36	--	--	--	--	--	--
	11/24/1992	22.60	66.24	1,600	--	--	--	--	--
	4/2/1993	20.11	68.73	SPH	--	--	--	--	--
	7/21/1993	20.48	68.36	SPH	--	--	--	--	--
	11/9/1993	21.71	67.13	SPH	--	--	--	--	--
	8/30/1995	19.90	68.94	SPH	--	--	--	--	--
	12/1/1995	19.40	69.44	SPH	--	--	--	--	--
	5/2/1996	17.50	71.34	9,200	--	--	--	--	--
	11/4/1996	20.13	68.71	4,700	--	--	--	--	--
	5/8/1997	18.63	70.21	5,100	--	--	--	--	--
	11/5/1997	20.19	68.65	3,700	--	--	--	--	--
	2/9/1998	18.28	70.56	4,800	--	--	--	--	--
	5/1/1998	16.11	72.73	5,000	--	--	--	--	--
	8/4/1998	17.54	71.30	3,500	--	--	--	--	--
	11/2/1998	19.21	69.63	7,200	--	--	--	--	--
	3/26/1999	17.51	71.33	14,000	--	--	--	--	--
	7/1/1999	18.80	70.04	17,000	--	--	370	860	ND
	9/21/1999	19.85	68.99	14,000	--	--	360	820	ND
	2/9/2000	19.76	69.08	--	12,000	1,000	290	700	ND
	5/31/2000	17.90	70.94	--	14,000 **	<500	--	--	--
	11/14/2000	19.63	69.21	--	8,000	290	--	--	--
	3/1/2001	19.68	69.16	--	57,000	2,800	210	510	ND
	5/7/2001	18.60	70.24	--	56,000	3,600	--	--	--
	8/1/2001	18.73	70.11	--	42,000	6,700	--	--	--
	11/5/2001	18.97	69.87	--	49,000	14,000	--	--	--
	2/13/2002	18.59	70.25	--	140,000	11,000	620	1000	--
	5/2/2002	18.77	70.07	--	68,000	<25,000	--	--	--
	8/4/2002	18.95	69.89	--	58,000	<25,000	--	--	--
	11/26/2002	20.83	68.01	--	7,100	<250	--	--	--
	1/20/2003	16.90	71.94	--	29,000	<2500	--	--	--
	5/28/2003	15.25	73.59	--	12,000	300	--	--	--
	8/5/2003	17.05	71.79	--	6,600	<250	--	--	--
	11/10/2003	16.60	72.24	--	15,000	--	--	--	--
	2/18/2004	16.59	72.25	--	16,000	--	--	--	--
	5/27/2004	15.97	72.87	--	23,000	<2,500	--	--	--
	8/19/2004	18.11	70.73	--	19,000	--	--	--	--
	12/27/2004	19.53	69.31	--	8,700	<2,500	--	--	--
	2/18/2005	18.40	70.44	--	13,000	<250	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-4 (continued)	5/11/2005	17.93	70.91	--	16,000	<1,200	--	--	--
	8/3/2005	18.14	70.70	--	20,000	<5,000	--	--	--
	11/30/2005	19.70	69.14	--	19,000	<2,500	--	--	--
	2/17/2006	17.63	71.21	--	10,000	340	--	--	--
	5/12/2006	15.53	73.31	--	7,500	<1200	--	--	--
	8/7/2006	17.75	71.09	--	17,000	440	--	--	--
	11/21/2006	19.14	69.70	--	21,000	540	--	--	--
	2/12/2007	18.98	69.86	--	16,000	460	--	--	--
	5/11/2007	18.27	70.57	--	23,000	--	--	--	--
	8/16/2007	19.54	69.30	--	30,000	<2,500	--	--	--
	11/26/2007	20.47	68.37	--	14,000	270	--	--	--
	5/29/2008	19.60	69.24	--	19,000	<2,500	--	--	--
	8/22/2008	20.30	68.54	--	13,000	<1,200	--	--	--
	2/19/2009	20.58	68.26	--	73,000	<2,500	--	--	--
	8/21/2009	20.63	68.21	--	45,000	<5,000	--	--	--
	2/24/2010	Dry	---	--	---	---	--	--	--
	8/24/2010	21.60	67.24	--	No sample, SPH encountered during purging				
	12/19/2011	21.46	67.38	--	220,000	<5,000	--	--	--
		8/27/2012	19.35	69.49	--	21,000	1,900	--	--
MW-5 84.84	3/15/1991	26.31	58.53	<50	--	--	--	--	--
	11/10/1992	26.83	58.01	50	--	--	--	--	--
	4/2/1993	26.62	58.22	<50	--	--	--	--	--
	7/21/1993	26.60	58.24	190	--	--	--	--	--
	11/9/1993	27.24	57.60	170	--	--	--	--	--
	8/30/1995	27.46	57.38	180	--	--	--	--	--
	5/3/1996	26.02	58.82	<50	--	--	--	--	--
	5/8/1997	26.76	58.08	<50	--	--	--	--	--
	4/29/1998	26.55	58.29	<47	--	--	--	--	--
MW-6 85.62	3/15/1991	25.82	59.80	<50	--	--	--	--	--
	10/12/1992	25.02	60.60	--	--	--	--	--	--
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--
	12/1/1995	27.58	58.04	SPH	--	--	--	--	--
	5/3/1996	26.83	58.79	9,000	--	--	--	--	--
86.94	5/9/1997	26.54	60.40	53,000	--	--	--	--	--
	11/5/1997	26.16	60.78	65,000	--	--	--	--	--
85.82	5/1/1998	22.96	62.86	25,000	--	--	--	--	--
	11/3/1998	24.35	61.47	30,000	--	--	--	--	--
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--
	2/9/2000	24.93	61.24	--	SPH	--	--	--	--
	5/31/2000	23.47	62.41	--	SPH	--	--	--	--
	11/14/2000	24.61	61.21	--	SPH	--	--	--	--
	3/1/2001	23.97	61.85	--	SPH	--	--	--	--
	5/7/2001	23.17	62.71	--	SPH	--	--	--	--
	8/1/2001	obstruction in well		--	--	--	--	--	--
	11/5/2001	obstruction in well		--	--	--	--	--	--
	2/13/2002	obstruction in well		--	--	--	--	--	--
	5/2/2002	23.25	62.41	--	SPH (0.05)	--	--	--	--
	8/4/2002	23.55	62.29	--	SPH (0.03)	--	--	--	--
	11/26/2002	24.22	61.62	--	SPH (0.03)	--	--	--	--
	1/20/2003	22.49	63.36	--	SPH (0.04)	--	--	--	--
	5/28/2003	21.92	63.93	--	SPH (0.04)	--	--	--	--
	8/5/2003	23.98	61.87	--	SPH (0.04)	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)	
>>MW-6 (continued)	11/10/2003	23.50	62.40	--	SPH (0.10)	--	--	--	--	
	2/18/2004	22.21	63.64	--	SPH (0.04)	--	--	--	--	
	5/27/2004	22.01	63.85	--	SPH (0.05)	--	--	--	--	
	8/19/2004	24.16	61.68	--	SPH (0.03)	--	--	--	--	
	12/27/2004	24.69	61.13	--	SPH (sheen)	--	--	--	--	
	2/18/2005	23.55	62.33	--	SPH (0.08)	--	--	--	--	
	5/11/2005	22.90	62.97	--	SPH (0.06)	--	--	--	--	
	8/3/2005	23.68	62.19	--	SPH (0.06)	--	--	--	--	
	11/30/2005	24.17	61.67	--	SPH (0.02)	--	--	--	--	
	2/17/2006	23.89	61.95	--	SPH (0.03)	--	--	--	--	
	5/12/2006	22.66	63.18	--	SPH (0.03)	--	--	--	--	
	8/7/2006	22.83	63.01	--	SPH (0.02)	--	--	--	--	
	11/21/2006	23.92	61.92	--	SPH (0.02)	--	--	--	--	
	2/12/2007	23.97	61.87	--	SPH (0.02)	--	--	--	--	
	5/11/2007	23.54	62.28	--	--	--	--	--	--	
	8/16/2007	24.18	61.64	--	--	--	--	--	--	
	11/26/2007				Unable to gauge or sample - vehicle parked over well					
	5/29/2008	24.29	61.53	--	--	--	--	--	--	
	8/22/2008	24.80	61.02	--	--	--	--	--	--	
	2/19/2009	24.96	60.86	--	SPH (0.07)†	--	--	--	--	
	8/21/2009	25.10	60.74	--	SPH (0.03)	--	--	--	--	
	2/24/2010	26.71	59.13	--	SPH (0.03)	--	--	--	--	
	8/24/2010	26.13	59.73	--	SPH (0.05)	--	--	--	--	
	12/19/2011	25.19	60.63				Insufficient water to sample			
	8/27/2012	24.16	61.66	--	--	--	--	--	--	
	MW-7 85.41	3/15/1991	21.63	63.78	<50	--	--	--	--	
		11/24/1992	21.52	63.89	<50	--	--	--	--	
	4/2/1993	20.08	65.33	<50	--	--	--	--		
	7/21/1993	19.59	65.82	150	--	--	--	--		
	11/9/1993	20.65	64.76	200	--	--	--	--		
	8/30/1995	18.78	66.63	170	--	--	--	--		
	12/1/1995	19.47	65.94	<50	--	--	--	--		
	5/2/1996	17.15	68.26	<50	--	--	--	--		
	8/8/1996	18.48	66.93	<50	--	--	--	--		
	11/4/1996	18.69	66.72	<50	--	--	--	--		
	2/6/1997	17.44	67.97	<50	--	--	--	--		
	5/8/1997	17.72	67.69	<50	--	--	--	--		
	8/7/1997	18.49	66.92	<50	--	--	--	--		
	11/5/1997	18.86	66.55	<50	--	--	--	--		
	2/9/1998	17.56	67.85	<50	--	--	--	--		
	4/29/1998	16.23	69.18	<47	--	--	--	--		
	8/4/1998	17.24	68.17	<50	--	--	--	--		
	11/2/1998	17.91	67.50	<50	--	--	--	--		
	3/26/1999	16.42	68.99	<50	--	--	--	--		
	7/1/1999	17.90	67.51	<50	--	--	<10	<10		
	9/21/1999	18.91	66.50	<48	--	--	<9.5	<9.5		
	2/9/2000	16.74	68.67	--	<50	<250	<10	<10		
	5/31/2000	16.21	69.20	--	<50	<500	--	--		
	11/14/2000	17.00	68.41	--	<50	<250	--	--		
	3/1/2001	17.09	68.32	--	<50	<250	<10	<10		
	5/7/2001	17.19	68.22	--	<50	<250	--	--		
	8/1/2001	17.25	68.16	--	<50	<250	--	--		
	11/5/2001	17.35	68.06	--	<50	<250	--	--		
	2/13/2002	17.50	67.91	--	<50	<250	--	--		
	5/2/2002	17.30	68.11	--	<50	<250	--	--		
	8/4/2002	17.58	67.83	--	<50	<250	--	--		
	11/26/2002	18.35	67.06	--	<50	<250	--	--		
	1/20/2003	15.84	69.57	--	83	<250	--	--		
	5/28/2003	15.19	70.22	--	<50	<250	--	--		

