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Alameda County
Environmental Health

August 27, 2008

VIA ALAMEDA COUNTY FTP SITE

Mr. Paresh Khatri
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

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

Dear Mr. Khatri:

On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea Environmental Services, Inc. has prepared this *Offsite Investigation Report* (report) for the subject site as requested in a June 6, 2008 letter from the Alameda County Environmental Health (ACEH). This report documents implementation of the *Workplan for Site Characterization and Site Cleanup Goals* (Workplan) dated April 28, 2008.

If you have any questions or comments, please call me at (510) 435-8664 or email briddell@pangeaenv.com.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Offsite Investigation Report*

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

PANGEA Environmental Services, Inc.

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



OFFSITE INVESTIGATION REPORT

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

August 27, 2008

Prepared for:

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

And

Linden Broadway Trust
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

On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea Environmental Services, Inc. has prepared this *Offsite Investigation Report* (report) for the subject site as requested in a June 6, 2008 letter from the Alameda County Environmental Health (ACEH). This report documents implementation of the approved *Workplan for Site Characterization and Site Cleanup Goals* (Workplan) dated April 28, 2008. The work plan scope included the completion of two soil borings with soil and grab groundwater sampling, and two potential step-out soil borings. The completed work scope included only one soil boring (SB-1) due to inaccessibility at the second planned location (proposed SB-2) and the lack of hydrocarbons detected in soil or groundwater from boring SB-1.

SITE BACKGROUND

The site is located on the east side of “Pill Hill” south of Hawthorne Avenue, between Broadway and Webster Street (Figure 1). 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.

Constituents of Concern

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.

Previous Environmental Assessment

Three underground storage tanks (USTs), containing gasoline, diesel and waste oil, were formerly located beneath the sidewalk adjacent to the northern property boundary, as shown on Figure 2. Previous environmental activities associated with the USTs are summarized below. Historical soil and groundwater analytical results are summarized on Tables 1 and 2, respectively.

In 1989 the USTs were removed, soil samples were collected, and the UST cavity was backfilled with clean, imported fill material.

In December 1990, a preliminary site assessment was conducted by Subsurface Consultants, Inc. (SCI), which included the completion of five soil borings (B-1 through B-5) and the installation of monitoring well MW-1 in boring B-5. The soil sample containing the highest hydrocarbon concentrations was collected from 30.5 feet bgs in boring B-5.

In 1989 and 1990, groundwater samples were analyzed from offsite wells LF2, LF3 and LF4 installed by Levine Fricke close to the northern site boundary. Samples collected from the wells in October 1990 indicated that relatively little groundwater contamination was present, since only 10 ug/L of benzene was detected in LF2, and no benzene, toluene, ethylbenzene, and only trace levels of xylenes were detected in wells LF3 and LF4.

In June 1991, SCI performed an additional site assessment consisting of the installation of groundwater monitoring wells MW-2 through MW-7.

In October 1992, SCI conducted CPT testing at seventeen (17) locations onsite and offsite, and installed wells MW-8 through MW-13. Wells MW-8 and MW-10 are six-inch diameter groundwater monitoring/extraction wells, with MW-10 located within the plume and well MW-8 located near the approximate downgradient edge of the site.

In May 1998, SCI completed seven borings (SB-A through SB-G) and converted boring SB-D into monitoring well MW-14 and boring SB-E into well MW-15.

After several meetings with the ACHCSA, RWQCB- SFBR, City of Oakland, and representatives of the site owners in 1998, a risk-based approach for site management and closure was conditionally approved, according to SCI's *Workplan for Expanded CAP Preparation* dated April 15, 1999. After months of correspondence with ACEH and the California UST Cleanup Fund, the risk-based approach was deemed inappropriate. In May 2000, Cambria Environmental Technology, Inc (Cambria) submitted a workplan addendum for additional risk assessment and feasibility testing of active remediation.

In 2000, a potential receptor and preferential pathway survey were conducted by Cambria. The potential receptor and preferential pathway survey included a well survey, conduit study, and a review of surface water and historical geological/hydrogeological maps for the vicinity, and did not identify any significant receptors or pathways of concern.

Previous Site Remediation and Feasibility Testing

In 1991, manual removal of separate phase hydrocarbons (SPH, also known as free product) from site monitoring wells was initiated, and continued until the first quarter of 2007. Manual removal of separate-phase hydrocarbons (SPH) from monitoring wells has removed a total of approximately 950 pounds (156 gallons) of SPH since 1991.

Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system on well MW-6 removed approximately 1,421 lbs of hydrocarbons. SVE was discontinued when the groundwater elevation rose and contaminant removal rates decreased.

During September 2000, Cambria conducted feasibility testing of dual-phase extraction (DPE) from select site wells. The feasibility testing indicated that DPE was effective for removing hydrocarbons at the site. Cambria made several inquiries to the ACEH regarding a site corrective action plan, and in June 2004, the ACEH issued a request for an Interim Remediation Work Plan (IRAP).

In November 2004, Pangea submitted an IRAP proposing DPE with air sparging (AS) as the appropriate remedial approach for the site. Additionally, two IRAP addendums, dated December 6, 2005 and January 9, 2006, were prepared at the request of the ACEH. The IRAP with addendums was approved March 17, 2006. Implementation of the IRAP was delayed due to a former prospective purchase of the property, PG&E non-responsiveness, and negotiation of a new lease with the tenants and significant remediation planning to minimize disruption to the tenants.

Recent Site Activities

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 categorized 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. Pangea is coordinating system installation with PG&E and the selected remedial contractor.

SITE INVESTIGATION ACTIVITIES

Pre-Drilling Activities

A comprehensive site Safety Plan was prepared to protect site workers and the plan was kept onsite during all field activities. A Boring permit was obtained from Alameda County Public Works Agency (ACPWA). Obstruction and excavation permits were obtained from the City of Oakland. Copies of the permits and traffic control plans are presented in Appendix A. The proposed drilling locations were marked and Underground Service Alert was notified at least 72 hours before the proposed field activities.

Drilling Procedures

All soil borings were installed in general accordance with the procedures described in Pangea's April 28, 2008 Workplan. All boring locations were hand augered to 5 ft bgs to help avoid subsurface utilities. Pangea retained RSI Drilling, Inc. (RSI) of Woodland, California, to drill the borings. The drilling was observed in the field by Pangea hydrologist Bryce Taylor and supervised by Bob Clark-Riddell, a California Registered Professional Civil Engineer (P.E.). Soil characteristics such as color, texture, and relative water contents were noted in the field using the USCS classification system and entered onto a field boring log. Field screening of soil samples for potential hydrocarbons and volatile organic compounds included visual and olfactory observations. Undisturbed soil samples were collected for laboratory analysis in acetate liners, and capped with Teflon tape and plastic end caps. All samples were shipped under chain of custody to McCampbell Analytical, Inc., of Pittsburg, California, a California-certified laboratory.

Boring Activities

On August 5, 2008, Pangea oversaw drilling of soil boring SB-1 and Hydropunch-type boring adjacent to SB-1 for discrete-depth groundwater sampling to help evaluate the lateral and vertical extent of petroleum hydrocarbons in soil and groundwater. Soil boring SB-1 was located on the southwest corner of Broadway at Hawthorne Street, downgradient of the site. Pangea attempted to complete proposed boring SB-2, but encountered an unmarked subsurface utility at approximately 2.5 ft depth during hand augering. Pangea relocated SB-2 approximately 5 ft away and not in line with the original attempted location, but encountered a different unmarked subsurface utility at approximately 2.5 ft depth. Due to limited working days/hours required by the encroachment permit and unmarked subsurface utilities, Pangea was unable to complete boring SB-2 on August 5. Pangea did not return on a later date to attempt boring SB-2 because additional assessment did not appear cost beneficial given the lack of hydrocarbons detected in boring SB-1 located closer to the site. Boring locations are shown on Figure 2.

After hand augering, RSI Drilling, Inc., of Woodland, California, drilled the borings using direct-push drilling methods to collect continuously cored soil samples. The boring was advanced to approximately 40 ft depth using the dual-tube system, where temporary casing was installed and the outer wall of the dual-tube system was pulled back to approximately 35 ft depth. A grab groundwater sample was collected from the 35 to 40 ft depth interval in boring SB-1 using new tubing and a peristaltic pump. An adjacent hydropunch boring was advanced to 28 ft depth and opened from 24 to 28 ft depth to evaluate shallower groundwater encountered at this interval while drilling boring SB-1. The hydropunch was left in place for one hour, but no groundwater entered the borehole. Soil and water samples were collected from each boring in accordance with Pangea's Standard Field Procedures for Soil Borings (Appendix B). Boring logs are included in Appendix C. Mr. Ron Smalley of Alameda County Public Works Agency (ACPWA) supervised the grouting activities.

Soil Sampling and Analysis

Soil samples were collected at approximate 4 ft intervals and at distinct changes in lithology. Select soil samples were analyzed for TPHg by EPA Method 8015Cm, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8021B.

Grab Groundwater Sampling and Analysis

Grab groundwater samples were collected from borings SB-1 from 35 to 40 ft depth as described above. Samples were submitted to a state-certified laboratory for analysis for TPHg by EPA Method 8015Cm, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8021B.

INVESTIGATION RESULTS

The following discussion of site geology, hydrogeology and sampling results is based on both prior investigations and data collected during the offsite investigation activities described above. The estimated extent of elevated dissolved hydrocarbon concentrations in groundwater is shown in plan view on Figure 2. Soil and groundwater analytical data are summarized on Tables 1 and 2, respectively. The laboratory analytical report is included in Appendix D.

Site Geology and Hydrogeology

Soil encountered during drilling of SB-1 consisted of gravelly clay and clay to a depth of approximately 24 ft. A wet, clayey sand unit was encountered between 24 and 26 ft depth, underlain by silty clay and clayey silt to a depth of approximately 38 ft. A wet, gravelly sand was observed below 38 ft to the total depth of the

boring (approximately 40 ft). The lithology encountered in boring SB-1 is fairly consistent with historical observations.

