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ENVIRONMENT

Mr. Mark Detterman
Senior Hazardous Materials Specialist, PG, CEG
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject:
Groundwater Monitoring Well Installation Report
Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California
ACEH Case No.: RO0000066

Date:
August 24, 2015

Contact:
Hollis Phillips

Phone:
415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C044.K0000

Dear Mr. Detterman:

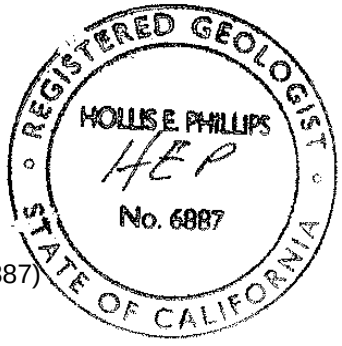
ARCADIS U.S., Inc. (ARCADIS) has prepared this report on behalf of Atlantic Richfield Company, a BP affiliated company, for the former BP service station listed below.

BP Facility No.	**ACEH Site No.**	**Location**
11126	RO0000066	1700 Powell Street Emeryville, California

I declare, to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct. If you have any questions or comments regarding the content of this report, please contact Hollis Phillips by telephone at 415.432.6903 or by e-mail at hollis.phillips@arcadis-us.com.

Sincerely,

ARCADIS U.S., Inc.



Hollis E. Phillips, P.G. (No. 6887)
Principal Geologist

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Imagine the result

Atlantic Richfield Company,
a BP-affiliated company

Groundwater Monitoring Well Installation Report

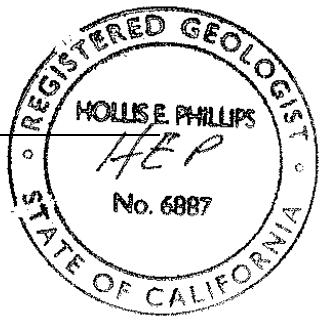
Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California
ACEH Case No.: RO0000066

August 24, 2015

ARCADIS

Jamey M. Peterson
Project Geologist

Hollis E. Phillips (No. 6887)
Principal Geologist



Groundwater Monitoring Well Installation Report

Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California

Prepared for:
Atlantic Richfield Company,
a BP-affiliated company

Prepared by:
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ARCADIS

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Acronyms and Abbreviations

1,2-DCA	1,2-dichloroethane
ACEH	Alameda County Environmental Health
ACPWA	Alameda County Public Works Agency
ARCADIS	ARCADIS U.S., Inc.
ARCO	Atlantic Richfield Company
bgs	below ground surface
BP	British Petroleum
BTEX	benzene, toluene, ethylbenzene, and xylenes
COPC	constituent of potential of concern
Cruz	Cruz Brothers Locators - Scotts Valley, California
DAF	Dilution Attenuation Factor
DIPE	di-isopropyl ether
DRO	diesel range organics (C10-C28)
EDB	ethylene dibromide
ESC	ESC Lab Sciences, Inc.
ESL	Environmental Screening Level
ETBE	ethyl tert-butyl ether
GRO	gasoline range organics (C6 - C12)
HASP	Health and Safety Plan
IDW	investigation-derived waste
LTC Policy	Low-Threat Underground Storage Tank Case Closure Policy
LRL	laboratory reporting limit
mg/kg	milligrams per kilogram

MTBE	methyl tertiary butyl ether
PAH	polycyclic aromatic hydrocarbon
PID	photo ionization detector
PPE	personal protective equipment
PVC	polyvinyl chloride
SF-RWQCB	San Francisco Bay Regional Water Quality Control Board
SIM	selective ion monitoring
site	former BP service station No. 11126, located at 1700 Powell Street, Emeryville, California
SWRCB	State Water Resources Control Board
TAME	tert-amyl methyl ether
TBA	tert-butyl alcohol
TestAmerica	TestAmerica Laboratories, Inc.
USA-North	Underground Service Alert-North
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound
µg/L	micrograms per liter

1. Introduction

On behalf of Atlantic Richfield Company (ARCO; a BP-affiliated company), ARCADIS U.S., Inc. (ARCADIS) prepared this *Groundwater Monitoring Well Installation Report* to present the results of site activities conducted at former BP Service Station No. 11126, located at 1700 Powell Street in Emeryville, California (site; Figure 1). The site activities were performed according the proposed well installation activities described in the *Site Investigation Summary Report* dated January 23, 2015 (ARCADIS 2015a) and the Alameda County Environmental Health (ACEH) letter dated May 13, 2015 (ACEH 2015).

Groundwater sampling results from the soil borings completed at the site in November 2014 indicated the upgradient extent of the petroleum hydrocarbon-affected groundwater plume had not been defined by the groundwater sampling results. Based on the findings of the November 2014 investigation, ARCADIS recommended the installation of a new groundwater monitoring well to be located in the northeast corner of the site for the purpose of assessing the upgradient extent of dissolved-phase petroleum hydrocarbons (ARCADIS 2015a). ACEH concurred with this recommendation in their letter dated May 13, 2015 (ACEH 2015). ACEH additionally requested the performance of a Dilution Attenuation Factor (DAF) analysis to determine the potential concentrations of site constituents in groundwater that may be discharged to the San Francisco Bay via storm drain utility trenches nearby the site (ACEH 2015).

Results of the site activities have been used to further assess the site to the Low-Threat Underground Storage Tank Case Closure Policy (LTC Policy; State Water Resources Control Board [SWRCB 2012]).

1.1 Site Background

The site is currently in use as a 76-branded gasoline station located on the northwest corner of the intersection of Powell Street and Christie Avenue in Emeryville, California (Figure 2). Three unleaded gasoline USTs are located at the site (one 6,000-gallon UST, one 10,000 gallon UST, and one 12,000-gallon UST). Historical documents indicate that these USTs were installed in the late 1980s (SECOR 2007). Site features include a station building and two dispenser islands with three dispensers each, for a total of six dispensers. The majority of the site surface is paved with concrete and asphalt.

Surrounding land use is commercial. A Denny's restaurant is located west of the site, a shopping plaza is located south of the site, a parking lot is located adjacent to the north of the site, and a furniture store is located to the east across Christie Avenue.

2. Groundwater Monitoring Well Installation Activities

On June 25, 2015, Cascade Drilling L.P. of Richmond, California, under the supervision of ARCADIS, installed one monitoring well (MW-12) to assess groundwater conditions in the upgradient extent of the Site.

2.1 Pre-Field Activities

Prior to initiating drilling activities, the site-specific Health and Safety Plan (HASP) was updated in accordance with state and federal requirements for use during the proposed field activities. A drilling permit (No. W2015-0489) from the Alameda County Public Works Agency (ACPWA) was obtained prior to initiation of drilling activities (Appendix A). Underground utilities and other potential subsurface obstructions near the proposed drilling locations were located and marked prior to sampling.

Utilities were identified by Underground Service Alert-North (USA-North) and a private third-party utility surveyor (Cruz Brothers Locators of Scotts Valley, California [Cruz]). The site was identified with white paint and a USA-North ticket was obtained prior to drilling activities. On June 24, 2015, Cruz screened the proposed drilling location to determine the locations of nearby underground utilities.

Subsurface utilities at the site were evaluated with subsurface locating equipment, including ground-penetrating radar, electromagnetic survey equipment, and radio frequency receivers. Manholes and other access ports were opened and assessed to verify the utilities' presence, depths, and trajectories to the extent feasible. Onsite utilities were traced to laterals that convey utilities to the site from their respective main lines. All major subsurface utilities that service the site were located coming from Christie Avenue.

2.2 Groundwater Monitoring Well Installation

One groundwater monitoring well, MW-12, was installed in the northeastern corner of the property in the parking area next to the pay phone adjacent to Christie Avenue. The newly installed monitoring well location is shown on Figure 2.

The well location was cleared for utilities by hand augering at three points around the well location to 6.5 feet below ground surface (bgs). Once cleared, MW-12 was advanced using direct-push probing equipment to depths of 16 feet bgs.

Soil samples were collected continuously in 1-inch diameter acetate liners. Retrieved soils were logged for lithologic properties, including soil type, color, and moisture content and field screened for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID). A soil VOC headspace screening was conducted at 1-foot intervals from the boring. VOC headspace screenings consisted of placing a small volume of soil from the acetate liner into a sealed container (zip-top bag). The bag was allowed to be warmed in the sun for approximately 20 minutes, then the headspace within the bag was screened for total organic vapor, measured with the PID in parts per million (ppm: volume/volume). The PID results were noted on the field boring logs (Appendix B). PID results ranged from 0.9 ppm to 69.8 ppm at MW-12.

Groundwater was encountered during drilling at approximately 6 feet bgs. Soil samples were logged by experienced field personnel under the supervision of a California Professional Geologist. Soil boring logs are provided in Appendix B.

After reaching the total depth, the direct-push equipment was removed from the borehole and the drill rig was converted for hollow-stem auger drilling. The borehole was over drilled using 8-inch outside diameter hollow-stem auger equipment to 14 feet bgs to facilitate well construction.

2.2.1 Soil Sampling Procedures and Analyses

Soil samples were collected for laboratory analysis from MW-12 from the soil intervals exhibiting the most impacts based on observed color, staining, and relative VOC concentrations as measured with a PID. The sampled intervals sent for analytical testing included 2.5 - 3.0 feet, 5.0 - 5.5 feet, and 8.5 - 9.0 feet.

All soil samples were sealed, labeled, and placed in an ice-chilled cooler for delivery to ESC Lab Sciences (ESC), of Mount Juliet, Tennessee, a California Department of Public Health-certified analytical laboratory, under proper chain-of-custody procedures. Soil samples collected from MW-12 were analyzed for the following:

- Gasoline range organics (C6-C12) (GRO) using United States Environmental Protection Agency (USEPA) Method 8015;

- Diesel range organics (DRO) using USEPA Method 8015 Modified with Silica Gel Treatment;
- Benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), methyl tertiary butyl ether (MTBE) using USEPA Method 8260B; and
- Polycyclic Aromatic Hydrocarbons (PAHs) using USEPA Method 8270 selective ion monitoring (SIM).

2.2.2 Monitoring Well Construction

Upon completion of the 8-inch diameter borehole to 14 feet bgs, the monitoring well was constructed with 2-inch-diameter schedule 40 poly vinyl chloride (PVC) casing with 10 feet of 0.010-inch slotted PVC screen at the base of the well from 14 feet bgs to 4 feet bgs. A clean sand filter pack consisting of No. 2/12 Monterey Sand was placed around the well from the bottom of the borehole to approximately 1 foot above the screen interval at approximately 3 feet bgs. A 1-foot-thick hydrated bentonite seal was placed above the sand pack from 3 feet bgs to 2 feet bgs. The remainder of the annular space was tremie grouted with neat cement to approximately 6 inches bgs. The well was fitted with a well cap and completed with a locking, traffic-rated flush mounted well box. Monitoring well construction activities were completed in the presence of an ACPWA grout inspector. Well construction details for the well are included in Appendix B.

2.2.3 Monitoring Well Development

On July 1, 2015, MW-12 was developed using a combination of surging, bailing, and pumping. A surge block was moved up and down across entire well to remove fine-grained deposits from the formation near the monitoring well, boring wall, and from the filter pack material. After surging the monitoring well, a positive air displacement pump was used to remove water containing suspended sediments from the casing. Additional purging was conducted with a submersible pump placed near the bottom of the well. The final development task included pumping the well at a steady flow rate while monitoring groundwater parameters (including pH, temperature, conductivity, turbidity and dissolved oxygen) using a water quality meter with a flow-through cell.

MW-12 dewatered during development activities following the removal of approximately 5.5 casing volumes. The water level was allowed to return to approximately 80% of its pre-purge level prior to continuation of development activities. MW-12 development terminated after the third dewatering when the total depth had a hard tag and approximately 14 casing volumes were removed.

Monitoring well development field sheets are included in Appendix C.

2.2.4 Groundwater Monitoring and Sampling Activities

The newly installed monitoring well was sampled on July 10, 2015. Analysis is presented in the results section and in Table 3 and Table 4. MW-12 will be sampled on a quarterly basis for one year to obtain sampling results encompassing a full hydrologic cycle.

Before groundwater samples were collected, depth to groundwater was measured to within 0.01 feet below top of casing (BTOC) in well MW-12 using a water level indicator.

Split groundwater samples were collected from MW-12 and were submitted under chain-of-custody protocol to TestAmerica Laboratories, Inc. (TestAmerica) of Pleasanton, California and to ESC. Both laboratories are California Department of Public Health certified analytical laboratories.

Split groundwater samples were collected from MW-12 because anomalous constituent concentration results were observed in the analytical report produced by ESC during the semi-annual groundwater sampling event on June 18, 2015. The June 2015 groundwater monitoring event was the first time ESC analyzed samples from the Site. The previous laboratory for the site, TestAmerica (including labs acquired by TestAmerica), had provided analytical services for the site since at least 1998. The split groundwater samples were subjected to the same analytical testing to evaluate the degree of consistency between the two laboratories. MW-12 groundwater samples were analyzed for the following:

- DRO (C10 – C28) using USEPA Test Method 8015B with Silica Gel Treatment.
- GRO using USEPA Method 8260B (Test America), and USEPA Method 8015 (ESC).
- BTEX, MTBE, tertiary-butyl alcohol (TBA) tert-amyl methyl ether (TAME) using USEPA Method 8260B.
- PAHs by USEPA Method 8270 SIM.

Monitoring well sampling field sheets are included in Appendix C.

2.3 Monitoring Well Survey

The top of casing and ground surface elevation, as well as the northing and easting for all of the monitoring wells MW-1 through MW-12, were surveyed by a California-licensed land surveyor on July 1, 2015. The survey results are included in Appendix D.

2.4 Equipment Decontamination Procedures

Down-hole drilling and sampling equipment was steam-cleaned prior to deployment and following the completion of each sampling and well destruction location. Decontamination of non-dedicated or non-disposable field equipment was conducted using a Liquinox® solution and deionized water rinse between each boring to prevent cross-contamination.

2.5 Investigation-Derived Waste Disposal

Investigation-derived waste (IDW) generated during investigation activities included soil cuttings, decontamination fluids, purge/rinse water, personal protective equipment (PPE), and other disposable sampling materials. Soil cuttings derived from drilling as well as wastewater from decontamination procedures and purge water from the collection of groundwater samples and well development were placed into 55-gallon drums and temporarily stored on site pending characterization and disposal. PPE (such as nitrile gloves) and disposable supplies (such as paper and plastic) were treated as municipal waste. Composite soil and aqueous samples of IDW were collected for waste profiling purposes. The water IDW was removed from the site by Integrated Wastestream Management, Inc. on July 22, 2015. The soil IDW was removed from the site by Belshire Environmental Services, Inc. on August 11, 2015. Copies of the waste manifests are included as Appendix E.

3. Results

3.1 Screening Levels for Constituents of Concern

Concentrations of constituents detected in soil and groundwater above laboratory reporting limits (LRLs) were compared to regulatory screening levels to assess potential risks. Concentrations of constituents in groundwater were compared to the Environmental Screening Levels (ESLs) for Drinking Water (Table F-3 of San Francisco Regional Water Quality Control Board [SF-RWQCB] 2013). Concentrations of constituents in soil were compared to the Commercial Direct Exposure Screening

Levels (Table K-2 of SF-RWQCB 2013), Construction Worker Direct Exposure Screening Levels (Table K-3 of SF-RWQCB 2013), and Low-Threat Closure Policy soil cleanup goals (Table 1 of SWRCB 2012). The screening levels used are provided in Tables 1, 2, and 4 of this report.

3.2 Lithology

Soil boring logs showing sampling intervals and stratigraphic descriptions for MW-12 are included in Appendix B.

Subsurface materials encountered consisted of road base materials to a depth of approximately 6 inches bgs, generally underlain by brown sand to approximately 2 feet bgs. From 2 feet bgs to approximately 10 feet bgs, a soft to medium-stiff, plastic, clay persisted. Anomalous materials, such as a lens of organic debris (wood) and roofing felts were encountered between 8 to 10 feet bgs. Wet formation materials, indicating the presence of groundwater, was observed at approximately 6 feet bgs. Silty sand was encountered from 10 feet bgs to 13 feet bgs, and silty clay was encountered from 13 feet bgs to 16 feet bgs.

3.3 Soil Sample Results

Soil sample results are summarized in Tables 1 and 2 and shown on Figure 3. Laboratory analytical reports are included in Appendix F.

DRO was detected at 534 milligrams per kilogram (mg/kg) (2.5 - 3.0 feet bgs) and 2.72 (J) mg/kg (8.5 - 9.0 feet bgs). DRO was not detected above the LRL of 5.39 mg/kg in the soil sample collected from 5.0 - 5.5 feet bgs. The concentrations of DRO above LRLs are less than the ESLs (SF-RWQCB 2013) for commercial direct exposure (1,100 mg/kg) and construction worker direct exposure (900 mg/kg).

GRO was detected at concentrations of 0.283 mg/kg (2.5 - 3.0 feet bgs), 0.147 mg/kg (5.0 - 5.5 feet bgs), and 0.333 mg/kg (8.5 - 9.0 feet bgs). All detections of GRO are below the ESLs (SF-RWQCB 2013) for commercial direct exposure (4,000 mg/kg) and construction worker direct exposure (2,700 mg/kg) in all soil samples submitted for analytical testing.

BTEX and MTBE were not detected above respective LRLs in any soil sample submitted for analytical testing. Additionally, all LRLs for BTEX and MTBE are below respective ESLs (SF-RWQCB 2013) for commercial direct exposure and construction

worker direct exposure. Furthermore the LRLs for benzene and ethylbenzene are below respective LTC Policy (SWRCB 2012) direct contact and outdoor air exposure screening levels.

Naphthalene was analyzed by USEPA Method 8260 and by USEPA Method 8270C SIM. Naphthalene was not detected above the LRLs in any samples when analyzed by USEPA Method 8260 and the LRLs are below the ESLs (SF-RWQCB 2013) for commercial direct exposure (15 mg/kg) and construction worker direct exposure (370 mg/kg), and below the respective LTC Policy (SWRCB 2012) direct contact and outdoor air exposure screening levels. When analyzed by USEPA Method 8270C SIM naphthalene was detected at 0.190 (J) mg/kg (2.5 - 3.0 feet bgs), <0.0269 mg/kg (5.0 - 5.5 feet bgs), and 0.00782 (J) mg/kg (8.5 - 9.0 feet bgs). Detected concentrations of naphthalene were not detected above the ESLs (SF-RWQCB 2013) for commercial direct exposure (15 mg/kg) or construction worker direct exposure (370 mg/kg), or above the respective LTC Policy (SWRCB 2012) direct contact and outdoor air exposure screening levels.

PAHs were not detected above the ESLs (SF-RWQCB 2013) for commercial or construction worker direct exposure, or above the respective LTC Policy (SWRCB 2012) direct contact and outdoor air exposure screening levels in any soil sample submitted for analytical testing. However, individual PAH's were detected above the LRL in at least one soil sample. Table 2 presents the individual PAH results.

3.4 Groundwater Sample Analytical Results

Samples from the semi-annual groundwater sampling event performed on June 18, 2015 were submitted to ESC. This was the first event which ESC analyzed samples collected from the site. Review of the ESC analytical report indicated that some of the analytical results were comparable to previous data (produced by TestAmerica), however the detected concentrations of GRO and DRO were significantly inconsistent with historical groundwater data.

In effort to verify the accuracy of the ESC-produced results and to assess the differences between the historical data and the June 18, 2015 results, split groundwater samples were collected from MW-12 on July 10, 2015 with one groundwater sample set delivered to ESC and one groundwater sample set delivered to TestAmerica.

DRO was not detected above the laboratory reporting limit (50 micrograms per liter [µg/L]) in the groundwater sample tested by TestAmerica, however, DRO was detected at a concentration of 8,800 µg/L in the groundwater sample tested by ESC. Originally ESC indicated there were no anomalies with their data, however after a second review, ESC determined that the silica gel clean-up step was not completed. When ESC reran the split sample ensuring that the silica gel cleanup step was included, DRO was detected at a concentration of 180 µg/L.

Regarding the data for MW-1 through MW-11 data (formally presented under a separate cover in the semi-annual monitoring report; ARCADIS 2015b), ESC declared all procedures were followed, and it was only the MW-12 data that was in error. Another possible inconsistency with the ESC groundwater data is that DRO data was reported as carbon chain C12-C22. The screening level standards are based off of carbon chain C10-C28 (which TestAmerica compares against), and this shift in carbon range may also be an explanation for the skewed data. For these reasons, ARCADIS believes DRO groundwater data from ESC may not accurately reflect current concentrations at the site. Analytical testing of site samples will return to TestAmerica for upcoming sample events.

Results from the July 10, 2015 MW-12 sampling event are shown below. Groundwater sample test results from MW-12 are shown on Figure 4, are presented in Tables 3 and 4 and summarized below:

- DRO was not detected by TestAmerica (<50 µg/L), and at a concentration of 180 µg/L in the sample tested by ESC.
- GRO was not detected above respective LRLs in the groundwater samples tested by TestAmerica (<50.0 µg/L) and ESC (<32.0 µg/L).
- Benzene was not detected above respective LRLs in the groundwater samples tested by TestAmerica (<0.50 µg/L) and ESC (<1.0 µg/L).
- Toluene was not detected above respective LRLs in the groundwater samples tested by TestAmerica (<0.50 µg/L) and ESC (<5.0 µg/L).
- Ethylbenzene was not detected above respective LRLs in the groundwater samples tested by TestAmerica (<0.50 µg/L) and ESC (<1.0 µg/L).

- Xylenes were not detected above respective LRLs in the groundwater samples tested by TestAmerica (<1.0 µg/L) and ESC (<3.0 µg/L).

- TAME was not detected above respective LRLs in the groundwater samples tested by TestAmerica (<0.50 µg/L) and ESC (<1.0 µg/L).

- MTBE was detected at a concentration of 7.6 µg/L in the groundwater sample tested by TestAmerica and at a concentration of 9.57 µg/L in the groundwater sample tested by ESC.

- TBA was detected at a concentration of 290 µg/L in the groundwater sample tested by TestAmerica and at a concentration of 119 µg/Lin the groundwater sample tested by ESC.

Laboratory analytical reports are included in Appendix F.

4. Dilution Attenuation Factor Analysis

This analysis was prepared at the request of ACEH in a letter dated May 13, 2015. The purpose of this DAF analysis is to determine the potential concentrations of site constituents in groundwater that may be discharged to the San Francisco Bay via storm drain utility trenches.

4.1 DAF Calculation and Discharge Concentration Estimation

The DAF calculation is based on the assumption that soils used for utility backfills are more permeable than the surrounding native soils and create a high conductivity conduit for contaminated groundwater to a surface discharge point. Additionally, this calculation assumes that the entire plume width intercepts the utility, that no groundwater inflow or outflow occurs between the downgradient edge of the plume and the discharge point, and that contaminated groundwater flowing within the utility backfill is diluted by clean water from upstream of the utility. The DAF is assumed to be directly proportional to the distance between the downgradient edge of the plume and the discharge point in increments of plume width. For example, if the plume width intersected by a utility is 100 feet and the distance between the downgradient edge of the plume and the surface discharge point is 1,000 feet, the DAF is therefore equal to 10. The product of the DAF and the average plume concentration along its intersection with the utility corridor gives an estimate for the concentration of site constituents which may be discharged to the San Francisco Bay. Five site constituents of potential

concern (COPCs) were identified from the groundwater analytical results from the November 2014 site investigation, the December 2014 sampling event, and the recent results from MW-12. The COPCs were identified based on exceedances to SF-RWQCB ESLs and were used to create contour maps of these plumes in relation to located storm drain utilities. If a constituent was not sampled for at a location in either of these events, then the most recent sample results were utilized for the constituent and sample location pair. As noted above, the accuracy of the ESC-produced groundwater data from the June 2015 sampling event is questionable and therefore, was not used in the DAF analysis. Identified site COPCs include:

- DRO
- GRO
- Benzene
- MTBE
- TBA

The measurement of total plume width, as well the average COPC concentration in groundwater were taken from the contour map created for each identified COPC. The point of surface discharge for storm drain utilities at this site as indicated on the *Creek and Watershed Map of Oakland and Berkeley*, occurs south-west of the intersection of Powell Street and W. Frontage Road (William Lettis & Associates 2015). Measurements from the downgradient edge of each COPC plume to the surface discharge point were taken in Google Earth. SF-RWQCB ESLs protective of drinking water resources and estuary habitats were used as the applicable screening levels for the COPCs listed above (SF-RWQCB 2013 [Table F-3 Summary of Drinking Water Screening levels, Final Screening Level MCL Priority]; [Table F-2c Surface Water Screening Levels Estuary Habitats, Final Screening Level MCL Priority]).

4.1.1 DRO DAF Results

The average DRO concentration in groundwater at the intersection with located storm drain utilities along Powell Street is 100 µg/L. The plume width is conservatively estimated at 49 feet, and the distance between the downgradient edge of the plume and the intersection with San Francisco Bay is estimated at 1,163 feet. The DAF is therefore calculated to be 23.7, giving an approximate discharge concentration of 4.2 µg/L. This value is less than the drinking water ESL of 100 µg/L and the estuary habitat ESL of 640 µg/L. DRO sample results are presented on Figure 5.

4.1.2 GRO DAF Results

The average concentration of GRO in groundwater along the intersection with located storm drain utilities is approximately 853 µg/L. With an approximate plume width of 92 feet, and an estimated distance between the downgradient edge of the plume and the intersection with San Francisco Bay of 1,199 feet. The DAF is calculated to be approximately 13. The discharge concentration for GRO is therefore calculated to be 66 µg/L, which is below the drinking water ESL of 100 µg/L, and the estuary habitat ESL of 500 µg/L. GRO sample results are presented in Figure 6.

4.1.3 Benzene DAF Results

The average concentration of benzene in groundwater in the intersection with located storm drain utilities is 1.2 µg/L. The total plume width is approximately 54 feet, and with a distance of 1,143 feet estimated between the downgradient edge of the plume and the intersection with San Francisco Bay, the DAF is calculated to be 21.2. Using the given DAF, the discharge concentration is estimated to be 0.1 µg/L which is less than the drinking water ESL of 1 µg/L and the estuary habitat ESL of 46 µg/L. Benzene sample results are presented in Figure 7.

4.1.4 MTBE DAF Results

The average concentration of MTBE in groundwater along the intersection with located storm drain utilities along Powell St. is approximately 6.8 µg/L. The plume is estimated to be 70 feet wide, and the distance between the downgradient edge of the plume and the intersection with San Francisco Bay is approximately 1,009 feet, giving a DAF of 14.4. The estimated discharge concentration for MTBE is therefore 0.47 µg/L, which is below the drinking water ESL of 5 µg/L and the estuary habitat ESL of 180 µg/L. MTBE sample results are presented in Figure 8.

4.1.5 TBA DAF Results

The average concentration of TBA in groundwater along the intersection with located storm drain utilities along Powell St. is approximately 42.8 µg/L. The plume is estimated to be 179 feet wide, and the distance between the downgradient edge of the plume and the intersection with San Francisco Bay is approximately 972 feet, giving a DAF of 5.4. The estimated discharge concentration for TBA is therefore 7.9 µg/L, which is below the drinking water ESL of 12 µg/L as well as the estuary habitat ESL of 18,000 µg/L. TBA sample results are presented in Figure 9.

4.2 DAF Conclusions

DAF analysis was conducted for the DRO, GRO, Benzene, MTBE, and TBA plumes present in groundwater at the Site. According to the analysis presented above, the estimated concentration in groundwater discharged to San Francisco Bay via storm drain utility trenches is 4.2 µg/L for DRO, 66 µg/L for GRO, 0.1 µg/L for benzene, 0.47 µg/L for MTBE, and 7.9 µg/L for TBA.

All of these estimated concentrations are less than the associated drinking water and estuary habitat ESLs, indicating that potential transport of contaminated groundwater through utility backfill would not pose a significant impact to the San Francisco Bay.

5. Conclusions and Recommendations

ARCADIS directed the drilling and installation of one groundwater monitoring well (MW-12) in the upgradient area of the site in June 2015. Following installation, well development was conducted at the newly installed monitoring well.

Laboratory analysis of soil samples collected from the new groundwater monitoring well MW-12 revealed that concentrations of petroleum hydrocarbons at the upgradient end of the site, are non-detect or significantly below SF-RWQCB ESLs for commercial direct exposure and construction worker direct exposure as well as the appropriate LTC Policy screening levels for soil. The recent soil data expands upon the soil data collected during the site investigation performed in November 2014 and indicate that that the impacted soils are vertically and laterally delineated across the site.

The results from soil samples at MW-12 aid in the fulfillment of the LTC Policy Media-Specific Criteria of *Direct Contact and Outdoor Air Exposure* (SWRCB 2012). Site COPCs, as well as PAHs, including naphthalene, were either not detected above respective laboratory reporting limits or detected at concentrations below LTC Policy screening levels for soil in all of the samples collected from MW-12.

The first groundwater monitoring event at the new well took place on July 10, 2015. Analytical results from the first sampling event indicate that COPCs do not extend in the upgradient direction of the site at concentrations greater than SF-RWQCB groundwater ESLs protective of a drinking water source with the exception of MTBE and TBA. However, due to inconsistent DRO groundwater data between the two split samples, further monitoring of this constituent is required to more completely assess the extent of DRO in groundwater beneath the site. The groundwater results of this

event can be found in Tables 3 and 4 and Figure 4 of this report. Three additional quarterly groundwater monitoring events are planned at MW-12.

Reporting of groundwater monitoring and sampling events will continue to be conducted on a semi-annual frequency. All site wells will be sampled and reported on during the next sampling event as it falls during the routine semi-annual schedule (Fourth Quarter; December 2015). The results of the First Quarter 2016 sampling at MW-12 will be included in the semi-annual groundwater monitoring report that will follow the May 2016 sampling event to summarize the semi-annual reporting period between January and June 2016.

Groundwater monitoring and sampling data at the newly installed well will be used to assess the lateral extent of the dissolved-phase contaminant plume associated with the site. If groundwater data indicates that the dissolved-phase contaminant plume is defined and stable, then the site will be evaluated to the general and media specific criteria in the SWRCB LTC Policy to determine if the site is a candidate for case closure as a low-threat petroleum UST site.

6. References

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ARCADIS

Tables

Table 1
Soil Sample Analytical Data for Petroleum Hydrocarbons
Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California

Sample Location	Sample ID	Sample Depth (feet bgs)	Date	DRO	GRO	B	T	E	X	MTBE	Naph-thalene
Commercial direct exposure screening level[1] (mg/kg)				1,100	4,000	3.7	4,900	24	2,600	190	15
Construction worker direct exposure soil screening level[2] (mg/kg)				900	2,700	71	4,300	490	2,500	3,800	370
Low-Threat Closure Policy Commercial/Industrial (0-5 feet bgs)[3] (mg/kg)				--	--	8.2	--	89	--	--	45
Low-Threat Closure Policy Commercial/Industrial (5-10 feet bgs)[3] (mg/kg)				--	--	12	--	134	--	--	45
Low-Threat Closure Policy Utility Worker (0-10 feet bgs)[3] (mg/kg)				--	--	14	--	314	--	--	219
Soil Samples (results in mg/kg)											
MW-12	MW-12-2.5-3.0	2.5-3.0	6/26/2015	534	0.283	<0.00127	<0.00635	<0.00127	<0.00381	<0.00127	<0.00635
	MW-12-5.0-5.5	5.0-5.5	6/26/2015	<5.39	0.147	<0.00135	<0.00673	<0.00135	<0.00404	<0.00135	<0.00673
	MW-12-8.5-9.0	8.5-9.0	6/26/2015	2.72 J	0.333	<0.00123	<0.00617	<0.00123	<0.00370	<0.00123	<0.00617

Notes:

[1] Commercial direct exposure soil screening level (Table K-2 in SFRWQCB [2013]).

[2] Construction worker direct exposure screen level (Table K-3 in SFRWQCB [2013]).

[3] Table 1 in SWRCB (2012).

[3] Table 1 in SWRCB (2012).

B = benzene

bgs = below ground surface

DRO = diesel range organics

E = ethylbenzene

GRO = gasoline range organics

mg/kg = milligrams per liter

MTBE = methyl tertiary butyl ether

SFRWQCB = San Francisco Regional Water Quality Control Board

T = toluene

X = total xylenes

< = Analyte was not detected above the specified method reporting limit.

-- = Not applicable, not analyzed, or not present

J= the identification of the analyte is acceptable; the reported value is an estimate

(SFRWQCB 2013): San Francisco Regional Water Quality Control Board. 2013. Environmental Screening Levels Workbook (Interim Final). December.

(SWRCB 2012): State Water Resources Control Board. 2012. Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closure. May 1 (effective August 17, 2012).

Table 2
Soil Sample Analytical Data for Polycyclic Aromatic Hydrocarbons
Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California

Sample Location	Sample ID	Sample Depth	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a] anthracene	Benzo[a] pyrene	Benzo[b] fluoranthene	Benzo[g,h,i] perylene	Benzo[k] fluoranthene	Chrysene
Soil screening levels (mg/kg)												
Commercial direct exposure screening level[1]				15,000	--	170,000	1.3	0.13	1.3	--	1.3	13
Construction worker direct exposure soil screening level[2]				8,600	--	43,000	8.3	0.83	8.3	--	8.3	83
Low-Threat Closure Policy Commercial/Industrial (0-5 feet bgs)[3,4]				0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Low-Threat Closure Policy Commercial/Industrial (5-10 feet bgs)[3,4]				--	--	--	--	--	--	--	--	--
Low-Threat Closure Policy Utility Worker (0-10 feet bgs)[3,4]				4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Soil Samples (results in mg/kg)												
MW-12	MW-12-2.5-3.0	2.5-3.0	6/26/2015	0.0268 J	<0.0763	0.0626 J	0.0882	0.113	0.0692 J	0.106	0.0314 J	0.105
	MW-12-5.0-5.5	5.0-5.5	6/26/2015	<0.00808	<0.00808	<0.00808	<0.00808	<0.00808	<0.00808	<0.00808	<0.00808	<0.00808
	MW-12-8.5-9.0	8.5-9.0	6/26/2015	<0.00741	<0.00741	<0.00741	0.000862 J	<0.00741	<0.00741	<0.00741	<0.00741	<0.00741

Notes:

[1] Commercial direct exposure soil screening level (Table K-2 in SFRWQCB [2013]).

[2] Construction worker direct exposure screen level (Table K-3 in SFRWQCB [2013]).

[3] Table 1 in State Water Resources Control Board (2012).

[4] The Low-Threat Closure Policy screening criteria for PAH was applied to all individual PAHs except naphthalene.
PAHs were analyzed in soil by USEPA Method 8270C SIM.

SFRWQCB = San Francisco Regional Water Quality Control Board

J = Estimated value below the lowest calibration point. Confidence correlates with concentration.
bgs = below ground surface

mg/kg = milligrams per kilogram
PAH = polycyclic aromatic hydrocarbon
-- = not applicable or not available
mg/kg = micrograms per kilogram
< = Analyte was not detected above the specified method reporting limit.

SFRWQCB. 2013. Environmental Screening Levels Workbook (Interim Final). December.
State Water Resources Control Board. 2012. Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closure. May 1 (effective August 17, 2012).

Table 2
Soil Sample Analytical Data for Polycyclic Aromatic Hydrocarbons
Former BP Service Station No. 11126
1700 Powell Street, Emeryville, California

Sample Location	Sample ID	Sample Depth	Sample Date	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd] pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	2-Chloro-naphthalene
Soil screening levels (mg/kg)													
Commercial direct exposure screening level[1]				0.38	22,000	22,000	1.3	15	--	33,000	--	2,200	--
Construction worker direct exposure soil screening level[2]				2.4	5,700	5,700	8.3	370	--	8,600	--	570	--
Low-Threat Closure Policy Commercial/Industrial (0-5 feet bgs)[3,4]				0.68	0.68	0.68	0.68	45	0.68	0.68	0.68	0.68	0.68
Low-Threat Closure Policy Commercial/Industrial (5-10 feet bgs)[3,4]				--	--	--	--	45	--	--	--	--	--
Low-Threat Closure Policy Utility Worker (0-10 feet bgs)[3,4]				4.5	4.5	4.5	4.5	219	4.5	4.5			
Soil Samples (results in mg/kg)													
MW-12	MW-12-2.5-3.0	2.5-3.0	6/26/2015	0.0314 J	0.142	0.0399 J	0.0556 J	0.190 J	0.0538 J	0.292	0.128 J	0.217 J	<0.254
	MW-12-5.0-5.5	5.0-5.5	6/26/2015	<0.00808	<0.00808	<0.00808	<0.00808	<0.0269	<0.00808	<0.00808	<0.0269	<0.0269	<0.0269
	MW-12-8.5-9.0	8.5-9.0	6/26/2015	<0.00741	0.00176 J	0.00126 J	<0.00741	0.00782 J	0.00313 J	0.00220 J	0.0137 J	0.00664 J	<0.0247

Notes:

[1] Commercial direct exposure soil screening level (Table K-2 in SFRWQCB [2013]).

[2] Construction worker direct exposure screen level (Table K-3 in SFRWQCB [2013]).

[3] Table 1 in State Water Resources Control Board (2012).

[4] The Low-Threat Closure Policy screening criteria for PAH was applied to all individual PAHs except naphthalene.
PAHs were analyzed in soil by USEPA Method 8270C SIM.