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-7	8/5/2003	17.00	68.41	--	<50	<250	--	--	--
(continued)	11/10/2003	16.54	68.87	--	<50	--	--	--	--
	2/18/2004	16.47	68.94	--	<50	--	--	--	--
	5/27/2004	15.93	69.48	--	<50	<250	--	--	--
	8/19/2004	18.05	67.36	--	<50	--	--	--	--
	12/27/2004	17.35	68.06	--	<50	<250	--	--	--
	2/18/2005	16.23	69.18	--	<50	<250	--	--	--
	5/11/2005	15.79	69.62	--	<50	<250	--	--	--
	8/3/2005	17.52	67.89	--	<50	<250	--	--	--
	11/30/2005	19.57	65.84	--	<50	<250	--	--	--
	2/17/2006	16.82	68.59	--	<50	<250	--	--	--
	5/12/2006	15.86	69.55	--	<50	<250	--	--	--
	8/7/2006	17.52	67.89	--	<50	<250	--	--	--
	11/21/2006	18.67	66.74	--	<50	<250	--	--	--
	2/12/2007	18.20	67.21	--	<50	<250	--	--	--
	5/11/2007	17.73	67.68	--	<50	--	--	--	--
	8/16/2007	18.86	66.55	--	<50	<250	--	--	--
	5/29/2008	18.58	66.83	--	<50	<250	--	--	--
	8/22/2008	19.35	66.06	--	<50	<250	--	--	--
	2/19/2009	18.30	67.11	--	<50	<250	--	--	--
	8/21/2009	18.50	66.91	--	<50	<250	--	--	--
	2/24/2010	19.27	66.14	--	<50	<250	--	--	--
	8/24/2010	20.68	64.73	--	<50	<250	--	--	--
	12/19/2011	18.88	66.53	--	--	--	--	--	--
	8/27/2012	17.85	67.56	--	--	--	--	--	--
MW-8	10/12/1992	27.70	57.80	--	--	--	--	--	--
85.50	11/25/1992	27.62	57.88	170	--	--	--	--	--
	4/8/1993	26.64	58.86	100	--	--	--	--	--
	7/21/1993	26.60	58.90	90	--	--	--	--	--
	11/11/1993	27.18	58.32	170	--	--	--	--	--
	8/30/1995	26.35	59.15	240	--	--	--	--	--
	12/4/1995	26.72	58.78	<50	--	--	--	--	--
	5/3/1996	25.47	60.03	94	--	--	--	--	--
	8/8/1996	26.41	59.09	250	--	--	--	--	--
	11/5/1996	26.77	58.73	<50	--	--	--	--	--
	2/6/1997	25.84	59.66	130	--	--	--	--	--
	5/9/1997	26.39	59.11	120	--	--	--	--	--
	8/7/1997	26.72	58.78	150	--	--	--	--	--
	11/5/1997	26.82	58.68	110	--	--	--	--	--
	2/9/1998	25.57	59.93	75	--	--	--	--	--
	5/1/1998	25.64	59.86	210	--	--	--	--	--
	8/5/1998	25.96	59.54	260	--	--	--	--	--
	11/3/1998	26.27	59.23	190	--	--	--	--	--
	3/31/1999	20.93	64.57	200	--	--	--	--	--
	7/1/1999	26.59	58.91	170	--	--	<9.6	<9.6	ND
	9/21/1999	26.89	58.61	420	--	--	<9.4	<9.4	ND
	2/9/2000	26.60	58.90	--	120	280	<10	<10	ND
	5/31/2000	26.16	59.34	--	160 **	<500	--	--	--
	11/14/2000	26.60	58.90	--	150	<250	--	--	--
	3/1/2001	26.41	59.09	--	54	<250	<10	<10	Phenol: 25
	5/7/2001	26.55	58.95	--	<50	<250	--	--	--
	8/1/2001	26.71	58.79	--	58	<250	--	--	--
	11/5/2001	26.67	58.83	--	84	<250	--	--	--
	2/13/2002	26.15	59.35	--	83	<250	--	--	--
	5/2/2002	26.63	58.87	--	<50	<250	--	--	--
	8/4/2002	26.80	58.70	--	260	<250	--	--	--
	11/26/2002	27.50	58.00	--	<50	<250	--	--	--
	1/20/2003	24.93	60.57	--	63	<250	--	--	--
	5/28/2003	24.28	61.22	--	<50	<250	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-8 (continued)	8/5/2003	26.51	58.99	--	2,700	380	--	--	--
	11/10/2003	26.04	59.46	--	<50	--	--	--	--
	2/18/2004	25.97	59.53	--	<50	--	--	--	--
	5/27/2004	25.31	60.19	--	<50	<250	--	--	--
	8/19/2004	27.55	57.95	--	<50	--	--	--	--
	12/27/2004	26.50	59.00	--	<50	<250	--	--	--
	2/18/2005	26.00	59.50	--	<50	<250	--	--	--
	5/11/2005	25.47	60.03	--	<50	<250	--	--	--
	8/3/2005	26.31	59.19	--	53	<250	--	--	--
	11/30/2005	26.51	58.99	--	<50	<250	--	--	--
	2/17/2006	26.11	59.39	--	<50	<250	--	--	--
	5/12/2006	25.38	60.12	--	<50	<250	--	--	--
	8/7/2006	26.10	59.40	--	<50	<250	--	--	--
	11/21/2006	26.43	59.07	--	<50	<250	--	--	--
	2/12/2007	26.29	59.21	--	120	<250	--	--	--
	5/11/2007	26.23	59.27	--	<50	--	--	--	--
	8/16/2007	26.81	58.69	--	56	<250	--	--	--
	11/26/2007	26.99	58.51	--	<50	<250	--	--	--
	5/29/2008	26.70	58.80	--	<50	<250	--	--	--
	8/22/2008	27.03	58.47	--	<50	<250	--	--	--
	2/19/2009	26.74	58.76	--	<50	<250	--	--	--
	8/21/2009	26.72	58.78	--	<50	<250	--	--	--
	2/24/2010	29.09	56.41	--	<50	<250	--	--	--
	8/24/2010	28.35	57.15	--	<50	<250	--	--	--
	12/19/2011	27.52	57.98	--	--	--	--	--	--
	8/27/2012	26.70	58.80	--	--	--	--	--	--
MW-9 90.37	11/24/1992	23.51	66.86	320	--	--	--	--	--
	4/5/1993	21.14	69.23	920	--	--	--	--	--
	7/21/1993	21.54	68.83	450	--	--	--	--	--
	11/10/1993	27.53	62.84	450	--	--	--	--	--
	8/30/1995	19.59	70.78	680	--	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	--
	5/2/1996	18.63	71.74	710	--	--	--	--	--
	11/5/1996	20.69	69.68	420	--	--	--	--	--
	5/9/1997	19.96	70.41	490	--	--	--	--	--
	8/8/1997	20.84	69.53	480	--	--	--	--	--
	11/5/1997	21.55	68.82	370	--	--	--	--	--
	2/9/1998	20.21	70.16	410	--	--	--	--	--
	5/1/1998	19.27	71.10	450	--	--	--	--	--
	8/5/1998	19.35	71.02	630	--	--	--	--	--
	11/2/1998	20.43	69.94	500	--	--	--	--	--
	3/25/1999	18.46	71.91	630	--	--	--	--	--
	7/1/1999	19.95	70.42	570	--	--	<9.5	<9.5	ND
	9/21/1999	21.15	69.22	770	--	--	<9.4	<9.4	ND
	2/9/2000	21.08	69.29	--	320	<250	<10	<10	ND
	5/31/2000	19.11	71.26	--	390 **	<500	--	--	--
	11/14/2000	20.90	69.47	--	160	<250	--	--	--
	3/1/2001	20.45	69.92	--	220	<250	<10	<10	ND
	5/7/2001	19.83	70.54	--	290	<250	--	--	--
	8/1/2001	20.02	70.35	--	460	<250	--	--	--
	11/5/2001	19.85	70.52	--	230	<250	--	--	--
	2/13/2002	19.80	70.57	--	210	<250	--	--	--
	5/2/2002	19.93	70.44	--	250	<250	--	--	--
	8/4/2002	20.20	70.17	--	300	<250	--	--	--
	11/26/2002	20.37	70.00	--	270	<250	--	--	--
	1/20/2003	17.93	72.44	--	350	<250	--	--	--
	5/28/2003	17.25	73.12	--	91	<250	--	--	--
	8/5/2003	19.03	71.34	--	210	<250	--	--	--
	11/10/2003	18.65	71.72	--	250	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-9 (continued)	2/18/2004	18.41	71.96	--	250	--	--	--	--
	5/27/2004	17.89	72.48	--	160	<250	--	--	--
	8/19/2004	20.14	70.23	--	160	--	--	--	--
	12/27/2004	21.65	68.72	--	91	<250	--	--	--
	2/18/2005	19.97	70.40	--	120	<250	--	--	--
	5/11/2005	19.41	70.96	--	76	<250	--	--	--
	8/3/2005	19.35	71.02	--	110	<250	--	--	--
	11/30/2005	20.96	69.41	--	210	<250	--	--	--
	2/17/2006	19.13	71.24	--	120	<250	--	--	--
	5/12/2006	17.70	72.67	--	88	<250	--	--	--
	8/7/2006	18.82	71.55	--	130	<250	--	--	--
	11/21/2006	20.10	70.27	--	110	<250	--	--	--
	2/12/2007	20.48	69.89	--	74	<250	--	--	--
	5/11/2007	19.55	70.82	--	57	--	--	--	--
	8/16/2007	20.83	69.54	--	82	<250	--	--	--
	11/26/2007	21.79	68.58	--	81	<250	--	--	--
	5/29/2008	20.70	69.67	--	170	<250	--	--	--
	8/22/2008	21.61	68.76	--	190	<250	--	--	--
	2/19/2009	21.91	68.46	--	58	<250	--	--	--
	8/21/2009	21.97	68.40	--	<50	<250	--	--	--
	2/24/2010	25.65	64.72	--	<50	<250	--	--	--
	8/24/2010	22.92	67.45	--	91	<250	--	--	--
	12/19/2011	22.63	67.74	--	--	--	--	--	--
	8/27/2012	20.74	69.63	--	--	--	--	--	--
MW-10 88.60	10/12/1992	21.55	67.05	--	--	--	--	--	--
	11/24/1992	21.86	66.74	1,300	--	--	--	--	--
	4/5/1993	19.14	69.46	5,000	--	--	--	--	--
	7/21/1993	19.79	68.81	20,000	--	--	--	--	--
	8/30/1995	17.99	70.61	5,900	--	--	--	--	--
	5/3/1996	17.04	71.56	5,600	--	--	--	--	--
	5/9/1997	18.36	70.24	2,500	--	--	--	--	--
	5/1/1998	15.84	72.76	2,000	--	--	--	--	--
MW-11 102.06	11/24/1992	33.65	68.41	220	--	--	--	--	--
	12/8/92*	33.37	68.69	140	--	--	--	--	--
	12/8/1992	33.37	68.69	120	--	--	--	--	--
	4/5/1993	31.03	71.03	<50	--	--	--	--	--
	7/21/1993	31.90	70.16	150	--	--	--	--	--
	11/9/1993	32.60	69.46	60	--	--	--	--	--
	8/30/1995	28.92	73.14	240	--	--	--	--	--
	5/3/1996	28.00	74.06	<50	--	--	--	--	--
	5/8/1997	29.93	72.13	<50	--	--	--	--	--
	4/29/1998	27.22	74.84	<47	--	--	--	--	--
MW-13 84.06	11/24/1992	26.05	58.01	3,600	--	--	--	--	--
	12/8/92*	25.08	58.98	210	--	--	--	--	--
	12/8/1992	25.08	58.98	100	--	--	--	--	--
	4/5/1993	24.64	59.42	<50	--	--	--	--	--
	7/21/1993	24.29	59.77	<50	--	--	--	--	--
	11/9/1993	24.23	59.83	160	--	--	--	--	--
	8/30/1995	23.30	60.76	<50	--	--	--	--	--
	12/1/1995	23.80	60.26	<50	--	--	--	--	--
	5/3/1996	23.19	60.87	<50	--	--	--	--	--
	8/8/1996	23.44	60.62	<50	--	--	--	--	--
	11/5/1996	24.04	60.02	<50	--	--	--	--	--
	2/6/1997	23.24	60.82	<50	--	--	--	--	--
	5/8/1997	23.46	60.60	<50	--	--	--	--	--
	8/8/1997	23.92	60.14	<50	--	--	--	--	--
	11/5/1997	24.27	59.79	<50	--	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-13 (continued)	2/9/1998	22.89	61.17	<50	--	--	--	--	--
	4/29/1998	22.27	61.79	<47	--	--	--	--	--
	8/4/1998	22.75	61.31	78	--	--	--	--	--
	11/3/1998	23.90	60.16	<50	--	--	--	--	--
	3/31/1999	23.11	60.95	<48	--	--	--	--	--
	7/1/1999	23.40	60.66	100	--	--	<9.6	<9.6	ND
	9/21/1999	21.91	62.15	<48	--	--	<9.4	<9.4	ND
	2/9/2000	23.84	60.22	--	<50	<250	<10	<10	ND
	5/31/2000	22.97	61.09	--	<50	<500	--	--	--
	11/14/2000	24.00	60.06	--	65	<250	--	--	--
	3/1/2001	23.93	60.13	--	<50	<250	<10	<10	ND
	5/7/2001	23.93	60.13	--	<50	<250	--	--	--
	8/1/2001	24.10	59.96	--	<50	<250	--	--	--
	11/5/2001	24.02	60.04	--	350	610	--	--	--
	2/13/2002	23.70	60.36	--	<50	<250	--	--	--
	5/2/2002	23.97	60.09	--	<50	<250	--	--	--
	8/4/2002	24.19	59.87	--	810	310	--	--	--
	11/26/2002	24.78	59.28	--	66	<250	--	--	--
	1/20/2003	22.10	61.96	--	<50	<250	--	--	--
	5/28/2003	17.25	66.81	--	<50	<250	--	--	--
	8/5/2003	23.99	60.07	--	<50	<250	--	--	--
	11/10/2003	23.47	60.59	--	<50	--	--	--	--
	2/18/2004	22.58	61.48	--	<50	--	--	--	--
	5/27/2004	21.95	62.11	--	<50	<250	--	--	--
	8/19/2004	24.29	59.77	--	<50	--	--	--	--
	12/27/2004	23.70	60.36	--	<50	<250	--	--	--
	2/18/2005	23.15	60.91	--	<50	<250	--	--	--
	5/11/2005	22.68	61.38	--	<50	<250	--	--	--
	8/3/2005	23.04	61.02	--	56	<250	--	--	--
	11/30/2005	23.65	60.41	--	<50	<250	--	--	--
	2/17/2006	23.07	60.99	--	<50	<250	--	--	--
	5/12/2006	22.02	62.04	--	<50	<250	--	--	--
	8/7/2006	22.61	61.45	--	<50	<250	--	--	--
11/21/2006	23.11	60.95	--	<50	<250	--	--	--	
2/12/2007	23.27	60.79	--	<50	<250	--	--	--	
5/11/2007	23.07	60.99	--	<50	--	--	--	--	
8/16/2007	23.67	60.39	--	<50	<250	--	--	--	
11/26/2007	24.13	59.93	--	<50	<250	--	--	--	
5/29/2008	23.81	60.25	--	<50	<250	--	--	--	
8/22/2008	24.13	59.93	--	<50	<250	--	--	--	
2/19/2009	23.97	60.09	--	<50	<250	--	--	--	
8/21/2009	23.75	60.31	--	<50	<250	--	--	--	
2/24/2010	26.64	57.42	--	<50	<250	--	--	--	
8/24/2010	25.43	58.63	--	<50	<250	--	--	--	
12/19/2011	24.67	59.41	--	--	--	--	--	--	
	8/27/2012	23.86	60.22	--	--	--	--	--	--
MW-14 94.66	5/26/1998	21.67	72.99	7,700	--	--	--	--	--
	7/1/1999	22.95	71.71	SPH	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--
	2/9/2000	24.13	70.53	--	14,000	1,500	290	600	ND
	5/31/2000	22.09	72.57	--	SPH	--	--	--	--
	11/14/2000	23.90	70.76	--	SPH	--	--	--	--
	3/1/2001	23.97	70.69	--	SPH	--	--	--	--
	5/7/2001	23.45	71.23	--	SPH	--	--	--	--
	8/1/2001	23.57	71.12	--	SPH	--	--	--	--
	11/5/2001	23.50	71.18	--	SPH	--	--	--	--
	2/13/2002	22.99	71.70	--	SPH (0.04)	--	--	--	--
5/2/2002	23.51	71.17	--	SPH (0.02)	--	--	--	--	
8/4/2002	23.61	71.06	--	SPH (0.01)	--	--	--	--	

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-14 (continued)	11/26/2002	24.35	70.31	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.35	72.31	--	SPH (sheen)	--	--	--	--
	5/28/2003	21.95	72.74	--	SPH (0.04)	--	--	--	--
	8/5/2003	23.03	71.66	--	SPH (0.04)	--	--	--	--
	11/10/2003	22.70	72.02	--	SPH (0.07)	--	--	--	--
	2/18/2004	22.37	72.32	--	SPH (0.04)	--	--	--	--
	5/27/2004	21.78	72.92	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.13	70.57	--	SPH (0.05)	--	--	--	--
	12/27/2004	24.19	70.47	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.24	71.46	--	SPH (0.05)	--	--	--	--
	5/11/2005	22.77	71.92	--	SPH (0.04)	--	--	--	--
	8/3/2005	23.17	71.51	--	SPH (0.02)	--	--	--	--
	11/30/2005	24.02	70.66	--	SPH (0.02)	--	--	--	--
	2/17/2006	23.87	70.81	--	SPH (0.02)	--	--	--	--
	5/12/2006	21.74	72.93	--	SPH (0.01)	--	--	--	--
	8/7/2006	21.66	73.01	--	SPH (0.01)	--	--	--	--
	11/21/2006	23.41	71.27	--	SPH (0.03)	--	--	--	--
	2/12/2007	23.45	71.23	--	SPH (0.03)	--	--	--	--
	5/11/2007	22.95	71.71	--	--	--	--	--	--
	8/16/2007	24.14	70.52	--	--	--	--	--	--
	11/26/2007	24.94	69.72	--	--	--	--	--	--
	5/29/2008	24.02	70.64	--	--	--	--	--	--
	8/22/2008	24.97	69.69	--	--	--	--	--	--
	2/19/2009	25.20	69.46	--	SPH (0.05)+	--	--	--	--
	2/19/2009	25.20	69.46	--	SPH (0.05)+	--	--	--	--
	8/21/2009	25.23	69.43	--	--	--	--	--	--
	2/24/2010	28.39	66.29	--	SPH (0.03)	--	--	--	--
8/24/2010	26.31	68.38	--	SPH (0.04)	--	--	--	--	
12/20/2011	25.67	68.99	--	--	2,800	1,800	--	--	
	8/28/2012	23.57	71.09	--	6,500	<250	--	--	--
MW-15 94.76	5/26/1998	21.87	72.89	1,700	--	--	--	--	--
	7/1/1999	22.25	72.51	SPH	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--
	2/9/2000	24.42	70.34	--	4,000	1,200	50	270	ND
	5/31/2000	22.40	72.36	--	SPH	--	--	--	--
	11/14/2000	24.15	70.61	--	SPH	--	--	--	--
	3/1/2001	23.99	70.77	--	SPH	--	--	--	--
	5/7/2001	23.50	71.26	--	SPH	--	--	--	--
	8/1/2001	23.62	71.14	--	SPH	--	--	--	--
	11/5/2001	23.65	71.11	--	SPH (sheen)	--	--	--	--
	2/13/2002	23.09	71.67	--	3,100	<250	17	68	5
	5/2/2002	23.59	71.17	--	SPH (sheen)	--	--	--	--
	8/4/2002	23.65	71.11	--	SPH (sheen)	--	--	--	--
	11/26/2002	24.59	70.17	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.08	72.68	--	3,700	340	--	--	--
	5/28/2003	21.68	73.08	--	SPH (sheen)	--	--	--	--
	8/5/2003	24.05	70.71	--	SPH (sheen)	--	--	--	--
	11/10/2003	23.68	71.08	--	SPH (sheen)	--	--	--	--
	2/18/2004	23.51	71.25	--	1,100	--	--	--	--
	5/27/2004	22.98	71.78	--	SPH (sheen)	--	--	--	--
	8/19/2004	25.31	69.45	--	SPH (sheen)	--	--	--	--
	12/27/2004	24.46	70.30	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.27	71.57	--	SPH (0.10)	--	--	--	--
5/11/2005	22.80	72.03	--	SPH (0.09)	--	--	--	--	
8/3/2005	23.29	71.48	--	SPH (0.01)	--	--	--	--	
11/30/2005	24.11	70.69	--	SPH (0.05)	--	--	--	--	
2/17/2006	23.91	70.89	--	SPH (0.05)	--	--	--	--	
5/12/2006	21.88	72.92	--	SPH (0.03)	--	--	--	--	
8/7/2006	22.05	72.75	--	SPH (0.01)	--	--	--	--	