Subsurface soil at the site generally consists of an upper relatively impermeable silty clay or clayey silt unit underlain by a moderately to highly permeable, coarser grained unit consisting of sandy/gravelly clay and clayey/gravelly/silty sand and gravel with thin, laterally discontinuous silty clay interbeds. Throughout much of the site, the deeper sand and gravel unit is present from approximately 25 to 35 ft bgs, although in some areas no sand and gravel was encountered, and silty clay was observed to the total depth of the soil borings.

Historically, the depth to groundwater in site monitoring wells has ranged from approximately 15 to 34 ft bgs. During drilling of wells and borings, groundwater was first encountered at depths of approximately 24 to 31 ft bgs in the upper portion of the site and 18 to 24 ft bgs in the lower portion of the site during well installation activities, but measured depths to groundwater were up to 4 feet higher during well development. These observations suggest that site groundwater is under confined to semi-confined conditions.

Groundwater Flow Direction

Depth-to-water measurements collected during prior monitoring events indicate that the groundwater flow direction has been consistently eastwards onsite, and northeastwards beneath Broadway.

Hydrocarbon Distribution

No petroleum hydrocarbons were detected above reporting limits in analyzed soil samples or the grab groundwater sample collected from downgradient boring SB-1. Based on these results and historical site data the lateral extent of hydrocarbon contamination appears to be well defined.

As illustrated on Figure 2, the area of elevated hydrocarbon concentrations covers much of the site, with numerous wells containing over 50,000 µg/L total petroleum hydrocarbons as gasoline (TPHg) and over 5,000 µg/L benzene. Wells MW-1, MW-6, MW-14 and MW-15 have historically contained SPH, although no measurable SPH has been observed in these wells during recent quarterly groundwater monitoring events. Offsite migration appears to be minimal, based on relatively low to non-detect concentrations found in downgradient wells MW-7, MW-8 and MW-13.

Site Assessment Conclusions

Based on the above site assessment information, Pangea offers the following conclusions:

- The lateral extent of contaminants in groundwater has been sufficiently characterized. The recent boring resulted in significant additional delineation of the lateral extent of contamination. The hydrocarbon contamination appears to be primarily located onsite and downgradient of the former USTs.
- Based on the results from boring SB-1, drilling boring SB-2 does not appear merited or cost beneficial. The soil and grab groundwater sampling from boring SB-1 indicates that contaminants are primarily located onsite and have not migrated significantly offsite. This conclusion is further supported by the relatively low to non-detect hydrocarbon concentrations in onsite, downgradient well MW-8 and offsite downgradient well MW-13. Furthermore, planned remediation activities should improve groundwater conditions.

ATTACHMENTS

Figure 1 – Site Vicinity Map

Figure 2 – Hydrocarbon Distribution in Groundwater

Table 1 – Soil Analytical Data

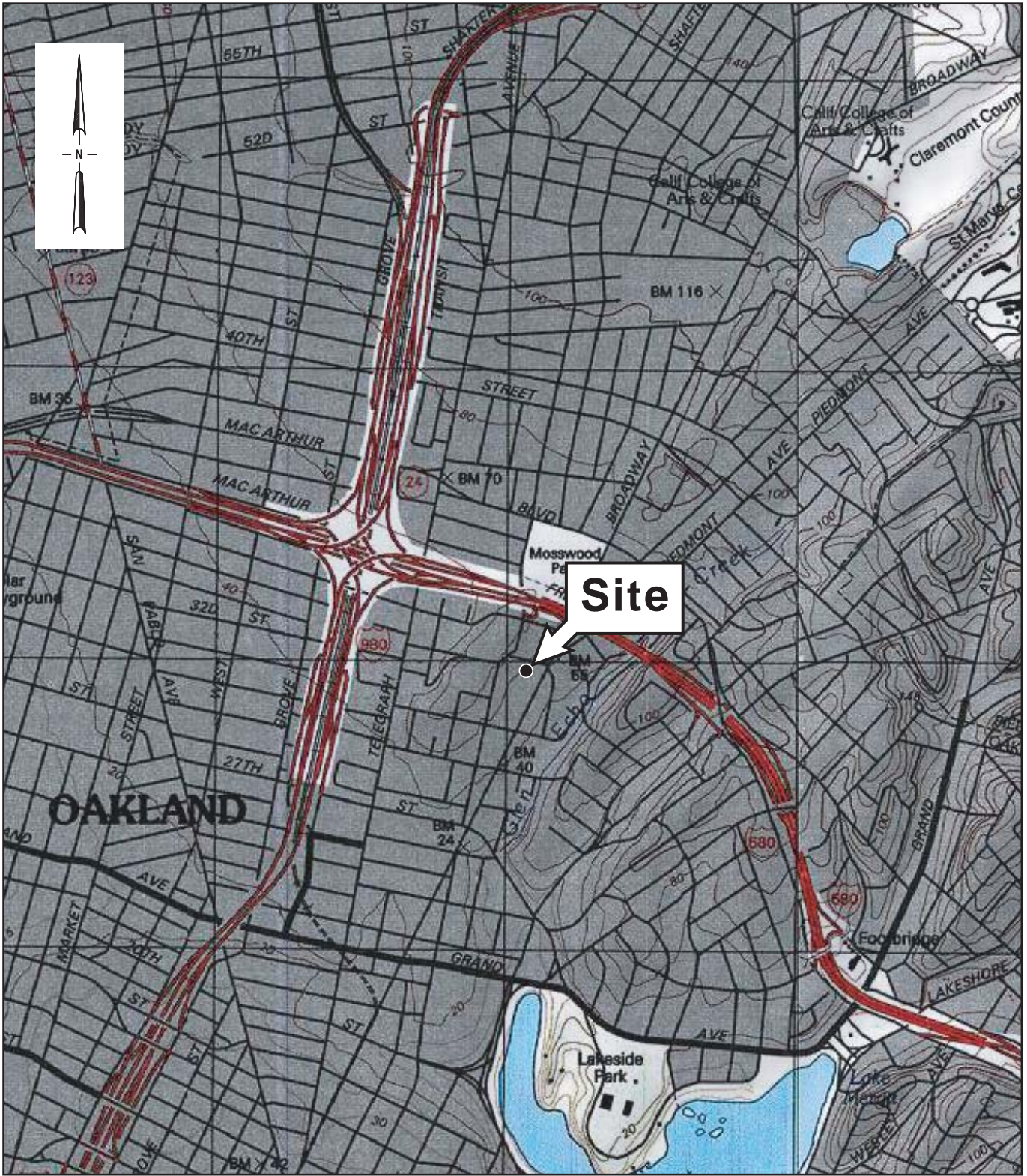
Table 2 – Groundwater Analytical Data: Volatile Hydrocarbons

