FINAL

2018 Groundwater Sampling Results Technical Memorandum

Richmond Field Station Site
Berkeley Global Campus at Richmond Bay
University of California, Berkeley

Prepared for

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March 29, 2019

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ACRONYMS AND ABBREVIATIONS

µg/L	Micrograms per liter
BAPB	Biologically active permeable barrier
bgs	Below ground surface
DCA	Dichloroethane
DCE	Dichloroethene
Down	Down gradient
DQO	Data quality objective
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EPA	U.S. Environmental Protection Agency
FSP	Field sampling plan
FSW	Field sampling workplan
ft/ft	Feet per foot
IDW	Investigation-derived waste
J	Estimated value
MCL	Maximum contaminant level
MDL	Method detection level
NM	Not measured
ORP	Oxidation-reduction potential
PCE	Tetrachloroethene
QA	Quality assurance
QC	Quality control
QL	Quantitation limit
R	Rejected data
RFS	Richmond Field Station
TCE	Trichloroethene
TDS	Total dissolved solids
U	Not detected
UC	University of California
UJ	Not detected at an estimated value
Up	Up gradient
VOC	Volatile organic compound

1.0 INTRODUCTION

This technical memorandum was prepared on behalf of The Regents of the University of California (UC) in accordance with California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), Site Investigation and Remediation Order, Docket No. IS/E-RAO 06/07-004, dated September 15, 2006. The order provides for investigation and cleanup of 96 acres of upland habitat and 13 acres of tidal marsh and transition habitat within the Richmond Field Station (RFS) site.

This technical memorandum presents the results of annual groundwater monitoring and maintenance conducted during the October 2017 to April 2018 time period as proposed in the "Final Phase I November 2010 through April 2012 Groundwater Sampling Results Technical Memorandum", dated December 12, 2012 (Tetra Tech 2012). The groundwater monitoring was conducted as a part of the selected remedy for groundwater within the RFS site as presented in the "Final Removal Action Workplan, Proposed Richmond Bay Campus, Research, Education, and Support Area and Groundwater within the Richmond Field Station", dated July 18, 2014 (Tetra Tech 2014a).

The field work consisted of dry and wet season water level measurements, and wet season groundwater sampling. The sampling event was conducted in accordance with the "Final Phase I Groundwater Sampling, Field Sampling Workplan" (FSW) dated June 2, 2010 (Tetra Tech 2010), and with the proposed sampling approach (Tetra Tech 2016a). A revised sampling plan was submitted to DTSC in March of 2017 (Tetra Tech 2017b) but not accepted; consequently, the previous approach from 2016 was used. The objective of the FSW was to address data gaps identified in the "Final Current Conditions Report," (Tetra Tech 2008) and to identify immediate or potential risks to public health and the environment. The objective of continued groundwater monitoring is to fulfill in part the selection of remedy for groundwater by (1) monitoring the water level and direction of groundwater flow bi-annually, and (2) monitoring concentrations of chemicals in groundwater at piezometers where sample results exceeded one-half of screening criteria during any of the first four Phase I monitoring events conducted between 2010 and 2012.

This technical memorandum presents a summary of field activities, site hydrology, data quality assessment, and data evaluation associated with the October 2017 water level measurement and April 2018 groundwater sampling event. The report presents a general comparison of the April 2018 results to the previous nine rounds of groundwater sampling. This final memorandum replaces the draft memorandum dated July 27, 2018 to address DTSC comments. DTSC letters and the Response to Comments memorandum are included as Attachment 1.

The report appendices and attachments provide field documentation forms as well as complete analytical results.

1.1 PHYSICAL SETTING

The RFS site is located at 1301 South 46th Street, Richmond, California, along the southeastern shoreline of the City of Richmond on the San Francisco Bay and northwest of Point Isabel (see Figure 1). It consists of upland areas developed for academic teaching and research, an upland remnant coastal terrace prairie, a tidal salt marsh, and a transition zone between the upland areas and the marsh. Between the late 1800s and 1948, several companies, including the California Cap Company, manufactured explosives at the RFS site. In 1950, the UC Regents purchased the

property from the California Cap Company. UC Berkeley initially used the site for research for the College of Engineering; later, it was also used by other campus departments.

Three habitat type areas have been identified at the RFS site: (1) the Upland Area, (2) the Transition Area, and (3) the Western Stege Marsh (see Figure 2). The Upland Area consists of 96 acres of land bounded by Meade Street to the north, South 46th Street to the east, the Transition Area to the south, and Meeker Slough and Regatta Boulevard to the west. The Transition Area occupies approximately 5.5 acres and is bounded to the north by the Upland Area at the location of a buried, former seawall that is believed to have been the edge of the historical mudflats, and to the south by Western Stege Marsh at the 5-foot elevation upper extent of the marsh (National Geodetic Vertical Datum 29). The Transition Area is believed to consist entirely of artificial fill placed on historical mudflats. Western Stege Marsh occupies approximately 7.5 acres and is bounded by the Transition Area to the north, the RFS connector trail to the East Bay Regional Park District Trail and Eastern Stege Marsh to the east, the Bay Trail to the south, and Meeker Slough and Marina Bay housing development to the west (see Figure 2).

1.2 INVESTIGATION PURPOSE

The Current Conditions Report (Tetra Tech 2008) for the RFS site identified the possible presence of contaminants in groundwater as a data gap. Potential sources include contamination from off-site sources as well as previous site activities that may have leached contaminants from soil or underground utilities to groundwater.

The Phase I FSW field effort addressed this data gap by installing 51 piezometers throughout the site: 47 in the shallow groundwater zone and 4 in a deeper zone (see Figure 3). Data collected included groundwater samples, geology, and depth to water, which were used to develop a hydrogeologic conceptual model of the site and improve the understanding of overall site-wide groundwater quality. The groundwater investigation also includes: (1) three piezometers (PZ-8, PZ-9, and PZ-11) previously installed by consultants on behalf of the Campus Bay respondents to the DTSC Order; and (2) four shallow-zone piezometers (ETA01, ETA02, ETA03, and WSM01) installed in the Biologically Active Permeable Barrier (BAPB) Area in January 2015 as part of the Phase IV Field Sampling Plan (FSP) investigation of groundwater in the vicinity of the BAPB (Tetra Tech 2016b). There are 54 total shallow-zone piezometers and 4 deeper zone piezometers.

Continued groundwater monitoring evaluates seasonal groundwater elevations and fluctuations in chemical concentrations. The 2018 annual groundwater sampling consisted of the following activities:

- Collecting October 2017 depth-to-water measurements at the 54 shallow-zone piezometers and 4 deep piezometers. (Table 2).
- Collecting April 2018 depth-to-water measurements at 52 shallow-zone piezometers and 3 deep piezometers. (Table 2). Shallow-zone piezometers B128 and WTA and deep piezometer 128D were not accessible during the daily measurement.

- Sampling 34 shallow-zone piezometers in April 2018 for chemical analysis based on results of past rounds of groundwater investigations. Table 1 presents the sample registry identifying the piezometers sampled.

2.0 FIELD ACTIVITIES

In October 2017, depth-to-water measurements were collected at 50 shallow zone piezometers, four deep piezometers, and four BAPB area piezometers to calculate the potentiometric surface. The April 2018 sampling strategy consisted of measuring depth to water on April 2, 2018, consistent with the October 2014 approach. Groundwater sampling was conducted at 34 piezometers in April 2018. Monitoring consisted of chemical analysis at piezometers with previous sample results exceeding one-half of the lesser of the California or federal maximum contaminant levels (MCL) during any of the five most recent monitoring events (between April 2013 to April 2017). Piezometer Bulb2 was also sampled despite having results lower than this threshold, since the piezometer is located within known fill in the Western Transition Area, which is scoped for future investigation as part of the Phase V FSP (Tetra Tech 2016a). Section 7.0 provides recommendations for the 2018 sampling strategy based on the April 2017 sampling results.

Groundwater samples were analyzed for dissolved metals (field-filtered) or volatile organic compounds (VOC), as indicated in Table 1. In addition, the following water quality parameters were measured at each of the 34 sampled locations during the April 2018 sampling event: pH, temperature, specific conductance, turbidity, dissolved oxygen, total dissolved solids (TDS), salinity, and oxidation-reduction potential (ORP). Groundwater sampling locations, depths, and the analytical suite are presented in Table 1. Water level measurement sampling forms are included as Appendix D.

2.1 WATER LEVEL MEASUREMENTS

Depth to water for all piezometers was recorded on October 2 and 3, 2017 and April 2, 2018, coinciding with similar field events occurring on the adjacent Campus Bay property. The depth to water was measured from the top of the polyvinyl chloride casing to 0.01-foot accuracy using an electronic water level indicator; the data are presented in Table 2.

The well caps were removed a minimum of 15 minutes before the depth to water was recorded to allow the water level to adjust to ambient conditions. These groundwater measurements were mapped to assess seasonal variation in groundwater elevations and contours. The measurements were recorded on groundwater water level logs and are reported in Figures 4 through 19.

2.2 GROUNDWATER SAMPLING

Groundwater samples were collected from April 3 through April 5, 2018. The groundwater from each piezometer sampled was collected through sterile polyethylene and silicon tubing using a low-flow, peristaltic pump. The discharge from the pump ran through a flow cell that measured pH, temperature, specific conductance, turbidity, dissolved oxygen, TDS, salinity, and ORP. Groundwater samples were collected from each piezometer after the parameters stabilized to within the acceptable ranges, as shown on the groundwater sample collection sheets included in Appendix A and summarized in Table 3. The flow-through cell was disconnected from the sampling system prior to sample collection. Groundwater results are discussed in Section 6.0.

Ample sample volume was collected from the shallow piezometers to submit samples for laboratory analysis of VOCs or dissolved metals, as indicated in Table 1. Samples were immediately placed in coolers containing ice. The samples were stored at RFS in Building 185, which is locked at all times to maintain chain-of-custody, and fresh ice was added to each sample

cooler every morning to maintain preservation requirements. At the end of every other field day, the samples were delivered to Enthalpy Analytical laboratory (formerly Curtis and Tompkins) in Berkeley, California, using chain-of-custody procedures.

2.3 PIEZOMETER INVENTORY

The physical condition of each piezometer was reviewed for integrity following the April sampling event. Inspection activities included a review of the piezometer Christy box or cover, well screws, locks, and well caps. The overall integrity of each well was deemed acceptable, however, minor repairs were conducted to help ensure future integrity. New well caps were installed at ETA01 and B280A. New locks were installed at B120, B197R, B277, B280A, B480, Bulb2, EERC, ETA, ETA01, ETA02, GEO, NRLF, and RWF.

2.4 WASTE CHARACTERIZATION AND DISPOSAL

All investigation-derived waste (IDW) generated during the field effort was drummed, labeled, and moved to a fenced storage location west of Building 110. The IDW from this sampling investigation consisted of two drums containing water purged from piezometers during the sampling processes.

The IDW was characterized based on results from the April 2018 groundwater samples and determined to be nonhazardous. The drums are stored pending removal and the final report will include the drum disposal status.

3.0 GEOLOGY

Four major geologic units are defined for the RFS site as presented in the Site Characterization Report (Tetra Tech 2013a):

- Artificial Fill
- Quaternary Alluvium
- Bay Sediments
- Yerba Buena Mud (Older Bay Mud)

The borings for the FSW investigation were drilled within the upper 40 feet below ground surface (bgs); therefore, only the artificial fill, alluvium, and, to a lesser extent, bay sediments were encountered during piezometer installation in 2010. During the installation, artificial fill was difficult to differentiate from the underlying alluvium because it was of a similar lithology and texture. The lithology of the fill and alluvium can be grouped into four basic soil types: silt/clay, clayey gravel, clayey/silty sand, and sand. In most cases, the gravels contained clay and sand and the clays layers were found to have an estimated 5 to 40 percent sand or gravel. The relationship between the lithologies of the alluvium is typical of a coastal alluvial plain: thin interbedded layers of clays, silts, sands, and gravels that are laterally discontinuous. The fine-grained sediments (clays and silts) may have been deposited as over-bank, flood-plain deposits and the coarse-grained sediments may be from former stream or river beds meandering across a flood plain. The meandering of former surface water channels likely causes the lateral variation in the lithologies observed in the borings.

Two geologic cross sections were developed to aid in the description of the site stratigraphy; the transects of the cross-sections are shown on Figure 3. The cross sections were developed for the technical memorandum presenting the October 2010 groundwater results (Tetra Tech 2011), and have been updated to include measured groundwater levels from all rounds of sampling. Cross section A-A' is along an east-west transect and is shown on Figure 20. Cross section B-B' is along a north-south transect and is shown on Figure 21. Generally, the horizontal extent of individual layers of clay, sand, and gravel is limited in the upper 20 feet bgs, as would be expected in a coastal alluvial depositional environment. Between 20 and 44 feet bgs, less variation in lateral extent was observed, although this could be an artificial result of fewer borings to define the deeper horizons.

4.0 HYDROGEOLOGY

The geologic materials at the site consist of clays, silts, sands, and gravels. Generally, the coarser-grained materials are expected to transmit or yield more groundwater; however, most of the gravels and sands contained a silt/clay fraction that may inhibit groundwater flow or yield. A few exceptions were encountered where cleaner, well-graded and poorly graded sand lenses occurred. These sand lenses occurred only over short lateral distances in the upper 20 feet bgs. Based on the limited number of deeper borings, a more continuous thin layer of sand may be present between depths of 35 and 40 feet bgs.

In total, UC Berkeley installed 55 piezometers throughout the RFS site as part of the FSW investigations:

- 51 shallow piezometers with 10-foot screen intervals to a maximum total depth of 20 feet bgs
- Three deep piezometers with 10-foot screen intervals to a maximum depth of 40 feet bgs
- One deep piezometer with a 5-foot screen interval, to a maximum depth of 40 feet bgs

In addition, three piezometers (PZ-8, PZ-9, and PZ-11) were installed by consultants for the adjacent Campus Bay property. Piezometers B197 and DH were abandoned due to root blockage and were replaced with B197R and DHR in 2013 (Tetra Tech 2013b).

Site-wide groundwater contours and flow directions were estimated using the Natural Neighbor interpolation function within the geographic information systems program based on water level measurements from the shallow piezometers at the site and available water level measurements from wells at the adjacent Campus Bay property. Groundwater flow directions are inferred in areas where there are no piezometers or wells with available measurements. Figures 4 through 19 present the shallow groundwater elevations measured between November 2010 and April 2018 and the corresponding elevation contours for the shallow piezometers. The November 2010, October 2011, October 2012, October 2013, October 2014, October 2015, October 2016, and October 2017 groundwater elevations are likely representative of the dry season because no major rainfall had occurred in the 6 months prior to either event. The April 2011, April 2012, April 2013, March 2014, April 2015, April 2016, April 2017, and April 2018 measurements were collected toward the end of the annual wet season; the 2011 to 2015 wet seasons were drier than usual as Northern California experienced low rainfall and extreme drought conditions (from 2011 to 2015) and the 2015-16 rainy season occurred during a strong El Nino event, but rainfall in most of California was just slightly above the normal seasonal average. According to the Department of Water Resources [DWR] Richmond City Hall rain gauge, the total rainfall in Richmond for the 2017-2018 rainy season was 25.85 inches, above the seasonal norm of 23.14 inches (from Western Regional Climate Center).

Groundwater generally flows onto the site from the northeast and across the site to the southwest. Minor seasonal variation in groundwater flow direction and gradients are observed as expected from wet to dry seasons. Groundwater elevations will continue to be measured semiannually to gather a comprehensive dataset and continue the assessment of seasonal variation in groundwater flow.

The horizontal groundwater gradient is estimated from the groundwater elevation contours. Horizontal gradient is expressed as a ratio of change in vertical groundwater elevation to change in corresponding horizontal distance; a steep gradient value is larger than a flat gradient value. The horizontal groundwater gradient varies across the site with representative values ranging from 0.002 feet per foot (ft/ft) to 0.004 ft/ft from October 2017 to April 2018. Representative gradients calculated for the October 2012 through April 2017 events are shown in several locations on Figures 8 through 19.

Fall measurements are intended to represent the dry season; the October 2017 gradients are consistent with previous measurements conducted in the fall. Dry season groundwater contours are shown on Figures 4, 6, 8, 10, 12, 14, 16, and 18. Spring measurements are intended to represent the wet season. Northern and southern gradients measured in April 2018 are generally lower than those measured from recent wet seasons. Wet season contours are shown on Figures 5, 7, 9, 11, 13, 15, 17, and 19. Comparing the dry and wet seasons, the dry season gradients tend to be shallower in the central and southern portions of the site and slightly steeper in the northeast portion of the site.

The variation in gradients within the site and seasonally is likely influenced by changes in seasonal and local areas of recharge caused by varying surface cover and features, and the variation in hydraulic conductivity of the soil. For example, low hydraulic conductivity in clays result in slower response to increases in groundwater recharge than sands which have higher conductivity. While the site is underlain predominantly by clayey soil with low conductivity, there are localized areas with higher silt and sand content throughout.

A localized variation in the groundwater gradient had been identified near location B150, where the groundwater elevations were higher than in nearby piezometers from 2010 through spring 2016. The mound appears less prevalent during the dry season as compared to the wet season, as observed in October 2017 and April 2018 measurements. Water levels in the area suggest there may be an artificial source of water from nearby irrigation, landscape maintenance, or other leaky pipes. The groundwater mounding may also be the result of an upward vertical gradient caused by the differences within localized geologic units. For example, coarse-grained sediments from a former stream channel could result in a vertical hydraulic gradient observed as a groundwater mound.

Vertical groundwater gradients were also estimated from the water level measurements at the shallow/deep well pairs:

Vertical Groundwater Gradients				
Year, Season	**Well Pairs** (Gradient Measurement, Direction)			
	B480/B480Deep	**B128/B128Deep**	**B38/B38Deep**	**CTP/CTPDeep**
2010, Dry	0.25, Up	0.03, Down	0.02, Up	0.04, Down
2011, Wet	0.13, Up	0.05, Up	0.04, Down	0.07, Down
2011, Dry	0.23, Up	0.02, Down	0.02, Up	0.01, Down
2012, Wet	0.19, Up	0.09, Down	0.06, Down	0.01, Up
2012, Dry	0.22, Up	0.01, Up	0.02, Up	0.01, Up
2013, Wet	0.19, Up	0.08, Up	0.00, None	0.01, Up
2013, Dry	0.22, Up	0.082, Up	0.01, Up	0.08, Up
2014, Wet	0.20, Up	0.01, Up	0.00, None	0.01, Up
2014, Dry	0.22, Up	NM	0.03, Up	0.001, Down
2015, Wet	0.19, Up	NM	0.01, Up	0.01, Up
2015, Dry	0.22, Up	0.01, Up	0.004, Down	0.001, Down
2016, Wet	0.14, Up	0.04, Down	0.16, Up	0.02, Up
2016, Dry	0.22, Up	0.01, Up	0.03, Up	0.004, Up
2017, Wet	0.13, Up	0.06, Down	0.21, Down	0.06, Down
2017, Dry	0.22, Up	0.01, Up	0.13, Up	0.02, Down
2018, Wet	0.20, Up	NM	0.09, Down	0.01, Up

Notes:
NM Not measured, piezometer not accessible during daily measurement
Down Downward gradient
Up Upward gradient

Groundwater gradients based on maximum range of estimates calculated from U.S. EPA On-Line Tool:
https://www3.epa.gov/ceampubl/learn2model/part-two/onsite/vgradient.html

Temporal changes in the vertical gradients are likely the result of seasonal variations in surface water infiltration and recharge. Spatial variation in the vertical gradients is likely due to the spatial variability in the aquifer properties from more permeable sands to less permeable clays.

Gradient estimates support that higher gradients are present when groundwater is elevated (April event) following the wet season, as compared to the dry season event in October.

5.0 DATA QUALITY ASSESSMENT

This section presents the data quality assessment for the 2018 groundwater sampling event. A summary of data quality objectives (DQO), review of analytical data and findings, and any deviations from the work plans or previous sampling events is presented below.

The data collected as part of the April 2018 sampling event meets all the requirements of the precision, accuracy, representativeness, completeness, and comparability described in U.S. Environmental Protection Agency (EPA) guidance for quality assurance project plans (EPA 2002) and the Quality Assurance Project Plan (Tetra Tech 2010), and are usable for meeting the project DQOs and future risk assessments. The overall assessment of the sampling program, quality assurance (QA)/quality control (QC) data, and data review indicates the data from this investigation are of acceptable precision, accuracy, representativeness, completeness, and comparability.

5.1 DATA QUALITY OBJECTIVES

DQOs were developed during the FSW planning process to help ensure data appropriate to support defensible decisions is collected. The DQOs stated the need for additional groundwater data collection to develop a hydrogeologic model of the site and to improve overall understanding of groundwater quality. This objective was achieved through the strategic placement of the 51 groundwater monitoring piezometers during the Phase I FSP investigation that spanned the entire site and targeted specific locations defined as data gaps in the Current Conditions Report (Tetra Tech 2008). Of the 51 piezometers installed in 2010, 34 were sampled in April 2018, along with four duplicate samples, three trip blanks, three equipment rinsate blanks, and one source water blank.

The data collected during all rounds of groundwater sampling are adequate to create hydraulic gradient maps to gain a better understanding of the general hydrology at the site. Additionally, the chemical data collected have improved site knowledge relative to previously identified data gaps and has provided data for previously uncharacterized areas.

All locations sampled in April 2018 were conducted according to the methods described in the sampling plan and quality assurance project plan in the FSW (Tetra Tech 2010). The analytical data achieved appropriate method detection levels (MDL) to be compared with relevant state and federal groundwater criteria and are presented in Section 6.0, along with a general comparison to the previous six rounds of data in Section 7.0.

5.2 LABORATORY DATA REVIEW

Assignment of data qualification flags for analytical data from Enthalpy Analytical, Inc. (formerly Curtis and Tompkins) conformed to EPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA 2017a) and Inorganic Superfund Methods Data Review (EPA 2017b). Data review specifications require that various data qualifiers be assigned when a deficiency is detected or when a result is less than its detection limit. If no qualifier is assigned to a result that has been reviewed, the data user is assured that no technical deficiencies were identified during validation. The qualification flags used are defined as follows:

- U – Indicates that the chemical was not detected at the numerical detection limit (sample-specific detection limit) noted. Non-detected results from the laboratory are reported in this manner.
- UJ – Indicates that the chemical was not detected; however, the detection limit (sample-specific detection limit) is considered estimated based on problems encountered during laboratory analysis. The associated numerical detection limit is regarded as inaccurate or imprecise. This qualifier is also added to a positive result (reported by the laboratory) if the detected concentration is determined to be attributable to contamination introduced during field sampling or laboratory analysis.
- J – Indicates that the chemical was detected; however, the associated numerical result is not a precise representation of the concentration present in the sample. The laboratory-reported concentration is considered an estimate of the true concentration.
- J+ – Indicates that the chemical was detected; however, the associated numerical result is not a precise representation of the concentration present in the sample. The laboratory-reported concentration is considered an estimate of the true concentration and may be biased high (the reported concentration may be higher than the true concentration).
- J- – Indicates that the chemical was detected; however, the associated numerical result is not a precise representation of the concentration present in the sample. The laboratory-reported concentration is considered an estimate of the true concentration and may be biased low (the reported concentration may be lower than the true concentration).
- R – Indicates that the chemical may or may not be present, and that the data was rejected. The non-detected analytical result reported by the laboratory is considered unreliable and unusable. This qualifier is applied in cases of gross technical deficiencies (for example, a holding time missed by a factor of two times the specified time limit, severe calibration non-compliance, or extremely low analyte recovery in QC spike samples).

The preceding data qualifiers may be categorized as indicating major or minor problems. Major problems are defined as issues that result in the rejection of data and qualification with R. These data are considered invalid and are not used for decision-making unless they are used in a qualitative way and the use is justified and documented. Minor problems are defined as issues resulting in the estimation of data and qualification with U, J, J+, J-, and UJ qualifiers. Estimated analytical results are considered suitable for decision-making unless the data use requirements are stringent and the qualifier indicates a deficiency that is incompatible with the intended data use. A U qualifier does not indicate that a data deficiency exists because all non-detect values are flagged with the U qualifier regardless of whether a quality deficiency has been detected.

5.3 DATA QUALITY REVIEW FINDINGS

Samples collected during the April 2018 groundwater sampling were received by the laboratory in two sample delivery groups (SDG); SDG 298607 and SDG 298682. The inorganic data quality for each SDG is discussed in Sections 5.3.1 and 5.3.2 below.

5.3.1 Sample Delivery Group 298607

Samples in SDG 298607 were collected on April 3, 2018.

Volatile Organic Compounds
The data quality objectives were met for the VOC analyses with the following notations:

- **No analysis was specified on the COC form for sample 20180403PZ9**. The laboratory analyzed it for VOCs.
- **Two VOA vials labeled "TB," were not listed on the COC form**. The laboratory assumed it was a trip blank and analyzed it for VOCs.
- **One of three VOA vials for sample 20180403B178 contained air bubbles**. The laboratory did not use the vial with air bubbles. Two of two VOA vials for sample TB contained air bubbles upon arrival at the laboratory. All VOC results for sample TB were qualified as estimated J-/UJ.
- **Method Blank - Batch 258192**. The method blank (MB) contained chloroform, 1,2,4-trichlorobenzene (1,2,4-TCB), naphthalene, and 1,2,3-trichlorobenzene (1,2,3-TCB) below RLs. Associated detected results below the RL were raised to the RL and flagged U. Associated detected results above the RL but less than 10 times the amount in the MB were flagged J+.
- **Method Blank - Batch 258267**. The batch 258267 MB contained chloroform and 1,2-dichloroethane (1,2-DCA), below RLs. Associated detected results below the RL were raised to the RL and flagged U.
- **Method Blank - Batch 258268.** The batch 258268 MB contained chloroform, naphthalene, and 1,2,3-TCB, and 1,2,4-TCB below RLs. Only trichloroethene (TCE) was reported from this batch; therefore, no data were qualified.
- **Trip Blank**. The trip blank contained 2-butanone below the RL. No 2-butanone was found in the associated samples; therefore, no data were qualified.
- **MS/MSD (Parent Sample 20180403TPI)**. The MS and/or MSD % recoveries (%R) for Freon 12, chloroethane, trichlorofluoromethane, vinyl acetate, naphthalene, and 1,2,3-TCB, and 1,2,4-TCB exceeded the upper control limits. None were detected in the parent sample; therefore, no data were qualified. The MSD %R for bromobenzene was below the lower control limit. The non-detected result for bromobenzene in the parent sample was qualified as estimated (flagged UJ). The MS result for 1,2,3-TCB and the MSD results for naphthalene and 1,2,3-TCB exceeded the instrument calibration range. No additional qualification was required.
- **MS/MSD (sample 20180403PZ11)**. The MS and/or MSD %Rs for chloroethane, vinyl acetate, naphthalene, 1,2,3-TCB, and 1,2,4-TCB were above laboratory control limits. None of these analytes were detected in the parent sample; therefore, no qualification was required. The MS and/or MSD %Rs for isopropylbenzene, propylbenzene, bromobenzene, n-butylbenzene, and hexachlorobutadiene were below the lower control limits. The non-detected results for these analytes in the parent sample were qualified as estimated (flagged UJ). The MS and/or MSD results for vinyl chloride, cis-1,2-dichloroethene, (cis-1,2-DCE), and naphthalene exceeded the instrument calibration range. No additional qualification was required.