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>MW-15 (continued)	11/21/2006	23.70	71.10	--	--	--	--	--	--
	2/12/2007	23.80	71.00	--	1,100	<250	--	--	--
	5/11/2007	23.28	71.48	--	--	--	--	--	--
	8/16/2007	24.38	70.38	--	--	--	--	--	--
	11/26/2007	25.30	69.46	--	--	--	--	--	--
	5/29/2008	24.32	70.44	--	--	--	--	--	--
	8/22/2008	25.24	69.52	--	--	--	--	--	--
	2/19/2009	25.59	69.17	--	SPH (0.08)†	--	--	--	--
	8/21/2009	25.61	69.15	--	--	--	--	--	--
	2/24/2010	28.51	66.25	--	SPH (0.04)	--	--	--	--
	8/24/2010	26.53	68.23	--	SPH (0.04)	--	--	--	--
	12/19/2011	26.18	68.58	--	14,000	1,600	--	--	--
	8/28/2012	24.35	70.41	--	370	370	--	--	--
	MW-16A	5/11/2007	25.12	--	--	760	--	--	--
8/16/2007		26.02	--	--	620	250	--	--	--
11/26/2007		26.16	--	--	160	<250	--	--	--
5/29/2008		25.73	--	--	81	<250	--	--	--
8/22/2008		26.11	--	--	310	<250	--	--	--
2/19/2009		26.32	--	--	<50	<250	--	--	--
8/21/2009		26.28	--	--	82	<250	--	--	--
2/24/2010		29.08	--	--	--	--	--	--	--
8/24/2010		27.40	--	--	80	<250	--	--	--
12/19/2011		29.20	--	--	SPH (Sheen)	--	--	--	--
2/18/2012		26.92	--	--	14,000	730	--	--	--
8/27/2012	28.75	--	--	Insufficient water to sample					
MW-16B	5/11/2007	28.98	--	--	15,000	--	--	--	--
	8/16/2007	31.02	--	--	7,700	<250	--	--	--
	11/26/2007	30.00	--	--	6,400	<250	--	--	--
	5/29/2008	29.95	--	--	5,400	<500	--	--	--
	8/22/2008	32.02	--	--	4,600	<250	--	--	--
	2/19/2009	31.70	--	--	7,400	<250	--	--	--
	8/21/2009	31.62	--	--	6,400	<250	--	--	--
	2/24/2010	35.05	--	--	2,000	<250	--	--	--
	8/24/2010	33.36	--	--	5,300	<5,000	--	--	--
	12/20/2011	36.68	--	--	720	590	--	--	--
	8/28/2012	28.10	--	--	900	300	--	--	--
MW-17A	5/29/2008	24.05	--	--	22,000	1,800	--	--	--
	8/22/2008	24.96	--	--	11,000	<1,200	--	--	--
	2/19/2009	25.29	--	--	20,000	440	--	--	--
	8/21/2009	25.37	--	--	16,000	700	--	--	--
	2/24/2010	28.39	--	--	Insufficient water to sample				
	8/24/2010	26.30	--	--	Insufficient water to sample				
	12/20/2011	25.52	--	--	66,000	<1,300	--	--	--
	8/27/2012	23.43	--	--	1,700	480	--	--	--
MW-17B	5/29/2008	24.30	--	--	<50	<250	--	--	--
	8/22/2008	25.19	--	--	<50	<250	--	--	--
	2/19/2009	25.51	--	--	<50	<250	--	--	--
	8/21/2009	25.44	--	--	150	<250	--	--	--
	2/24/2010	28.53	--	--	<50	<250	--	--	--
	8/24/2010	26.48	--	--	<50	<250	--	--	--
	12/19/2011	26.58	--	--	--	--	--	--	--
8/27/2012	23.45	--	--	--	--	--	--	--	
RW-2	5/29/2008	17.66	--	--	6,100	<250	--	--	--
	8/22/2008	18.51	--	--	10,000	<1,200	--	--	--
	2/19/2009	18.87	--	--	SPH (0.08)†	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
>>RW-2 (continued)	8/21/2009	18.89	--	--	SPH (0.31)†	--	--	--	--
	2/24/2010	25.05	--	--	SPH (0.04)	--	--	--	--
	8/24/2010	19.79	--	--	SPH (0.04)	--	--	--	--
	12/19/2011	19.71	--	--	8,200	420	--	--	--
	8/27/2012	18.26	--	--	4,300	400	--	--	--
RW-3A	12/19/2011	18.37	--	--	71,000	35,000	--	--	--
	8/27/2012	17.11	--	--	9,800	3,500	--	--	--
RW-4	5/29/2008	23.72	--	--	19,000	<2,500	--	--	--
	8/22/2008	24.69	--	--	18,000	<1,200	--	--	--
	2/19/2009	24.98	--	--	25,000	<2,500	--	--	--
	8/21/2009	25.15	--	--	9,600	<250	--	--	--
	2/24/2010	28.65	--	--	Insufficient water to sample		--	--	--
	8/24/2010	26.02	--	--	Insufficient water to sample		--	--	--
	12/20/2011	25.80	--	--	38,000	<2,500	--	--	--
	8/28/2012	23.02	--	--	5,800	1,300	--	--	--
RW-5	12/20/2011	26.32	--	--	3,100	270	--	--	--
	8/28/2012	22.81	--	--	640	<250	--	--	--
VE-1	12/20/2011	33.38	--	--	410,000	420,000	--	--	--
	8/27/2012	31.60	--	--	Unable to sample due to sludge present during purging		--	--	--

Grab Sampling Data

B (boring)	5/16/1998	--	--	77**	--	--	--	--	--
C (boring)	5/16/1998	--	--	48**	--	--	--	--	--
G (boring)	5/16/1998	--	--	35,000**	--	--	--	--	--

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum

TEH = Total extractable hydrocarbons

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

SVOCs = Semi-volatile organic compounds

Other SVOC's = All other compounds analyzed by EPA Method 8270

µg/l = micrograms per liter = parts per billion = ppb

ND = None detected above laboratory reporting limit, see laboratory report for individual reporting limits

1 = ND except for 1,700 ug/l 2,4 dichlorophenol, 240 ug/l bis (2-ethyl hxyly) phthalate. Also 10 mg/l oil and grease.

2 = ND except for 570 ug/l benzoic acid and 93 ug/l phenol. Also 20 mg/l oil and grease.

3 = ND except for 700 ug/l benzoic acid, 92 ug/l phenol, and 52 ug/l 3,4 methyl phenol.

4 = ND except for 74 ug/l benzoic acid and 68 ug/l creosol.

5 = ND except for 480 ug/l phenol, 110 ug/l 2,4 dimethylphenol, 210 ug/l 2-methylphenol, 200 ug/l 3,4-methylphenol, and 5.7 mg/l oil and grease.

< n = Not detected above n ug/l

-- = Not analyzed/not available

* = Duplicate sample sent to a different chemical laboratory

** = Does not match diesel pattern

† = SPH thickness not used to calculate groundwater elevation because SPH not present in wells until after beginning purge.

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-1	12/23/1991	26.86	1.15		2.00	12.20	2.00	1
94.48	12/26/1991	26.08	0.22		0.50	3.05	2.50	1
	1/13/1992	26.53	0.66		1.00	6.10	3.50	1
	2/28/1992	27.75	0.42		2.00	12.20	5.50	1
	11/9/1993	26.06	1.17		0.50	3.05	6.00	1
	11/3/1995	23.10	0.76		0.75	4.58	6.75	1
	11/30/1995	23.38	0.70		0.25	1.53	7.00	1
	1/3/1996	23.30	0.78		0.53	3.23	7.53	1
	2/2/1996	22.96	0.84		0.75	4.58	8.28	1
	3/1/1996	21.69	0.14		0.10	0.61	8.38	1
	4/4/1996	21.11	0.00		0.00	0.00	8.38	1
	5/2/1996	20.96	0.00		0.00	0.00	8.38	1
	6/5/1996	20.98	0.04		0.10	0.61	8.48	1
	7/9/1996	21.64	0.20		0.10	0.61	8.58	1
	8/8/1996	22.43	0.33		0.05	0.31	8.63	1
	9/10/1996	23.25	0.60		0.10	0.61	8.73	1
	10/1/1996	23.58	0.60		0.25	1.53	8.98	1
	11/4/1996	24.29	0.78		0.13	0.79	9.11	1
	12/2/1996	24.63	0.88		0.26	1.59	9.37	1
	1/3/1997	24.08	0.81		0.39	2.38	9.76	1
	2/6/1997	22.46	0.30		0.01	0.06	9.77	1
	3/5/1997	23.00	0.00		0.00	0.00	9.77	1
	4/1/1997	22.29	0.20		0.01	0.06	9.78	1
	5/8/1997	22.79	0.33		0.02	0.12	9.80	1
	6/6/1997	24.33	1.69		0.26	1.59	10.06	1
	7/8/1997	24.00	0.96		0.20	1.22	10.26	1
	8/7/1997	24.58	1.29		1.00	6.10	11.26	1
	9/10/1997	24.93	1.21		1.50	9.15	12.76	1
	10/1/1997	24.89	0.86		0.26	1.59	13.02	1
	11/4/1997	25.06	0.77		0.26	1.59	13.28	1
	12/4/1997	24.76	0.54		0.19	1.16	13.47	1
	1/8/1998	23.66	0.00		0.00	0.00	13.47	1
	2/5/1998	22.64	0.00		0.00	0.00	13.47	1
	3/6/1998	20.80	0.00		0.00	0.00	13.47	1
	4/2/1998	20.31	0.00		0.00	0.00	13.47	1
	4/29/1998	19.95	0.00		0.00	0.00	13.47	1
	6/3/1998	20.41	0.00		0.00	0.00	13.47	1
	7/9/1998	20.97	0.07		0.00	0.00	13.47	1
	8/4/1998	21.40	trace		0.00	0.00	13.47	1
	8/26/1998	21.85	0.10		0.00	0.00	13.47	1
	11/2/1998	22.92	0.39		0.00	0.00	13.47	1
	12/4/1998	23.29	0.29		0.01	0.06	13.48	1
	1/5/1999	23.51	0.42		0.03	0.18	13.51	1
	2/8/1999	23.08	0.05		0.25	1.53	13.76	1
	3/24/1999	21.90	0.01		0.01	0.06	13.77	1
	4/30/1999	21.52	0.00		0.00	0.00	13.77	1
	7/1/1999	22.70	0.03		0.01	0.06	13.78	1

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-1	9/21/1999	23.81	0.08		0.20	1.22	13.98	1
<i>(cont'd)</i>	10/20/1999	23.90	0.10		0.01	0.06	13.99	1
	12/13/1999	24.24	trace		0.00	0.00	13.99	1
	2/9/2000	23.95	0.07		0.05	0.31	14.04	1
	2/15/2000	--	0.00		0.00	0.00	14.04	2
	2/25/2000	23.69	0.00		0.06	0.38	14.10	2
	3/3/2000	23.27	0.00		0.05	0.31	14.15	2
	3/28/2000	22.39	0.00		0.13	0.76	14.28	2
	5/2/2000	22.29	0.00		0.05	0.29	14.32	2
	5/31/2000	22.05	0.00		0.00	0.00	14.32	2
	7/3/2000	22.10	trace		0.02	0.12	14.34	2
	8/4/2000	22.40	0.00		0.01	0.06	14.35	2
	10/6/2000	23.47	0.46		0.01	0.06	14.36	1
	11/3/2000	24.14	0.78		0.00	0.00	14.36	
	12/1/2000	25.40	0.83		1.75	10.68	16.11	1,2
	1/4/2001	25.13	0.09		0.25	1.53	16.36	2
	2/2/2001	25.12	0.03		0.13	0.76	16.49	2
	4/3/2001	23.19	0.24		0.10	0.61	16.59	
	5/4/2001	23.31	0.47		0.00	0.00	16.59	
	5/7/2001	23.85	0.05		0.03	0.16	16.62	2
	6/11/2001	23.77	0.67		0.00	0.00	16.62	2
	5/2/2002	23.41	0.46		0.01	0.04	16.62	
	6/14/2002	23.95	0.03		0.01	0.04	16.63	2
	8/4/2002	24.02	0.03		0.01	0.06	16.64	2
	9/24/2002	24.59	0.01		0.003	0.02	16.64	2
	10/16/2002	25.08	0.03		0.003	0.02	16.64	2
	11/6/2002	25.71	0.08		0.005	0.03	16.65	2
	11/26/2002	24.47	0.05		0.003	0.02	16.65	2
	12/9/2002	24.08	0.07		0.009	0.06	16.66	2
	1/17/2003	22.14	0.07		0.005	0.03	16.67	1,2
	1/27/2003	22.55	0.02		0.003	0.02	16.67	2
	3/5/2003	23.53	0.02		0.25	1.53	16.92	1,2
	4/11/2003	23.11	0.03		0.007	0.04	16.93	1,2
	5/13/2003	22.95	0.02		0.007	0.04	16.93	1,2
	5/28/2003	21.77	0.02		0.008	0.05	16.94	1,2
	6/13/2003	21.84	0.03		0.013	0.08	16.95	1,2
	7/24/2003	23.19	0.05		0.003	0.02	16.96	1,2
	8/5/2003	23.07	0.04		0.013	0.08	16.97	1,2
	9/12/2003	23.74	0.05		0.021	0.13	16.99	1,2
	10/10/2003	23.90	0.06		0.026	0.16	17.02	1,2
	11/10/2003	22.53	0.03		0.016	0.10	17.03	1,2
	11/21/2003	23.12	0.02		0.026	0.16	17.06	1,2
	12/4/2003	22.95	0.03		0.026	0.16	17.09	1,2
	1/23/2004	22.40	0.04	70	0.018	0.11	17.10	1,2
	2/6/2004	22.74	0.05	65	0.017	0.10	17.12	1,2
	2/18/2004	22.61	0.05	70	0.018	0.11	17.14	1,2
	3/28/2004	22.81	0.01	5	0.001	0.01	17.14	1,2

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-1	4/9/2004	22.61	0.00	0	0.000	0.00	17.14	1, 2
<i>(cont'd)</i>	5/27/2004	22.08	0.05	35	0.009	0.06	17.15	1, 2
	7/29/2004	24.52	0.92	2500	0.660	4.03	17.81	1, 2
	8/6/2004	23.98	0.25	1000	0.264	1.61	18.08	1, 2
	8/19/2004	24.35	0.38	1000	0.264	1.61	18.34	1, 2
	9/3/2004	24.47	0.29	1000	0.264	1.61	18.60	1, 2
	12/27/2004	24.18	0.44	450	0.119	0.73	18.72	1, 2
	2/18/2005	23.14	0.04	250	0.066	0.40	18.79	1, 2
	5/11/2005	22.71	0.02	0	0.000	0.00	18.79	
	8/3/2005	23.03	0.06	0	0.000	0.00	18.79	
	11/30/2005	23.98	0.03	0	0.000	0.00	18.79	
	2/17/2006	23.81	0.01	10	0.003	0.02	18.79	1
	5/12/2006	21.75	0.03	0	0.000	0.00	18.79	
	8/7/2006	21.35	0.01	0	0.000	0.00	18.79	
	11/21/2006	23.34	0.04	100	0.026	0.00	18.82	1
	2/12/2007	23.18	0.03	0	0.000	0.00	18.82	
	8/22/2008	25.50	0.70	2000	0.528	3.22	19.35	1
	2/19/2009	25.92	0.82	1500	0.396	2.42	19.74	1
	8/21/2009	25.98	0.77	1800	0.476	2.90	20.22	1
	2/24/2010	29.24	0.13	350	0.092	0.56	20.31	1
	8/24/2010	26.84	0.63	1500	0.396	2.42	20.71	1
MW-4	12/23/1991	22.63	0.98		2.50	15.25	2.50	1
88.84	12/26/1991	22.52	0.96		6.00	36.60	8.50	1
	1/10/1992	22.74	0.99		5.00	30.50	13.50	1
	2/28/1992	22.00	0.67		4.00	24.40	17.50	1
	3/11/1992	21.71	0.55		3.50	21.35	21.00	1
	3/13/1992	21.56	0.49		3.50	21.35	24.50	1
	3/17/1992	25.46	0.44		2.25	13.73	26.75	1
	3/18/1992	21.38	0.44		2.50	15.25	29.25	1
	3/19/1992	21.33	0.48		1.50	9.15	30.75	1
	3/23/1992	21.29	0.42		4.00	24.40	34.75	1
	3/24/1992	21.31	0.38		1.50	9.15	36.25	1
	3/25/1992	21.17	0.36		1.00	6.10	37.25	1
	3/26/1992	21.08	0.35		1.00	6.10	38.25	1
	3/27/1992	20.92	0.26		0.50	3.05	38.75	1
	3/31/1992	21.15	0.44		0.50	3.05	39.25	1
	4/1/1992	20.90	0.24		0.25	1.53	39.50	1
	4/2/1992	20.90	0.17		0.13	0.79	39.63	1
	4/6/1992	--	--		0.13	0.79	39.76	1
	4/10/1992	20.91	0.33		0.25	1.53	40.01	1
	4/13/1992	21.04	0.42		0.25	1.53	40.26	1
	4/20/1992	20.74	0.19		0.13	0.79	40.39	1
	5/4/1992	20.83	0.33		0.13	0.79	40.52	1
	5/18/1992	21.33	0.23		0.13	0.79	40.65	1
	5/26/1992	20.83	0.17		0.13	0.79	40.78	1
	6/1/1992	20.85	0.19		0.06	0.37	40.84	1

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-4	6/29/1992	21.38	0.53		0.25	1.53	41.09	1
<i>(cont'd)</i>	7/29/1992	21.69	0.56		1.11	6.77	42.20	1
	8/28/1992	21.35	0.63		1.68	10.25	43.88	1
	4/3/1993	20.11	0.51		0.13	0.79	44.01	1
	11/9/1993	20.48	0.52		0.03	0.18	44.04	1
	8/30/1995	21.71	0.63		1.75	10.68	45.79	1
	10/2/1995	19.90	2.20		0.50	3.05	46.29	1
	11/3/1995	18.76	0.57		0.25	1.53	46.54	1
	11/30/1995	19.17	0.65		0.25	1.53	46.79	1
	1/3/1996	19.45	0.44		0.05	0.31	46.84	1
	2/2/1996	19.50	0.32		0.10	0.61	46.94	1
	3/1/1996	19.31	0.20		0.20	1.22	47.14	1
	4/4/1996	17.53	0.18		0.20	1.22	47.34	1
	5/2/1996	17.50	0.25		0.20	1.22	47.54	1
	6/5/1996	17.67	0.39		0.15	0.92	47.69	1
	7/9/1996	18.29	0.50		0.16	0.98	47.85	1
	8/8/1996	18.84	0.00		0.00	0.00	47.85	1
	9/10/1996	19.31	0.34		0.05	0.31	47.90	1
	10/1/1996	19.51	0.29		0.05	0.31	47.95	1
	11/4/1996	20.13	0.35		0.02	0.12	47.97	1
	12/2/1996	20.23	0.33		0.02	0.12	47.99	1
	1/3/1997	19.33	0.10		0.02	0.12	48.01	1
	2/6/1997	18.13	0.01		0.01	0.06	48.02	1
	4/30/1999	17.28	trace		0.00	0.00	48.02	1
	2/9/2000	19.76	0.00		0.00	0.00	48.02	1
	2/15/2000	--	0.00		0.00	0.00	48.02	2
	2/25/2000	19.30	0.00		0.00	0.00	48.02	2
	8/25/2010	22.72*	---	30	0.01	0.05	48.03	1
MW-6	12/23/1991	28.40	3.21		7.50	45.75	7.50	1
85.62	12/26/1991	27.25	1.67		2.00	12.20	9.50	1
	1/10/1992	27.23	0.90		1.00	6.10	10.50	1
	2/4/1992	27.71	2.04		2.00	12.20	12.50	1
	2/28/1992	27.92	3.00		3.00	18.30	15.50	1
	3/10/1992	27.16	2.06		2.75	16.78	18.25	1
	3/12/1992	25.96	0.52		2.00	12.20	20.25	1
	3/23/1992	26.34	1.09		1.00	6.10	21.25	1
	3/30/1992	25.73	0.35		0.50	3.05	21.75	1
	4/10/1992	25.29	0.05		0.25	1.53	22.00	1
	4/13/1992	25.52	0.21		0.13	0.79	22.13	1
	4/20/1992	25.38	0.10		0.13	0.79	22.26	1
	5/4/1992	25.40	--		0.13	0.79	22.39	1
	5/8/1992	25.50	0.17		0.06	0.37	22.45	1
	5/26/1992	25.46	0.13		0.13	0.79	22.58	1
	6/1/1992	25.46	0.09		0.06	0.37	22.64	1
	6/29/1992	25.59	0.14		0.19	1.16	22.83	1
	7/29/1992	26.90	1.71		0.60	3.66	23.43	1