Appendix A – Permits

Appendix B – Standard Field Procedures for Soil Borings

Appendix C – Boring Logs

Appendix D – Laboratory Analytical Report



SOURCE: TOPOI MAPS



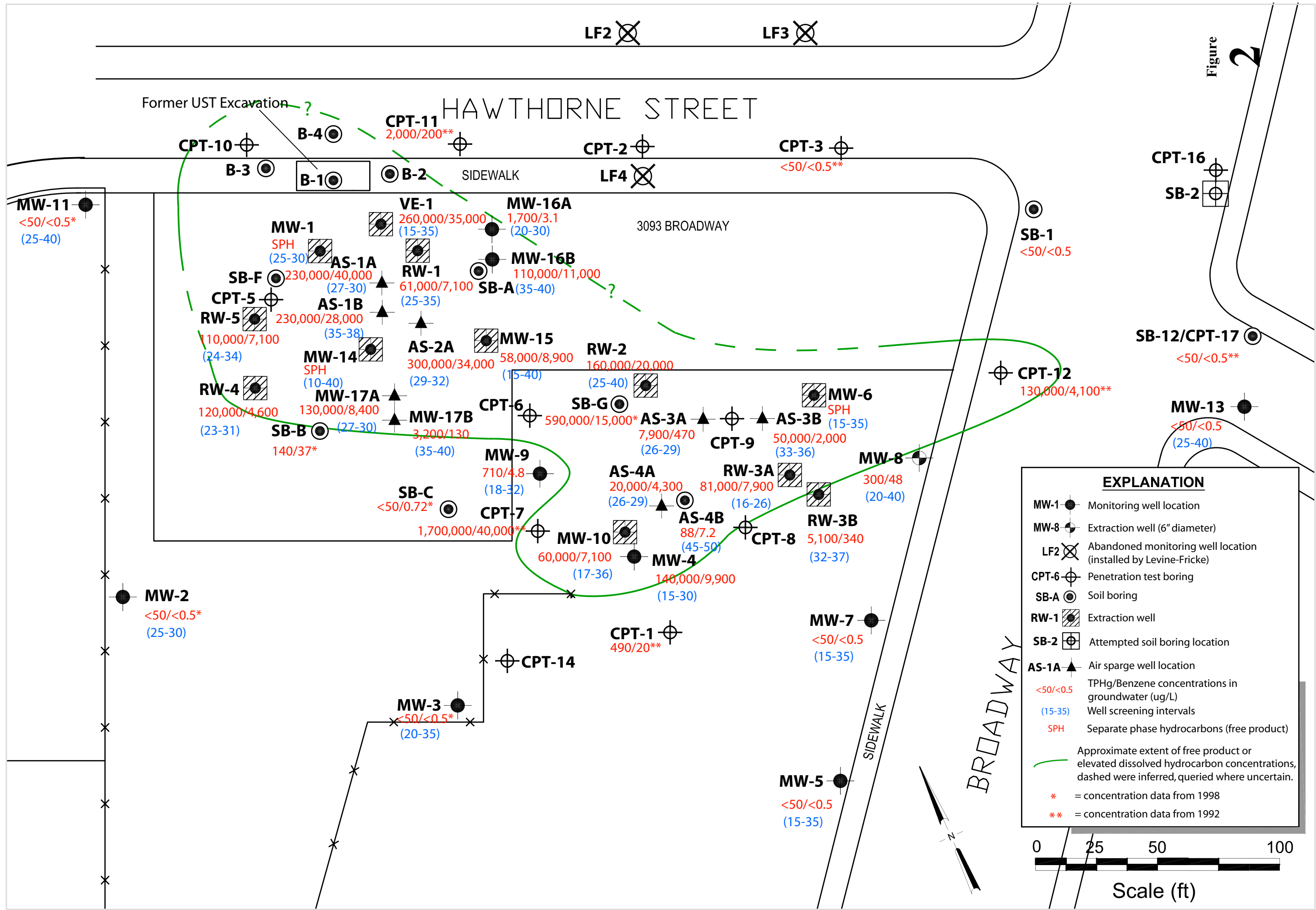
SCALE : 1" = 1/4 MILE

Figure 1

Connell Automobile Dealership
 3093 Broadway
 Oakland, California



Vicinity Map



Pangea

Table 1. Soil Analytical Data - Connell Auto - 3093 Broadway

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	1,2 DCA (mg/kg)	TOG (mg/kg)
Commercial ESL, drinking water			83	83	0.044	2.9	3.3	2.3	0.023	0.0045	2,500
Commercial ESL, non-drinking water			180	180	0.27	9.3	4.7	11	8.4	0.48	2,500
OFFSITE INVESTIGATION - 2008											
SB-1-20	8/5/2008	20.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-1-25	8/5/2008	25.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-1-28	8/5/2008	28.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-1-34	8/5/2008	34.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SB-1-40	8/5/2008	40.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
WELL INSTALLATION & BORINGS - 2007											
AS-3B-24	2/27/2007	24.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
AS-3B-24	2/27/2007	24.0	<1.0	3.9	0.42	0.39	0.33	0.33	<0.05	--	--
RW-3-20	2/28/2007	20.0	1,100	9,000	98	470	140	610	<40	--	--
RW-3-24	2/28/2007	24.0	8.2	15	0.72	0.76	0.19	0.76	<0.2	--	--
RW-3-28	2/28/2007	28.0	<1.0	<1.0	0.1	0.019	0.0076	0.018	<0.05	--	--
RW-3-35	2/28/2007	35.0	<1.0	<1.0	0.019	0.065	0.0085	0.046	<0.05	--	--
AS-4B-19	3/1/2007	19.0	--	13	0.46	0.96	0.16	0.85	<0.05	--	--
AS-4B-24	3/1/2007	24.0	<1.0	2.5	0.45	0.034	0.069	0.097	<0.05	--	--
AS-4B-27	3/1/2007	27.0	<1.0	2.8	0.31	0.27	0.056	0.21	<0.05	--	--
AS-4B-33	3/1/2007	33.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
AS-4B-46	3/1/2007	46.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-2-20	3/1/2007	20.0	400	2,300	25	110	36	180	<10	--	--
RW-2-24	3/1/2007	24.0	260	680	5.9	25	11	56	<5.0	--	--
RW-2-30	3/1/2007	30.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
MW-16B-20	3/4/2007	20.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
MW-16B-23	3/4/2007	23.0	64	180	<0.050	1.1	<0.050	0.45	<0.50	--	--
MW-16B-26	3/4/2007	26.0	3.8	14	<0.005	0.041	<0.005	0.039	<0.05	--	--
MW-16B-34	3/4/2007	34.0	25	130	1.1	0.99	0.83	1.0	<0.50	--	--
MW-16B-40	3/4/2007	40.0	<1.0	1.5	0.45	<0.005	0.070	<0.005	<0.05	--	--
VE-1-16	3/11/2007	16.0	--	250	2.5	0.51	0.47	1.3	<1.0	--	--
VE-1-19	3/11/2007	19.0	--	6.2	0.84	0.38	0.086	0.43	<0.05	--	--
VE-1-22	3/11/2007	22.0	570	960	14	3.9	2.6	52	<10	--	--
VE-1-28	3/11/2007	28.0	--	<1.0	<0.005	<0.005	<0.005	0.0096	<0.05	--	--
VE-1-31	3/11/2007	31.0	--	15	2.2	1.8	0.22	1.3	<0.20	--	--
VE-1-35	3/11/2007	35.0	1.7	15	1.9	2.3	0.17	0.92	<0.05	--	--
AS-1B-16	3/11/2007	16.0	--	190	5.5	0.76	0.21	0.96	<1.5	--	--
AS-1B-22	3/11/2007	22.0	5.2	11	0.12	0.15	0.068	0.47	<0.05	--	--
AS-1B-28	3/11/2007	28.0	450	2,700	41	150	31	250	<15	--	--
MW-17B-20	3/11/2007	20.0	1.3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
MW-17B-28	3/11/2007	28.0	25	42	0.14	1.5	0.52	2.7	<0.25	--	--
MW-17B-30	3/11/2007	30.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
MW-17B-36	3/11/2007	36.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
MW-17B-40	3/11/2007	40.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
AS-2A-24	3/18/2007	24.0	--	2,700	19	140	16	260	<5.0	--	--
AS-2A-38	3/18/2007	38.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--

Pangea

Table 1. Soil Analytical Data - Connell Auto - 3093 Broadway

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	1,2 DCA (mg/kg)	TOG (mg/kg)
Commercial ESL, drinking water			83	83	0.044	2.9	3.3	2.3	0.023	0.0045	2,500
Commercial ESL, non-drinking water			180	180	0.27	9.3	4.7	11	8.4	0.48	2,500
RW-4-23	3/25/2007	23.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-4-29	3/25/2007	29.0	240	1,700	6.9	50	17	130	<10	--	--
RW-4-32	3/25/2007	32.0	--	1.1	0.0081	0.052	0.012	0.073	<0.05	--	--
RW-4-35	3/25/2007	35.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-4-38	3/25/2007	38.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-5-20	3/25/2007	20.0	<50	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-5-24	3/25/2007	24.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-5-27	3/25/2007	27.0	--	1,800	9.5	60	26	160	<10	--	--
RW-5-30	3/25/2007	30.0	<1.0	2.8	0.13	0.30	0.073	0.40	<0.05	--	--
RW-5-36	3/25/2007	36.0	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
RW-5-40	3/25/2007	40.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--
SOIL SAMPLES-MAY 1998 INVESTIGATION											
A-11.0	5/17/1998	11.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
A-20.5	5/17/1998	20.5	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
B-6.0	5/16/1998	6.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
B-20.5	5/16/1998	20.5	<1	<1	0.076	<0.005	<0.005	<0.005	<0.02	0.077	--
C-6.0	5/16/1998	6.0	3,100	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
C-15.5	5/16/1998	15.5	790	4.6	<0.005	<0.005	0.0079	0.033	0.084	<0.005	--
MW-14/D-11.0	5/16/1998	11.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
MW-14/D-21.0	5/16/1998	21.0	<1	<1	0.095	0.1	0.019	0.103	<0.02	0.1	--
MW-15/E-6.0	5/16/1998	6.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
MW-15/E-21.0	5/16/1998	21.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
F-0.5	5/17/1998	0.5	41	25,000	<25	<25	<25	<25	<100	<0.005	--
F-6.0	5/17/1998	6.0	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
F-21.0	5/17/1998	21.0	<1	<1	0.024	<0.005	<0.005	<0.005	<0.02	0.031	--
G-5.5	5/17/1998	5.5	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.02	<0.005	--
G-16.0	5/17/1998	16.0	<1	<1	0.14	<0.005	<0.005	0.048	<0.02	0.013	--
WELL BORINGS											
MW-1/15.5	9/28/1990	15.5	1,100	510	0.64	6.5	3.4	14	--	--	610
MW-1/30.5	9/28/1990	30.5	ND	5,500	16.3	170	98	520	--	--	ND
MW-1/34.5	9/28/1990	34.5	ND	2.0	ND	2.2	0.015	0.079	--	--	ND
MW-3/20.5	2/25/1991	20.5	ND	ND	ND	ND	ND	ND	--	--	ND
MW-4/20.5	2/26/1991	20.5	ND	100	0.26	2.5	1.7	7.3	--	--	ND
MW-4/31.0	2/26/1991	31.0	ND	2.7	0.076	0.38	0.054	0.29	--	--	ND
MW-5/20.0	3/8/1991	20.0	ND	ND	ND	0.0069	ND	ND	--	--	--
MW-6/21.0	3/8/1991	21.0	ND	3.2	0.35	0.5	0.028	0.16	--	--	--
MW-6/30.5	3/8/1991	30.5	ND	ND	ND	ND	ND	ND	--	--	--
MW-7/20.5	3/8/1991	20.5	ND	ND	ND	0.017	ND	ND	--	--	--
TEST BORINGS											
B1-8.0	Dec-90	8.0	ND	63	0.017	ND	0.1	1.6	--	--	ND
B1-23.0	Dec-90	23.0	ND	2,700	16	120	50	220	--	--	ND
B1-33.0	Dec-90	33.0	ND	4	0.11	0.2	0.052	0.29	--	--	ND
B1-43.0	Dec-90	43.0	ND	ND	0.006	0.022	0.007	0.041	--	--	ND
B2-1.5	Dec-90	1.5	--	--	--	--	--	--	--	--	ND
B2-3.0	Dec-90	3.0	--	--	--	--	--	--	--	--	ND

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Table 1. Soil Analytical Data - Connell Auto - 3093 Broadway