SFRWQCB = San Francisco Regional Water Quality Control Board

J = Estimated value below the lowest calibration point. Confidence correlates with concentration.
bgs = below ground surface

mg/kg = milligrams per kilogram
PAH = polycyclic aromatic hydrocarbon
-- = not applicable or not available
mg/kg = micrograms per kilogram
< = Analyte was not detected above the specified method reporting limit.

SFRWQCB. 2013. Environmental Screening Levels Workbook (Interim Final). December.
State Water Resources Control Board. 2012. Water Quality Control Policy for Low-Threat Underground Storage Tank Case Closure. May 1 (effective August 17, 2012).

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-1	11/4/1992		7.76	4.96	--	2.80	5,300	--	1,100	480	<0.5	1,500	--	--	--	--	--	--	--	--	--	
MW-1	10/12/1993		7.76	5.26	--	2.50	3,600	--	970	71	100	550	6,111	--	--	--	--	--	--	--	--	
MW-1	2/15/1994		7.76	4.98	--	2.78	17,000	--	4,200	510	360	1,600	5,495	--	--	--	--	--	--	--	3.90	
MW-1	5/11/1994		7.76	4.55	--	3.21	5,500	--	2,900	37	56	64	705	--	--	--	--	--	--	--	8.00	
MW-1	8/1/1994	Dup	7.76	5.51	--	2.25	16,000	--	3,600	750	510	2,800	9,800	--	--	--	--	--	--	--	--	(Dup)
MW-1	8/1/1994		7.76	5.51	--	2.25	15,000	--	3,600	740	510	2,800	9,718	--	--	--	--	--	--	--	2.90	
MW-1	10/18/1994	Dup	7.76	5.11	--	2.65	16,000	--	1,900	64	170	950	--	--	--	--	--	--	--	--	--	(Dup)
MW-1	10/18/1994		7.76	5.11	--	2.65	16,000	--	1,800	61	160	890	15,668	--	--	--	--	--	--	--	2.90	
MW-1	1/13/1995	Dup	7.76	--	--	--	590	--	88	0.7	<0.5	55	--	--	--	--	--	--	--	--	--	(Dup)
MW-1	4/13/1995		7.76	3.84	--	3.92	9,300	--	4,000	300	200	950	--	--	--	--	--	--	--	--	7.70	
MW-1	7/11/1995		7.76	3.60	--	4.16	15,000	--	2,200	84	<25	2,500	--	--	--	--	--	--	--	--	8.80	
MW-1	11/2/1995		7.76	4.58	--	3.18	19,000	--	920	<100	<100	430	52,000	--	--	--	--	--	--	--	7.30	
MW-1	2/5/1996		7.76	4.43	--	3.33	4,600	--	1,400	330	54	247	8,700	--	--	--	--	--	--	--	3.20	
MW-1	4/24/1996		7.76	4.00	--	3.76	2,000	--	510	33	61	228	4,500	--	--	--	--	--	--	--	7.50	
MW-1	7/15/1996		7.76	4.30	--	3.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	7/16/1996	Dup	7.76	--	--	--	12,000	--	2,800	160	390	1,610	63,000	--	--	--	--	--	--	--	--	(Dup)
MW-1	7/16/1996		7.76	--	--	--	12,000	--	2,800	170	390	1,630	64,000	--	--	--	--	--	--	--	7.90	
MW-1	7/30/1996		7.76	4.64	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	8/12/1996		7.76	--	--	--	11,000	--	2,500	160	<10	1,740	440,000	--	--	--	--	--	--	--	7.00	
MW-1	11/4/1996		7.76	5.98	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	11/5/1996		7.76	--	--	--	53,000	--	1,300	43	100	349	42,000	--	--	--	--	--	--	--	6.60	
MW-1	5/17/1997		7.76	4.65	--	3.11	52,000	--	1,958	55	305	1,216	140,198	--	--	--	--	--	--	--	5.70	
MW-1	8/11/1997		7.76	4.90	--	2.86	25,000	--	540	6.7	<5.0	57	360,000	--	--	--	--	--	--	--	7.90	
MW-1	11/17/1997		7.76	6.12	--	1.64	93,000	--	1,200	31	180	40	400,000	--	--	--	--	--	--	--	7.60	
MW-1	1/29/1998		7.76	4.90	--	2.86	4,800	--	320	24	52	20	<50	--	--	--	--	--	--	--	6.60	
MW-1	6/22/1998		7.76	4.62	--	3.14	63,000	--	180	<5.0	15	69	57,000	--	--	--	--	--	--	--	6.00	
MW-1	12/30/1998		7.76	5.41	--	2.35	22,000	--	2,500	24	120	400	15,000	--	--	--	--	--	--	--	--	
MW-1	3/9/1999		7.76	3.40	--	4.36	16,000	--	2,000	84	290	510	13,000	--	--	--	--	--	--	--	--	
MW-1	6/23/1999		7.76	4.60	--	3.16	9,600	--	4,500	21	160	260	24,000	--	--	--	--	--	--	--	--	
MW-1	9/23/1999		7.76	4.21	--	3.55	3,800	--	1,600	32	150	240	7,100	--	--	--	--	--	--	--	--	
MW-1	12/28/1999		7.76	4.10	--	3.66	3,400	--	<2,200	17	53	130	5,500	--	--	--	--	--	--	--	--	
MW-1	3/22/2000		7.76	5.51	--	2.25	6,400	--	1,100	45	190	330	4,900	--	--	--	--	--	--	--	--	
MW-1	5/26/2000		7.76	4.79	--	2.97	110,000	--	700	44	140	250	320,000	--	--	--	--	--	--	--	--	
MW-1	9/6/2000		7.76	5.19	--	2.57	5,600	--	1,000	13	57	90	19,000	--	--	--	--	--	--	--	--	
MW-1	9/15/2000		7.76	5.73	--	2.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	12/11/2000		7.76	5.82	--	1.94	5,500	--	1,160	47	155	292	3,900	--	--	--	--	--	--	--	--	
MW-1	3/29/2001		7.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-1	6/27/2001		7.76	5.49	--	2.27	6,100	--	1,200	13	17	78	1,780	--	--	--	--	--	--	--	--	
MW-1	9/19/2001		7.76	6.19	--	1.57	1,800	--	102	<12.5	<12.5	<37.5	1,090	--	--	--	--	--	--	--	--	
MW-1	12/28/2001		7.76	5.27	--	2.49	4,000	--	540	12	20	65	1,120	--	--	--	--	--	--	--	--	
MW-1	3/12/2002		7.76	5.68	--	2.08	3,700	--	491	8.4	12	27	1,020	--	--	--	--	--	--	--	--	
MW-1	6/13/2002		7.76	5.54	--	2.22	1,900	--	255	<12.5	<12.5	<25	6,490	--	--	--	--	--	--	--	--	
MW-1	9/6/2002		7.76	5.56	--	2.20	1,100	--	170	5.1	2.2	20	550	--	--	--	--	--	--	--	--	
MW-1	12/13/2002		7.76	5.45	--	2.31	2,700	--	610	10	18	67	470	--	--	--	--	--	--	--	--	
MW-1	2/19/2003		7.76	3.00	--	4.76	1,500	--	180	<5.0	<5.0	15	610	--	--	--	--	--	--	--	--	
MW-1	6/6/2003		7.76	5.52	--	2.24	4,600	--	620	<25	<25	55	1,400	<1,000	--	<25	<25	--	<25	<5,000	--	
MW-1	8/7/2003		7.76	5.55	--	2.21	2,000	--	290	<5.0	<5.0	15	920	560	<5.0	<5.0	<5.0	<5.0	12	<1,000	--	
MW-1	11/20/2003		7.76	5.41	--	2.35	2,800	--	420	11	11	53	250	<200	--	<5.0	<5.0	--	<5.0	1,800	--	
MW-1	4/28/2004		7.76	5.33	--	2.43	1,600	--	100	5.3	<5.0	8.8	200	950	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-1	8/26/2004		7.76	4.03	--	3.73	1,700	--	220	7.2	15	35	180	320	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-1	12/1/2004		7.76	3.93	--	3.83	2,100	--	380	8	34	76	170	300	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	
MW-1	2/2/2005		7.76	3.61	--	4.15	1,100	--	150	3	12	14	160	6,700	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-1	4/25/2005		10.16	3.75	--	6.41	930	--	140	3.6	5.3	11	200	5,000	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-1	9/30/2005		10.16	3.54	--	6.62	4,600	--	1,000	15	78	150	250	1,200	<5.0	13	<5.0	<5.0	<5.0	<500	--	
MW-1	12/28/2005		10.16	3.26	--	6.90	1,500	--	200	5.7	32	58	140	1,800	<5.0	<10	<5.0	--	<5.0	<1,000	--	
MW-1	3/23/2006		10.16	3.40	--	6.76	580	--	42	<5.0	10	20	40	2,800	<5.0	<10	<5.0	<5.0	<5.0	<1,000	--	
MW-1	6/5/2006		10.16	2.97	--	7.19	900	--	230	2.5	28	71	160	1,900	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	
MW-1	9/19/2006		10.16	3.67	--	6.49	1,600	--	240	3.4	11	23	180	1,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-1	12/1/2006		10.16	3.64	--	6.52	1,400	--	86	4.3	7	19	150	930	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-1	3/1/2007		10.16	3.55	--	6.61	4,200	--	340	7	34	46	160	510	<2.0	<4.0	<2.0	<2.0	2	<1,000	--	
MW-1	6/1/2007		10.16	3.53	--	6.63	2,100	--	200	3.4	34	59	140	1,500	<2.0	<4.0	<2.0	<2.0	2.2	<1,000	--	
MW-1	9/13/2007		10.16	4.88	--	5.28	540	--	74	2.4	5.4	10	59	1,300	<2.0	<4.0	<2.0	<2.0	<2.0	1,100	--	
MW-1	11/21/2007		10.16	3.70	--	6.46	1,800	--	67	6.2	3.5	12	200	1,300	<2.0	<4.0	<2.0	<2.0	2.7	<1,000	--	
MW-1	2/29/2008		10.16	3.49	--	6.67	970	--	100	1.9	37	32	25	1,200	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-1	5/23/2008		10.16	4.26	--	5.90	1,300	--	170	3.5	15	26	120	1,800	<0.5	<1.0	<0.5	<0.5	1.4	<250	--	
MW-1	9/26/2008		10.16	4.29	--	5.87	1,800	--	26	6.1	<1.0	10	120	1,400	<1.0	<1.0	<1.0	<1.0	1.9	<250	--	
MW-1	12/23/2008		10.16	3.79	--	6.37	1,600	--	14	6.1	1.2	9.7	75	940	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-1	3/9/2009		10.16	3.29	--	6.87	2,100	--	200	5.6	16	29	88	1,300	<1.0	<1.0	<1.0	<1.0	1.7	<250	--	
MW-1	5/28/2009		10.16	4.02	--	6.14	880	--	64	1.5	3.4	9.4	48	1,800	<1.0	<1.0	<1.0	<1.0	1.3	<250	0.46	
MW-1	12/10/2009		10.16	3.92	--	6.24	1,300	--	46	6.9	2.6	10	65	560	<0.50	<0.50	<0.50	<0.50	1.1	<100	0.47	
MW-1	6/29/2010		10.16	3.60	--	6.56	530	--	18	1.3	<0.50	4.3	<0.50	2,000	<0.50	<0.50	<0.50	<0.50	1.2	<100	0.53	(P)
MW-1	12/30/2010		10.16	3.55	--	6.61	1,000	--	19	3.2	1.4	8.2	46	1,900	<0.50	<0.50	<0.50	<0.50	1.0	<250	0.57	(P)
MW-1	6/29/2011		10.16	3.58	--	6.58	60	--	<0.50	<0.50	<0.50	<1.0	3.9	840	--	--	--	--	<0.50	--	0.40	(P)
MW-1	1/30/2012		10.16	3.82	--	6.34	1,100	--	42	4.5	0.90	7.2	64	900	--	--	--	--	1.3	--	0.66	(P)
MW-1	6/27/2012		10.16	3.79	--	6.37	420	--	15	0.74	<0.50	3.1	18	1,400	--	--	--	--	0.83	--	1.62	(P)
MW-1	12/7/2012		10.16	3.30	--	6.86	700	--	6.3	2.3	<0.50	4.8	32	1,400	--	--	--	--	0.81	--	1.64	
MW-1	6/6/2013		10.16	3.73	--	6.43	240	--	11	6.7	14	9.8	6.9	170	--	--	--	--	<0.50	--	1.09	
MW-1	12/13/2013		10.16	3.88	--	6.28	680	--	23	3.2	3.4	9.9	36	1,500	--	--	--	--	1.7	--	2.90	
MW-1	6/30/2014		10.16	3.77	--	6.39	160	--	7.8	0.58	<0.50	<1.0	4.2	970	--	--	--	--	<0.50	--	0.23	
MW-1	12/16/2014		10.16	0.00	--	10.16	<50	790	<0.50	<0.50	<0.50	<1.0	<0.50	<20	--	--	--	--	<0.50	--	7.18	(Well full of water.)
MW-1	6/18/2015		10.24	4.32	--	5.92	210 J5J3	600	<20	<5	<1	<60	3.99	593	--	--	--	--	<1	--	0.18	
MW-2	11/4/1992	Dup	8.56	5.88	--	2.68	12,000	--	3,200	980	<0.5	1,900	--	--	--	--	--	--	--	--	--	(Dup)
MW-2	11/4/1992		8.56	5.88	--	2.68	12,000	--	3,900	1,300	<0.5	2,300	--	--	--	--	--	--	--	--	--	
MW-2	10/12/1993		8.56	6.29	--	2.27	4,500	--	3,400	180	230	940	442	--	--	--	--	--	--	--	--	
MW-2	2/15/1994	Dup	8.56	--	--	--	2,000	--	430	270	28	390	127	--	--	--	--	--	--	--	4.00	(Dup)
MW-2	2/15/1994		8.56	--	--	--	1,800	--	290	160	14	250	--	--	--	--	--	--	--	--	--	
MW-2	5/11/1994	Dup	8.56	5.17	--	3.39	15,000	--	5,600	1,500	470	2,000	740	--	--	--	--	--	--	--	--	(Dup)
MW-2	5/11/1994		8.56	5.17	--	3.39	14,000	--	3,900	1,200	440	1,900	953	--	--	--	--	--	--	--	8.90	
MW-2	8/1/1994		8.56	5.43	--	3.13	8,200	--	3,000	420	230	680	1,676	--	--	--	--	--	--	--	2.60	
MW-2	10/18/1994		8.56	5.71	--	2.85	9,000	--	2,000	140	150	420	2,417	--	--	--	--	--	--	--	7.20	
MW-2	1/13/1995		8.56	4.67	--	3.89	7,900	--	2,200	42	<5.0	770	--	--	--	--	--	--	--	--	6.80	
MW-2	4/13/1995	Dup	8.56	4.37	--	4.19	25,000	--	6,500	1,500	110	5,300	--	--	--	--	--	--	--	--	--	(Dup)
MW-2	4/13/1995		8.56	4.37	--	4.19	33,000	--	8,000	2,500	1,100	6,600	--	--	--	--	--	--	--	--	7.50	
MW-2	7/11/1995	Dup	8.56	4.51	--	4.05	28,000	--	6,800	1,000	900	4,900	--	--	--	--	--	--	--	--	--	(Dup)
MW-2	7/11/1995		8.56	4.51	--	4.05	19,000	--	3,300	99	7.5	4,600	--	--	--	--	--	--	--	--	7.80	
MW-2	11/2/1995	Dup	8.56	5.55	--	3.01	22,000	--	4,000	1,200	600	2,700	19,000	--	--	--	--	--	--	--	--	(Dup)
MW-2	11/2/1995		8.56	5.55	--	3.01	20,000	--	3,800	1,200	570	2,700	15,000	--	--	--	--	--	--	--	7.30	
MW-2	2/5/1996	Dup	8.56	5.10	--	3.46	910	--	290	180	19	137	93	--	--	--	--	--	--	--	--	(Dup)