- **Field Duplicates (samples 20180403B163 and 20180403B163D).** The field duplicate RPD for trichloroethene (TCE) was 42%. TCE results for both samples were qualified as estimated (flagged J).
- **LCS/LCSD - Batch 258192.** The LCS and/or LCSD %Rs exceeded laboratory control limits for chloroethane, vinyl acetate, naphthalene, 1,2,3-TCB, and 1,2,4-TCB. None were detected in the associated samples; therefore, no data were qualified.
- **LCS/LCSD - Batch 258267**. The LCS and LCSD %Rs were below the lower control limit for carbon disulfide. No carbon disulfide results were reported from this batch; therefore, no data were qualified.
- **LCS/LCSD - Batch 258268.** No LCS/LCSD results were provided for this batch.

Metals
The data quality objectives were met for the metals analyses, with the following notations:

- **MB – Batch 258145**. MB contained vanadium below the RL. Associated detected results below the RL were raised to the RL and flagged U. Associated detected results above the RL but less than 10 times the amount in the MB were flagged J+.
- **Serial Dilution – Sample 20180403PZ11**. The percent difference (%D) for barium, cobalt, and copper exceeded the control limit. These results were qualified as estimated (flagged J).
- **Post Digestion Spike – Sample 20180403PZ11.** The %R for barium exceeded the upper control limit. The barium result for this sample was qualified as estimated and possibly biased high (flagged J+).

5.3.2 Sample Delivery Group 298682

Samples in sample delivery group (SDG) 298682 were collected on April 4 and 5, 2018.

Volatile Organic Compounds
The data quality objectives were met for the VOC analyses with the following notations:

- **One sample arrived at the laboratory with no identifying information on the label.** Through a process of elimination, the laboratory identified and processed this sample as 20180404BULB2.
- **Both VOA vials for sample 20180404TB had visible air bubbles upon arrival at the laboratory.** All results for this sample were qualified as estimated and possibly biased low (flagged J-/UJ).
- **Based on the COC form, the laboratory appears to have mislabeled sample 20180405CCC2 as 20180405CCC2D and sample 20180405CCC2D as 20180405CCCD.**
- **Method Blank - Batch 258309**. The batch 258309 MB contained chloroform and 1,2-DCA below RLs. Associated detected results below the RL were raised to the RL and flagged U.

- **Method Blank - Batch 258310**. The batch 258310 MB contained chloroform below the RL. Chloroform was either not detected or was detected at 10 times the amount in the MB; therefore, no data were qualified.
- **Method Blank - Batch 258331**. The batch 258331 MB contained chloroform and 1,2-DCA below RLs. Associated detected results below the RL were raised to the RL and flagged U.
- **Method Blank - Batch 258457**. The batch 258457 MB contained 1,2-DCA below the RL. Only trichlorobenzene and trichloroethene were reported from this batch; therefore, no data were qualified.
- **Field Duplicates (samples 20180404ETA03 and 20180404ETA03D).** The field duplicate RPD for trichloroethene (TCE) was 42%. TCE results for both samples were qualified as estimated (flagged J).
- **LCS/LCSD - Batch 258309.** The LCS and LCSD %Rs exceeded the laboratory control limit for chloroethane. No chloroethane was detected in the associated samples; therefore, no data were qualified.
- **LCS/LCSD - Batch 258310.** The LCS and/or LCSD %Rs for acetone, 2-butanone, and vinyl acetate exceeded laboratory control limits. None of these analytes were detected in the associated samples; therefore, not data were qualified.
- **LCS/LCSD - Batch 258331.** The LCS and/or LCSD %Rs for o-xylene and isopropylbenzene exceeded laboratory control limits. Neither were detected in the associated samples; therefore, no data were qualified.
- **LCS/LCSD - Batch 258359.** The LCS and LCSD %R for vinyl acetate exceeded the laboratory control limit. No vinyl acetate was detected in the associated samples; therefore, no data were qualified.
- **LCS/LCSD - Batch 258457.** The LCS and/or LCSD %Rs for numerous analytes exceeded laboratory control limits. None of the affected analytes were reported from this batch; therefore, no data were qualified.

Metals
The data quality objectives were met for the metals analyses, with the following notations:

- **MB – Batch 258529**. MB contained copper above the RL and zinc below the RL. No copper was found in the associated samples; therefore, no copper results were qualified. Associated detected results below the RL were raised to the RL and flagged U.
- **Serial Dilution – Sample 20180404BULB1**. The percent difference (%D) for barium exceeded the control limit. This result was qualified as estimated (flagged J).
- **Serial Dilution – Sample 20180404ETA**. The percent difference (%D) for barium exceeded the control limit. This result was qualified as estimated (flagged J).

Polychlorinated Biphenyls (PCBs)
All data quality objectives were met for the PCB analyses.

5.3.3 Summary

Although some qualifiers were added to the data, a final review of the dataset compared with EPA data quality parameters indicate the data are of high overall quality. The data meet all the requirements of the precision, accuracy, representativeness, completeness, and comparability described in EPA guidance for quality assurance project plans (EPA 2002) and the Quality Assurance Project Plan (Tetra Tech 2010), and are usable for meeting the project DQOs and future risk assessments. The overall assessment of the sampling program, QA/QC data, and data review indicates the data from this investigation are of acceptable precision, accuracy, representativeness, completeness, and comparability.

6.0 DATA EVALUATION

This section provides an overview of the compounds detected during the groundwater sampling conducted between April 3 and April 5, 2018. State and federal water quality criteria and risk-based concentrations consistent with those used for the groundwater data evaluation presented in the Final Site Characterization Report (Tetra Tech 2013a), as presented in Table 5, were identified to help evaluate the groundwater data. The comparisons are intended solely to provide a baseline comparison and are not intended to represent remedial or cleanup criteria or triggers for further sampling. Tables 6 through 8 provide summaries of the detected data. Complete analytical results are included in Appendix B, and the laboratory reports are provided in Attachment 2. Appendix C presents concentration-time graphs for piezometers where carbon tetrachloride, trichloroethene (TCE), or dissolved mercury results have exceeded an MCL in at least one sampling event from 2010 to 2018.

6.1 VOLATILE ORGANIC COMPOUNDS

Groundwater samples from 29 piezometers were submitted for analysis of VOCs by EPA Method 8260 (Table 1); four duplicate samples were also collected. While VOCs were detected at all 29 sampling locations, only 14 of the 71 target analytes analyzed by this method were detected. These results are presented in Table 7. Seven compounds exceeded an MCL: 1,2-dichloroethane (DCA), carbon tetrachloride, cis-1,2-dichloroethene (DCE), tetrachloroethene (PCE), trans-1,2-dichloroethane (trans-1,2-DCE), TCE, and vinyl chloride. This list of chemicals exceeding MCLs matches the lists from 2013 through 2017, except that trans-1,2-DCE did not exceed MCLs in 2017. Results for these compounds are discussed below.

1,2-Dichloroethane. 1,2-DCA was detected at ten locations with concentrations ranging from 0.1 to 18 micrograms per liter (µg/L). Results from five of the locations (B163, B185, ETA02, ETA03, and WSM01) were equal to or exceeded the California MCL of 0.5 µg/L, and two locations (B120, B178,) exceeded one-half of the California MCL. Three locations (B163, ETA02, and ETA03) exceeded the federal MCL of 5 µg/L, at concentrations of 8.8, 12, and 18 µg/L respectively. Figure 22 presents concentrations of 1,2-DCA detected at piezometers where results have equaled or exceeded an MCL in at least one sampling event from 2010 to 2018.

Carbon Tetrachloride. Carbon tetrachloride was detected at four locations with concentrations ranging from 0.5 to 5.5 µg/L. Two locations (B185 and CTP) had concentrations that exceeded the California MCL of 0.5 µg/L and two locations (B280A and GEO) had estimated concentrations equal to the California MCL. The result from one piezometer, CTP (5.5 µg/L), exceeded the federal MCL of 5 µg/L. Carbon tetrachloride concentrations reported between 2010 and 2018 are presented in Figure 23. Appendix C presents concentration-time graphs for piezometers where carbon tetrachloride results have equaled or exceeded an MCL in at least one sampling event from 2010 to 2018.

Cis-1,2-Dichloroethene. Cis-1,2-DCE was detected at 21 locations with concentrations ranging from 0.1 to 110 µg/L. Three locations (B120, B178, ETA02, and ETA03) exceeded the California MCL of 6 µg/L (with corresponding concentrations of 19, 15, 20, and 12 µg/L), but not the federal MCL of 70 µg/L. One location (PZ-11) exceeded both the California and federal MCLs with a reported concentration of 110 µg/L. Five locations (B163, B197R, CCCT, PZ9, and WSM01) exceeded one-half of the California MCL. From 2015 to 2016 there was a decline

in the concentration at PZ-11 (from 480 µg/L to 2.8 µg/L), however in 2017 the concentration increased from 2.8 µg/L to 34 µg/L, and in 2018 it increased further to 110 µg/L. Figure 22 presents concentrations of cis-1,2-DCE detected at piezometers where results have equaled or exceeded an MCL in at least one sampling event from 2012 to 2018.

Tetrachloroethene. PCE was detected at 19 locations with concentrations ranging from 0.1 µg/L to 24 µg/L. At piezometers B163, ETA02, ETA03, and WSM01 in the southeastern portion of the site, PCE was detected at concentrations exceeding the California and federal MCLs of 5 µg/L with respective reported levels of 7.4, 6.4, 24, and 5.8 µg/L. All other results were 1.1 µg/L or lower. Figure 22 presents concentrations of PCE detected at piezometers where results have equaled or exceeded an MCL in at least one sampling event from 2010 to 2018. Figure 22 also presents concentrations of PCE breakdown products 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride. Analytical results for TCE, also a known breakdown product of PCE, are presented on Figure 24.

Trans-1,2-Dichloroethene. Trans-1,2-DCE was detected at one location (PZ-11) with a concentration of 24 µg/L. The reported concentration at location PZ-11 exceeds the California MCL of 10 µg/L however is below the federal MCL of 100 µg/L. There was an increase in concentration between 2017 and 2018 at location PZ-11 (from 4.4 µg/L to 24 µg/L). All other results were 0.5 µg/L or lower. Figure 22 presents concentrations of trans-1,2-DCE detected at piezometers where results have equaled or exceeded an MCL in at least one sampling event from 2010 to 2018.

Trichloroethene. TCE was detected at 26 locations, 21 of which exceeded the California and federal MCLs of 5 µg/L. Reported concentrations exceeding the MCLs ranged from 7.3 µg/L to 95 µg/L. Table 7 details out the concentrations at each location. TCE concentrations that exceeded the MCLs were predominantly located along the eastern RFS site property boundary. TCE concentrations reported between 2010 and 2018 are presented in Figure 22. Appendix C presents concentration-time graphs for piezometers sampled in 2018, where TCE results have equaled or exceeded an MCL in at least one sampling event from 2012 to 2018.

Vinyl Chloride. Vinyl chloride was detected at seven locations (B163, BULB2, ETA01, ETA02, MFA, PZ9, and PZ-11) with concentrations ranging from 0.1 to 190 µg/L. The results for vinyl chloride exceeded the California MCL of 0.5 µg/L at two locations (B163, and PZ-11); of which one (PZ-11) exceeded the federal MCL of 2 µg/L with a concentration of 190 µg/L. One location (PZ9) exceeded one-half of the California MCL. There was an increase in concentration between 2017 and 2018 at location PZ-11 (from 64 µg/L to 190 µg/L). Figure 22 presents concentrations of vinyl chloride detected at piezometers where results have equaled or exceeded an MCL in at least one sampling event from 2012 to 2018.

6.2 METALS

Groundwater samples from 17 piezometers were submitted for analysis of dissolved metals by EPA Methods 6010B, 6020A (thallium only), and 7470A (Table 1); four duplicate samples were also collected. All samples were field filtered. Metals were detected in all samples submitted for analysis. A summary of all detected metals is presented in Table 8. Four metals exceeded an MCL: arsenic, cadmium, mercury, and nickel. Results for these metals are discussed below.

Arsenic. Arsenic was detected at 14 sampling locations at concentrations ranging from 1.3 to 19 µg/L. Two of the locations (BULB1 and DHR) exceeded the California and federal MCL levels of 10 µg/L respectively. DHR had the highest concentration of arsenic at 19 µg/L and BULB1 had a concentration of 17 µg/L. Three locations (ETA, NRLF, and TP1) exceeded one-half of the California MCL of 10 µg/L.

Cadmium. Cadmium was detected at four sampling locations at concentrations ranging from 1.3 to 6 µg/L. Location B163 (concentration 6 µg/L) was the only location to exceed the California and federal MCL of 5 µg/L. In 2016, PZ-11 was the only sample location that exceeded the California and federal MCL.

Mercury. Mercury was detected at eight sampling locations, with concentrations ranging from 0.047 to 7.3 µg/L. The samples collected from locations B195 and ETA01 exceeded the California and federal MCL of 2 µg/L, with concentrations of 3.3 and 7.3 µg/L respectively. Elevated concentrations of mercury at piezometer ETA01, installed in 2015, are likely a result of its location directly downgradient of the mercury fulminate area. With the exception of a concentration of 0.071 µg/L in 2016, mercury results at the neighboring piezometer ETA had been consistently non-detect from 2013 through 2017. In 2018, there was an increase at ETA to 0.047 µg/L. Appendix C presents a concentration-time graph for mercury in piezometer B195, in which dissolved mercury results exceed the MCLs.

Nickel. Nickel was detected at all 17 sampling locations at concentrations ranging from 1.3 to 170 µg/L, with the three values exceeding the California MCL of 100 µg/L at locations B163 (170 µg/L), ETA03 (120 µg/L), and PZ-11 (170 µg/L). There is no federal MCL for nickel. From 2017 to 2018, the concentration in DHR dropped notably from 670 µg/L to 32 µg/L and the concentration in PZ-11 increased from 3.7 µg/L to 170 µg/L. Piezometer PZ-11 is located near the eastern property boundary where Campus Bay has performed pilot studies of substrate injections for VOC degradation. The elevated concentrations of metals at this location may be due to the reducing conditions in the soil created by the pilot study.

7.0 DATA COMPARISON WITH PREVIOUS SAMPLING EVENTS

Previous Groundwater Sampling Results Technical Memoranda (Tetra Tech 2012, 2013b, 2014b, 2015, 2016b, 2017a, 2018) evaluated and described chemical trends observed during the first eight rounds of sampling. The data collected in April 2018 were consistent with previous rounds of data in that analytes were detected at similar concentrations in the same geographic areas. Appendix C presents concentration-time graphs for piezometers where carbon tetrachloride, trichloroethene (TCE), or dissolved mercury results have exceeded an MCL in at least one sampling event from 2010 to 2018.

- VOCs were detected at similar concentrations and in the same general areas as in previous sampling events. While some VOCs continue to be detected above MCLs, the overall trend across the RFS since sampling began in 2010 is a reduction in VOC concentrations. Most VOCs detected at concentrations that exceed the California or federal MCLs were detected within the eastern and southeastern portion of the property boundary. Carbon tetrachloride continues to be detected at concentrations exceeding the MCL at location CTP on the northwestern portion of the site; the trend is decreasing concentrations from historic levels. Vinyl chloride at PZ-11 continues to demonstrate an increasing trend in concentrations with an increase noted from 2017 to 2018.
- The concentrations of VOCs detected at RFS since the first sampling event in November 2010 demonstrate a noted overall decreasing trend, specifically for carbon tetrachloride and TCE, as shown on Figures 21 and 22. Trend graphs presented in Appendix C show notable decreasing concentrations of TCE at B120, B175S, B178, B185, and B197/197R. The trend graph for CTP demonstrates noted decreases in carbon tetrachloride concentrations.
- Metals were detected in the same general areas as in previous sampling events. In 2017, arsenic exceeded the MCL in ten locations, whereas in 2016 only one location (BULB1) exceeded the MCL and in 2018 only two locations (BULB1 and DHR) exceeded MCL. In 2017, selenium was detected at concentrations above the MCLs at two locations (B150 and NRLF) and in 2018 concentrations at all locations reported were below 20% of the California and federal MCL. Nickel decreased significantly at DHR from 670 µg/L in 2017 to 32 µg/L in 2018 however PZ-11 saw an increase from 3.7 µg/L in 2017 to 170 µg/L in 2018. Mercury continued to be detected at B195 above the MCLs but at the low end of its historic range of detection, and at ETA 01 at a concentration of the same order of magnitude as previous analyses.

7.1 ANALYSIS OF RESULTS AND SCREENING LEVELS

The 2018 sampling event included 34 piezometers. Monitoring consisted of chemical analysis at piezometers with previous sample results exceeding one-half of the lesser of the California or federal MCL during any of the five most recent monitoring events (those conducted between April 2014 and April 2018). Piezometer BULB2 was also sampled despite having results lower than this threshold, since the piezometer is within known fill in the Western Transition Area, which is scoped for future investigation as part of the Phase V FSP. Piezometers B150, B175W, and FG were not sampled as part of the 2018 monitoring program however they will be part of the 2019 monitoring program.

The 2017 and 2018 data were compared with the previous three most recent events and the California and federal water quality criteria, and Berkeley Global Campus risk-based concentrations presented in Table 5. In all chemicals, one-half of the California or federal MCL represents the most stringent screening criteria. None of the piezometers sampled in April 2018 are recommended for reevaluation for either the VOC sample analyte.

The results were also reviewed to determine if any metals not considered chemicals of potential concern at the RFS site were detected above the screening levels. No metals that are not considered chemicals of potential concern at the RFS were detected above screening levels.

7.2 RECOMMENDED ANALYSES FOR 2019

Piezometers proposed for sampling in 2019 are consistent with the piezometers and analyses conducted during the 2017 sampling event, consistent with DTSC correspondence regarding the recommendations in the Draft 2017 Groundwater Monitoring Results Technical Memorandum (DTSC 2017). The piezometers and analytes are presented on Table 9 and Figure 25 presents the locations of piezometers proposed for continued monitoring in 2019.

The 2019 event includes all piezometer and analytes conducted during 2018 in addition to the following three piezometers: B150 (metals), B174W (VOCs), and FG (metals). The number of piezometers proposed for sampling in 2019 is 37 piezometers.

The groundwater samples will be collected consistent with the protocols outlined in the FSW dated June 2, 2010, and will follow the quality control measures for both field work and data analysis as outlined in the accompanying Quality Assurance Project Plan (Tetra Tech 2010). Samples will be analyzed for dissolved metals (field-filtered) and VOCs at locations described above. The tailgate meetings for the 2019 sampling event will cover proper sampling protocols to ensure groundwater samples for volatile analyses do not include air bubbles; trip blank vials received from the laboratory containing air bubbles will be rejected.

Bi-annual groundwater level collection at all 54 shallow and 4 deep piezometers will continue consistent with previous events.

8.0 REFERENCES

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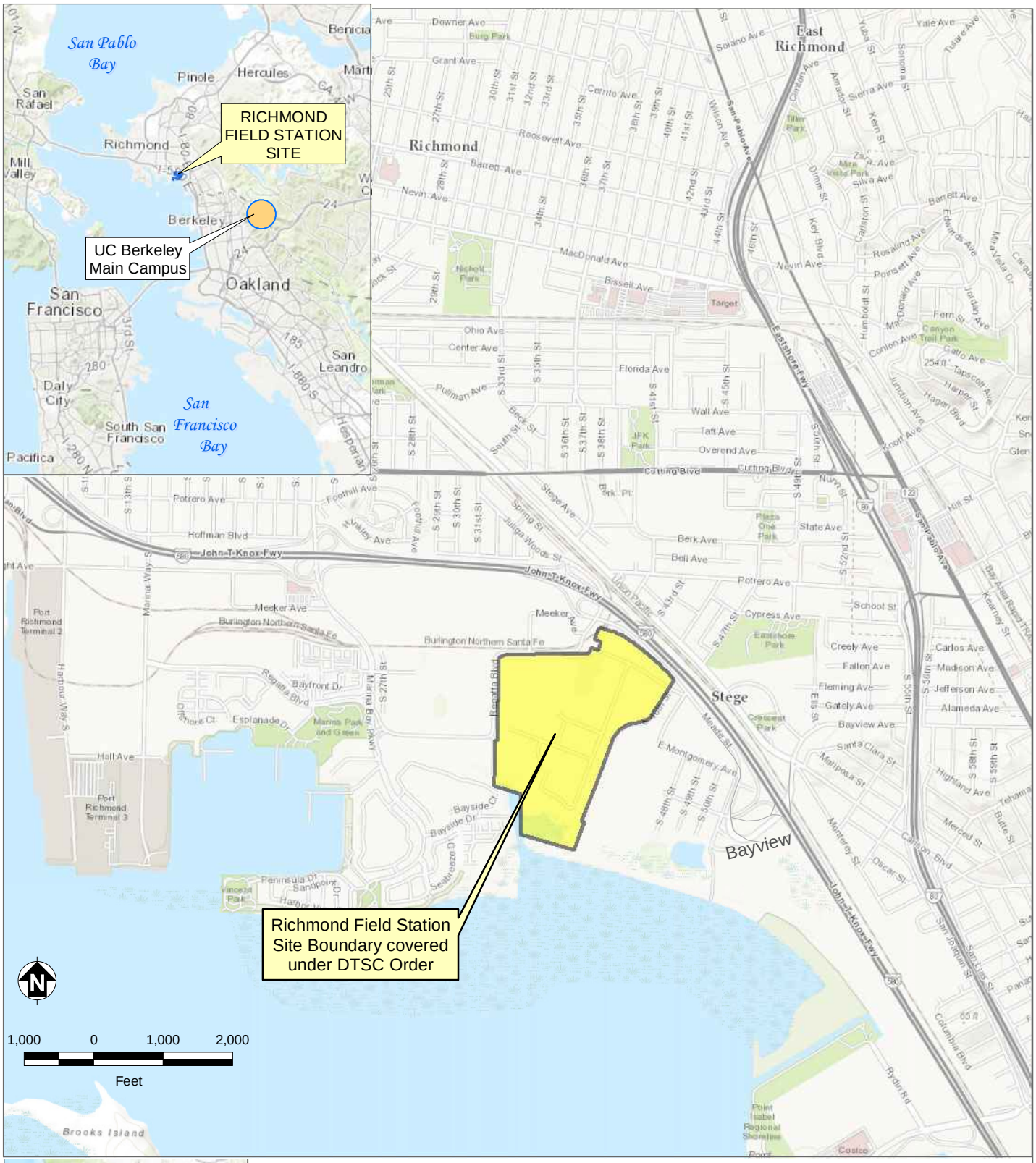
FIGURES



Notes:
DTSC Department of Toxic Substances Control.

TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 1

SITE LOCATION MAP

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\01_Site Location Map.mxd TtEMI-OAK simon.cardinale

Bay Trail
Meeker Slough
Western Stege Marsh
Transition Area (Including Bulb)
Upland

Richmond Field Station Site Boundary

Notes:
EBRPD East Bay Regional Parks District
EERC Earthquake Engineering Research Center
EPA Environmental Protection Agency
NRLF Northern Regional Library Facility
RFS Richmond Field Station

TETRA TECH

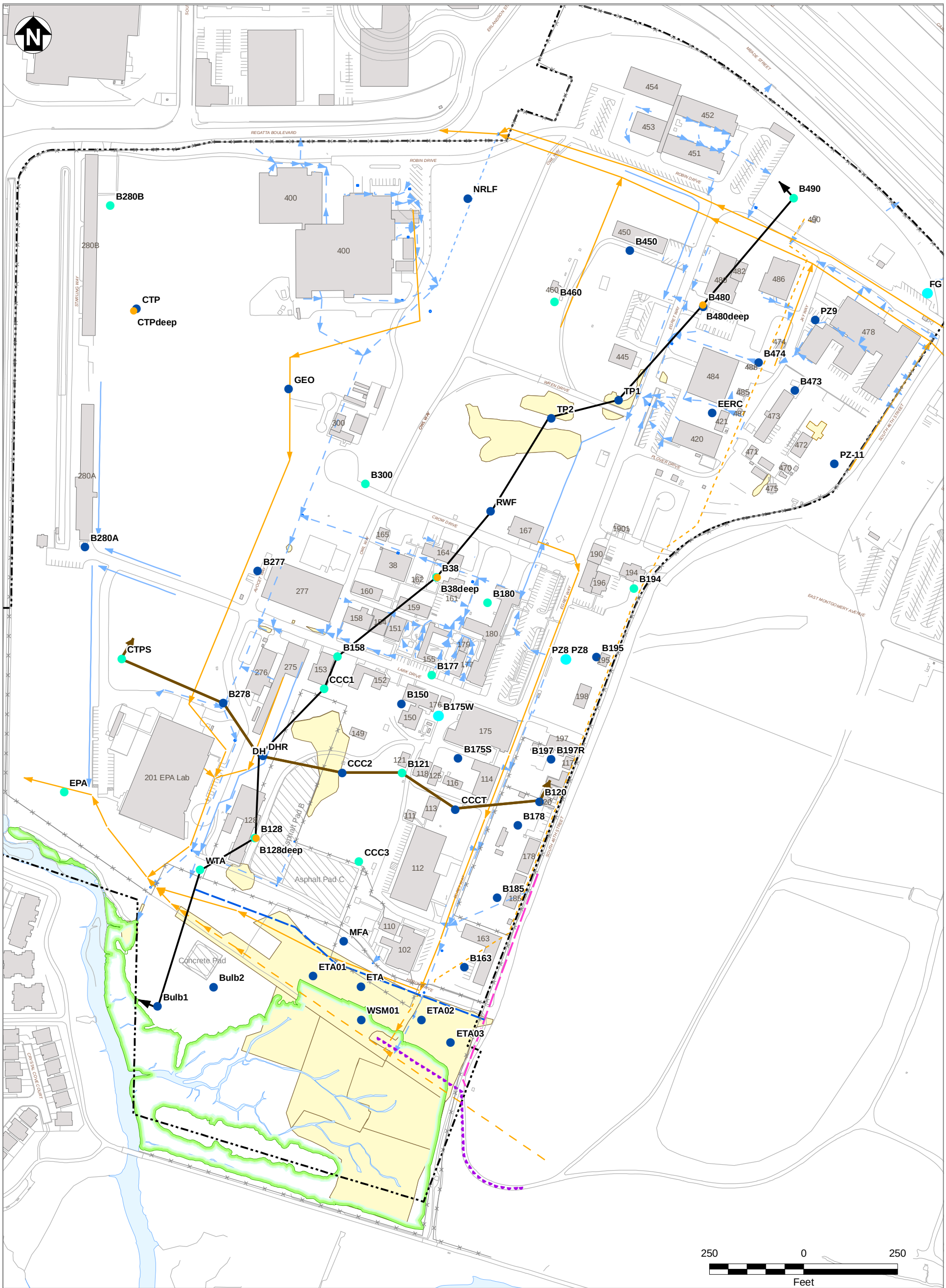
Richmond Field Station Site
University of California, Berkeley

FIGURE 2

SITE MAP

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\02_Site Map.mxd TtEMI-OAK simon.cardinale



Existing Buildings
Asphalt/Concrete Pads
Remediated Areas
Surface Water
Marsh Boundary
Richmond Field Station Site Boundary
Roads and Other Landscape Features
Fenceline
A-A' Cross-Section, see Figure 18
B-B' Cross-Section,see Figure 19

Biologically Active Permeable Barrier Wall
Former Seawall (Approximate)
Slurry Wall
Storm Drain Lines:
Open Swale
Underground Culvert
Underground Culvert, Abandoned (Grouted at Manholes)
Sanitary Sewer Lines:
Existing Sewer Line
Removed Sewer Line
Abandoned Sewer Line

Piezometer Sampled in April 2018
Piezometer Not Sampled in April 2018
Deep piezometer not sampled in April 2018

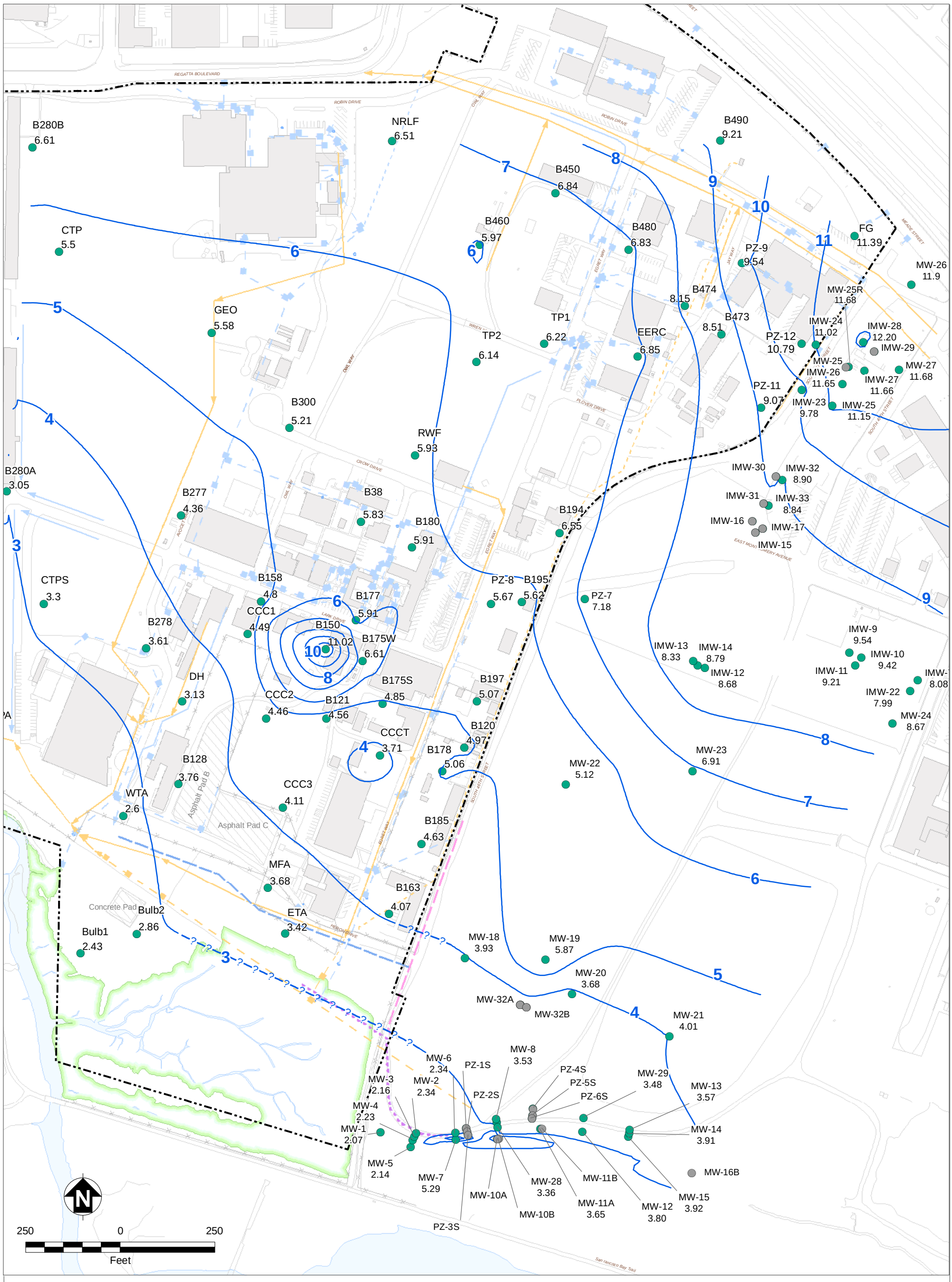
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 3
GROUNDWATER SAMPLING LOCATIONS

2018 Groundwater Sampling Results

2016-09-25 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\03_Groundwater Sampling Locations.mxd TtEMI-OAK simon.cardinale.