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPHd (mg/kg)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	1,2 DCA (mg/kg)	TOG (mg/kg)
Commercial ESL, drinking water			83	83	0.044	2.9	3.3	2.3	0.023	0.0045	2,500
Commercial ESL, non-drinking water			180	180	0.27	9.3	4.7	11	8.4	0.48	2,500
B2-5.5	Dec-90	5.5	--	--	--	--	--	--	--	--	ND
B2-10.5	Dec-90	10.5	--	--	--	--	--	--	--	--	ND
B2-15.0	Dec-90	15.0	ND	ND	ND	ND	ND	0.025	--	--	ND
B2-25.5	Dec-90	25.5	ND	ND	ND	0.011	ND	0.029	--	--	ND
B3-15.5	Dec-90	15.5	ND	ND	ND	0.01	ND	0.025	--	--	ND
B3-25.5	Dec-90	25.5	ND	8.8	ND	0.29	0.17	0.8	--	--	ND
B3-35.5	Dec-90	35.5	ND	ND	ND	0.021	0.0073	0.041	--	--	ND
B4-14.0	Dec-90	14.0	ND	2.3	0.011	0.038	0.031	0.15	--	--	ND
B4-24.5	Dec-90	24.5	ND	370	0.45	10	0.77	30	--	--	ND
B4-34.5	Dec-90	34.5	ND	ND	0.0061	0.029	0.0067	0.037	--	--	ND
TANK PIT											
1-12.0	Dec-89	12.0	ND	31,000	190	3,000	68	2,600	--	--	710
2-12.0	Dec-89	12.0	ND	490	1.4	2.5	6.1	23	--	--	570
3-12.0	Dec-89	12.0	440	300	ND	720	4.7	12	--	--	540
4-12.0	Dec-89	12.0	--	630	ND	ND	17	29	--	--	--
5-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	160
6-5.5	Dec-89	5.5	--	--	--	--	--	--	--	--	440
7-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	460
8-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	540
9-5.5	Dec-89	5.5	--	--	--	--	--	--	--	--	1,100
10-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	600
11-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	530
12-5.5	Dec-89	5.5	--	--	--	--	--	--	--	--	590
13-1.0	Dec-89	1.0	--	--	--	--	--	--	--	--	200
14-0.5	Dec-89	0.5	--	--	--	--	--	--	--	--	440
15-0.5	Dec-89	0.5	--	--	--	--	--	--	--	--	410
16-0.5	Dec-89	0.5	--	--	--	--	--	--	--	--	650

Abbreviations and Methods:

Commercial ESL, drinking water = Table A-2 - Environmental Screening Levels for Shallow Soil (<3 meters) where groundwater is a current or potential source of drinking water, as established by the RWQCB-SFBR, Interim Final November 2007 (Revised May 2008).

Commercial ESL, non-drinking water = Table B-2 - Environmental Screening Levels for Shallow Soil (<3 meters) where groundwater is not a current or potential source of drinking water, as established by the RWQCB-SFBR, Interim Final November 2007 (Revised May 2008).

7.1 = Concentrations in **bold** are soil exceeding the commercial ESL protective of groundwater as a drinking water resource.

ft bgs = feet below ground surface.

mg/kg = milligrams per kilogram.

TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015C.

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 8260.

1,2 DCA = 1,2 Dichloroethane

TOG = Total Oil & Grease

-- = Not collected, not analyzed, or not applicable.

ND = Not detected above laboratory reporting limits.

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Table 2. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> (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)
Grab Groundwater Sampling												
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	--	--
Monitoring and Remediation Well Data												
MW-1	10/5/1990	26.40	68.08	620,000	33,000	50,000	7,900	41,000	--	--	ND	--
94.48	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	--	--	--

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Table 2. 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-1	2/9/1998	22.64	71.84	220,000	47,000	60,000	5,200	29,800	<1,000	--	ND	--
(continued)	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)	--	--	--	--	--	--	--	--

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Table 2. 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-1 (continued)	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
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	--
MW-3 90.08	3/1/1991	23.17	66.91	<50	<50	0.6	<0.5	<0.5	--	--	ND	--
	11/25/1992	23.01	67.07	50	<0.5	0.9	<0.5	2	--	--	ND	--
	4/5/1993	22.11	67.97	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	23.93	66.15	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	23.14	66.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	20.61	69.47	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	18.43	71.65	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	19.77	70.31	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
	4/29/1998	17.92	72.16	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
MW-4 88.84	3/1/1991	23.79	65.05	150,000	20,000	38,000	2,800	14,000	**	--	ND	--
	10/12/1992	22.48	66.36	230,000	15,000	32,000	2,500	14,000	--	--	--	--
	11/24/1992	22.60	66.24	210,000	14,000	31,000	2,500	14,000	--	--	ND	--
	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	--	--	--	--	--	--	--	--

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Table 2. 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-4	5/2/1996	17.50	71.34	140,000	24,000	50,000	3,000	15,100	--	--	ND	--
(continued)	11/4/1996	20.13	68.71	160,000	16,000	38,000	2,700	14,000	--	--	ND	--
	5/8/1997	18.63	70.21	170,000	16,000	37,000	2,400	15,900	--	--	--	--
	11/5/1997	20.19	68.65	190,000	15,000	31,000	2,200	14,600	<400	--	--	--
	2/9/1998	18.28	70.56	110,000	19,000	42,000	2,500	18,300	<500	--	--	--
	5/1/1998	16.11	72.73	130,000	15,000	31,000	2,000	13,400	<1,000	--	ND	--
	8/4/1998	17.54	71.30	130,000	16,000	34,000	2,400	15,700	<400	--	ND	--
	11/2/1998	19.21	69.63	140,000	16,000	32,000	2,300	15,500	<400	--	ND	--
	3/26/1999	17.51	71.33	110,000	15,000	30,000	1,600	15,000	450 ⁴	--	⁵	--
	7/1/1999	18.80	70.04	110,000	13,000	23,000	1,600	12,000	<83	--	⁵	--
	9/21/1999	19.85	68.99	140,000	16,000	31,000	2,400	14,800	ND	--	⁵	3.27
	2/9/2000	19.76	69.08	140,000	16,000	28,000	2,100	14,000	<400	--	DCB: 5.9, MCB: 5.9	--
	5/31/2000	17.90	70.94	15,000	17,000	28,000	2,400	14,000	<0.5 ⁶	--	ND	--
	8/8/2000	18.62	70.22	140,000	15,000	25,000	2,100	13,000	<300	--	ND	0.60
	11/14/2000	19.63	69.21	150,000	19,000	36,000	2,900	17,000	<200	--	ND	0.32
	3/1/2001	19.68	69.16	120,000	10,000	15,000	1,300	10,000	<2000	--	ND	0.13
	5/7/2001	18.60	70.24	210,000	12,000	19,000	1,900	12,000	<200	--	ND	0.23
	8/1/2001	18.73	70.11	160,000	13,000	21,000	2,200	13,000	<200	--	ND	--
	11/5/2001	18.97	69.87	220,000	15,000	26,000	3,100	16,000	<200	--	ND	--
	2/13/2002	18.59	70.25	180,000	6,100	11,000	1,400	13,000	<200	--	ND	0.43
	5/2/2002	18.77	70.07	110,000	13,000	20,000	2,000	10,000	<1,200	--	ND	0.21
	8/4/2002	18.95	69.89	92,000	9,200	15,000	1,800	10,000	<2,000	--	ND	0.35
	11/26/2002	20.83	68.01	110,000	16,000	26,000	2,700	12,000	<1,000	--	ND	0.29
	1/20/2003	16.90	71.94	110,000	9,000	16,000	1,900	11,000	<1,200	--	ND	0.35
	5/28/2003	15.25	73.59	110,000	13,000	17,000	1,800	8,500	<1,000	--	ND	0.59
	8/5/2003	17.05	71.79	110,000	13,000	20,000	2,200	9,800	<1,000	--	<25	0.66
	11/10/2003	16.60	72.24	130,000	14,000	23,000	2,700	12,000	<2,700	--	--	0.74
88.84	2/18/2004	16.59	72.25	110,000	11,000	17,000	1,600	9,900	<3,500	--	--	0.46
	5/27/2004	15.97	72.87	97,000	12,000	18,000	2,100	8,900	<3,000	--	--	0.59
	8/19/2004	18.11	70.73	92,000	9,500	15,000	1,900	8,600	<2,500	--	--	0.77
	12/27/2004	19.53	69.31	120,000	16,000	28,000	2,800	12,000	<1,000	--	--	0.2
	2/18/2005	18.40	70.44	97,000	11,000	16,000	1,700	7,400	<4,000	<50	<50	0.89
	5/11/2005	17.93	70.91	110,000	10,000	16,000	1,900	8,400	<3,000	--	--	1.03
	8/3/2005	18.14	70.70	110,000	12,000	18,000	2,200	8,000	<3,600	--	--	0.77

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Table 2. 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-4	11/30/2005	19.70	69.14	100,000	12,000	18,000	2,200	9,400	<2700	--	--	0.39
(continued)	2/17/2006	17.63	71.21	100,000	12,000	17,000	2,100	7,800	<2500	39	<10	0.2
	5/12/2006	15.53	73.31	100,000	11,000	15,000	2,100	8,700	2,000	--	--	0.27
	8/7/2006	17.75	71.09	97,000	11,000	15,000	2,200	8,700	<1,500	--	--	0.47
	11/21/2006	19.14	69.70	99,000	9,200	13,000	2,000	8,100	<2,100	--	--	0.20
	2/12/2007	18.98	69.86	140,000	11,000	16,000	2,100	7,800	<3,600	32	<5 ⁷	0.20
	5/11/2007	18.27	70.57	140,000	9,900	15,000	2,000	7,200	<2,700	32	--	0.62
	8/16/2007	19.54	69.30	100,000	9,300	14,000	2,100	8,800	1,600	--	--	0.53
	11/26/2007	20.47	68.37	110,000	9,200	16,000	2,400	10,000	<2,400	--	--	0.57
	5/29/2008	19.60	69.24	94,000	6,400	11,000	1,700	6,300	<3,500	--	--	0.24
MW-5	3/15/1991	26.31	58.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
84.84	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	3/15/1991	25.82	59.80	80,000	12,000	13,000	1,100	5,400	--	--	DBCM: 160	--
85.62	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	--	--	--	--

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Table 2. 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-6	11/5/1997	26.16	60.78	160,000	13,000	19,000	1,900	14,300	<200	--	--	--
(continued)	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)	--	--	--	--	--	--	--	--

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Table 2. 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-6	2/12/2007	23.97	61.87	SPH (0.02)	--	--	--	--	--	--	--	--
(continued)	5/11/2007	23.54	62.30	--	--	--	--	--	--	--	--	0.70
	8/16/2007	24.18	61.66	--	--	--	--	--	--	--	--	0.63
	11/26/2007											
	5/29/2008	24.29	61.55	--	--	--	--	--	--	--	--	0.48
MW-7	3/15/1991	21.63	63.78	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
85.41	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	--
	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	--