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-2	2/5/1996		8.56	5.10	--	3.46	1,200	--	320	220	26	187	99	--	--	--	--	--	--	--	2.20	
MW-2	4/24/1996	Dup	8.56	--	--	--	<500	--	70	22	<10	61	<50	--	--	--	--	--	--	--	7.00	(Dup)
MW-2	4/24/1996		8.56	--	--	--	<500	--	100	30	<10	71	<100	--	--	--	--	--	--	--	--	
MW-2	7/15/1996		8.56	5.40	--	3.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	7/16/1996		8.56	--	--	--	12,000	--	3,300	1,400	250	2,610	1,400	--	--	--	--	--	--	--	7.80	
MW-2	7/30/1996		8.56	5.44	--	3.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	11/4/1996		8.56	7.06	--	1.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	11/5/1996	Dup	8.56	--	--	--	9,200	--	1,300	170	<25	2,240	1,100	--	--	--	--	--	--	--	--	(Dup)
MW-2	11/5/1996		8.56	--	--	--	7,200	--	1,400	230	38	2,110	1,100	--	--	--	--	--	--	--	7.40	
MW-2	5/17/1997		8.56	5.77	--	2.79	570	--	42	<5.0	5	60	210	--	--	--	--	--	--	--	6.90	
MW-2	8/11/1997		8.56	5.71	--	2.85	6,300	--	1,800	130	86	397	2,400	--	--	--	--	--	--	--	8.50	
MW-2	11/17/1997		8.56	6.91	--	1.65	2,400	--	220	30	33	259	130	--	--	--	--	--	--	--	7.90	
MW-2	1/29/1998		8.56	4.61	--	3.95	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	6.20	
MW-2	6/22/1998		8.56	4.80	--	3.76	4,200	--	640	150	120	650	560	--	--	--	--	--	--	--	5.40	
MW-2	12/30/1998		8.56	5.21	--	3.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/23/1999		8.56	5.30	--	3.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	9/23/1999		8.56	4.75	--	3.81	3,800	--	760	19	210	960	910	--	--	--	--	--	--	--	--	
MW-2	12/28/1999		8.56	4.51	--	4.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	3/22/2000		8.56	4.21	--	4.35	2,500	--	780	17	44	270	2,800	--	--	--	--	--	--	--	--	
MW-2	5/26/2000		8.56	4.66	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	9/6/2000		8.56	4.71	--	3.85	3,700	--	1,200	5.5	12	170	12,000	--	--	--	--	--	--	--	--	
MW-2	9/15/2000		8.56	4.74	--	3.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	12/11/2000		8.56	4.79	--	3.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	3/29/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-2	6/27/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-2	9/19/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-2	12/28/2001		8.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-2	3/12/2002		8.56	4.25	--	4.31	26,000	--	1,160	4.4	61	171	37,300	--	--	--	--	--	--	--	--	
MW-2	6/13/2002		8.56	4.94	--	3.62	18,000	--	578	<50	<50	<100	84,600	--	--	--	--	--	--	--	--	
MW-2	9/6/2002		8.56	5.23	--	3.33	26,000	--	440	<50	<50	<50	45,000	--	--	--	--	--	--	--	--	
MW-2	12/13/2002		8.56	4.94	--	3.62	69,000	--	1,200	<500	<500	<500	98,000	--	--	--	--	--	--	--	--	
MW-2	2/19/2003		8.56	4.14	--	4.42	78,000	--	1,100	<500	<500	<500	81,000	--	--	--	--	--	--	--	--	
MW-2	6/6/2003		8.56	4.66	--	3.90	120,000	--	1,100	<1,000	<1,000	<1,000	72,000	<40,000	--	<1,000	<1,000	--	1,300	<200,000	--	
MW-2	8/7/2003		8.56	4.90	(SHEEN)	3.66	71,000	--	590	<500	<500	<500	83,000	45,000	<500	<500	<500	<500	1,300	<100,000	--	(Sheen)
MW-2	11/20/2003		8.56	4.59	--	3.97	22,000	--	720	<100	<100	<100	18,000	48,000	--	<100	<100	--	200	<20,000	--	
MW-2	4/28/2004		8.56	4.37	--	4.19	<25,000	--	690	<250	<250	<250	31,000	59,000	<250	<250	<250	<250	<250	<50,000	--	
MW-2	8/26/2004		8.56	4.59	--	3.97	140,000	--	8,200	18,000	4,200	19,000	11,000	<10,000	<250	<250	<250	<250	320	<50,000	--	
MW-2	12/1/2004		8.56	4.79	--	3.77	98,000	--	8,400	13,000	4,600	21,000	10,000	<4,000	<100	<100	<100	<100	230	<20,000	--	
MW-2	2/2/2005		8.56	4.27	(SHEEN)	4.29	92,000	--	6,600	9,900	4,400	18,000	10,000	4,000	<100	<100	<100	<100	260	<20,000	--	(Sheen)
MW-2	4/25/2005		11.39	4.00	--	7.39	80,000	--	6,700	4,900	4,400	17,000	8,200	3,700	<50	<50	<50	<50	220	<10,000	--	
MW-2	9/30/2005		11.39	4.86	--	6.53	98,000	--	7,700	7,400	4,700	20,000	16,000	4,700	<50	<50	<50	<50	270	<5,000	--	
MW-2	12/28/2005		11.39	4.28	--	7.11	210,000	--	15,000	21,000	7,300	31,000	22,000	6,300	<100	<200	<100	--	410	<20,000	--	
MW-2	3/23/2006		11.39	3.60	--	7.79	79,000	--	9,100	12,000	4,300	17,000	13,000	5,800	<100	<200	<100	<100	290	<20,000	--	
MW-2	6/5/2006		11.39	4.28	(SHEEN)	7.11	79,000	--	9,700	8,700	4,900	20,000	8,000	3,300	<50	<100	<50	<50	280	<10,000	--	(Sheen)
MW-2	9/19/2006		11.39	4.61	--	6.78	68,000	--	12,000	9,300	4,100	14,000	16,000	4,800	<50	<100	<50	<50	370	<25,000	--	
MW-2	12/1/2006		11.39	4.55	--	6.84	61,000	--	15,000	6,900	4,400	17,000	10,000	3,900	<50	<100	<50	<50	270	<25,000	--	
MW-2	3/1/2007		11.39	4.14	--	7.25	80,000	--	9,300	5,500	4,100	15,000	8,300	2,700	<50	<100	<50	<50	210	<25,000	--	
MW-2	6/1/2007		11.39	4.34	--	7.05	120,000	--	12,000	6,400	4,200	11,000	17,000	4,900	<100	260	<100	<100	310	<50,000	--	
MW-2	9/13/2007		11.39	5.35	--	6.04	<5,000	--	770	<50	140	<100	2,300	42,000	<50	<100	<50	<50	50	<25,000	--	
MW-2	11/21/2007		11.39	5.19	--	6.20	27,000	--	4,500	220	1,600	2,800	5,200	5,000	<50	<100	<50	<50	160	<25,000	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-2	2/29/2008		11.39	4.41	--	6.98	44,000	--	6,100	320	3,800	6,600	4,900	2,500	<50	<100	<50	<50	120	<25,000	--	
MW-2	5/23/2008		11.39	5.25	--	6.14	13,000	--	1,700	<50	300	210	2,500	29,000	<50	140	<50	<50	60	<25,000	--	
MW-2	9/26/2008		11.39	5.81	--	5.58	4,800	--	220	12	20	42	960	77,000	<1.0	<1.0	2.8	<1.0	42	<250	--	
MW-2	12/23/2008		11.39	5.50	--	5.89	5,700	--	950	19	170	70	1,800	57,000	<2.0	<2.0	2.4	<2.0	51	<500	--	
MW-2	3/9/2009		11.39	4.35	--	7.04	25,000	--	3,200	73	2,800	2,200	2,200	21,000	<20	<20	<20	<20	82	<5,000	--	
MW-2	5/28/2009		11.39	4.90	--	6.49	55,000	--	4,700	740	3,800	8,100	2,800	2,000	<10	<10	<10	<10	110	<2,500	0.27	
MW-2	12/10/2009		11.39	5.29	--	6.10	2,200	--	250	7.3	13	14	360	44,000	<0.50	0.52	1.4	<0.50	8.7	<100	0.65	
MW-2	6/29/2010		11.39	5.03	--	6.36	5,300	--	800	<25	250	300	770	31,000	<25	<25	<25	<25	<25	<5,000	0.60	(P, odor)
MW-2	12/30/2010		11.39	4.22	--	7.17	19,000	--	3,500	58	2,000	1,000	1,700	4,700	<25	<25	<25	<25	56	<12,000	--	(P)
MW-2	6/29/2011		11.39	4.51	--	6.88	12,000	--	3,200	41	920	150	2,100	2,400	<25	<25	<25	<25	77	--	0.41	(P)
MW-2	1/30/2012		11.39	4.93	--	6.46	13,000	--	3,000	45	640	370	1,700	1,900	<20	<20	<20	<20	60	--	0.63	(P)
MW-2	6/27/2012		11.39	4.72	--	6.67	23,000	--	3,900	110	2,300	2,000	2,600	2,900	<20	<20	<20	<20	95	--	1.24	(P)
MW-2	12/7/2012		11.39	4.11	--	7.28	10,000	--	2,600	31	350	72	1,300	3,400	<10	<10	<10	<10	51	--	1.03	
MW-2	6/6/2013		11.39	4.95	--	6.44	20,000	--	6,100	86	670	1,200	2,000	2,600	<10	<10	<10	<10	96	--	1.04	
MW-2	12/13/2013		11.39	5.29	--	6.10	<10,000	--	200	<100	<100	<200	140	32,000	<100	<100	<100	<100	<100	--	3.12	
MW-2	6/30/2014		11.39	4.95	--	6.44	<10,000	--	1,800	<100	140	<200	700	25,000	<100	<100	<100	<100	<100	--	0.57	
MW-2	12/16/2014		11.39	4.27	--	7.12	8,100	1,000	1,400	<25	100	<50	640	12,000	<25	<25	<25	<25	<25	--	0.65	
MW-2	6/18/2015		11.42	5.22	--	6.20	5,600	2,000	909	12.9 J	8.49	15.4	372	15,500	<5	<5	<5	<5	<5	<500	6.39	
MW-3	11/4/1992		8.25	6.38	--	1.87	200	690	1.6	<0.5	<0.5	1.1	--	--	--	--	--	--	--	--	--	
MW-3	10/12/1993	Dup	8.25	--	--	--	270	2,100	5	0.7	<0.5	2.6	96	--	--	--	--	--	--	--	--	(Dup)
MW-3	10/12/1993		8.25	--	--	--	150	--	5.6	0.6	<0.5	1.6	--	--	--	--	--	--	--	--	--	
MW-3	2/15/1994		8.25	6.60	--	1.65	140	2.3	5.7	<0.5	<0.5	<0.5	30	--	--	--	--	--	--	--	3.90	
MW-3	5/11/1994		8.25	5.86	--	2.39	190	2,500	2.7	1.9	<0.5	1.9	51	--	--	--	--	--	--	--	9.20	
MW-3	8/1/1994		8.25	6.13	--	2.12	120	1,300	1.3	<0.5	0.5	1.1	18	--	--	--	--	--	--	--	2.90	
MW-3	10/18/1994		8.25	6.39	--	1.86	100	2,200	2.3	<0.5	<0.5	<0.5	21	--	--	--	--	--	--	--	3.60	
MW-3	1/13/1995		8.25	5.47	--	2.78	<50	970	0.8	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.70	
MW-3	4/13/1995		8.25	5.17	--	3.08	530	<500	8.7	1.9	<0.5	3.9	--	--	--	--	--	--	--	--	8.40	
MW-3	7/11/1995		8.25	5.37	--	2.88	78	2,100	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.30	
MW-3	11/2/1995		8.25	6.29	--	1.96	250	2,000	0.73	<0.5	<0.5	1.8	270	--	--	--	--	--	--	--	8.30	
MW-3	2/5/1996		8.25	5.80	--	2.45	<50	1,600	<0.5	<1.0	<1.0	2.7	11	--	--	--	--	--	--	--	3.50	
MW-3	4/24/1996		8.25	5.69	--	2.56	<50	2,800	<5.0	<10	<10	<10	150	--	--	--	--	--	--	--	8.60	
MW-3	7/15/1996		8.25	6.18	--	2.07	<250	3,700	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	7.70	
MW-3	7/30/1996		8.25	6.04	--	2.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	11/4/1996		8.25	7.84	--	0.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	11/5/1996		8.25	--	--	--	90	890	<0.5	<1.0	<1.0	<1.0	30	--	--	--	--	--	--	--	6.80	
MW-3	5/17/1997		8.25	6.49	--	1.76	<50	2,100	<0.5	<1.0	<1.0	<1.0	52	--	--	--	--	--	--	--	6.30	
MW-3	8/11/1997		8.25	6.15	--	2.10	490	1,900	<2.5	<5.0	<5.0	<5.0	170	--	--	--	--	--	--	--	7.40	
MW-3	11/17/1997		8.25	7.15	--	1.10	120	2,500	<0.5	<1.0	<1.0	<1.0	46	--	--	--	--	--	--	--	7.00	
MW-3	1/29/1998		8.25	5.10	--	3.15	270	1,700	0.53	<1.0	<1.0	<1.0	330	--	--	--	--	--	--	--	6.40	
MW-3	6/22/1998		8.25	5.50	--	2.75	200	2,200	<0.5	<1.0	<1.0	<1.0	130	--	--	--	--	--	--	--	5.50	
MW-3	12/30/1998		8.25	6.68	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/9/1999		8.25	5.53	--	2.72	60	840	<1.0	<1.0	<1.0	<1.0	19	--	--	--	--	--	--	--	--	
MW-3	6/23/1999		8.25	6.60	--	1.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	9/23/1999		8.25	6.17	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	12/28/1999		8.25	6.00	--	2.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/22/2000		8.25	4.77	--	3.48	690	<58	4.2	3.1	0.81	2.7	2,900	--	--	--	--	--	--	--	--	
MW-3	5/26/2000		8.25	5.28	--	2.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	9/15/2000		8.25	5.58	--	2.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	12/11/2000		8.25	11.74	--	-3.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-3	3/29/2001		8.25	5.04	--	3.21	650	<50	<2.5	<2.5	<2.5	<7.5	680	--	--	--	--	--	--	--	--	
MW-3	6/27/2001		8.25	5.62	--	2.63	460	690	<2.5	<2.5	<2.5	<7.5	560	--	--	--	--	--	--	--	--	
MW-3	9/19/2001		8.25	5.80	--	2.45	<500	520	<5.0	<5.0	<5.0	<15	464	--	--	--	--	--	--	--	--	
MW-3	12/28/2001		8.25	4.85	--	3.40	180	550	<0.5	<0.5	<0.5	<1.0	180	--	--	--	--	--	--	--	--	
MW-3	3/12/2002		8.25	4.39	--	3.86	410	1,300	<2.5	<2.5	<2.5	<5.0	443	--	--	--	--	--	--	--	--	
MW-3	6/13/2002		8.25	5.38	--	2.87	<250	2,600	<2.5	<2.5	<2.5	<5.0	395	--	--	--	--	--	--	--	--	
MW-3	9/6/2002		8.25	5.68	--	2.57	<200	--	<2.0	<2.0	<2.0	<2.0	650	--	--	--	--	--	--	--	--	
MW-3	12/13/2002		8.25	5.37	--	2.88	<50	980	<0.5	<0.5	<0.5	<0.5	60	--	--	--	--	--	--	--	--	
MW-3	2/19/2003		8.25	4.80	--	3.45	<1,000	380	<10	<10	<10	<10	120	--	--	--	--	--	--	--	--	
MW-3	6/6/2003		8.25	5.13	--	3.12	<500	620	<5.0	<5.0	<5.0	<5.0	180	<200	--	<5.0	<5.0	--	16	<1,000	--	
MW-3	8/7/2003		8.25	5.43	--	2.82	<500	820(N)	5.7	<5.0	<5.0	<5.0	290	<200	<5.0	<5.0	<5.0	<5.0	20	<1,000	--	
MW-3	11/20/2003		8.25	4.72	--	3.53	<50	1,200(N)	<0.5	<0.5	<0.5	<0.5	17	<20	--	<0.5	<0.5	--	1.4	<100	--	
MW-3	4/28/2004		8.25	4.87	--	3.38	<100	240(N)	<1.0	<1.0	<1.0	<1.0	87	<40	<1.0	<1.0	<1.0	<1.0	3.9	<200	--	
MW-3	8/26/2004		8.25	5.42	--	2.83	56	250(N)	<0.5	<0.5	<0.5	<0.5	34	260	<0.5	<0.5	<0.5	<0.5	2	<100	--	
MW-3	12/1/2004		8.25	5.69	--	2.56	<100	690	<1.0	<1.0	<1.0	<1.0	7.4	610	<1.0	<1.0	<1.0	<1.0	<1.0	<200	--	
MW-3	2/2/2005		8.25	4.72	--	3.53	<100	730	<1.0	<1.0	<1.0	<1.0	20	<40	<1.0	<1.0	<1.0	<1.0	1.1	<200	--	
MW-3	4/25/2005		10.73	4.75	--	5.98	<250	520	<2.5	<2.5	<2.5	<2.5	220	160	<2.5	<2.5	<2.5	<2.5	10	<500	--	
MW-3	9/30/2005		10.73	5.30	--	5.43	<50	300(N)	<0.5	<0.5	<0.5	<1.0	8.2	270	<0.5	<0.5	<0.5	<0.5	0.68	<50	--	
MW-3	12/28/2005		10.73	4.41	--	6.32	<50	100	<0.5	<0.5	<0.5	<1.0	0.66	<5.0	<0.5	<1.0	<0.5	--	<0.5	<100	--	
MW-3	3/23/2006		10.73	4.43	--	6.30	<50	260	<0.5	<0.5	<0.5	<1.0	13	130	<0.5	<1.0	<0.5	<0.5	0.63	<100	--	
MW-3	6/5/2006		10.73	4.95	--	5.78	61	340	0.69	1.4	0.85	3.6	29	510	<0.5	<1.0	<0.5	<0.5	1.6	<100	--	
MW-3	9/19/2006		10.73	5.19	--	5.54	<50	330	<0.5	<0.5	<0.5	<1.0	4.1	420	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-3	12/1/2006		10.73	5.37	--	5.36	<50	130	<0.5	<0.5	<0.5	<1.0	2	250	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-3	3/1/2007		10.73	4.62	--	6.11	<50	120	<0.5	<0.5	<0.5	<1.0	3.8	77	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-3	6/1/2007		10.73	5.53	--	5.20	<50	350	<0.5	<0.5	<0.5	<1.0	3.7	320	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-3	9/13/2007		10.73	6.17	--	4.56	<250	1,200	<2.5	<2.5	<2.5	<5.0	2.6	2,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-3	11/21/2007		10.73	6.16	--	4.57	<250	1,600	<2.5	<2.5	<2.5	<5.0	3.4	2,600	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-3	2/29/2008		10.73	5.38	--	5.35	<50	350	<0.5	<0.5	<0.5	<1.0	0.9	540	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-3	5/23/2008		10.73	6.07	--	4.66	<500	1,100	<5.0	<5.0	<5.0	<10	<5.0	3,200	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-3	9/26/2008		10.73	6.46	--	4.27	120	3,000	<1.0	<1.0	<1.0	<1.0	4.8	6,900	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-3	12/23/2008		10.73	6.36	--	4.37	87	2,800	<1.0	<1.0	<1.0	<1.0	4.9	8,200	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-3	3/9/2009		10.73	5.31	--	5.42	<50	900	<1.0	<1.0	<1.0	<1.0	<1.0	55	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-3	5/28/2009		10.73	5.77	--	4.96	<50	1,600	<1.0	<1.0	<1.0	<1.0	2.1	580	<1.0	<1.0	<1.0	<1.0	<1.0	<250	0.19	
MW-3	12/10/2009		10.73	5.67	--	5.06	<50	--	<0.50	<0.50	<0.50	<1.0	0.86	270	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.72	
MW-3	12/18/2009		--	--	--	--	--	450	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	6/29/2010		10.73	5.85	--	4.88	<50	2,700	<0.50	<0.50	<0.50	<1.0	1.9	2,900	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.52	(P)
MW-3	12/30/2010		10.73	4.33	--	6.40	<50	520	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<250	--	(P)
MW-3	6/29/2011		10.73	5.00	--	5.73	<50	250	--	--	--	--	0.73	73	--	--	--	--	<0.50	--	0.45	(P)
MW-3	1/30/2012		10.73	5.22	--	5.51	<50	160	--	--	--	--	<0.50	65	--	--	--	--	<0.50	--	1.21	(P)
MW-3	6/27/2012		10.73	5.19	--	5.54	<50	270	--	--	--	--	1.6	250	--	--	--	--	<0.50	--	1.14	(P)
MW-3	12/7/2012		10.73	4.65	--	6.08	<50	110	--	--	--	--	<0.50	20	--	--	--	--	<0.50	--	1.10	
MW-3	6/6/2013		10.73	5.51	--	5.22	<50	300	--	--	--	--	1.9	540	--	--	--	--	<0.50	--	1.38	
MW-3	12/13/2013		10.73	5.77	--	4.96	<50	<49	--	--	--	--	0.54	680	--	--	--	--	<0.50	--	1.92	
MW-3	6/30/2014		10.73	5.56	--	5.17	<50	<47	--	--	--	--	1.5	1,900	--	--	--	--	<0.50	--	1.09	
MW-3	12/16/2014		10.73	4.30	--	6.43	<50	<50	--	--	--	--	<0.50	48	--	--	--	--	<0.50	--	0.79	
MW-3	6/18/2015		10.76	5.62	--	5.14	89 J	710	--	--	--	--	1.74	1,180	--	--	--	--	<1	--	0.48	
MW-4	11/4/1992		8.12	6.66	--	1.46	340	--	4.5	<0.5	4.3	<0.5	--	--	--	--	--	--	--	--	--	
MW-4	10/12/1993		8.12	6.87	--	1.25	160	--	5.8	1.4	0.8	2.7	261	--	--	--	--	--	--	--	--	
MW-4	2/15/1994		8.12	6.61	--	1.51	110	--	4.4	0.7	<0.5	2.5	118	--	--	--	--	--	--	--	4.30	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-4	5/11/1994		8.12	5.89	--	2.23	120	--	0.5	0.8	<0.5	<0.5	137	--	--	--	--	--	--	--	9.30	
MW-4	8/1/1994		8.12	6.87	--	1.25	140	--	0.7	2	5.2	15	138	--	--	--	--	--	--	--	3.30	
MW-4	10/18/1994		8.12	6.62	--	1.50	140	--	3.5	<0.5	0.5	<0.5	197	--	--	--	--	--	--	--	3.00	
MW-4	1/13/1995		8.12	7.27	--	0.85	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.90	
MW-4	4/13/1995		8.12	6.51	--	1.61	73	--	1.2	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	9.90	
MW-4	7/11/1995		8.12	6.21	--	1.91	82	--	0.57	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.20	
MW-4	11/2/1995		8.12	6.78	--	1.34	71	--	1.4	0.96	0.99	2.8	140	--	--	--	--	--	--	--	8.60	
MW-4	2/5/1996		8.12	6.41	--	1.71	<50	--	<5.0	<10	<10	<10	200	--	--	--	--	--	--	--	4.40	
MW-4	4/24/1996		8.12	6.18	--	1.94	<250	--	<2.5	<5.0	<5.0	<5.0	510	--	--	--	--	--	--	--	8.30	
MW-4	7/15/1996		8.12	6.63	--	1.49	<50	--	5.7	<1.0	<1.0	<1.0	550	--	--	--	--	--	--	--	7.40	
MW-4	7/30/1996		8.12	6.34	--	1.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/4/1996		8.12	8.27	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/5/1996		8.12	--	--	--	460	--	<2.5	11	<5.0	<5.0	620	--	--	--	--	--	--	--	7.30	
MW-4	5/17/1997		8.12	7.00	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	8/11/1997		8.12	6.81	--	1.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	11/17/1997		8.12	9.19	--	-1.07	840	--	<0.5	<1.0	<1.0	<1.0	880	--	--	--	--	--	--	--	7.30	
MW-4	1/29/1998		8.12	7.94	--	0.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	6/22/1998		8.12	7.49	--	0.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/30/1998		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/9/1999		8.12	7.70	--	0.42	1,200	--	<1.0	<1.0	<1.0	<1.0	2,000	--	--	--	--	--	--	--	--	
MW-4	6/23/1999		8.12	8.81	--	-0.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	9/23/1999		8.12	8.32	--	-0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/28/1999		8.12	8.21	--	-0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/22/2000		8.12	6.74	--	1.38	910	--	<0.5	<0.5	0.54	1.7	3,800	--	--	--	--	--	--	--	--	
MW-4	5/26/2000		8.12	5.13	--	2.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	9/15/2000		8.12	8.20	--	-0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	12/11/2000		8.12	8.31	--	-0.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/29/2001		8.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-4	6/27/2001		8.12	7.57	--	0.55	2,800	--	19	<2.5	<2.5	<7.5	4,220	--	--	--	--	--	--	--	--	
MW-4	9/19/2001		8.12	7.87	--	0.25	2,500	--	<5.0	<5.0	<5.0	<15	3,340	--	--	--	--	--	--	--	--	
MW-4	12/28/2001		8.12	7.80	--	0.32	4,400	--	<5.0	<5.0	<5.0	<10	5,330	--	--	--	--	--	--	--	--	
MW-4	3/12/2002		8.12	4.53	--	3.59	6,400	--	72	<5.0	<5.0	<10	8,440	--	--	--	--	--	--	--	--	
MW-4	6/13/2002		8.12	6.21	--	1.91	1,800	--	7.5	<5.0	5	13	6,870	--	--	--	--	--	--	--	--	
MW-4	9/6/2002		8.12	7.78	--	0.34	<2,000	--	<20	<20	<20	<20	9,600	--	--	--	--	--	--	--	--	
MW-4	12/13/2002		8.12	7.87	--	0.25	5,600	--	<50	<50	<50	<50	8,600	--	--	--	--	--	--	--	--	
MW-4	2/19/2003		8.12	4.84	--	3.28	<10,000	--	<100	<100	<100	<100	8,000	--	--	--	--	--	--	--	--	
MW-4	6/6/2003		8.12	7.98	--	0.14	13,000	--	<50	<50	<50	<50	6,800	2,500	--	<50	<50	--	190	<10,000	--	
MW-4	8/7/2003		8.12	7.24	--	0.88	6,200	--	<50	<50	<50	<50	6,600	2,400	<50	<50	<50	<50	160	<10,000	--	
MW-4	11/20/2003		8.12	7.02	--	1.10	10,000	--	<100	<100	<100	<100	11,000	<4,000	--	<100	<100	--	310	<20,000	--	
MW-4	4/28/2004		8.12	4.81	--	3.31	<25,000	--	<250	<250	<250	<250	3,600	15,000	<250	<250	<250	<250	<250	<50,000	--	
MW-4	8/26/2004		8.12	5.65	--	2.47	<2,500	--	<25	<25	<25	<25	1,800	16,000	<25	<25	<25	<25	60	--	--	
MW-4	12/1/2004		8.12	7.34	--	0.78	1,100	--	<10	<10	<10	<10	450	19,000	<10	<10	<10	<10	10	<2,000	--	
MW-4	2/2/2005		8.12	7.61	--	0.51	1,000	--	<5.0	<5.0	<5.0	<5.0	410	19,000	<5.0	<5.0	<5.0	<5.0	10	<1,000	--	
MW-4	4/25/2005		10.58	7.25	--	3.33	720	--	8	5.3	<5.0	16	170	18,000	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	
MW-4	9/30/2005		10.58	7.72	--	2.86	<2,500	--	63	58	46	140	110	30,000	<25	<25	<25	<25	<25	<2,500	--	
MW-4	12/28/2005		10.58	7.48	--	3.10	<2,500	--	<25	<25	<25	<50	34	27,000	<25	<50	<25	--	<25	<5,000	--	
MW-4	3/23/2006		10.58	4.42	--	6.16	<2,500	--	<25	<25	<25	<50	120	34,000	<25	<50	<25	<25	<25	<5,000	--	
MW-4	6/5/2006		10.58	4.97	--	5.61	<5,000	--	<50	<50	<50	<100	<50	34,000	<50	<100	<50	<50	<50	<10,000	--	
MW-4	9/19/2006		10.58	5.45	--	5.13	<5,000	--	<50	<50	<50	<100	110	27,000	<50	<100	<50	<50	<50	<25,000	--	
MW-4	12/1/2006		10.58	5.14	--	5.44	<5,000	--	<50	<50	<50	<100	68	31,000	<50	<100	<50	<50	<50	<25,000	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-4	3/1/2007		10.58	7.60	--	2.98	<5,000	--	<50	<50	<50	<100	<50	31,000	<50	<100	<50	<50	<50	<25,000	--	
MW-4	6/1/2007		10.58	5.21	--	5.37	2,700	--	<25	<25	<25	<50	31	32,000	<25	<50	<25	<25	<25	<13,000	--	
MW-4	9/13/2007		10.58	6.45	--	4.13	<2,500	--	<25	<25	<25	<50	<25	10,000	<25	<50	<25	<25	<25	<13,000	--	
MW-4	11/21/2007		10.58	5.68	--	4.90	<2,500	--	<25	<25	<25	<50	<25	38,000	<25	<50	<25	<25	<25	<13,000	--	
MW-4	2/29/2008		10.58	6.44	--	4.14	<5,000	--	<50	<50	<50	<100	<50	32,000	<50	<100	<50	<50	<50	<25,000	--	
MW-4	5/23/2008		10.58	6.01	--	4.57	<5,000	--	<50	<50	<50	<100	<50	42,000	<50	<100	<50	<50	<50	<25,000	--	
MW-4	9/26/2008		10.58	7.37	--	3.21	370	--	<1.0	<1.0	<1.0	<1.0	14	39,000	<1.0	<1.0	2.8	<1.0	<1.0	<250	--	
MW-4	12/23/2008		10.58	6.04	--	4.54	270	--	<1.0	<1.0	<1.0	<1.0	15	37,000	<1.0	<1.0	3.2	<1.0	<1.0	<250	--	
MW-4	3/9/2009		10.58	5.30	--	5.28	140	--	<1.0	<1.0	<1.0	<1.0	18	27,000	<1.0	<1.0	3.5	<1.0	<1.0	<250	--	
MW-4	5/28/2009		10.58	7.06	--	3.52	330	--	<1.0	<1.0	<1.0	<1.0	21	36,000	<1.0	<1.0	2.9	<1.0	1.1	<250	0.41	
MW-4	12/10/2009		10.58	6.24	--	4.34	660	--	<0.50	<0.50	<0.50	<1.0	10	39,000	<0.50	<0.50	2.7	<0.50	<0.50	<100	0.49	
MW-4	6/29/2010		10.58	6.57	--	4.01	<500	--	<5.0	<5.0	<5.0	<10	7.3	38,000	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	(P, well purged dry)
MW-4	12/30/2010		10.58	7.32	--	3.26	<500	--	<5.0	<5.0	<5.0	<10	11	31,000	<5.0	<5.0	<5.0	<5.0	<5.0	<2,500	--	(P, well purged dry)
MW-4	6/29/2011		10.58	6.43	--	4.15	<500	610	--	--	--	--	11	30,000	--	--	--	--	<5.0	--	0.45	(P)
MW-4	1/30/2012		10.58	6.72	--	3.86	72	530	--	--	--	--	11	23,000	--	--	--	--	0.50	--	0.55	(P)
MW-4	6/29/2012		10.58	5.50	--	5.08	<500	480	--	--	--	--	9.3	28,000	--	--	--	--	<5.0	--	1.21	(P)
MW-4	12/7/2012		10.58	7.05	--	3.53	<500	330	--	--	--	--	8.7	18,000	--	--	--	--	<0.50	--	1.37	
MW-4	6/6/2013		10.58	6.53	--	4.05	<500	600	--	--	--	--	6.7	26,000	--	--	--	--	<5.0	--	1.30	
MW-4	12/13/2013		10.58	7.15	--	3.43	<500	<49	--	--	--	--	7.2	19,000	--	--	--	--	<5.0	--	3.07	
MW-4	6/30/2014		10.58	5.85	--	4.73	<500	800	--	--	--	--	5.5	24,000	--	--	--	--	<5.0	--	0.22	
MW-4	12/16/2014		10.58	4.61	--	5.97	<1,000	<51	--	--	--	--	<10	18,000	--	--	--	--	<10	--	2.05	
MW-4	6/18/2015		10.62	5.77	--	4.85	120	1,700	--	--	--	--	6.03	13,900	--	--	--	--	<1	--	0.74	
MW-5	10/12/1993		7.69	6.01	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	10/13/1993		7.69	--	--	--	2,300	--	160	10	<0.5	26	--	--	--	--	--	--	--	--	--	
MW-5	2/15/1994		7.69	5.74	--	1.95	5,100	--	710	16	33	35	153	--	--	--	--	--	--	--	4.00	
MW-5	5/11/1994		7.69	5.28	--	2.41	11,000	--	1,100	39	110	57	165	--	--	--	--	--	--	--	8.00	
MW-5	8/1/1994		7.69	5.84	--	1.85	9,000	--	730	35	61	41	196	--	--	--	--	--	--	--	2.60	
MW-5	10/18/1994		7.69	6.01	--	1.68	7,800	--	330	30	27	27	559	--	--	--	--	--	--	--	5.60	
MW-5	1/13/1995		7.69	4.74	--	2.95	<500	--	290	6	<5.0	18	--	--	--	--	--	--	--	--	6.80	
MW-5	4/13/1995		7.69	5.50	--	2.19	9,100	--	400	15	52	27	--	--	--	--	--	--	--	--	7.40	
MW-5	7/11/1995		7.69	5.75	--	1.94	7,300	--	390	13	28	23	--	--	--	--	--	--	--	--	7.20	
MW-5	11/3/1995		7.69	6.65	--	1.04	7,200	--	270	15	38	23	200	--	--	--	--	--	--	--	8.40	
MW-5	2/5/1996		7.69	4.83	--	2.86	4,600	--	370	15	53	28	<50	--	--	--	--	--	--	--	1.90	
MW-5	4/24/1996		7.69	6.09	--	1.60	3,000	--	180	<10	32	14	<100	--	--	--	--	--	--	--	8.10	
MW-5	7/15/1996		7.69	6.57	--	1.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	7/16/1996		7.69	--	--	--	<50	--	190	<10	31	16	<100	--	--	--	--	--	--	--	8.30	
MW-5	7/30/1996		7.69	5.61	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	8/12/1996		7.69	--	--	--	2,000	--	150	12	25	18	<50	--	--	--	--	--	--	--	7.60	
MW-5	11/4/1996		7.69	8.25	--	-0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	11/5/1996		7.69	--	--	--	5,200	--	42	5.5	13	<5.0	1,700	--	--	--	--	--	--	--	7.40	
MW-5	5/17/1997		7.69	6.95	--	0.74	80	--	0.56	<1.0	<1.0	<1.0	46	--	--	--	--	--	--	--	6.70	
MW-5	8/11/1997		7.69	6.72	--	0.97	2,700	--	20	12	6.7	9.7	1,900	--	--	--	--	--	--	--	8.50	
MW-5	11/17/1997		7.69	9.49	--	-1.80	8,400	--	25	12	8.7	5.4	13,000	--	--	--	--	--	--	--	7.90	
MW-5	1/29/1998		7.69	7.88	--	-0.19	110,000	--	2,500	110	180	589	180,000	--	--	--	--	--	--	--	6.80	
MW-5	6/22/1998		7.69	7.40	--	0.29	4,400	--	47	10	29	21	47	--	--	--	--	--	--	--	6.60	
MW-5	12/30/1998		7.69	6.13	--	1.56	6,000	--	18	9.1	22	16	63	--	--	--	--	--	--	--	--	
MW-5	3/9/1999		7.69	4.79	--	2.90	4,600	--	8.8	5.5	12	11	24	--	--	--	--	--	--	--	--	
MW-5	6/23/1999		7.69	5.95	--	1.74	3,400	--	1,500	8.9	54	87	7,500	--	--	--	--	--	--	--	--	
MW-5	9/23/1999		7.69	5.43	--	2.26	2,600	--	510	14	140	650	580	--	--	--	--	--	--	--	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-5	12/28/1999		7.69	5.30	--	2.39	3,500	--	900	18	57	140	4,800	--	--	--	--	--	--	--	--	
MW-5	3/22/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	5/26/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	9/6/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	9/15/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	12/11/2000		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	3/29/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	6/27/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	9/19/2001		7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-5	12/28/2001		7.69	4.65	--	3.04	4,600	--	20	25	16	57	72	--	--	--	--	--	--	--	--	
MW-5	3/12/2002		7.69	5.35	--	2.34	5,100	--	45	14	22	39	32	--	--	--	--	--	--	--	--	
MW-5	6/13/2002		7.69	5.34	--	2.35	2,900	--	32	<12.5	<12.5	<25	616	--	--	--	--	--	--	--	--	
MW-5	9/6/2002		7.69	5.46	--	2.23	3,400	--	23	5.5	<5.0	11	230	--	--	--	--	--	--	--	--	
MW-5	12/13/2002		7.69	5.47	--	2.22	2,500	--	12	9.3	4.6	8.8	110	--	--	--	--	--	--	--	--	
MW-5	2/19/2003		7.69	5.29	--	2.40	2,800	--	11	5.4	9.7	12	6.4	--	--	--	--	--	--	--	--	
MW-5	6/6/2003		7.69	5.30	--	2.39	3,200	--	9.1	<5.0	7.6	9.3	<5.0	<200	--	<5.0	<5.0	--	<5.0	<1,000	--	
MW-5	8/7/2003		7.69	5.33	--	2.36	2,200	--	7.3	<5.0	<5.0	9.1	18	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	
MW-5	11/20/2003		7.69	5.39	--	2.30	3,500	--	12	5.4	6.4	12	12	<100	--	<2.5	<2.5	--	<2.5	<500	--	
MW-5	4/28/2004		7.69	5.53	--	2.16	5,700	--	7.8	4.2	5.2	11	11	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-5	8/26/2004		7.69	5.42	--	2.27	2,400	--	23	4	3.6	11	74	<100	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	
MW-5	12/1/2004		7.69	5.38	--	2.31	4,300	--	11	<5.0	5.5	15	<5.0	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<1,000	--	
MW-5	2/2/2005		7.69	5.48	--	2.21	4,000	--	8.4	4.8	4	10	11	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-5	4/25/2005		10.18	5.52	--	4.66	5,200	--	7.6	4	4.3	9.9	12	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-5	9/30/2005		10.18	5.04	--	5.14	4,100	--	5.3	2.7	2.1	8	16	27	<1.0	<1.0	<1.0	<1.0	<1.0	<100	--	
MW-5	12/28/2005		10.18	4.85	--	5.33	7,700	--	7.7	3.3	2.9	7.1	3.8	<20	<2.0	14	<2.0	--	<2.0	<400	--	
MW-5	3/23/2006		10.18	5.07	--	5.11	5,700	--	11	3.3	2.4	8.1	8.6	37	<2.0	<4.0	<2.0	<2.0	<2.0	<400	--	
MW-5	6/5/2006		10.18	5.39	(SHEEN)	4.79	5,900	--	36	5	3.7	15	11	90	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	(Sheen)
MW-5	9/19/2006		10.18	4.75	--	5.43	4,600	--	6.7	<2.5	<2.5	<5.0	12	53	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-5	12/1/2006		10.18	5.29	--	4.89	4,400	--	5	<2.5	<2.5	5.8	14	<25	<2.5	<5.0	<2.5	<2.5	2.7	<1,300	--	
MW-5	3/1/2007		10.18	5.01	--	5.17	6,400	--	6.2	3	<2.5	8.7	<2.5	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-5	6/1/2007		10.18	5.34	--	4.84	7,000	--	3.4	<2.5	<2.5	6.6	11	40	<2.5	32	<2.5	5.8	<2.5	<1,300	--	
MW-5	9/13/2007		10.18	5.11	--	5.07	7,000	--	3.8	<2.5	<2.5	<5.0	8.5	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-5	11/21/2007		10.18	5.34	--	4.84	4,700	--	<2.5	<2.5	<2.5	<5.0	11	310	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-5	2/29/2008		10.18	5.33	--	4.85	5,100	--	1.9	1.8	0.93	4.2	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-5	5/23/2008		10.18	5.38	--	4.80	4,600	--	<2.5	<2.5	<2.5	<5.0	3.9	<25	<2.5	<5.0	<2.5	<2.5	<2.5	<1,200	--	
MW-5	9/26/2008		10.18	5.26	--	4.92	3,400	--	1.5	<1.0	<1.0	2.2	2.8	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-5	12/23/2008		10.18	5.04	--	5.14	3,300	--	2.7	1.1	<1.0	3.4	1	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-5	3/9/2009		10.18	4.79	--	5.39	4,300	--	1.9	1.8	<1.0	4	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-5	5/28/2009		10.18	5.21	--	4.97	4,400	--	<1.0	<1.0	<1.0	1.8	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	2.15	
MW-5	12/10/2009		10.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)
MW-5	6/29/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)
MW-5	12/30/2010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA, need traffic control)
MW-5	6/29/2011		10.18	5.38	--	4.80	3,300	--	1.7	0.60	<0.50	2.4	1.9	<4.0	--	--	--	--	<0.50	--	0.46	(P)
MW-5	1/30/2012		10.18	5.24	--	4.94	3,200	--	2.4	1.1	<0.50	3.6	2.1	17	--	--	--	--	<0.50	--	1.09	(P)
MW-5	6/27/2012		10.18	5.39	--	4.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.52	(P, sampled 6/29/12)
MW-5	6/29/2012		--	--	--	--	3,000	--	1.5	<0.50	<0.50	3.5	2.0	<4.0	--	--	--	--	<0.50	--	--	
MW-5	12/7/2012		10.18	5.11	--	5.07	3,200	--	2.9	0.79	0.89	2.9	6.2	89	--	--	--	--	<0.50	--	1.26	
MW-5	6/6/2013		10.18	5.47	--	4.71	3,800	--	2.1	0.67	<0.50	3.2	3.7	41	--	--	--	--	<0.50	--	1.06	
MW-5	12/13/2013		10.18	5.47	--	4.71	3,300	600	3.3	1.0	0.79	4.1	9.5	410	--	--	--	--	<0.50	--	2.87	
MW-5	6/30/2014		10.18	5.49	--	4.69	2,800	340	2.5	0.67	<0.50	3.9	5.2	160	--	--	--	--	<0.50	--	0.23	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-5	12/16/2014		10.18	4.05	--	6.13	2,500	410	2.5	<0.50	<0.50	3.2	3.6	200	--	--	--	--	<0.50	--	0.31	
MW-5	6/18/2015		10.20	5.45		4.75	2,400	1,100	1.76	<5	<1	2.94 J	6.98	523	--	--	--	--	<1	--	0.24	(Tagged, sampled out of order due to traffic control restrictions.)
MW-6	10/12/1993		8.52	6.59	--	1.93	63	--	<0.5	<0.5	<0.5	<0.5	44	--	--	--	--	--	--	--	--	
MW-6	2/15/1994		8.52	6.31	--	2.21	68	--	<0.5	<0.5	<0.5	<0.5	38	--	--	--	--	--	--	--	3.10	
MW-6	5/11/1994		8.52	6.15	--	2.37	68	--	<0.5	<0.5	<0.5	<0.5	49	--	--	--	--	--	--	--	8.70	
MW-6	8/1/1994		8.52	6.46	--	2.06	91	--	<0.5	<0.5	<0.5	0.6	60	--	--	--	--	--	--	--	2.40	
MW-6	10/18/1994		8.52	6.72	--	1.80	<50	--	<0.5	<0.5	<0.5	<0.5	85	--	--	--	--	--	--	--	6.00	
MW-6	1/13/1995		8.52	5.95	--	2.57	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.00	
MW-6	4/13/1995		8.52	5.44	--	3.08	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.50	
MW-6	7/11/1995		8.52	5.68	--	2.84	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.40	
MW-6	11/2/1995		8.52	6.57	--	1.95	<50	--	<0.5	<0.5	<0.5	<1.0	35	--	--	--	--	--	--	--	8.30	
MW-6	2/5/1996		8.52	6.27	--	2.25	<50	--	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	2.20	
MW-6	4/24/1996		8.52	5.95	--	2.57	<250	--	<2.5	<5.0	<5.0	<5.0	62	--	--	--	--	--	--	--	8.00	
MW-6	7/15/1996		8.52	6.39	--	2.13	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	8.00	
MW-6	7/30/1996		8.52	6.44	--	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/4/1996		8.52	8.05	--	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/5/1996		8.52	--	--	--	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.30	
MW-6	5/17/1997		8.52	6.75	--	1.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	8/11/1997		8.52	6.48	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	11/17/1997		8.52	9.27	--	-0.75	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.70	
MW-6	1/29/1998		8.52	7.98	--	0.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	6/22/1998		8.52	7.68	--	0.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/30/1998		8.52	6.98	--	1.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/9/1999		8.52	5.90	--	2.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	6/23/1999		8.52	6.93	--	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/23/1999		8.52	6.45	--	2.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/28/1999		8.52	6.33	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/22/2000		8.52	5.15	--	3.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	5/26/2000		8.52	5.72	--	2.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/15/2000		8.52	6.02	--	2.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	12/11/2000		8.52	6.20	--	2.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	3/29/2001		8.52	5.34	--	3.18	750	--	<2.5	2.9	<2.5	12	820	--	--	--	--	--	--	--	--	
MW-6	6/27/2001		8.52	6.00	--	2.52	760	--	33	<2.5	<2.5	<7.5	968	--	--	--	--	--	--	--	--	
MW-6	9/19/2001		8.52	6.22	--	2.30	<500	--	<5.0	<5.0	<5.0	<15	879	--	--	--	--	--	--	--	--	
MW-6	12/28/2001		8.52	4.71	--	3.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NS)
MW-6	3/12/2002		8.52	4.96	--	3.56	<500	--	<5.0	<5.0	<5.0	<10	244	--	--	--	--	--	--	--	--	
MW-6	6/13/2002		8.52	5.78	--	2.74	<250	--	<2.5	<2.5	<2.5	<5.0	413	--	--	--	--	--	--	--	--	
MW-6	9/6/2002		8.52	6.14	--	2.38	130	--	<0.5	<0.5	<0.5	<0.5	240	--	--	--	--	--	--	--	--	
MW-6	12/13/2002		8.52	6.05	--	2.47	140	--	<1.0	<1.0	<1.0	<1.0	200	--	--	--	--	--	--	--	--	
MW-6	2/19/2003		8.52	5.40	--	3.12	<500	--	<5.0	<5.0	<5.0	<5.0	150	--	--	--	--	--	--	--	--	
MW-6	6/6/2003		8.52	5.54	--	2.98	1,100	--	<5.0	<5.0	<5.0	<5.0	140	<200	--	<5.0	<5.0	--	21	<1,000	--	
MW-6	8/7/2003		8.52	5.94	--	2.58	<500	--	<5.0	<5.0	<5.0	<5.0	160	<200	<5.0	<5.0	<5.0	<5.0	20	<1,000	--	
MW-6	11/20/2003		8.52	5.85	--	2.67	95	--	<0.5	<0.5	<0.5	<0.5	74	<20	--	<0.5	<0.5	--	12	<100	--	
MW-6	4/28/2004		8.52	5.45	--	3.07	<250	--	<2.5	<2.5	<2.5	<2.5	120	<100	<2.5	<2.5	<2.5	<2.5	12	<500	--	
MW-6	8/26/2004		8.52	6.06	--	2.46	<250	--	<2.5	<2.5	<2.5	<2.5	110	<100	<2.5	<2.5	<2.5	<2.5	12	<500	--	
MW-6	12/1/2004		8.52	6.19	--	2.33	<250	--	<2.5	<2.5	<2.5	<2.5	86	<100	<2.5	<2.5	<2.5	<2.5	11	<500	--	
MW-6	2/2/2005		8.52	5.20	--	3.32	55	--	<0.5	<0.5	<0.5	<0.5	41	32	<0.5	<0.5	<0.5	<0.5	6.2	<100	--	
MW-6	4/25/2005		11.01	5.22	--	5.79	64	--	<0.5	<0.5	<0.5	<0.5	50	45	<0.5	<0.5	<0.5	<0.5	6	<100	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-6	9/30/2005		11.01	5.93	--	5.08	200(N)	--	<2.0	<2.0	<2.0	<4.0	51	280	<2.0	<2.0	<2.0	<2.0	4.4	<200	--	
MW-6	12/28/2005		11.01	5.49	--	5.52	<50	--	<0.5	<0.5	<0.5	<1.0	16	160	<0.5	<1.0	<0.5	--	2	<100	--	
MW-6	3/23/2006		11.01	4.59	--	6.42	<50	--	<0.5	<0.5	<0.5	<1.0	5.6	35	<0.5	<1.0	<0.5	<0.5	0.91	<100	--	
MW-6	6/5/2006		11.01	5.38	--	5.63	<50	--	<0.5	0.54	<0.5	<1.0	14	110	<0.5	<1.0	<0.5	<0.5	1.5	<100	--	
MW-6	9/19/2006		11.01	5.93	--	5.08	<50	--	<0.5	<0.5	<0.5	<1.0	8.8	190	<0.5	<1.0	<0.5	<0.5	1.4	<250	--	
MW-6	12/1/2006		11.01	6.28	--	4.73	<50	--	<0.5	<0.5	<0.5	<1.0	5.9	98	<0.5	<1.0	<0.5	<0.5	0.94	<250	--	
MW-6	3/1/2007		11.01	5.72	--	5.29	<50	--	<0.5	<0.5	<0.5	<1.0	6	96	<0.5	<1.0	<0.5	<0.5	0.68	<250	--	
MW-6	6/1/2007		11.01	6.22	--	4.79	<50	--	<0.5	<0.5	<0.5	<1.0	7.4	160	<0.5	<1.0	<0.5	<0.5	0.77	<250	--	
MW-6	9/13/2007		11.01	6.57	--	4.44	63	--	<0.5	<0.5	<0.5	<1.0	6.7	120	<0.5	<1.0	<0.5	<0.5	0.87	<250	--	
MW-6	11/21/2007		11.01	6.67	--	4.34	<50	--	<0.5	<0.5	<0.5	<1.0	8.4	210	<0.5	<1.0	<0.5	<0.5	1	<250	--	
MW-6	2/29/2008		11.01	5.80	--	5.21	<50	--	<0.5	<0.5	<0.5	<1.0	7.1	46	<0.5	<1.0	<0.5	<0.5	0.92	<250	--	
MW-6	5/23/2008		11.01	6.53	--	4.48	<50	--	<0.5	<0.5	<0.5	<1.0	8.4	53	<0.5	<1.0	<0.5	<0.5	0.95	<250	--	
MW-6	9/26/2008		11.01	6.86	--	4.15	<50	--	<1.0	<1.0	<1.0	<1.0	5.1	56	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-6	12/23/2008		11.01	6.90	--	4.11	<50	--	<1.0	<1.0	<1.0	<1.0	5.3	54	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-6	3/9/2009		11.01	6.00	--	5.01	<50	--	<1.0	<1.0	<1.0	<1.0	3.5	62	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-6	5/28/2009		11.01	6.19	--	4.82	<50	--	<1.0	<1.0	<1.0	<1.0	6.6	55	<1.0	<1.0	<1.0	<1.0	<1.0	<250	2.77	
MW-6	12/10/2009		11.01	6.15	--	4.86	<50	--	<0.50	<0.50	<0.50	<1.0	2.0	40	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.60	
MW-6	6/29/2010		11.01	6.18	--	4.83	<50	--	<0.50	<0.50	<0.50	<1.0	2.7	49	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.57	(P)
MW-6	12/30/2010		11.01	5.34	--	5.67	<50	--	<0.50	<0.50	<0.50	<1.0	2.2	44	<0.50	<0.50	<0.50	<0.50	<0.50	<250	0.41	(P)
MW-6	6/29/2011		11.01	5.53	--	5.48	<50	2,100	--	--	--	--	3.6	37	--	--	--	--	<0.50	--	0.03	(P)
MW-6	1/30/2012		11.01	5.89	--	5.12	<50	710	--	--	--	--	4.0	110	--	--	--	--	<0.50	--	0.61	(P)
MW-6	6/27/2012		11.01	5.68	--	5.33	<50	1,200	--	--	--	--	2.2	49	--	--	--	--	0.52	--	0.94	(P)
MW-6	12/7/2012		11.01	5.35	--	5.66	<50	610	--	--	--	--	2.4	300	--	--	--	--	<0.50	--	1.20	
MW-6	6/6/2013		11.01	5.99	--	5.02	160	3,900	--	--	--	--	3.8	150	--	--	--	--	<0.50	--	1.26	
MW-6	12/13/2013		11.01	6.36	--	4.65	<50	140	--	--	--	--	4.4	160	--	--	--	--	<0.50	--	2.76	
MW-6	6/30/2014		11.01	5.94	--	5.07	<50	300	--	--	--	--	2.4	57	--	--	--	--	<0.50	--	0.18	
MW-6	12/16/2014		11.01	5.22	--	5.79	<50	510	--	--	--	--	<0.50	<20	--	--	--	--	<0.50	--	1.76	(Drained well box)
MW-6	6/18/2015		11.04	5.99	--	5.05	38 J	7,400	--	--	--	--	1.30	30.3	--	--	--	--	<1	--	2.18	
MW-7	10/12/1993		7.61	6.14	--	1.47	<50	--	<0.5	<0.5	<0.5	0.7	<5.0	--	--	--	--	--	--	--	--	
MW-7	2/15/1994		7.61	5.88	--	1.73	78	--	<0.5	<0.5	<0.5	0.6	<5.0	--	--	--	--	--	--	--	4.00	
MW-7	5/11/1994		7.61	5.76	--	1.85	70	--	<0.5	<0.5	<0.5	0.9	12	--	--	--	--	--	--	--	9.10	
MW-7	8/1/1994		7.61	5.97	--	1.64	77	--	<0.5	<0.5	<0.5	0.5	182	--	--	--	--	--	--	--	2.50	
MW-7	10/18/1994		7.61	6.24	--	1.37	<50	--	<0.5	<0.5	<0.5	<0.5	52	--	--	--	--	--	--	--	6.30	
MW-7	1/13/1995		7.61	5.39	--	2.22	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	8.20	
MW-7	4/13/1995		7.61	5.17	--	2.44	63	--	<0.5	<0.5	<0.5	1.4	--	--	--	--	--	--	--	--	8.40	
MW-7	7/11/1995		7.61	5.25	--	2.36	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	7.90	
MW-7	11/2/1995		7.61	6.19	--	1.42	<50	--	<0.5	<0.5	<0.5	<1.0	55	--	--	--	--	--	--	--	8.00	
MW-7	2/5/1996		7.61	5.69	--	1.92	<50	--	<0.5	<1.0	<1.0	<1.0	40	--	--	--	--	--	--	--	1.90	
MW-7	4/24/1996		7.61	5.59	--	2.02	<250	--	<2.5	<5.0	<5.0	<5.0	53	--	--	--	--	--	--	--	8.20	
MW-7	7/15/1996		7.61	6.07	--	1.54	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	7.80	
MW-7	7/30/1996		7.61	6.04	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/4/1996		7.61	7.76	--	-0.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/5/1996		7.61	--	--	--	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.80	
MW-7	5/17/1997		7.61	6.42	--	1.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/11/1997		7.61	6.06	--	1.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	11/17/1997		7.61	9.07	--	-1.46	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.10	
MW-7	1/29/1998		7.61	7.44	--	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/22/1998		7.61	7.39	--	0.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/30/1998		7.61	5.51	--	2.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-7	3/9/1999		7.61	5.57	--	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/23/1999		7.61	6.69	--	0.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/23/1999		7.61	6.23	--	1.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/28/1999		7.61	6.08	--	1.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/22/2000		7.61	4.88	--	2.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	5/26/2000		7.61	5.42	--	2.19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	9/15/2000		7.61	5.79	--	1.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	12/11/2000		7.61	5.93	--	1.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	3/29/2001		7.61	5.24	--	2.37	600	--	<2.5	<2.5	<2.5	<7.5	636	--	--	--	--	--	--	--	--	
MW-7	6/27/2001		7.61	5.69	--	1.92	590	--	<2.5	<2.5	<2.5	<7.5	739	--	--	--	--	--	--	--	--	
MW-7	9/19/2001		7.61	5.89	--	1.72	560	--	<5.0	<5.0	<5.0	<15	1,190	--	--	--	--	--	--	--	--	
MW-7	12/28/2001		7.61	4.53	--	3.08	910	--	23	<2.5	<2.5	<5.0	856	--	--	--	--	--	--	--	--	
MW-7	3/12/2002		7.61	4.71	--	2.90	620	--	<2.5	<2.5	<2.5	<5.0	675	--	--	--	--	--	--	--	--	
MW-7	6/13/2002		7.61	5.21	--	2.40	860	--	<2.5	<2.5	<2.5	<5.0	1,470	--	--	--	--	--	--	--	--	
MW-7	9/6/2002		7.61	5.77	--	1.84	350	--	<2.5	<2.5	<2.5	<2.5	690	--	--	--	--	--	--	--	--	
MW-7	12/13/2002		7.61	5.65	--	1.96	1,300	--	<10	<10	<10	<10	1,800	--	--	--	--	--	--	--	--	
MW-7	2/19/2003		7.61	5.07	--	2.54	1,700	--	<10	<10	<10	<10	1,600	--	--	--	--	--	--	--	--	
MW-7	6/6/2003		7.61	5.27	--	2.34	1,000	--	<5.0	<5.0	<5.0	<5.0	510	<200	--	<5.0	<5.0	--	41	<1,000	--	
MW-7	8/7/2003		7.61	5.52	--	2.09	510	--	<5.0	<5.0	<5.0	<5.0	520	<200	<5.0	<5.0	<5.0	<5.0	43	<1,000	--	
MW-7	11/20/2003		7.61	5.79	--	1.82	330	--	<2.5	<2.5	<2.5	<2.5	270	1,300	--	<2.5	<2.5	--	8.9	<500	--	
MW-7	4/28/2004		7.61	5.20	--	2.41	<250	--	<2.5	<2.5	<2.5	<2.5	71	880	<2.5	<2.5	<2.5	<2.5	3.5	<500	--	
MW-7	8/26/2004		7.61	5.65	--	1.96	450	--	<2.5	<2.5	<2.5	2.8	150	4,800	<0.5	<2.5	<2.5	<0.5	7.8	<500	--	
MW-7	12/1/2004		7.61	5.79	--	1.82	100	--	<1.0	<1.0	<1.0	<1.0	25	1,400	<1.0	<1.0	<1.0	<1.0	1.1	<200	--	
MW-7	2/2/2005		7.61	4.92	--	2.69	81	--	<0.5	<0.5	<0.5	<0.5	31	830	<0.5	<0.5	<0.5	<0.5	1.8	<100	--	
MW-7	4/25/2005		10.11	4.88	--	5.23	67	--	<0.5	<0.5	<0.5	0.64	41	520	<0.5	<0.5	<0.5	<0.5	2.1	<100	--	
MW-7	9/30/2005		10.11	5.62	--	4.49	58(N)	--	<0.5	<0.5	<0.5	<1.0	18	450	<0.5	<0.5	<0.5	<0.5	1.5	<50	--	
MW-7	12/28/2005		10.11	4.93	--	5.18	<500	--	<5.0	<5.0	<5.0	<10	7.4	1,600	<5.0	<10	<5.0	--	<5.0	<1,000	--	
MW-7	3/23/2006		10.11	4.63	--	5.48	71	--	<0.5	<0.5	<0.5	<1.0	25	340	<0.5	<1.0	<0.5	<0.5	1.7	<100	--	
MW-7	6/5/2006		10.11	5.08	--	5.03	57	--	<0.5	<0.5	<0.5	<1.0	14	200	<0.5	<1.0	<0.5	<0.5	1.2	<100	--	
MW-7	9/19/2006		10.11	5.60	--	4.51	<50	--	<0.5	<0.5	<0.5	<1.0	14	280	<0.5	<1.0	<0.5	<0.5	1.6	<250	--	
MW-7	12/1/2006		10.11	6.00	--	4.11	<250	--	<2.5	<2.5	<2.5	<5.0	6.7	1,400	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-7	3/1/2007		10.11	5.69	--	4.42	<250	--	<2.5	<2.5	<2.5	<5.0	4	1,000	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-7	6/1/2007		10.11	5.97	--	4.14	120	--	<0.5	<0.5	<0.5	<1.0	7.5	600	<0.5	<1.0	<0.5	<0.5	0.59	<250	--	
MW-7	9/13/2007		10.11	6.31	--	3.80	<50	--	<0.5	<0.5	<0.5	<1.0	10	260	<0.5	<1.0	<0.5	<0.5	0.8	<250	--	
MW-7	11/21/2007		10.11	6.39	--	3.72	55	--	<0.5	<0.5	<0.5	<1.0	8.4	1,500	<0.5	<1.0	<0.5	<0.5	0.87	<250	--	
MW-7	2/29/2008		10.11	5.78	--	4.33	<50	--	<0.5	<0.5	<0.5	<1.0	6.2	960	<0.5	<1.0	<0.5	<0.5	0.73	<250	--	
MW-7	5/23/2008		10.11	6.27	--	3.84	53	--	<0.5	<0.5	<0.5	<1.0	9.6	300	<0.5	<1.0	<0.5	<0.5	0.96	<250	--	
MW-7	9/26/2008		10.11	6.52	--	3.59	<50	--	<1.0	<1.0	<1.0	<1.0	7.5	800	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-7	12/23/2008		10.11	6.40	--	3.71	59	--	<1.0	<1.0	<1.0	<1.0	5.7	3,500	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-7	3/9/2009		10.11	5.65	--	4.46	<50	--	<1.0	<1.0	<1.0	<1.0	4.4	1,300	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-7	5/28/2009		10.11	5.91	--	4.20	<50	--	<1.0	<1.0	<1.0	<1.0	5.7	110	<1.0	<1.0	<1.0	<1.0	<1.0	<250	1.77	
MW-7	12/10/2009		10.11	5.88	(SHEEN)	4.23	62	--	<0.50	<0.50	<0.50	<1.0	6.5	1,200	<0.50	<0.50	<0.50	<0.50	0.56	<100	0.56	(Sheen)
MW-7	6/29/2010		10.11	5.48	--	4.63	<50	--	<0.50	<0.50	<0.50	<1.0	3.0	2,000	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.63	(P)
MW-7	12/30/2010		10.11	4.80	--	5.31	<50	--	<0.50	<0.50	<0.50	<1.0	5.6	3,900	<0.50	<0.50	<0.50	<0.50	0.58	<250	0.65	(P)
MW-7	6/29/2011		10.11	5.18	--	4.93	<500	--	<5.0	<5.0	<5.0	<10	<5.0	2,200	--	--	--	--	<5.0	--	0.47	(P)
MW-7	1/30/2012		10.11	5.29	--	4.82	<50	--	<0.50	<0.50	<0.50	<1.0	4.0	2,700	--	--	--	--	<0.50	--	0.69	(P)
MW-7	6/27/2012		10.11	5.19	--	4.92	<50	--	<0.50	<0.50	<0.50	<1.0	2.7	1,400	--	--	--	--	0.56	--	1.23	(P)
MW-7	12/7/2012		10.11	4.78	--	5.33	<50	--	<0.50	<0.50	<0.50	<1.0	3.0	2,600	--	--	--	--	<0.50	--	1.21	
MW-7	6/6/2013		10.11	5.43	--	4.68	<50	--	<0.50	<0.50	<0.50	<1.0	2.8	1,600	--	--	--	--	<0.50	--	1.23	
MW-7	6/14/2013		--	--	--	--	--	570	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-7	12/13/2013		10.11	5.84	--	4.27	<50	<51	<0.50	<0.50	<0.50	<1.0	4.4	3,100	--	--	--	--	<0.50	--	2.75	
MW-7	6/30/2014		10.11	5.42	--	4.69	<250	130	<2.5	<2.5	<2.5	<5.0	2.7	2,300	--	--	--	--	<2.5	--	0.23	
MW-7	12/16/2014		10.11	5.71	--	4.40	<100	140	<1.0	<1.0	<1.0	<2.0	3.5	2,800	--	--	--	--	<1.0	--	0.47	
MW-7	6/18/2015		10.13	4.94		5.19	85 J	2,900	<1	<5	<1	<3	2.19	1,890	--	--	--	--	<1	--	0.13	
MW-8	10/12/1993		8.60	5.86	--	2.74	<50	--	<0.5	<0.5	<0.5	<0.5	11	--	--	--	--	--	--	--	--	
MW-8	2/15/1994		8.60	5.50	--	3.10	380	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	3.30	
MW-8	5/11/1994		8.60	5.09	--	3.51	330	--	<0.5	1.2	<0.5	1.9	<5.0	--	--	--	--	--	--	--	8.50	
MW-8	8/1/1994		8.60	5.20	--	3.40	260	--	<0.5	1.2	2.9	5.8	<5.0	--	--	--	--	--	--	--	2.30	
MW-8	10/18/1994		8.60	5.70	--	2.90	82	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	6.40	
MW-8	1/13/1995		8.60	4.96	--	3.64	<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	6.90	
MW-8	4/13/1995		8.60	5.40	--	3.20	270	--	<0.5	<0.5	<0.5	4.4	--	--	--	--	--	--	--	--	8.40	
MW-8	7/11/1995		8.60	6.01	--	2.59	320	--	<0.5	<0.5	<0.5	3.5	--	--	--	--	--	--	--	--	8.00	
MW-8	11/2/1995		8.60	6.81	--	1.79	100	--	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	--	--	--	8.70	
MW-8	2/5/1996		8.60	6.12	--	2.48	<50	--	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	1.50	
MW-8	4/24/1996		8.60	6.23	--	2.37	<50	--	<5.0	<10	<10	<10	<100	--	--	--	--	--	--	--	8.70	
MW-8	7/15/1996		8.60	6.70	--	1.90	<250	--	<2.5	<5.0	<5.0	<5.0	<50	--	--	--	--	--	--	--	8.40	
MW-8	7/30/1996		8.60	6.64	--	1.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/4/1996		8.60	8.36	--	0.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/5/1996		8.60	--	--	--	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.20	
MW-8	5/17/1997		8.60	7.03	--	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	8/11/1997		8.60	6.05	--	2.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	11/17/1997		8.60	9.14	--	-0.54	<50	--	<0.5	<1.0	<1.0	<1.0	<10	--	--	--	--	--	--	--	7.70	
MW-8	1/29/1998		8.60	7.90	--	0.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	6/22/1998		8.60	7.72	--	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	12/30/1998		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-8	3/9/1999		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-8	6/23/1999		8.60	4.70	--	3.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	9/23/1999		8.60	4.22	--	4.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	12/28/1999		8.60	4.12	--	4.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	3/22/2000		8.60	4.71	--	3.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	5/26/2000		8.60	4.98	--	3.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	9/15/2000		8.60	4.62	--	3.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	12/11/2000		8.60	4.77	--	3.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-8	3/29/2001		8.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-8	6/27/2001		8.60	5.11	--	3.49	570	--	<2.5	<2.5	2.6	<7.5	3.4	--	--	--	--	--	--	--	--	
MW-8	9/19/2001		8.60	5.00	--	3.60	<500	--	<5.0	<5.0	<5.0	<15	<5.0	--	--	--	--	--	--	--	--	
MW-8	12/28/2001		8.60	4.15	--	4.45	440	--	<0.5	<0.5	0.98	<1.0	6.3	--	--	--	--	--	--	--	--	
MW-8	3/12/2002		8.60	4.35	--	4.25	330	--	<2.5	<2.5	<2.5	<5.0	8.7	--	--	--	--	--	--	--	--	
MW-8	6/13/2002		8.60	5.09	--	3.51	<500	--	<5.0	<5.0	<5.0	<10	16	--	--	--	--	--	--	--	--	
MW-8	9/6/2002		8.60	5.18	--	3.42	98	--	<0.5	<0.5	<0.5	<0.5	76	--	--	--	--	--	--	--	--	
MW-8	12/13/2002		8.60	4.84	--	3.76	120	--	<0.5	<0.5	0.94	0.52	140	--	--	--	--	--	--	--	--	
MW-8	2/19/2003		8.60	4.45	--	4.15	<2,500	--	<25	<25	<25	<25	800	--	--	--	--	--	--	--	--	
MW-8	6/6/2003		8.60	5.00	--	3.60	<50,000	--	<500	<500	<500	<500	17,000	<20,000	--	<500	<500	--	<500	<100,000	--	
MW-8	8/7/2003		8.60	4.84	--	3.76	<2,500	--	<25	<25	<25	<25	2,400	<1,000	<25	<25	<25	<25	44	<5,000	--	
MW-8	11/20/2003		8.60	4.48	--	4.12	<2,500	--	<25	<25	<25	<25	1,400	4,100	--	<25	<25	--	<25	<5,000	--	
MW-8	4/28/2004		8.60	9.66	--	-1.06	730	--	<2.5	<2.5	<2.5	<2.5	170	42,000	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-8	8/26/2004		8.60	4.73	--	3.87	<2,500	--	<25	<25	<25	<25	170	47,000	<25	<25	<25	<25	<25	--	--	
MW-8	12/1/2004		8.60	4.80	--	3.80	<250	--	<2.5	<2.5	<2.5	<2.5	36	9,700	<2.5	<2.5	<2.5	<2.5	<2.5	<500	--	
MW-8	2/2/2005		8.60	4.50	--	4.10	810	--	<0.5	<0.5	<0.5	<0.5	41	<20	<0.5	<0.5	0.72	<0.5	0.64	<100	--	