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-6	8/28/1992	25.09	2.62		2.40	14.64	25.83	1
<i>(cont'd)</i>	12/2/1992	--	--		0.00	0.00	25.83	1
	4/3/1993	26.96	2.86		1.75	10.68	27.58	1
	11/9/1993	27.51	3.06		0.83	5.06	28.41	1
	8/30/1995	28.00	7.96		4.50	27.45	32.91	1
	10/2/1995	28.24	6.14		4.00	24.40	36.91	1
	11/3/1995	28.39	6.13		3.00	18.30	39.91	1
	11/30/1995	26.91	3.44		2.50	15.25	42.41	1
	1/3/1996	27.58	4.41		2.50	15.25	44.91	1
	2/2/1995	27.58	4.37		5.00	30.50	49.91	1
	3/1/1996	27.96	5.15		4.00	24.40	53.91	1
	4/4/1996	27.96	5.41		5.00	30.50	58.91	1
	5/2/1996	26.83	4.66		4.50	27.45	63.41	1
	6/5/1996	27.15	5.17		4.00	24.40	67.41	1
	7/9/1996	27.08	4.86		4.50	27.45	71.91	1
	8/8/1996	26.71	4.05		4.00	24.40	75.91	1
	9/10/1996	26.83	3.82		3.50	21.35	79.41	1
	10/1/1996	26.96	3.77		4.00	24.40	83.41	1
86.94	11/4/1996	--	NM		0.00	0.00	83.41	4
	12/2/1996	--	NM		0.00	0.00	83.41	4
	1/3/1997	--	NM		0.00	0.00	83.41	4
	2/6/1997	25.08	0.20		0.00	0.00	83.41	4
	3/5/1997	24.20	0.00		0.00	0.00	83.41	4
	4/1/1997	24.04	0.00		0.00	0.00	83.41	4
	5/8/1997	26.54	1.88		0.40	2.44	83.81	1
	6/6/1997	25.33	0.21		0.03	0.18	83.84	1
85.82	7/8/1997	25.30	0.07		0.00	0.00	83.84	1
	8/7/1997	25.52	0.00		0.00	0.00	83.84	1
	9/10/1997	25.76	0.00		0.00	0.00	83.84	1
	10/1/1997	25.12	0.00		0.00	0.00	83.84	1
	11/4/1997	26.16	0.18		0.02	0.12	83.86	1
	12/4/1997	26.08	0.16		0.05	0.31	83.91	1
	1/8/1998	25.79	0.10		0.66	4.03	84.57	1
	2/5/1998	25.31	0.89		0.00	0.00	84.57	4
	3/6/1998	24.63	0.46		0.04	0.24	84.61	1
	4/2/1998	24.45	0.59		0.10	0.61	84.71	1
	4/29/1998	22.96	0.55		0.09	0.55	84.80	1
	6/3/1998	22.81	0.41		0.03	0.18	84.83	1
	7/9/1998	23.04	0.35		0.05	0.31	84.88	1
	8/4/1998	23.29	0.35		0.04	0.24	84.92	1
	8/26/1998	23.50	0.31		0.01	0.06	84.93	1
	11/2/1998	24.24	0.43		0.02	0.12	84.95	1
	12/4/1998	24.35	0.32		0.01	0.06	84.96	1
	1/5/1999	24.51	0.40		0.03	0.18	84.99	1
	2/8/1999	24.00	0.03		0.13	0.76	85.12	1
	3/24/1999	23.82	0.19		0.03	0.18	85.15	1
	4/30/1999	23.60	1.13		0.10	0.61	85.25	1

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-6	7/1/1999	24.45	0.42		0.06	0.38	85.31	1
<i>(cont'd)</i>	7/27/1999	25.35	0.24		0.06	0.38	85.37	1
	8/19/1999	24.87	0.24		0.06	0.37	85.43	1
	9/21/1999	24.58	0.10		0.20	1.22	85.63	1
	10/20/1999	25.05	0.17		0.20	1.22	85.83	1
	12/13/1999	25.08	0.10		0.06	0.37	85.89	1
	2/9/2000	24.93	0.44		0.25	1.53	86.14	1
	2/15/2000	--	0.00		0.07	0.43	86.21	3
	2/25/2000	24.23	0.00		0.01	0.06	86.22	3
	3/3/2000	24.00	0.00		0.00	0.01	86.22	3
	3/28/2000	23.54	0.00		0.05	0.31	86.27	3
	5/2/2000	23.52	0.06		0.03	0.15	86.30	3
	5/31/2000	23.39	0.08		0.00	0.00	86.30	3
	7/3/2000	23.61	trace		0.02	0.12	86.32	3
	8/4/2000	23.80	0.10		0.01	0.06	86.33	3
	10/6/2000	24.22	0.04		0.01	0.06	86.34	
	11/3/2000	24.30	0.09		0.00	0.00	86.34	
	12/1/2000	24.38	0.07		0.03	0.18	86.37	2, 3
	1/4/2001	24.65	0.17		0.00	0.00	86.37	5
	2/2/2001	24.72	0.22		0.25	1.53	86.62	3
	4/3/2001	23.90	0.06		0.05	0.31	86.67	
	5/4/2001	23.95	0.07		0.05	0.31	86.72	
	5/7/2001	--	--		0.08	0.48	86.80	
	6/11/2001	24.25	0.10		0.00	0.00	86.80	
	5/2/2002	23.25	0.01		0.00	0.02	86.80	2
	6/14/2002	23.17	0.07		0.01	0.04	86.81	1
	8/4/2002	23.55	0.03		0.01	0.06	86.82	1
	9/24/2002	23.98	0.02		0.007	0.04	86.82	1
	10/16/2002	24.20	0.09		0.005	0.03	86.83	1
	11/6/2002	25.78	0.07		0.005	0.03	86.83	1
	11/26/2002	24.22	0.03		0.009	0.06	86.84	1, 3
	12/9/2002	23.97	0.05		0.021	0.13	86.86	1, 3
	1/17/2003	21.30	0.06		0.013	0.08	86.88	1, 3
	1/27/2003	22.49	0.02		0.016	0.10	86.89	1, 3
	3/5/2003	24.35	0.06		0.013	0.08	86.91	1, 3
	4/11/2003	24.05	0.07		0.029	0.18	86.93	3
	5/13/2003	23.98	0.03		0.016	0.10	86.95	3
	5/28/2003	21.92	0.04		0.021	0.13	86.97	1, 3
	6/13/2003	21.98	0.06		0.020	0.12	86.99	1, 3
	7/24/2003	24.11	0.07		0.040	0.24	87.03	1, 3
	8/5/2003	23.98	0.04		0.021	0.13	87.05	1, 3
	9/12/2003	24.53	0.06		0.026	0.16	87.08	1, 3
	10/10/2003	24.88	0.10		0.026	0.16	87.11	1, 3
	11/10/2003	23.50	0.10		0.032	0.19	87.14	1, 3
	11/21/2003	23.81	0.06		0.026	0.16	87.16	1, 3
	12/4/2003	23.61	0.08		0.029	0.18	87.19	1, 3
	1/23/2004	23.09	0.10	100	0.026	0.16	87.22	1, 3

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-6	2/6/2004	22.39	0.05	80	0.021	0.13	87.24	1, 3
<i>(cont'd)</i>	2/18/2004	22.21	0.04	70	0.018	0.11	87.26	1, 3
	3/28/2004	23.91	0.06	50	0.013	0.08	87.27	1, 3
	4/9/2004	23.89	0.03	100	0.026	0.16	87.30	1, 3
	5/27/2004	22.01	0.05	140	0.037	0.23	87.34	1, 3
	5/27/2004	22.01	0.05	140	0.037	0.23	87.37	1, 3
	7/29/2004	24.35	0.00	0	0.000	0.00	87.37	1, 3
	8/6/2004	24.05	0.03	20	0.005	0.03	87.38	1, 3
	8/19/2004	24.16	0.03	10	0.003	0.02	87.38	1, 3
	9/3/2004	24.29	0.02	10	0.003	0.02	87.38	1, 3
	12/27/2004	24.69	sheen	80	0.021	0.13	87.40	3
	2/18/2005	23.55	0.08	130	0.034	0.21	87.44	1,3
	5/11/2005	22.90	0.06	120	0.032	0.19	87.47	1,3
	8/3/2005	23.68	0.06	0	0.000	0.00	87.47	
	11/30/2005	24.17	0.02	0	0.000	0.00	87.47	
	2/17/2006	23.89	0.03	10	0.003	0.02	87.47	1,3
	5/12/2006	22.66	0.03	0	0.000	0.00	87.47	
	8/7/2006	22.83	0.02	0	0.000	0.00	87.47	
	11/21/2006	23.92	0.02	0	0.000	0.00	87.47	
	2/12/2007	23.97	0.02	0	0.000	0.00	87.47	
	2/19/2009	25.19*	0.07**	100	0.026	0.16	87.50	
	8/21/2009	25.10	0.03	20	0.005	0.03	87.50	1
	2/24/2010	26.71	0.03	10	0.003	0.02	87.51	1
	8/24/2010	26.13	0.05	30	0.008	0.05	87.51	1
MW-9 90.37	8/8/1996	19.89	0.35		0.10	0.61	0.61	1
MW-14 94.66	12/4/1998	23.42	0.23		0.01	0.06	0.01	1
	1/5/1999	23.36	0.12		0.01	0.06	0.02	1
	2/8/1999	23.17	trace		0.01	0.06	0.03	1
	3/24/1999	22.08	trace		0.00	0.00	0.03	1
	4/30/1999	21.17	0.01		0.00	0.00	0.03	1
	7/1/1999	22.95	0.04		0.00	0.00	0.03	1
	9/21/1999	24.26	trace		0.00	0.00	0.03	1
	10/20/1999	24.10	0.00		0.00	0.00	0.03	1
	2/9/2000	24.13	0.00		0.00	0.00	0.03	1
	2/15/2000	--	0.00		0.00	0.00	0.03	1
	2/25/2000	--	0.00		0.00	0.00	0.03	2
	3/3/2000	23.27	0.00		0.05	0.31	0.08	2
	3/28/2000	22.40	0.00		0.13	0.76	0.21	2
	5/2/2000	22.22	0.00		0.04	0.24	0.25	2
	5/31/2000	22.09	0.00		0.00	0.00	0.25	2
	7/3/2000	22.35	trace		0.01	0.06	0.26	2
	8/4/2000	22.78	0.00		0.03	0.18	0.29	2
	10/6/2000	23.48	0.00		0.00	0.00	0.29	
	11/3/2000	23.60	0.00		0.00	0.00	0.29	

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-14	12/1/2000	23.90	0.04		0.04	0.24	0.33	1, 2
<i>(cont'd)</i>	1/4/2001	24.10	0.00		0.00	0.00	0.33	
	2/2/2001	24.27	0.00		0.10	0.61	0.43	2
	4/3/2001	23.06	0.00		0.05	0.31	0.48	
	5/4/2001	23.05	0.00		0.00	0.00	0.48	
	5/7/2001	23.45	0.02		0.01	0.05	0.48	2
	6/11/2001	23.40	0.00		0.00	0.00	0.48	
	5/2/2002	23.51	0.02		0.003	0.02	0.49	2
	6/14/2002	23.88	0.01		0.003	0.02	0.49	2
	8/4/2002	23.61	0.01		0.004	0.02	0.49	2
	9/24/2002	24.07	0.01		0.007	0.04	0.50	2
	10/16/2002	24.29	trace		0.007	0.04	0.51	2
	11/6/2002	25.85	0.00		0.00	0.00	0.51	2
	11/26/2002	24.35	trace		0.00	0.00	0.51	2
	12/9/2002	24.05	trace		0.00	0.00	0.51	2
	1/17/2003	22.09	0.00		0.00	0.00	0.51	2
	1/27/2003	22.60	0.00		0.00	0.00	0.51	2
	3/5/2003	23.63	0.00		0.13	0.79	0.64	1,2
	4/11/2003	23.63	0.02		0.003	0.02	0.64	1,2
	5/13/2003	23.11	0.03		0.003	0.02	0.64	1,2
	5/28/2003	21.95	0.04		0.007	0.04	0.65	1,2
	6/13/2003	22.05	0.03		0.004	0.02	0.65	1,2
	7/24/2003	23.10	0.02		0.003	0.02	0.65	1,2
	8/5/2003	23.03	0.04		0.011	0.06	0.66	1,2
	9/12/2003	23.81	0.06		0.013	0.08	0.68	1,2
	10/10/2003	24.03	0.05		0.021	0.13	0.70	1,2
	11/10/2003	22.70	0.07		0.013	0.08	0.71	1,2
	11/21/2003	22.85	0.05		0.013	0.08	0.73	1,2
	12/4/2003	22.69	0.02		0.008	0.05	0.73	1,2
	1/23/2004	22.05	0.04	40	0.011	0.06	0.74	1,2
	2/6/2004	22.49	0.04	50	0.013	0.08	0.76	1,2
	2/18/2004	22.37	0.04	50	0.013	0.08	0.77	1,2
	3/28/2004	22.79	0.00	5	0.001	0.01	0.77	1,2
	4/9/2004	22.81	0.00	0	0.000	0.00	0.77	1,2
	5/27/2004	21.78	0.05	40	0.011	0.06	0.78	1,2
	7/29/2004	23.80	0.02	10	0.003	0.02	0.78	1,2
	8/6/2004	23.99	0.02	100	0.026	0.16	0.81	1,2
	8/19/2004	24.13	0.05	100	0.026	0.16	0.84	1,2
	9/3/2004	24.22	0.02	50	0.013	0.08	0.85	1,2
	12/27/2004	24.19	sheen	5	0.001	0.01	0.85	2
	2/18/2005	23.24	0.05	120	0.032	0.19	0.88	1,2
	5/11/2005	22.77	0.04	500	0.132	0.81	1.02	1,2
	8/3/2005	23.17	0.02	0	0.000	0.00	1.02	
	11/30/2005	24.02	0.02	0	0.000	0.00	1.02	
	2/17/2006	23.87	0.02	10	0.003	0.02	1.02	1,2
	5/12/2006	21.74	0.01	0	0.000	0.00	1.02	
	8/7/2006	21.66	0.01	0	0.000	0.00	1.02	

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Table 3. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-14	11/21/2006	23.41	0.03	50	0.013	0.08	1.03	1
<i>(cont'd)</i>	2/12/2007	23.45	0.03	0	0.000	0.00	1.03	
	2/19/2009	25.92*	0.05**	50	0.013	0.08	1.04	1
	2/24/2010	28.39	0.03	50	0.013	0.08	1.06	1
	8/24/2010	26.31	0.04	50	0.013	0.08	1.07	1
MW-15	2/18/2005	23.27	0.10	20	0.005	0.03	0.01	1
	5/11/2005	22.80	0.09	450	0.119	0.73	0.12	1
	8/3/2005	23.29	0.01	0	0.000	0.00	0.12	
	11/30/2005	24.11	0.05	0	0.000	0.00	0.12	
	2/17/2006	23.91	0.05	10	0.003	0.02	0.13	1
	5/12/2006	21.88	0.03	0	0.000	0.00	0.13	
	8/7/2006	22.05	0.01	0	0.000	0.00	0.13	
	11/21/2006	23.70	0.00	0	0.000	0.00	0.13	
	2/12/2007	23.80	0.00	0	0.000	0.00	0.13	
	2/19/2009	27.09*	0.08**	400	0.106	0.64	0.23	1
	2/24/2010	28.51	0.04	50	0.013	0.08	0.25	1
	8/24/2010	26.53	0.04	50	0.013	0.08	0.26	1
RW-2	4/16/2007	16.66	0.00	0	0.000	0.00	0.00	
	5/29/2008	17.66	0.00	0	0.000	0.00	0.00	
	8/22/2008	18.51	0.00	0	0.000	0.00	0.00	
	2/19/2009	19.03*	0.08**	200	0.053	0.32	0.05	1
	8/21/2009	20.09*	0.31**	230	0.061	0.37	0.11	1
	2/24/2010	25.05	0.04	50	0.013	0.08	0.13	1
	8/24/2010	19.79	0.04	50	0.013	0.08	0.14	1
Total SPH Removed (gallons):							157.82	
Total SPH Removed (pounds):						962.54		

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

SPH = Separate-phase hydrocarbons

SPH converted from volume to weight using the estimated relation 1 gallon SPH = 6.1 pounds.

-- = Not measured or not applicable

NM = Not Measured. Product was being removed by vapor extraction at time of measurement.

1 = SPH removed by manual bailing

2 = SPH removed from well by absorbent sock

3 = SPH removed from well by passive skimmer

4 = Vapor extraction system operating in well

5 = No product removed; skimmer adjusted incorrectly.

* = Depth to water re-measured after beginning purge due to the appearance of SPH after beginning purge.