- Piezometer Groundwater Elevation Measured in November 2010
- Piezometer Groundwater Elevation Not Measured in November 2010
- November 2010 Groundwater Contours
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

MW-10A (Piezometer ID)
5.27 (Groundwater Elevation (FT NGVD29))

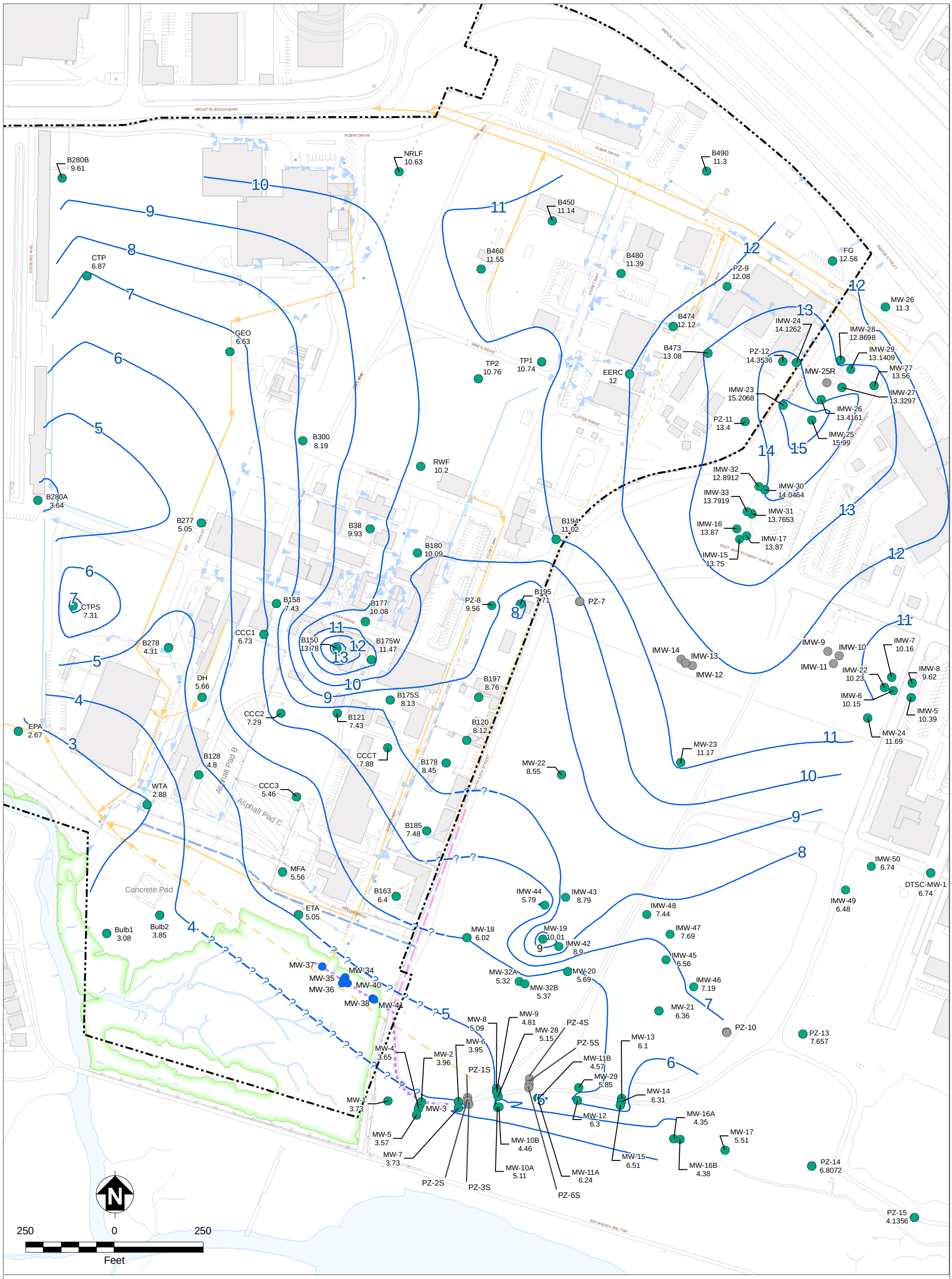
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 4
SHALLOW GROUNDWATER ELEVATION CONTOURS, NOVEMBER 1, 2010

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\04_Shallow GW Elevation Contours 2010 Nov 1.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in April 2011
- Piezometer Groundwater Elevation Not Measured in April 2011
- BAPB Piezometers on RFS Property Not Measured in April 2011
- April 2011 Groundwater Contours
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- Biologically Active Permeable Barrier Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

MW-10A — Piezometer ID
5.27 — Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

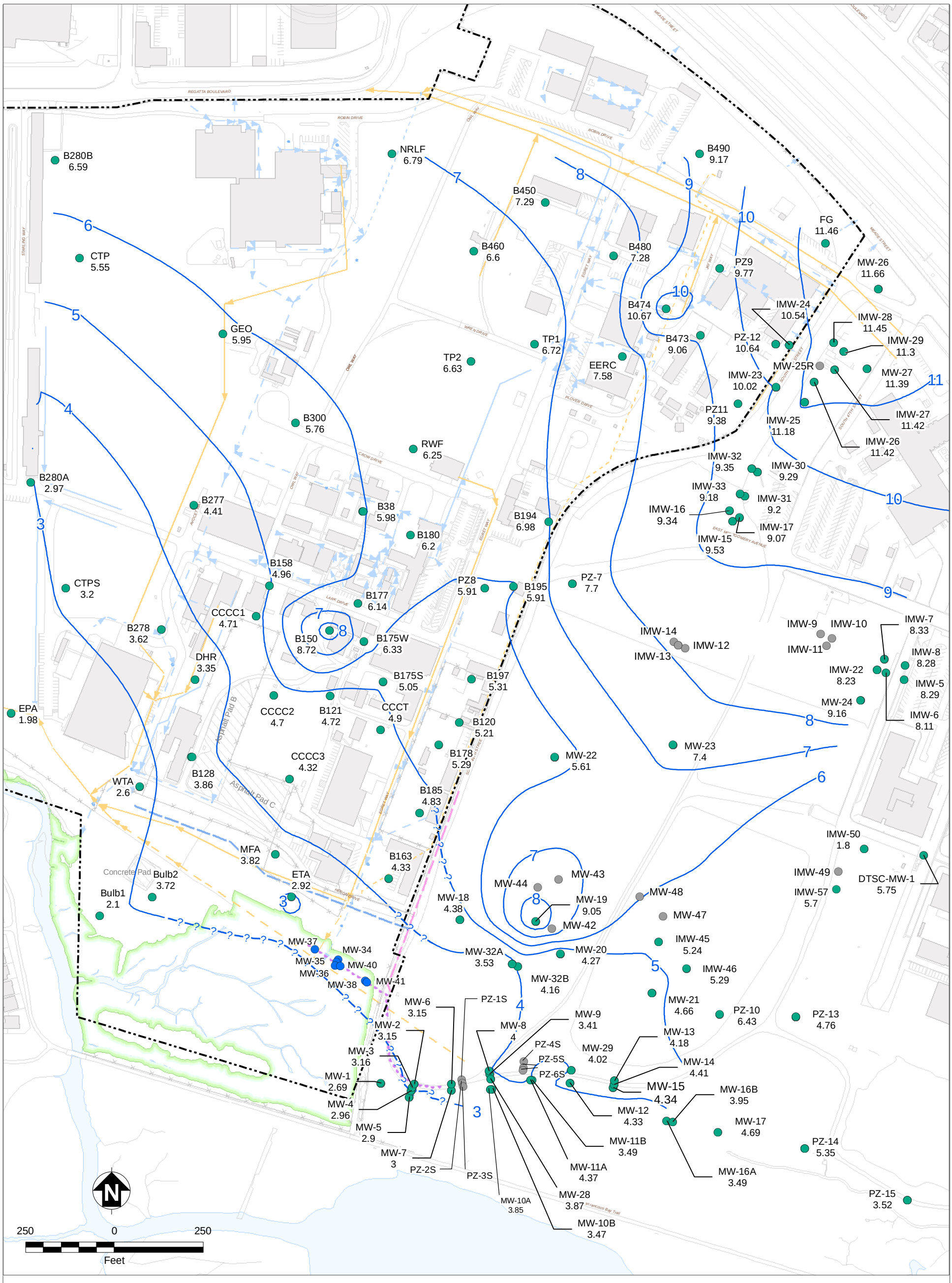
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 5
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 11, 2011

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\05_Shallow GW Elevation Contours 2011 April 11_rev.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in October 2011
- Piezometer Groundwater Elevation Not Measured in October 2011
- BAPB Piezometers on RFS Property Not Measured in October 2011
- October 2011 Groundwater Contours
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

MW-10A 5.27
Piezometer ID
Groundwater Elevation (FT NGVD29)

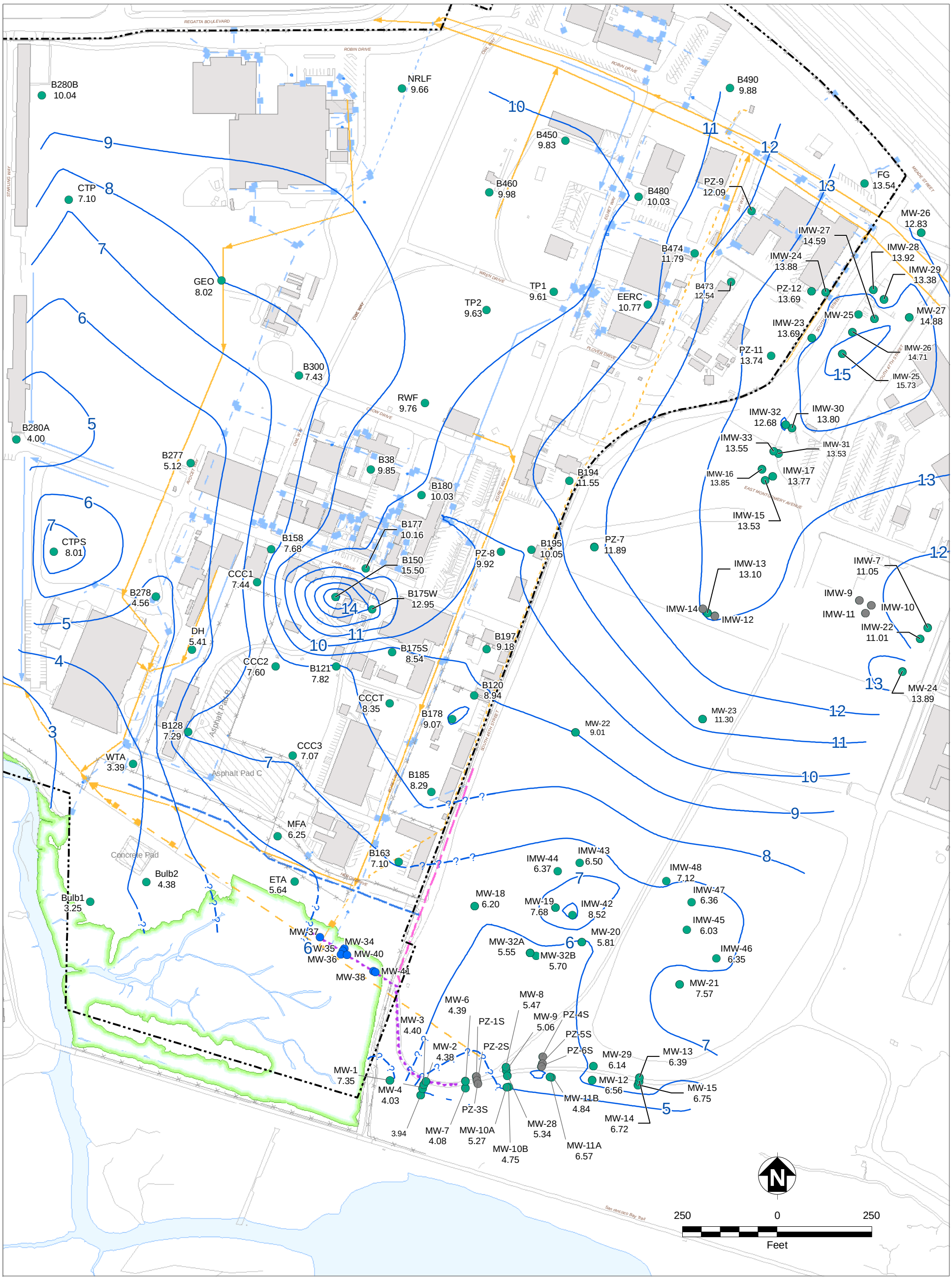
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 6
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 3, 2011

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\06_Shallow GW Elevation Contours 2011 Oct 3.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in April 2012
- Piezometer Groundwater Elevation Not Measured in April 2012
- BAPB Piezometers on RFS Property Not Measured in April 2012
- April 2012 Groundwater Contour
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

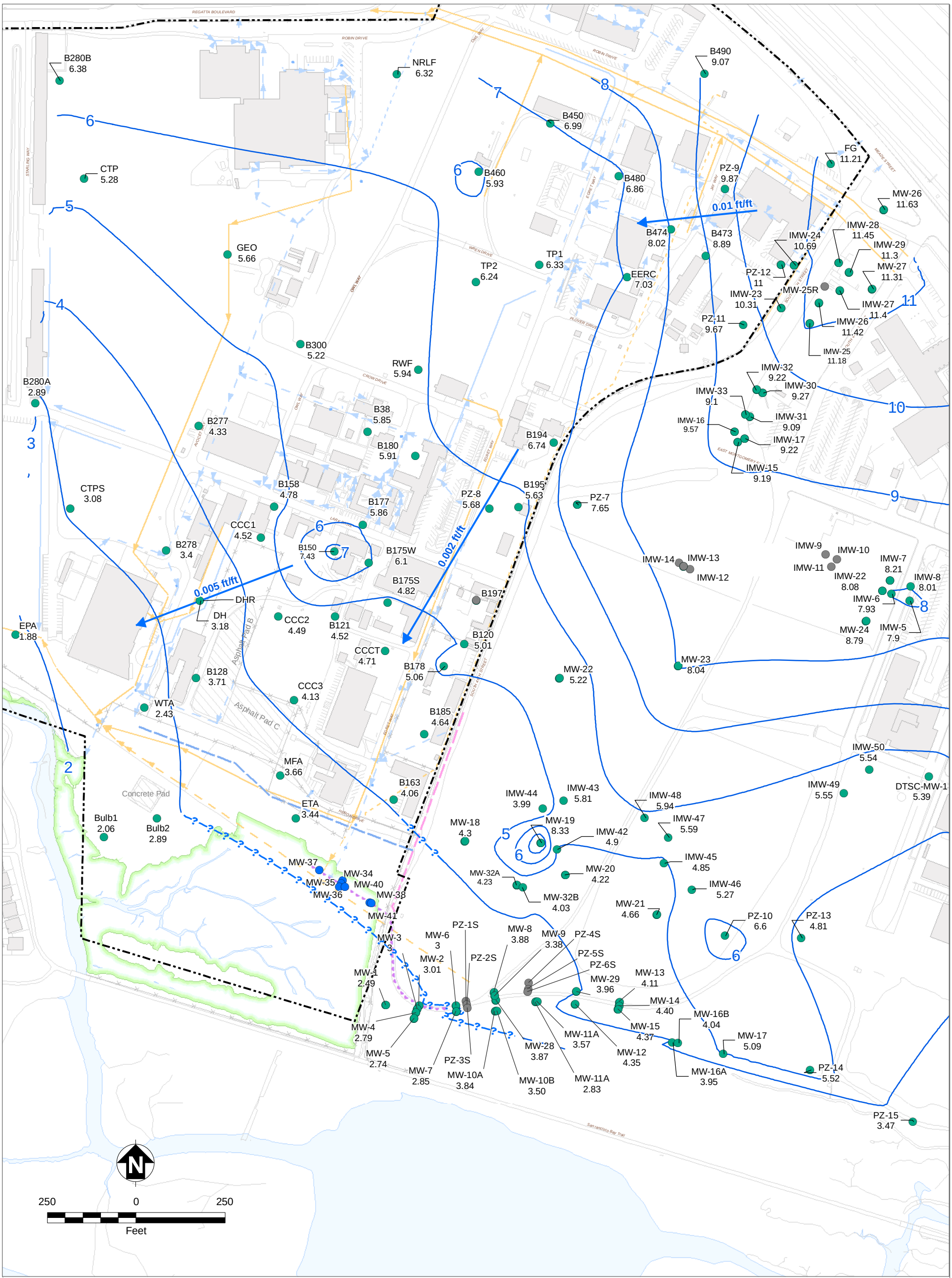
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 7
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 2, 2012

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\07_Shallow GW Elevation Contours 2012 April 2.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in October 2012
- Piezometer Groundwater Elevation Not Measured in October 2012
- BAPB Piezometers on RFS Property Not Measured in October 2012
- October 2012 Groundwater Contours
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

MW-10A 5.27
Piezometer ID
Groundwater Elevation (FT NGVD29)

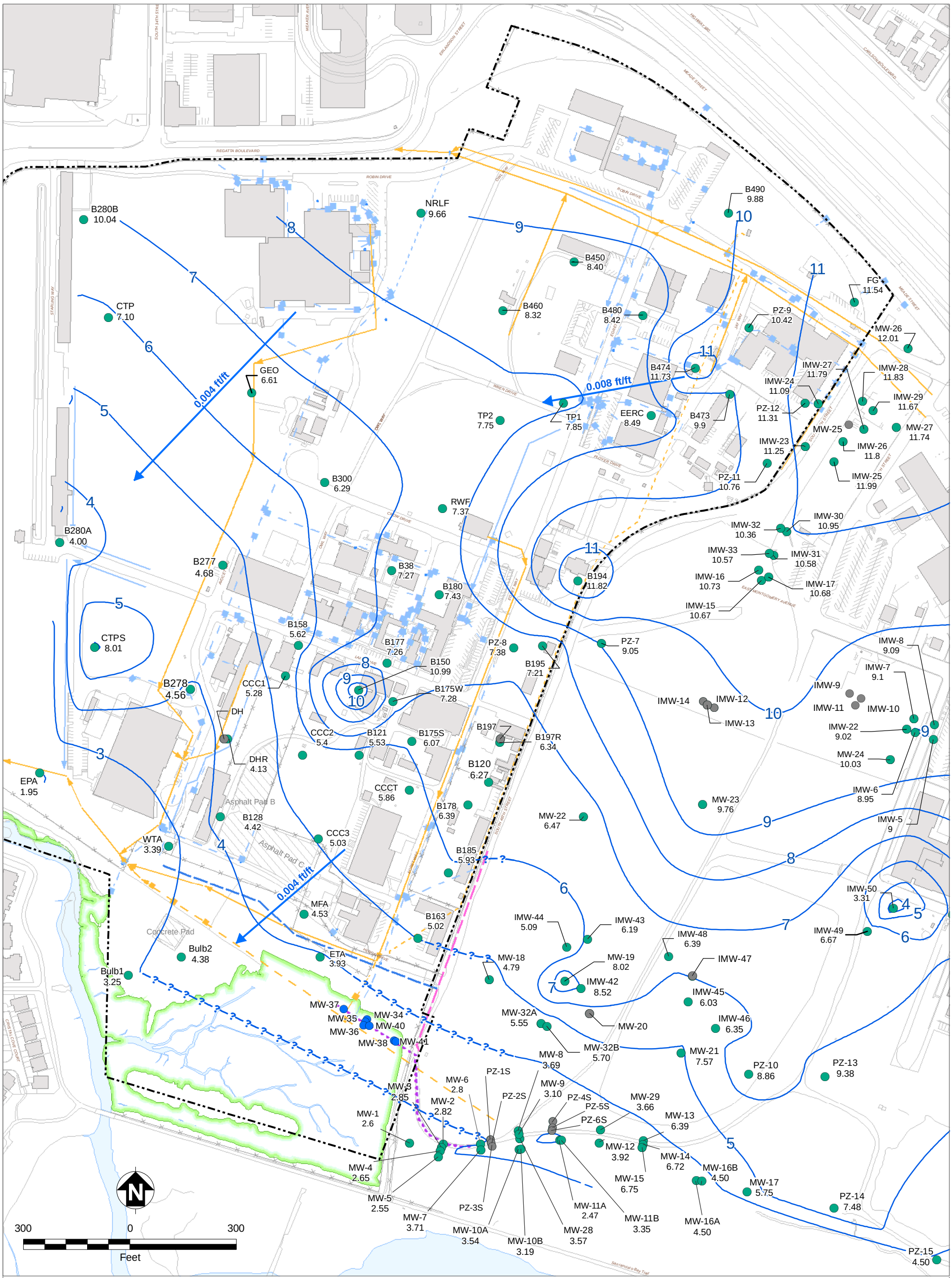
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 8
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 1, 2012

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\08_Shallow GW Elevation Contours 2012 Oct 1.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in April 2013
- Piezometer Groundwater Elevation Not Measured in April 2013
- BAPB Piezometers on RFS Property Not Measured in April 2013
- April 2013 Groundwater Contour
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

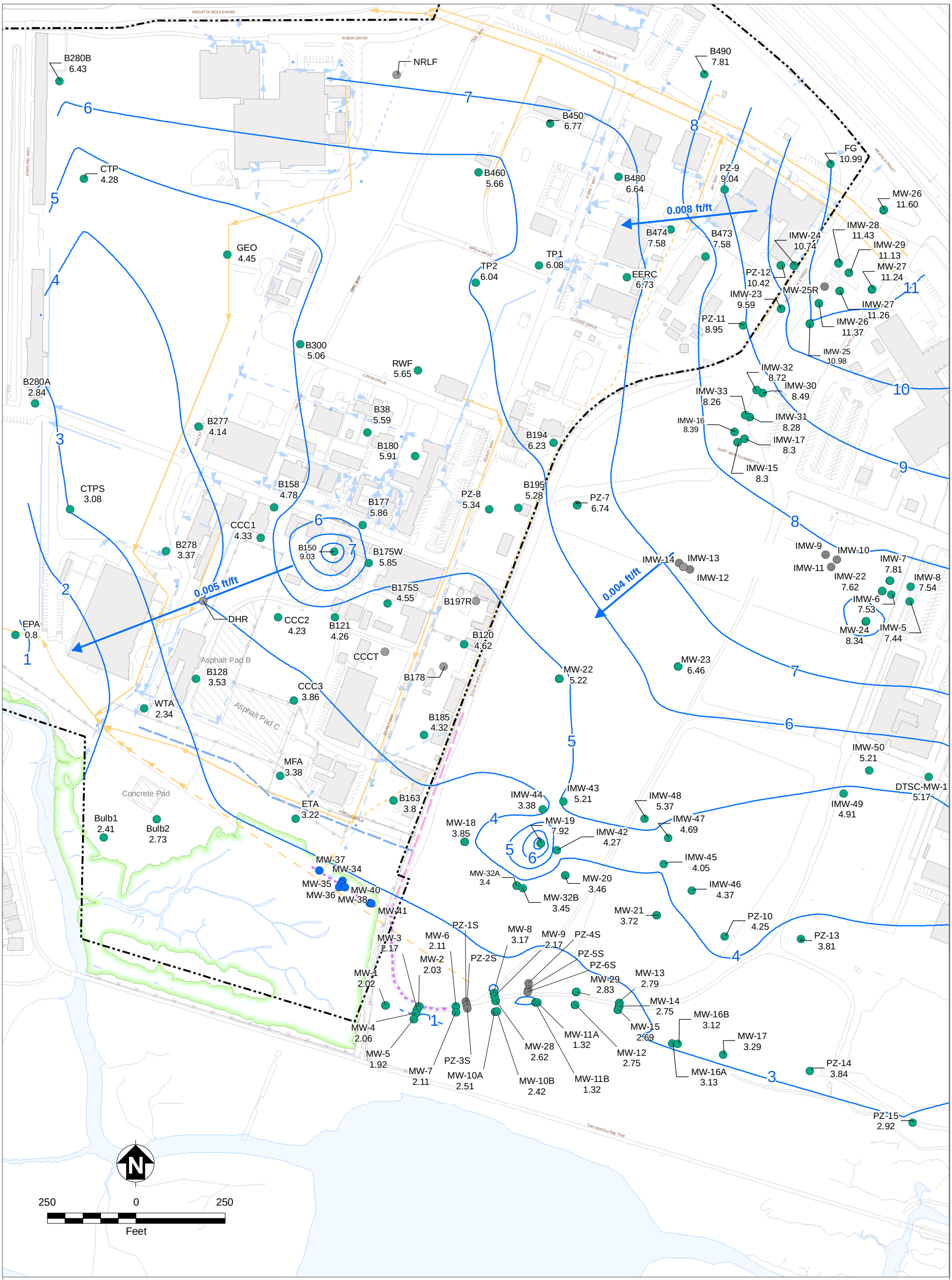
MW-10A 5.27 — Piezometer ID; Groundwater Elevation (FT NGVD29)

TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 9
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 1, 2013

2018 Groundwater Sampling Results



- Piezometer Groundwater Elevation Measured in October 2013
- Piezometer Groundwater Elevation Not Measured in October 2013
- BAPB Piezometers on RFS Property Not Measured in October 2013
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

MW-10A (Piezometer ID)
5.27 (Groundwater Elevation (FT NGVD29))

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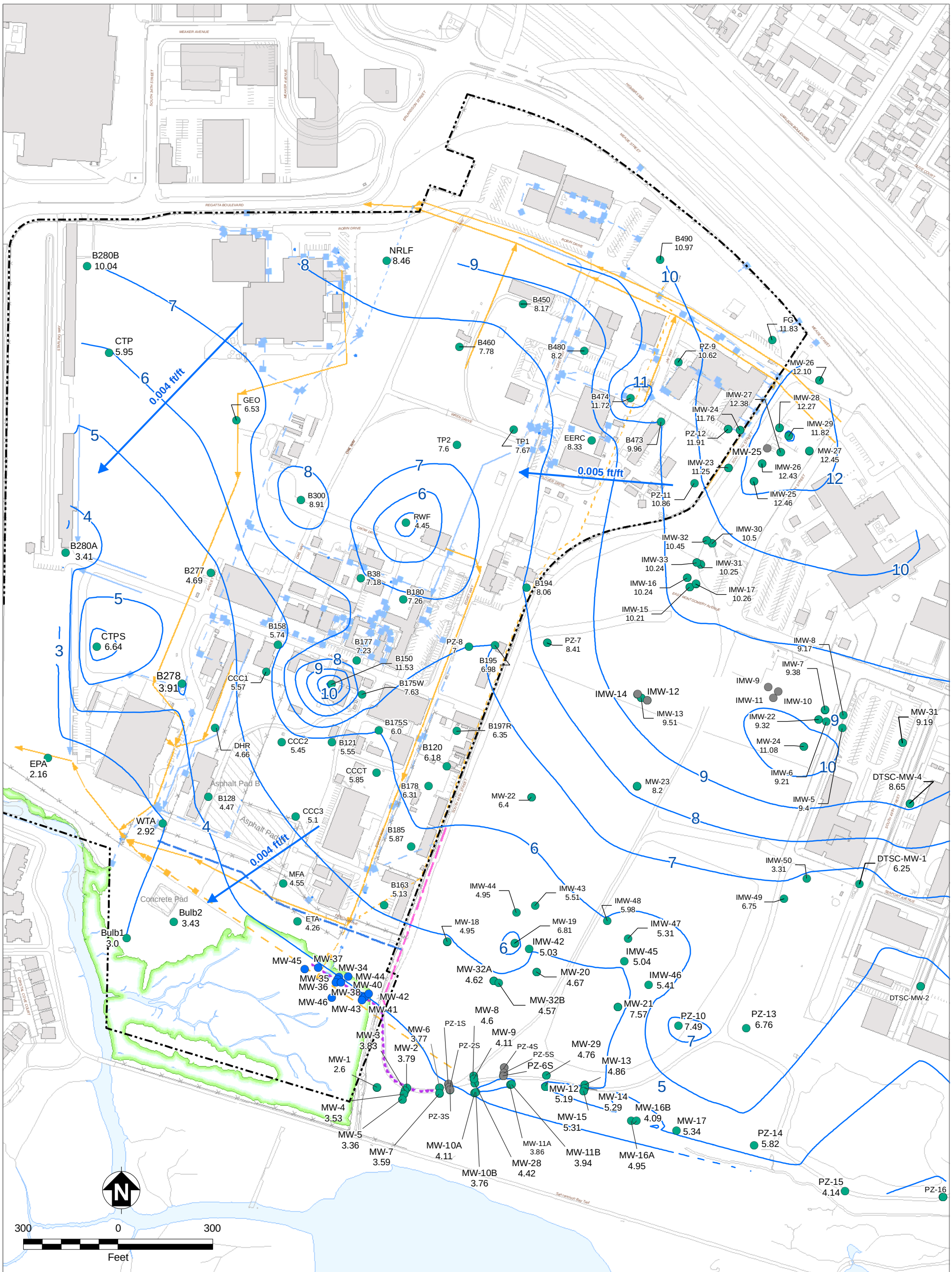
Richmond Field Station Site
University of California, Berkeley

FIGURE 10
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 7, 2013

2018 Groundwater Sampling Results

9/23/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\10_Shallow GW Elevation Contours 2013 Oct 7.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in March 2014
- Piezometer Groundwater Elevation Not Measured in March 2014
- BAPB Piezometers on RFS Property Not Measured in March 2014
- 1 April 2014 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

MW-10A 5.27
Piezometer ID
Groundwater Elevation (FT NGVD29)

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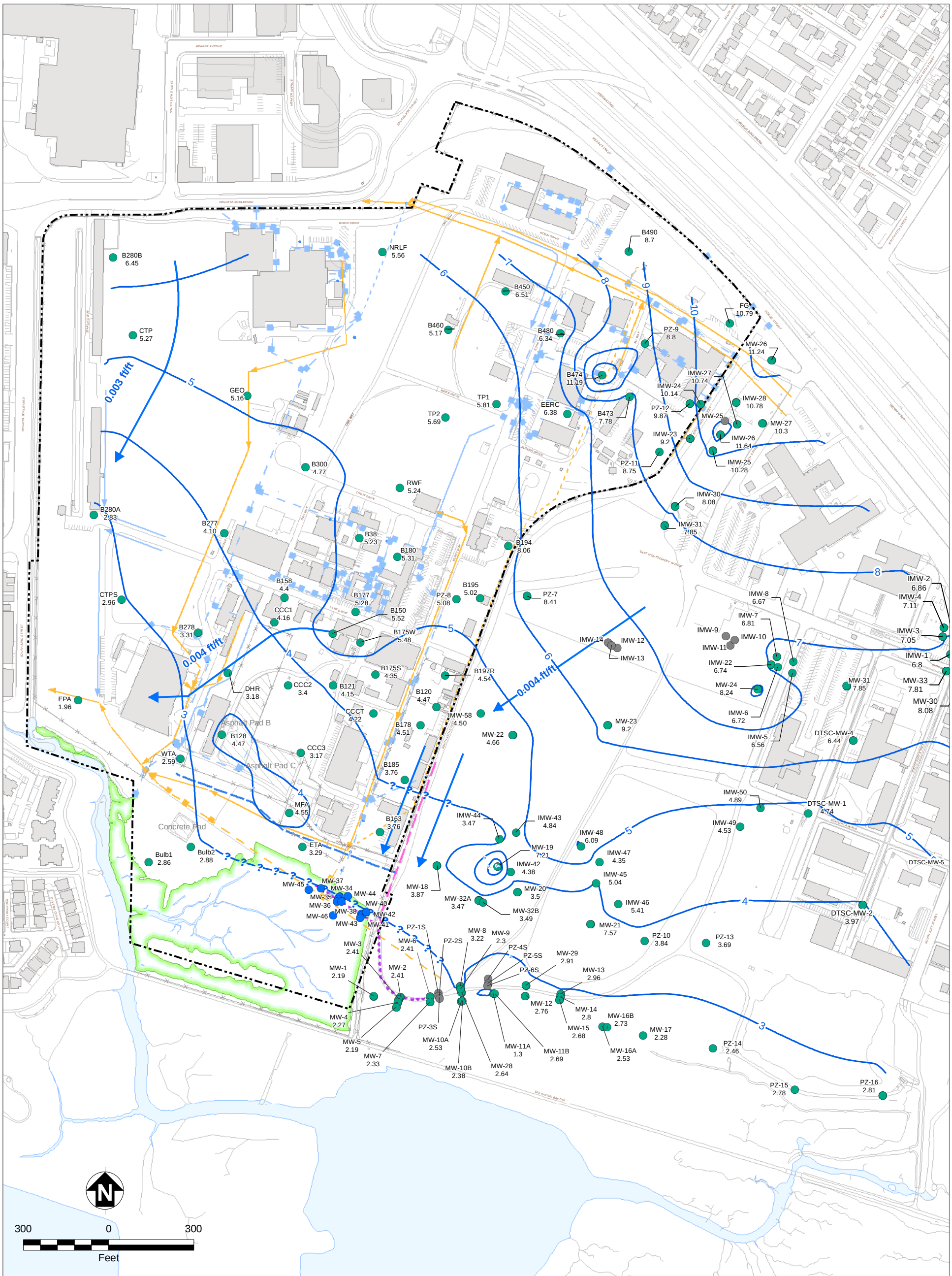
University of California, Berkeley

FIGURE 11
SHALLOW GROUNDWATER ELEVATION CONTOURS, MARCH 28, 2014

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\11_Shallow GW Elevation Contours 2014 March 28.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in October 2014
- Piezometer Groundwater Elevation Not Measured in October 2014
- BAPB Piezometers on RFS Property Not Measured in October 2014
- Estimated October 2014 Groundwater Contour
- Contour Estimated due to Proximity to BAPB Wall, Slurry Wall, or Marsh
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

MW-10A — Piezometer ID
5.27 — Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet NGVD and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.
Contours do not include data from Phase IV piezometers completed in January 2015.

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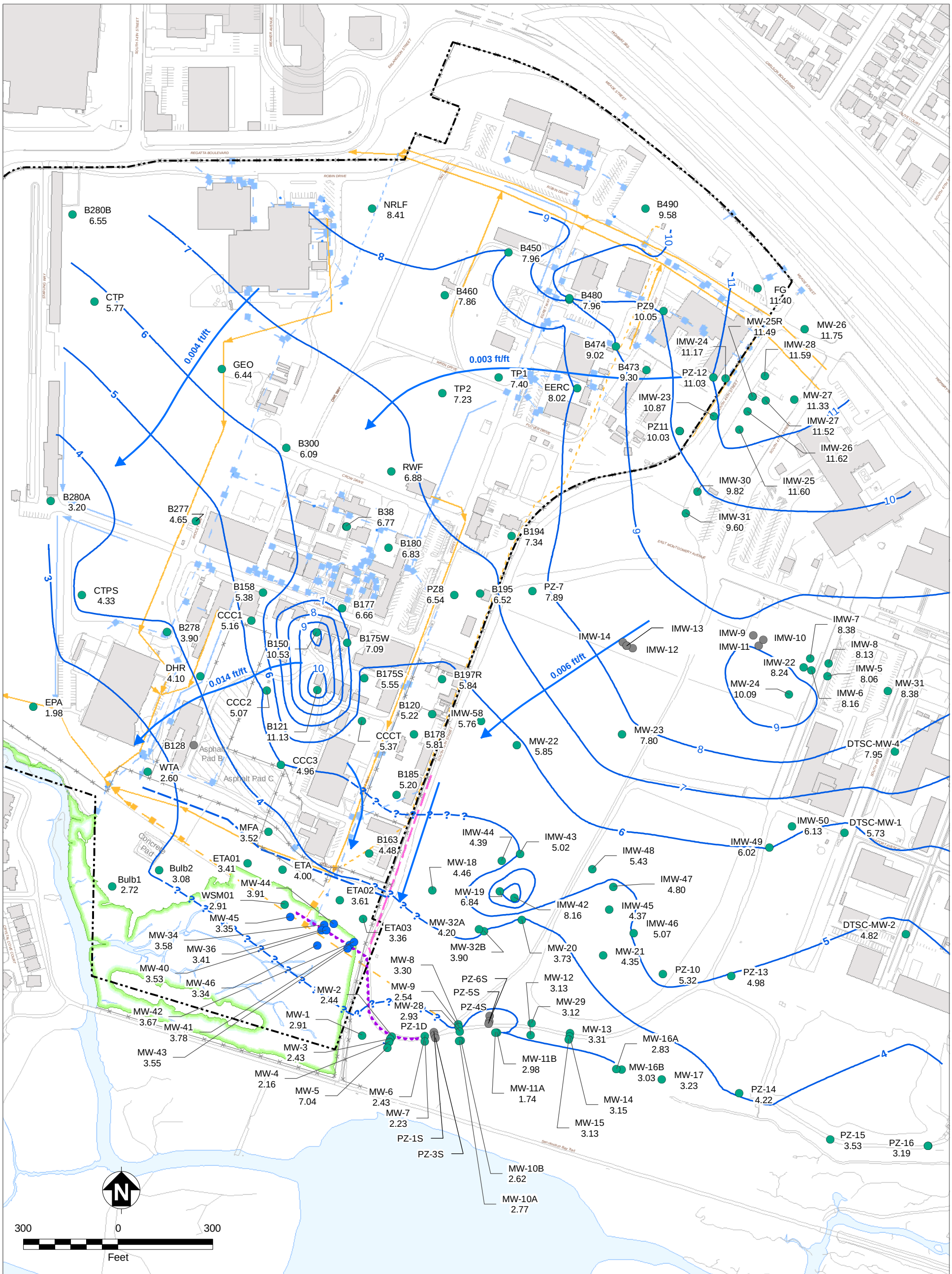
FIGURE 12
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 1, 2014

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\12_Shallow GW Elevation Contours 2014 OctoberREV.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in April 2015
- Piezometer Groundwater Elevation Not Measured in April 2015
- BAPB Piezometers on RFS Property Measured in April 2015

Estimated April 2015 Groundwater Contour

- Horizontal Groundwater Gradient
- Proximity to BAPB Wall
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline

- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:

- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

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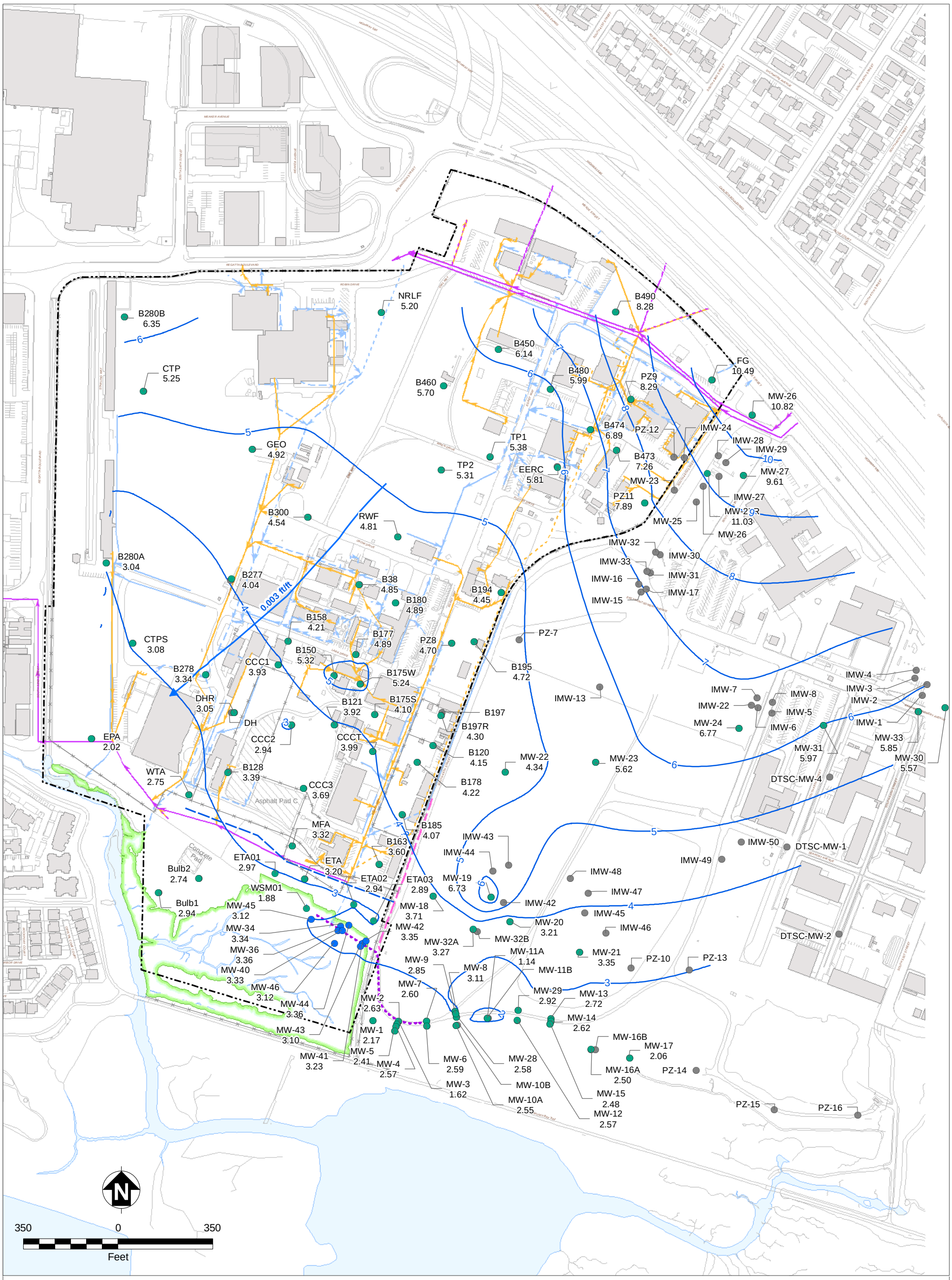
FIGURE 13
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 1, 2015

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\13_Shallow_GW_Elevation_Contours 2015 April 1.mxd TtEMI-OAK simon.cardinale.



- Piezometer Groundwater Elevation Measured in October 2015
- Piezometer Groundwater Elevation Not Measured in October 2015
- BAPB Piezometers on RFS Property Measured in October 2015
- Estimated October 2015 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:

- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:

- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

MW-10A
5.27
Piezometer ID
Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

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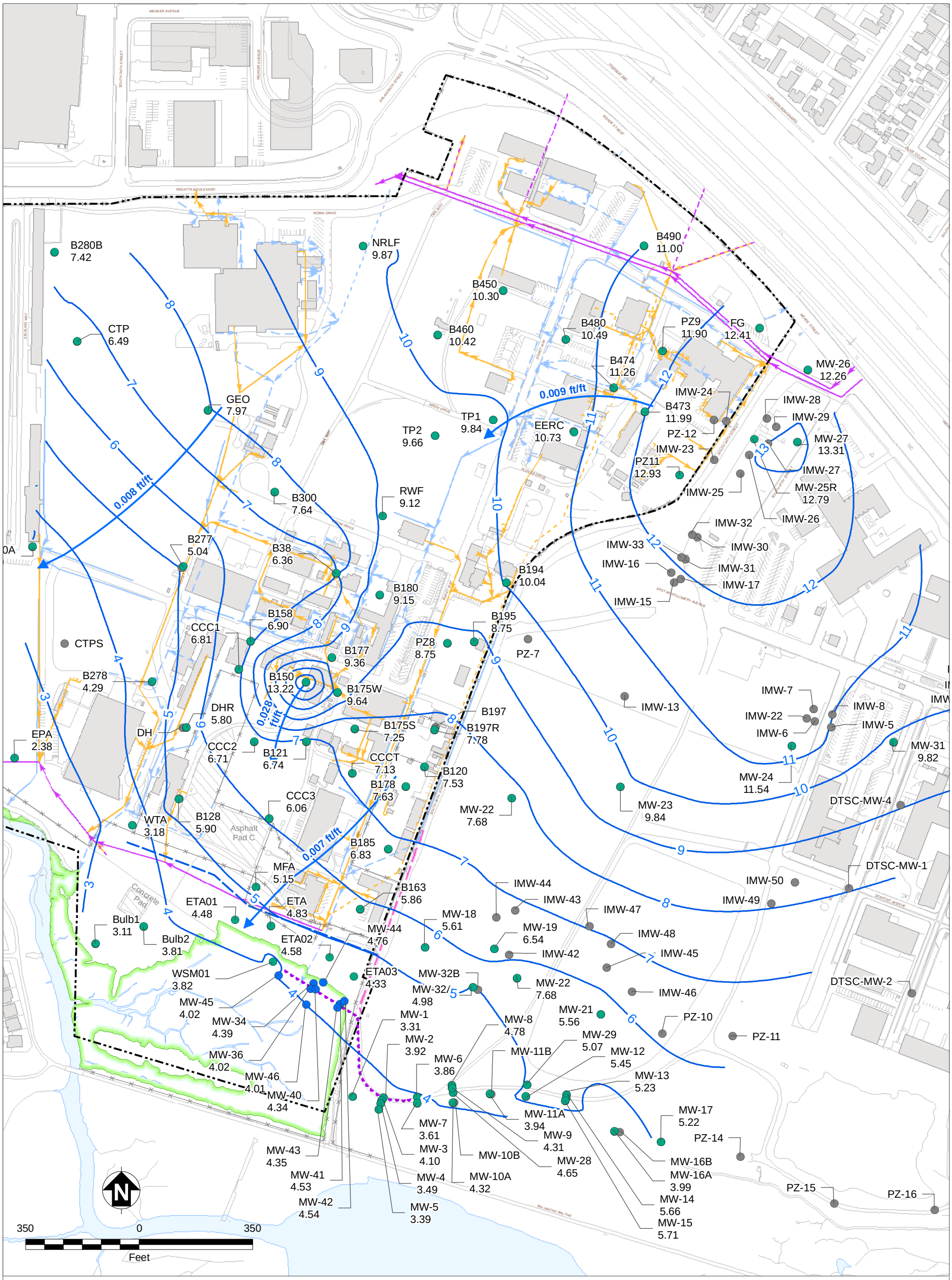
FIGURE 14
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 5, 2015

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\14_Shallow_GW_Elevation_Contours 2015 October 5.mxd TtEMI-OAK simon.cardinale



- Piezometer Groundwater Elevation Measured in April 2016
- Piezometer Groundwater Elevation Not Measured in April 2016
- BAPB Piezometers on RFS Property Measured in April 2016
- Estimated April 2016 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

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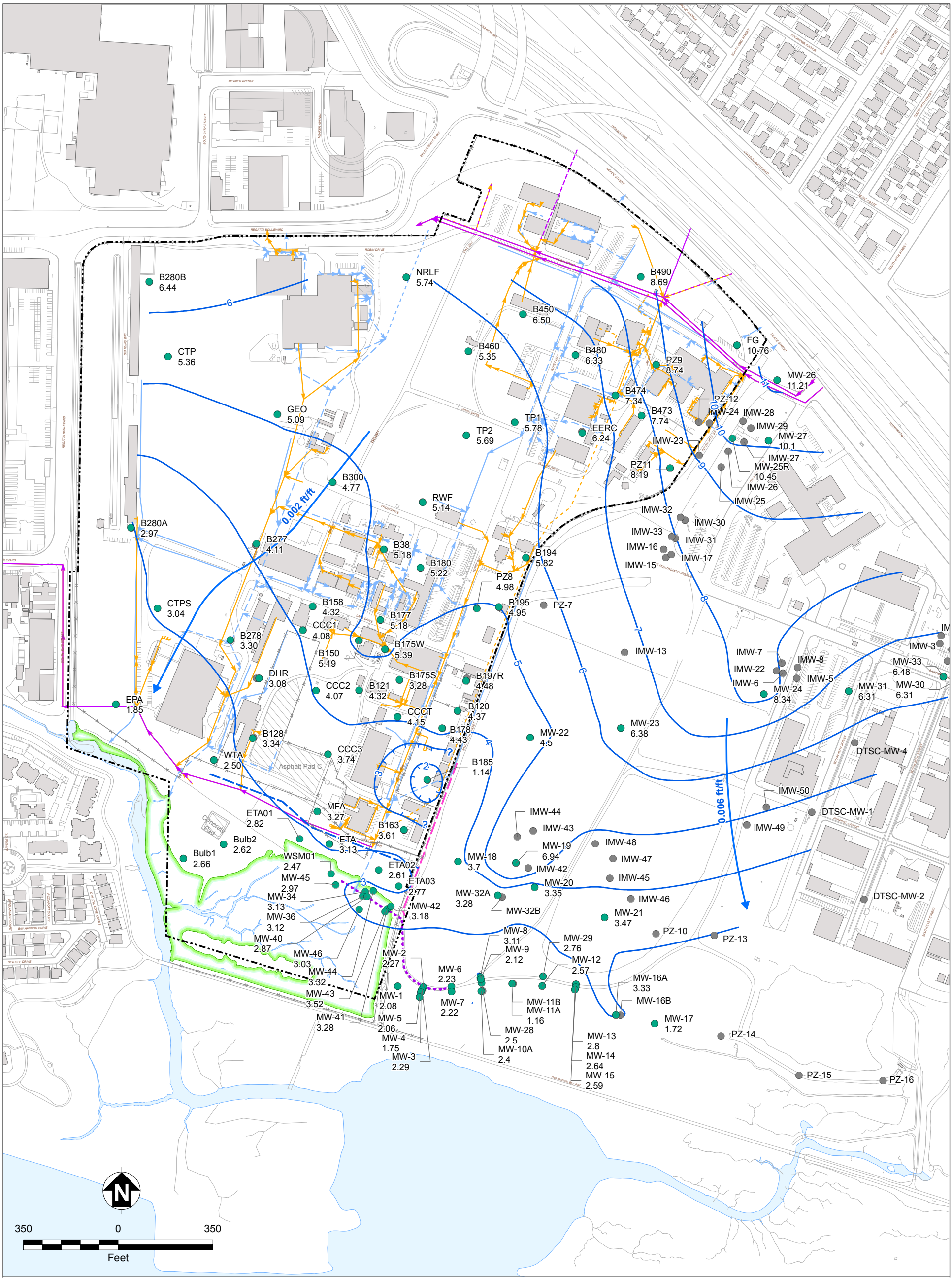
FIGURE 15
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 4, 2016

2018 Groundwater Sampling Results

9/21/2016 V:\Misc_GIS\Richmond_Field_Station\Projects\009_GW_Sampling_Results_2016\15_Shallow_GW_Elevation_Contours 2016 April 4.mxd TtEMI-OAK simon.cardinale.