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1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-8	4/25/2005		11.08	4.99	--	6.09	1,400	--	<12	<12	<12	<12	32	45,000	<12	<12	<12	<12	<12	<2,500	--	
MW-8	9/30/2005		11.08	4.89	--	6.19	840	--	<5.0	<5.0	<5.0	<10	17	8,500	<5.0	<5.0	<5.0	<5.0	<5.0	<500	--	
MW-8	12/28/2005		11.08	4.81	--	6.27	<250	--	<2.5	<2.5	<2.5	<5.0	17	7,400	<2.5	<5.0	<2.5	--	<2.5	<500	--	
MW-8	3/23/2006		11.08	4.22	--	6.86	660	--	<2.5	<2.5	<2.5	<5.0	21	11,000	<2.5	<5.0	<2.5	<2.5	<2.5	<500	--	
MW-8	6/5/2006		11.08	4.63	--	6.45	<2,500	--	<25	<25	<25	<50	30	34,000	<25	<50	<25	<25	<25	<5,000	--	
MW-8	9/19/2006		11.08	4.82	--	6.26	<500	--	<5.0	<5.0	<5.0	<10	17	7,500	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-8	12/1/2006		11.08	4.83	--	6.25	350	--	<2.5	<2.5	<2.5	<5.0	16	1,900	<2.5	<5.0	<2.5	<2.5	<2.5	<1,300	--	
MW-8	3/1/2007		11.08	4.43	--	6.65	<500	--	<5.0	<5.0	<5.0	<10	20	6,200	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-8	6/1/2007		11.08	4.74	--	6.34	<500	--	<5.0	<5.0	<5.0	<10	8.7	3,700	<5.0	<10	<5.0	<5.0	<5.0	<2,500	--	
MW-8	9/13/2007		11.08	5.25	--	5.83	230	--	<0.5	<0.5	<0.5	<1.0	9.4	630	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-8	11/21/2007		11.08	5.13	--	5.95	350	--	<0.5	<0.5	<0.5	<1.0	8.7	360	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-8	2/29/2008		11.08	4.75	--	6.33	<1,000	--	<10	<10	<10	<20	16	7,500	<10	<20	<10	<10	<10	<5,000	--	
MW-8	5/23/2008		11.08	5.01	--	6.07	<1,000	--	<10	<10	<10	<20	15	4,800	<10	<20	<10	<10	<10	<5,000	--	
MW-8	9/26/2008		11.08	5.43	--	5.65	190	--	<1.0	<1.0	<1.0	<1.0	14	1,800	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-8	12/23/2008		11.08	5.25	--	5.83	270	--	<1.0	<1.0	<1.0	<1.0	10	770	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-8	3/9/2009		11.08	4.36	--	6.72	210	--	<1.0	<1.0	<1.0	<1.0	15	3,300	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-8	5/28/2009		11.08	4.98	--	6.10	270	--	<1.0	<1.0	<1.0	<1.0	6.5	710	<1.0	<1.0	<1.0	<1.0	<1.0	<250	2.14	
MW-8	12/10/2009		11.08	5.06	--	6.02	90	--	<0.50	<0.50	<0.50	<1.0	9.0	960	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.47	
MW-8	6/29/2010		11.08	4.71	--	6.37	170	--	<0.50	<0.50	<0.50	<1.0	10	1,700	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.38	(P)
MW-8	12/30/2010		11.08	4.37	--	6.71	190	--	<0.50	<0.50	<0.50	<1.0	6.6	1,500	<0.50	<0.50	<0.50	<0.50	<0.50	<250	0.52	(P)
MW-8	6/29/2011		11.08	4.57	--	6.51	140	1,000	--	--	--	--	4.7	2,000	--	--	--	--	<0.50	--	0.62	(P)
MW-8	1/30/2012		11.08	4.63	--	6.45	240	1,500	--	--	--	--	3.8	250	--	--	--	--	<0.50	--	1.52	(P)
MW-8	6/27/2012		11.08	4.49	--	6.59	300	1,100	--	--	--	--	2.2	270	--	--	--	--	<0.50	--	1.09	(P)
MW-8	12/7/2012		11.08	3.99	--	7.09	210	800	--	--	--	--	1.2	31	--	--	--	--	<0.50	--	1.37	
MW-8	6/6/2013		11.08	4.43	--	6.65	200	830	--	--	--	--	0.50	5.7	--	--	--	--	<0.50	--	1.09	
MW-8	12/13/2013		11.08	4.42	--	6.66	270	100	--	--	--	--	<0.50	<10	--	--	--	--	<0.50	--	2.86	
MW-8	6/30/2014		11.08	4.18	--	6.90	150	<55	--	--	--	--	<0.50	<20	--	--	--	--	<0.50	--	0.20	
MW-8	12/16/2014		11.08	2.05	--	9.03	110	73	--	--	--	--	<0.50	24	--	--	--	--	<0.50	--	0.41	(Temporarily INA)
MW-8	6/18/2015		11.10	5.06		6.04	240	1,200	--	--	--	--	0.398 J	113	--	--	--	--	<1	--	0.13	
MW-9	10/12/1993		8.08	5.66	0.08	2.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/15/1994		8.08	5.32	0.05	2.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/11/1994		8.08	5.57	--	2.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/1/1994		8.08	6.25	--	1.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/18/1994		8.08	5.59	0.13	2.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/13/1995		8.08	4.42	0.14	3.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/13/1995		8.08	4.06	0.11	4.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/11/1995		8.08	4.21	0.08	3.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/2/1995		8.08	5.22	0.05	2.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/5/1996		8.08	4.76	0.01	3.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/24/1996		8.08	4.62	0.09	3.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/15/1996		8.08	5.11	0.04	3.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	7/30/1996		8.08	5.15	--	2.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/4/1996		8.08	6.75	0.01	1.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/17/1997	Dup	8.08	5.42	--	2.66	97,000	--	16,000	8,200	2,300	17,300	39,000	--	--	--	--	--	--	--	--	(Dup)
MW-9	5/17/1997		8.08	5.42	--	2.66	97,000	--	16,000	7,700	2,300	18,400	40,000	--	--	--	--	--	--	--	7.00	
MW-9	8/11/1997	Dup	8.08	5.37	--	2.71	100,000	--	14,000	360	3,200	5,790	27,000	--	--	--	--	--	--	--	--	(Dup)
MW-9	8/11/1997		8.08	5.37	--	2.71	71,000	--	12,000	340	2,100	4,300	26,000	--	--	--	--	--	--	--	9.10	
MW-9	11/17/1997		8.08	5.62	(SHEEN)	2.46	100,000	--	22,000	4,800	3,100	17,900	32,000	--	--	--	--	--	--	--	8.30	(Sheen)
MW-9	11/17/1997	Dup	8.08	5.62	(SHEEN)	2.46	100,000	--	24,000	5,300	3,500	19,300	35,000	--	--	--	--	--	--	--	--	(Dup)(Sheen)

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-9	1/29/1998		8.08	4.07	(SHEEN)	4.01	250,000	--	20,000	21,000	3,100	18,500	110,000	--	--	--	--	--	--	--	6.60	(Sheen)
MW-9	1/29/1998	Dup	8.08	4.07	(SHEEN)	4.01	250,000	--	20,000	20,000	3,100	18,400	110,000	--	--	--	--	--	--	--	--	(Dup)(Sheen)
MW-9	6/22/1998	Dup	8.08	4.28	--	3.80	290,000	--	20,000	17,000	3,800	21,200	110,000	--	--	--	--	--	--	--	--	(Dup)
MW-9	6/22/1998		8.08	4.28	--	3.80	280,000	--	21,000	18,000	3,800	21,200	110,000	--	--	--	--	--	--	--	5.80	
MW-9	12/30/1998		8.08	4.95	--	3.13	150,000	--	10,000	3,800	2,000	9,600	86,000	--	--	--	--	--	--	--	--	
MW-9	3/9/1999		8.08	3.95	--	4.13	82,000	--	6,800	570	1,400	4,700	100,000	--	--	--	--	--	--	--	--	
MW-9	6/23/1999		8.08	5.12	--	2.96	41,000	--	11,000	820	2,300	5,200	92,000	--	--	--	--	--	--	--	--	
MW-9	9/23/1999		8.08	4.74	--	3.34	57,000	--	12,000	5,400	1,900	9,500	89,000	--	--	--	--	--	--	--	--	
MW-9	12/28/1999		8.08	4.58	--	3.50	46,000	--	15,000	490	2,500	3,500	100,000	--	--	--	--	--	--	--	--	
MW-9	3/22/2000		8.08	3.90	--	4.18	86,000	--	18,000	1,800	2,300	6,800	120,000	--	--	--	--	--	--	--	--	
MW-9	5/26/2000		8.08	4.15	--	3.93	82,000	--	17,000	680	1,800	3,800	100,000	--	--	--	--	--	--	--	--	
MW-9	9/6/2000		8.08	4.47	--	3.61	100,000	--	19,000	280	2,400	6,400	84,000	--	--	--	--	--	--	--	--	
MW-9	9/15/2000		8.08	4.34	--	3.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/11/2000		8.08	4.41	--	3.67	110,000	--	14,400	768	2,610	6,670	123,000	--	--	--	--	--	--	--	--	
MW-9	3/29/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(INA)
MW-9	6/26/2001		8.08	5.03	0.13	3.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/19/2001		8.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	12/28/2001		8.08	3.73	--	4.35	110,000	--	15,000	1,500	2,280	5,530	60,900	--	--	--	--	--	--	--	--	
MW-9	3/12/2002		8.08	4.93	--	3.15	88,000	--	12,500	2,600	2,800	8,950	44,000	--	--	--	--	--	--	--	--	
MW-9	6/13/2002		8.08	4.13	--	3.95	59,000	--	9,870	161	2,560	5,560	35,600	--	--	--	--	--	--	--	--	
MW-9	9/6/2002		8.08	4.39	--	3.69	47,000	--	10,000	<100	2,100	4,600	31,000	--	--	--	--	--	--	--	--	
MW-9	12/13/2002		8.08	3.97	--	4.11	57,000	--	11,000	1,000	2,300	5,800	28,000	--	--	--	--	--	--	--	--	
MW-9	2/19/2003		8.08	3.25	--	4.83	76,000	--	10,000	2,100	3,000	8,900	11,000	--	--	--	--	--	--	--	--	
MW-9	6/6/2003		8.08	3.94	--	4.14	66,000	--	9,000	<500	2,500	4,400	17,000	<20,000	--	<500	<500	--	<500	<100,000	--	
MW-9	8/7/2003		8.08	3.92	(SHEEN)	4.16	53,000	--	7,600	<250	2,600	4,700	17,000	<10,000	<250	<250	<250	<250	350	<50,000	--	(Sheen)
MW-9	11/20/2003		8.08	4.89	--	3.19	40,000	--	6,800	<250	860	1,100	16,000	12,000	--	<250	<250	--	<250	<50,000	--	
MW-9	4/28/2004		8.08	3.19	(SHEEN)	4.89	47,000	--	5,600	690	2,300	6,800	8,500	<5,000	<120	<120	<120	<120	170	<25,000	--	(Sheen)
MW-9	8/26/2004		8.08	3.61	--	4.47	35,000	--	3,700	500	1,300	5,300	6,500	2,600	<50	<50	<50	<50	140	--	--	
MW-9	12/1/2004		8.08	3.99	--	4.09	36,000	--	3,500	<250	1,200	4,300	8,300	<10,000	<250	<250	<250	<250	<250	<50,000	--	
MW-9	2/2/2005		8.08	3.71	(SHEEN)	4.37	21,000	--	1,800	130	670	2,000	3,600	5,600	<50	<50	<50	<50	88	<10,000	--	(Sheen)
MW-9	4/25/2005		10.55	3.31	(SHEEN)	7.24	5,900	--	190	<5.0	120	77	540	1,400	<5.0	<5.0	<5.0	<5.0	14	<1,000	--	(Sheen)
MW-9	9/30/2005		10.55	4.02	--	6.53	26,000	--	2,400	360	1,600	4,200	2,400	520	<20	<20	<20	<20	61	<2,000	--	
MW-9	12/28/2005		10.55	2.99	--	7.56	14,000	--	1,400	22	350	450	2,200	1,800	<10	<20	<10	--	49	<2,000	--	
MW-9	3/23/2006		10.55	2.50	--	8.05	4,100	--	250	<10	130	110	330	2,400	<10	<20	<10	<10	<10	<2,000	--	
MW-9	6/5/2006		10.55	3.34	--	7.21	8,200	--	2,200	79	500	1,200	1,800	1,100	<13	<25	<13	<13	75	<2,500	--	
MW-9	9/19/2006		10.55	4.06	--	6.49	9,000	--	2,600	15	440	370	3,100	3,900	<13	<25	<13	<13	100	<6,300	--	
MW-9	12/1/2006		10.55	3.88	--	6.67	5,400	--	1,600	15	310	140	1,400	2,400	<13	<25	<13	<13	46	<6,300	--	
MW-9	3/1/2007		10.55	2.79	--	7.76	6,300	--	250	<13	270	75	240	580	<13	<25	<13	<13	<13	<6,300	--	
MW-9	6/1/2007		10.55	3.53	--	7.02	6,500	--	980	16	250	95	1,800	2,300	<13	<25	<13	<13	50	<6,300	--	
MW-9	9/13/2007		10.55	4.78	--	5.77	4,500	--	170	14	79	27	640	7,300	<13	<25	<13	<13	28	<6,300	--	
MW-9	11/21/2007		10.55	4.41	--	6.14	4,600	--	790	<13	97	34	2,000	3,500	<13	<25	<13	<13	42	<6,300	--	
MW-9	2/29/2008		10.55	3.41	--	7.14	6,800	--	700	19	250	98	1,100	2,400	<13	<25	<13	<13	35	<6,300	--	
MW-9	5/23/2008		10.55	4.53	--	6.02	5,300	--	390	22	130	68	1,200	6,800	<12	<25	<12	<12	33	<6,200	--	
MW-9	9/26/2008		10.55	5.07	--	5.48	10,000	--	94	11	26	35	280	12,000	<1.0	<1.0	<1.0	<1.0	6.2	<250	--	
MW-9	12/23/2008		10.55	4.04	--	6.51	2,600	--	420	7.9	110	84	870	1,000	<1.0	<1.0	<1.0	<1.0	23	<250	--	
MW-9	3/9/2009		10.55	3.45	--	7.10	3,400	--	45	2.2	51	18	180	610	<1.0	<1.0	<1.0	<1.0	4	<250	--	
MW-9	5/28/2009		10.55	4.17	--	6.38	4,400	--	420	14	270	170	720	840	<1.0	<1.0	<1.0	<1.0	21	<250	0.94	
MW-9	12/10/2009		10.55	4.11	(SHEEN)	6.44	4,400	--	240	7.9	17	19	780	4,200	<2.5	<2.5	<2.5	<2.5	15	<500	--	(Sheen)
MW-9	6/29/2010		10.55	4.30	--	6.25	4,200	--	680	15	110	130	1,200	4,200	<10	<10	<10	<10	30	<2,000	0.37	(P)
MW-9	12/30/2010		10.55	2.79	--	7.76	420	--	6.7	<0.50	2.1	2.0	13	22	<0.50	<0.50	<0.50	<0.50	<0.50	<250	0.79	(P)

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-9	6/29/2011		10.55	3.72	--	6.83	4,700	--	600	13	370	120	900	960	--	--	--	--	29	--	0.48	(P)
MW-9	1/30/2012		10.55	4.09	--	6.46	2,300	--	210	5.1	10	20	630	1,600	--	--	--	--	20	--	0.75	(P)
MW-9	6/27/2012		10.55	3.51	--	7.04	810	--	78	<2.5	4.6	7.9	130	160	--	--	--	--	4.9	--	1.43	(P)
MW-9	12/7/2012		10.55	3.38	--	7.17	2,000	--	130	5.1	6.1	11	250	340	--	--	--	--	9.6	--	1.04	
MW-9	6/6/2013		10.55	4.30	--	6.25	3,400	--	480	14	8.9	15	680	2,200	--	--	--	--	33	--	1.12	
MW-9	12/13/2013		10.55	4.60	--	5.95	1,600	--	110	6.4	4.2	<5.0	220	2,500	--	--	--	--	7.7	--	2.91	
MW-9	6/30/2014		10.55	4.25	--	6.30	2,500	--	170	12	4.0	10	370	3,800	--	--	--	--	13	--	0.47	
MW-9	12/16/2014		10.55	3.05	--	7.50	850	150	11	<2.5	<2.5	<5.0	110	640	--	--	--	--	3.7	--	1.30	
MW-9	6/18/2015		10.59	4.50		6.09	2,300	1,700	1.63	7.08	0.479 J	5.29	152	3,810	--	--	--	--	4.47	--	0.45	
MW-10	4/25/2005		12.53	8.37	--	4.16	<50	--	<0.5	<0.5	<0.5	<0.5	1.5	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<100	--	
MW-10	9/30/2005		12.53	8.41	--	4.12	<50	--	<0.5	<0.5	<0.5	<1.0	1.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<50	--	
MW-10	12/28/2005		12.53	7.78	--	4.75	<50	--	<0.5	<0.5	<0.5	<1.0	0.78	<5.0	<0.5	<1.0	<0.5	--	<0.5	<100	--	
MW-10	3/23/2006		12.53	7.77	--	4.76	<50	--	<0.5	<0.5	<0.5	<1.0	0.67	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<100	--	
MW-10	6/5/2006		12.53	8.38	--	4.15	<50	--	<0.5	<0.5	<0.5	<1.0	1.8	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<100	--	
MW-10	9/19/2006		12.53	7.99	--	4.54	<50	--	<0.5	<0.5	<0.5	<1.0	0.59	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	12/1/2006		12.53	5.47	--	7.06	<50	--	<0.5	<0.5	<0.5	<1.0	0.89	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	3/1/2007		12.53	7.92	--	4.61	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	6/1/2007		12.53	8.55	--	3.98	<50	--	<0.5	<0.5	<0.5	<1.0	1.2	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	9/13/2007		12.53	8.71	--	3.82	<50	--	<0.5	<0.5	<0.5	<1.0	0.94	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	11/21/2007		12.53	8.84	--	3.69	<50	--	<0.5	<0.5	<0.5	<1.0	2.2	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	2/29/2008		12.53	8.20	--	4.33	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	5/23/2008		12.53	8.49	--	4.04	<50	--	<0.5	<0.5	<0.5	<1.0	2.2	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-10	9/26/2008		12.53	9.91	--	2.62	<50	--	<1.0	<1.0	<1.0	<1.0	3	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-10	12/23/2008		12.53	8.60	--	3.93	<50	--	<1.0	<1.0	<1.0	<1.0	2.7	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-10	3/9/2009		12.53	7.68	--	4.85	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-10	5/28/2009		12.53	8.71	--	3.82	<50	--	<1.0	<1.0	<1.0	<1.0	1.3	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	2.76	
MW-10	12/10/2009		12.53	8.35	--	4.18	<50	--	<0.50	<0.50	<0.50	<1.0	1.5	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	1.81	
MW-10	6/29/2010		12.53	8.43	--	4.10	<50	--	<0.50	<0.50	<0.50	<1.0	1.6	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	1.00	(P)
MW-10	12/30/2010		12.53	6.62	--	5.91	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<250	1.26	(P)
MW-10	6/29/2011		12.53	7.16	--	5.37	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	0.49	(P)
MW-10	1/30/2012		12.53	7.33	--	5.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-10	6/27/2012		12.53	7.70	--	4.83	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.14	(P)
MW-10	12/7/2012		12.53	6.29	--	6.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-10	6/6/2013		12.53	7.65	--	4.88	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.34	
MW-10	12/13/2013		12.53	8.10	--	4.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-10	6/30/2014		12.53	7.87	--	4.66	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.17	
MW-10	12/16/2014		12.53	5.79	--	6.74	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	0.99	
MW-10	6/18/2015		12.56	7.70	--	4.86	--	1,400	--	--	--	--	--	--	--	--	--	--	--	--	0.49	
MW-11	4/25/2005		14.55	9.29	--	5.26	<50	--	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<100	--	
MW-11	9/30/2005		14.55	10.23	--	4.32	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<50	--	
MW-11	12/28/2005		14.55	9.09	--	5.46	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	--	<0.5	<100	--	
MW-11	3/23/2006		14.55	8.75	--	5.80	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<100	--	
MW-11	6/5/2006		14.55	9.47	--	5.08	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<100	--	
MW-11	9/19/2006		14.55	10.16	--	4.39	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	12/1/2006		14.55	10.46	--	4.09	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	3/1/2007		14.55	9.62	--	4.93	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	6/1/2007		14.55	9.97	--	4.58	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	9/13/2007		14.55	10.42	--	4.13	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes
MW-11	11/21/2007		14.55	10.64	--	3.91	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	2/29/2008		14.55	9.76	--	4.79	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	5/23/2008		14.55	10.51	--	4.04	<50	--	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0	<0.5	<1.0	<0.5	<0.5	<0.5	<250	--	
MW-11	9/26/2008		14.55	10.51	--	4.04	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-11	12/23/2008		14.55	10.74	--	3.81	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-11	3/9/2009		14.55	9.50	--	5.05	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	--	
MW-11	5/28/2009		14.55	10.40	--	4.15	<50	--	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<250	3.06	
MW-11	12/10/2009		14.55	10.41	--	4.14	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	1.03	
MW-11	6/29/2010		14.55	10.19	--	4.36	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<100	0.47	(P)
MW-11	12/30/2010		14.55	9.22	--	5.33	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<250	0.63	(P)
MW-11	6/29/2011		14.55	9.40	--	5.15	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	0.75	(P)
MW-11	1/30/2012		14.55	9.49	--	5.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	6/27/2012		14.55	9.70	--	4.85	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.13	(P)
MW-11	12/7/2012		14.55	8.85	--	5.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-11	6/6/2013		14.55	10.03	--	4.52	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.62	
MW-11	12/13/2013		14.55	10.25	--	4.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	(NSP)
MW-11	6/30/2014		14.55	10.12	--	4.43	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--	1.45	
MW-11	12/16/2014		14.55	8.80	--	5.75	--	<51	--	--	--	--	--	--	--	--	--	--	--	--	0.83	
MW-11	6/18/2015		14.57	10.02	--	4.55	--	110	--	--	--	--	--	--	--	--	--	--	--	--	0.73	
MW-12 ESC	7/10/2015		10.95	4.99	--	5.96	<32.0	180	<1.0	<5.0	<1.0	<3.0	9.57	119	--	--	--	--	<1.0	--	0.19	
MW-12 TA	7/10/2015		10.95	4.99	--	5.96	<50	<50	<0.50	<0.50	<0.50	<1.0	7.6	290	<0.50	<0.50	<0.50	<0.50	<0.50	<500	0.19	

Table 3
Historical Groundwater Monitoring and Analytical Results
Former BP Station No. 11126
1700 Powell St., Emeryville, CA

Well ID	Date	Type	TOC (ft)[1]	DTW (ft bTOC)	Measured LNAPL Thickness (ft)	GW Elev (ft msl)[1]	GRO (µg/L)	DRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	EDB (µg/L)	TAME (µg/L)	Ethanol (µg/L)	DO (mg/L)	Notes

Notes:
ft = Feet
ft bTOC = Feet below top of casing
ft msl = Feet relative to mean sea level
TOC = Top of casing (surveyed)
DTW = Depth to water
LNAPL = Light non-aqueous phase liquid
GW Elev = Calculated groundwater elevation = TOC - Depth to Water + 0.75*(Measured SPH Thickness); assuming a specific gravity of 0.75 for SPH when present.
SPH = Separate-phase hydrocarbons
GRO = Gasoline range organics
DRO = Diesel range organics
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes, total
MTBE = Methyl tert-butyl ether
TBA = Tert-butyl alcohol
1,2-DCA = 1,2-Dichloroethane
DIPE = Diisopropyl ether
ETBE = Ethyl tert-butyl ether
EDB = Ethylene dibromide
TAME = Tert-amyl methyl ether
DO = Dissolved Oxygen
VOC = Volatile organic compound
mg/L = Milligrams per liter
µg/L = Micrograms per liter
< = Analyte was not detected above the specified method detection limit
-- = Not measured or analyzed
DUP = Duplicate sample
INA = Well inaccessible; not sampled
NS = Well not sampled
NSP = Well not sampled in accordance with groundwater sampling schedule.
P/NP = Well purged/not purged prior to sampling
J = EPA estimated value below the lowest calibration point
J5J3 = The sample matrix interfered with the ability to make any accurate determination, the associated batch QC was outside the established quality control range
1. Post-May 2005 TOC and groundwater elevations surveyed relative to an established benchmark with an elevation of 8.11 feet above mean sea level. Wells were resurveyed to the North American Vertical Datum of 1988 (NAVD '88) in May 2005 and again in July 2015.
2. Beginning in the first quarter 2003, GRO and VOCs analyzed by EPA Method 8260B.
3. The data within this table collected prior to December 2009 was provided to ARCADIS U.S., Inc. by Atlantic Richfield Company and their previous consultants. ARCADIS U.S., Inc. has not verified the accuracy of this information.
4. Samples from the June 18, 2015 sampling event were tested by ESC Laboratories. Data was found to be inconsisetent with data from previous years (as analyzed by Test America Inc.).
The ESC data from June 2015 is considered questionable and Test America will be used for all future analyses.
ESC = ESC Lab Sciences
TA= Test America Lab

Table 4
Groundwater Analytical Data for Polycyclic Aromatic Hydrocarbons
Former BP Service Station No. 11126
1700 Powell St., Emeryville, California