** = SPH not present in well until beginning purge; SPH thickness measured after beginning purge.

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Table 4. SVE (DPE) Performance Data - 3093 Broadway, Oakland, CA													Removal				Emission Reporting					Notes
Date	Wells	Oxidizer Hr Meter Reading (hours)	Interval Time (days)	System Vapor Flow Rate (scfm)	Pump Vacuum ("Hg)	Lab Sample ID	Influent TPHg (ppmv)	Influent Benzene Lab Data (ppmv)	Influent OVA Reading (ppmv)	SVE TPHg Removal Rate (lbs/day)	SVE Benzene Removal Rate (lbs/day)	Cumulative SVE TPHg Removal (lbs)	Cumulative SVE Benzene Removal (lbs)	Effluent TPHg Lab (ppmv)	Effluent Benzene Lab Data (ppmv)	TPHg Abatement Efficiency (%)	Benzene Abatement Efficiency (%)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)			
04/26/11	MW-10, MW-6, RW-2	15276.5	0.0	15.4	19	---	---	---	1,850	0.0	0.00	0.0	0	---	---	---	---	---	0	Startup Test		
04/27/11	RW-2, RW-3A, RW-3B, MW-6	15282.4	0.2	15.4	19	INF-V	650	27.0	1,850	3.2	0.33	0.8	0.08	< 7.0	< 0.077	> 98.9	> 99.7	> 0.001	14,868	Off. Restart.		
05/05/11	RW-2, RW-3A, RW-3B, MW-6	15304.0	0.9	15.4	19	---	1,000	36.0	2,890	4.9	0.44	5.2	0.48	---	---	---	---	---	69,300	On. Air Sparge Testing.		
05/11/11	RW-2, RW-3A, RW-3B, MW-6	15448.0	6.0	15.4	19	---	1,000	36.0	---	4.9	0.44	34.9	3.12	---	---	---	---	---	432,180	On. K/O tank slow to drain.		
05/24/11	RW-2, RW-3A, RW-3B, MW-6	15579.0	5.5	15.4	19	---	1,000	36.0	---	4.9	0.44	61.8	5.52	---	---	---	---	---	762,300	Off. Restart 5/25.		
05/27/11	RW-2, RW-3A, RW-3B, MW-6	15627.0	2.0	12.6	21	---	1,000	36.0	---	4.0	0.44	69.9	6.40	---	---	---	---	---	883,260	On.		
05/29/11	RW-2, MW-1, MW-6, MW-10, VE-1	15673.0	1.9	12.6	21	INF-V	4,300	150	---	17.4	1.83	103.3	9.91	---	---	---	---	---	999,180	On. Start AS		
06/01/11	RW-2, MW-1, MW-6, MW-10, VE-1	15716.0	1.8	12.6	21	---	4,300	150	---	17.4	1.83	134.4	13.20	---	---	---	---	---	1,107,540	On. Transfer pump very slow.		
06/02/11	VE-1, RW-3B	15742.0	1.1	12.6	21	---	4,300	150	---	17.4	1.83	153.2	15.18	---	---	---	---	---	1,173,060	Off. Transfer pump very slow.		
06/03/11	RW-2, RW-3A, VE-1, MW-1	15768.1	1.1	64.6	17	INF-V	4,700	130	8980	97.4	5.64	259.1	21.31	---	---	---	---	---	1,406,394	Off. Air Sparge turned off.		
07/06/11	RW-2, RW-3A, VE-1, MW-1	16556.6	32.9	58.9	17	---	550	20	574	10.4	0.79	600.8	47.32	---	---	---	---	---	7,840,554	On. Air Sparge Off.		
07/11/11	RW-2, RW-3A, VE-1, MW-1	16675.5	5.0	54.4	18	---	715	30	748	12.5	1.19	662.6	53.20	---	---	---	---	---	8,810,778	On. Air Sparge Off.		
07/14/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	16747.0	3.0	49.9	19	INF-V	370	14	10250	5.9	0.55	680.2	54.85	---	---	---	---	---	9,394,218	Off. Restart		
07/19/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	16866.9	5.0	49.9	19	---	370	14	---	5.9	0.55	709.8	57.62	---	---	---	---	---	10,372,602	Off. Will not restart.		
07/21/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	16867.0	0.0	45.3	20	---	370	14	---	5.4	0.55	709.8	57.62	---	---	---	---	---	10,373,418	Off. Restart.		
07/28/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	17036.5	7.1	49.9	19	---	7,600	200	11,520	121.6	7.91	1568.5	113.52	---	---	---	---	---	11,756,538	On.		
08/01/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	17132.0	4.0	46.2	19	INF-V	7,800	210	11,650	115.6	7.70	2028.6	144.15	---	---	---	---	---	12,478,518	On.		
08/08/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	17298.9	7.0	43.6	19	---	4,000	105	4,940	56.0	3.64	2418.0	169.44	---	---	---	---	---	13,670,184	On.		
08/18/11	RW-2, RW-3A, RW-4, RW-5, VE-1, MW-1	17541.1	10.1	43.6	19	---	4,000	105	5,060	56.0	3.64	2983.1	206.13	---	---	---	---	---	15,399,492	On.		
09/01/11	VE-1, MW-1, MW-14, MW-15, MW-17A	17708.2	7.0	40.0	20	---	7,000	150	9,362	89.8	5.24	3608.5	242.60	---	---	---	---	---	16,602,612	Off. Restart.		
09/21/11	VE-1, MW-1, MW-14, MW-15, MW-17A	17888.9	7.5	44.6	17	---	4,500	105	5,370	64.4	3.15	4093.7	266.29	---	---	---	---	---	17,719,338	On.		
09/22/11	VE-1, MW-1, MW-14, MW-15, MW-17A	17915.4	1.1	43.3	17	INF-V	3,000	87	3,810	41.7	2.53	4139.8	269.09	---	---	---	---	---	17,878,338	On.		
09/26/11	VE-1, MW-1, MW-14, MW-15, MW-17A	18007.7	3.8	42.4	18	---	3,000	87	3,762	40.8	2.68	4296.7	279.41	---	---	---	---	---	18,465,366	On.		
10/05/11	VE-1, MW-1, MW-14, MW-15, MW-17A	18223.1	9.0	39.7	18	---	1,000	35	1,883	12.8	1.01	4411.1	288.49	---	---	---	---	---	19,749,495	On.		
10/10/11	VE-1, MW-1, MW-14, MW-15, MW-17A	18291.8	2.9	40.1	18	---	3,700	95	4,250	47.6	2.77	4547.5	296.43	---	---	---	---	---	20,162,972	Off. Restart.		
10/18/11	VE-1, MW-1, MW-14, MW-15, MW-17A	18486.1	8.1	42.5	17	---	1,800	70	2,067	24.5	2.00	4746.1	312.59	---	---	---	---	---	21,305,690	On.		
11/02/11	VE-1, MW-1, MW-14, MW-15, MW-17A	18844.3	14.9	38.9	18	---	1,100	60	1,903	13.7	1.70	4950.9	337.92	---	---	---	---	---	23,394,927	On.		
11/15/11	VE-1, MW-1, MW-14, MW-15, MW-17A	19160.9	13.2	39.3	18	---	600	20	614	7.6	0.57	5050.6	345.46	---	---	---	---	---	25,260,524	On.		
11/22/11	MW-16B, RW-4, RW-5, VE-1	19324.6	6.8	39.5	18	---	700	30	756	8.9	0.86	5111.1	351.33	---	---	---	---	---	26,229,268	On.		
11/29/11	MW-16B, RW-4, RW-5, VE-1	19493.8	7.1	41.4	18	---	800	40	811	10.6	1.21	5186.0	359.83	---	---	---	---	---	27,281,015	On.		
12/08/11	MW-16B, RW-4, RW-5, VE-1	19711.4	9.1	37.3	18	---	700	30	693	8.4	0.81	5262.0	367.21	---	---	---	---	---	28,497,965	On.		
12/14/11	MW-16B, RW-4, RW-5, VE-1	19853.4	5.9	24.8	23	---	500	20	591	4.0	0.62	5285.5	370.87	---	---	---	---	---	29,402,874	On.		
12/19/11	MW-16B, RW-4, RW-5, VE-1	19973.2	5.0	42.4	18	---	500	20	---	6.8	0.62	5319.4	373.95	---	---	---	---	---	30,164,802	On. Turn off for QM event. Restart 12/20.		
12/22/11	MW-16B, RW-4, RW-5, VE-1	20020.0	1.9	36.5	19	INF-V	620	15	499	7.3	0.43	5333.6	374.80	---	---	---	---	---	30,444,535	On. Off at departure.		
01/16/12	MW-16B, RW-3A, RW-4, MW-15, VE-1	20619.8	25.0	44.2	17	---	900	50	927	12.8	1.49	5652.9	411.92	---	---	---	---	---	34,119,270	On.		
01/24/12	MW-1, 14, 15, 17A, VE-1	20812.5	8.0	42.6	17	---	800	40	863	10.9	1.14	5740.6	421.10	---	---	---	---	---	35,254,774	On.		
01/26/12	MW-1, 14, 15, 17A, VE-1	20864.0	2.1	42.6	17	---	800	40	---	10.9	1.14	5764.1	423.56	---	---	---	---	---	35,558,243	Off. Leave off for carbon switch out.		
02/18/12	MW-1, 14, 15, 17A, VE-1	20864.8	0.0	39.3	18	---	400	10	423	5.0	0.29	5764.2	423.56	---	---	---	---	---	35,562,957	Carbon Changeout 2/16. Off. Restart.		
03/06/12	MW-1, 14, 15, 17A, VE-1	21252.1	16.1	42.6	17	---	350	7	376	4.8	0.20	5841.3	426.79	---	---	---	---	---	37,845,161	Off. Restart.		
03/14/12	MW-1, 14, 15, 17A, VE-1	21443.3	8.0	39.3	18	---	200	5	229	2.5	0.14	5861.4	427.93	---	---	---	---	---	38,971,826	On.		
03/19/12	MW-1, 14, 15, VE-1	21568.0	5.2	42.6	17	---	200	5	---	2.7	0.14	5875.6	428.67	---	---	---	---	---	39,706,633	On.		
03/27/12	MW-14, 15, VE-1	21673.8	4.4	37.8	19	INF-V	1,800	21	1,148	21.8	0.63	5971.8	431.45	---	---	---	---	---	40,361,112	Off. Restart.		
03/29/12	MW-14, 15, VE-1	21721.6	2.0	33.7	19	---	2,500	40	2,580	27.1	1.02	6025.7	433.49	---	---	---	---	---	40,613,496	On.		
04/04/12	MW-1, 14, 15, VE-1	21869.0	6.1	45.1	18	---	1,600	21	1,656	23.2	0.69	6168.0	437.72	---	---	---	---	---	41,611,099	On.		
04/11/12	MW-1, 14, 15, VE-1	22062.1	8.0	50.3	18	---	1,200	15	1,215	19.4	0.53	6323.9	441.97	---	---	---	---	---	43,010,688	On.		
04/20/12	MW-1, 14, 15, VE-1	22254.8	8.0	59.2	17	---	1,000	15	1,030	19.0	0.60	6476.5	446.76	---	---	---	---	---	44,591,213	On.		
05/04/12	MW-1, 14, 15, VE-1	22591.1	14.0	24.6	22	---	2,300	40	2,380	18.1	1.07	6730.4	461.78	---	---	---	---	---	46,449,607	On.		
05/23/12	MW-1, 14, 15, VE-1	22688.4	4.1	34.5	20	INF-V	4,100	32	2,860	45.4	0.96	6914.4	465.69	---	---	---	---	---	47,053,840	Off. Restart.		
06/05/12	MW-1, 14, 15, VE-1	22694.7	0.3	20.0	23	---	1,400	21	1,408	9.0	0.52	6916.8	465.82	---	---	---	---	---	47,086,272	Off. Restart.		
06/19/12	MW-1, 14, 15, VE-1	23002.4	12.8	36.9	20	---	800	10	810	9.5	0.32	7038.3	469.96	---	---	---	---	---	49,131,862	Off. Restart.		
07/05/12	MW-1, 14, 15, VE-1	23387.2	16.0	37.6	19	---	440	5	445	5.3	0.15	7123.4	472.35	---	---	---	---	---	51,498,382	On.		
07/19/12	MW-1, 14, 15, VE-1	23719.0	13.8	43.7	17	---	325	5	332	4.6	0.15	7186.4	474.38	---	---	---	---	---	53,507,099	On.		
08/07/12	MW-1, 14, 15, VE-1	23864.9	6.1	51.9	18	INF-V	1,800	18	1,701	30.0	0.68	7368.5	478.51	---	---	---	---	---	54,642,493	Off. Restart.		
08/26/12	MW-1, 14, 15, RW-1, 5, VE-1	24321.0	19.0	49.0	16	---	1,800	18	---	28.3	0.68	7906.3	491.42	---	---	---	---	---	58,191,863	On. Shutdown for QM on 8/27.		
09/14/12	MW-1, 14, 15, RW-1, 5, VE-1	24324.8	0.2	29.1	21	---	940	10	949	8.8	0.28	7907.7	491.46	---	---	---	---	---	58,214,002			

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Table 4. SVE (DPE) Performance Data - 3093 Broadway, Oakland, CA										Removal				Emission Reporting						
Date	Wells	Oxidizer Hr Meter Reading	Interval Time	System Vapor Flow Rate	Pump Vacuum	Lab Sample ID	Influent TPHg Lab	Influent Benzene Lab Data	Influent OVA Reading	SVE TPHg Removal Rate	SVE Benzene Removal Rate	Cumulative SVE TPHg Removal (lbs)	Cumulative SVE Benzene Removal (lbs)	Effluent TPHg Lab	Effluent Benzene Lab Data	TPHg Abatement Efficiency (%)	Benzene Abatement Efficiency (%)	Benzene Emission Rate (lbs/day)	Cumulative Vapor Flow (cf)	Notes

Notes:

ALL = Wells MW-1, MW-6, MW-10, MW-14, MW-15, RW-1, RW-2, RW-3A, RW-3B, RW-4, RW-5 and VE-1.

NA = not analyzed; NM = not measured; --- = not available

System data estimated when specific data not available.

scfm = Anemometer readings provide actual cubic feet per minute (acfm) flow rate. ACFM flow rate from vacuum side of pump converted to SCFM. SCFM = ACFM x (30" Hg - Vacuum Hg)/30 "Hg.

ppmv = parts per million on volume to volume basis. Actual lab data shown in **bold**. Lab data estimated for dates without lab data to allow mass removal calculation.

lbs = Pounds

"Hg = Inches of mercury vacuum

SVE = Soil Vapor Extraction

OVA = Organic Vapor Analyzer (Horiba Model MEXA 324JU)

TPHg and Benzene Removal Rates = For dates where no laboratory analytical data was collected, the lab data is estimated based on prior lab data and OVA readings to calculate period and cumulative mass removal.

Hydrocarbon Removal/Emission Rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

Rate = lab concentration (ppmv) x system flowrate (scfm) x (1lb-mole/386 ft³) x molecular weight (86 lb/lb-mole for TPH-Gas hexane) x 1440 min/day x 1/1,000,000.