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Table 2. 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-7	11/5/2001	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
(continued)	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
MW-8	10/12/1992	27.70	57.80	70	20	1	1	3	--	--	--	--
85.50	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	--	--	--	--

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Table 2. 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	12/4/1995	26.72	58.78	250	46	0.9	4.9	<0.5	--	--	ND	--
(continued)	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	--	--	--	--
	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

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Table 2. 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	2/18/2005	26.00	59.50	130	27	0.70	2.3	0.69	<5.0	47	<1.0	0.91
(continued)	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
MW-9	11/24/1992	23.51	66.86	19,000	180	590	23	2,000	--	--	TCM: 15	--
90.37	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 ³	<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	--

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Table 2. 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-9	8/8/2000	19.86	70.51	1,300	140	2.1	19	<0.5	<5.0	--	ND	2.4
(continued)	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
	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 ^a	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

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Table 2. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to Groundwater <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TVH/TPHg <i>(µg/L)</i>	Benzene <i>(µg/L)</i>	Toluene <i>(µg/L)</i>	Ethyl- benzene <i>(µg/L)</i>	Xylenes <i>(µg/L)</i>	MTBE <i>(µg/L)</i>	1,2-DCA <i>(µg/L)</i>	Other HVOCs <i>(µg/L)</i>	DO <i>(mg/L)</i>
MW-10	10/12/1992	21.55	67.05	28,000	2,700	3,800	210	1,300	--	--	--	--
88.60	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	11/24/1992	33.65	68.41	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
102.06	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	11/24/1992	26.05	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
84.06	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	--

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Table 2. 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-13	11/5/1997	24.27	59.79	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
(continued)	2/9/1998	22.89	61.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	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

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Table 2. 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-13 (continued)	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	60.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--
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)	--	--	--	--	--	--	--	--
	2/17/2006	23.87	70.81	SPH (0.02)	--	--	--	--	--	--	--	--

Pangea

Table 2. 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-14 (continued)	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
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)	--	--	--	--	--	--	--	--

Pangea

Table 2. 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-15 (continued)	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 (0.03)	--	--	--	--	--	--	--	--
	5/12/2006	21.88	72.90	SPH (0.03)	--	--	--	--	--	--	--	--
	8/7/2006	22.05	72.73	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
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	--	--
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	--	--
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	--	--
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	--	--
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	--	--
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	--	--

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Table 2. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
<i>TOC Elev.</i>	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
Additional Remediation Well Data												
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	--	--	--
RW-3A	4/12/2007	15.40	--	81,000	7,900	16,000	1,800	8,400	<1,500	--	--	--
RW-3B	4/12/2007	24.06	--	5,100	340	330	37	400	<150	--	--	--
VE-1	4/11/2007	33.02	--	260,000	35,000	42,000	3,600	17,000	<4,000	--	--	--

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 = Chloroform = trichloromethane

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.

Pangea

Table 2. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
<i>TOC Elev.</i>	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)

** = 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.

APPENDIX A

Permits

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 07/08/2008 By jamesy

Permit Numbers: W2008-0418
Permits Valid from 07/30/2008 to 08/27/2008

Application Id: 1215555604947
Site Location: Broadway at Hawthorne Street
Project Start Date: 07/30/2008
Requested Inspection: 08/05/2008
Scheduled Inspection: 08/05/2008 at 11:30 AM (Contact your inspector, Ron Smalley at (510) 670-5407, to confirm.)

City of Project Site: Oakland
Completion Date: 08/27/2008

Applicant: Pangea Environmental Services, Inc. - Morgan
Gillies
1710 Franklin St., Suite 200, Oakland, CA 94612
Phone: 510-836-3700

Property Owner: City of Oakland
One Frank H. Ogawa Plaza, Oakland, CA 94612
Phone: --

Client: Hill Family and Linden Broadway Trusts
305 Sheridan Ave., Piedmont, CA 94611
Phone: --

Receipt Number: WR2008-0237 Total Due: \$230.00
Payer Name : Robert Clark-Riddell Total Amount Paid: \$230.00
Paid By: VISA PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 4 Boreholes
Driller: RSI Drilling, Inc. - Lic #: 802334 - Method: DP

Work Total: \$230.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0418	07/08/2008	10/28/2008	4	2.25 in.	40.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

Alameda County Public Works Agency - Water Resources Well Permit

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

Applications for which no permit is issued within 180 days shall expire by limitation.

Appl# OB080643

Job Site 3393 BROADWAY

Parcel#

parking for one meter space 25ft no sidewalk or lane closure

Permit Issued 07/29/08

Nbr of days: 1

Effective: 08/05/08

Nbr of meters: 2

Expiration: 08/05/08

3300 BROADWAY

SHORT TERM METERED

Applicant

Phone#

Lic#

-- License Classes --

Owner EPSTEIN LEONARD & TAGAMI PHILL

Contractor

Arch/Engr

Agent BRYCE TAYLOR

X

(510) 836-3702

Applic Addr 1710 FRANKLIN #200, OAKLAND, CA, 94616

\$150.33 TOTAL FEES PAID AT ISSUANCE

\$66.00 Applic \$65.00 Permit

\$0.00 Process \$12.45 Rec Mgmt

\$0.00 Gen Plan \$0.00 Invstg

\$0.00 Other \$6.88 Tech Enh

ADDRESS:

DIST:

CITY OF OAKLAND

JOB SITE

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

Applicant:



7/29/08

Issued by:

7/29/08

PAID
SYIC 7/29/08

CITY OF OAKLAND • Community and Economic Development Agency

50 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation.

Appl# OB080644

Job Site 3393 BROADWAY

Parcel#

lane closure for core drilling no parking or sidewalk closure

Permit Issued 07/29/08

3093 BROADWAY

Nbr of days: 1

Linear feet: 75

Effective: 08/05/08

Expiration: 08/05/08

SHORT TERM NON-METERED

Applcmt

Phone#

Lic#

--License Classes--

Owner EPSTEIN LEONARD & TAGAMI PHILL

Contractor

Arch/Engr

Agent BRYCE TAYLOR

X

(510) 836-3702

Applic Addr 1710 FRANKLIN #200, OAKLAND, CA, 94616

\$131.39 TOTAL FEES PAID AT ISSUANCE

\$66.00 Applic \$48.50 Permit

\$.00 Process \$10.88 Rec Mgmt

\$.00 Gen Plan \$.00 Invstg

\$.00 Other \$6.01 Tech Enh

JOB SITE

CITY OF OAKLAND

ADDRESS:

DIST:

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

Applicant

[Handwritten signature]

7-29-08
7/29/08

Issued by:

PAID
SVC 7/29/08

CITY OF OAKLAND



PUBLIC WORKS AGENCY • 250 FRANK H. OGAWA PLAZA • SUITE 4344 • OAKLAND, CALIFORNIA 94612-2033

Transportation Services Division

Office (510) 238-3466

FAX (510) 238-7415

TDD (510) 839-6451

Traffic Engineering Services Analysis Fee Invoice

Date: July 29, 2008

TSD Invoice # : 08-0109

To: Morgan Gillies

Company: Pangea Enviromental Services

Address: 1710 Franklin Street, Ste 200, Oakland CA 94612

Phone: 510-836-3700

Created/Received By: Joe Watson

Location	Description of Work	Project Name / Permit #	# of Hours *
Broadway / Hawthorne	Lane Closure		1
Total Hours			1
TSD Service Rate			\$ 123.00
Total Fee			\$ 123.00

* - minimum 1 hour service

FOR CITY USE ONLY	
Cost Center No.	W659
Organization No.	88363
Account No.	45119
Fund No.	1750

Cc: Rosalie

APPLICATION FOR TRAFFIC CONTROL PLAN RECEIVED TRANSPORTATION SERVICES (Check or Money Order Only) Transportation Services Fee: \$129/hour



08 JUL 18 AM 11:01

Community & Economic Development Agency Transportation Services Division

- Check the box that apply:
[X] New Application (Utility, Excavation)
[] Renewal Application
[] New Development w/ Mgmt Plan
[] City of Oakland Project

Please Read the Following Statements Below:

- 1. Processing time for a Traffic Control Application is a minimum of 10 business days.
2. Traffic Control review is scheduled only on Tuesdays and Thursdays from 8:30am thru 11:30am by appointment only.
3. A scheduled appointment by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plans.
4. Please call ahead to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided 72 hour advance notice.
6. A completed traffic control application may be faxed to (510) 238-7415.
7. Incomplete traffic control applications will not be processed and returned to applicant immediately.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. After receiving TSD approval of the traffic control application, contractor shall proceed to the Permit Center to 'Obstruction' obtain an obstruction permit.

Contact Person: Morgan Gillies Phone: (408) 910-1783
Name of Company: Pangea Environmental Fax: (510) 836-3709
Address of Company: 1710 Franklin St, Suite 200

Describe type of work to be performed: 4 Direct Push borings for soil and groundwater samples. Approximately 2-3 hours work at each location.

Location of work: Elm Street Between Brook St. and Piedmont Ave.
Work date (s): 8/5 - 8/6 Mon-Fri Sat-Sun Work Hours: 9am to 4pm

Please Follow these Steps in Order to Complete a Traffic Control Plan:

- A. Drawing Area: The full width of all streets adjacent to the site MUST be included in the drawing.
B. Include Street Names, Direction of Traffic on the Street, and North Arrow
C. Show Existing Number of Lanes in all Directions (with any pavement arrows)
D. Check the Box(es) that apply: All checked items MUST be shown on the drawing
E. Show All Dimensions of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension.
F. Show the Name and Locations of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

RENEWAL PROCESS: Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP: For more information on traffic control plans, see Temporary Traffic Control Pocket Reference Guide 2006, Work Area Traffic Control Handbook 2006, or the California MUTCD (MUTCD) 2003, Chapter 8.
http://www.fdot.state.fl.us/tech/mutcdsupp/ca_mutcd.htm
For City website: http://www.ci.oakland.ca.gov/4.comPage546.aspx

* Name the location of the work area(s) of your work area.