Sample Location	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a] anthracene	Benzo[a] pyrene	Benzo[b] fluoranthene	Benzo[g,h,i] perylene
Groundwater Samples (results in µg/L)								
MW-1	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.088	<0.05	<0.05	0.012 J	<0.05	0.0085 J	0.0066 J
MW-2	12/16/2014	0.31	0.15	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.44	0.13	0.056	<0.05	<0.05	<0.05	<0.05
MW-3	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.011 J	<0.05	<0.05	<0.05
MW-4	12/16/2014	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
	6/18/2015	0.073	<0.05	0.024 J	<0.05	<0.05	<0.05	<0.05
MW-5	12/16/2014	0.56	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	1.9	0.23	0.17	0.017 J	<0.05	<0.05	<0.05
MW-6	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW-7	12/16/2014	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.083	<0.05	0.015 J	0.022 J	0.012 J	<0.05	0.012 J
MW-8	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.043 J	<0.05	0.023 J	<0.05	<0.05	<0.05	<0.05
MW-9	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.26	0.067	0.039 J	0.0084 J	<0.05	<0.05	0.0056 J
MW-10	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.3	<0.05	0.039 J	0.016 J	<0.05	<0.05	<0.05
MW-11	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	0.043 J	<0.05	<0.05	0.011 J	<0.05	<0.05	<0.05
MW-12 ESC	7/10/15	0.166	0.227	0.0985	0.0199 BJ	0.0122 J	0.0126 J	0.0115 J
MW-12 TA	7/10/15	0.18	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11

B= the same analyte is found in the associated blank
-- = not analyzed
PAHs were analyzed in soil by USEPA Method 8270C SIM.
PAHs = polycyclic aromatic hydrocarbons
< = Analyte was not detected above the specified method reporting limit.
J= EPA estimated value below the lowest calibration point
µg/L = micrograms per liter
ESC= ESC Lab Sciences
TA= Test America Lab

Table 4
Groundwater Analytical Data for Polycyclic Aromatic Hydrocarbons
Former BP Service Station No. 11126
1700 Powell St., Emeryville, California

Sample Location	Sample Date	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd] pyrene
Groundwater Samples (results in µg/L)							
MW-1	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.02 J	0.027 J	<0.05
MW-2	12/16/2014	<0.10	<0.10	<0.10	<0.10	0.15	<0.10
	6/18/2015	<0.05	<0.05	<0.05	<0.05	0.27	<0.05
MW-3	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW-4	12/16/2014	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
	6/18/2015	<0.05	<0.05	<0.05	0.044 J	<0.05	<0.05
MW-5	12/16/2014	<0.10	<0.10	<0.10	<0.10	0.28	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.19	1	<0.05
MW-6	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.039 J	<0.05	<0.05
MW-7	12/16/2014	<0.10	<0.10	<0.10	0.13	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.025 J	0.019 J	<0.05
MW-8	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.03 J	0.025 J	<0.05
MW-9	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.025 J	0.15	<0.05
MW-10	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	0.026 J	<0.05	<0.05
MW-11	12/16/2014	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	6/18/2015	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW-12 ESC	7/10/15	<0.0500	0.0204 J	<0.0500	0.146	0.392	<0.0500
MW-12 TA	7/10/15	<0.11	<0.11	<0.11	<0.11	0.27	<0.11

B= the same analyte is found in the associated blank
-- = not analyzed
PAHs were analyzed in soil by USEPA Method 8270C SIM.
PAH = polycyclic aromatic hydrocarbon
< = Analyte was not detected above the specified method reporting limit.
J= EPA estimated value below the lowest calibration point
µg/L = micrograms per liter
ESC= ESC Lab Sciences
TA= Test America Lab

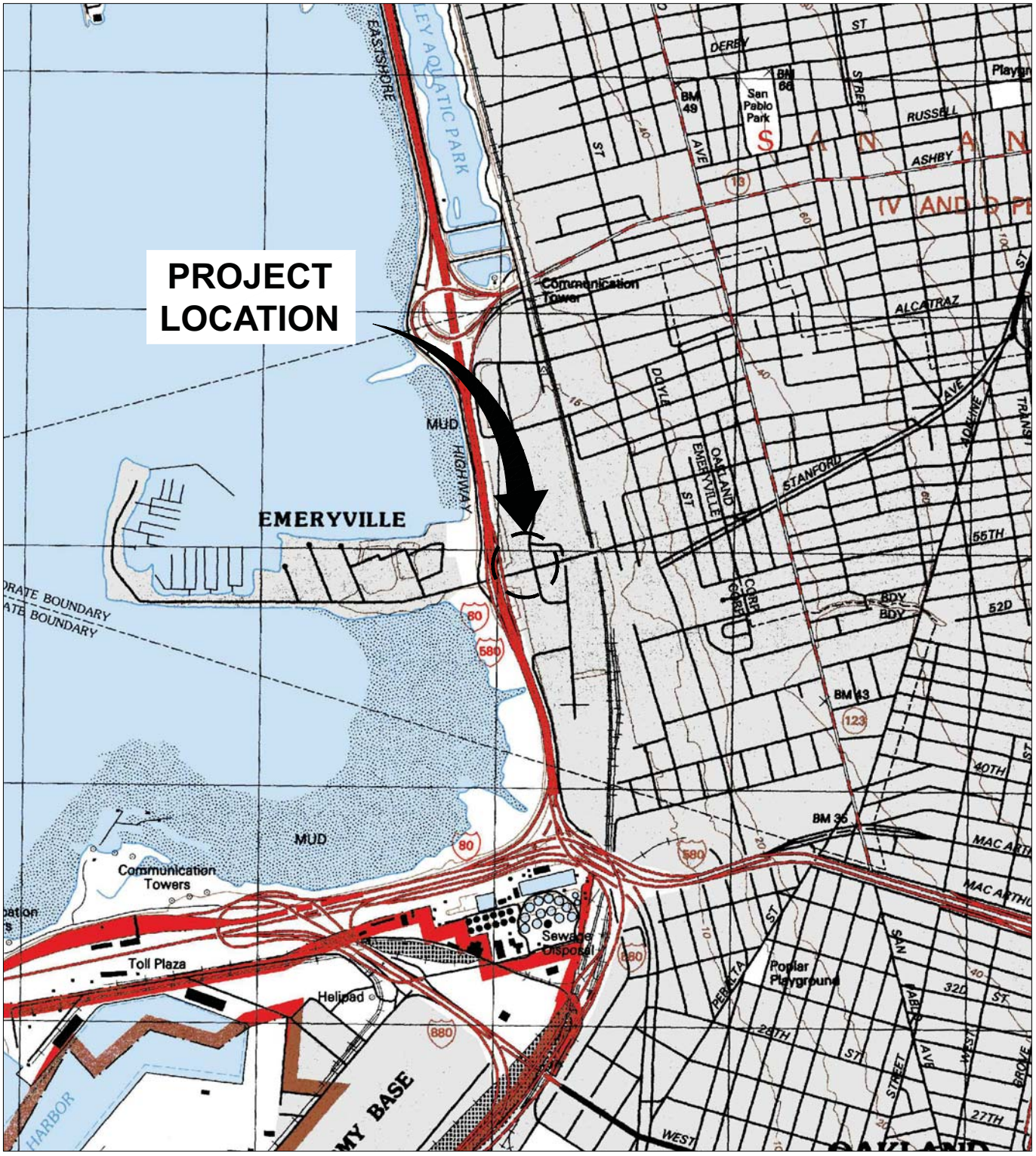
Table 4
Groundwater Analytical Data for Polycyclic Aromatic Hydrocarbons
Former BP Service Station No. 11126
1700 Powell St., Emeryville, California

Sample Location	Sample Date	Naphthalene	Phenanthrene	Pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	2-Chloro-naphthalene
Groundwater Samples (results in µg/L)							
MW-1	12/16/2014	<0.10	<0.10	0.10	--	--	--
	6/18/2015	0.31	0.028 J	0.038 J	2.1	1.7	<0.25
MW-2	12/16/2014	22	0.11	<0.10	--	--	--
	6/18/2015	4.1	0.17	<0.25	76	62	<0.25
MW-3	12/16/2014	<0.10	<0.10	<0.10	--	--	--
	6/18/2015	<0.25	0.01 J	0.016 J	0.024 J	0.015 J	<0.25
MW-4	12/16/2014	<0.11	<0.11	<0.11	--	--	--
	6/18/2015	0.076 J	0.071	0.071	0.015 J	<0.25	<0.25
MW-5	12/16/2014	0.43	0.30	<0.10	--	--	--
	6/18/2015	<0.25	1.1	0.16	56	0.15 J	<0.25
MW-6	12/16/2014	<0.10	<0.10	0.11	--	--	--
	6/18/2015	0.034 J	0.087	0.037 J	<0.25	<0.25	<0.25
MW-7	12/16/2014	<0.10	0.18	0.16	--	--	--
	6/18/2015	0.031 J	0.055	0.071	0.034 J	0.012 J	<0.25
MW-8	12/16/2014	<0.10	<0.10	<0.10	--	--	--
	6/18/2015	<0.25	0.057	0.05 J	<0.25	<0.25	<0.25
MW-9	12/16/2014	0.10	<0.10	<0.10	--	--	--
	6/18/2015	2.0	0.14	0.036 J	40	1.7	<0.25
MW-10	12/16/2014	<0.10	<0.10	<0.10	--	--	--
	6/18/2015	<0.25	0.023 J	0.054	*<0.25*	*<0.25*	<0.25
MW-11	12/16/2014	<0.10	<0.10	<0.10	--	--	--
	6/18/2015	<0.25	<0.25	0.013 J	<0.25	<0.25	<0.25
MW-12 ESC	7/10/15	0.238	0.821	0.13	0.432	0.091	<0.00650
MW-12 TA	7/10/15	0.23	0.61	<0.11	--	--	--

B= the same analyte is found in the associated blank
-- = not analyzed
PAHs were analyzed in soil by USEPA Method 8270C SIM.
PAH = polycyclic aromatic hydrocarbon
< = Analyte was not detected above the specified method reporting limit.
J= EPA estimated value below the lowest calibration point
µg/L = micrograms per liter
ESC= ESC Lab Sciences
TA= Test America Lab

ARCADIS

Figures



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., OAKLAND WEST, CALIFORNIA

0 2000' 4000'

Approximate Scale: 1 in. = 200

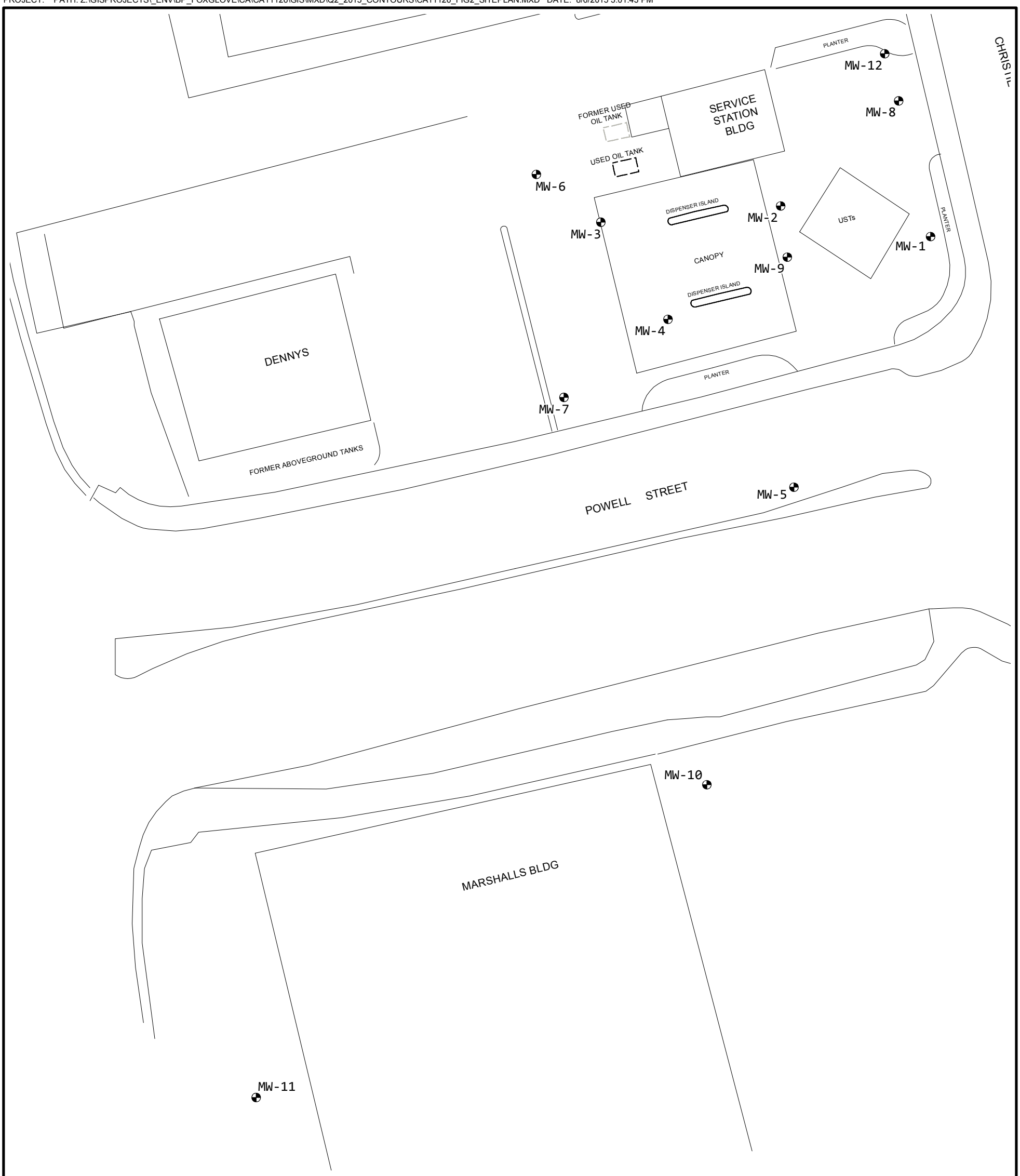
FORMER BP STATION #11126
1700 POWELL STREET
EMERYVILLE, CALIFORNIA

SITE VICINITY MAP

ARCADIS

FIGURE
1

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
PROJECT: PATH: Z:\GISPROJECTS_ENV\BP_FOXGLOVE\CA\CA11126\GIS\MXD\Q2_2015_CONTOURS\CA11126_FIG2_SITEPLAN.MXD DATE: 8/6/2015 3:01:43 PM



LEGEND:

- MONITORING WELL LOCATIONS

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED
3. MONITORING WELL AND SITE FEATURES REPOSITIONED BASED ON LAT/LONG SURVEY NAD 83 BY MUIR CONSULTING, INC, 07/01/2015. MAP PROJECTION IN CALIFORNIA STATE PLANE III, NAD 83, FEET.

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

SITE PLAN

ARCADIS

FIGURE
2

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
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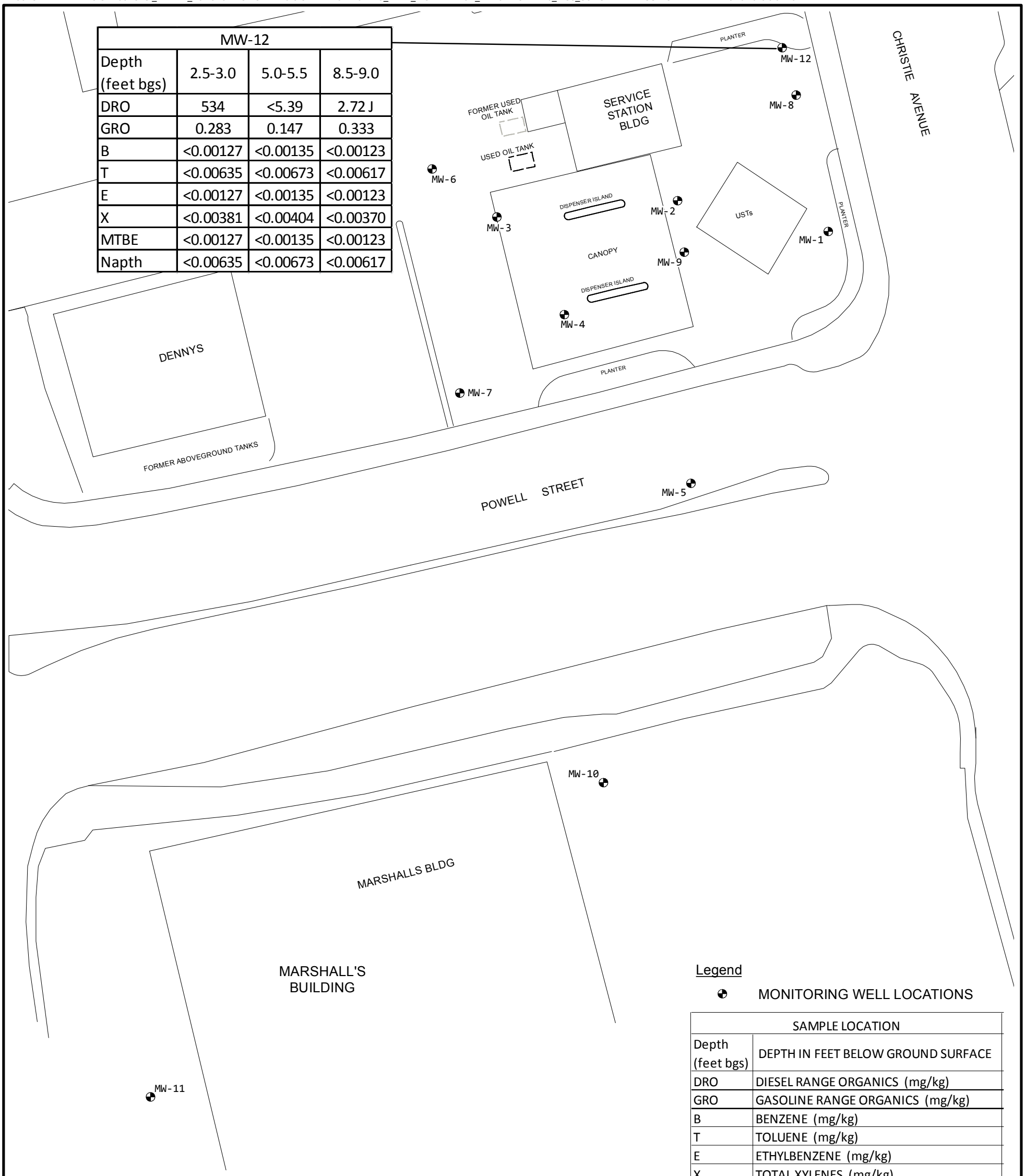
MW-12			
Depth (feet bgs)	2.5-3.0	5.0-5.5	8.5-9.0
DRO	534	<5.39	2.72 J
GRO	0.283	0.147	0.333
B	<0.00127	<0.00135	<0.00123
T	<0.00635	<0.00673	<0.00617
E	<0.00127	<0.00135	<0.00123
X	<0.00381	<0.00404	<0.00370
MTBE	<0.00127	<0.00135	<0.00123
Napth	<0.00635	<0.00673	<0.00617



Legend

● MONITORING WELL LOCATIONS

SAMPLE LOCATION	
Depth (feet bgs)	DEPTH IN FEET BELOW GROUND SURFACE
DRO	DIESEL RANGE ORGANICS (mg/kg)
GRO	GASOLINE RANGE ORGANICS (mg/kg)
B	BENZENE (mg/kg)
T	TOLUENE (mg/kg)
E	ETHYLBENZENE (mg/kg)
X	TOTAL XYLENES (mg/kg)
MTBE	METHYL TERT-BUTYL ETHER (mg/kg)
Napth	NAPHTHALENE (mg/kg)

CONCENTRATIONS REPORTED IN milligrams per kilogram (mg/kg)

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

J EPA ESTIMATED VALUE BELOW THE NEAREST CALIBRATION POINT

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED
3. MONITORING WELL AND SITE FEATURES REPOSITIONED BASED ON LAT/LONG SURVEY NAD 83 BY MUIR CONSULTING, INC, 07/01/2015. MAP PROJECTION IN CALIFORNIA STATE PLANE III, NAD 83, FEET.

0 40 80
SCALE IN FEET

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA
MONITORING WELL INSTALLATION REPORT

SOIL SAMPLE RESULTS

ARCADIS

FIGURE
3

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
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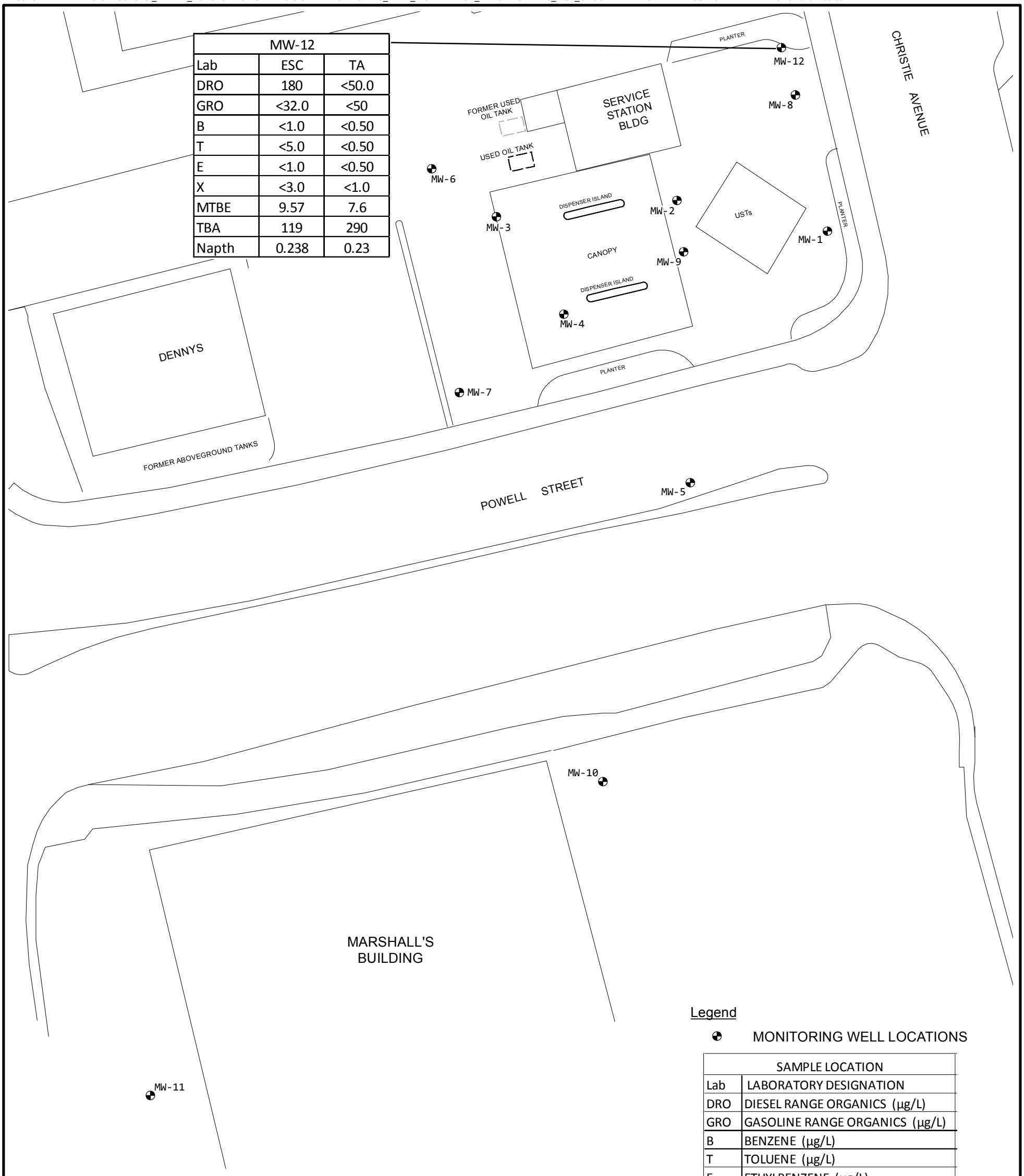
MW-12		
Lab	ESC	TA
DRO	180	<50.0
GRO	<32.0	<50
B	<1.0	<0.50
T	<5.0	<0.50
E	<1.0	<0.50
X	<3.0	<1.0
MTBE	9.57	7.6
TBA	119	290
Napth	0.238	0.23



Legend

MONITORING WELL LOCATIONS

SAMPLE LOCATION	
Lab	LABORATORY DESIGNATION
DRO	DIESEL RANGE ORGANICS (µg/L)
GRO	GASOLINE RANGE ORGANICS (µg/L)
B	BENZENE (µg/L)
T	TOLUENE (µg/L)
E	ETHYLBENZENE (µg/L)
X	TOTAL XYLENES (µg/L)
MTBE	METHYL TERT-BUTYL ETHER (µg/L)
TBA	TERT-BUTYL ALCHOHOL (µg/L)
Napth	NAPHTHALENE (µg/L)

CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER (µg/L)

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES
2. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED
3. MONITORING WELL AND SITE FEATURES REPOSITIONED BASED ON LAT/LONG SURVEY NAD 83 BY MUIR CONSULTING, INC, 07/01/2015. MAP PROJECTION IN CALIFORNIA STATE PLANE III, NAD 83, FEET.

0 40 80
SCALE IN FEET

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

MONITORING WELL INSTALLATION REPORT

MW-12 GROUNDWATER SAMPLE RESULTS JULY 10, 2015

ARCADIS

FIGURE
4

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
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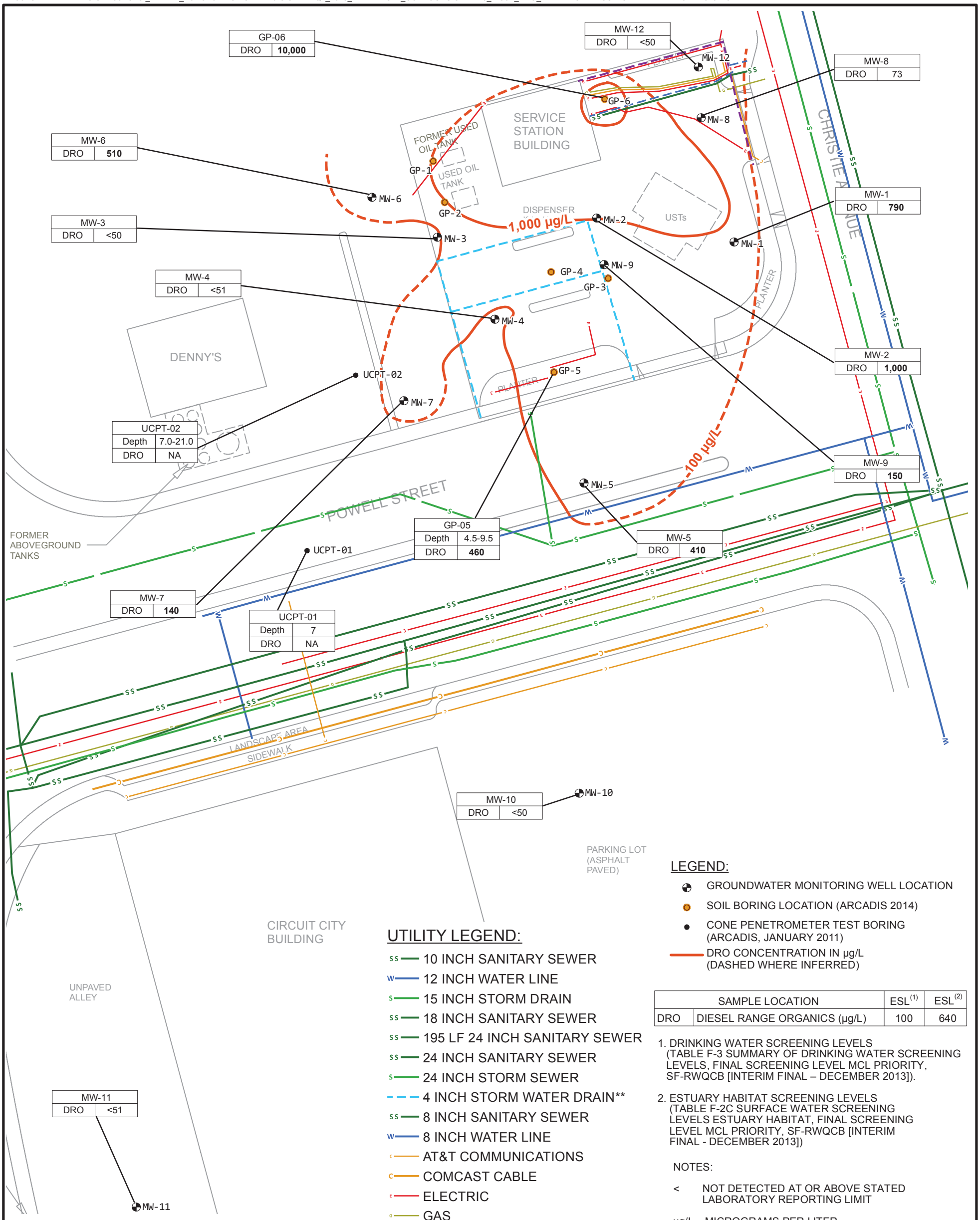

LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION (ARCADIS 2014)
- CONE PENETROMETER TEST BORING (ARCADIS, JANUARY 2011)
- DRO CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

UTILITY LEGEND:

- SS — 10 INCH SANITARY SEWER
- W — 12 INCH WATER LINE
- S — 15 INCH STORM DRAIN
- SS — 18 INCH SANITARY SEWER
- SS — 195 LF 24 INCH SANITARY SEWER
- SS — 24 INCH SANITARY SEWER
- S — 24 INCH STORM SEWER
- — — 4 INCH STORM WATER DRAIN**
- SS — 8 INCH SANITARY SEWER
- W — 8 INCH WATER LINE
- C — AT&T COMMUNICATIONS
- C — COMCAST CABLE
- E — ELECTRIC
- G — GAS
- — — IRRIGATION
- — — WATER LINE

SAMPLE LOCATION		ESL(1)	ESL(2)
DRO	DIESEL RANGE ORGANICS (µg/L)	100	640

1. DRINKING WATER SCREENING LEVELS (TABLE F-3 SUMMARY OF DRINKING WATER SCREENING LEVELS, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL – DECEMBER 2013]).

2. ESTUARY HABITAT SCREENING LEVELS (TABLE F-2C SURFACE WATER SCREENING LEVELS ESTUARY HABITAT, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL - DECEMBER 2013])

NOTES:

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

µg/L MICROGRAMS PER LITER

ESL ENVIRONMENTAL SCREENING LEVEL

Depth SCREENED INTERVAL FROM WHERE GRAB GROUNDWATER SAMPLES WERE COLLECTED IN FEET BELOW GROUND SURFACE

NA NOT ANALYZED

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GRAB GROUNDWATER SAMPLES COLLECTED ON NOVEMBER 24, 2014 FROM GP-05 AND GP-06, AND ON JANUARY 6, 2011 FROM UPCT-01 AND UPCT-02.
4. GROUNDWATER SAMPLES COLLECTED ON DECEMBER 16, 2014 FROM MW-1 THROUGH MW-11.
5. GRO, BTEX, MTBE, AND TBA RESULTS FOR MW-10 AND MW-11 FROM SAMPLES COLLECTED ON DECEMBER 30, 2010.
6. GROUNDWATER SAMPLES COLLECTED ON JULY 10, 2015 FROM MW-12.
7. **BOLD** VALUES INDICATE CONCENTRATIONS DETECTED ABOVE ESL.
8. ONSITE UTILITIES AND LATERALS IDENTIFIED DURING SUBSURFACE UTILITY LOCATION ACTIVITIES ON NOVEMBER 20, 2014.
9. OFFSITE UTILITIES ADAPTED FROM UTILITY MAP PROVIDED BY THE CITY OF EMERYVILLE DEPARTMENT OF PUBLIC WORKS.

0 40 80

SCALE IN FEET

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

DRO CONCENTRATION CONTOUR MAP

ARCADIS

FIGURE 5

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
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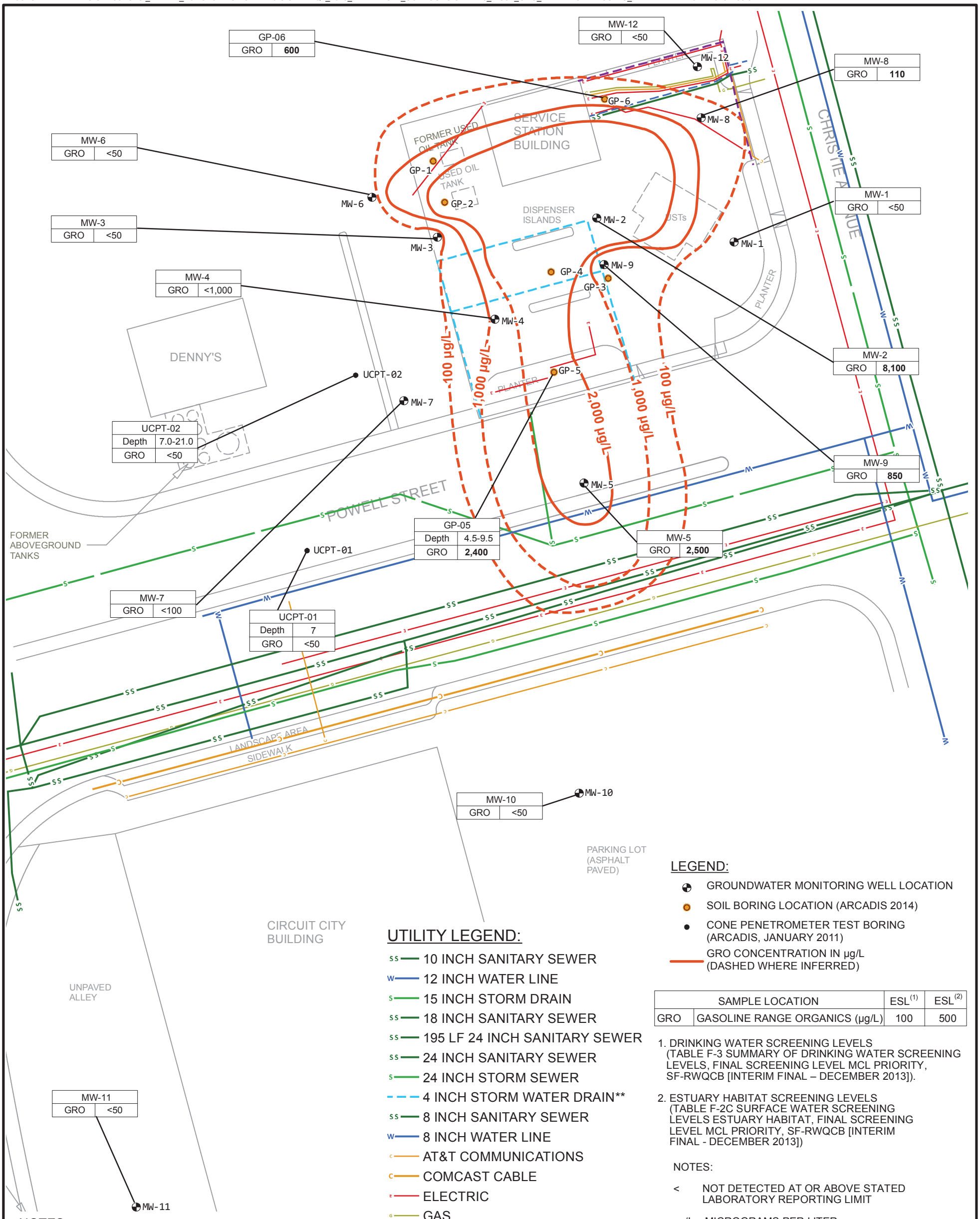


LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION (ARCADIS 2014)
- CONE PENETROMETER TEST BORING (ARCADIS, JANUARY 2011)
- GRO CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

UTILITY LEGEND:

- SS — 10 INCH SANITARY SEWER
- W — 12 INCH WATER LINE
- S — 15 INCH STORM DRAIN
- SS — 18 INCH SANITARY SEWER
- SS — 195 LF 24 INCH SANITARY SEWER
- SS — 24 INCH SANITARY SEWER
- S — 24 INCH STORM SEWER
- — — 4 INCH STORM WATER DRAIN**
- SS — 8 INCH SANITARY SEWER
- W — 8 INCH WATER LINE
- C — AT&T COMMUNICATIONS
- C — COMCAST CABLE
- E — ELECTRIC
- G — GAS
- — — IRRIGATION
- — — WATER LINE

SAMPLE LOCATION		ESL(1)	ESL(2)
GRO	GASOLINE RANGE ORGANICS (µg/L)	100	500

1. DRINKING WATER SCREENING LEVELS (TABLE F-3 SUMMARY OF DRINKING WATER SCREENING LEVELS, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL – DECEMBER 2013]).
2. ESTUARY HABITAT SCREENING LEVELS (TABLE F-2C SURFACE WATER SCREENING LEVELS ESTUARY HABITAT, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL - DECEMBER 2013])

NOTES:

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

µg/L MICROGRAMS PER LITER

ESL ENVIRONMENTAL SCREENING LEVEL

Depth SCREENED INTERVAL FROM WHERE GRAB GROUNDWATER SAMPLES WERE COLLECTED IN FEET BELOW GROUND SURFACE

NA NOT ANALYZED

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GRAB GROUNDWATER SAMPLES COLLECTED ON NOVEMBER 24, 2014 FROM GP-05 AND GP-06, AND ON JANUARY 6, 2011 FROM UPCT-01 AND UPCT-02.
4. GROUNDWATER SAMPLES COLLECTED ON DECEMBER 16, 2014 FROM MW-1 THROUGH MW-11.
5. GRO, BTEX, MTBE, AND TBA RESULTS FOR MW-10 AND MW-11 FROM SAMPLES COLLECTED ON DECEMBER 30, 2010.
6. GROUNDWATER SAMPLES COLLECTED ON JULY 10, 2015 FROM MW-12.
7. **BOLD** VALUES INDICATE CONCENTRATIONS DETECTED ABOVE ESL.
8. ONSITE UTILITIES AND LATERALS IDENTIFIED DURING SUBSURFACE UTILITY LOCATION ACTIVITIES ON NOVEMBER 20, 2014.
9. OFFSITE UTILITIES ADAPTED FROM UTILITY MAP PROVIDED BY THE CITY OF EMERYVILLE DEPARTMENT OF PUBLIC WORKS.