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Table 5. GWE (DPE) System Performance Summary - 3093 Broadway, Oakland, California

Well ID	Date	Totalizer Reading (gallons)	Interval Flow Volume (gallons)	Interval Duration (days)	Average Flow Rate (gpm)	TPHg Concentration (ug/L)	Benzene Concentration (ug/L)	MTBE Concentration (ug/L)	TPHg Removed (Lbs)	Benzene Removed (Lbs)	MTBE Removed (Lbs)	Comments
System	04/15/11	40	40	0	--	---	---	---	0.000	0.000	0.000	Startup testing, water not discharged to sewer.
Influent	04/27/11	1,267	1,227	12	0.07	8,300	1,500	ND (<100)	0.085	0.015	0.000	Startup water sampling of influent
	05/05/11	7,858	6,591	8	0.57	---	---	---	0.455	0.082	0.000	System on
	05/29/11	36,261	28,403	24	0.82	---	---	---	1.960	0.354	0.000	On. Broken transfer pump
	06/03/11	39,361	3,100	5	0.43	---	---	---	0.214	0.039	0.000	System off. Restart
	07/06/11	94,837	55,476	33	1.17	---	---	---	3.829	0.692	0.000	System on
	07/11/11	94,837	0	5	0.00	---	---	---	0.000	0.000	0.000	On.
	07/14/11	97,337	2,500	3	0.58	---	---	---	0.173	0.031	0.000	Off. Restart.
	07/19/11	112,225	14,888	5	2.07	---	---	---	1.028	0.186	0.000	Off on arrival & departure. Blower malfunction.
	07/21/11	112,225	0	2	0.00	---	---	---	0.000	0.000	0.000	Off. Reset high temp control. Restart.
	07/28/11	142,936	30,711	7	3.05	---	---	---	2.120	0.383	0.000	On.
	08/01/11	155,689	12,753	4	2.21	---	---	---	0.880	0.159	0.000	On.
	08/08/11	175,705	20,016	7	1.99	---	---	---	1.382	0.250	0.000	On.
	08/18/11	204,566	28,861	10	2.00	---	---	---	1.992	0.360	0.000	On.
	09/01/11	220,420	15,854	14	0.79	---	---	---	1.094	0.198	0.000	Off. Restart system
	09/22/11	251,290	30,870	21	1.02	---	---	---	2.131	0.385	0.000	On.
	09/26/11	261,174	9,884	4	1.72	---	---	---	0.682	0.123	0.000	On.
	10/05/11	266,388	5,214	9	0.40	5,700	400	ND (<50)	0.247	0.017	0.000	On.
	10/10/11	276,750	10,362	5	1.44	---	---	---	0.491	0.034	0.000	Off. Restart.
	10/18/11	296,101	19,351	8	1.68	---	---	---	0.917	0.064	0.000	On.
	11/15/11	315,133	19,032	28	0.47	---	---	---	0.902	0.063	0.000	On.
	11/22/11	315,907	774	7	0.08	---	---	---	0.037	0.003	0.000	On.
	11/29/11	326,151	10,244	7	1.02	---	---	---	0.486	0.034	0.000	On.
	12/08/11	337,285	11,134	9	0.86	---	---	---	0.528	0.037	0.000	On.
	12/14/11	344,270	6,985	6	0.81	---	---	---	0.331	0.023	0.000	On.
	12/19/11	349,720	5,450	5	0.76	---	---	---	0.258	0.018	0.000	On. Turn off for QM event. Restart 12/20.
	12/22/11	351,767	2,047	3	0.47	---	---	---	0.097	0.007	0.000	On. Off at departure.
	01/16/12	382,493	30,726	25	0.85	---	---	---	1.456	0.102	0.000	On.
	01/26/12	405,236	22,743	10	1.58	12,000	330	ND (<500)	2.270	0.062	0.000	On. Shutdown for carbon changeout.
	02/18/12	405,237	22,744	33	0.48	---	---	---	2.270	0.062	0.000	Off. Restart.
	03/06/12	406,378	1,141	17	0.05	---	---	---	0.114	0.003	0.000	Off. Restart.
	03/14/12	406,627	249	8	0.02	2,700	35	ND (<50)	0.006	0.000	0.000	On.
	03/27/12	411,055	4,428	13	0.24	---	---	---	0.099	0.001	0.000	Off. Restart.
	03/29/12	419,143	8,089	2	2.81	---	---	---	0.182	0.002	0.000	On.
	04/04/12	438,857	19,713	6	2.28	---	---	---	0.443	0.006	0.000	On.
	04/11/12	464,211	25,354	7	2.52	---	---	---	0.569	0.007	0.000	On.
	04/20/12	487,971	23,760	9	1.83	---	---	---	0.533	0.007	0.000	On.
	05/04/12	520,526	32,555	14	1.61	---	---	---	0.731	0.009	0.000	On.
	05/23/12	530,295	9,770	19	0.36	15,000	170	ND (<50)	1.219	0.014	0.000	Off. Restart.
	06/05/12	532,663	2,368	13	0.13	---	---	---	0.295	0.003	0.000	Off. Restart.
	06/19/12	552,072	19,409	14	0.96	---	---	---	2.421	0.027	0.000	Off. Restart.
	07/05/12	569,188	17,116	16	0.74	---	---	---	2.135	0.024	0.000	On.
	07/19/12	578,546	9,358	14	0.46	---	---	---	1.167	0.013	0.000	On.
	08/07/12	590,297	11,751	19	0.43	5,800	100	ND (<50)	0.567	0.010	0.000	Off. Restart.
	08/26/12	634,340	44,044	19	1.61	---	---	---	2.124	0.037	0.000	On. Turn off for QM event.
	09/14/12	634,764	424	19	0.02	---	---	---	0.020	0.000	0.000	Off. Restart.
									40.940	3.951	0.000	Total Cumulative Removal (Lbs)*

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Table 5. GWE (DPE) System Performance Summary - 3093 Broadway, Oakland, California

Well ID	Date	Totalizer Reading (gallons)	Interval Flow Volume (gallons)	Interval Duration (days)	Average Flow Rate (gpm)	TPHg Concentration (ug/L)	Benzene Concentration (ug/L)	MTBE Concentration (ug/L)	TPHg Removed (Lbs)	Benzene Removed (Lbs)	MTBE Removed (Lbs)	Comments
System	07/06/11	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	--	--	--	
Midpoint	10/05/11	---	---	---	---	ND (<50)	1.9	ND (<5.0)	--	--	--	
	01/26/12	---	---	---	---	95	13	ND (<5.0)	--	--	--	
System	04/27/11	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	---	---	---	Startup water sampling of effluent
Effluent**	07/06/11	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	---	---	---	
	10/05/11	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	---	---	---	
	01/26/12	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	---	---	---	
	03/14/12	---	---	---	---	ND (<50)	0.52	ND (<5.0)	---	---	---	
	05/23/12	---	---	---	---	ND (<50)	ND (<0.5)	ND (<5.0)	---	---	---	

<i>Discharge Limits (ug/L):</i>	5	5	5	5
	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Total Xylenes</i>

ABBREVIATIONS AND NOTES:

gpm = Gallons per minute

TPHg = Total Petroleum Hydrocarbon as Gasoline analyzed by EPA Method 8015B

Benzene analyzed by EPA Method 8021B

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021 Cm

Toulene, Ethylbenzene and Total Xylenes analyzed by EPA Method 8015B

-- = not measured/not available

* Estimated contaminant mass calculated by multiplying average concentration detected during period (Table 1) by volume of extracted groundwater. Uses most recent lab data.

**Unless noted Toulene, Ethylbenzene and Total Xylenes non-detect (<0.5 µg/L)

APPENDIX A

Well Monitoring Protocol

Table A. Groundwater Monitoring Program - Connell Auto, 3093 Broadway, Oakland, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency ¹	TPHmo, TPHd, TPHg, BTEX, MTBE ²	HVOCs ³
Upper Plume Wells								
AS-1A	AS	27-30	Source Area	2	---	---	---	---
AS-1B	AS	35-38	Source Area	2	---	---	---	---
AS-2A	AS	29-32	Source Area	2	---	---	---	---
MW-1	DPE + Mon	19-35	Source Area	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
MW-2	Mon	25-40	W, Perimeter	2	---	---	---	---
MW-3	Mon	20-35	S, Perimeter	2	---	---	---	---
MW-11	Mon	25-40	W, Perimeter	2	---	---	---	---
MW-14	DPE + Mon	10-40	Source Area	2	1st, 3rd	1st, 3rd	1st, 3rd	---
MW-15	DPE + Mon	15-40	Intermediate Downgradient	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
MW-16A	Mon	20-30	Source Area	2	1st, 3rd	1st, 3rd	1st, 3rd	---
MW-16B	Mon	35-40	Source Area	2	1st, 3rd	1st, 3rd	1st, 3rd	---
MW-17A	AS + Mon	27-30	Intermediate Downgradient	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
MW-17B	AS + Mon	35-40	Intermediate Downgradient	2	1st, 3rd	1st	1st	1st
RW-1	DPE	20-35	Source Area	4	---	---	---	---
RW-4	DPE + Mon	23-31	Intermediate Downgradient	4	1st, 3rd	1st, 3rd	1st, 3rd	---
RW-5	DPE	24-34	Source Area	4	1st, 3rd	1st, 3rd	1st, 3rd	---
VE-1	DPE	15-35	Source Area	4	1st, 3rd	1st, 3rd	1st, 3rd	---
Lower Plume Wells								
AS-3A	AS	26-29	Intermediate Downgradient	2	---	---	---	---
AS-3B	AS	33-36	Intermediate Downgradient	2	---	---	---	---
AS-4A	AS	26-29	Intermediate Downgradient	2	---	---	---	---
MW-4	Mon	15-30	Intermediate Downgradient	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
MW-5	Mon	15-35	S, Perimeter	2	---	---	---	---
MW-6	DPE + Mon	15-35	Intermediate Downgradient	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
MW-7	Mon	13-33	SE, Perimeter	2	1st, 3rd	1st	1st	1st
MW-8	Mon	20-40	E, Perimeter	6	1st, 3rd	1st	1st	1st
MW-9	Mon	18-32	Intermediate Downgradient	2	1st, 3rd	1st	1st	---
MW-10	DPE + Mon	17-35	Intermediate Downgradient	6	---	---	---	---
MW-13	Mon	25-40	E, Perimeter, Offsite	2	1st, 3rd	1st	1st	---
RW-2	DPE + Mon	15-30	Intermediate Downgradient	2	1st, 3rd	1st, 3rd	1st, 3rd	1st
RW-3A	DPE	16-26	Intermediate Downgradient	4	1st, 3rd	1st, 3rd	1st, 3rd	---
RW-3B	DPE	32-37	Intermediate Downgradient	4	---	---	---	---

Notes and Abbreviations:

1 = Summary: 13 wells sampled semi-annually during the 1st and 3rd quarters, plus additional five wells sampled annually during 1st quarter.

2 = Sample Analytes: Total Petroleum Hydrocarbons as Motor Oil, Diesel and Gasoline (TPHmo, TPHd and TPHg, respectively), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015C/8021B.

3 = Additional Sample Analytes: Halogenated Volatile Organic Compounds (HVOCs) by EPA Method 8010.

1st, 3rd = 1st and 3rd quarters (Typically February and August)

1st = 1st quarter (Typically February)

Mon = Groundwater Monitoring Only

AS= Air Sparging

DPE = Dual Phase Extraction

N, S, W, E = Cardinal directions North, South, West, East and other directions (e.g., Northeast = NE)

--- = Not gauged or sampled.

APPENDIX B

Groundwater Monitoring Field Data Sheets

MONITORING FIELD DATA SHEET


Well ID: *MW-16A*

Project.Task #: 1005.001		Project Name: Connell						
Address: 3093 Broadway, Oakland, CA								
Date: <i>2-7-12</i>		Weather: <i>Clear</i>						
Well Diameter: <i>2"</i>		Volume/ft. 1" = 0.04 3" = 0.37 6" = 1.47 2" = 0.16 4" = 0.65 radius ² * 0.163						
Total Depth (TD):		Depth to Product:						
Depth to Water (DTW):		Product Thickness:						
Water Column Height:		1 Casing Volume: _____ gallons						
Reference Point: TOC		3 Casing Volumes: _____ gallons						
Purging Device: <i>Disposable bailer</i>								
Sampling Device: Disposable Bailer								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW

Comments: *Bailer in Well to visually inspect well. Odor present and slight sheen in purge water. No measurable product.*

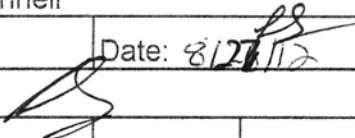
Sample ID: <i>MW-16A</i>	Sample Time: <i>0900</i>
Laboratory: McCampbell	Sample Date: <i>2-7-12</i>
Containers/Preservative: 3 Vials (HCL), 2 Liters Amber (HCL)	
Analyzed for: TPHg/BTEX/MTBE, TPHg, TPHmo	
Sampler Name: Steve Hunter	Signature: <i>[Signature]</i>

Well Gauging Data Sheet

Project.Task #: 1005.001 220				Project Name: Connell			
Address: 3093 Broadway, Oakland, CA						Date: 8/27/12	
Name: Sanjiv Gill				Signature: 			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-1	2"	11:55			27.63	33.70	TOC
MW-4	2"	11:16			19.35	24.25	
MW-6	2"	11:12			24.16	25.52	
MW-7	2"	10:45			17.85	30.16	
MW-8	6"	10:50			26.70	39.30	
MW-9	2"	10:55			20.74	30.63	
MW-13	2"	10:40			23.86	39.50	
MW-14	2"	11:42			23.57	37.12	
MW-15	2"	11:50			24.35	39.20	
MW-16A	2"	11:35			28.75	29.96	
MW-16B	2"	11:31			28.10	39.64	K

Comments:

Well Gauging Data Sheet

Project.Task #: 1005.001 220				Project Name: Connell			
Address: 3093 Broadway, Oakland, CA						Date: 8/27/12	
Name: Sanjiv Gill				Signature: 			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-17A	2"	11:25			23.43	28.52	TOC
MW-17B	2"	11:22			23.45	39.60	
RW-2	2"	11:02			18.26	29.60	
RW-3A	4"	11:07			17.11	25.56	
RW-4	4"	12:15			23.02	28.15	
RW-5	4"	12:09			22.81	32.90	
VE-1	4"	12:03			31.60	34.40	


Comments:

MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1005.001 218				Project Name: Connell - 3093 Broadway.				
Address: 3093 Broadway, Oakland, CA								
Date: <u>8/27/12</u>				Weather: <u>Sunny</u>				
Well Diameter: <u>2" 3.5"</u>				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
					2" = 0.16	4" = 0.65	radius ² * 0.163	
Total Depth (TD): <u>33.70 35.4</u>				Depth to Product:				
Depth to Water (DTW): <u>27.63</u>				Product Thickness:				
Water Column Height: <u>6.07</u>				1 Casing Volume: <u>0.97</u>		gallons		
Reference Point: TOC				3 Casing Volumes: <u>2.91</u>		gallons		
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Check Valve Tubing, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>09:40</u>	<u>17.5</u>	<u>7.13</u>	<u>1092</u>				<u>1</u>	
<u>09:45</u>	<u>18.7</u>	<u>7.19</u>	<u>1116</u>				<u>2</u>	
<u>09:50</u>	<u>18.9</u>	<u>7.14</u>	<u>1141</u>				<u>3</u>	

Comments: YSI 550A DO meter pre purge DO = 1.39 mg/l
 post purge DO = _____ mg/l
very turbid, silty


Sample ID: <u>MW-1</u>		Sample Time: <u>09:55</u>	
Laboratory: McCampbell Analytical, INC.		Sample Date: <u>8/28/12</u>	
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>			
Analyzed for: 8015, 8021			
Sampler Name: Sanjiv Gill		Signature: 	

MONITORING FIELD DATA SHEET

Well ID: ML-4

Project.Task #: 1005.001 218				Project Name: Connell - 3093 Broadway.				
Address: 3093 Broadway, Oakland, CA								
Date: <u>8/27/12</u>				Weather: <u>Sunny</u>				
Well Diameter: <u>2"</u>				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
				2" = 0.16	4" = 0.65	radius ² * 0.163		
Total Depth (TD): <u>24.25</u>				Depth to Product:				
Depth to Water (DTW): <u>19.35</u>				Product Thickness:				
Water Column Height: <u>4.90</u>				1 Casing Volume: <u>0.78</u>		gallons		
Reference Point: TOC				3 Casing Volumes: <u>2.34</u>		gallons		
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Check Valve Tubing, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>14:15</u>	<u>18.9</u>	<u>7.29</u>	<u>1610</u>				<u>1.0</u>	
<u>14:20</u>	<u>18.9</u>	<u>7.17</u>	<u>1680</u>				<u>1.5</u>	
<u>14:25</u>	<u>19.1</u>	<u>7.21</u>	<u>1651</u>				<u>2.0</u>	

Comments: YSI 550A DO meter pre purge DO = 1.10 mg/l
 post purge DO = mg/l
forbid

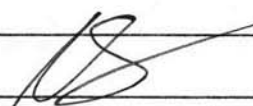
Sample ID: <u>ML-4</u>	Sample Time: <u>14:30</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/27/12</u>
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-14

Project.Task #: 1005.001 218		Project Name: Connell - 3093 Broadway.							
Address: 3093 Broadway, Oakland, CA									
Date: <u>8/27/12</u>		Weather: <u>Sunny</u>							
Well Diameter: <u>2"</u>		Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² * 0.163</td> </tr> </table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² * 0.163							
Total Depth (TD): <u>37.12</u>		Depth to Product:							
Depth to Water (DTW): <u>23.57</u>		Product Thickness:							
Water Column Height: <u>13.55</u>		1 Casing Volume: <u>2.16</u> gallons							
Reference Point: TOC		<u>3</u> Casing Volumes: <u>6.48</u> gallons							
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Check Valve Tubing, Whal Pump									
Sampling Device: Disposable Bailer									
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>08:50</u>	<u>17.6</u>	<u>6.64</u>	<u>1038</u>				<u>2.5</u>		
<u>08:55</u>	<u>17.4</u>	<u>6.69</u>	<u>1052</u>				<u>5.0</u>		
<u>09:00</u>	<u>17.7</u>	<u>6.61</u>	<u>1073</u>				<u>6.5</u>		

Comments: YSI 550A DO meter pre purge DO = 0.89 mg/l
 post purge DO = mg/l
tubing


Sample ID: <u>MW-14</u>	Sample Time: <u>09:05</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/28/12</u>
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-15

Project.Task #: 1005.001 218		Project Name: Connell - 3093 Broadway.						
Address: 3093 Broadway, Oakland, CA								
Date: 8/27/12				Weather: Sunny				
Well Diameter: 2"		Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius* 0.163
Total Depth (TD): 39.20		Depth to Product:						
Depth to Water (DTW): 24.35		Product Thickness:						
Water Column Height: 14.85		1 Casing Volume: 2.37			gallons			
Reference Point: TOC		3 Casing Volumes: 7.11			gallons			
Purging Device: Disposable Bailer, 3" PVC Bailer, Check Valve Tubing, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
08:15	17.8	7.20	1490				2.5	
08:20	18.1	7.17	1471				5.0	
08:25	18.4	7.13	1447				7.0	

Comments: YSI 550A DO meter pre purge DO = 1.96 mg/l
 post purge DO = mg/l
 very turbid

Sample ID: MW-15	Sample Time: 08:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 8/28/12
Containers/Preservative: Voa/HCl, Amber/L/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 