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
 Project Number: TSD-08-0109
 Reviewed By: JWatson *[Signature]*
 Date: 7/29/2008
 Permit good from 8/5/2008
 to 8/6/2008

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2000 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices, Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

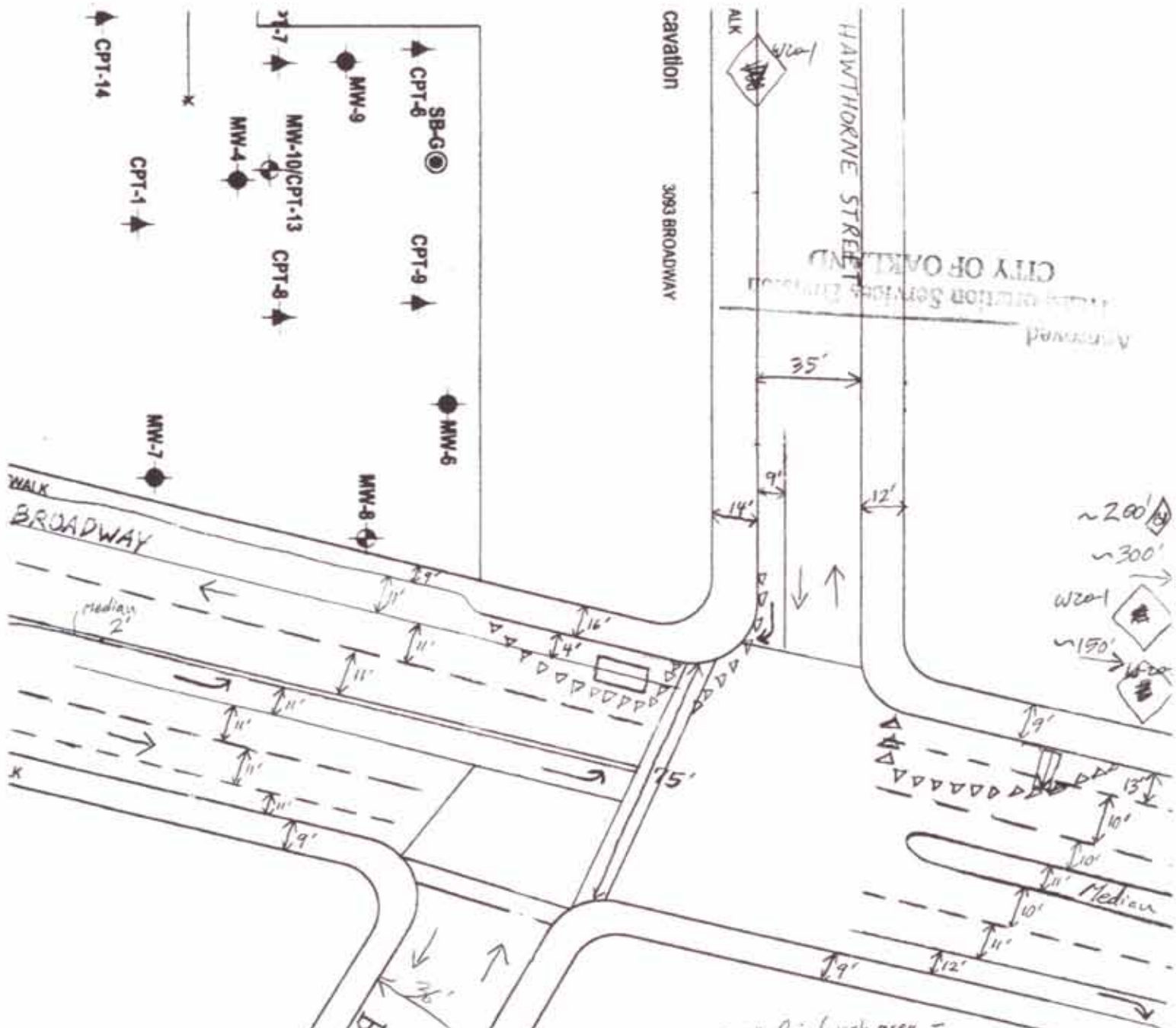
The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction Period	North Bound	South Bound	East Bound	West Bound
Broadway between Brook Street and Piedmont Avenue	Mon. – Fri. 9am – 4pm	1-12' lane open minimum	1-12' lane open minimum	N/A	N/A

The Contractor Shall Also include all check item:

1. Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. Provide advance notice to Oakland Police at (510) 615-5874 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street. *Call Day etc*
4. Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. Flagger control is required. Certified Flagger is required.
7. Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. Pedestrian traffic shall be maintained and guided through the project at all times.
9. Provide advance notice to Business and Residence within 72-hours.
10. Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

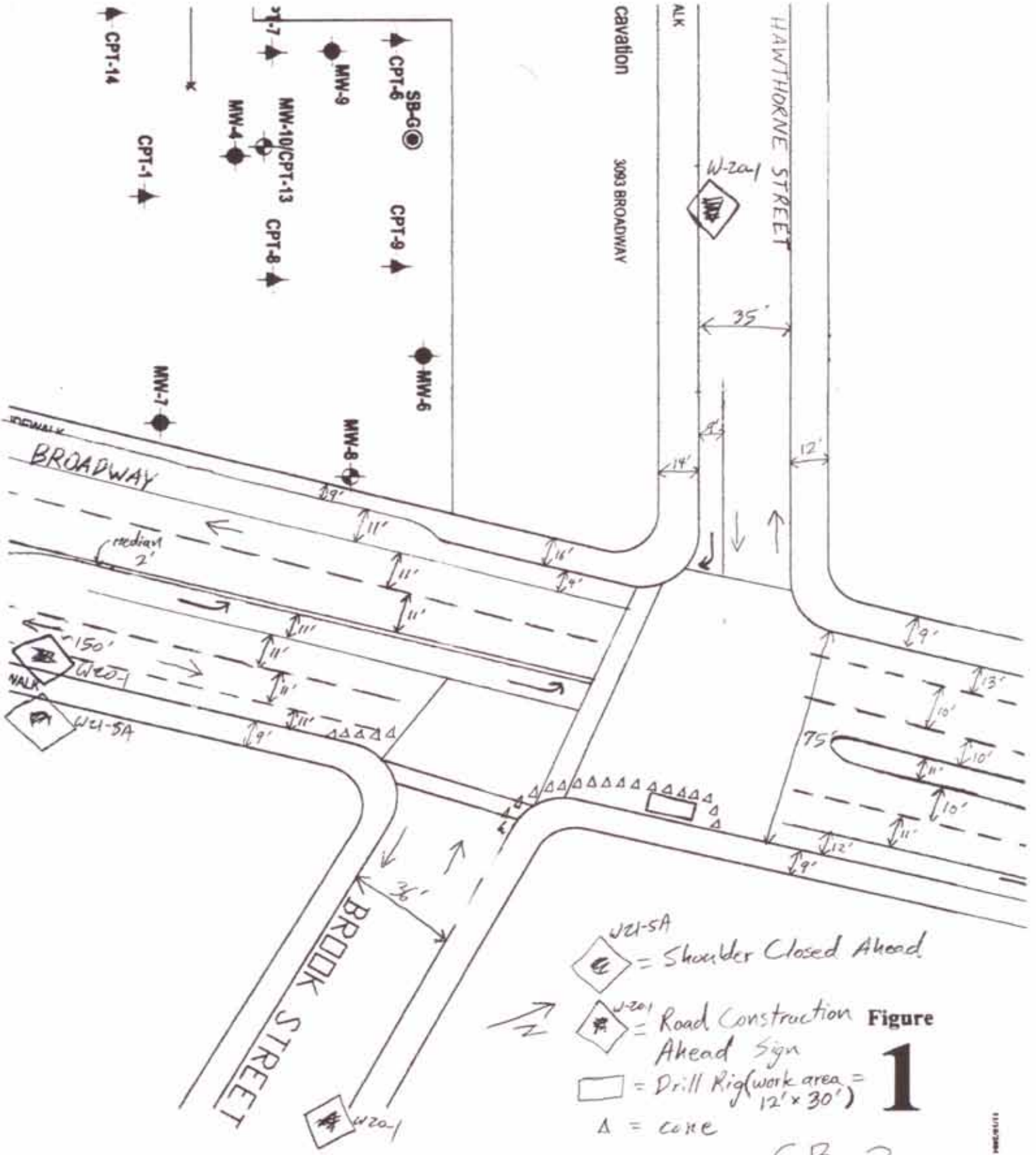


Approved
Joe Watch 7/24/08
 Transportation Services Division
 CITY OF OAKLAND

- = Drill Rig (work area = 12' x 30')
- = Road Construction Ahead Sign
- = Right Lane Closed Sign
- Δ = cone
- = Flashing Arrowboard SB-1
- = Bike Lane Closed Ahead