- Piezometer Groundwater Elevation Measured in October 2016
- Piezometer Groundwater Elevation Not Measured in October 2016
- Estimated October 2016 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

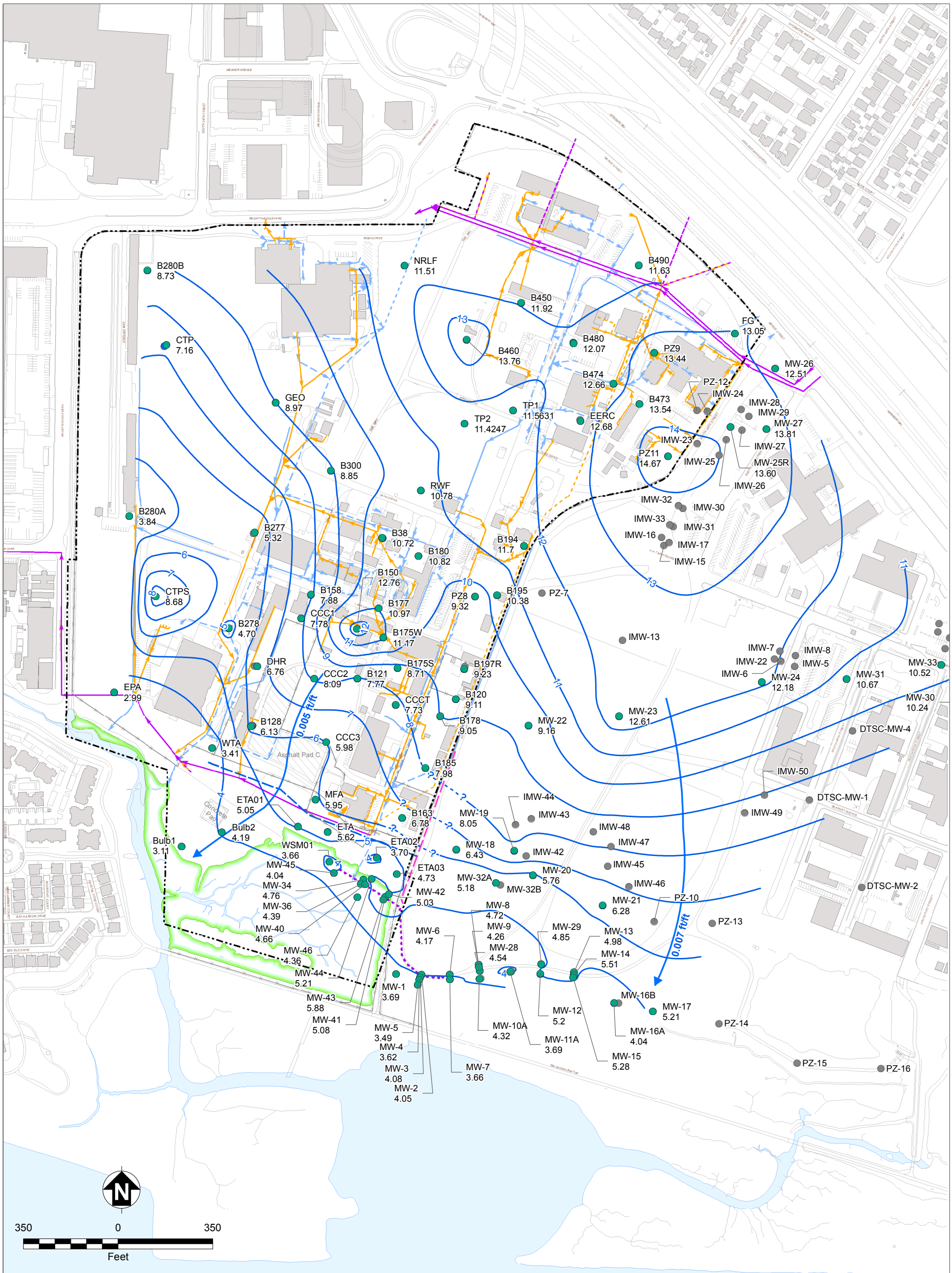
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 16
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 3 and 4, 2016

2018 Groundwater Sampling Results

9/14/2017 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\16_Shallow_GW_Elevation_Contours 2016 October 4.mxd TtEMI-OAK michelle.handley



- Piezometer Groundwater Elevation Measured in April 2017
- Piezometer Groundwater Elevation Not Measured in April 2017
- Estimated April 2017 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

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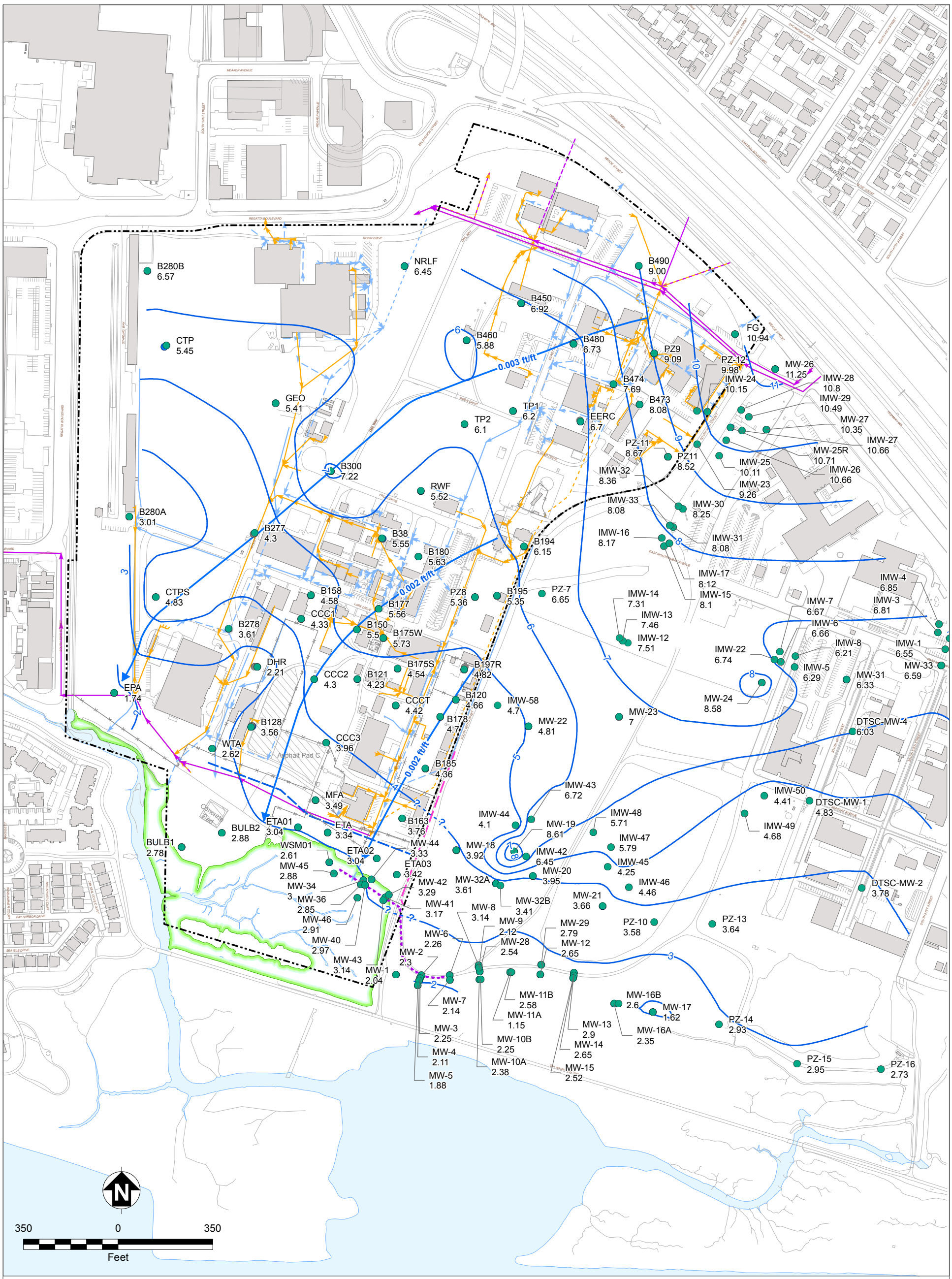
FIGURE 17
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 3, 2017

2018 Groundwater Sampling Results

9/14/2017 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\17_Shallow_GW_Elevation_Contours 2017 April 3.mxd TtEMI-OAK michelle.handley



- Piezometer Groundwater Elevation Measured in October 2017
- Piezometer Groundwater Elevation Not Measured in October 2017
- Estimated October 2017 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

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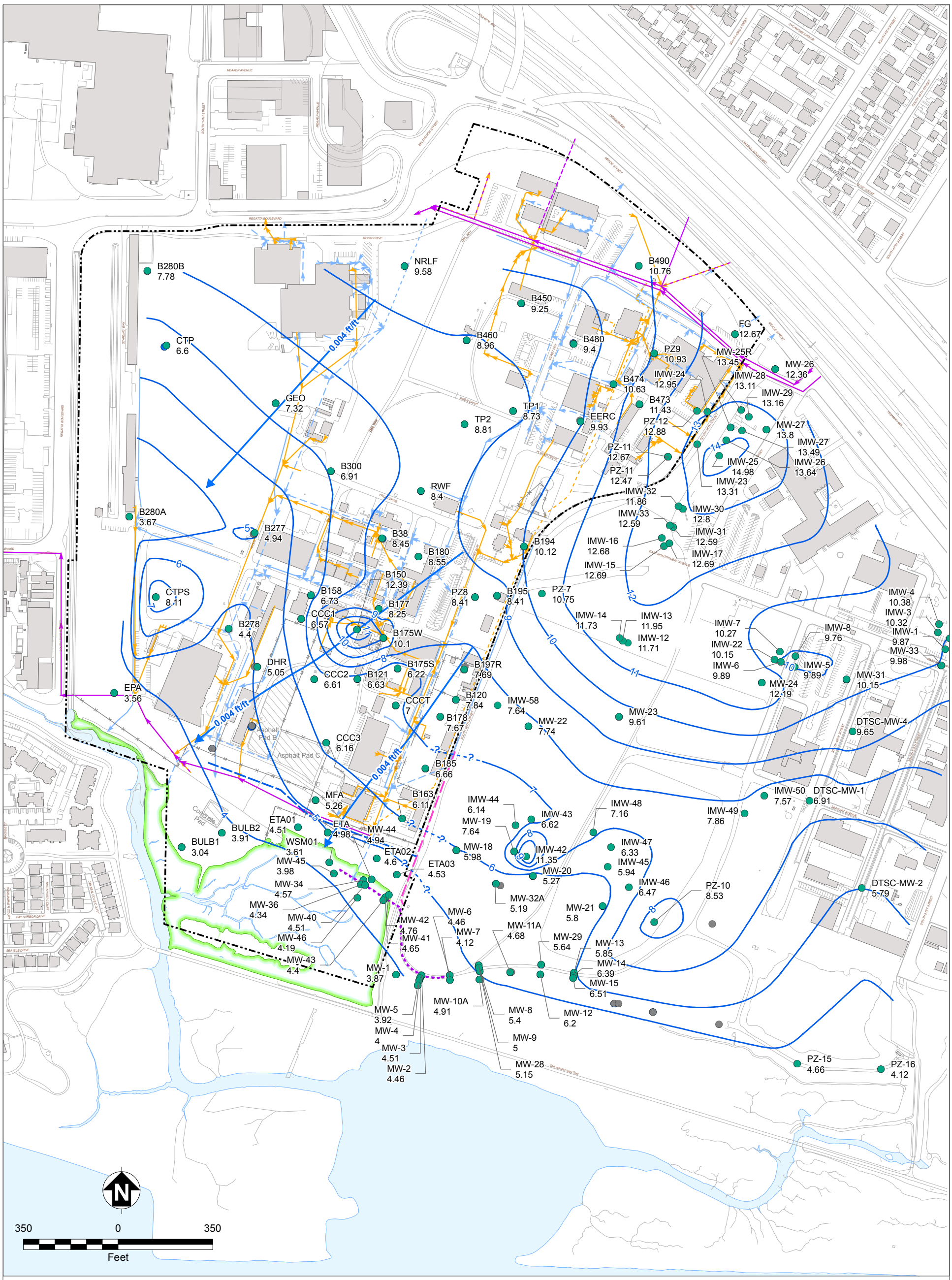
FIGURE 18
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 2 AND 3, 2017

2018 Groundwater Sampling Results

7/16/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\18_Shallow_GW_Elevation_Contours 2017 October.mxd TtEMI-OAK michelle.handley.



- Piezometer Groundwater Elevation Measured in April 2018
- Piezometer Groundwater Elevation Not Measured in April 2018
- Estimated April 2018 Groundwater Contour
- Estimated Horizontal Groundwater Gradient Direction (Value)
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

Note:
All data points surveyed to NGVD29.
Mean sea level = NGVD29 elevation (in feet) – 0.58 feet and mean sea level datum representative of Stege Marsh is derived from NOAA Richmond Inner Harbor tide gauge.

Piezometer ID
MW-10A
5.27
Groundwater Elevation (FT NGVD29)

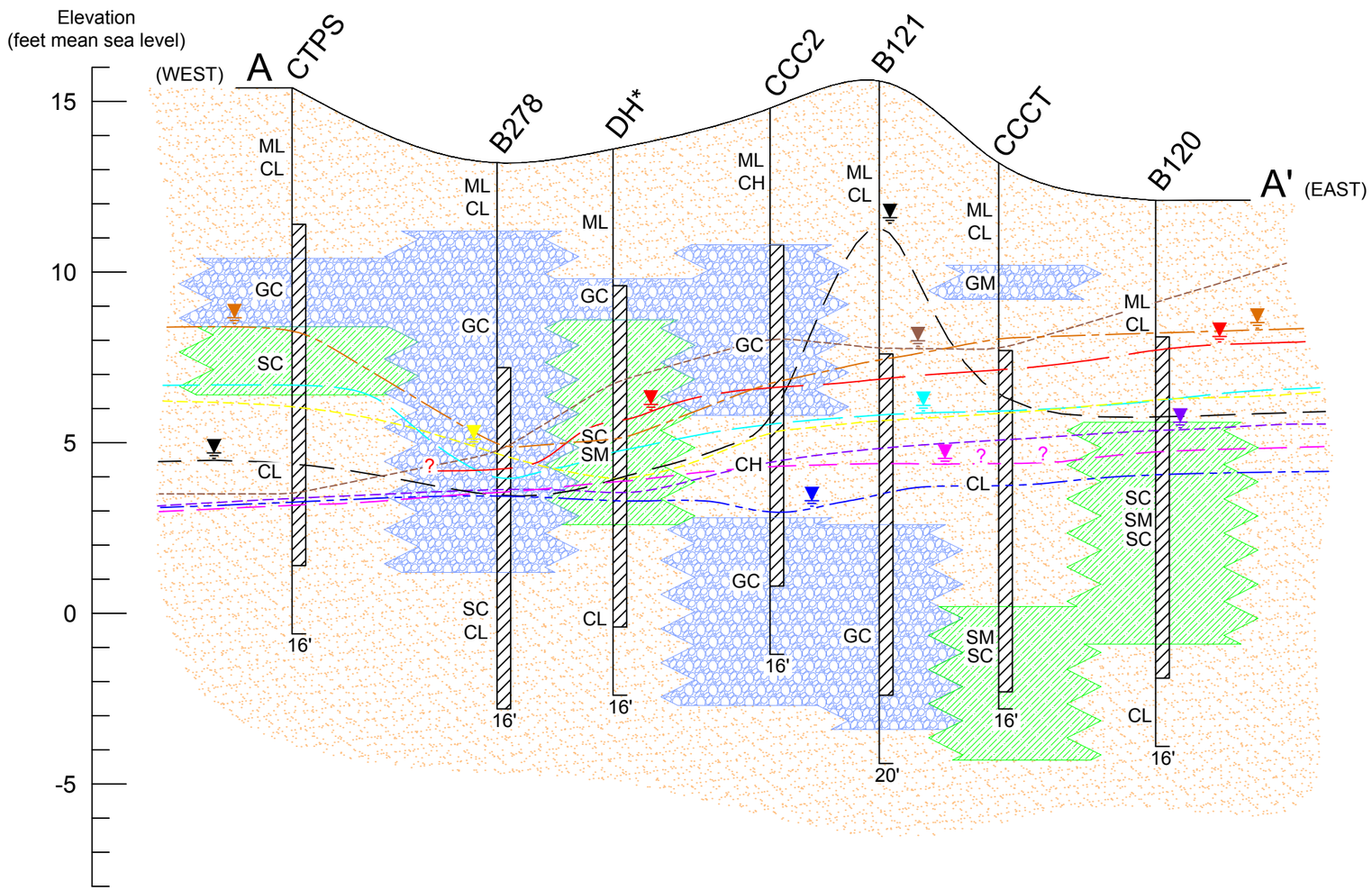
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 19
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 2, 2018

2018 Groundwater Sampling Results

7/17/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\19_Shallow_GW_Elevation_Contours 2018 April.mxd TtEMI-OAK michelle.handley



Silt / Clay

Clayey Gravel

Clayey / Silty Sand

Well Screen Interval

? Water level not measured at well CTPS in April 2016 because it was not located during field work.

* Piezometer DH was abandoned in 2013 and replaced with piezometer DHR, located 5 feet away from the original location.

Estimated Groundwater Table (October 2012)

Estimated Groundwater Table (April 2013)

Estimated Groundwater Table (October 2013)

Estimated Groundwater Table (March 2014)

Estimated Groundwater Table (April 2015)

Estimated Groundwater Table (October 2015)

Estimated Groundwater Table (April 2016)

Estimated Groundwater Table (April 2017)

Estimated Groundwater Table (April 2018)

Unified Soil Classification System

GM	Silty Gravel, Gravel-Sand-Silt Mix
GC	Clayey Gravel, Gravel-Sand-Clay Mix
SW	Well-graded Sand, Gravelly Sand
SP	Poorly-Graded Sand, Gravelly Sand
SM	Silty Sand, Sand-Silt Mix
SC	Clayey-Sand, Sand-Clay Mix
ML	Inorganic Silt, Silty or Clayey Fine Sand
CL	Inorganic Clay of Low - Mod Plasticity
MH	Inorganic Silt, Silty Soil, Elastic Silt
CH	Inorganic Clay of High Plasticity

Horizontal Scale

200 0 200

Feet

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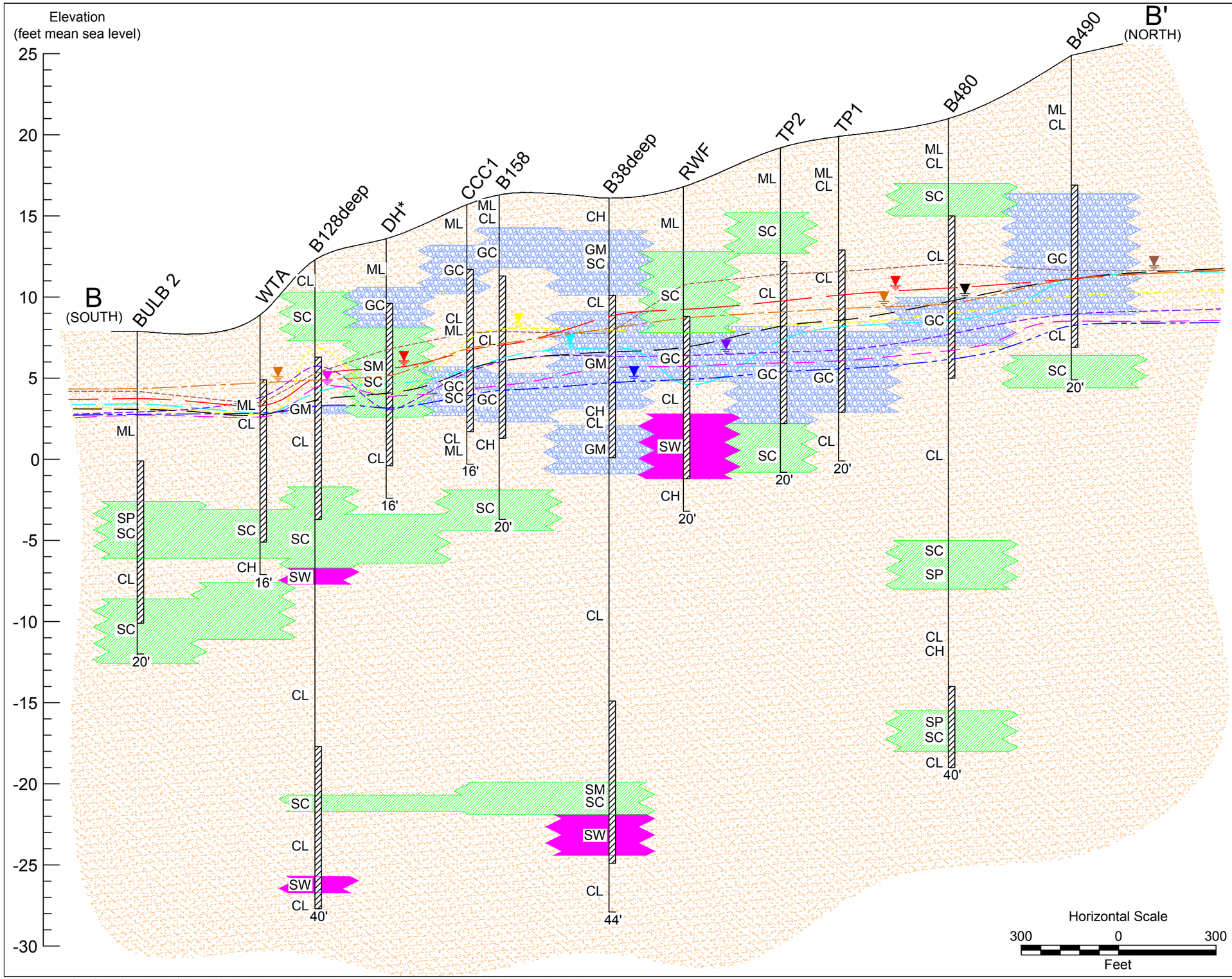
Richmond Field Station Site
University of California, Berkeley

FIGURE 20
GEOLOGIC CROSS-SECTION
A - A'

2018 Groundwater Sampling Results

s:\cad\state\uc berkeley\figure 20-21_richmond field station_xsect-gw levels 2018.dwg TtEMI-OAK herold, douglas



Silt / Clay

Clayey Gravel

Clayey / Silty Sand

Sand

Well Screen Interval

* Piezometer DH was abandoned in 2013 and replaced with piezometer DHR, located 5 feet away from the original location.

Estimated Groundwater Table (October 2012)

Estimated Groundwater Table (April 2013)

Estimated Groundwater Table (October 2013)

Estimated Groundwater Table (March 2014)

Estimated Groundwater Table (April 2015)

Estimated Groundwater Table (October 2015)

Estimated Groundwater Table (April 2016)

Estimated Groundwater Table (April 2017)

Estimated Groundwater Table (April 2018)

Unified Soil Classification System

GM	Silty Gravel, Gravel-Sand-Silt Mix
GC	Clayey Gravel, Gravel-Sand-Clay Mix
SW	Well-graded Sand, Gravelly Sand
SP	Poorly-Graded Sand, Gravelly Sand
SM	Silty Sand, Sand-Silt Mix
SC	Clayey-Sand, Sand-Clay Mix
ML	Inorganic Silt, Silty or Clayey Fine Sand
CL	Inorganic Clay of Low - Mod Plasticity
MH	Inorganic Silt, Silty Soil, Elastic Silt
CH	Inorganic Clay of High Plasticity

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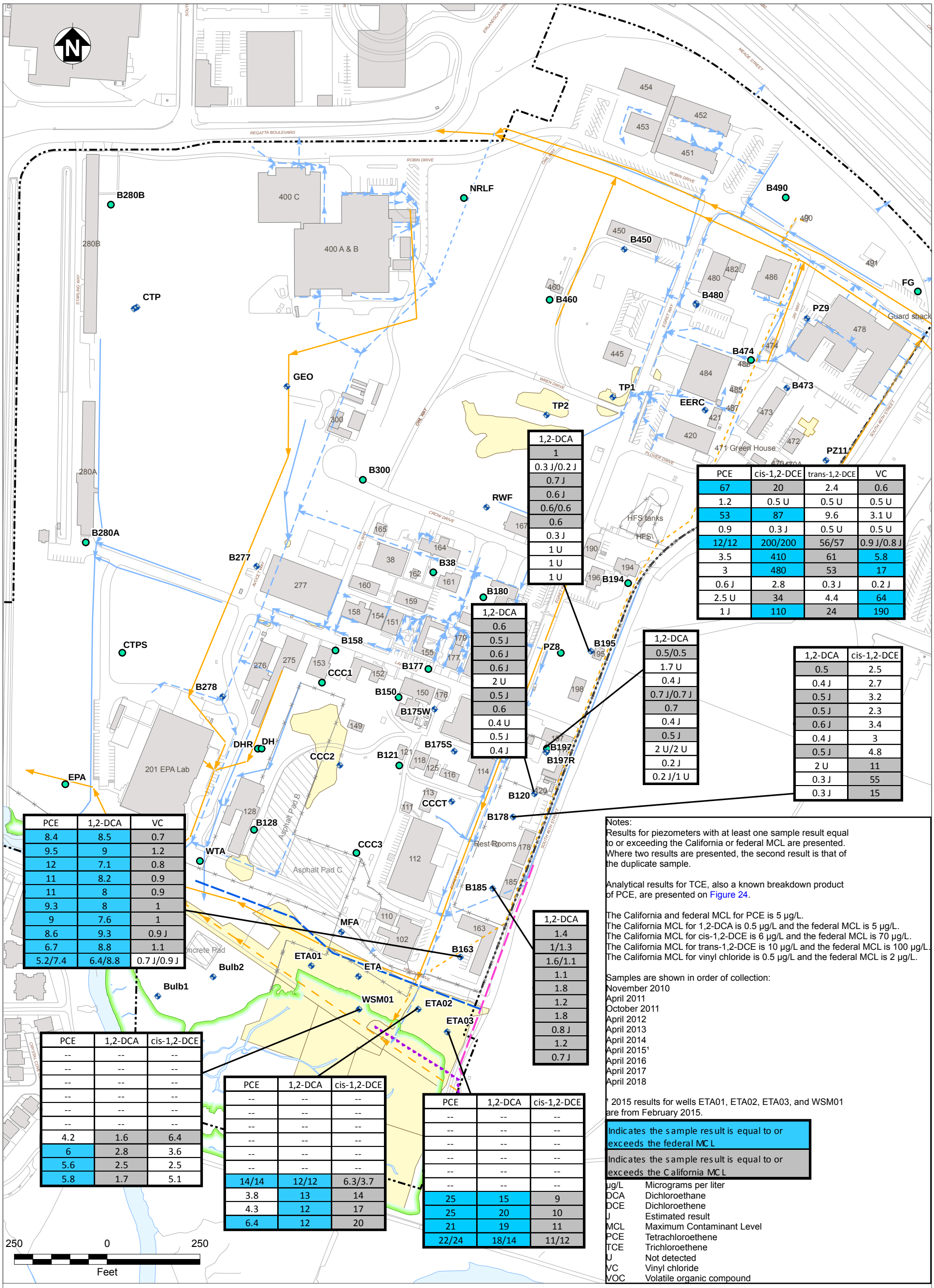
FIGURE 21
GEOLOGIC CROSS-SECTION
B - B'

2018 Groundwater Sampling Results

s:\cad\state\uc berkeley\figure 20-21_richmond field station_xsect-gw levels 2018.dwg TtEMI-OAK herold, douglas



PCE	cis-1,2-DCE	trans-1,2-DCE	VC
67	20	2.4	0.6
1.2	0.5 U	0.5 U	0.5 U
53	87	9.6	3.1 U
0.9	0.3 J	0.5 U	0.5 U
12/12	200/200	56/57	0.9 J/0.8 J
3.5	410	61	5.8
3	480	53	17
0.6 J	2.8	0.3 J	0.2 J
2.5 U	34	4.4	64
1 J	110	24	190

1,2-DCA	cis-1,2-DCE
0.5	2.5
0.4 J	2.7
0.5 J	3.2
0.5 J	2.3
0.6 J	3.4
0.4 J	3
0.5 J	4.8
2 U	11
0.3 J	55
0.3 J	15

PCE	1,2-DCA	VC
8.4	8.5	0.7
9.5	9	1.2
12	7.1	0.8
11	8.2	0.9
11	8	0.9
9.3	8	1
9	7.6	1
8.6	9.3	0.9 J
6.7	8.8	1.1
5.2/7.4	6.4/8.8	0.7 J/0.9 J

PCE	1,2-DCA	cis-1,2-DCE
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
4.2	1.6	6.4
6	2.8	3.6
5.6	2.5	2.5
5.8	1.7	5.1

PCE	1,2-DCA	cis-1,2-DCE
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
14/14	12/12	6.3/3.7
3.8	13	14
4.3	12	17
6.4	12	20

PCE	1,2-DCA	cis-1,2-DCE
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
--	--	--
25	15	9
25	20	10
21	19	11
22/24	18/14	11/12

Notes:
Results for piezometers with at least one sample result equal to or exceeding the California or federal MCL are presented. Where two results are presented, the second result is that of the duplicate sample.