MONITORING FIELD DATA SHEET

Well ID: MU-1613

Project.Task #: 1005.001 218		Project Name: Connell - 3093 Broadway.							
Address: 3093 Broadway, Oakland, CA									
Date: <u>8/27/12</u>		Weather: <u>Sunny</u>							
Well Diameter: <u>2"</u>		Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² * 0.163</td> </tr> </table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² * 0.163							
Total Depth (TD): <u>39.64</u>		Depth to Product:							
Depth to Water (DTW): <u>28.10</u>		Product Thickness:							
Water Column Height: <u>11.54</u>		1 Casing Volume: <u>1.84</u> gallons							
Reference Point: TOC		<u>3</u> Casing Volumes: <u>5.52</u> gallons							
Purging Device: <u>Disposable Bailer</u> 3" PVC Bailer, Check Valve Tubing, Whal Pump									
Sampling Device: Disposable Bailer									
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>07:40</u>	<u>17.2</u>	<u>6.95</u>	<u>1226</u>				<u>2.0</u>		
<u>07:45</u>	<u>17.4</u>	<u>6.94</u>	<u>1219</u>				<u>4.0</u>		
<u>07:50</u>	<u>17.4</u>	<u>7.01</u>	<u>1222</u>				<u>5.5</u>		

Comments: YSI 550A DO meter pre purge DO = 2.21 mg/l
 post purge DO = mg/l

very turbid

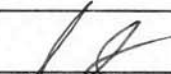
Sample ID: <u>MU-1613</u>	Sample Time: <u>07:55</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/28/12</u>
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-17A

Project.Task #: 1005.001 218				Project Name: Connell - 3093 Broadway.				
Address: 3093 Broadway, Oakland, CA								
Date: <u>8/27/12</u>				Weather: <u>Sunny</u>				
Well Diameter: <u>2"</u>				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
					2" = 0.16	4" = 0.65	radius ² = 0.163	
Total Depth (TD): <u>28.52</u>				Depth to Product:				
Depth to Water (DTW): <u>23.43</u>				Product Thickness:				
Water Column Height: <u>5.09</u>				1 Casing Volume: <u>0.81</u>		gallons		
Reference Point: TOC				<u>3</u> Casing Volumes:		<u>2.43</u> gallons		
Purging Device: <u>Disposable Bailer</u> 3" PVC Bailer, Check Valve Tubing, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>14:50</u>	<u>18.9</u>	<u>7.15</u>	<u>896</u>				<u>1.0</u>	
<u>14:55</u>	<u>18.6</u>	<u>7.13</u>	<u>910</u>				<u>1.5</u>	
<u>15:00</u>	<u>18.6</u>	<u>7.14</u>	<u>917</u>				<u>2.5</u>	

Comments: YSI 550A DO meter pre purge DO = 1.98 mg/l
 post purge DO = mg/l
very turbid, silty

Sample ID: <u>MW-17A</u>	Sample Time: <u>15:05</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/27/12</u>
Containers/Preservative: <u>Voal/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: RW-2

Project.Task #: 1005.001 218		Project Name: Connell - 3093 Broadway.							
Address: 3093 Broadway, Oakland, CA									
Date: <u>8/27/12</u>		Weather: <u>Sunny</u>							
Well Diameter: <u>2"</u>		Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² * 0.163</td> </tr> </table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² * 0.163							
Total Depth (TD): <u>29.60</u>		Depth to Product:							
Depth to Water (DTW): <u>18.26</u>		Product Thickness:							
Water Column Height: <u>11.34</u>		1 Casing Volume: <u>1.81</u> gallons							
Reference Point: TOC		<u>3</u> Casing Volumes: <u>5.43</u> gallons							
Purging Device: <u>Disposable Bailer, 3" PVC Bailer, Check Valve Tubing, Whal Pump</u>									
Sampling Device: Disposable Bailer									
Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>13:25</u>	<u>18.9</u>	<u>7.09</u>	<u>1017</u>				<u>1.5</u>		
<u>13:30</u>	<u>18.5</u>	<u>7.18</u>	<u>1011</u>				<u>3.0</u>		
<u>13:35</u>	<u>18.6</u>	<u>7.20</u>	<u>995</u>				<u>5.0</u>		

Comments: YSI 550A DO meter pre purge DO = 2.06 mg/l
 post purge DO = mg/l
jur bid


Sample ID: <u>RW-2</u>	Sample Time: <u>13:40</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/27/12</u>
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: VE-1

Project.Task #: 1005.001 218		Project Name: Connell - 3093 Broadway.						
Address: 3093 Broadway, Oakland, CA								
Date: <u>8/27/12</u>		Weather: <u>Sunny</u>						
Well Diameter: <u>4"</u>	Volume/ft.	1" = 0.04	3" = 0.37					
		2" = 0.16	4" = 0.65					
		6" = 1.47	radius ² * 0.163					
Total Depth (TD): <u>34.40</u>	Depth to Product:							
Depth to Water (DTW): <u>31.60</u>	Product Thickness:							
Water Column Height: <u>2.80</u>	1 Casing Volume: <u>1.82</u>		gallons					
Reference Point: TOC	3 Casing Volumes: <u>5.46</u>		gallons					
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , Check Valve Tubing, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>09:20</u>	<u>17.9</u>	<u>8.12</u>	<u>1910</u>				<u>2.0</u>	
<u>09:25</u>	<u>—</u>	<u>Sludge unable to sample</u>					<u>4.0</u>	
09:30							5.5	

Comments: YSI 550A DO meter pre purge DO = 0.62 mg/l
 post purge DO = mg/l

Sample ID: <u>VE-1</u>	Sample Time: 09:33
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/28/12</u>
Containers/Preservative: <u>Voa/HCl, Amber/L/HCl</u>	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

APPENDIX C

Laboratory Analytical Report



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001; Connell Auto	Date Sampled: 02/18/12
		Date Received: 02/21/12
	Client Contact: Morgan Gillies	Date Reported: 02/24/12
	Client P.O.: #3093 Broadway, Oakland, CA	Date Completed: 02/23/12

WorkOrder: 1202607

February 24, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#1005.001; Connell Auto,**
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1202607

ClientCode: PEO

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Morgan Gillies
 Pangea Environmental Svcs., Inc.
 1710 Franklin Street, Ste. 200
 Oakland, CA 94612
 (510) 836-3700 FAX: (510) 836-3709

Email: mgillies@pangeaenv.com
 cc:
 PO: #3093 Broadway, Oakland, CA
 ProjectNo: #1005.001; Connel Auto

Bill to:

Bob Clark-Riddell
 Pangea Environmental Svcs., Inc.
 1710 Franklin Street, Ste. 200
 Oakland, CA 94612

Requested TAT:

5 days

Date Received: 02/21/2012

Date Printed: 02/21/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1202607-001	MW-16A	Water	2/18/2012 8:30	<input type="checkbox"/>	B	A	A	C									

Test Legend:

1	8010BMS_W	2	G-MBTEX_W	3	PREFD REPORT	4	TPH(DMO)_W	5	
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **2/21/2012 6:18:43 PM**

Project Name: **#1005.001; Connel Auto**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1202607** Matrix: Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 3.6°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001; Connell Auto	Date Sampled: 02/18/12
	Client Contact: Morgan Gillies	Date Received: 02/21/12
	Client P.O.: #3093 Broadway, Oakland,	Date Extracted: 02/23/12
		Date Analyzed: 02/23/12

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1202607

Lab ID	1202607-001B				Reporting Limit for DF = 1	
Client ID	MW-16A				S	W
Matrix	W					
DF	10					

Compound	Concentration				µg/kg	µg/L
Bromodichloromethane	ND<5.0				NA	0.5
Bromoform	ND<5.0				NA	0.5
Bromomethane	ND<5.0				NA	0.5
Carbon Tetrachloride	ND<5.0				NA	0.5
Chlorobenzene	ND<5.0				NA	0.5
Chloroethane	ND<5.0				NA	0.5
Chloroform	ND<5.0				NA	0.5
Chloromethane	ND<5.0				NA	0.5
Dibromochloromethane	ND<5.0				NA	0.5
1,2-Dibromoethane (EDB)	ND<5.0				NA	0.5
1,2-Dichlorobenzene	ND<5.0				NA	0.5
1,3-Dichlorobenzene	ND<5.0				NA	0.5
1,4-Dichlorobenzene	ND<5.0				NA	0.5
Dichlorodifluoromethane	ND<5.0				NA	0.5
1,1-Dichloroethane	ND<5.0				NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<5.0				NA	0.5
1,1-Dichloroethene	ND<5.0				NA	0.5
cis-1,2-Dichloroethene	ND<5.0				NA	0.5
trans-1,2-Dichloroethene	ND<5.0				NA	0.5
1,2-Dichloropropane	ND<5.0				NA	0.5
cis-1,3-Dichloropropene	ND<5.0				NA	0.5
trans-1,3-Dichloropropene	ND<5.0				NA	0.5
Freon 113	ND<100				NA	10
Methylene chloride	ND<5.0				NA	0.5
1,1,1,2-Tetrachloroethane	ND<5.0				NA	0.5
1,1,1,2,2-Tetrachloroethane	ND<5.0				NA	0.5
Tetrachloroethene	ND<5.0				NA	0.5
1,1,1-Trichloroethane	ND<5.0				NA	0.5
1,1,2-Trichloroethane	ND<5.0				NA	0.5
Trichloroethene	ND<5.0				NA	0.5
Trichlorofluoromethane	ND<5.0				NA	0.5
Vinyl Chloride	ND<5.0				NA	0.5

Surrogate Recoveries (%)

%SS1:	80				
%SS2:	108				
%SS3:	108				
Comments	a3,b6				

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.

b6) lighter than water immiscible sheen/product is present



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65147

WorkOrder: 1202607

EPA Method: SW8260B		Extraction: SW5030B					Spiked Sample ID: 1202596-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Chlorobenzene	ND	10	93.4	93.7	0.329	103	70 - 130	20	70 - 130	
1,2-Dibromoethane (EDB)	ND	10	103	101	1.94	109	70 - 130	20	70 - 130	
1,2-Dichloroethane (1,2-DCA)	ND	10	91.7	92.2	0.513	100	70 - 130	20	70 - 130	
1,1-Dichloroethene	ND	10	86.5	87.7	1.42	113	70 - 130	20	69 - 132	
Trichloroethene	ND	10	87.7	88.5	0.857	102	70 - 130	20	70 - 130	
%SS1:	76	25	81	81	0	82	70 - 130	20	70 - 130	
%SS2:	102	25	109	108	0.925	107	70 - 130	20	70 - 130	
%SS3:	97	2.5	109	106	2.84	109	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 65147 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202607-001B	02/18/12 8:30 AM	02/23/12	02/23/12 6:52 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.
 Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65048

WorkOrder: 1202607

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1202566-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	116	105	10.2	129	70 - 130	20	70 - 130	
MTBE	ND	10	111	101	9.10	118	70 - 130	20	70 - 130	
Benzene	ND	10	109	112	2.65	105	70 - 130	20	70 - 130	
Toluene	ND	10	108	111	2.84	110	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	109	112	2.36	107	70 - 130	20	70 - 130	
Xylenes	ND	30	112	114	2.00	110	70 - 130	20	70 - 130	
%SS:	100	10	99	100	0.744	99	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 65048 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202607-001A	02/18/12 8:30 AM	02/23/12	02/23/12 1:51 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65069

WorkOrder: 1202607

EPA Method: SW8015B		Extraction: SW3510C					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	108	N/A	N/A	70 - 130	
%SS:	N/A	625	N/A	N/A	N/A	94	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 65069 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1202607-001C	02/18/12 8:30 AM	02/21/12	02/22/12 8:40 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001 232; Connell-3093 Broadway	Date Sampled: 08/27/12-08/28/12
		Date Received: 08/28/12
	Client Contact: Tina De La Fuente	Date Reported: 09/05/12
	Client P.O.:	Date Completed: 09/05/12

WorkOrder: 1208681

September 05, 2012

Dear Tina:

Enclosed within are:

- 1) The results of the **10** analyzed samples from your project: **#1005.001 232; Connell-3093 Broadway,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



CHAIN-OF-CUSTODY RECORD

WorkOrder: 1208681

ClientCode: PEO

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Tina De La Fuente
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com
cc:
PO:
ProjectNo: #1005.001 232; Connell-3093 Broadway

Bill to:

Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT:

5 days

Date Received: 08/28/2012

Date Printed: 08/28/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1208681-001	MW-1	Water	8/28/2012 9:55	<input type="checkbox"/>	A	A	B										
1208681-002	MW-4	Water	8/27/2012 14:30	<input type="checkbox"/>	A		B										
1208681-003	MW-14	Water	8/28/2012 9:05	<input type="checkbox"/>	A		B										
1208681-004	MW-15	Water	8/28/2012 8:30	<input type="checkbox"/>	A		B										
1208681-005	MW-16B	Water	8/28/2012 7:55	<input type="checkbox"/>	A		B										
1208681-006	MW-17A	Water	8/27/2012 15:05	<input type="checkbox"/>	A		B										
1208681-007	RW-2	Water	8/27/2012 13:40	<input type="checkbox"/>	A		B										
1208681-008	RW-3A	Water	8/27/2012 13:05	<input type="checkbox"/>	A		B										
1208681-009	RW-4	Water	8/28/2012 10:35	<input type="checkbox"/>	A		B										
1208681-010	RW-5	Water	8/28/2012 10:15	<input type="checkbox"/>	A		B										

Test Legend:

1	G-MBTX_W	2	PREFD REPORT	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.** Date and Time Received: **8/28/2012 1:53:36 PM**
 Project Name: **#1005.001 232; Connell-3093 Broadway** LogIn Reviewed by: **Maria Venegas**
 WorkOrder N°: **1208681** Matrix: Water Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 0.3°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001 232; Connell-3093 Broadway	Date Sampled: 08/27/12-08/28/12
	Client Contact: Tina De La Fuente	Date Received: 08/28/12
	Client P.O.:	Date Extracted: 08/30/12-09/04/12
		Date Analyzed: 08/30/12-09/04/12

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1208681

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	81,000	ND<1000	4000	6500	180	16,000	200	90	d1,b6
002A	MW-4	W	140,000	ND<2500	7600	19,000	2500	15,000	200	104	d1,b6
003A	MW-14	W	44,000	ND<500	2800	5700	260	7900	100	89	d1
004A	MW-15	W	790	ND	4.9	8.5	1.9	98	1	111	d1,b1
005A	MW-16B	W	16,000	ND<170	3900	1200	350	930	33	99	d1
006A	MW-17A	W	19,000	ND<250	530	1300	96	4400	50	97	d1
007A	RW-2	W	44,000	ND<900	5700	4100	1200	5600	50	110	d1
008A	RW-3A	W	23,000	ND<500	1200	2600	310	4800	100	87	d1
009A	RW-4	W	15,000	ND<450	370	1700	280	1400	20	114	d1
010A	RW-5	W	14,000	ND<300	940	2100	140	1900	20	110	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference. %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- d1) weakly modified or unmodified gasoline is significant



Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001 232; Connell-3093 Broadway	Date Sampled: 08/27/12-08/28/12
	Client Contact: Tina De La Fuente	Date Received: 08/28/12
	Client P.O.:	Date Extracted: 08/28/12
		Date Analyzed: 08/29/12-09/04/12

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C/3630C

Analytical methods: SW8015B

Work Order: 1208681

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	DF	% SS	Comments
1208681-001B	MW-1	W	610,000	140,000	20	119	e4,e1,b6
1208681-002B	MW-4	W	21,000	1900	5	102	e4,b6
1208681-003B	MW-14	W	6500	ND	1	101	e4
1208681-004B	MW-15	W	370	370	1	98	e4,e7,e2,b1
1208681-005B	MW-16B	W	900	300	1	83	e4,e7,e2
1208681-006B	MW-17A	W	1700	480	1	98	e4,e7,e2
1208681-007B	RW-2	W	4300	400	1	80	e4,e7,e2
1208681-008B	RW-3A	W	9800	3500	1	102	e4,e7,e2
1208681-009B	RW-4	W	5800	1300	1	100	e4,e1
1208681-010B	RW-5	W	640	ND	1	80	e4,e1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- e1) unmodified or weakly modified diesel is significant
- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.
- e7) oil range compounds are significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70352

WorkOrder: 1208681

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex) £	ND	60	95.5	94.4	1.16	107	70 - 130	20	70 - 130
MTBE	ND	10	99	93.6	5.68	101	70 - 130	20	70 - 130
Benzene	ND	10	97.4	88.9	9.07	101	70 - 130	20	70 - 130
Toluene	ND	10	98.6	90.5	8.49	102	70 - 130	20	70 - 130
Ethylbenzene	ND	10	94.4	91.2	3.42	104	70 - 130	20	70 - 130
Xylenes	ND	30	97.3	95.6	1.66	108	70 - 130	20	70 - 130
%SS:	88	10	88	87	0.836	87	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 70352 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208681-001A	08/28/12 9:55 AM	08/30/12	08/30/12 3:24 PM	1208681-002A	08/27/12 2:30 PM	08/30/12	08/30/12 3:56 PM
1208681-003A	08/28/12 9:05 AM	08/30/12	08/30/12 4:28 PM	1208681-005A	08/28/12 7:55 AM	08/31/12	08/31/12 6:10 PM
1208681-006A	08/27/12 3:05 PM	08/31/12	08/31/12 1:04 AM	1208681-007A	08/27/12 1:40 PM	08/31/12	08/31/12 1:34 AM
1208681-008A	08/27/12 1:05 PM	08/31/12	08/31/12 2:04 AM	1208681-009A	08/28/12 10:35 AM	08/31/12	08/31/12 4:32 AM
1208681-010A	08/28/12 10:15 AM	08/31/12	08/31/12 5:01 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70424