Figure
1

Site Map with Boring/Well Locations



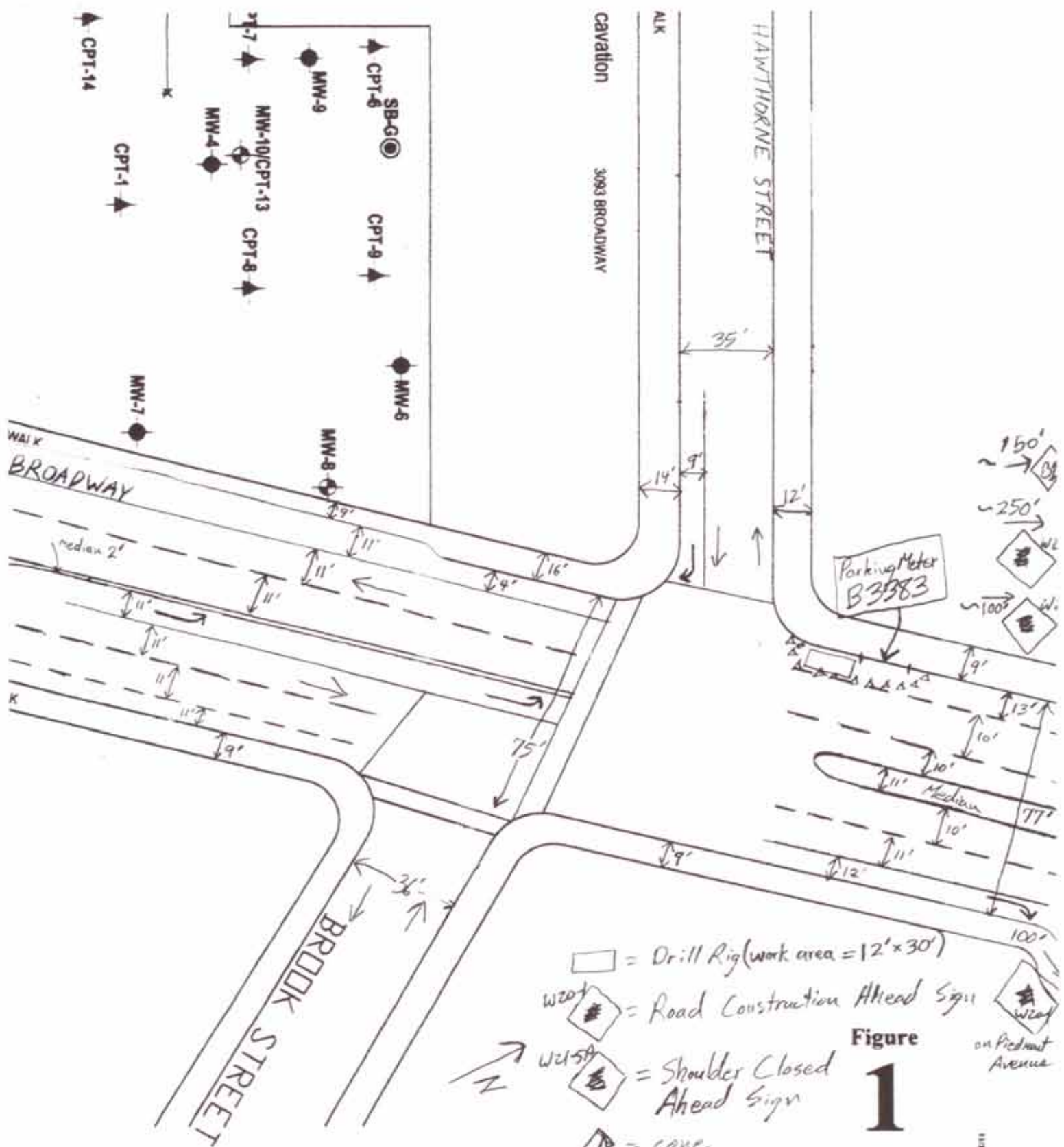
- = Shoulder Closed Ahead
- = Road Construction Ahead Sign
- = Drill Rig work area = 12' x 30'
- = core

Figure 1

SB-2

Pangea
ENVIRONMENTAL SERVICES, INC.

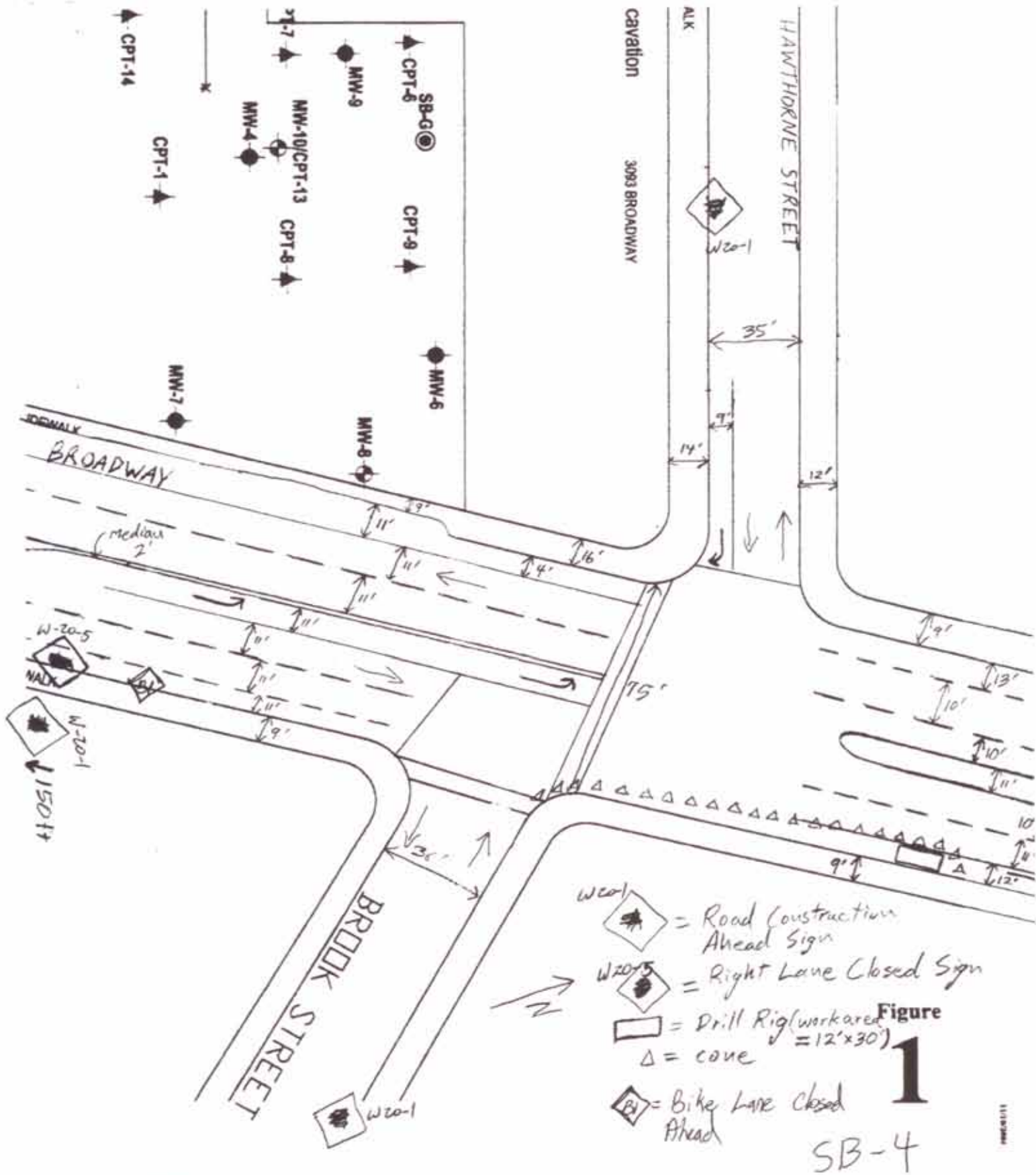
Site Map with Boring/Well Locations
Approved Joe Watson 7/09/08
Transportation Services Division
CITY OF OAKLAND



- = Drill Rig (work area = 12' x 30')
- = Road Construction Ahead Sign
- = Shoulder Closed Ahead Sign
- = cone
- = Bike Lane Ends Ahead

Figure 1

SB-3
 Site Map with Boring/Well Locations
 Approved Joe Watson 7/29/08
 Transportation Services Division
 CITY OF OAKLAND



APPENDIX B

Pangea's Standard Operating Procedures for Soil Borings

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document describes Pangea Environmental Services' standard field methods for drilling and sampling soil borings. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality, and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist, scientist or engineer working under the supervision of a California Registered Engineer, California Registered Geologist (RG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e. sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or product saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e. cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or hydraulic-push technologies. At least one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples are collected near the water table and at lithologic changes. With hollow-stem drilling, samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments beyond the bottom of the borehole. With hydraulic-push drilling, samples are typically collected using acetate liners. The vertical location of each soil sample is determined by measuring the distance from the middle of the soil sample tube to the end of the drive rod used to advance the split barrel sampler. All sample depths use the ground surface immediately adjacent to the boring as a datum. The horizontal location of each boring is measured in the field from an onsite permanent reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes or cut acetate liners chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

Soil samples collected during drilling will be analyzed in the field for ionizable organic compounds using a photo-ionization detector (PID) with a 10.2 eV lamp. The screening procedure will involve placing an undisturbed soil sample in a sealed container (either a zip-lock bag, glass jar, or a capped soil tube). The container will be set aside, preferably in the sun or warm location. After approximately fifteen minutes, the head space within the container will be tested for total organic vapor, measured in parts per million on a volume to volume basis (ppmv) by the PID. The PID instrument will be calibrated prior to boring using hexane or isobutylene. PID measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Water Sampling

Water samples collected from borings are either collected from the open borehole, from within screened PVC inserted into the borehole, or from a driven Hydropunch-type sampler. Groundwater is typically extracted using a bailer, check valve and/or a peristaltic pump. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory.

Pangea often performs electrical conductivity (EC) logging and/or continuous coring to identify potential water-bearing zones. Hydropunch-type sampling is then performed to provide discrete-depth grab groundwater sampling within potential water-bearing zones for vertical contaminant delineation. Hydropunch-type sampling typically involves driving a cylindrical sheath of hardened steel with an expendable drive point to the desired depth within undisturbed soil. The sheath is retracted to expose a stainless steel or PVC screen that is sealed inside the sheath with Neoprene O-rings to prevent infiltration of formation fluids until the desired depth is attained. The groundwater is extracted using tubing inserted down the center of the rods into the screened sampler.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory QA/QC blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite on top of and covered by plastic sheeting. At least four individual soil samples are collected from the stockpiles for later compositing at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Ground water removed during sampling and/or rinsate generated during decontamination procedures are stored onsite in sealed 55 gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Disposal of the water is based on the analytic results for the well samples. The water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

APPENDIX C

Boring Logs



Pangea Environmental Services, Inc.
 1710 Franklin Street, Suite 200
 Oakland, CA 94612
 Telephone: 510-836-3700
 Fax: 510-836-3709

BORING NUMBER SB-1

CLIENT <u>Connell</u>	PROJECT NAME <u>Connell</u>
PROJECT NUMBER <u>1005.001</u>	PROJECT LOCATION <u>3093 Broadway, Oakland</u>
DATE STARTED <u>8/5/08</u> COMPLETED <u>8/5/08</u>	GROUND ELEVATION _____ HOLE SIZE _____
DRILLING CONTRACTOR <u>RSI Drilling, Inc.</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Direct Push - Dual Tube</u>	▽ AT TIME OF DRILLING <u>24.0 ft</u>
LOGGED BY <u>Bryce Taylor</u> CHECKED BY <u>Bob Clark-Riddell</u>	▼ AT END OF DRILLING <u>39.0 ft</u>
NOTES <u>Hand augered to 5'.</u>	▽ AFTER DRILLING <u>37.0 ft</u>

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
0						
0.5					Asphalt.	
5	SB-1-5		GC		Gravelly Clay (GC) ; brown and olive; 50-60% high plasticity fines; 30-40% fine gravels; 10-20% medium-grain sand; dry.	
6.0	SB-1-8		CL		Clay (CL) ; brown and tan; 90-95% medium to high plasticity fines; 5-10% fine gravels; dry; stiff.	
10	SB-1-12					
15	SB-1-16					
20	SB-1-20					No recovery.
24.0			SC		Clayey Sand (SC) ; brown; 75-80% fine-grain sand; 20-25% low to medium plasticity fines; wet.	