Analytical results for TCE, also a known breakdown product of PCE, are presented on Figure 24.

The California and federal MCL for PCE is 5 µg/L.
The California MCL for 1,2-DCA is 0.5 µg/L and the federal MCL is 5 µg/L.
The California MCL for cis-1,2-DCE is 6 µg/L and the federal MCL is 70 µg/L.
The California MCL for trans-1,2-DCE is 10 µg/L and the federal MCL is 100 µg/L.
The California MCL for vinyl chloride is 0.5 µg/L and the federal MCL is 2 µg/L.

Samples are shown in order of collection:
November 2010
April 2011
October 2011
April 2012
April 2013
April 2014
April 2015[1]
April 2016
April 2017
April 2018

[1] 2015 results for wells ETA01, ETA02, ETA03, and WSM01 are from February 2015.

Indicates the sample result is equal to or exceeds the federal MCL

Indicates the sample result is equal to or exceeds the California MCL

µg/L	Micrograms per liter
DCA	Dichloroethane
DCE	Dichloroethene
J	Estimated result
MCL	Maximum Contaminant Level
PCE	Tetrachloroethene
TCE	Trichloroethene
U	Not detected
VC	Vinyl chloride
VOC	Volatile organic compound

Groundwater Sampling Locations
Shallow Piezometers Not Sampled for VOCs in April 2016
Existing Buildings
Asphalt/Concrete Pads
Remediated Areas
Surface Water
Marsh Boundary
Richmond Field Station Site Boundary
Roads and Other Landscape Features
Fenceline

Biologically Active Permeable Barrier Wall
Former Seawall (Approximate)
Slurry Wall
Storm Drain Lines:
Open Swale
Underground Culvert
Underground Culvert, Abandoned (Grouted at Manholes)
Sanitary Sewer Lines:
Existing Sewer Line
Removed Sewer Line
Abandoned Sewer Line

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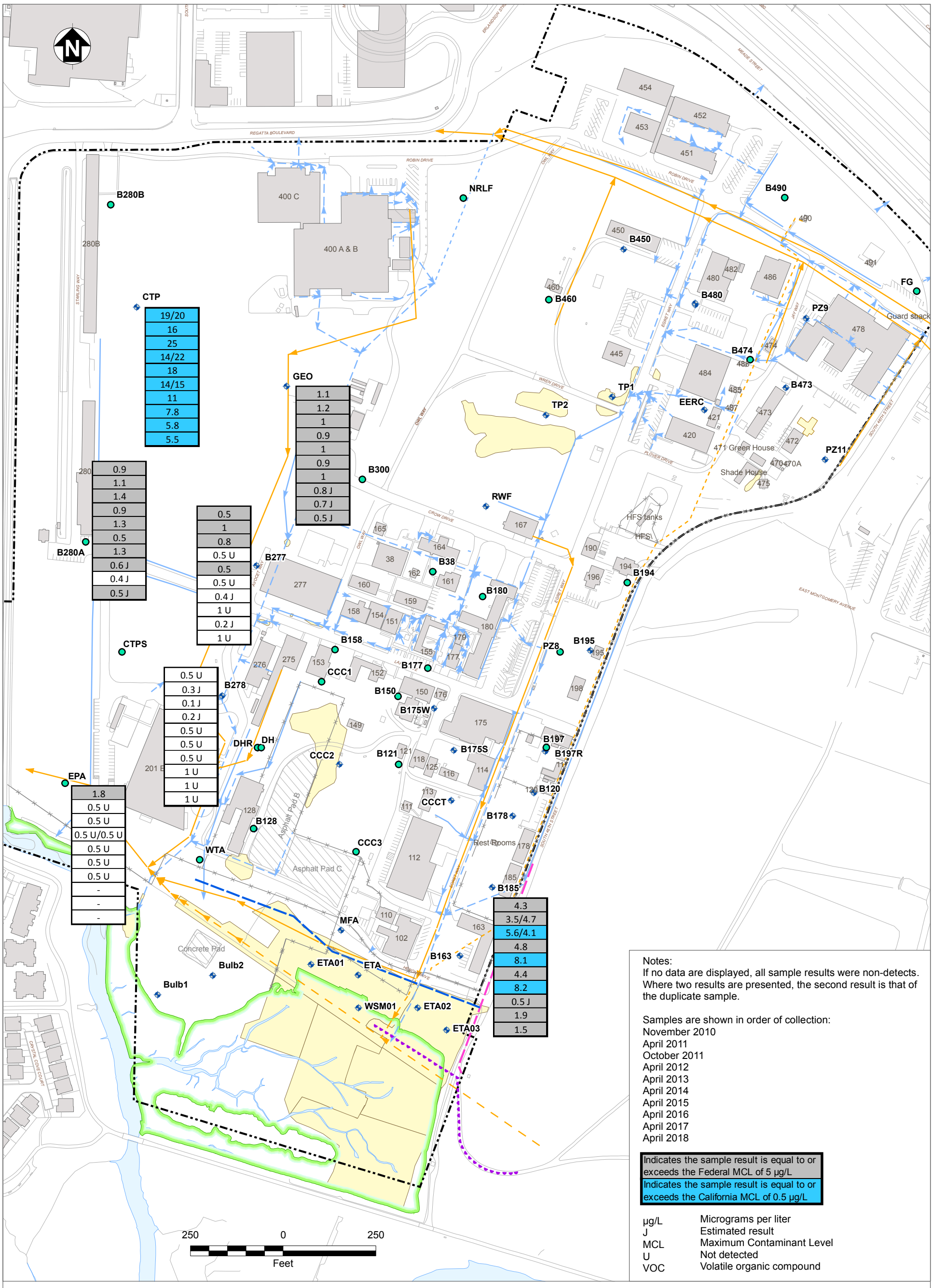
University of California, Berkeley

FIGURE 22
PCE AND BREAKDOWN PRODUCTS

2018 Groundwater Sampling Results

7/17/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\22_PCE_Breakdown_Products.mxd - michelle.handley



Notes:
If no data are displayed, all sample results were non-detects.
Where two results are presented, the second result is that of the duplicate sample.

Samples are shown in order of collection:
November 2010
April 2011
October 2011
April 2012
April 2013
April 2014
April 2015
April 2016
April 2017
April 2018

Indicates the sample result is equal to or exceeds the Federal MCL of 5 µg/L
Indicates the sample result is equal to or exceeds the California MCL of 0.5 µg/L

µg/L	Micrograms per liter
J	Estimated result
MCL	Maximum Contaminant Level
U	Not detected
VOC	Volatile organic compound

- Groundwater Sampling Locations
- Shallow Piezometers Not Sampled for VOCs in April 2016
- Existing Buildings
- Asphalt/Concrete Pads
- Remediated Areas
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- Biologically Active Permeable Barrier Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:
- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

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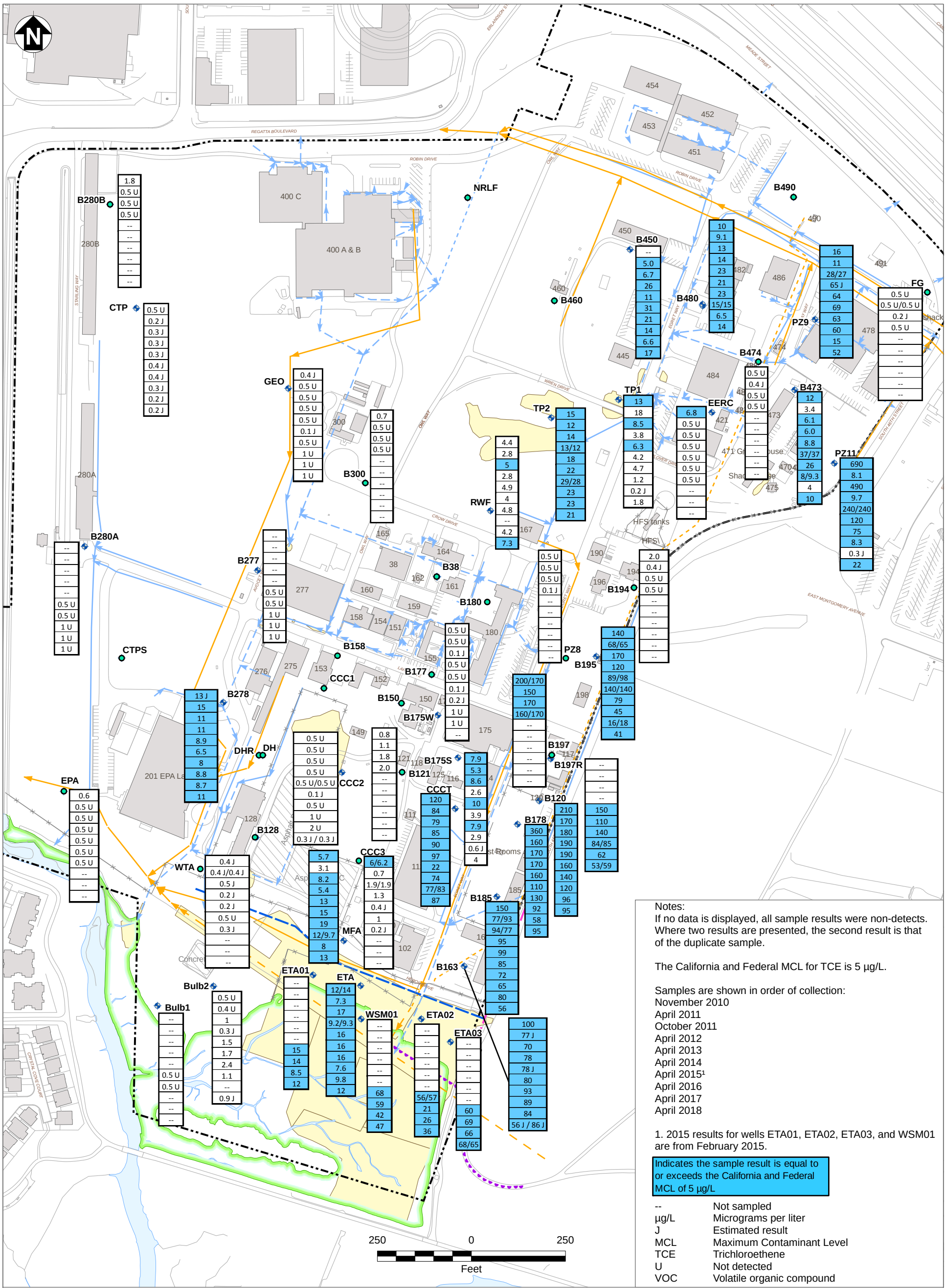
Richmond Field Station Site
University of California, Berkeley

FIGURE 23
CARBON TETRACHLORIDE GROUNDWATER CONCENTRATIONS

2018 Groundwater Sampling Results

7/17/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\23_CarbonTet_Groundwater Concentrations_rev.mxd - michelle.handley



Notes:
If no data is displayed, all sample results were non-detects.
Where two results are presented, the second result is that of the duplicate sample.

The California and Federal MCL for TCE is 5 µg/L.

Samples are shown in order of collection:
November 2010
April 2011
October 2011
April 2012
April 2013
April 2014
April 2015[1]
April 2016
April 2017
April 2018

1. 2015 results for wells ETA01, ETA02, ETA03, and WSM01 are from February 2015.

Indicates the sample result is equal to or exceeds the California and Federal MCL of 5 µg/L

--	Not sampled
µg/L	Micrograms per liter
J	Estimated result
MCL	Maximum Contaminant Level
TCE	Trichloroethene
U	Not detected
VOC	Volatile organic compound

- Groundwater Sampling Locations
- Shallow Piezometers Not Sampled for VOCs in April 2016
- Existing Buildings
- Asphalt/Concrete Pads
- Remediated Areas
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- Biologically Active Permeable Barrier Wall
- Former Seawall (Approximate)
- Slurry Wall

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Underground Culvert, Abandoned (Grouted at Manholes)

Sanitary Sewer Lines:
- Existing Sewer Line
- Removed Sewer Line
- Abandoned Sewer Line

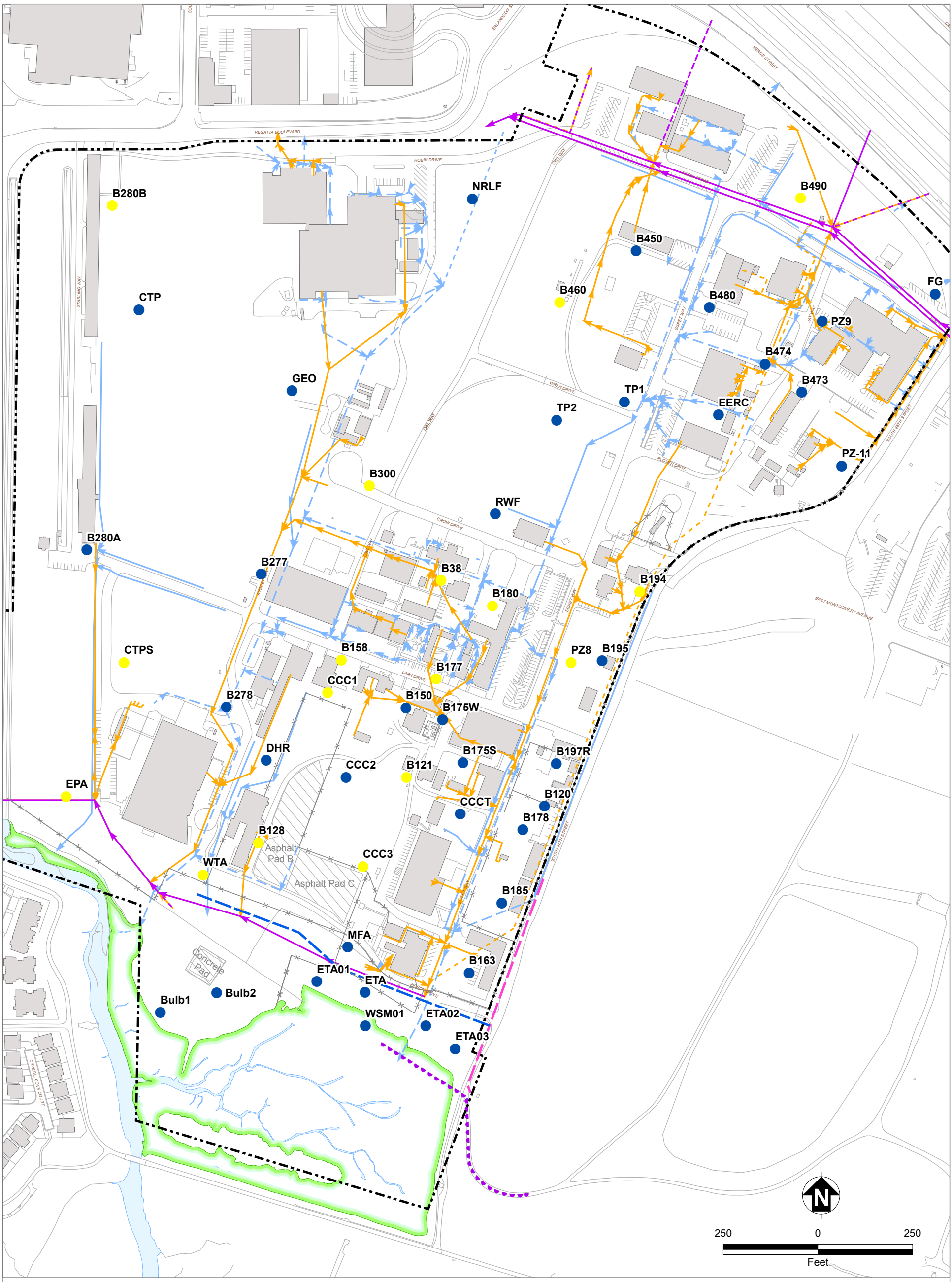
TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 24
TCE GROUNDWATER CONCENTRATIONS

2018 Groundwater Sampling Results

7/17/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\24_TCE Groundwater Concentrations_2018.mxd - michelle.handley



- Proposed piezometer for sampling in April 2019
- Piezometer not proposed for sampling in April 2019
- Existing Building
- Asphalt/Concrete Pad
- Surface Water
- Marsh Boundary
- Richmond Field Station Site Boundary
- Roads and Other Landscape Features
- Fenceline
- BAPB Wall
- Former Seawall (Approximate)
- Slurry Wall

Sanitary Sewer Lines:
- Existing City of Richmond Sewer
- Abandoned City of Richmond Sewer
- Existing RFS Sewer
- Abandoned RFS Sewer

Storm Drain Lines:
- Open Swale
- Underground Culvert
- Gutters
- Underground Culvert, Abandoned (Grouted at Manholes)

TETRA TECH

Richmond Field Station Site
University of California, Berkeley

FIGURE 25
PROPOSED GROUNDWATER SAMPLING LOCATIONS

7/16/2018 C:\misc_GIS\Richmond_Field_Station\Projects\GW Technical Memo 2017\25_Proposed Groundwater Sampling Locations 2019.mxd TtEMI-OAK michelle.handley

TABLES

Table 1: Groundwater Sampling Registry

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

Sample Information				Analysis	
Point Location ID	**Sample ID**	**Sample Date**	**Depth (feet bgs)**	**VOCs (EPA Method 8260B)**	**Dissolved Metals (EPA Method 6020A/7470A series)**
B120	20181413B120	4/3/2018	4-14	X	
B163	20180403B163	4/3/2018	7-17	X	X
B175S	20180405B175S	4/5/2018	5-15	X	
B178	20180403B178	4/3/2018	4.5-14.5	X	
B185	20180405B85	4/5/2018	4-14	X	
B195	20180404B195	4/4/2018	6-16	X	X
B197R	20180404B197R	4/4/2018	4-14	X	X
B277	20180405B277	4/5/2018	7-17	X	
B278	20180405B278	4/5/2018	6-16	X	
B280A	20180405B280A	4/5/2018	4-14	X	
B450	20180405B450	4/5/2018	6-16	X	
B473	20180403B473	4/3/2018	7-17	X	
B474	20180403B474	4/3/2018	6-16		X
B480	20180405B480	4/5/2018	6-16	X	
Bulb1	20180404BULB1	4/4/2018	8-18		X
Bulb2	20180404BULB2	4/4/2018	9-19	X	X
CCC2	20180405CCC2	4/5/2018	4-14	X	X
CCCT	20180405CCCT	4/5/2018	5.5-15.5	X	
CTP	20180404CTP	4/4/2018	7-17	X	
DHR	20180405DHR	4/5/2018	3.5-13.5		X
EERC	20180405EERC	4/5/2018	7-17		X
ETA	20180404ETA	4/4/2018	3.5-13.5	X	X
ETA01	20180404ETA01	4/4/2018	5-15	X	X
ETA02	20180404ETA02	4/4/2018	15-20	X	X
ETA03	20180404ETA03	4/4/2018	15-20	X	X
GEO	20180404GEO	4/4/2018	6.5-16.5	X	
MFA	20180405MFA	4/5/2018	3.5-13.5	X	
NRLF	20180405NRLF	4/5/2018	9-19		X
PZ11	20180403PZ11	4/3/2018	9-19	X	X
PZ9	20180403PZ9	4/3/2018	9-20	X	
RWF	20180405RWF	4/5/2018	8-18	X	
TP1	20180403TP1	4/3/2018	7-17	X	X
TP2	20180405TP2	4/5/2018	6-16	X	
WSM01	20180404WSM01	4/4/2018	5-15	X	X

Notes:

bgs	Below ground surface	VOA	Volatile organic analysis
EPA	U.S. Environmental Protection Agency	VOC	Volatile organic compounds
ID	Identification		

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B120	11/1/10	11.72	6.75	4.97
B120	2/10/11	11.72	4.96	6.76
B120	4/11/11	11.72	3.60	8.12
B120	10/3/11	11.72	6.51	5.21
B120	4/2/12	11.72	2.78	8.94
B120	10/1/12	11.72	6.71	5.01
B120	4/1/13	11.72	5.45	6.27
B120	10/7/13	11.72	7.10	4.62
B120	3/28/14	11.72	5.54	6.18
B120	10/1/14	11.72	7.25	4.47
B120	4/1/15	11.72	6.50	5.22
B120	10/5/15	11.72	7.57	4.15
B120	4/4/16	11.72	4.19	7.53
B120	10/4/16	11.72	7.35	4.37
B120	4/3/17	11.72	2.61	9.11
B120	10/2/17	11.72	7.06	4.66
B120	4/2/18	11.72	3.88	7.84
B121	11/1/10	14.77	10.21	4.56
B121	2/10/11	14.77	8.83	5.94
B121	4/11/11	14.77	7.34	7.43
B121	10/3/11	14.77	10.05	4.72
B121	4/2/12	14.77	6.95	7.82
B121	10/1/12	14.77	10.25	4.52
B121	4/1/13	14.77	9.24	5.53
B121	10/7/13	14.77	10.51	4.26
B121	3/28/14	14.77	9.22	5.55
B121	10/1/14	14.77	10.62	4.15
B121	4/1/15	14.77	3.64	11.13
B121	10/5/15	14.77	10.85	3.92
B121	4/4/16	14.77	8.03	6.74
B121	10/4/16	14.77	10.45	4.32
B121	4/3/17	14.77	7.00	7.77
B121	10/2/17	14.77	10.54	4.23
B121	4/2/18	14.77	8.14	6.63
B128	11/1/10	11.62	7.86	3.76
B128	2/10/11	11.62	6.95	4.67
B128	4/11/11	11.62	6.82	4.80
B128	10/3/11	11.62	7.76	3.86

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B128	4/2/12	11.62	4.33	7.29
B128	10/1/12	11.62	7.91	3.71
B128	4/2/13	11.62	7.20	4.42
B128	10/7/13	11.62	8.09	3.53
B128	3/28/14	11.62	7.15	4.47
B128	10/5/15	11.62	8.23	3.39
B128	4/4/16	11.62	5.72	5.90
B128	10/4/16	11.62	8.28	3.34
B128	4/3/17	11.62	5.49	6.13
B128	10/2/17	11.62	8.00	3.62
B128deep	11/1/10	12.15	8.82	3.33
B128deep	2/10/11	12.15	7.33	4.82
B128deep	4/11/11	12.15	6.71	5.44
B128deep	10/3/11	12.15	8.56	3.59
B128deep	4/2/12	12.15	6.12	6.03
B128deep	10/1/12	12.15	8.35	3.80
B128deep	4/2/13	12.15	6.68	5.47
B128deep	10/7/13	12.15	7.47	4.68
B128deep	3/28/14	12.15	7.61	4.54
B128deep	10/1/14	12.15	7.63	4.52
B128deep	4/1/15	12.15	8.17	3.98
B128deep	10/5/15	12.15	8.64	3.51
B128deep	4/4/16	12.15	6.86	5.29
B128deep	10/4/16	12.15	8.68	3.47
B128deep	4/3/17	12.15	6.86	5.29
B128deep	10/2/17	12.15	8.34	3.81
B150	11/1/10	17.24	6.22	11.02
B150	2/10/11	17.24	6.04	11.20
B150	4/11/11	17.24	3.46	13.78
B150	10/3/11	17.24	8.52	8.72
B150	4/2/12	17.24	1.74	15.50
B150	10/1/12	17.24	9.81	7.43
B150	4/1/13	17.24	6.25	10.99
B150	10/7/13	17.24	8.21	9.03
B150	3/28/14	17.24	5.71	11.53
B150	10/1/14	17.24	11.72	5.52
B150	4/1/15	17.24	6.71	10.53
B150	10/5/15	17.24	11.92	5.32

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B150	4/4/16	17.24	4.02	13.22
B150	10/4/16	17.24	12.05	5.19
B150	4/3/17	17.24	4.48	12.76
B150	10/2/17	17.24	11.74	5.50
B150	4/2/18	17.24	4.85	12.39
B158	11/1/10	15.88	11.08	4.80
B158	2/10/11	15.88	9.81	6.07
B158	4/11/11	15.88	8.45	7.43
B158	10/3/11	15.88	10.92	4.96
B158	4/2/12	15.88	8.20	7.68
B158	10/1/12	15.88	11.10	4.78
B158	4/1/13	15.88	10.26	5.62
B158	10/7/13	15.88	11.32	4.56
B158	3/28/14	15.88	10.14	5.74
B158	10/1/14	15.88	11.48	4.40
B158	4/1/15	15.88	10.50	5.38
B158	10/5/15	15.88	11.67	4.21
B158	4/4/16	15.88	8.98	6.90
B158	10/4/16	15.88	11.56	4.32
B158	4/3/17	15.88	8.00	7.88
B158	10/2/17	15.88	11.30	4.58
B158	4/2/18	15.88	9.15	6.73
B163	11/1/10	10.37	6.30	4.07
B163	2/10/11	10.37	5.07	5.30
B163	4/11/11	10.37	3.97	6.40
B163	10/3/11	10.37	6.04	4.33
B163	4/2/12	10.37	3.27	7.10
B163	10/1/12	10.37	6.31	4.06
B163	4/1/13	10.37	5.35	5.02
B163	10/7/13	10.37	6.57	3.80
B163	3/28/14	10.37	5.24	5.13
B163	10/1/14	10.37	6.61	3.76
B163	4/1/15	10.37	5.89	4.48
B163	10/5/15	10.37	6.77	3.60
B163	4/4/16	10.37	4.51	5.86
B163	10/4/16	10.37	6.76	3.61
B163	4/3/17	10.37	3.59	6.78
B163	10/2/17	10.37	6.61	3.76

Table 2: Groundwater Elevation Data
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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B163	4/2/18	10.37	4.26	6.11
B175S	11/1/10	15.16	10.31	4.85
B175S	2/10/11	15.16	8.71	6.45
B175S	4/11/11	15.16	7.03	8.13
B175S	10/3/11	15.16	10.11	5.05
B175S	4/2/12	15.16	6.62	8.54
B175S	10/1/12	15.16	10.34	4.82
B175S	4/1/13	15.16	9.09	6.07
B175S	10/7/13	15.16	10.61	4.55
B175S	3/28/14	15.16	9.16	6.00
B175S	10/1/14	15.16	10.81	4.35
B175S	4/1/15	15.16	9.61	5.55
B175S	10/5/15	15.16	11.06	4.10
B175S	4/4/16	15.16	7.91	7.25
B175S	10/4/16	15.16	11.88	3.28
B175S	4/3/17	15.16	6.45	8.71
B175S	10/2/17	15.16	10.62	4.54
B175S	4/2/18	15.16	8.94	6.22
B175W	11/1/10	16.57	9.96	6.61
B175W	2/10/11	16.57	8.20	8.37
B175W	4/11/11	16.57	5.10	11.47
B175W	10/3/11	16.57	10.24	6.33
B175W	4/2/12	16.57	3.62	12.95
B175W	10/1/12	16.57	10.47	6.10
B175W	4/1/13	16.57	9.29	7.28
B175W	10/7/13	16.57	10.72	5.85
B175W	3/28/14	16.57	8.94	7.63
B175W	10/1/14	16.57	11.09	5.48
B175W	4/1/15	16.57	9.48	7.09
B175W	10/5/15	16.57	11.33	5.24
B175W	4/4/16	16.57	6.93	9.64
B175W	10/4/16	16.57	11.18	5.39
B175W	4/3/17	16.57	5.40	11.17
B175W	10/2/17	16.57	10.84	5.73
B175W	4/2/18	16.57	6.47	10.10
B177	11/1/10	17.57	11.66	5.91
B177	2/10/11	17.57	9.69	7.88
B177	4/11/11	17.57	7.49	10.08