0 40 80

SCALE IN FEET

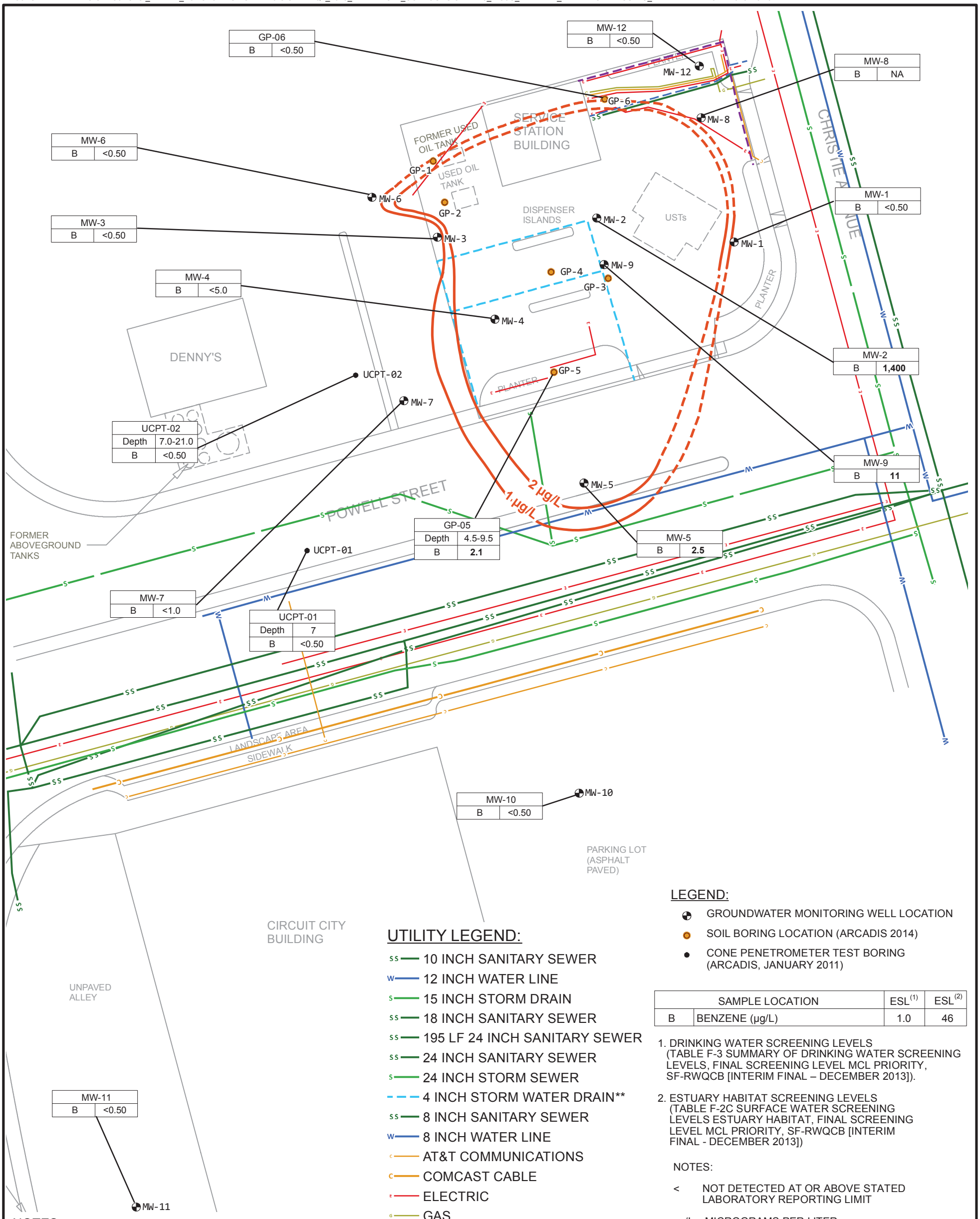
FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

GRO CONCENTRATION CONTOUR MAP

ARCADIS

FIGURE
6

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
PROJECT: PATH: Z:\GISPROJECTS_ENV\BP_FOXGLOVE\CA\CA11126\GIS\MXD\Q2_2015_ANALYTICAL_CONTOURS\CA11126_FIG5C_BENZENE_ANALYTICALRESULTS_B.MXD DATE: 8/24/2015 2:57:07 PM



UTILITY LEGEND:

- 10 INCH SANITARY SEWER
- 12 INCH WATER LINE
- 15 INCH STORM DRAIN
- 18 INCH SANITARY SEWER
- 195 LF 24 INCH SANITARY SEWER
- 24 INCH SANITARY SEWER
- 24 INCH STORM SEWER
- 4 INCH STORM WATER DRAIN**
- 8 INCH SANITARY SEWER
- 8 INCH WATER LINE
- AT&T COMMUNICATIONS
- COMCAST CABLE
- ELECTRIC
- GAS
- IRRIGATION
- WATER LINE

LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION (ARCADIS 2014)
- CONE PENETROMETER TEST BORING (ARCADIS, JANUARY 2011)

SAMPLE LOCATION		ESL(1)	ESL(2)
B	BENZENE (µg/L)	1.0	46

1. DRINKING WATER SCREENING LEVELS (TABLE F-3 SUMMARY OF DRINKING WATER SCREENING LEVELS, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL – DECEMBER 2013]).

2. ESTUARY HABITAT SCREENING LEVELS (TABLE F-2C SURFACE WATER SCREENING LEVELS ESTUARY HABITAT, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL - DECEMBER 2013])

NOTES:

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

µg/L MICROGRAMS PER LITER

ESL ENVIRONMENTAL SCREENING LEVEL

Depth SCREENED INTERVAL FROM WHERE GRAB GROUNDWATER SAMPLES WERE COLLECTED IN FEET BELOW GROUND SURFACE

NA NOT ANALYZED

NOTES:

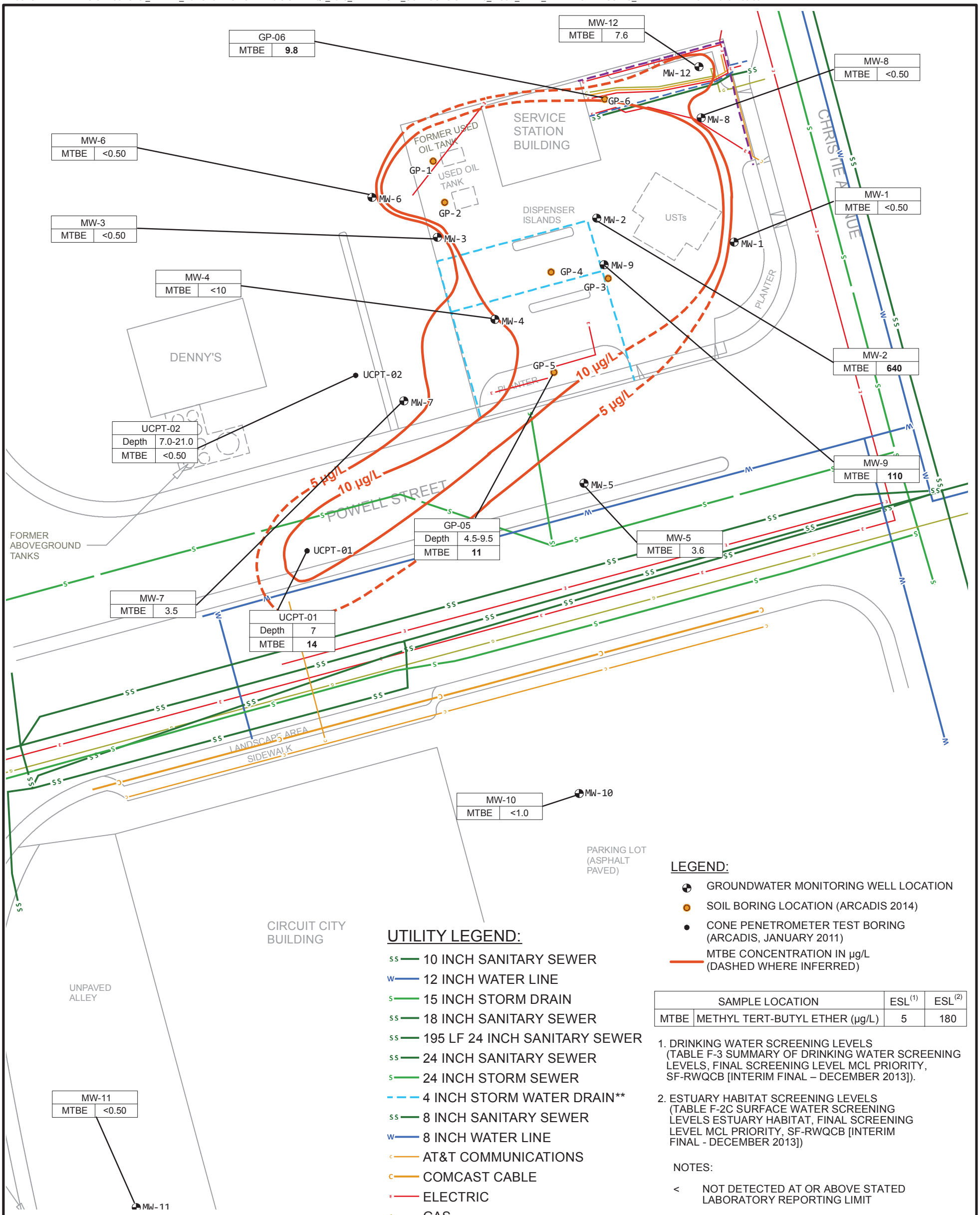
1. SITE MAP ADAPTED FROM STANTEC FIGURES.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GRAB GROUNDWATER SAMPLES COLLECTED ON NOVEMBER 24, 2014 FROM GP-05 AND GP-06, AND ON JANUARY 6, 2011 FROM UPCT-01 AND UPCT-02.
4. GROUNDWATER SAMPLES COLLECTED ON DECEMBER 16, 2014 FROM MW-1 THROUGH MW-11.
5. BENZENE RESULTS FOR MW-3, MW-4, AND MW-6 FROM SAMPLES COLLECTED ON DECEMBER 30, 2010.
6. GRO, BTEX, MTBE, AND TBA RESULTS FOR MW-10 AND MW-11 FROM SAMPLES COLLECTED ON DECEMBER 30, 2010.
7. GROUNDWATER SAMPLES COLLECTED ON JULY 10, 2015 FROM MW-12.
7. **BOLD** VALUES INDICATE CONCENTRATIONS DETECTED ABOVE ESL.
7. ONSITE UTILITIES AND LATERALS IDENTIFIED DURING SUBSURFACE UTILITY LOCATION ACTIVITIES ON NOVEMBER 20, 2014.
10. OFFSITE UTILITIES ADAPTED FROM UTILITY MAP PROVIDED BY THE CITY OF EMERYVILLE DEPARTMENT OF PUBLIC WORKS.

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

BENZENE CONCENTRATION CONTOUR MAP

ARCADIS

FIGURE 7



LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION (ARCADIS 2014)
- CONE PENETROMETER TEST BORING (ARCADIS, JANUARY 2011)
- MTBE CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

UTILITY LEGEND:

- 10 INCH SANITARY SEWER
- 12 INCH WATER LINE
- 15 INCH STORM DRAIN
- 18 INCH SANITARY SEWER
- 195 LF 24 INCH SANITARY SEWER
- 24 INCH SANITARY SEWER
- 24 INCH STORM SEWER
- 4 INCH STORM WATER DRAIN**
- 8 INCH SANITARY SEWER
- 8 INCH WATER LINE
- AT&T COMMUNICATIONS
- COMCAST CABLE
- ELECTRIC
- GAS
- IRRIGATION
- WATER LINE

SAMPLE LOCATION		ESL(1)	ESL(2)
MTBE	METHYL TERT-BUTYL ETHER (µg/L)	5	180

1. DRINKING WATER SCREENING LEVELS (TABLE F-3 SUMMARY OF DRINKING WATER SCREENING LEVELS, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL – DECEMBER 2013]).
2. ESTUARY HABITAT SCREENING LEVELS (TABLE F-2C SURFACE WATER SCREENING LEVELS ESTUARY HABITAT, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL - DECEMBER 2013])

NOTES:

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

µg/L MICROGRAMS PER LITER

ESL ENVIRONMENTAL SCREENING LEVEL

Depth SCREENED INTERVAL FROM WHERE GRAB GROUNDWATER SAMPLES WERE COLLECTED IN FEET BELOW GROUND SURFACE

NA NOT ANALYZED

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GRAB GROUNDWATER SAMPLES COLLECTED ON NOVEMBER 24, 2014 FROM GP-05 AND GP-06, AND ON JANUARY 6, 2011 FROM UPCT-01 AND UPCT-02.
4. GROUNDWATER SAMPLES COLLECTED ON DECEMBER 16, 2014 FROM MW-1 THROUGH MW-11.
5. GRO, BTEX, MTBE, AND TBA RESULTS FOR MW-10 AND MW-11 FROM SAMPLES COLLECTED ON DECEMBER 30, 2010.
6. GROUNDWATER SAMPLES COLLECTED ON JULY 10, 2015 FROM MW-12
7. **BOLD** VALUES INDICATE CONCENTRATIONS DETECTED ABOVE ESL.
8. ONSITE UTILITIES AND LATERALS IDENTIFIED DURING SUBSURFACE UTILITY LOCATION ACTIVITIES ON NOVEMBER 20, 2014.
9. OFFSITE UTILITIES ADAPTED FROM UTILITY MAP PROVIDED BY THE CITY OF EMERYVILLE DEPARTMENT OF PUBLIC WORKS.

0 40 80

SCALE IN FEET

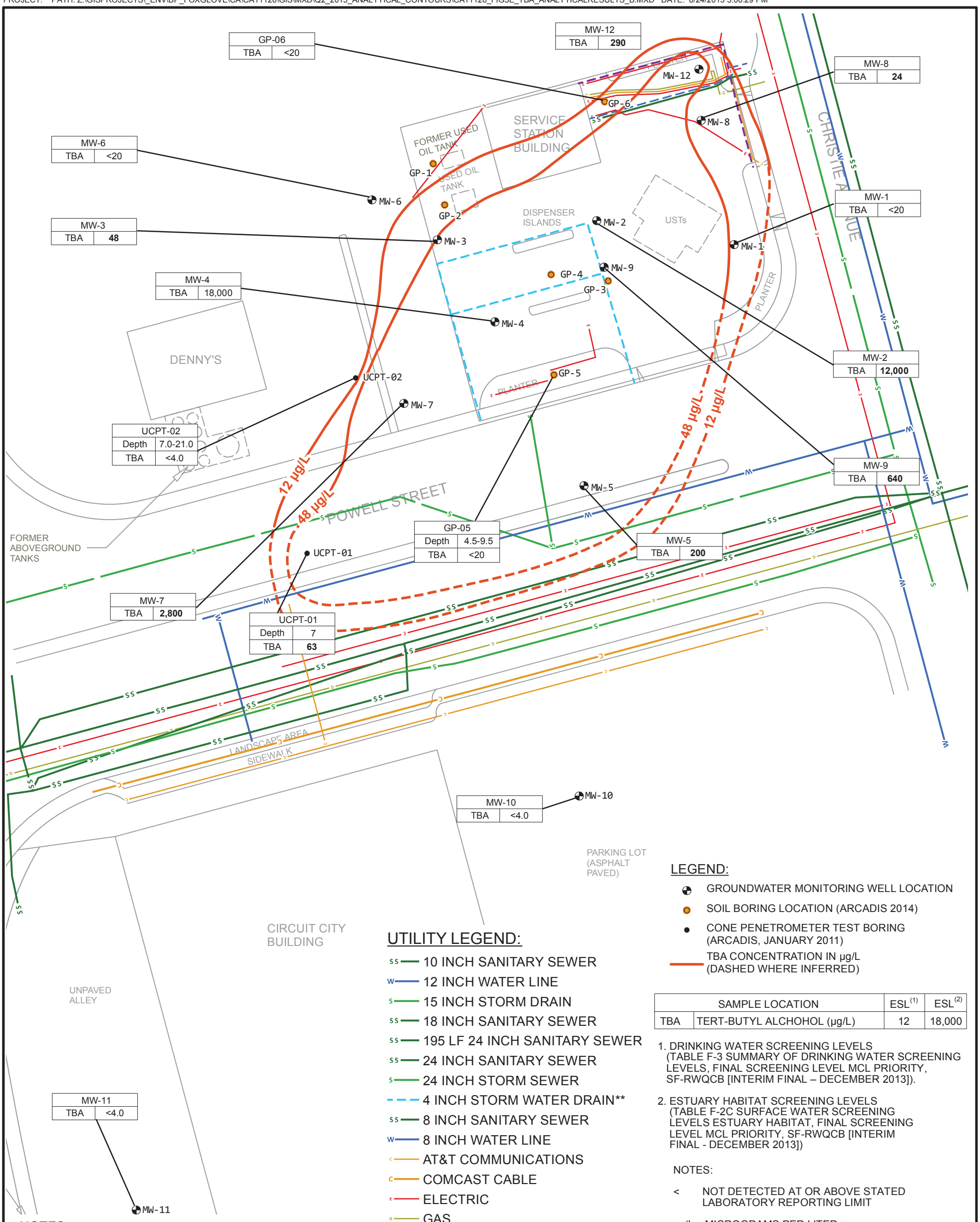
FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

MTBE CONCENTRATION CONTOUR MAP

ARCADIS

FIGURE
8

CITY: SAN FRANCISCO DIV/GROUP: ENV/IM DB: KGPETERS LD: PIC: PM: TM:
PROJECT: PATH: Z:\GISPROJECTS_ENV\BP_FOXGLOVE\CA\CA11126\GIS\MXD\Q2_2015_ANALYTICAL_CONTOURS\CA11126_FIG5E_TBA_ANALYTICALRESULTS_B.MXD DATE: 8/24/2015 3:00:29 PM



LEGEND:

- GROUNDWATER MONITORING WELL LOCATION
- SOIL BORING LOCATION (ARCADIS 2014)
- CONE PENETROMETER TEST BORING (ARCADIS, JANUARY 2011)
- TBA CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

UTILITY LEGEND:

- 10 INCH SANITARY SEWER
- 12 INCH WATER LINE
- 15 INCH STORM DRAIN
- 18 INCH SANITARY SEWER
- 195 LF 24 INCH SANITARY SEWER
- 24 INCH SANITARY SEWER
- 24 INCH STORM SEWER
- 4 INCH STORM WATER DRAIN**
- 8 INCH SANITARY SEWER
- 8 INCH WATER LINE
- AT&T COMMUNICATIONS
- COMCAST CABLE
- ELECTRIC
- GAS
- IRRIGATION
- WATER LINE

SAMPLE LOCATION		ESL(1)	ESL(2)
TBA	TERT-BUTYL ALCHOHOL (µg/L)	12	18,000

1. DRINKING WATER SCREENING LEVELS (TABLE F-3 SUMMARY OF DRINKING WATER SCREENING LEVELS, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL – DECEMBER 2013]).
2. ESTUARY HABITAT SCREENING LEVELS (TABLE F-2C SURFACE WATER SCREENING LEVELS ESTUARY HABITAT, FINAL SCREENING LEVEL MCL PRIORITY, SF-RWQCB [INTERIM FINAL - DECEMBER 2013])

NOTES:

< NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

µg/L MICROGRAMS PER LITER

ESL ENVIRONMENTAL SCREENING LEVEL

Depth SCREENED INTERVAL FROM WHERE GRAB GROUNDWATER SAMPLES WERE COLLECTED IN FEET BELOW GROUND SURFACE

NA NOT ANALYZED

NOTES:

1. SITE MAP ADAPTED FROM STANTEC FIGURES.
2. SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. GRAB GROUNDWATER SAMPLES COLLECTED ON NOVEMBER 24, 2014 FROM GP-05 AND GP-06, AND ON JANUARY 6, 2011 FROM UPCT-01 AND UPCT-02.
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7. **BOLD** VALUES INDICATE CONCENTRATIONS DETECTED ABOVE ESL.
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0 40 80

SCALE IN FEET

FORMER BP STATION #11126
1700 POWELL STREET, EMERYVILLE, CALIFORNIA

TBA CONCENTRATION CONTOUR MAP

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FIGURE 9

ARCADIS

Appendix A

Alameda County Public Works
Agency Drilling Permits

Alameda County Public Works Agency - Water Resources Well Permit

Public Works Agency
Alameda County

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

Application Approved on: 06/08/2015 By jamesy

Permit Numbers: W2015-0489
Permits Valid from 06/25/2015 to 07/31/2015

Application Id:	1432949429566	**City of Project Site:**	Emeryville
Site Location:	1700 Powell Street Emeryville, CA 94608		
Project Start Date:	06/25/2015	**Completion Date:**	07/31/2015
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org		
Applicant:	Arcadis - Lorraine Fuller 2000 Powell Street, Suite 700, Emeryville, CA 94608	**Phone:**	510-206-1154
Property Owner:	Delta Fair 1700 Powell Street, Emeryville, CA 94608	**Phone:**	510-655-0909
Client:	Delta Fair 1700 Powell Street, Emeryville, CA 94608	**Phone:**	--
Contact:	Lorraine Fuller	**Phone:** **Cell:**	510-206-1154 925-470-8977

	Total Due:	$397.00
Receipt Number: WR2015-0279	**Total Amount Paid:**	$397.00
Payer Name : Lorraine M Fuller	Paid By: VISA	**PAID IN FULL**

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 1 Wells
Driller: Cascade Drilling - Lic #: 938110 - Method: hstem **Work Total: $397.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2015-0489	06/08/2015	09/23/2015	MW-12	8.00 in.	2.00 in.	5.00 ft	14.00 ft

Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with

appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.

6. Applicant shall contact assigned inspector listed on the top of the permit 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.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie.

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. 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.

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Appendix B

Soil Boring Logs

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Soil Boring Log

Boring No.: MW-12

Sheet : of

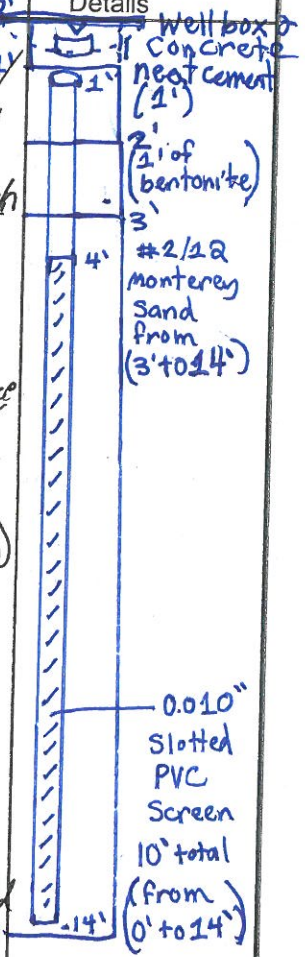
Project Name: CA-11126
Project Number: GP09BPNA.C044.C0000
Project Location: 1700 Powell Street, Emeryville, CA

Date Started: 6/25/15
Date Completed:

Logger: L. Fuller / C. McGowan
Editor:
Weather Conditions: Sunny 65°

Depth (feet)	Recovery (feet)	Sample ID & Time	PID (ppm)	USCS Class.	Description
1			0.9ppm		0-6" asphalt
2		MW-12-2.5-3 @ 1115	32.9		6"-1.5' (fill material) - sandy gravel w/ little silt (2-64mm gravel), poorly sorted, dry, v. loose angular to sub ang.; ~~dark yellowish~~ brown (10YR 4/3)
3			51.7		1.5'-3' @ 1.5' color change dark reddish gray (2.5YR 3/1) silty gravel w/ little sand; trace organic material, increases w/ depth
4			21.6		
5		MW-12-5.0-5.5 @ 1152	12.8		
6		@ 6"	6.1		
7					
8			40.1		3'-4' Silty clay w/ trace sand (very fine to medium) med. plasticity very dark greenish gray, (GLEY1 3/10Y), moist, medium stiff,
9		MW-12-8.5-9 @ 1215	3.9		4'-9' Clay w/ trace silt, ~~MS~~ SAA; stiff to very stiff
10			69.8		
11			10.2		
12			2.4		@ 7' - 8' consistency change to soft silt clay w/ trace sand; ~~little~~ med plasticity; ~~SAA~~
13			2.2		
14			1.4		
15			2.7		@ 9.0' - 10.5' anomalous materials ? w/ less of organic material and weathered hydrocarbon smell (tar?)
16			1.9		10.5-13' silty sand, v. f. grained sands, well sorted, moist to wet, med dense. trace clay, black (GLEY1 2.5/N)
17					13-15' soft to clay w/ trace silt, high plasticity, moist v. stiff. dark greenish gray (GLEY1 4/5GY)
18					
19					
20					

Well Construction Details



Drilling Co.: Cascade Drilling
Driller: Juan Morales
Drilling Method: direct push / HSA
Drill Rig Type: Geoprobe 6620
Remarks: 6"-6.5' hand augered
Direct push rods = 2.25 inch OD

Sampling Method: 1.5" acetate liners (o.d.)
Sampling Interval:
Water Level Start: 6' (during drilling)
Water Level Finish:
Converted to Well: ☐ Yes ☐ No
Surface Elev:
North Coor:
East Coor:

13.9' FTP 5.83' DTW From TOC (North Side)

ARCADIS

Soil Boring Log

Boring No.: MW-12

Sheet: 2 of 2

Project Name: CA-11126 Date Started: Logger:

Project Number: GP09BPNA.C044.C0000 Date Completed: Editor:

Project Location: 1700 Powell Street, Emeryville, CA Weather Conditions:

Depth (feet)	Recovery (feet)	Sample ID & Time	PID (ppm)	USCS Class.	Description	Well Construction Details
1					~~Sandy gravel little silt~~	
2					15 – 16 sandy silt w/ trace clays nonplastic, moist, stiff trace granules (2-4mm) olive gray (5Y 4/2)	
3						
4						
5						
6					Borehole terminated @ 16' bgs	
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Drilling Co.: Cascade Drilling

Driller:

Drilling Method:

Drill Rig Type:

Remarks:

Sampling Method:

Sampling Interval:

Water Level Start:

Water Level Finish:

Converted to Well: ☐ Yes ☐ No

Surface Elev:

North Coor:

East Coor:

ARCADIS

Appendix C

Well Development Documents and Groundwater Sampling Field Sheets

WELL GAUGING DATA

Project # 150701-DC1 Date 7/1/15 Client ARCADIS

Site 1700 POWELL ST, EMERYVILLE, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or (TOC)	Notes
MW-12	0805	2					4.97	13.78	TOC	

WELL DEVELOPMENT DATA SHEET

Project #: 150701-DC1	Client: ARCADIS
Developer: DC	Date Developed: 7/1/15
Well I.D. MW-12	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 13.78 After 13.80	Depth to Water: Before 4.97 After 12.67
Reason not developed:	If Free Product, thickness:
Additional Notations: 80%: 6.73	

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

1.4	X	10	=	14.0
1 Case Volume		Specified Volumes		gallons

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

Type of Installed Pump ___

Other equipment used 2" SURGE BLOCK

TIME	TEMP (F)	pH	Cond. (mS or µS)	TURBIDITY (NTUs)	VOLUME REMOVED: (GAL)	NOTATIONS:
0808	START	SURGING WELL				
0820	STOP	SURGING WELL				
0830	START	PURGING WELL				
0833	72.5	7.22	2971	> 1000	1.5	GRAY/CLOUDY/SANDY
0835	72.0	7.41	2798	> 1000	3.0	GRAY/CLOUDY/SANDY DTW: 10.08
0838	70.1	7.77	3234	> 1000	4.5	GRAY/CLOUDY/SILTY
0842	WELL	DEWATERED		@	5.5	
0857	DTW:	9.70				
0918	RESUME	PURGING				DTW: 8.00
0919	75.8	7.65	2566	> 1000	6.0	GRAY/CLOUDY/SILTY
0922	72.3	7.54	2328	> 1000	7.5	GRAY/CLOUDY/SILTY
0925	70.7	7.75	2600	> 1000	9.0	GRAY/CLOUDY/SILTY
0925	WELL	DEWATERED		@	9.0	
Did Well Dewater? YES		If yes, note above.		Gallons Actually Evacuated:		

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-12	PAGE 2 OF 2
Project #: 150701-DC1	Client: ARCADIS

TIME	TEMP (F)	pH	Cond. (mS or (uS))	TURBIDITY (NTUs)	VOLUME (GAL) REMOVED:	NOTATIONS:
~~RESUME PURGING~~						DTW:
0931	BEGIN	HAND	BAILING	W/ DISPOSABLE WATER		DTW: 11.16
0936	70.8	7.18	2611	>1000	10.5	GRAY/CLOUDY/SILTY
0949	70.7	7.42	2123	641	12.0	CLOUDY/LESS SILTY DTW: 12.7
1010	70.6	7.27	1970	992	13.5	CLOUDY/LESS SILTY
1015	70.4	7.25	2045	981	14.0	CLOUDY/LESS SILTY
1015	WELL	DEWATERED		@	14.0	HARD BOTTOM

WELLHEAD INSPECTION CHECKLIST

Client ARCADIS Date 7/1/15

Site Address 1700 POWELL ST, EMERYVILLE, CA

Job Number 150701-DC1 Technician DC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-12	X							

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME Arcadis @ 1700 Powell St, Emeryville, CA				PROJECT NUMBER 150701-DC1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MYRON L ULTRAMETER	6209492	7/1/15 0745	pH 7,10,4	7.00, 10.01, 4.00	Y	17.5°C	DC
↓	↓	↓	COND 3980 µS/cm	3900 µS/cm	Y	17.5°C	DC

ARCADIS

Water Sampling Log

Project Number: CA-11126 Task: _____ Well ID: MW-12

Date: 7/10/15 Developed By: _____

Weather: Sunny Recorded By: Lorraine Fuller

Instrument Identification

	PID	Water Quality Meter(s)
Model	Peripump	WLM
Serial #:		

Purging Information

Casing Material: PVC

Casing Diameter: 2"

Total Depth: 13.84

Depth to Water: 4.99

Water Column: _____

Gallons/Foot: _____

Gallons in Well: _____

Development Technique: _____

Screen Interval: From: _____ To: _____

Pump Intake Setting: _____

Volumes to be Purged: _____

Total Volume Purged: _____

Pump on: _____ Off: _____

Well Casing Volumes (gal/ft):	2" = 0.16	3" = 0.37
	3 1/2" = 0.50	4" = 0.65
	6" = 1.46	

Field Parameter Measurements Taken During Purging

Time	Volume Purged (gallons) mL	DTW (ft)	Temp (°F °C)	pH (SI Units)	Turbidity (NTUs)	Spec Cond (µmhos/cm) ~~ORP mV~~	DO mg/L	Comments / Observations ORP mV
13:45	0	4.99	20.9	6.84	9.12	~~83.5~~ 2589	0.19	23.5
13:50	1000	5.67	21.2	6.69	7.46	2366	0.54	63.1
13:52	2000	5.96	21.4	6.66	4.45	2237	0.12	95.0
13:55	2500	6.10	21.4	6.67	5.06	2188	0.12	101.6
13:58	3000	6.29	21.6	6.68	4.08	2135	0.09	107.2
14:01	3500	6.46	21.7	6.69	5.06	2126	0.05	106.3

Remarks / Comments:

14:09 Collect Test America Samples

14:30 Collect ESC Samples

Completed By: _____ Signature: _____

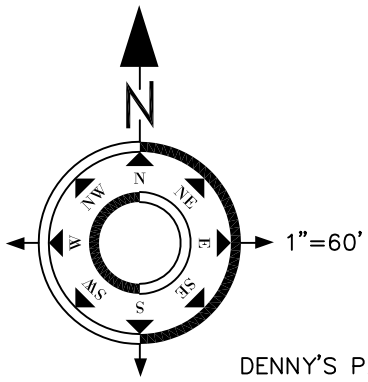
Reviewed By: _____ Date: _____

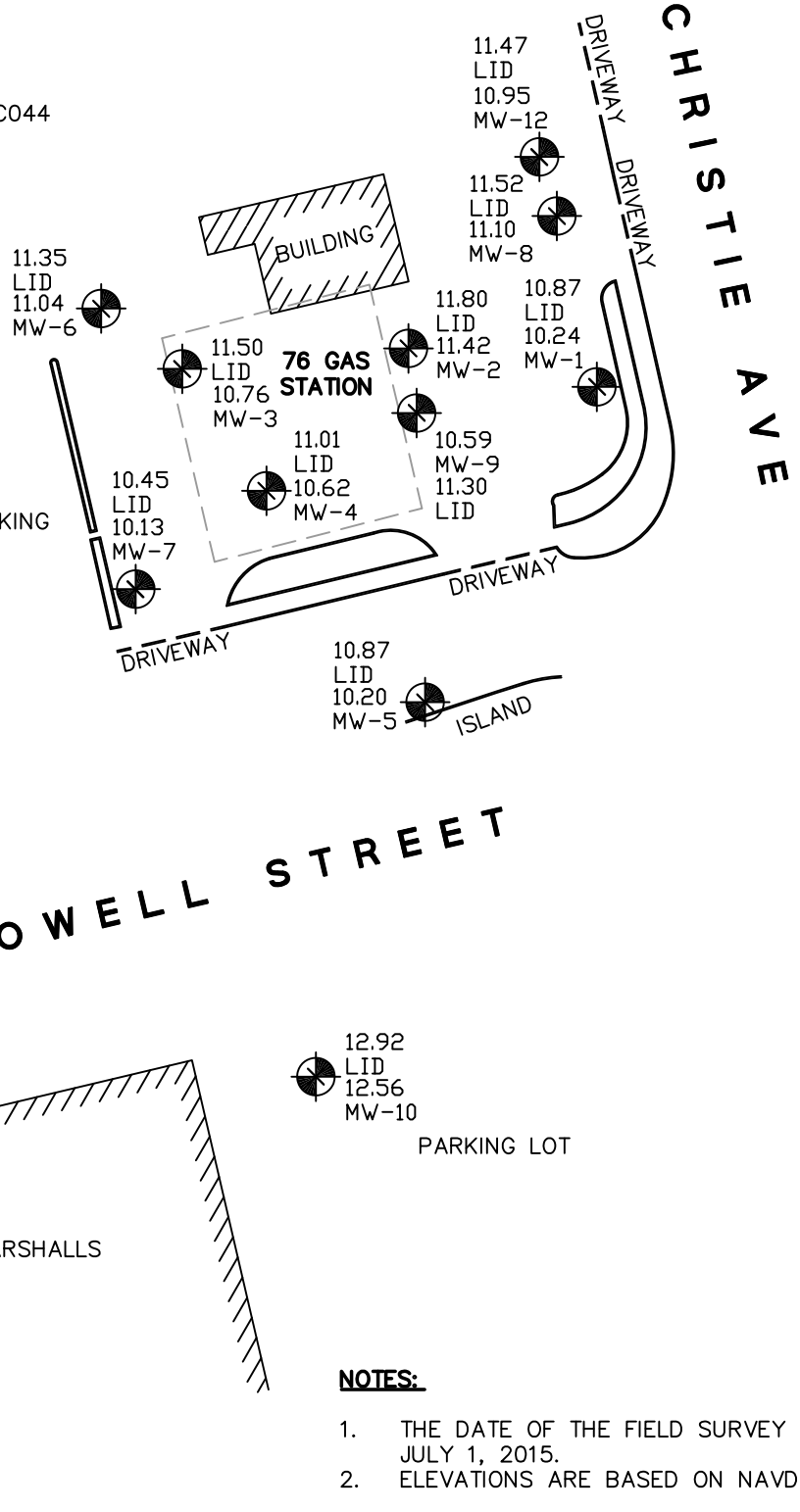
ARCADIS

Appendix D

Well Survey Documents

ENVIRONMENTAL WELL SURVEY
FOR
ARCADIS U.S., INC.
1700 POWELL STREET
EMERYVILLE, CA
ARCADIS PROJECT NO. GP09BPNA.C044





NOTES:

1. THE DATE OF THE FIELD SURVEY WAS JULY 1, 2015.
2. ELEVATIONS ARE BASED ON NAVD88.

MUIR CONSULTING, INC.
139 CHURCH AVE.
OAKDALE, CA 95361
(209) 845-8630 FAX (209) 845-8639
www.muirconsulting.com

Subject ENVIRONMENTAL WELL SURVEY
1700 POWELL ST, EMERYVILLE
Job No. 4651-01
By JMS Date 07/08/15 Chkd.
Scale 1"=60' Sheet 1 of 1

ARCADIS

Appendix E

IDW Certificates of Disposal

IWM, Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC.
1945 CONCOURSE DRIVE, SAN JOSE, CA 95131
PHONE: 408.433.1990 FAX: 408.433.9521