BH COPY CONNELL SB-1.GPJ GINT US.GDT 8/11/08

(Continued Next Page)



Pangea Environmental Services, Inc.
 1710 Franklin Street, Suite 200
 Oakland, CA 94612
 Telephone: 510-836-3700
 Fax: 510-836-3709

BORING NUMBER SB-1

PAGE 2 OF 2

CLIENT Connell

PROJECT NAME Connell

PROJECT NUMBER 1005.001

PROJECT LOCATION 3093 Broadway, Oakland

DEPTH (ft bgs)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	BORING DIAGRAM
25						
	SB-1-25		SC		Clayey Sand (SC) ; brown; 75-80% fine-grain sand; 20-25% low to medium plasticity fines; wet. <i>(continued)</i>	
	SB-1-26				Silty Clay (CL) ; 75-80% high plasticity fines; 20-25% non-plastic fines; dry; loose.	
	SB-1-28		CL			
30						
	SB-1-31		ML		Clayey Silt (ML) ; olive brown; 60-70% non-plastic fines; 30-40% medium plasticity fines; dry.	
	SB-1-34					
	SB-1-36		CL		Silty Clay (CL) ; 75-80% high plasticity fines; 20-25% non-plastic fines.	
	SB-1-38		SW		Gravelly Sand (SW) ; olive grey; 60-70% well-graded sand; 30-40% fine gravels; wet.	
40						
	SB-1-40				<i>(Reached max depth. Installed temporary casing. Pulled back outer casing to 5' (35-40'). Collected 4 rods. Adjacent hydropunch to 28', pulled back 4' (24-28'). Let rest for ~1 hour to allow water to come in. Returned after one hour, no water/dry.)</i> Bottom of hole at 40.0 feet.	

BH COPY CONNELL SB-1.GPJ GINT US.GDT 8/11/08

APPENDIX D

Laboratory Analytical Reports



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: Connell 3093 Broadway Oakland, CA	Date Sampled: 08/05/08
	Client Contact: Morgan Gillies	Date Received: 08/06/08
	Client P.O.:	Date Reported: 08/12/08
		Date Completed: 08/08/08

WorkOrder: 0808151

August 12, 2008

Dear Morgan:

Enclosed within are:

- 1) The results of the **7** analyzed samples from your project: **Connell 3093 Broadway Oakland, C**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

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.

0808151

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

EDF Required? Coelt (Normal)

RUSH 24 HR 48 HR 72 HR 5 DAY
No Write On (DW) No

Report To: Morgan Gillies Bill To: Pangea Environmental
Company: Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, CA 94612 E-Mail: mgillies @pangeaenv.com
Tele: (510) 836-3702 Fax: (510) 836-3709
Project #: Project Name: Collaell
Project Location: 3093 Broadway Oakland, CA
Sampler Signature: [Signature]

Analysis Request										Other	Comments																										
SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	MATRIX				METHOD PRESERVED																											
						Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)		Filter Samples for Metals analysis: Yes / No					
SB-1-40-gw	3093	8-5	1300	4	WA	X					X	X			X																						
SB-1-5	Bradway		1045	1	Tob	X					X																									HOLD	
SB-1-8			1050	1																																HOLD	
SB-1-12			1055	1																																HOLD	
SB-1-16			1100	1																																HOLD	
SB-1-20			1105	1											X	X	X																				
SB-1-25			1115	1											X	X	X																				
SB-1-26			1110	1											X	X	X																				HOLD
SB-1-28			1220	1											X	X	X																				HOLD
SB-1-31			1225	1											X	X	X																				HOLD
SB-1-34			1230	1											X	X	X																				HOLD
SB-1-36			1235	1											X	X	X																				HOLD
SB-1-38			1240	1											X	X	X																				HOLD
SB-1-40			1245	1											X	X	X																				

Relinquished By: [Signature] Date: 8/6 Time: 1410 Received By: [Signature]
Relinquished By: [Signature] Date: 8/6/08 Time: 530 Received By: [Signature]
Relinquished By: [Signature] Date: _____ Time: _____ Received By: _____

COMMENTS: ICE/t° 10.8°C ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓
PRESERVATION VOAS | O&G | METALS | OTHER
pH<2

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0808151

ClientCode: PEO

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Morgan Gillies	Email: mgillies@pangeaenv.com	Bill to:	Bob Clark-Riddell	Requested TAT: 5 days
	Pangea Environmental Svcs., Inc.	cc:		Pangea Environmental Svcs., Inc.	Date Received: 08/06/2008
	1710 Franklin Street, Ste. 200	PO:		1710 Franklin Street, Ste. 200	Date Printed: 08/06/2008
	Oakland, CA 94612	ProjectNo: Connell 3093 Broadway Oakland, CA		Oakland, CA 94612	
	(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	
0808151-001	SB-1-40-GW	Water	8/5/2008 13:00	<input type="checkbox"/>		A	A										
0808151-006	SB-1-20	Soil	8/5/2008 11:05	<input type="checkbox"/>	A												
0808151-007	SB-1-25	Soil	8/5/2008 11:15	<input type="checkbox"/>	A												
0808151-009	SB-1-28	Soil	8/5/2008 12:20	<input checked="" type="checkbox"/>	A												
0808151-011	SB-1-34	Soil	8/5/2008 12:30	<input type="checkbox"/>	A												
0808151-014	SB-1-40	Soil	8/5/2008 12:45	<input type="checkbox"/>	A												

Test Legend:

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

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.**
Project Name: **Connell 3093 Broadway Oakland, CA**
WorkOrder N°: **0808151** Matrix Soil/Water

Date and Time Received: **8/6/08 5:25:33 PM**
Checklist completed and reviewed by: **Melissa Valles**
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: 10.8°C NA
Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
Sample labels checked for correct preservation? Yes No
TTLC 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.

Client contacted: Date contacted: Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: Connell 3093 Broadway Oakland, CA	Date Sampled: 08/05/08
	Client Contact: Morgan Gillies	Date Received: 08/06/08
	Client P.O.:	Date Extracted: 08/06/08-08/08/08
		Date Analyzed: 08/07/08-08/08/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0808151

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SB-1-40-GW	W	ND	ND	ND	ND	ND	ND	1	103
006A	SB-1-20	S	ND	ND	ND	ND	ND	ND	1	82
007A	SB-1-25	S	ND	ND	ND	ND	ND	ND	1	80
009A	SB-1-28	S	ND	ND	ND	ND	ND	ND	1	76
011A	SB-1-34	S	ND	ND	ND	ND	ND	ND	1	86
014A	SB-1-40	S	ND	ND	ND	ND	ND	ND	1	88

Reporting Limit for DF =1; ND means not detected at or	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 and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37415

WorkOrder 0808151

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0808122-002			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND	60	106	106	0	94.9	103	8.61	70 - 130	20	70 - 130	20
MTBE	ND	10	90.9	88	3.25	80.4	76.9	4.44	70 - 130	20	70 - 130	20
Benzene	ND	10	89.9	86.8	3.46	93.1	93.5	0.362	70 - 130	20	70 - 130	20
Toluene	ND	10	84.8	81.9	3.40	91.2	92.3	1.20	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89	86.1	3.32	89	92.8	4.15	70 - 130	20	70 - 130	20
Xylenes	ND	30	84.4	81.7	3.17	83.2	87.9	5.45	70 - 130	20	70 - 130	20
%SS:	103	10	103	101	1.48	109	104	4.97	70 - 130	20	70 - 130	20

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

BATCH 37415 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808151-001A	08/05/08 1:00 PM	08/08/08	08/08/08 6:02 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/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 37436

WorkOrder 0808151

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B						Spiked Sample ID: 0808151-011			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	94.3	98.4	4.20	104	109	4.24	70 - 130	20	70 - 130	20
MTBE	ND	0.10	94.4	101	6.40	109	100	8.00	70 - 130	20	70 - 130	20
Benzene	ND	0.10	89.7	90.6	0.949	103	101	2.73	70 - 130	20	70 - 130	20
Toluene	ND	0.10	80.9	80.6	0.410	91.6	92.3	0.731	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	91.3	90.9	0.446	103	102	0.996	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	88.1	89.9	2.08	99.6	97.6	1.99	70 - 130	20	70 - 130	20
%SS:	86	0.10	81	82	0.604	94	92	2.10	70 - 130	20	70 - 130	20

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

BATCH 37436 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808151-006A	08/05/08 11:05 AM	08/06/08	08/07/08 6:28 PM	0808151-007A	08/05/08 11:15 AM	08/06/08	08/08/08 7:44 AM
0808151-009A	08/05/08 12:20 PM	08/06/08	08/08/08 8:17 AM	0808151-011A	08/05/08 12:30 PM	08/06/08	08/07/08 1:18 PM
0808151-014A	08/05/08 12:45 PM	08/06/08	08/07/08 2:01 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.