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B177	10/3/11	17.57	11.43	6.14
B177	4/2/12	17.57	7.41	10.16
B177	10/1/12	17.57	11.71	5.86
B177	4/1/13	17.57	10.31	7.26
B177	10/7/13	17.57	11.98	5.59
B177	3/28/14	17.57	10.34	7.23
B177	10/1/14	17.57	12.29	5.28
B177	4/1/15	17.57	10.91	6.66
B177	10/5/15	17.57	12.68	4.89
B177	4/4/16	17.57	8.21	9.36
B177	10/4/16	17.57	12.39	5.18
B177	4/3/17	17.57	6.60	10.97
B177	10/2/17	17.57	12.01	5.56
B177	4/2/18	17.57	9.32	8.25
B178	11/1/10	10.67	5.61	5.06
B178	2/10/11	10.67	3.94	6.73
B178	4/11/11	10.67	2.22	8.45
B178	10/3/11	10.67	5.38	5.29
B178	4/2/12	10.67	1.60	9.07
B178	10/1/12	10.67	5.61	5.06
B178	4/1/13	10.67	4.28	6.39
B178	10/7/13	10.67	NA	NA
B178	3/28/14	10.67	4.36	6.31
B178	10/1/14	10.67	6.16	4.51
B178	4/1/15	10.67	4.86	5.81
B178	10/5/15	10.67	6.45	4.22
B178	4/4/16	10.67	3.04	7.63
B178	10/4/16	10.67	6.24	4.43
B178	4/3/17	10.67	1.62	9.05
B178	10/2/17	10.67	5.97	4.70
B178	4/2/18	10.67	3.00	7.67
B180	11/1/10	15.02	9.11	5.91
B180	2/10/11	15.02	7.03	7.99
B180	4/11/11	15.02	4.93	10.09
B180	10/3/11	15.02	8.82	6.20
B180	4/2/12	15.02	4.99	10.03
B180	10/1/12	15.02	9.11	5.91
B180	4/1/13	15.02	7.59	7.43

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B180	10/7/13	15.02	9.38	5.64
B180	3/28/14	15.02	7.76	7.26
B180	10/1/14	15.02	9.71	5.31
B180	4/1/15	15.02	8.19	6.83
B180	10/5/15	15.02	10.13	4.89
B180	4/4/16	15.02	5.87	9.15
B180	10/4/16	15.02	9.80	5.22
B180	4/3/17	15.02	4.20	10.82
B180	10/2/17	15.02	9.39	5.63
B180	4/2/18	15.02	6.47	8.55
B185	11/1/10	10.01	5.38	4.63
B185	2/10/11	10.01	3.90	6.11
B185	4/11/11	10.01	2.53	7.48
B185	10/3/11	10.01	5.18	4.83
B185	4/2/12	10.01	1.72	8.29
B185	10/1/12	10.01	5.37	4.64
B185	4/1/13	10.01	4.08	5.93
B185	10/7/13	10.01	5.69	4.32
B185	3/28/14	10.01	4.14	5.87
B185	10/1/14	10.01	5.76	4.25
B185	4/1/15	10.01	4.81	5.20
B185	10/5/15	10.01	5.94	4.07
B185	4/4/16	10.01	3.18	6.83
B185	10/4/16	10.01	8.88	1.13
B185	4/3/17	10.01	2.04	7.97
B185	10/2/17	10.01	5.65	4.36
B185	4/2/18	10.01	3.35	6.66
B194	11/1/10	18.30	11.75	6.55
B194	2/10/11	18.30	9.19	9.11
B194	4/11/11	18.30	7.28	11.02
B194	10/3/11	18.30	11.32	6.98
B194	4/2/12	18.30	6.75	11.55
B194	10/1/12	18.30	11.56	6.74
B194	4/1/13	18.30	6.48	11.82
B194	10/7/13	18.30	12.07	6.23
B194	3/28/14	18.30	10.24	8.06
B194	10/6/14	18.30	12.48	5.82
B194	4/1/15	18.30	10.96	7.34

Table 2: Groundwater Elevation Data
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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B194	10/5/15	18.30	13.85	4.45
B194	4/4/16	18.30	8.26	10.04
B194	10/4/16	18.30	12.48	5.82
B194	4/3/17	18.30	6.60	11.70
B194	10/2/17	18.30	12.15	6.15
B194	4/2/18	18.30	8.18	10.12
B195	11/1/10	14.28	8.66	5.62
B195	2/10/11	14.28	6.50	7.78
B195	4/11/11	14.28	6.57	7.71
B195	10/3/11	14.28	8.37	5.91
B195	4/2/12	14.28	4.23	10.05
B195	10/1/12	14.28	8.65	5.63
B195	4/1/13	14.28	7.07	7.21
B195	10/7/13	14.28	9.00	5.28
B195	3/28/14	14.28	7.30	6.98
B195	10/1/14	14.28	9.26	5.02
B195	4/1/15	14.28	7.76	6.52
B195	10/5/15	14.28	9.56	4.72
B195	4/4/16	14.28	5.53	8.75
B195	10/4/16	14.28	9.33	4.95
B195	4/3/17	14.28	3.90	10.38
B195	10/2/17	14.28	8.93	5.35
B195	4/2/18	14.28	5.87	8.41
B197	11/1/10	13.01	7.94	5.07
B197	2/10/11	13.01	6.16	6.85
B197	4/11/11	13.01	4.25	8.76
B197	10/3/11	13.01	7.70	5.31
B197	4/2/12	13.01	3.83	9.18
B197	10/1/12	13.01	NA	NA
B197	10/7/13	13.01	9.47	NA
B197R	4/1/13	13.19	6.85	6.34
B197R	3/28/14	13.19	6.84	6.35
B197R	10/1/14	13.19	8.65	4.54
B197R	4/1/15	13.19	7.35	5.84
B197R	10/5/15	13.19	8.89	4.30
B197R	4/4/16	13.19	5.41	7.78
B197R	10/4/16	13.19	8.71	4.48
B197R	4/3/17	13.19	3.96	9.23
B197R	10/2/17	13.19	6.37	6.82

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B197R	4/2/18	13.19	5.50	7.69
B277	11/1/10	14.82	10.46	4.36
B277	2/10/11	14.82	10.10	4.72
B277	4/11/11	14.82	9.77	5.05
B277	10/3/11	14.82	10.41	4.41
B277	4/2/12	14.82	9.70	5.12
B277	10/1/12	14.82	10.49	4.33
B277	4/1/13	14.82	10.14	4.68
B277	10/7/13	14.82	10.68	4.14
B277	3/28/14	14.82	10.13	4.69
B277	10/5/15	14.82	10.78	4.04
B277	4/4/16	14.82	9.78	5.04
B277	10/4/16	14.82	10.71	4.11
B277	4/3/17	14.82	9.50	5.32
B277	10/2/17	14.82	10.52	4.30
B277	4/2/18	14.82	9.88	4.94
B278	11/1/10	12.75	9.14	3.61
B278	2/10/11	12.75	8.90	3.85
B278	4/11/11	12.75	8.44	4.31
B278	10/3/11	12.75	9.13	3.62
B278	4/2/12	12.75	8.19	4.56
B278	10/1/12	12.75	9.35	3.40
B278	4/1/13	12.75	8.90	3.85
B278	10/7/13	12.75	9.38	3.37
B278	3/28/14	12.75	8.84	3.91
B278	10/1/14	12.75	9.44	3.31
B278	4/1/15	12.75	8.85	3.90
B278	10/5/15	12.75	9.41	3.34
B278	4/4/16	12.75	8.46	4.29
B278	10/4/16	12.75	9.45	3.30
B278	4/3/17	12.75	8.05	4.70
B278	10/2/17	12.75	9.14	3.61
B278	4/2/18	12.75	8.35	4.40
B280A	11/1/10	14.04	10.99	3.05
B280A	2/10/11	14.04	10.84	3.20
B280A	4/11/11	14.04	10.40	3.64
B280A	10/3/11	14.04	11.07	2.97
B280A	4/2/12	14.04	10.04	4.00
B280A	10/1/12	14.04	11.15	2.89

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B280A	4/1/13	14.04	10.69	3.35
B280A	10/7/13	14.04	11.20	2.84
B280A	3/28/14	14.04	10.63	3.41
B280A	10/1/14	14.04	11.21	2.83
B280A	4/1/15	14.04	10.84	3.20
B280A	10/5/15	14.04	11.00	3.04
B280A	4/4/16	14.04	10.55	3.49
B280A	10/4/16	14.04	11.07	2.97
B280A	4/3/17	14.04	10.20	3.84
B280A	10/2/17	14.04	11.03	3.01
B280A	4/2/18	14.04	10.37	3.67
B280B	11/1/10	19.59	12.98	6.61
B280B	2/10/11	19.59	12.66	6.93
B280B	4/11/11	19.59	9.98	9.61
B280B	10/3/11	19.59	13.00	6.59
B280B	4/2/12	19.59	9.55	10.04
B280B	10/1/12	19.59	13.21	6.38
B280B	4/1/13	19.59	12.80	6.79
B280B	10/7/13	19.59	13.16	6.43
B280B	3/28/14	19.59	12.64	6.95
B280B	10/1/14	19.59	13.14	6.45
B280B	4/1/15	19.59	13.04	6.55
B280B	10/5/15	19.59	13.24	6.35
B280B	4/4/16	19.59	12.17	7.42
B280B	10/4/16	19.59	13.15	6.44
B280B	4/3/17	19.59	10.86	8.73
B280B	10/2/17	19.59	13.02	6.57
B280B	4/2/18	19.59	11.81	7.78
B300	11/1/10	18.16	12.95	5.21
B300	2/10/11	18.16	11.50	6.66
B300	4/11/11	18.16	9.97	8.19
B300	10/3/11	18.16	12.40	5.76
B300	4/2/12	18.16	10.73	7.43
B300	10/1/12	18.16	12.94	5.22
B300	4/1/13	18.16	11.87	6.29
B300	10/7/13	18.16	13.10	5.06
B300	3/28/14	18.16	9.25	8.91
B300	10/1/14	18.16	13.39	4.77
B300	4/1/15	18.16	12.07	6.09
B300	10/5/15	18.16	13.62	4.54

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B300	4/4/16	18.16	10.52	7.64
B300	10/4/16	18.16	13.39	4.77
B300	4/3/17	18.16	9.31	8.85
B300	10/2/17	18.16	13.08	5.08
B300	4/2/18	18.16	11.25	6.91
B38	11/1/10	15.78	9.95	5.83
B38	2/10/11	15.78	7.93	7.85
B38	4/11/11	15.78	5.85	9.93
B38	10/3/11	15.78	9.80	5.98
B38	4/2/12	15.78	5.93	9.85
B38	10/1/12	15.78	9.93	5.85
B38	4/1/13	15.78	8.51	7.27
B38	10/7/13	15.78	10.19	5.59
B38	3/28/14	15.78	8.60	7.18
B38	10/1/14	15.78	10.55	5.23
B38	4/1/15	15.78	9.01	6.77
B38	10/5/15	15.78	10.93	4.85
B38	4/4/16	15.78	9.42	6.36
B38	10/4/16	15.78	10.60	5.18
B38	4/3/17	15.78	5.06	10.72
B38	10/2/17	15.78	10.23	5.55
B38	4/2/18	15.78	7.33	8.45
B38deep	11/1/10	15.84	9.81	6.03
B38deep	2/10/11	15.84	8.10	7.74
B38deep	4/11/11	15.84	6.50	9.34
B38deep	10/3/11	15.84	9.66	6.18
B38deep	4/2/12	15.84	6.78	9.06
B38deep	10/1/12	15.84	9.71	6.13
B38deep	4/1/13	15.84	8.57	7.27
B38deep	10/7/13	15.84	10.09	5.75
B38deep	3/28/14	15.84	8.67	7.17
B38deep	10/1/14	15.84	10.22	5.62
B38deep	4/1/15	15.84	8.95	6.89
B38deep	10/5/15	15.84	11.05	4.79
B38deep	4/4/16	15.84	7.22	8.62
B38deep	10/4/16	15.84	10.23	5.61
B38deep	4/3/17	15.84	8.10	7.74
B38deep	10/2/17	15.84	8.54	7.30
B38deep	4/2/18	15.84	8.66	7.18

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B450	11/1/10	21.34	14.50	6.84
B450	2/10/11	21.34	12.36	8.98
B450	4/11/11	21.34	10.20	11.14
B450	10/3/11	21.34	14.05	7.29
B450	4/2/12	21.34	11.51	9.83
B450	10/1/12	21.34	14.35	6.99
B450	4/1/13	21.34	12.94	8.40
B450	10/7/13	21.34	14.57	6.77
B450	3/28/14	21.34	13.17	8.17
B450	10/1/14	21.34	14.83	6.51
B450	4/1/15	21.34	13.38	7.96
B450	10/5/15	21.34	15.20	6.14
B450	4/4/16	21.34	11.04	10.30
B450	10/4/16	21.34	14.84	6.50
B450	4/3/17	21.34	9.42	11.92
B450	10/2/17	21.34	14.42	6.92
B450	4/2/18	21.34	12.09	9.25
B460	11/1/10	21.42	15.45	5.97
B460	2/10/11	21.42	12.58	8.84
B460	4/11/11	21.42	9.87	11.55
B460	10/3/11	21.42	14.82	6.60
B460	4/2/12	21.42	11.44	9.98
B460	10/1/12	21.42	15.49	5.93
B460	4/1/13	21.42	13.10	8.32
B460	10/7/13	21.42	15.76	5.66
B460	3/28/14	21.42	13.64	7.78
B460	10/1/14	21.42	16.25	5.17
B460	4/1/15	21.42	13.56	7.86
B460	10/5/15	21.42	15.72	5.70
B460	4/4/16	21.42	11.00	10.42
B460	10/4/16	21.42	16.07	5.35
B460	4/3/17	21.42	7.66	13.76
B460	10/2/17	21.42	15.54	5.88
B460	4/2/18	21.42	12.46	8.96
B473	11/1/10	22.29	13.78	8.51
B473	2/10/11	22.29	11.65	10.64
B473	4/11/11	22.29	9.21	13.08
B473	10/3/11	22.29	13.23	9.06
B473	4/2/12	22.29	9.75	12.54

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B473	10/1/12	22.29	13.40	8.89
B473	4/1/13	22.29	12.39	9.90
B473	10/7/13	22.29	14.71	7.58
B473	3/28/14	22.29	12.33	9.96
B473	10/1/14	22.29	14.51	7.78
B473	4/1/15	22.29	12.99	9.30
B473	10/5/15	22.29	15.03	7.26
B473	4/4/16	22.29	10.30	11.99
B473	10/4/16	22.29	14.55	7.74
B473	4/3/17	22.29	8.75	13.54
B473	10/2/17	22.29	14.21	8.08
B473	4/2/18	22.29	10.86	11.43
B474	11/1/10	23.67	15.52	8.15
B474	2/10/11	23.67	13.70	9.97
B474	4/11/11	23.67	11.55	12.12
B474	10/3/11	23.67	13.00	10.67
B474	4/2/12	23.67	11.88	11.79
B474	10/1/12	23.67	15.65	8.02
B474	4/1/13	23.67	11.94	11.73
B474	10/7/13	23.67	16.09	7.58
B474	3/28/14	23.67	11.95	11.72
B474	10/6/14	23.67	12.48	11.19
B474	4/1/15	23.67	14.65	9.02
B474	10/5/15	23.67	16.78	6.89
B474	4/4/16	23.67	12.41	11.26
B474	10/4/16	23.67	16.34	7.33
B474	4/3/17	23.67	11.02	12.65
B474	10/2/17	23.67	15.98	7.69
B474	4/2/18	23.67	13.04	10.63
B480	11/1/10	20.84	14.01	6.83
B480	2/10/11	20.84	11.78	9.06
B480	4/11/11	20.84	9.45	11.39
B480	10/3/11	20.84	13.56	7.28
B480	4/2/12	20.84	10.81	10.03
B480	10/1/12	20.84	13.98	6.86
B480	4/1/13	20.84	12.42	8.42
B480	10/7/13	20.84	14.20	6.64
B480	3/28/14	20.84	12.64	8.20
B480	10/1/14	20.84	14.50	6.34

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B480	4/1/15	20.84	12.88	7.96
B480	10/5/15	20.84	14.85	5.99
B480	4/4/16	20.84	10.35	10.49
B480	10/4/16	20.84	14.51	6.33
B480	4/3/17	20.84	8.77	12.07
B480	10/2/17	20.84	14.11	6.73
B480	4/2/18	20.84	11.44	9.40
B480deep	11/1/10	21.07	9.55	11.52
B480deep	2/10/11	21.07	8.60	12.47
B480deep	4/11/11	21.07	7.16	13.91
B480deep	10/3/11	21.07	9.54	11.53
B480deep	4/2/12	21.07	7.44	13.63
B480deep	10/1/12	21.07	10.04	11.03
B480deep	4/1/13	21.07	9.06	12.01
B480deep	10/7/13	21.07	10.29	10.78
B480deep	3/28/14	21.07	9.02	12.05
B480deep	10/1/14	21.07	10.51	10.56
B480deep	4/1/15	21.07	9.55	11.52
B480deep	10/5/15	21.07	10.88	10.19
B480deep	4/4/16	21.07	7.86	13.21
B480deep	10/4/16	21.07	10.58	10.49
B480deep	4/3/17	21.07	6.61	14.46
B480deep	10/2/17	21.07	10.23	10.84
B480deep	4/2/18	21.07	7.90	13.17
B490	11/1/10	24.41	15.20	9.21
B490	2/10/11	24.41	14.08	10.33
B490	4/11/11	24.41	13.11	11.30
B490	10/3/11	24.41	15.24	9.17
B490	4/2/12	24.41	13.34	11.07
B490	10/1/12	24.41	15.34	9.07
B490	4/1/13	24.41	14.53	9.88
B490	10/7/13	24.41	16.60	7.81
B490	3/28/14	24.41	13.44	10.97
B490	10/1/14	24.41	15.71	8.70
B490	4/1/15	24.41	14.83	9.58
B490	10/5/15	24.41	16.13	8.28
B490	4/4/16	24.41	13.41	11.00
B490	10/4/16	24.41	15.72	8.69
B490	4/3/17	24.41	12.78	11.63

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
B490	10/2/17	24.41	15.41	9.00
B490	4/2/18	24.41	13.65	10.76
Bulb1	11/1/10	7.19	4.76	2.43
Bulb1	2/10/11	7.19	4.12	3.07
Bulb1	4/11/11	7.19	4.11	3.08
Bulb1	10/3/11	7.19	5.09	2.10
Bulb1	4/2/12	7.19	3.94	3.25
Bulb1	10/1/12	7.19	5.13	2.06
Bulb1	4/2/13	7.19	4.27	2.92
Bulb1	10/7/13	7.19	4.78	2.41
Bulb1	3/28/14	7.19	4.19	3.00
Bulb1	10/1/14	7.19	4.33	2.86
Bulb1	4/1/15	7.19	4.47	2.72
Bulb1	10/5/15	7.19	4.25	2.94
Bulb1	4/4/16	7.19	4.08	3.11
Bulb1	10/4/16	7.19	4.54	2.65
Bulb1	4/3/17	7.19	4.09	3.10
Bulb1	10/2/17	7.19	4.41	2.78
Bulb1	4/2/18	7.19	4.15	3.04
Bulb2	11/1/10	7.46	4.60	2.86
Bulb2	2/10/11	7.46	3.94	3.52
Bulb2	4/11/11	7.46	3.61	3.85
Bulb2	10/3/11	7.46	3.74	3.72
Bulb2	4/2/12	7.46	3.08	4.38
Bulb2	10/1/12	7.46	4.57	2.89
Bulb2	4/2/13	7.46	4.15	3.31
Bulb2	10/7/13	7.46	4.73	2.73
Bulb2	3/28/14	7.46	4.03	3.43
Bulb2	10/1/14	7.46	4.58	2.88
Bulb2	4/1/15	7.46	4.38	3.08
Bulb2	10/5/15	7.46	4.72	2.74
Bulb2	4/4/16	7.46	3.65	3.81
Bulb2	10/4/16	7.46	4.84	2.62
Bulb2	4/3/17	7.46	3.27	4.19
Bulb2	10/2/17	7.46	4.58	2.88
Bulb2	4/2/18	7.46	3.55	3.91
CCC1	11/1/10	15.38	10.89	4.49
CCC1	2/10/11	15.38	7.36	8.02
CCC1	4/11/11	15.38	8.65	6.73

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
CCC1	10/3/11	15.38	10.67	4.71
CCC1	4/2/12	15.38	7.94	7.44
CCC1	10/1/12	15.38	10.86	4.52
CCC1	4/1/13	15.38	10.10	5.28
CCC1	10/7/13	15.38	11.05	4.33
CCC1	3/28/14	15.38	9.81	5.57
CCC1	10/1/14	15.38	11.22	4.16
CCC1	4/1/15	15.38	10.22	5.16
CCC1	10/5/15	15.38	11.45	3.93
CCC1	4/4/16	15.38	8.57	6.81
CCC1	10/4/16	15.38	11.30	4.08
CCC1	4/3/17	15.38	7.60	7.78
CCC1	10/2/17	15.38	11.05	4.33
CCC1	4/2/18	15.38	8.81	6.57
CCC2	11/1/10	14.60	10.14	4.46
CCC2	2/10/11	14.60	8.88	5.72
CCC2	4/11/11	14.60	7.31	7.29
CCC2	10/3/11	14.60	9.90	4.70
CCC2	4/2/12	14.60	7.00	7.60
CCC2	10/1/12	14.60	10.11	4.49
CCC2	4/1/13	14.60	9.20	5.40
CCC2	10/7/13	14.60	10.37	4.23
CCC2	3/28/14	14.60	9.15	5.45
CCC2	10/1/14	14.60	11.20	3.40
CCC2	4/1/15	14.60	9.53	5.07
CCC2	10/5/15	14.60	11.66	2.94
CCC2	4/4/16	14.60	7.89	6.71
CCC2	10/4/16	14.60	10.53	4.07
CCC2	4/3/17	14.60	6.51	8.09
CCC2	10/2/17	14.60	10.30	4.30
CCC2	4/2/18	14.60	7.99	6.61
CCC3	11/1/10	11.67	7.56	4.11
CCC3	2/10/11	11.67	6.33	5.34
CCC3	4/11/11	11.67	6.21	5.46
CCC3	10/3/11	11.67	7.35	4.32
CCC3	4/2/12	11.67	4.60	7.07
CCC3	10/1/12	11.67	7.54	4.13
CCC3	4/1/13	11.67	6.64	5.03
CCC3	10/7/13	11.67	7.81	3.86

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
CCC3	3/28/14	11.67	6.57	5.10
CCC3	10/1/14	11.67	8.50	3.17
CCC3	4/1/15	11.67	6.71	4.96
CCC3	10/5/15	11.67	7.99	3.68
CCC3	4/4/16	11.67	5.61	6.06
CCC3	10/4/16	11.67	7.93	3.74
CCC3	4/3/17	11.67	5.69	5.98
CCC3	10/2/17	11.67	7.71	3.96
CCC3	4/2/18	11.67	5.51	6.16
CCCT	11/1/10	12.13	8.42	3.71
CCCT	2/10/11	12.13	5.86	6.27
CCCT	4/11/11	12.13	4.25	7.88
CCCT	10/3/11	12.13	7.23	4.90
CCCT	4/2/12	12.13	3.78	8.35
CCCT	10/1/12	12.13	7.42	4.71
CCCT	4/1/13	12.13	6.27	5.86
CCCT	10/7/13	12.13	NA	NA
CCCT	3/28/14	12.13	6.28	5.85
CCCT	10/1/14	12.13	7.91	4.22
CCCT	4/1/15	12.13	6.76	5.37
CCCT	10/5/15	12.13	8.14	3.99
CCCT	4/4/16	12.13	5.00	7.13
CCCT	10/4/16	12.13	7.98	4.15
CCCT	4/3/17	12.13	4.40	7.73
CCCT	10/2/17	12.13	7.71	4.42
CCCT	4/2/18	12.13	5.13	7.00
CTP	11/1/10	17.27	11.77	5.50
CTP	2/10/11	17.27	11.22	6.05
CTP	4/11/11	17.27	10.40	6.87
CTP	10/3/11	17.27	11.72	5.55
CTP	4/2/12	17.27	10.17	7.10
CTP	10/1/12	17.27	11.99	5.28
CTP	4/1/13	17.27	11.40	5.87
CTP	10/7/13	17.27	12.99	4.28
CTP	3/28/14	17.27	11.32	5.95
CTP	10/1/14	17.27	12.00	5.27
CTP	4/1/15	17.27	11.50	5.77
CTP	10/5/15	17.27	12.02	5.25
CTP	4/4/16	17.27	10.78	6.49

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
CTP	10/4/16	17.27	11.91	5.36
CTP	4/3/17	17.27	10.11	7.16
CTP	10/2/17	17.27	11.82	5.45
CTP	4/2/18	17.27	10.67	6.60
CTPdeep	11/1/10	17.67	12.67	5.00
CTPdeep	2/10/11	17.67	11.46	6.21
CTPdeep	4/11/11	17.67	11.68	5.99
CTPdeep	10/3/11	17.67	12.20	5.47
CTPdeep	4/2/12	17.67	10.45	7.22
CTPdeep	10/1/12	17.67	12.33	5.34
CTPdeep	4/1/13	17.67	11.66	6.01
CTPdeep	10/7/13	17.67	12.34	5.33
CTPdeep	3/28/14	17.67	11.59	6.08
CTPdeep	10/1/14	17.67	12.41	5.26
CTPdeep	4/1/15	17.67	11.76	5.91
CTPdeep	10/5/15	17.67	12.43	5.24
CTPdeep	4/4/16	17.67	10.95	6.72
CTPdeep	10/4/16	17.67	12.26	5.41
CTPdeep	4/3/17	17.67	11.26	6.41
CTPdeep	10/2/17	17.67	12.28	5.39
CTPdeep	4/2/18	17.67	10.91	6.76
CTPS	11/1/10	15.25	11.95	3.30
CTPS	2/10/11	15.25	9.61	5.64
CTPS	4/11/11	15.25	7.64	7.61
CTPS	10/3/11	15.25	12.05	3.20
CTPS	4/2/12	15.25	7.24	8.01
CTPS	10/1/12	15.25	12.17	3.08
CTPS	4/1/13	15.25	9.11	6.14
CTPS	10/7/13	15.25	12.21	3.04
CTPS	3/28/14	15.25	8.61	6.64
CTPS	10/1/14	15.25	12.29	2.96
CTPS	4/1/15	15.25	10.92	4.33
CTPS	10/5/15	15.25	12.19	3.06
CTPS	4/4/16	15.25	--	--
CTPS	10/4/16	15.25	12.21	3.04
CTPS	4/3/17	15.25	6.57	8.68
CTPS	10/2/17	15.25	10.42	4.83
CTPS	4/2/18	15.25	7.14	8.11
DH	11/1/10	13.25	10.12	3.13