CERTIFICATE OF DISPOSAL

Generator Name:	BP West Coast Products LLC	Facility Name:	CA-11126
Address:	PO Box 80249	Address:	1700 Powell Street
	Rancho Santa Margarita,CA 92688		Emeryville, CA 94068
Contact:	Hollis Phillips	Facility Contact:	Lorraine Fuller
Phone:	415-432-6903	Phone:	510-206-1154

IWM Job #:	Bella 609
Description of Waste:	1 Drum of Non-Hazardous Water
Removal Date:	7-22-15
Ticket #:	SP07222015-MISC

Transporter Information

Name:	IWM, Inc.
Address:	1945 Concourse Drive
	San Jose, CA 95131
Phone:	(408) 433-1990

Disposal Facility Information

Name:	Seaport Refining & Environmental
Address:	700 Seaport Blvd
	Redwood City, CA 94063
Phone:	(650) 364-1024

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon William T. DeLon — 7-22-15

Authorized Representative (Print Name and Signature) — Date

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAL000035352
2. Page 1 of: 1
3. Emergency Response Phone: (800) 424-9300
4. Manifest Tracking Number: 008699561 FLE

GENERATOR

5. Generator's Name and Mailing Address
BP West Coast Products, LLC
P.O. Box 80249
Rancho Santa Margarita, CA 92688
Generator's Phone: (949) 460-5200

Generator's Site Address (if different than mailing address)
Former ARCO 11126
1700 Powell Street
Emeryville, CA 94608

6. Transporter 1 Company Name: BELSHIRE
U.S. EPA ID Number: CAR000183913

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
U.S. Ecology, Nevada Operations
Highway 95, 11 miles S. of Beatty
Beatty, NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA Hazardous Waste, Solid (Soil with Lead) (ERG #171)	1	DM	500	P	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Soil with Lead
WEAR ALL APPROPRIATE PROTECTIVE CLOTHING
BESI: 257456
BP CCN: 205883
PROFILE # 070128300-24184

FOLD LABEL AT DOTTED LINE. AFFIX TO RIGHT SIDE OF HAZARDOUS MATERIAL BILLS SO THE TAB STICKS OUT.
LT1950 © 1997 LABEL MASTER

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Emily WAHLSTRAND
On behalf of BP West Coast Products, LLC
Signature:
Month: 08 Day: 11 Year: 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rongreen
Signature:
Month: 08 Day: 11 Year: 15

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

ARCADIS

Appendix F

Laboratory Analytical Results and Chain-of-Custody Documentation

ANALYTICAL REPORT

July 17, 2015

ARCADIS US - San Francisco, CA

Sample Delivery Group:	L776366
Samples Received:	07/11/2015
Project Number:	GP09BPNA.C044.C0000
Description:	CA-11126 - GP09BPNA.C044.C0000
Site:	1700 POWELL ST, EMERYVILLE, CA
Report To:	Hollis Phillips 100 Montgomery Street Suite 300 San Francisco, CA 94104

Entire Report Reviewed By:

Chris McCord
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

MW-12 L776366-01 GW

Collected by: Lorraine Fuller
Collected date/time: 07/10/15 14:30
Received date/time: 07/11/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG802101	1	07/13/15 19:50	07/14/15 12:09	FMB
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG802337	5	07/14/15 20:48	07/16/15 09:39	JNS
Volatile Organic Compounds (GC) by Method 8015	WG802804	1	07/16/15 13:33	07/16/15 13:33	MCB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG801801	1	07/12/15 16:19	07/12/15 16:19	KLO
Volatile Organic Compounds (GC/MS) by Method 8260B	WG802439	10	07/16/15 09:33	07/16/15 09:33	KLO

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris McCord
Technical Service Representative

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHG C6 - C12	U		32.0	100	1	07/16/2015 13:33	WG802804
(S) a,a,a-Trifluorotoluene(FID)	*103*			*62.0-128*		*07/16/2015 13:33*	WG802804

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.331	1.00	1	07/12/2015 16:19	WG801801
Toluene	U		0.780	5.00	1	07/12/2015 16:19	WG801801
Ethylbenzene	U		0.384	1.00	1	07/12/2015 16:19	WG801801
Total Xylenes	U		1.06	3.00	1	07/12/2015 16:19	WG801801
Methyl tert-butyl ether	9.57		0.367	1.00	1	07/12/2015 16:19	WG801801
tert-Butyl alcohol	119		24.0	50.0	10	07/16/2015 09:33	WG802439
tert-Amyl Methyl Ether	U		0.260	1.00	1	07/12/2015 16:19	WG801801
(S) Toluene-d8	*102*			*87.0-114*		*07/12/2015 16:19*	WG801801
(S) Dibromofluoromethane	*104*			*79.0-125*		*07/12/2015 16:19*	WG801801
(S) a,a,a-Trifluorotoluene	*102*			*84.0-114*		*07/12/2015 16:19*	WG801801
(S) 4-Bromofluorobenzene	*97.2*			*75.0-128*		*07/12/2015 16:19*	WG801801

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPH (GC/FID) High Fraction	8800		120	500	5	07/16/2015 09:39	WG802337
(S) o-Terphenyl	*103*			*50.0-150*		*07/16/2015 09:39*	WG802337

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	0.0985		0.0140	0.0500	1	07/14/2015 12:09	WG802101
Acenaphthene	0.166		0.0100	0.0500	1	07/14/2015 12:09	WG802101
Acenaphthylene	0.227		0.0120	0.0500	1	07/14/2015 12:09	WG802101
Benzo(a)anthracene	0.0199	B J	0.00410	0.0500	1	07/14/2015 12:09	WG802101
Benzo(a)pyrene	0.0122	J	0.0120	0.0500	1	07/14/2015 12:09	WG802101
Benzo(b)fluoranthene	0.0126	J	0.00210	0.0500	1	07/14/2015 12:09	WG802101
Benzo(g,h,i)perylene	0.0115	J	0.00230	0.0500	1	07/14/2015 12:09	WG802101
Benzo(k)fluoranthene	U		0.0140	0.0500	1	07/14/2015 12:09	WG802101
Chrysene	0.0204	J	0.0110	0.0500	1	07/14/2015 12:09	WG802101
Dibenz(a,h)anthracene	U		0.00400	0.0500	1	07/14/2015 12:09	WG802101
Fluoranthene	0.146		0.0160	0.0500	1	07/14/2015 12:09	WG802101
Fluorene	0.392		0.00850	0.0500	1	07/14/2015 12:09	WG802101
Indeno(1,2,3-cd)pyrene	U		0.0150	0.0500	1	07/14/2015 12:09	WG802101
Naphthalene	0.238	J	0.0200	0.250	1	07/14/2015 12:09	WG802101
Phenanthrene	0.821		0.00820	0.0500	1	07/14/2015 12:09	WG802101
Pyrene	0.130		0.0120	0.0500	1	07/14/2015 12:09	WG802101
1-Methylnaphthalene	0.432		0.00820	0.250	1	07/14/2015 12:09	WG802101
2-Methylnaphthalene	0.0910	J	0.00900	0.250	1	07/14/2015 12:09	WG802101
2-Chloronaphthalene	U		0.00650	0.250	1	07/14/2015 12:09	WG802101
(S) Nitrobenzene-d5	*100*			*31.0-121*		*07/14/2015 12:09*	WG802101
(S) 2-Fluorobiphenyl	*78.5*			*10.0-139*		*07/14/2015 12:09*	WG802101
(S) p-Terphenyl-d14	*79.1*			*21.0-136*		*07/14/2015 12:09*	WG802101

Method Blank (MB)

(MB) 07/16/15 12:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPHG C6 - C12	U		0.0316	0.100
(S) a,a,a-Trifluorotoluene(FID)	*105*			*62.0-128*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/16/15 11:47 • (LCSD) 07/16/15 12:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	4.96	5.98	90.3	109	66.0-123			18.6	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*107*	*62.0-128*				

Method Blank (MB)

(MB) 07/12/15 08:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000331	0.00100
Ethylbenzene	U		0.000384	0.00100
Methyl tert-butyl ether	U		0.000367	0.00100
Toluene	U		0.000780	0.00500
Xylenes, Total	U		0.00106	0.00300
tert-Amyl Methyl Ether	U		0.000260	0.00100
(S) Toluene-d8	*101*			*90.0-115*
(S) Dibromofluoromethane	*105*			*79.0-121*
(S) a,a,a-Trifluorotoluene	*103*			*90.4-116*
(S) 4-Bromofluorobenzene	*97.1*			*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/12/15 07:29 • (LCSD) 07/12/15 07:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0264	0.0274	106	110	73.0-122			3.76	20
Ethylbenzene	0.0250	0.0263	0.0273	105	109	80.9-121			3.63	20
Methyl tert-butyl ether	0.0250	0.0288	0.0297	115	119	70.1-125			3.34	20
Toluene	0.0250	0.0250	0.0261	99.9	104	77.9-116			4.25	20
Xylenes, Total	0.0750	0.0772	0.0790	103	105	79.2-122			2.29	20
(S) Toluene-d8				*101*	*101*	*90.0-115*				
(S) Dibromofluoromethane				*108*	*108*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*98.2*	*98.0*	*90.4-116*				
(S) 4-Bromofluorobenzene				*101*	*100*	*80.1-120*				

L774444-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 07/12/15 11:31 • (MS) 07/12/15 09:54 • (MSD) 07/12/15 10:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0228	0.0454	0.0463	90.4	94.0	1	58.6-133			1.99	20
Ethylbenzene	0.0250	0.000358	0.0249	0.0253	98.1	99.7	1	62.7-136			1.53	20
Methyl tert-butyl ether	0.0250	ND	0.0273	0.0292	109	117	1	61.4-136			6.73	20
Toluene	0.0250	0.000425	0.0244	0.0252	96.0	98.9	1	67.8-124			2.92	20

L774444-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 07/12/15 11:31 • (MS) 07/12/15 09:54 • (MSD) 07/12/15 10:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Xylenes, Total	0.0750	0.000377	0.0723	0.0727	95.8	96.4	1	65.6-133			0.540	20
(S) Toluene-d8					*102*	*102*		*90.0-115*				
(S) Dibromofluoromethane					*107*	*108*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*99.7*	*98.8*		*90.4-116*				
(S) 4-Bromofluorobenzene					*101*	*98.3*		*80.1-120*				

Method Blank (MB)

(MB) 07/16/15 03:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Butyl alcohol	U		0.00240	0.00500

Method Blank (MB)

(MB) 07/15/15 13:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/15/15 13:25 • (LCSD) 07/15/15 13:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.61	1.63	107	109	50.0-150			1.33	20
(S) o-Terphenyl				*93.5*	*103*	*50.0-150*				

Method Blank (MB)

(MB) 07/14/15 05:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	0.00000540		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
1-Methylnaphthalene	U		0.00000821	0.000250
2-Methylnaphthalene	U		0.00000902	0.000250
2-Chloronaphthalene	U		0.00000647	0.000250

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/14/15 04:59 • (LCSD) 07/14/15 05:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.00222	0.00212	111	106	68.9-153			4.58	20
Acenaphthene	0.00200	0.00201	0.00191	100	95.6	67.7-141			4.90	20
Acenaphthylene	0.00200	0.00205	0.00195	103	97.4	66.9-141			5.10	20
Benzo(a)anthracene	0.00200	0.00195	0.00185	97.3	92.4	63.1-147			5.17	20
Benzo(a)pyrene	0.00200	0.00223	0.00212	112	106	62.2-150			5.37	20
Benzo(b)fluoranthene	0.00200	0.00220	0.00207	110	104	58.4-148			5.74	20
Benzo(g,h,i)perylene	0.00200	0.00202	0.00190	101	95.0	57.4-152			5.89	20
Benzo(k)fluoranthene	0.00200	0.00194	0.00185	97.2	92.7	60.5-154			4.77	20
Chrysene	0.00200	0.00202	0.00191	101	95.7	64.8-155			5.12	20
Dibenz(a,h)anthracene	0.00200	0.00206	0.00193	103	96.5	53.5-153			6.47	20
Fluoranthene	0.00200	0.00239	0.00228	120	114	68.6-153			4.74	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/14/15 04:59 • (LCSD) 07/14/15 05:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.00200	0.00211	0.00203	106	101	67.3-141			4.05	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00206	0.00194	103	97.1	57.0-155			6.05	20
Naphthalene	0.00200	0.00208	0.00199	104	99.5	66.7-135			4.60	20
Phenanthrene	0.00200	0.00187	0.00179	93.5	89.6	64.3-143			4.17	20
Pyrene	0.00200	0.00187	0.00178	93.4	89.0	60.2-154			4.84	20
1-Methylnaphthalene	0.00200	0.00224	0.00215	112	107	68.3-144			4.04	20
2-Methylnaphthalene	0.00200	0.00224	0.00215	112	108	67.6-143			3.78	20
2-Chloronaphthalene	0.00200	0.00205	0.00194	102	97.1	69.7-144			5.26	20
(S) Nitrobenzene-d5				*126*	*119*	*45.1-170*				
(S) 2-Fluorobiphenyl				*105*	*100*	*57.7-153*				
(S) p-Terphenyl-d14				*99.3*	*96.0*	*53.2-156*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

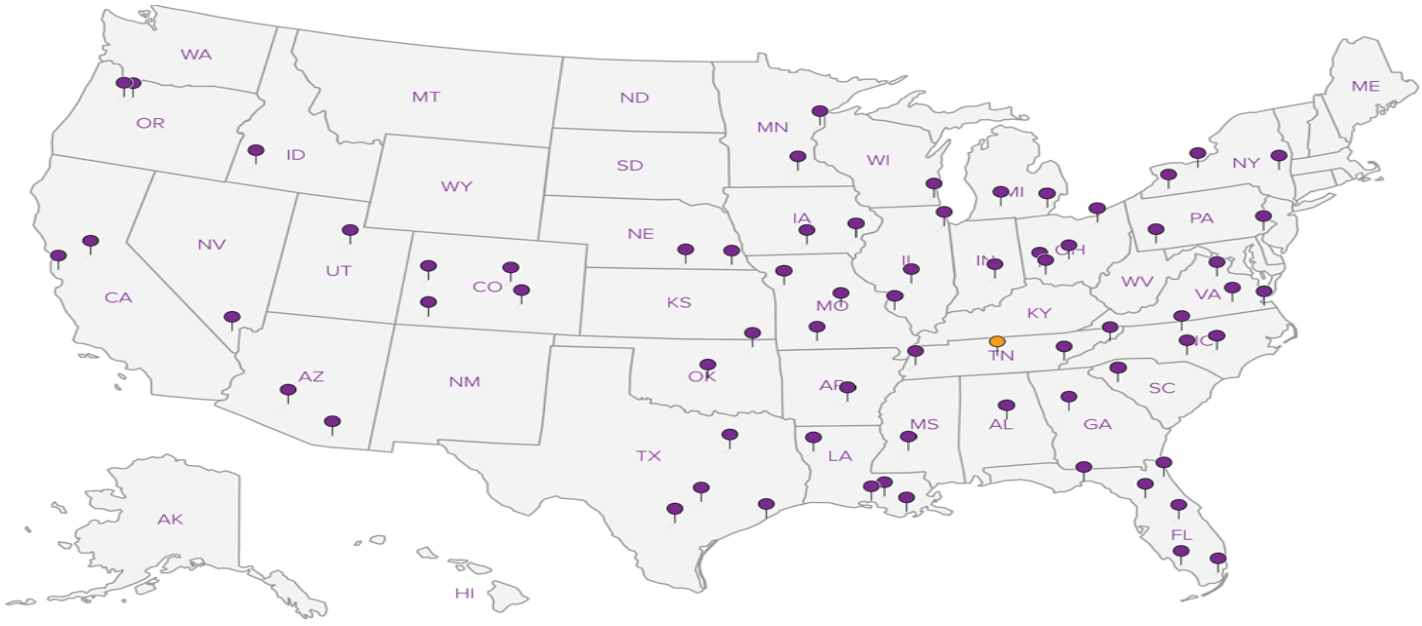
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Arcadis US San Francisco, CA
630 Plaza Drive, Suite 100
Highlands Ranch, CO 80129

Billing Information:
630 Plaza Drive, Suite 100
Highlands Ranch, CO 80129

Report to: **Lorraine Fuller**

Email To: **Lorraine.Fuller@arcadis-us.com**

Project Description: **CA-11126 GP09BPNA.C044.C0000**

City/State Collected: **Emeryville, CA**

Phone: **510-206-1154**
Fax:

Client Project # **GP09BPNA.C044.C0000**

Lab Project # **ARCADISBP-CA11126**

Collected by (print): **Lorraine Fuller**

Site/Facility ID # **1700 Powell Street, Emery**

P.O. # **GP09BPNA.C044.C0000**

Collected by (signature):

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed: 72 hours

Email? ✓ No ___ Yes
FAX? ___ No ___ Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	GRO (C6-C12) using USEPA 8260B	DRO, (C10-C28)USEPA Method 8015B w/ SGC	BTEX , MTBE, TBA, TAMEusing USEPA Method 8260B	PAHs using USEPA Method 8270							Rem./Contaminant	Sample # (lab only)
MW-12			N/A	7/10/2015	14:30	9	X	X	X	X								-01
							X	X	X	X								

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks: **72 hours**

pH _____ Temp _____

Flow _____ Other _____

638130399514

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/10/15	15:30	FEDEX
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 3.1 °C Bottles Received: 9

Date: 7-11-15 Time: 0900

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 776366
A109

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Hold #

Condition: (lab use only) GLC

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

ANALYTICAL REPORT

July 22, 2015

ARCADIS US - San Francisco, CA

Sample Delivery Group:	L778042
Samples Received:	07/11/2015
Project Number:	GP09BPNA.C044.C0000
Description:	CA-11126 - GP09BPNA.C044.C0000
Site:	1700 POWELL ST, EMERYVILLE, CA
Report To:	Hollis Phillips 100 Montgomery Street Suite 300 San Francisco, CA 94104

Entire Report Reviewed By:

Jarred Willis

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

MW-12 L778042-01 GW

Collected by: Lorraine Fuller
Collected date/time: 07/10/15 14:30
Received date/time: 07/11/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG803944	1	07/21/15 19:04	07/22/15 11:24	JNS

All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L778042-01	MW-12	3511/8015

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
DRO w/ SGT	180	Q	25.0	100	1	07/22/2015 11:24	WG803944
(S) o-Terphenyl	*121*			*50.0-150*		*07/22/2015 11:24*	WG803944

Method Blank (MB)

(MB) 07/22/15 09:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DRO W/ SGT	U		0.0247	0.100
(S) o-Terphenyl	*113*			*50.0-150*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 07/22/15 09:49 • (LCSD) 07/22/15 10:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
DRO W/ SGT	1.50	1.71	1.79	114	120	70.0-130			4.85	20
(S) o-Terphenyl				*113*	*115*	*50.0-150*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

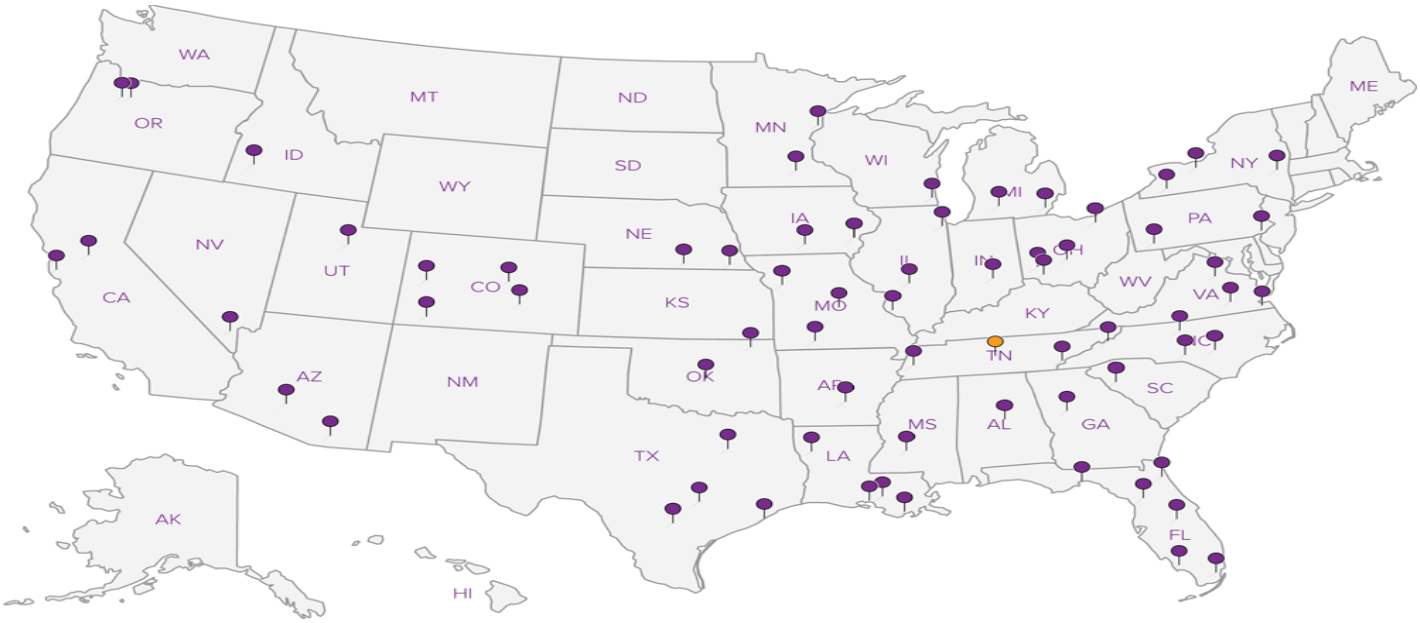
[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:	Billing Information:
Arcadis US San Francisco, CA 630 Plaza Drive, Suite 100 Highlands Ranch, CO 80129	630 Plaza Drive, Suite 100 Highlands Ranch, CO 80129
Report to: **Lorraine Fuller**	Email To: **Lorraine.Fuller@arcadis-us.com**
Project Description: **CA-11126 GP09BPNA.C044.C0000**	City/State Collected: **Emeryville, CA**
Phone: **510-206-1154** Fax:	Client Project # **GP09BPNA.C044.C0000**	Lab Project # **ARCADISBP-CA11126**
Collected by (print): **Lorraine Fuller**	Site/Facility ID # **1700 Powell Street, Emery**	P.O. # **GP09BPNA.C044.C0000**
Collected by (signature): Immediately Packed on Ice N ___ Y ✓	*Rush?* (Lab MUST Be Notified) ___ Same Day .....200% ___ Next Day .....100% ___ Two Day .....50% ___ Three Day 25%	Date Results Needed: 72 hours Email? ✓ No ___ Yes FAX? ___ No ___ Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	GRO (C6-C12) using USEPA 8260B	DRO, (C10-C28)USEPA Method 8015B w/ SGC	BTEX , MTBE, TBA, TAMEusing USEPA Method 8260B	PAHs using USEPA Method 8270	Rem./Contaminant	Sample # (lab only)
MW-12			N/A	7/10/2015	14:30	9	X	X	X	X		-01
							X	X	X	X		

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Phone: 800-767-5859
Fax: 615-758-5859

L# ~~L796366~~ A109

Acctnum:
Template: L778042
Prelogin:
TSR:
PB:
Shipped Via:

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: **72 hours**

pH ___ Temp ___
Flow ___ Other ___

6381303995 14

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/10/15	15:30	FEDEX
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___

Temp: 3.1 °C Bottles Received: 9

Date: 7-11-15 Time: 0900

Condition: (lab use only) OK

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF:

L778042

Troy Dunlap

From: Jarred Willis
Sent: Tuesday, July 21, 2015 4:33 PM
To: Login
Cc: Extractions; Due SVOC
Subject: L776366-01 - ARCADISBP - relog for DROLVISGT as R2 due 7/23

Importance: High

Please relog L776366-01 from ARCADISBP for DROLVISGT. Relog to a new L# as R2 due Thursday, 7/23.

Please relog this under the ***ARCADISBP-DNR*** project code. This is not the original project code that was used.

Thanks,

Jarred Willis
Technical Service Representative (TSR)
E-mail: **jwillis@esclabsciences.com**
Phone: 800-767-5859 Ext. 9678
Direct: (615) 773-9678
www.esclabsciences.com

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hollis Phillips
ARCADIS
100 Montgomery Street
Suite 300
San Francisco, CA 94104

Report Summary

Tuesday July 07, 2015

Report Number: L773516
Samples Received: 06/26/15
Client Project: GP09BPNA.C044.C0000

Description: CA-11126 - GP09BPNA.C044.C0000

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jarred Willis , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Hollis Phillips
ARCADIS
100 Montgomery Street
Suite 300
San Francisco, CA 94104

Case Narrative

Tuesday July 07, 2015

Report Number: L773516
Samples Received: 06/26/15
Client Project: GP09BPNA.C044.C0000

Description: CA-11126 - GP09BPNA.C044.C0000

Other Comments

Silica gel clean-up was performed on the TPH-DRO analysis on each of these samples.

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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Sample ID : MW-12-2.5-3.0

Collected By : CMG
Collection Date : 06/25/15 11:15

ESC Sample # : L773516-01

Site ID : 1700 POWELL ST, EMERYV

Project # : GP09BPNA.C044.C0000

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	78.7	0.0333		%		2540 G-2	07/02/15	1
TPHG C6 - C12	0.28	0.034	0.13	mg/kg		8015	07/03/15	1
Surrogate Recovery-%								
a,a,a-Trifluorotoluene(FID)	93.8			% Rec.		8015	07/03/15	1
Diesel Range Organics California								
C12-C22 Hydrocarbons	240	37.	250	mg/kg	J	8015	06/30/15	50
C22-C32 Hydrocarbons	760	66.	250	mg/kg		8015	06/30/15	50
C32-C40 Hydrocarbons	410	66.	250	mg/kg		8015	06/30/15	50
Surrogate Recovery								
o-Terphenyl	109.			% Rec.	J7	8015	06/30/15	50
Benzene	U	0.00027	0.0013	mg/kg		8260B	07/05/15	1
Toluene	U	0.00043	0.0064	mg/kg		8260B	07/05/15	1
Ethylbenzene	U	0.00030	0.0013	mg/kg		8260B	07/05/15	1
Total Xylenes	U	0.00070	0.0038	mg/kg		8260B	07/05/15	1
Methyl tert-butyl ether	U	0.00021	0.0013	mg/kg		8260B	07/05/15	1
Naphthalene	U	0.0010	0.0064	mg/kg		8260B	07/05/15	1
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	07/05/15	1
Dibromofluoromethane	85.0			% Rec.		8260B	07/05/15	1
a,a,a-Trifluorotoluene	111.			% Rec.		8260B	07/05/15	1
4-Bromofluorobenzene	106.			% Rec.		8260B	07/05/15	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.062	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Acenaphthene	0.027	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Acenaphthylene	U	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Benzo(a)anthracene	0.088	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Benzo(a)pyrene	0.11	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Benzo(b)fluoranthene	0.069	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Benzo(g,h,i)perylene	0.10	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Benzo(k)fluoranthene	0.032	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Chrysene	0.10	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Dibenz(a,h)anthracene	0.032	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Fluoranthene	0.14	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
Fluorene	0.039	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Indeno(1,2,3-cd)pyrene	0.056	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Naphthalene	0.19	0.020	0.25	mg/kg	J	8270C-SI	06/30/15	10
Phenanthrene	0.053	0.0060	0.076	mg/kg	J	8270C-SI	06/30/15	10
Pyrene	0.29	0.0060	0.076	mg/kg		8270C-SI	06/30/15	10
1-Methylnaphthalene	0.13	0.020	0.25	mg/kg	J	8270C-SI	06/30/15	10

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

The reported analytical results relate only to the sample submitted
Reported: 07/07/15 10:26 Printed: 07/07/15 10:26

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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Sample ID : MW-12-2.5-3.0

Collected By : CMG
Collection Date : 06/25/15 11:15

ESC Sample # : L773516-01

Site ID : 1700 POWELL ST, EMERYV

Project # : GP09BPNA.C044.C0000

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Methylnaphthalene	0.22	0.020	0.25	mg/kg	J	8270C-SI	06/30/15	10
2-Chloronaphthalene	U	0.020	0.25	mg/kg		8270C-SI	06/30/15	10
Surrogate Recovery								
p-Terphenyl-d14	89.8			% Rec.		8270C-SI	06/30/15	10
Nitrobenzene-d5	81.2			% Rec.		8270C-SI	06/30/15	10
2-Fluorobiphenyl	91.5			% Rec.		8270C-SI	06/30/15	10

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

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Reported: 07/07/15 10:26 Printed: 07/07/15 10:26

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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

ESC Sample # : L773516-02

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Site ID : 1700 POWELL ST, EMERYV

Sample ID : MW-12-5.0-5.5

Project # : GP09BPNA.C044.C0000

Collected By : CMG
Collection Date : 06/25/15 11:52

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	74.2	0.0333		%		2540 G-2	07/02/15	1
TPHG C6 - C12	0.15	0.034	0.13	mg/kg		8015	07/03/15	1
Surrogate Recovery-%								
a,a,a-Trifluorotoluene(FID)	102.			% Rec.		8015	07/03/15	1
Diesel Range Organics California								
C12-C22 Hydrocarbons	U	0.73	5.4	mg/kg		8015	06/29/15	1
C22-C32 Hydrocarbons	2.2	1.3	5.4	mg/kg	J	8015	06/29/15	1
C32-C40 Hydrocarbons	U	1.3	5.4	mg/kg		8015	06/29/15	1
Surrogate Recovery								
o-Terphenyl	92.8			% Rec.		8015	06/29/15	1
Benzene	U	0.00027	0.0013	mg/kg		8260B	07/05/15	1
Toluene	U	0.00043	0.0067	mg/kg		8260B	07/05/15	1
Ethylbenzene	U	0.00030	0.0013	mg/kg		8260B	07/05/15	1
Total Xylenes	U	0.00070	0.0040	mg/kg		8260B	07/05/15	1
Methyl tert-butyl ether	U	0.00021	0.0013	mg/kg		8260B	07/05/15	1
Naphthalene	U	0.0010	0.0067	mg/kg		8260B	07/05/15	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	07/05/15	1
Dibromofluoromethane	84.9			% Rec.		8260B	07/05/15	1
a,a,a-Trifluorotoluene	111.			% Rec.		8260B	07/05/15	1
4-Bromofluorobenzene	108.			% Rec.		8260B	07/05/15	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Acenaphthene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Acenaphthylene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Benzo(a)anthracene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Benzo(a)pyrene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Benzo(b)fluoranthene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Benzo(g,h,i)perylene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Benzo(k)fluoranthene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Chrysene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Dibenz(a,h)anthracene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Fluoranthene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Fluorene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Indeno(1,2,3-cd)pyrene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Naphthalene	U	0.0020	0.027	mg/kg		8270C-SI	06/28/15	1
Phenanthrene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
Pyrene	U	0.00060	0.0081	mg/kg		8270C-SI	06/28/15	1
1-Methylnaphthalene	U	0.0020	0.027	mg/kg		8270C-SI	06/28/15	1

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

The reported analytical results relate only to the sample submitted
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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

ESC Sample # : L773516-02

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Site ID : 1700 POWELL ST, EMERYV

Sample ID : MW-12-5.0-5.5

Project # : GP09BPNA.C044.C0000

Collected By : CMG
Collection Date : 06/25/15 11:52

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Methylnaphthalene	U	0.0020	0.027	mg/kg		8270C-SI	06/28/15	1
2-Chloronaphthalene	U	0.0020	0.027	mg/kg		8270C-SI	06/28/15	1
Surrogate Recovery								
p-Terphenyl-d14	93.3			% Rec.		8270C-SI	06/28/15	1
Nitrobenzene-d5	94.6			% Rec.		8270C-SI	06/28/15	1
2-Fluorobiphenyl	88.7			% Rec.		8270C-SI	06/28/15	1

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

The reported analytical results relate only to the sample submitted
Reported: 07/07/15 10:26 Printed: 07/07/15 10:26

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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

ESC Sample # : L773516-03

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Site ID : 1700 POWELL ST, EMERYV

Sample ID : MW-12-8.5-9.0

Project # : GP09BPNA.C044.C0000

Collected By : CMG
Collection Date : 06/25/15 12:15

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Total Solids	81.0	0.0333		%		2540 G-2	07/02/15	1
TPHG C6 - C12	0.33	0.034	0.12	mg/kg		8015	07/03/15	1
Surrogate Recovery-%								
a,a,a-Trifluorotoluene(FID)	98.6			% Rec.		8015	07/03/15	1
Diesel Range Organics California								
C12-C22 Hydrocarbons	1.2	0.73	4.9	mg/kg	J	8015	06/29/15	1
C22-C32 Hydrocarbons	2.0	1.3	4.9	mg/kg	J	8015	06/29/15	1
C32-C40 Hydrocarbons	U	1.3	4.9	mg/kg		8015	06/29/15	1
Surrogate Recovery								
o-Terphenyl	94.2			% Rec.		8015	06/29/15	1
Benzene	U	0.00027	0.0012	mg/kg		8260B	07/05/15	1
Toluene	U	0.00043	0.0062	mg/kg		8260B	07/05/15	1
Ethylbenzene	U	0.00030	0.0012	mg/kg		8260B	07/05/15	1
Total Xylenes	U	0.00070	0.0037	mg/kg		8260B	07/05/15	1
Methyl tert-butyl ether	U	0.00021	0.0012	mg/kg		8260B	07/05/15	1
Naphthalene	U	0.0010	0.0062	mg/kg		8260B	07/05/15	1
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	07/05/15	1
Dibromofluoromethane	85.1			% Rec.		8260B	07/05/15	1
a,a,a-Trifluorotoluene	110.			% Rec.		8260B	07/05/15	1
4-Bromofluorobenzene	106.			% Rec.		8260B	07/05/15	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Acenaphthene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Acenaphthylene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Benzo(a)anthracene	0.00086	0.00060	0.0074	mg/kg	J	8270C-SI	06/28/15	1
Benzo(a)pyrene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Benzo(b)fluoranthene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Benzo(g,h,i)perylene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Benzo(k)fluoranthene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Chrysene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Dibenz(a,h)anthracene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Fluoranthene	0.0017	0.00060	0.0074	mg/kg	J	8270C-SI	06/28/15	1
Fluorene	0.0012	0.00060	0.0074	mg/kg	J	8270C-SI	06/28/15	1
Indeno(1,2,3-cd)pyrene	U	0.00060	0.0074	mg/kg		8270C-SI	06/28/15	1
Naphthalene	0.0078	0.0020	0.025	mg/kg	J	8270C-SI	06/28/15	1
Phenanthrene	0.0031	0.00060	0.0074	mg/kg	J	8270C-SI	06/28/15	1
Pyrene	0.0022	0.00060	0.0074	mg/kg	J	8270C-SI	06/28/15	1
1-Methylnaphthalene	0.014	0.0020	0.025	mg/kg	J	8270C-SI	06/28/15	1

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

The reported analytical results relate only to the sample submitted
Reported: 07/07/15 10:26 Printed: 07/07/15 10:27

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REPORT OF ANALYSIS

Hollis Phillips
ARCADIS
100 Montgomery Street
San Francisco, CA 94104

July 07,2015

Date Received : June 26, 2015
Description : CA-11126 - GP09BPNA.C044.C0000

Sample ID : MW-12-8.5-9.0

Collected By : CMG
Collection Date : 06/25/15 12:15

ESC Sample # : L773516-03

Site ID : 1700 POWELL ST, EMERYV

Project # : GP09BPNA.C044.C0000

Parameter	Dry Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
2-Methylnaphthalene	0.0067	0.0020	0.025	mg/kg	J	8270C-SI	06/28/15	1
2-Chloronaphthalene	U	0.0020	0.025	mg/kg		8270C-SI	06/28/15	1
Surrogate Recovery								
p-Terphenyl-d14	86.1			% Rec.		8270C-SI	06/28/15	1
Nitrobenzene-d5	89.4			% Rec.		8270C-SI	06/28/15	1
2-Fluorobiphenyl	84.0			% Rec.		8270C-SI	06/28/15	1

Results listed are dry weight basis.
U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD = TRRP SDL
RDL = Reported Detection Limit = LOQ = PQL = EQL = TRRP MQL
Note:

The reported analytical results relate only to the sample submitted
Reported: 07/07/15 10:26 Printed: 07/07/15 10:27

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L773516-01	WG798846	SAMP	Anthracene	R3046644	J
	WG798846	SAMP	Acenaphthene	R3046644	J
	WG798846	SAMP	Benzo(b)fluoranthene	R3046644	J
	WG798846	SAMP	Benzo(k)fluoranthene	R3046644	J
	WG798846	SAMP	Dibenz(a,h)anthracene	R3046644	J
	WG798846	SAMP	Fluorene	R3046644	J
	WG798846	SAMP	Indeno(1,2,3-cd)pyrene	R3046644	J
	WG798846	SAMP	Naphthalene	R3046644	J
	WG798846	SAMP	Phenanthrene	R3046644	J
	WG798846	SAMP	1-Methylnaphthalene	R3046644	J
	WG798846	SAMP	2-Methylnaphthalene	R3046644	J
	WG799245	SAMP	C12-C22 Hydrocarbons	R3046683	J
	WG799245	SAMP	o-Terphenyl	R3046683	J7
L773516-02	WG799245	SAMP	C22-C32 Hydrocarbons	R3046683	J
L773516-03	WG798846	SAMP	Benzo(a)anthracene	R3046508	J
	WG798846	SAMP	Fluoranthene	R3046508	J
	WG798846	SAMP	Fluorene	R3046508	J
	WG798846	SAMP	Naphthalene	R3046508	J
	WG798846	SAMP	Phenanthrene	R3046508	J
	WG798846	SAMP	Pyrene	R3046508	J
	WG798846	SAMP	1-Methylnaphthalene	R3046508	J
	WG798846	SAMP	2-Methylnaphthalene	R3046508	J
	WG799245	SAMP	C12-C22 Hydrocarbons	R3046683	J
	WG799245	SAMP	C22-C32 Hydrocarbons	R3046683	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