WorkOrder: 1208681

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1208830-003B			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) £	ND	60	105	109	3.28	101	70 - 130	20	70 - 130	
MTBE	ND	10	112	119	5.57	106	70 - 130	20	70 - 130	
Benzene	ND	10	111	118	6.30	102	70 - 130	20	70 - 130	
Toluene	ND	10	111	119	7.12	103	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	111	119	6.79	101	70 - 130	20	70 - 130	
Xylenes	ND	30	112	120	6.56	101	70 - 130	20	70 - 130	
%SS:	102	10	97	101	3.96	97	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 70424 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208681-004A	08/28/12 8:30 AM	09/04/12	09/04/12 7:15 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 70229

WorkOrder: 1208681

EPA Method: SW8015B		Extraction: SW3510C/3630C					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	102	N/A	N/A	70 - 130	
%SS:	N/A	625	N/A	N/A	N/A	85	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 70229 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208681-001B	08/28/12 9:55 AM	08/28/12	09/04/12 6:30 PM	1208681-002B	08/27/12 2:30 PM	08/28/12	08/31/12 7:42 AM
1208681-003B	08/28/12 9:05 AM	08/28/12	08/30/12 2:44 AM	1208681-004B	08/28/12 8:30 AM	08/28/12	08/29/12 10:16 PM
1208681-005B	08/28/12 7:55 AM	08/28/12	08/30/12 3:50 AM	1208681-006B	08/27/12 3:05 PM	08/28/12	08/29/12 6:52 PM
1208681-007B	08/27/12 1:40 PM	08/28/12	08/30/12 6:03 AM	1208681-008B	08/27/12 1:05 PM	08/28/12	08/29/12 9:08 PM
1208681-009B	08/28/12 10:35 AM	08/28/12	08/31/12 5:27 AM	1208681-010B	08/28/12 10:15 AM	08/28/12	08/29/12 3:00 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #3093 Broadway, Oakland, CA	Date Sampled: 01/26/12
		Date Received: 01/27/12
	Client Contact: Morgan Gillies	Date Reported: 02/01/12
	Client P.O.:	Date Completed: 02/01/12

WorkOrder: 1201751

February 01, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#3093 Broadway, Oakland, CA,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

1201751

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
Pittsburg, CA 94565

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Morgan Gillies Bill To: Pangea
Company: Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200, Oakland, CA 94612
E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3700 Fax: (510) 836-3709
PO#: 3093 Broadway, Oakland, CA Project Name: Connell Auto
Project Location: 3093 Broadway, Oakland, Ca Project #: 1005.001
Sampler Signature: *[Signature]*

Analysis Request										Other	Comments	
BTEX & TPH as gas (602,8020 + 8015)/MTBE												
												Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other
✓ EFF-W		1/26/12	1415	3	Voa	X					X	X		X
MID-W		↓	1420	3	↓	X					X	X		X
X INF-W		↓	1430	3	↓	X					X	X		X

Relinquished By: *[Signature]* Date: 1-27-12 Time: 1450 Received By: *[Signature]*
Relinquished By: *[Signature]* Date: 1/27/12 Time: 1515 Received By: *[Signature]*
Relinquished By: _____ Date: _____ Time: _____ Received By: _____

COMMENTS: ICE/r *[Signature]*
GOOD CONDITION _____
HEAD SPACE ABSENT _____
DECHLORINATED IN LAB _____
APPROPRIATE CONTAINERS _____
PRESERVED IN LAB _____
VOAS O&G METALS OTHER
PRESERVATION pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1201751

ClientCode: PEO

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Morgan Gillies
 Pangea Environmental Svcs., Inc.
 1710 Franklin Street, Ste. 200
 Oakland, CA 94612
 (510) 836-3700 FAX: (510) 836-3709

Email: mgillies@pangeaenv.com
 cc:
 PO:
 ProjectNo: #3093 Broadway, Oakland, CA

Bill to:

Bob Clark-Riddell
 Pangea Environmental Svcs., Inc.
 1710 Franklin Street, Ste. 200
 Oakland, CA 94612

Requested TAT:

5 days

Date Received: 01/27/2012

Date Printed: 01/27/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1201751-001	EFF-W	Water	1/26/2012 14:15	<input type="checkbox"/>	A	A											
1201751-002	MID-W	Water	1/26/2012 14:20	<input type="checkbox"/>	A												
1201751-003	INF-W	Water	1/26/2012 14:30	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **1/27/2012 4:45:10 PM**

Project Name: **#3093 Broadway, Oakland, CA**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1201751** Matrix: Water

Carrier: Derik Cartan (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 6.4°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 64385

WorkOrder: 1201751

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH(btex) [£]	ND	60	117	119	2.11	119	70 - 130	20	70 - 130
MTBE	ND	10	107	108	0.932	107	70 - 130	20	70 - 130
Benzene	ND	10	105	105	0	107	70 - 130	20	70 - 130
Toluene	ND	10	105	103	2.13	106	70 - 130	20	70 - 130
Ethylbenzene	ND	10	103	101	2.06	103	70 - 130	20	70 - 130
Xylenes	ND	30	106	103	3.38	104	70 - 130	20	70 - 130
%SS:	106	10	99	99	0	100	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 64385 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1201751-001A	01/26/12 2:15 PM	01/31/12	01/31/12 5:40 PM	1201751-002A	01/26/12 2:20 PM	01/30/12	01/30/12 3:25 PM
1201751-003A	01/26/12 2:30 PM	01/30/12	01/30/12 3:55 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001; Connell Auto	Date Sampled: 03/14/12
		Date Received: 03/16/12
	Client Contact: Morgan Gillies	Date Reported: 03/22/12
	Client P.O.: 3093 Broadway, Oakland, CA	Date Completed: 03/19/12

WorkOrder: 1203573

March 22, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#1005.001; Connell Auto,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1203573

ClientCode: PEO

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT:
Morgan Gillies	Email: mgillies@pangeaenv.com	Bob Clark-Riddell	5 days
Pangea Environmental Svcs., Inc.	cc:	Pangea Environmental Svcs., Inc.	
1710 Franklin Street, Ste. 200	PO: 3093 Broadway, Oakland, CA	1710 Franklin Street, Ste. 200	<i>Date Received:</i> 03/16/2012
Oakland, CA 94612	ProjectNo: #1005.001; Connell Auto	Oakland, CA 94612	<i>Date Printed:</i> 03/16/2012
(510) 836-3700 FAX: (510) 836-3709			

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1203573-001	EFF-W	Water	3/14/2012 10:50	<input type="checkbox"/>	A	A											
1203573-002	INF-W	Water	3/14/2012 10:55	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX_W	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **3/16/2012 4:36:41 PM**

Project Name: **#1005.001; Connell Auto**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **1203573** Matrix: Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 4.1°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 65910

WorkOrder: 1203573

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1203555-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	114	107	6.50	115	70 - 130	20	70 - 130	
MTBE	ND	10	103	103	0	91.6	70 - 130	20	70 - 130	
Benzene	ND	10	102	89.2	13.5	96.9	70 - 130	20	70 - 130	
Toluene	ND	10	102	90.8	11.8	98.4	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	100	87.4	13.8	96.3	70 - 130	20	70 - 130	
Xylenes	ND	30	103	89.7	14.1	98.7	70 - 130	20	70 - 130	
%SS:	113	10	110	108	1.93	104	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 65910 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203573-001A	03/14/12 10:50 AM	03/17/12	03/17/12 7:58 PM	1203573-002A	03/14/12 10:55 AM	03/17/12	03/17/12 7:29 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001; Connell Auto	Date Sampled: 03/27/12
		Date Received: 03/27/12
	Client Contact: Morgan Gillies	Date Reported: 03/30/12
	Client P.O.: #3093 Broadway, Oakland, CA	Date Completed: 03/29/12

WorkOrder: 1203895

March 30, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#1005.001; Connell Auto,**
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1203895

ClientCode: PEO

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT:
Morgan Gillies	Email: mgillies@pangeaenv.com	Bob Clark-Riddell	5 days
Pangea Environmental Svcs., Inc.	cc:	Pangea Environmental Svcs., Inc.	
1710 Franklin Street, Ste. 200	PO: #3093 Broadway, Oakland, CA	1710 Franklin Street, Ste. 200	<i>Date Received:</i> 03/27/2012
Oakland, CA 94612	ProjectNo: #1005.001; Connell Auto	Oakland, CA 94612	<i>Date Printed:</i> 03/27/2012
(510) 836-3700 FAX: (510) 836-3709			

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1203895-001	INF-V	Air	3/27/2012 11:50	<input type="checkbox"/>	A	A											

Test Legend:

1	G-MBTEX_AIR	2	PREFD REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **3/27/2012 3:07:42 PM**

Project Name: **#1005.001; Connell Auto**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **1203895** Matrix: Air

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp:		NA <input checked="" type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

* NOTE: If the "No" box is checked, see comments below.

 Comments:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 66212

WorkOrder: 1203895

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1203824-007A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	92.4	93.2	0.847	74.3	70 - 130	20	70 - 130	
MTBE	ND	10	117	108	7.83	120	70 - 130	20	70 - 130	
Benzene	0.66	10	105	105	0	117	70 - 130	20	70 - 130	
Toluene	ND	10	102	104	2.69	105	70 - 130	20	70 - 130	
Ethylbenzene	0.61	10	93.7	92.5	1.20	102	70 - 130	20	70 - 130	
Xylenes	ND	30	111	117	5.18	115	70 - 130	20	70 - 130	
%SS:	100	10	111	105	5.35	106	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 66212 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203895-001A	03/27/12 11:50 AM	03/27/12	03/27/12 5:04 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001	Date Sampled: 05/23/12
		Date Received: 05/23/12
	Client Contact: Morgan Gillies	Date Reported: 05/25/12
	Client P.O.: 3093 Broadway, Oakland, Ca	Date Completed: 05/25/12

WorkOrder: 1205682

May 25, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the 3 analyzed samples from your project: **#1005.001**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

1205682

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
Pittsburg, CA 94565

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME
RUSH 24 HR 48 HR 72 HR 5 DAY
EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Morgan Gillies Bill To: Pangea
Company: Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200, Oakland, CA 94612
E-Mail: mgillies@pangeaenv.com
Tele: (510) 836-3700 Fax: (510) 836-3709
PO#: 3093 Broadway, Oakland, CA Project Name: Conhell Auto
Project Location: 3093 Broadway, Oakland, Ca Project #: 1005.001
Sampler Signature: *[Signature]*

Analysis Request											Other	Comments
												Filter Samples for Metals analysis: Yes / No

BTEX & TPH as gas (602/8020 + 8015)/MTBE

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other
✓ EFF-W	EFF	5/23	1050	3	V	X					X	X		X
+ INF-W	INF	5/23	1055	3	V	X					X	X		X
INF-V	INF	5/23	1110	1	T		X							X

Relinquished By: *[Signature]* Date: 5/23/12 Time: 1950 Received By: *[Signature]*
Relinquished By: *[Signature]* Date: 5/23/12 Time: 1550 Received By: *[Signature]*
Relinquished By: *[Signature]* Date: Time: Received By: *[Signature]*

COMMENTS: ICE/rp 5gc ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓
VOAS ✓ O&G METALS OTHER
PRESERVATION ✓ pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1205682

ClientCode: PEO

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Morgan Gillies
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: mgillies@pangeaenv.com
cc:
PO: 3093 Broadway, Oakland, Ca
ProjectNo: #1005.001

Bill to:

Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: 05/23/2012

Date Printed: 05/23/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1205682-001	EFF-W	Water	5/23/2012 10:50	<input type="checkbox"/>		A	A										
1205682-002	INF-W	Water	5/23/2012 10:55	<input type="checkbox"/>		A											
1205682-003	INF-V	Air	5/23/2012 11:10	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX_AIR	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12							

The following SampID: 003A contains testgroup.

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.** Date and Time Received: **5/23/2012 4:48:01 PM**
 Project Name: **#1005.001** LogIn Reviewed by: **Melissa Valles**
 WorkOrder N°: **1205682** Matrix: Air/Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 5.4°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 67805

WorkOrder: 1205682

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1205632-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	88.6	91.5	3.28	93	70 - 130	20	70 - 130	
MTBE	ND	10	94.2	98.4	4.38	98	70 - 130	20	70 - 130	
Benzene	ND	10	91.2	90	1.26	92	70 - 130	20	70 - 130	
Toluene	ND	10	93	92	1.09	92.4	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	91.8	91.3	0.607	91.6	70 - 130	20	70 - 130	
Xylenes	ND	30	96	94.6	1.41	97.4	70 - 130	20	70 - 130	
%SS:	97	10	99	92	6.68	93	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 67805 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1205682-003A	05/23/12 11:10 AM	05/24/12	05/24/12 2:15 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 67806

WorkOrder: 1205682

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1205667-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	96.3	94.8	1.66	94.3	70 - 130	20	70 - 130	
MTBE	ND	10	91.5	88.2	3.43	87.1	70 - 130	20	70 - 130	
Benzene	ND	10	92.2	92.3	0.150	92.1	70 - 130	20	70 - 130	
Toluene	ND	10	93.4	93.9	0.472	94.7	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	92.5	93.1	0.622	93.8	70 - 130	20	70 - 130	
Xylenes	ND	30	95.2	97	1.91	97.9	70 - 130	20	70 - 130	
%SS:	115	10	94	95	0.883	97	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 67806 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1205682-001A	05/23/12 10:50 AM	05/24/12	05/24/12 6:08 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 67835

WorkOrder: 1205682

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1205636-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	11000	60	NR	NR	NR	129	N/A	N/A	70 - 130	
MTBE	ND<400	10	NR	NR	NR	99.4	N/A	N/A	70 - 130	
Benzene	730	10	NR	NR	NR	96.7	N/A	N/A	70 - 130	
Toluene	400	10	NR	NR	NR	96.2	N/A	N/A	70 - 130	
Ethylbenzene	2000	10	NR	NR	NR	96.9	N/A	N/A	70 - 130	
Xylenes	2700	30	NR	NR	NR	93.9	N/A	N/A	70 - 130	
%SS:	126	10	NR	NR	NR	98	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 67835 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1205682-002A	05/23/12 10:55 AM	05/25/12	05/25/12 1:21 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1005.001; Connell Auto	Date Sampled: 08/07/12
		Date Received: 08/07/12
	Client Contact: Morgan Gillies	Date Reported: 08/13/12
	Client P.O.: #3093 Broadway, Oakland, CA	Date Completed: 08/13/12

WorkOrder: 1208159

August 13, 2012

Dear Morgan:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#1005.001; Connell Auto,**
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

WorkOrder: 1208159

ClientCode: PEO

WaterTrax
 WriteOn
 EDF
 Excel
 EQUiS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Morgan Gillies
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: mgillies@pangeaenv.com
cc:
PO: #3093 Broadway, Oakland, CA
ProjectNo: #1005.001; Connell Auto

Bill to:

Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT:

5 days

Date Received: 08/07/2012

Date Printed: 08/07/2012

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1208159-001	INF-W	Water	8/7/2012 12:45	<input type="checkbox"/>		A	A	B								
1208159-002	INF-V	Air	8/7/2012 12:50	<input type="checkbox"/>	A											

Test Legend:

1	G-MBTEX_AIR	2	G-MBTEX_W	3	PREDF REPORT	4	TPH(D)_W	5	
6		7		8		9		10	
11		12							

The following SampID: 002A contains testgroup.

Prepared by: Zoraida Cortez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**

Date and Time Received: **8/7/2012 3:27:36 PM**

Project Name: **#1005.001; Connell Auto**

LogIn Reviewed by: **Zoraida Cortez**

WorkOrder N°: **1208159** Matrix: Air/Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature	Cooler Temp: 3.2°C		NA <input type="checkbox"/>
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Metal - pH acceptable upon receipt (pH<2)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 69729

WorkOrder: 1208159

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1208117-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	103	93.4	9.94	100	70 - 130	20	70 - 130	
MTBE	ND	10	89.4	83.4	6.47	97.4	70 - 130	20	70 - 130	
Benzene	ND	10	96.7	89.6	7.59	99.2	70 - 130	20	70 - 130	
Toluene	ND	10	98.3	92.1	6.54	101	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	101	94.2	6.59	101	70 - 130	20	70 - 130	
Xylenes	ND	30	103	97.1	6.18	104	70 - 130	20	70 - 130	
%SS:	84	10	91	90	0.703	90	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 69729 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208159-002A	08/07/12 12:50 PM	08/07/12	08/07/12 10:53 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 69768

WorkOrder: 1208159

EPA Method: SW8021B/8015Bm		Extraction: SW5030B					Spiked Sample ID: 1208165-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH(btex) [£]	ND	60	114	103	9.95	111	70 - 130	20	70 - 130	
MTBE	ND	10	109	93.5	15.6	106	70 - 130	20	70 - 130	
Benzene	ND	10	104	92.6	11.6	104	70 - 130	20	70 - 130	
Toluene	ND	10	104	94.1	9.53	103	70 - 130	20	70 - 130	
Ethylbenzene	ND	10	105	94.5	10.6	103	70 - 130	20	70 - 130	
Xylenes	ND	30	105	94	11.4	101	70 - 130	20	70 - 130	
%SS:	94	10	94	94	0	96	70 - 130	20	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 69768 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208159-001A	08/07/12 12:45 PM	08/09/12	08/09/12 5:57 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 69674

WorkOrder: 1208159

EPA Method: SW8015B		Extraction: SW3510C					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	124	N/A	N/A	70 - 130	
%SS:	N/A	625	N/A	N/A	N/A	98	N/A	N/A	70 - 130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 69674 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208159-001B	08/07/12 12:45 PM	08/07/12	08/07/12 6:41 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.