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Level II

L773516

July 07, 2015

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
1-Methylnaphthalene	< .02	mg/kg			WG798846	06/28/15 15:03
2-Chloronaphthalene	< .02	mg/kg			WG798846	06/28/15 15:03
2-Methylnaphthalene	< .02	mg/kg			WG798846	06/28/15 15:03
Acenaphthene	< .006	mg/kg			WG798846	06/28/15 15:03
Acenaphthylene	< .006	mg/kg			WG798846	06/28/15 15:03
Anthracene	< .006	mg/kg			WG798846	06/28/15 15:03
Benzo(a)anthracene	< .006	mg/kg			WG798846	06/28/15 15:03
Benzo(a)pyrene	< .006	mg/kg			WG798846	06/28/15 15:03
Benzo(b)fluoranthene	< .006	mg/kg			WG798846	06/28/15 15:03
Benzo(g,h,i)perylene	< .006	mg/kg			WG798846	06/28/15 15:03
Benzo(k)fluoranthene	< .006	mg/kg			WG798846	06/28/15 15:03
Chrysene	< .006	mg/kg			WG798846	06/28/15 15:03
Dibenz(a,h)anthracene	< .006	mg/kg			WG798846	06/28/15 15:03
Fluoranthene	< .006	mg/kg			WG798846	06/28/15 15:03
Fluorene	< .006	mg/kg			WG798846	06/28/15 15:03
Indeno(1,2,3-cd)pyrene	< .006	mg/kg			WG798846	06/28/15 15:03
Naphthalene	< .02	mg/kg			WG798846	06/28/15 15:03
Phenanthrene	< .006	mg/kg			WG798846	06/28/15 15:03
Pyrene	< .006	mg/kg			WG798846	06/28/15 15:03
2-Fluorobiphenyl		% Rec.	77.30	40.6-122	WG798846	06/28/15 15:03
Nitrobenzene-d5		% Rec.	81.70	22.1-146	WG798846	06/28/15 15:03
p-Terphenyl-d14		% Rec.	81.70	32.2-131	WG798846	06/28/15 15:03
C12-C22 Hydrocarbons	< 4	mg/kg			WG799245	06/29/15 22:34
C22-C32 Hydrocarbons	< 4	mg/kg			WG799245	06/29/15 22:34
C32-C40 Hydrocarbons	< 4	mg/kg			WG799245	06/29/15 22:34
o-Terphenyl		% Rec.	104.0	50-150	WG799245	06/29/15 22:34
Total Solids	< .1	%			WG799648	07/02/15 10:08
TPHG C6 - C12	< .1	mg/kg			WG800189	07/03/15 07:42
a,a,a-Trifluorotoluene(FID)		% Rec.	104.0	59-128	WG800189	07/03/15 07:42
Benzene	< .001	mg/kg			WG798987	07/05/15 16:12
Ethylbenzene	< .001	mg/kg			WG798987	07/05/15 16:12
Methyl tert-butyl ether	< .001	mg/kg			WG798987	07/05/15 16:12
Naphthalene	< .005	mg/kg			WG798987	07/05/15 16:12
Toluene	< .005	mg/kg			WG798987	07/05/15 16:12
Total Xylenes	< .003	mg/kg			WG798987	07/05/15 16:12
4-Bromofluorobenzene		% Rec.	103.0	69.7-129	WG798987	07/05/15 16:12
Dibromofluoromethane		% Rec.	83.10	76.3-123	WG798987	07/05/15 16:12
Toluene-d8		% Rec.	102.0	88.7-115	WG798987	07/05/15 16:12
a,a,a-Trifluorotoluene		% Rec.	111.0	87.2-117	WG798987	07/05/15 16:12

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Total Solids	%	74.8	74.3	0.635	5	L774065-06	WG799648

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
1-Methylnaphthalene	mg/kg	.08	0.0752	94.0	50.6-122	WG798846
2-Chloronaphthalene	mg/kg	.08	0.0663	82.9	53.9-121	WG798846
2-Methylnaphthalene	mg/kg	.08	0.0710	88.7	50.4-120	WG798846

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Level II

L773516

July 07, 2015

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Acenaphthene	mg/kg	.08	0.0687	85.9	52.4-120	WG798846
Acenaphthylene	mg/kg	.08	0.0729	91.2	49.6-120	WG798846
Anthracene	mg/kg	.08	0.0672	84.1	50.3-130	WG798846
Benzo(a)anthracene	mg/kg	.08	0.0735	91.9	46.7-125	WG798846
Benzo(a)pyrene	mg/kg	.08	0.0627	78.3	42.3-119	WG798846
Benzo(b)fluoranthene	mg/kg	.08	0.0625	78.2	43.6-124	WG798846
Benzo(g,h,i)perylene	mg/kg	.08	0.0606	75.8	45.1-132	WG798846
Benzo(k)fluoranthene	mg/kg	.08	0.0621	77.6	46.1-131	WG798846
Chrysene	mg/kg	.08	0.0702	87.8	49.5-131	WG798846
Dibenz(a,h)anthracene	mg/kg	.08	0.0629	78.7	44.8-133	WG798846
Fluoranthene	mg/kg	.08	0.0704	87.9	49.3-128	WG798846
Fluorene	mg/kg	.08	0.0691	86.4	50.6-121	WG798846
Indeno(1,2,3-cd)pyrene	mg/kg	.08	0.0638	79.7	46.1-135	WG798846
Naphthalene	mg/kg	.08	0.0667	83.4	49.6-115	WG798846
Phenanthrene	mg/kg	.08	0.0645	80.6	48.8-121	WG798846
Pyrene	mg/kg	.08	0.0773	96.6	44.7-130	WG798846
2-Fluorobiphenyl				83.80	40.6-122	WG798846
Nitrobenzene-d5				88.20	22.1-146	WG798846
p-Terphenyl-d14				88.20	32.2-131	WG798846
C12-C22 Hydrocarbons	mg/kg	30	24.0	80.0	50-150	WG799245
C22-C32 Hydrocarbons	mg/kg	30	25.9	86.3	50-150	WG799245
o-Terphenyl				77.80	50-150	WG799245
Total Solids	%	50	50.0	100.	85-115	WG799648
TPHG C6 - C12	mg/kg	5.5	5.72	104.	62.2-127	WG800189
a,a,a-Trifluorotoluene(FID)				105.0	59-128	WG800189
Benzene	mg/kg	.025	0.0208	83.1	72.6-120	WG798987
Ethylbenzene	mg/kg	.025	0.0289	116.	78.6-124	WG798987
Methyl tert-butyl ether	mg/kg	.025	0.0214	85.6	70.2-122	WG798987
Naphthalene	mg/kg	.025	0.0252	101.	69.9-132	WG798987
Toluene	mg/kg	.025	0.0245	98.0	76.7-116	WG798987
Total Xylenes	mg/kg	.075	0.0867	116.	78.1-123	WG798987
4-Bromofluorobenzene				102.0	69.7-129	WG798987
Dibromofluoromethane				82.40	76.3-123	WG798987
Toluene-d8				102.0	88.7-115	WG798987
a,a,a-Trifluorotoluene				111.0	87.2-117	WG798987

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
1-Methylnaphthalene	mg/kg	0.0736	0.0752	92.0	50.6-122	2.13	20	WG798846
2-Chloronaphthalene	mg/kg	0.0651	0.0663	81.0	53.9-121	1.86	20	WG798846
2-Methylnaphthalene	mg/kg	0.0701	0.0710	88.0	50.4-120	1.25	20	WG798846
Acenaphthene	mg/kg	0.0672	0.0687	84.0	52.4-120	2.14	20	WG798846
Acenaphthylene	mg/kg	0.0723	0.0729	90.0	49.6-120	0.860	20	WG798846
Anthracene	mg/kg	0.0667	0.0672	83.0	50.3-130	0.880	20	WG798846
Benzo(a)anthracene	mg/kg	0.0722	0.0735	90.0	46.7-125	1.78	20	WG798846
Benzo(a)pyrene	mg/kg	0.0647	0.0627	81.0	42.3-119	3.21	20	WG798846
Benzo(b)fluoranthene	mg/kg	0.0647	0.0625	81.0	43.6-124	3.40	20	WG798846
Benzo(g,h,i)perylene	mg/kg	0.0623	0.0606	78.0	45.1-132	2.69	20	WG798846
Benzo(k)fluoranthene	mg/kg	0.0634	0.0621	79.0	46.1-131	2.14	20	WG798846
Chrysene	mg/kg	0.0689	0.0702	86.0	49.5-131	1.93	20	WG798846

* Performance of this Analyte is outside of established criteria.
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July 07, 2015

L773516

Analyte	Units	Laboratory Control Sample Result	Ref	%Rec	Limit	RPD	Duplicate Limit	Batch
Dibenz(a,h)anthracene	mg/kg	0.0640	0.0629	80.0	44.8-133	1.66	20	WG798846
Fluoranthene	mg/kg	0.0696	0.0704	87.0	49.3-128	1.09	20	WG798846
Fluorene	mg/kg	0.0678	0.0691	85.0	50.6-121	1.89	20	WG798846
Indeno(1,2,3-cd)pyrene	mg/kg	0.0653	0.0638	82.0	46.1-135	2.28	20	WG798846
Naphthalene	mg/kg	0.0656	0.0667	82.0	49.6-115	1.61	20	WG798846
Phenanthrene	mg/kg	0.0636	0.0645	79.0	48.8-121	1.45	20	WG798846
Pyrene	mg/kg	0.0759	0.0773	95.0	44.7-130	1.78	20	WG798846
2-Fluorobiphenyl				82.80	40.6-122			WG798846
Nitrobenzene-d5				87.70	22.1-146			WG798846
p-Terphenyl-d14				86.00	32.2-131			WG798846
C12-C22 Hydrocarbons	mg/kg	23.5	24.0	78.0	50-150	1.88	20	WG799245
C22-C32 Hydrocarbons	mg/kg	25.0	25.9	83.0	50-150	3.44	20	WG799245
o-Terphenyl				76.70	50-150			WG799245
TPHG C6 - C12	mg/kg	5.91	5.72	108.	62.2-127	3.34	20	WG800189
a,a,a-Trifluorotoluene(FID)				105.0	59-128			WG800189
Benzene	mg/kg	0.0215	0.0208	86.0	72.6-120	3.50	20	WG798987
Ethylbenzene	mg/kg	0.0290	0.0289	116.	78.6-124	0.360	20	WG798987
Methyl tert-butyl ether	mg/kg	0.0213	0.0214	85.0	70.2-122	0.600	20	WG798987
Naphthalene	mg/kg	0.0242	0.0252	97.0	69.9-132	3.92	20	WG798987
Toluene	mg/kg	0.0248	0.0245	99.0	76.7-116	1.33	20	WG798987
Total Xylenes	mg/kg	0.0866	0.0867	115.	78.1-123	0.100	20	WG798987
4-Bromofluorobenzene				104.0	69.7-129			WG798987
Dibromofluoromethane				83.30	76.3-123			WG798987
Toluene-d8				103.0	88.7-115			WG798987
a,a,a-Trifluorotoluene				112.0	87.2-117			WG798987

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1-Methylnaphthalene	mg/kg	0.0614	0.000217	.08	76.0	28.4-137	L773413-02	WG798846
2-Chloronaphthalene	mg/kg	0.0559	0.0000351	.08	70.0	38.6-126	L773413-02	WG798846
2-Methylnaphthalene	mg/kg	0.0578	0.000335	.08	72.0	26.6-137	L773413-02	WG798846
Acenaphthene	mg/kg	0.0571	0.0000996	.08	71.0	31.9-130	L773413-02	WG798846
Acenaphthylene	mg/kg	0.0619	0.0000590	.08	77.0	33.7-129	L773413-02	WG798846
Anthracene	mg/kg	0.0610	0.000889	.08	75.0	26.5-141	L773413-02	WG798846
Benzo(a)anthracene	mg/kg	0.0627	0.00447	.08	73.0	18.3-136	L773413-02	WG798846
Benzo(a)pyrene	mg/kg	0.0616	0.00459	.08	71.0	16.9-135	L773413-02	WG798846
Benzo(b)fluoranthene	mg/kg	0.0607	0.00896	.08	65.0	10-134	L773413-02	WG798846
Benzo(g,h,i)perylene	mg/kg	0.0613	0.00584	.08	69.0	14.1-140	L773413-02	WG798846
Benzo(k)fluoranthene	mg/kg	0.0559	0.00287	.08	66.0	18.2-138	L773413-02	WG798846
Chrysene	mg/kg	0.0587	0.00764	.08	64.0	17.1-145	L773413-02	WG798846
Dibenz(a,h)anthracene	mg/kg	0.0623	0.00159	.08	76.0	18.5-138	L773413-02	WG798846
Fluoranthene	mg/kg	0.0650	0.0109	.08	68.0	15.4-144	L773413-02	WG798846
Fluorene	mg/kg	0.0576	0.000117	.08	72.0	23.5-136	L773413-02	WG798846
Indeno(1,2,3-cd)pyrene	mg/kg	0.0634	0.00443	.08	74.0	14.5-142	L773413-02	WG798846
Naphthalene	mg/kg	0.0545	0.000482	.08	68.0	29.2-128	L773413-02	WG798846
Phenanthrene	mg/kg	0.0551	0.00299	.08	65.0	20.1-134	L773413-02	WG798846
Pyrene	mg/kg	0.0704	0.0112	.08	74.0	11-148	L773413-02	WG798846
2-Fluorobiphenyl					70.30	40.6-122		WG798846
Nitrobenzene-d5					73.80	22.1-146		WG798846
p-Terphenyl-d14					72.40	32.2-131		WG798846

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Tax I.D. 62-0814289

Est. 1970

ARCADIS
Hollis Phillips
100 Montgomery Street
Suite 300
San Francisco, CA 94104

Quality Assurance Report
Level II

L773516

July 07, 2015

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
C12-C22 Hydrocarbons	mg/kg	28.1	0.985	30	90.0	50-150	L773516-03	WG799245
C22-C32 Hydrocarbons	mg/kg	33.2	1.63	30	100.	50-150	L773516-03	WG799245
o-Terphenyl					80.10	50-150		WG799245
TPHG C6 - C12	mg/kg	17.3	0.0	5.5	63.0	20.5-134	L774259-09	WG800189
a,a,a-Trifluorotoluene(FID)					100.0	59-128		WG800189
Benzene	mg/kg	0.103	0.00159	.025	81.0	47.8-131	L773530-41	WG798987
Ethylbenzene	mg/kg	0.125	0.00190	.025	99.0	44.8-135	L773530-41	WG798987
Methyl tert-butyl ether	mg/kg	0.103	0.0	.025	82.0	50.4-131	L773530-41	WG798987
Naphthalene	mg/kg	0.0938	0.00158	.025	74.0	18.4-145	L773530-41	WG798987
Toluene	mg/kg	0.110	0.000361	.025	88.0	47.8-127	L773530-41	WG798987
Total Xylenes	mg/kg	0.378	0.00871	.075	98.0	42.7-135	L773530-41	WG798987
4-Bromofluorobenzene					100.0	69.7-129		WG798987
Dibromofluoromethane					85.30	76.3-123		WG798987
Toluene-d8					101.0	88.7-115		WG798987
a,a,a-Trifluorotoluene					110.0	87.2-117		WG798987

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
1-Methylnaphthalene	mg/kg	0.0565	0.0614	70.4	28.4-137	8.25	20	L773413-02	WG798846
2-Chloronaphthalene	mg/kg	0.0506	0.0559	63.2	38.6-126	10.1	20	L773413-02	WG798846
2-Methylnaphthalene	mg/kg	0.0538	0.0578	66.8	26.6-137	7.14	20	L773413-02	WG798846
Acenaphthene	mg/kg	0.0519	0.0571	64.8	31.9-130	9.54	20	L773413-02	WG798846
Acenaphthylene	mg/kg	0.0559	0.0619	69.8	33.7-129	10.2	20	L773413-02	WG798846
Anthracene	mg/kg	0.0514	0.0610	63.1	26.5-141	17.2	21.2	L773413-02	WG798846
Benzo(a)anthracene	mg/kg	0.0567	0.0627	65.3	18.3-136	10.1	24.6	L773413-02	WG798846
Benzo(a)pyrene	mg/kg	0.0563	0.0616	64.7	16.9-135	8.89	25.2	L773413-02	WG798846
Benzo(b)fluoranthene	mg/kg	0.0546	0.0607	57.1	10-134	10.5	30.9	L773413-02	WG798846
Benzo(g,h,i)perylene	mg/kg	0.0560	0.0613	62.7	14.1-140	9.07	25.5	L773413-02	WG798846
Benzo(k)fluoranthene	mg/kg	0.0512	0.0559	60.4	18.2-138	8.75	25.6	L773413-02	WG798846
Chrysene	mg/kg	0.0536	0.0587	57.5	17.1-145	9.02	24.2	L773413-02	WG798846
Dibenz(a,h)anthracene	mg/kg	0.0559	0.0623	67.9	18.5-138	10.8	24.3	L773413-02	WG798846
Fluoranthene	mg/kg	0.0578	0.0650	58.5	15.4-144	11.8	27.1	L773413-02	WG798846
Fluorene	mg/kg	0.0520	0.0576	64.8	23.5-136	10.2	20	L773413-02	WG798846
Indeno(1,2,3-cd)pyrene	mg/kg	0.0572	0.0634	65.9	14.5-142	10.4	25.8	L773413-02	WG798846
Naphthalene	mg/kg	0.0500	0.0545	61.8	29.2-128	8.59	20	L773413-02	WG798846
Phenanthrene	mg/kg	0.0497	0.0551	58.3	20.1-134	10.5	23.6	L773413-02	WG798846
Pyrene	mg/kg	0.0622	0.0704	63.7	11-148	12.4	26.1	L773413-02	WG798846
2-Fluorobiphenyl				65.10	40.6-122				WG798846
Nitrobenzene-d5				71.60	22.1-146				WG798846
p-Terphenyl-d14				66.20	32.2-131				WG798846
C12-C22 Hydrocarbons	mg/kg	25.8	28.1	82.7	50-150	8.50	20	L773516-03	WG799245
C22-C32 Hydrocarbons	mg/kg	27.7	33.2	86.9	50-150	18.1	20	L773516-03	WG799245
o-Terphenyl				78.60	50-150				WG799245
TPHG C6 - C12	mg/kg	14.8	17.3	53.8	20.5-134	15.6	23.8	L774259-09	WG800189
a,a,a-Trifluorotoluene(FID)				99.90	59-128				WG800189
Benzene	mg/kg	0.100	0.103	79.1	47.8-131	2.67	22.8	L773530-41	WG798987
Ethylbenzene	mg/kg	0.129	0.125	102.	44.8-135	2.77	26.9	L773530-41	WG798987
Methyl tert-butyl ether	mg/kg	0.0973	0.103	77.8	50.4-131	5.35	24.8	L773530-41	WG798987

* Performance of this Analyte is outside of established criteria.
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San Francisco, CA 94104

Quality Assurance Report
Level II

L773516

July 07, 2015

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Naphthalene	mg/kg	0.0929	0.0938	73.1	18.4-145	0.960	34	L773530-41	WG798987
Toluene	mg/kg	0.111	0.110	88.8	47.8-127	1.21	24.3	L773530-41	WG798987
Total Xylenes	mg/kg	0.389	0.378	102.	42.7-135	2.98	26.6	L773530-41	WG798987
4-Bromofluorobenzene				103.0	69.7-129				WG798987
Dibromofluoromethane				82.40	76.3-123				WG798987
Toluene-d8				101.0	88.7-115				WG798987
a,a,a-Trifluorotoluene				110.0	87.2-117				WG798987

Batch number /Run number / Sample number cross reference

WG798846: R3046508 R3046644: L773516-01 02 03
WG799245: R3046683: L773516-01 02 03
WG799648: R3047250: L773516-01 02 03
WG800189: R3047641: L773516-01 02 03
WG798987: R3047818: L773516-01 02 03

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

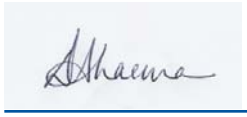
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-65972-1
Client Project/Site: BP #11126, Emeryville

For:
ARCADIS U.S., Inc.
100 Montgomery Street
Suite 300
San Francisco, California 94104

Attn: Hollis Phillips



Authorized for release by:
7/21/2015 9:10:53 AM

Dimple Sharma, Senior Project Manager
(925)484-1919
dimple.sharma@testamericainc.com

Table of Contents

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 720-65972-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-65972-1

Comments
No additional comments.

Receipt
The samples were received on 7/10/2015 4:56 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Received one Trip Blank not listed on the COC, logged on HOLD. No project name listed on the COC.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Client Sample ID: MW-12

Lab Sample ID: 720-65972-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MTBE	7.6		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
TBA	290		20		ug/L	1		8260B/CA_LUFT MS	Total/NA
Naphthalene	0.23		0.11		ug/L	1		8270C SIM	Total/NA
Acenaphthene	0.18		0.11		ug/L	1		8270C SIM	Total/NA
Fluorene	0.27		0.11		ug/L	1		8270C SIM	Total/NA
Phenanthrene	0.61		0.11		ug/L	1		8270C SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-12

Date Collected: 07/10/15 14:09
Date Received: 07/10/15 16:56

Lab Sample ID: 720-65972-1
Matrix: Water

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	**7.6**		0.50		ug/L			07/14/15 21:05	1
Benzene	ND		0.50		ug/L			07/14/15 21:05	1
EDB	ND		0.50		ug/L			07/14/15 21:05	1
1,2-DCA	ND		0.50		ug/L			07/14/15 21:05	1
Ethylbenzene	ND		0.50		ug/L			07/14/15 21:05	1
Toluene	ND		0.50		ug/L			07/14/15 21:05	1
Xylenes, Total	ND		1.0		ug/L			07/14/15 21:05	1
Gasoline Range Organics (GRO) -C6-C12	ND		50		ug/L			07/14/15 21:05	1
TBA	**290**		20		ug/L			07/14/15 21:05	1
Ethanol	ND		500		ug/L			07/14/15 21:05	1
DIPE	ND		0.50		ug/L			07/14/15 21:05	1
TAME	ND		0.50		ug/L			07/14/15 21:05	1
Ethyl t-butyl ether	ND		0.50		ug/L			07/14/15 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*67 - 130*		*07/14/15 21:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 130*		*07/14/15 21:05*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*07/14/15 21:05*	*1*

Method: 8270C SIM - PAHs by GCMS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.23**		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Acenaphthene	**0.18**		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Acenaphthylene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Fluorene	**0.27**		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Phenanthrene	**0.61**		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Anthracene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Benzo[a]anthracene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Chrysene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Benzo[a]pyrene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Benzo[b]fluoranthene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Benzo[k]fluoranthene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Benzo[g,h,i]perylene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Indeno[1,2,3-cd]pyrene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Fluoranthene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Pyrene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1
Dibenz(a,h)anthracene	ND		0.11		ug/L		07/15/15 21:04	07/18/15 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*29 - 120*	*07/15/15 21:04*	*07/18/15 03:59*	*1*
Terphenyl-d14	*50*		*45 - 120*	*07/15/15 21:04*	*07/18/15 03:59*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		07/13/15 10:22	07/13/15 20:22	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		07/13/15 10:22	07/13/15 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 5*	*07/13/15 10:22*	*07/13/15 20:22*	*1*
p-Terphenyl	*90*		*31 - 150*	*07/13/15 10:22*	*07/13/15 20:22*	*1*

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)
720-65972-1	MW-12	98	97	101
LCS 720-185133/5	Lab Control Sample	95	87	100
LCS 720-185133/7	Lab Control Sample	98	94	100
LCSD 720-185133/6	Lab Control Sample Dup	93	87	99
LCSD 720-185133/8	Lab Control Sample Dup	99	92	100
MB 720-185133/4	Method Blank	97	92	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM - PAHs by GCMS (SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		FBP	TPH
Lab Sample ID	Client Sample ID	(29-120)	(45-120)
720-65972-1	MW-12	58	50
LCS 720-185235/2-A	Lab Control Sample	51	52
LCSD 720-185235/3-A	Lab Control Sample Dup	50	52

Surrogate Legend

FBP = 2-Fluorobiphenyl
TPH = Terphenyl-d14

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water — **Prep Type: Silica Gel Cleanup**

		Percent Surrogate Recovery (Acceptance Limits)	
		NDA1	PTP1
Lab Sample ID	Client Sample ID	(0-5)	(31-150)
720-65972-1	MW-12	0.01	90
LCS 720-185039/2-A	Lab Control Sample		81
LCSD 720-185039/3-A	Lab Control Sample Dup		90
MB 720-185039/1-A	Method Blank	0.008	91

Surrogate Legend

NDA = Capric Acid (Surr)
PTP = p-Terphenyl

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-185133/4
Matrix: Water
Analysis Batch: 185133

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
u TBE	g D		0.50		L4/z			07/1N/15 1N:10	1
Benhene	g D		0.50		L4/z			07/1N/15 1N:10	1
EDB	g D		0.50		L4/z			07/1N/15 1N:10	1
1,2-DCA	g D		0.50		L4/z			07/1N/15 1N:10	1
EtXylbenhene	g D		0.50		L4/z			07/1N/15 1N:10	1
TolLene	g D		0.50		L4/z			07/1N/15 1N:10	1
Gylenes, Total	g D		1.0		L4/z			07/1N/15 1N:10	1
Oasoline Ran4e (r4anics)OR(M -C6-C12	g D		50		L4/z			07/1N/15 1N:10	1
TBA	g D		20		L4/z			07/1N/15 1N:10	1
EtXanol	g D		500		L4/z			07/1N/15 1N:10	1
DIPE	g D		0.50		L4/z			07/1N/15 1N:10	1
TAu E	g D		0.50		L4/z			07/1N/15 1N:10	1
EtXyl t-bLtyl etXer	g D		0.50		L4/z			07/1N/15 1N:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*68 - 713*		*380740/ 574 73*	*7*
7:2-, Dcloroelct ne-a45(urrS	*92*		*82 - 713*		*380740/ 574 73*	*7*
) oluene-aT5(urrS	*737*		*83 - 713*		*380740/ 574 73*	*7*

Lab Sample ID: LCS 720-185133/5
Matrix: Water
Analysis Batch: 185133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
u TBE	25.0	22.6		L4/z		91	62 - 180
Benhene	25.0	28.3		L4/z		95	79 - 180
EDB	25.0	25.1		L4/z		101	70 - 180
1,2-DCA	25.0	21.1		L4/z		3N	61 - 182
EtXylbenhene	25.0	2N6		L4/z		93	30 - 120
TolLene	25.0	2N0		L4/z		96	73 - 120
TBA	250	22N		L4/z		90	70 - 180
EtXanol	1250	1010		L4/z		31	81 - 216
DIPE	25.0	19.1		L4/z		76	69 - 18N
TAu E	25.0	2N0		L4/z		96	79 - 180
EtXyl t-bLtyl etXer	25.0	21.7		L4/z		37	70 - 180

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*9/*		*68 - 713*
7:2-, Dcloroelct ne-a45(urrS	*T8*		*82 - 713*
) oluene-aT5(urrS	*733*		*83 - 713*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-185133/7
Matrix: Water
Analysis Batch: 185133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Oasoline Ran4e (r4anics)OR(M -C6-C12			500	N70		L4/z		9N	53 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*9T*		*68 - 713*
7:2-, Dcloroelct ne-a45(urrS	*94*		*82 - 713*
) oluene-aT5(urrS	*733*		*83 - 713*

Lab Sample ID: LCSD 720-185133/6
Matrix: Water
Analysis Batch: 185133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
u TBE			25.0	28.1		L4/z		92	62 - 180	2	20
Benhene			25.0	28.3		L4/z		95	79 - 180	0	20
EDB			25.0	25.2		L4/z		101	70 - 180	0	20
1,2-DCA			25.0	21.1		L4/z		3N	61 - 182	0	20
EtXylbenhene			25.0	2N6		L4/z		93	30 - 120	0	20
TolLene			25.0	2N6		L4/z		93	73 - 120	2	20
TBA			250	22N		L4/z		90	70 - 180	0	20
EtXanol			1250	977		L4/z		73	81 - 216	8	80
DIPE			25.0	19.2		L4/z		77	69 - 18N	0	20
TAu E			25.0	2N2		L4/z		97	79 - 180	1	20
EtXyl t-bLtyl etXer			25.0	21.3		L4/z		37	70 - 180	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*68 - 713*
7:2-, Dcloroelct ne-a45(urrS	*T8*		*82 - 713*
) oluene-aT5(urrS	*99*		*83 - 713*

Lab Sample ID: LCSD 720-185133/8
Matrix: Water
Analysis Batch: 185133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Oasoline Ran4e (r4anics)OR(M -C6-C12			500	N59		L4/z		92	53 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*68 - 713*
7:2-, Dcloroelct ne-a45(urrS	*92*		*82 - 713*
) oluene-aT5(urrS	*733*		*83 - 713*

Method: 8270C SIM - PAHs by GCMS (SIM)

Lab Sample ID: LCS 720-185235/2-A
Matrix: Water
Analysis Batch: 185396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 185235

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
g apXtXalene	10.0	7.91		L4/z		79	19 - 120
AcenapXtXene	10.0	7.9N		L4/z		79	2N - 120
AcenapXtXylene	10.0	9.08		L4/z		90	2N - 120
[lLorene	10.0	3.67		L4/z		37	27 - 120
PXenantXrene	10.0	3.06		L4/z		31	81 - 120
AntXracene	10.0	3.16		L4/z		32	NN - 120
Benho]afantXracene	10.0	3.N1		L4/z		3N	N3 - 120
CXrysene	10.0	3.08		L4/z		30	N7 - 120
Benho]afpyrene	10.0	6.67		L4/z		67	N8 - 120
Benho]bfkLorantXene	10.0	7.6N		L4/z		76	N2 - 120
Benho]dfkLorantXene	10.0	6.08		L4/z		60	N2 - 120
Benho]4,X,ifperylene	10.0	5.9N		L4/z		59	85 - 120
InFeno]1,2,8-cFfpyrene	10.0	5.98		L4/z		59	86 - 120
[lLorantXene	10.0	3.72		L4/z		37	N8 - 120
Pyrene	10.0	3.69		L4/z		37	N7 - 120
Dibenh)a,XM1antXracene	10.0	6.03		L4/z		61	88 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-FluorobDcenyl	*/ 7*		*29 - 723*
) erpcenyl-a74	*/ 2*		*4/ - 723*

Lab Sample ID: LCSD 720-185235/3-A
Matrix: Water
Analysis Batch: 185396

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 185235

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
g apXtXalene	10.0	7.63		L4/z		77	19 - 120	8	85
AcenapXtXene	10.0	7.65		L4/z		77	2N - 120	N	85
AcenapXtXylene	10.0	3.78		L4/z		37	2N - 120	8	85
[lLorene	10.0	3.N2		L4/z		3N	27 - 120	8	85
PXenantXrene	10.0	3.07		L4/z		31	81 - 120	0	85
AntXracene	10.0	3.18		L4/z		31	NN - 120	0	85
Benho]afantXracene	10.0	3.26		L4/z		38	N3 - 120	2	85
CXrysene	10.0	7.95		L4/z		79	N7 - 120	1	85
Benho]afpyrene	10.0	6.N5		L4/z		65	N8 - 120	8	85
Benho]bfkLorantXene	10.0	7.18		L4/z		71	N2 - 120	7	85
Benho]dfkLorantXene	10.0	6.81		L4/z		68	N2 - 120	5	85
Benho]4,X,ifperylene	10.0	5.67		L4/z		57	85 - 120	5	85
InFeno]1,2,8-cFfpyrene	10.0	5.69		L4/z		57	86 - 120	N	85
[lLorantXene	10.0	3.63		L4/z		37	N8 - 120	0	85
Pyrene	10.0	3.50		L4/z		35	N7 - 120	2	85
Dibenh)a,XM1antXracene	10.0	5.79		L4/z		53	88 - 120	5	85

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-FluorobDcenyl	*/ 3*		*29 - 723*
) erpcenyl-a74	*/ 2*		*4/ - 723*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-185039/1-A
Matrix: Water
Analysis Batch: 185028

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 185039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Ran4e (r4anics]C10-C23f	g D		50		L4/z		07/18/15 10:1N	07/1N/15 01:59	1
u otor (il Ran4e (r4anics]C2N-C86f	g D		99		L4/z		07/18/15 10:1N	07/1N/15 01:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ct prD5Ai l2 5(urrS	*3.33T*		*3 -/*	*380710/ 573 74*	*380740/ 537 / 9*	*7*
p-) erpcenyl	*97*		*17 - 7/ 3*	*380710/ 573 74*	*380740/ 537 / 9*	*7*

Lab Sample ID: LCS 720-185039/2-A
Matrix: Water
Analysis Batch: 185028

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 185039

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Ran4e (r4anics]C10-C23f			2500	1850		L4/z		5N	82 - 119		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-) erpcenyl	*T7*		*17 - 7/ 3*

Lab Sample ID: LCSD 720-185039/3-A
Matrix: Water
Analysis Batch: 185028

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 185039

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Ran4e (r4anics]C10-C23f			2500	1230		L4/z		51	82 - 119	5	85

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-) erpcenyl	*93*		*17 - 7/ 3*

GC/MS VOA

Analysis Batch: 185133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65972-1	MW-12	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-185133/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-185133/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-185133/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-185133/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-185133/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC/MS Semi VOA

Prep Batch: 185235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65972-1	MW-12	Total/NA	Water	3510C	
LCS 720-185235/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-185235/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 185396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65972-1	MW-12	Total/NA	Water	8270C SIM	185235
LCS 720-185235/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	185235
LCSD 720-185235/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	185235

GC Semi VOA

Analysis Batch: 185028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65972-1	MW-12	Silica Gel Cleanup	Water	8015B	185039
LCS 720-185039/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	185039
LCSD 720-185039/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	185039
MB 720-185039/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	185039

Prep Batch: 185039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-65972-1	MW-12	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-185039/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-185039/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-185039/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Client Sample ID: MW-12
Date Collected: 07/10/15 14:09
Date Received: 07/10/15 16:56

Lab Sample ID: 720-65972-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	185133	07/14/15 21:05	LPL	TAL PLS
Total/NA	Prep	3510C			185235	07/15/15 21:04	DFR	TAL PLS
Total/NA	Analysis	8270C SIM		1	185396	07/18/15 03:59	MQL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			185039	07/13/15 10:22	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	185028	07/13/15 20:22	JXL	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS
8270C SIM	PAHs by GCMS (SIM)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: BP #11126, Emeryville

TestAmerica Job ID: 720-65972-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-65972-1	MW-12	Water	07/10/15 14:09	07/10/15 16:56

ARCADIS US - San Francisco, CA

100 Montgomery Street
Suite 300
San Francisco, CA 94104

720-65972

Billing Information:
Attn: Accounts Payable
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Report to: Lorraine Fuller

Email To: Lorraine.Fuller@arcadis-us.com

Project Description:

City/State Collected:

Phone:
Fax:

Client Project #

Lab Project #

Collected by (print): Lorraine Fuller

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ____ Y ____

Rush? (Lab MUST Be Notified)
____ Same Day 200%
____ Next Day 100%
____ Two Day 50%
____ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-12		Water		7/10/15	14:09	

Analysis / Container / Preservative

DRO (C10-C36) 8015 w/ SilicaGel, pp
GRO (C6-C12) 8260B, MNAPHTHALENE 8260B
MTBE, TAME, BTEX, TBA 8260B
PAHs 8270

X X X X

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
162316

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: ARCADISBP

Template

Prelogin:

TSR: 358 - Jarred Willis

PB:

Shipped Via:

Rem./Contaminant | Sample # (lab only)

720-65972 Chain of Custody

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

4 Amber (1L) Jars, 4 VOAs w/ HCS

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	7/10/15	15:32	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	7-10-15	1656	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ _____

Temp: 1.8 °C Bottles Received:

COC Seal Intact: Y ___ N ___ NA

Date: 7/10/15 Time: 1650

Condition: (lab use only)

pH Checked: NCF:

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 720-65972-1

Login Number: 65972
List Number: 1
Creator: Bullock, Tracy

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_REPORT FILE

SUCCESS

Your GEO_REPORT file has been successfully submitted!

Submittal Type:	**GEO_REPORT**
Report Title:	**Groundwater Monitoring Well Installation Report 082415**
Report Type:	**Well Installation Report**
Report Date:	**8/24/2015**
Facility Global ID:	**T0600100208**
Facility Name:	**BP #11126**
File Name:	**CA-11126 150824 BP - Monitoring_Well_Installation.pdf**
Organization Name:	**ARCADIS**
Username:	**ARCADISBP**
IP Address:	**72.37.248.47**
Submittal Date/Time:	**8/24/2015 4:43:19 PM**
Confirmation Number:	**9870756685**