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
DH	2/10/11	13.25	8.88	4.37
DH	4/11/11	13.25	7.59	5.66
DH	10/3/11	13.25	9.90	3.35
DH	4/2/12	13.25	7.84	5.41
DH	10/1/12	13.25	10.07	3.18
DH	10/7/13	13.25	9.25	4.00
DHR	4/1/13	13.54	9.41	4.13
DHR	3/28/14	13.54	8.88	4.66
DHR	10/1/14	13.54	10.36	3.18
DHR	4/1/15	13.54	9.44	4.10
DHR	10/5/15	13.54	10.49	3.05
DHR	4/4/16	13.54	7.74	5.80
DHR	10/4/16	13.54	10.46	3.08
DHR	4/3/17	13.54	6.78	6.76
DHR	10/2/17	13.54	11.33	2.21
DHR	4/2/18	13.54	8.49	5.05
EERC	11/1/10	21.84	14.99	6.85
EERC	2/10/11	21.84	12.64	9.20
EERC	4/11/11	21.84	9.84	12.00
EERC	10/3/11	21.84	14.26	7.58
EERC	4/2/12	21.84	11.07	10.77
EERC	10/1/12	21.84	14.81	7.03
EERC	4/1/13	21.84	13.35	8.49
EERC	10/7/13	21.84	15.11	6.73
EERC	3/28/14	21.84	13.51	8.33
EERC	10/1/14	21.84	15.46	6.38
EERC	10/5/15	21.84	16.03	5.81
EERC	4/4/16	21.84	11.11	10.73
EERC	10/4/16	21.84	15.60	6.24
EERC	4/3/17	21.84	9.16	12.68
EERC	10/2/17	21.84	15.14	6.70
EERC	4/2/18	21.84	11.91	9.93
EPA	11/1/10	10.59	8.65	1.94
EPA	2/10/11	10.59	8.56	2.03
EPA	4/11/11	10.59	7.92	2.67
EPA	10/3/11	10.59	8.61	1.98
EPA	4/2/12	10.59	7.94	2.65
EPA	10/1/12	10.59	8.71	1.88
EPA	4/1/13	10.59	8.64	1.95

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
EPA	10/7/13	10.59	9.79	0.80
EPA	3/28/14	10.59	8.43	2.16
EPA	10/1/14	10.59	8.63	1.96
EPA	4/1/15	10.59	8.61	1.98
EPA	10/5/15	10.59	8.57	2.02
EPA	4/4/16	10.59	8.21	2.38
EPA	10/4/16	10.59	8.74	1.85
EPA	4/3/17	10.59	7.60	2.99
EPA	10/2/17	10.59	8.85	1.74
EPA	4/2/18	10.59	7.03	3.56
ETA	11/1/10	7.54	4.12	3.42
ETA	2/10/11	7.54	3.10	4.44
ETA	4/11/11	7.54	2.49	5.05
ETA	10/3/11	7.54	4.62	2.92
ETA	4/2/12	7.54	1.90	5.64
ETA	10/1/12	7.54	4.10	3.44
ETA	4/2/13	7.54	3.61	3.93
ETA	10/7/13	7.54	4.32	3.22
ETA	3/28/14	7.54	3.28	4.26
ETA	10/1/14	7.54	4.25	3.29
ETA	4/1/15	7.54	3.54	4.00
ETA	10/5/15	7.54	4.34	3.20
ETA	4/4/16	7.54	2.71	4.83
ETA	10/4/16	7.54	4.41	3.13
ETA	4/3/17	7.54	1.92	5.62
ETA	10/2/17	7.54	4.20	3.34
ETA	4/2/18	7.54	2.56	4.98
ETA01	4/1/15	5.93	2.52	3.41
ETA01	10/5/15	5.93	2.96	2.97
ETA01	4/4/16	5.93	1.45	4.48
ETA01	10/4/16	5.93	3.11	2.82
ETA01	4/3/17	5.93	0.88	5.05
ETA01	10/2/17	5.93	2.89	3.04
ETA01	4/2/18	5.93	1.42	4.51
ETA02	4/1/15	9.53	5.92	3.61
ETA02	10/5/15	9.53	6.58	2.95
ETA02	4/4/16	9.53	4.95	4.58
ETA02	10/4/16	9.53	6.92	2.61
ETA02	4/3/17	9.53	5.83	3.70

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
ETA02	10/2/17	9.53	6.49	3.04
ETA02	4/2/18	9.53	4.93	4.60
ETA03	4/1/15	10.48	7.12	3.36
ETA03	10/5/15	10.48	7.59	2.89
ETA03	4/4/16	10.48	6.15	4.33
ETA03	10/4/16	10.48	7.71	2.77
ETA03	4/3/17	10.48	5.75	4.73
ETA03	10/2/17	10.48	7.06	3.42
ETA03	4/2/18	10.48	5.95	4.53
FG	11/1/10	25.31	13.92	11.39
FG	2/10/11	25.31	13.48	11.83
FG	4/11/11	25.31	12.75	12.56
FG	10/3/11	25.31	13.85	11.46
FG	4/2/12	25.31	11.77	13.54
FG	10/1/12	25.31	14.10	11.21
FG	4/1/13	25.31	13.77	11.54
FG	10/7/13	25.31	14.32	10.99
FG	3/28/14	25.31	13.48	11.83
FG	10/1/14	25.31	14.52	10.79
FG	4/1/15	25.31	13.91	11.40
FG	10/5/15	25.31	14.82	10.49
FG	4/4/16	25.31	12.90	12.41
FG	10/4/16	25.31	14.55	10.76
FG	4/3/17	25.31	12.26	13.05
FG	10/2/17	25.31	14.37	10.94
FG	4/2/18	25.31	12.64	12.67
GEO	11/1/10	16.37	10.79	5.58
GEO	2/10/11	16.37	9.04	7.33
GEO	4/2/11	16.37	8.35	8.02
GEO	4/11/11	16.37	9.74	6.63
GEO	10/3/11	16.37	10.42	5.95
GEO	10/1/12	16.37	10.71	5.66
GEO	4/1/13	16.37	9.76	6.61
GEO	10/7/13	16.37	11.92	4.45
GEO	3/28/14	16.37	9.84	6.53
GEO	10/1/14	16.37	11.21	5.16
GEO	4/1/15	16.37	9.93	6.44
GEO	10/5/15	16.37	11.45	4.92
GEO	4/4/16	16.37	8.40	7.97

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Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
GEO	10/4/16	16.37	11.29	5.08
GEO	4/3/17	16.37	7.41	8.96
GEO	10/2/17	16.37	10.96	5.41
GEO	4/2/18	16.37	9.05	7.32
MFA	11/1/10	8.23	4.55	3.68
MFA	2/10/11	8.23	3.59	4.64
MFA	4/11/11	8.23	2.67	5.56
MFA	10/3/11	8.23	4.41	3.82
MFA	4/2/12	8.23	1.98	6.25
MFA	10/1/12	8.23	4.57	3.66
MFA	4/2/13	8.23	3.70	4.53
MFA	10/7/13	8.23	4.85	3.38
MFA	3/28/14	8.23	3.68	4.55
MFA	10/1/14	8.23	3.68	4.55
MFA	4/1/15	8.23	4.71	3.52
MFA	10/5/15	8.23	4.91	3.32
MFA	4/4/16	8.23	3.08	5.15
MFA	10/4/16	8.23	4.96	3.27
MFA	4/3/17	8.23	2.28	5.95
MFA	10/2/17	8.23	4.74	3.49
MFA	4/2/18	8.23	2.97	5.26
NRLF	11/1/10	22.62	16.11	6.51
NRLF	2/10/11	22.62	13.45	9.17
NRLF	4/11/11	22.62	11.99	10.63
NRLF	10/3/11	22.62	15.83	6.79
NRLF	4/2/12	22.62	12.96	9.66
NRLF	10/1/12	22.62	16.30	6.32
NRLF	4/1/13	22.62	13.70	8.92
NRLF	10/7/13	22.62	NA	NA
NRLF	3/28/14	22.62	14.16	8.46
NRLF	10/1/14	22.62	17.06	5.56
NRLF	4/1/15	22.62	14.21	8.41
NRLF	10/5/15	22.62	17.42	5.20
NRLF	4/4/16	22.62	12.75	9.87
NRLF	10/4/16	22.62	16.88	5.74
NRLF	4/3/17	22.62	11.11	11.51
NRLF	10/2/17	22.62	16.17	6.45
NRLF	4/2/18	22.62	13.04	9.58
PZ11	11/1/10	21.48	12.41	9.07

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
PZ11	2/10/11	21.48	NA	NA
PZ11	4/11/11	21.48	8.08	13.40
PZ11	10/3/11	21.48	12.10	9.38
PZ11	4/2/12	21.48	7.74	13.74
PZ11	10/1/12	21.48	11.81	9.67
PZ11	10/7/13	21.48	12.55	8.93
PZ11	3/28/14	21.48	10.80	10.68
PZ11	10/1/14	21.48	13.14	8.34
PZ11	4/1/15	21.48	11.45	10.03
PZ11	10/5/15	21.48	13.59	7.89
PZ11	4/4/16	21.48	8.55	12.93
PZ11	10/4/16	21.48	13.29	8.19
PZ11	4/3/17	21.48	6.81	14.67
PZ11	10/2/17	21.48	12.96	8.52
PZ11	4/2/18	21.48	9.01	12.47
PZ8	11/1/10	14.12	8.45	5.67
PZ8	2/10/11	14.12	NA	NA
PZ8	4/11/11	14.12	4.56	9.56
PZ8	10/3/11	14.12	8.21	5.91
PZ8	4/2/12	14.12	4.20	9.92
PZ8	10/1/12	14.12	8.44	5.68
PZ8	4/1/13	14.12	6.74	7.38
PZ8	10/7/13	14.12	8.78	5.34
PZ8	3/28/14	14.12	7.12	7.00
PZ8	10/1/14	14.12	9.04	5.08
PZ8	4/1/15	14.12	7.58	6.54
PZ8	10/5/15	14.12	9.42	4.70
PZ8	4/4/16	14.12	5.37	8.75
PZ8	10/4/16	14.12	9.14	4.98
PZ8	4/3/17	14.12	4.80	9.32
PZ8	10/2/17	14.12	8.76	5.36
PZ8	4/2/18	14.12	5.71	8.41
PZ9	11/1/10	23.29	13.75	9.54
PZ9	2/10/11	23.29	NA	NA
PZ9	4/11/11	23.29	11.21	12.08
PZ9	10/3/11	23.29	13.52	9.77
PZ9	4/2/12	23.29	11.20	12.09
PZ9	10/1/12	23.29	13.42	9.87
PZ9	4/1/13	23.29	12.87	10.42

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
PZ9	10/7/13	23.29	14.25	9.04
PZ9	3/28/14	23.29	12.67	10.62
PZ9	10/1/14	23.29	14.49	8.80
PZ9	4/1/15	23.29	13.24	10.05
PZ9	10/5/15	23.29	15.00	8.29
PZ9	4/4/16	23.29	11.39	11.90
PZ9	10/4/16	23.29	14.55	8.74
PZ9	4/3/17	23.29	9.85	13.44
PZ9	10/2/17	23.29	14.20	9.09
PZ9	4/2/18	23.29	12.36	10.93
RWF	11/1/10	16.46	10.53	5.93
RWF	2/10/11	16.46	8.42	8.04
RWF	4/11/11	16.46	6.26	10.20
RWF	10/3/11	16.46	10.21	6.25
RWF	4/2/12	16.46	6.70	9.76
RWF	10/1/12	16.46	10.52	5.94
RWF	4/1/13	16.46	9.09	7.37
RWF	10/7/13	16.46	10.81	5.65
RWF	3/28/14	16.46	12.01	4.45
RWF	10/1/14	16.46	11.22	5.24
RWF	4/1/15	16.46	9.58	6.88
RWF	10/5/15	16.46	11.65	4.81
RWF	4/4/16	16.46	7.34	9.12
RWF	10/4/16	16.46	11.32	5.14
RWF	4/3/17	16.46	5.68	10.78
RWF	10/2/17	16.46	10.94	5.52
RWF	4/2/18	16.46	8.06	8.40
TP1	11/1/10	19.33	13.11	6.22
TP1	2/10/11	19.33	10.90	8.43
TP1	4/11/11	19.33	8.59	10.74
TP1	10/3/11	19.33	12.61	6.72
TP1	4/2/12	19.33	9.72	9.61
TP1	10/1/12	19.33	13.00	6.33
TP1	4/1/13	19.33	11.48	7.85
TP1	10/7/13	19.33	13.25	6.08
TP1	3/28/14	19.33	11.66	7.67
TP1	10/1/14	19.33	13.52	5.81
TP1	4/1/15	19.33	11.93	7.40
TP1	10/5/15	19.33	13.95	5.38

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
TP1	4/4/16	19.33	9.49	9.84
TP1	10/4/16	19.33	13.55	5.78
TP1	4/3/17	19.33	7.77	11.56
TP1	10/2/17	19.33	13.13	6.20
TP1	4/2/18	19.33	10.60	8.73
TP2	11/1/10	18.91	12.77	6.14
TP2	2/10/11	18.91	10.57	8.34
TP2	4/11/11	18.91	8.15	10.76
TP2	10/3/11	18.91	12.28	6.63
TP2	4/2/12	18.91	9.28	9.63
TP2	10/1/12	18.91	12.67	6.24
TP2	4/1/13	18.91	11.16	7.75
TP2	10/7/13	18.91	12.87	6.04
TP2	3/28/14	18.91	11.31	7.60
TP2	10/1/14	18.91	13.22	5.69
TP2	4/1/15	18.91	11.68	7.23
TP2	10/5/15	18.91	13.60	5.31
TP2	4/4/16	18.91	9.25	9.66
TP2	10/4/16	18.91	13.23	5.68
TP2	4/3/17	18.91	7.49	11.42
TP2	10/2/17	18.91	12.81	6.10
TP2	4/2/18	18.91	10.10	8.81
WSM01	4/1/15	7.83	4.92	2.91
WSM01	10/5/15	7.83	5.95	1.88
WSM01	4/4/16	7.83	4.01	3.82
WSM01	10/4/16	7.83	5.36	2.47
WSM01	4/3/17	7.83	4.17	3.66
WSM01	10/2/17	7.83	5.22	2.61
WSM01	4/2/18	7.83	4.22	3.61
WTA	11/1/10	8.61	6.01	2.60
WTA	2/10/11	8.61	5.84	2.77
WTA	4/11/11	8.61	5.73	2.88
WTA	10/3/11	8.61	6.01	2.60
WTA	4/2/12	8.61	5.22	3.39
WTA	10/1/12	8.61	6.18	2.43
WTA	4/2/13	8.61	5.97	2.64
WTA	10/7/13	8.61	6.27	2.34
WTA	3/28/14	8.61	5.69	2.92
WTA	10/1/14	8.61	6.02	2.59

Table 2: Groundwater Elevation Data
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
WTA	4/1/15	8.61	6.01	2.60
WTA	10/5/15	8.61	5.86	2.75
WTA	4/4/16	8.61	5.43	3.18
WTA	10/4/16	8.61	6.11	2.50
WTA	4/3/17	8.61	5.20	3.41
WTA	10/2/17	8.61	5.99	2.62

Notes:

NA	Not available
NGVD	National Geodetic Vertical Datum of 1929
TOC	Top of casing

Table 3: Groundwater Sampling Parameters Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Point Location ID	Date	Temperature (C)	pH	ORP (mV)	Specific Conductance (µmhos/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)	Salinity (ppt)
B120	4/3/2018	15.80	6.29	-38	3.00	1.3	0.87	1.910	1.5
B150	-	-	-	-	-	-	-	-	-
B163	4/3/2018	17.81	5.48	216	3.24	0.0	1.29	2.070	1.7
B175S	4/5/2018	15.73	6.34	159	0.79	0.0	2.44	0.504	0.4
B175W	-	-	-	-	-	-	-	-	-
B178	4/3/2018	16.44	6.17	28	2.44	0.0	0.91	1.560	1.2
B185	4/5/2018	15.36	6.03	181	1.93	0.0	0.80	1.240	1.0
B195	4/4/2018	15.23	6.39	151	1.27	0.0	1.70	0.810	0.6
B197R	4/4/2018	16.63	6.47	-73	2.99	0.0	0.83	1.910	1.6
B280A	4/5/2018	16.18	6.91	126	86.20	0.0	1.65	0.553	0.4
B277	4/5/2018	16.54	7.24	123	85.50	0.0	1.48	0.547	0.4
B278	4/5/2018	15.51	6.61	123	3.01	0.0	3.83	1.920	1.6
B450	4/5/2018	17.01	6.52	189	95.50	0.0	4.47	0.611	0.5
B473	4/3/2018	17.21	7.09	182	43.80	0.7	5.94	0.285	0.2
B474	4/3/2018	15.29	7.18	175	38.60	4.4	4.21	0.251	0.2
B480	4/5/2018	16.98	6.74	165	92.10	0.0	4.71	0.590	0.5
BULB1	4/4/2018	15.47	8.14	-163	3.98	0.0	1.33	24.30	25.1
BULB2	4/4/2018	14.77	6.55	-98	8.16	0.3	0.68	5.140	4.5
CCC2	4/5/2018	15.42	6.14	189	1.37	5.8	5.05	0.879	0.7
CCCT	4/5/2018	14.89	6.57	-56	2.33	0.0	0.76	1.490	1.2
CTP	4/4/2018	16.16	7.03	124	92.90	0.0	3.83	0.595	0.5
DHR	4/5/2018	15.74	6.13	-100	13.80	0.0	0.72	8.560	7.9
EERC	4/5/2018	17.07	6.69	-51	0.41	0.0	1.46	2.620	2.1
ETA	4/4/2018	14.39	6.66	52	1.75	0.0	0.89	1.120	0.9
ETA01	4/4/2018	14.49	7.00	129	0.20	0.0	1.54	1.290	1.0
ETA02	4/4/2018	16.45	6.16	-99	4.73	0.0	0.76	3.030	2.5
ETA03	4/4/2018	16.72	5.40	93	5.66	2.0	0.67	3.560	3.1
FG	-	-	-	-	-	-	-	-	-
GEO	4/4/2018	15.83	7.21	162	94.00	0.0	3.79	0.602	0.5
MFA	4/5/2018	14.96	6.67	80	1.07	0.0	0.88	0.684	0.5
NRLF	4/5/2018	15.06	6.55	-57	86.80	0.0	2.12	0.556	0.4
PZ9	4/3/2018	17.00	6.97	165	69.70	0.2	1.54	0.446	0.3

Table 3: Groundwater Sampling Parameters Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Point Location ID	Date	Temperature (C)	pH	ORP (mV)	Specific Conductance (µmhos/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)	Salinity (ppt)
PZ11	4/3/2018	16.46	6.96	115	0.404	0.0	1.85	2.590	2.1
RWF	4/5/2018	15.75	6.71	155	0.145	0.0	1.94	0.930	0.7
TP1	4/3/2018	17.58	7.24	-72	0.324	1.4	2.09	2.070	1.7
TP2	4/5/2018	16.76	6.65	37	0.126	0.0	1.74	0.803	0.6
WSM01	4/4/2018	15.04	6.74	58	0.220	0.0	1.56	1.410	1.1

Notes:

--	Not sampled
µmhos/cm	Micromhos per centimeter
C	Celsius
DO	Dissolved Oxygen
g/L	Grams per liter
ID	Identification
mg/L	Milligrams per liter
mV	Millivolts
NTU	Nephelometric Turbidity Units
ORP	Oxidation reduction potential
ppt	Parts per thousand
TDS	Total dissolved solids

Table 4: Piezometer Completion Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site, Richmond, California

Piezometer Name	Well Installation Date	Total Depth (ft bgs)	Casing Diameter (inches)	Screen Interval (ft bgs)	Development Date	Development Gallons Purged	Round 1 Sampling Date	Round 2 Sampling Date	Round 3 Sampling Date	Round 4 Sampling Date	Round 5 Sampling Date	Round 6 Sampling Date	Round 7 Sampling Date	Round 8 Sampling Date	Round 9 Sampling Date	Round 10 Sampling Date	TOC (a)	Approximate Ground Surface Elevation (a)
B120	8/2/10	14	2.0 PVC	4-14	8/19/10	26	9/9/10	4/15/11	10/4/11	4/3/12	4/2/13	4/1/14	4/10/15	4/5/16	4/4/17	4/3/18	11.72	12.12
B121	8/3/10	18	2.0 PVC	8-18	8/16/10	53	9/8/10	4/13/11	10/4/11	4/4/12	NS	NS	NS	NS	NS	NS	14.77	15.55
B128	8/12/10	16	2.0 PVC	6-16	8/31/10	33	9/23/10	4/18/11	10/4/11	4/2/12	4/5/13	4/10/14	4/13/15	NS	NS	NS	11.62	12.21
B128deep	8/12/10	40	2.0 PVC	30-40	9/1/10	65	10/15/10	--	--	NS	NS	NS	NS	NS	NS	NS	12.15	12.26
B150	8/3/10	15.5	2.0 PVC	5.5-15.5	8/17/10	28	9/8/10	4/13/11	10/5/11	4/4/12	4/2/13	4/1/14	4/15/15	4/7/16	4/4/17	NS	17.24	17.51
B158	8/11/10	15	2.0 PVC	5-15	8/18/10	19	9/8/10	4/15/11	10/5/11	4/6/12	4/8/13	4/2/14	4/16/15	NS	NS	NS	15.88	16.33
B163	7/26/10	17.5	2.0 PVC	7-17	8/16/10	53	9/2/10	4/12/11	10/3/11	4/2/12	4/3/13	4/1/14	4/14/15	4/5/16	4/4/17	4/3/18	10.37	10.60
B175S	8/3/10	15	2.0 PVC	5-15	8/17/10	22	9/3/10	4/13/11	10/4/11	4/4/12	4/2/13	4/1/14	4/15/15	4/7/16	4/4/17	4/5/18	15.16	15.45
B175W	8/3/10	15	2.0 PVC	5-15	8/17/10	32	9/8/10	4/13/11	10/4/11	4/4/12	4/2/13	4/1/14	4/15/15	4/7/16	4/4/17	NS	16.57	17.21
B177	8/11/10	19	2.0 PVC	9-19	8/31/10	32	9/23/10	4/18/11	10/5/11	4/4/12	NS	NS	NS	NS	NS	NS	17.57	17.81
B178	8/2/10	14.5	2.0 PVC	4.5-14.5	8/19/10	32	9/2/10	4/15/11	10/4/11	4/3/12	4/2/13	4/8/14	4/10/15	4/5/16	4/4/17	4/3/18	10.67	11.33
B180	8/11/10	16	2.0 PVC	6-16	8/24/10	24	9/15/10	4/13/11	10/6/11	4/4/12	4/8/13	4/8/14	4/17/15	NS	NS	NS	15.02	15.30
B185	8/2/10	14	2.0 PVC	4-14	8/20/10	31	9/2/10	4/15/11	10/3/11	4/2/12	4/2/13	4/8/14	4/10/15	4/5/16	4/4/17	4/5/18	10.01	10.08
B194	7/30/10	17	2.0 PVC	7-17	8/23/10	34	9/9/10	4/13/11	10/4/11	4/4/12	NS	NS	NS	NS	NS	NS	18.30	18.84
B195	7/30/10	16	2.0 PVC	6-16	8/20/10	29	9/9/10	4/13/11	10/4/11	4/3/12	4/2/13	4/2/14	4/14/15	4/11/16	4/6/17	4/4/18	14.28	14.91
B197	7/30/10	14	2.0 PVC	4-14	8/19/10	25	9/9/10	4/13/11	10/4/11	4/3/12	--	--	--	NS	NS	NS	13.01	13.37
B197R	3/26/13	14	2.0 PVC	3-13	4/1/13	65	--	--	--	--	4/8/13	4/8/14	4/14/15	4/5/16	4/4/17	4/4/18	13.19	13.49
B277	7/29/10	17.5	2.0 PVC	7-17	8/19/10	25	9/15/10	4/18/11	10/5/11	4/3/12	4/4/13	4/2/14	4/16/15	4/11/16	4/5/17	4/5/18	14.82	15.69
B278	7/29/10	16.5	2.0 PVC	6-16	8/18/10	26	9/16/10	4/19/11	10/5/11	4/5/12	4/4/13	4/9/14	4/17/15	4/8/16	4/5/17	4/5/18	12.75	13.17
B280A	7/29/10	14.5	2.0 PVC	4-14	8/19/10	13	9/16/10	4/14/11	10/6/11	4/3/12	4/4/13	4/9/14	4/17/15	4/11/16	4/5/17	NS	14.04	14.21
B280B	8/6/10	16	2.0 PVC	6-16	8/26/10	6	10/1/10	4/14/11	10/6/11	4/3/12	NS	NS	NS	NS	NS	NS	19.59	19.89
B300	7/29/10	17	2.0 PVC	7-17	8/24/10	21	9/9/10	4/15/11	10/6/11	4/9/12	NS	NS	NS	NS	NS	NS	18.16	18.72
B38	8/10/10	17	2.0 PVC	7-17	8/24/10	24	9/15/10	4/19/11	10/6/11	4/4/12	NS	NS	NS	NS	NS	NS	15.78	16.08
B38deep	8/10/10	41	2.0 PVC	31-41	8/24/10	47	10/18/10	--	--	NS	NS	NS	NS	NS	NS	NS	15.84	16.09
B450	8/5/10	16	2.0 PVC	6-16	8/25/10	10	NS	4/19/11	10/10/11	4/6/12	4/3/13	4/3/14	4/14/15	4/7/16	4/6/17	4/5/18	21.34	21.76
B460	8/5/10	18	2.0 PVC	8-18	8/25/10	12	9/15/10	4/20/11	10/7/11	4/6/12	NS	NS	NS	NS	NS	NS	21.42	21.96
B473	8/9/10	17	2.0 PVC	7-17	8/31/10	12.5	9/24/10	4/20/11	10/7/11	4/6/12	4/3/13	4/3/14	4/16/15	4/8/16	4/4/17	4/3/18	22.29	22.50
B474	8/9/10	16	2.0 PVC	6-16	8/27/10	17.5	9/23/10	4/20/11	10/7/11	4/9/12	4/3/13	4/3/14	4/16/15	4/11/16	4/4/17	4/3/18	23.67	21.85
B480	8/5/10	16	2.0 PVC	6-16	8/27/10	10	9/24/10	4/19/11	10/7/11	4/9/12	4/3/13	4/3/14	4/17/15	4/7/16	4/6/17	4/5/18	20.84	21.04
B480deep	8/12/10	40	2.0 PVC	35-40	8/27/10	52	10/15/10	--	--	NS	NS	NS	NS	NS	NS	NS	21.07	21.19
B490	8/6/10	18	2.0 PVC	8-18	8/30/10	27	9/16/10	4/20/11	10/10/11	4/9/12	NS	NS	NS	NS	NS	NS	24.41	24.95
Bulb1	9/29/10	18	2.0 PVC	8-18	10/19/10	30	10/19/10	4/12/11	9/30/11	4/5/12	4/5/13	4/10/14	4/13/15	4/8/16	4/6/17	4/4/18	7.19	7.83
Bulb2	9/29/10	19	2.0 PVC	9-19	10/19/10	35	10/19/10	4/12/11	9/30/11	4/5/12	4/5/13	4/10/14	4/13/15	4/8/16	4/6/17	4/4/18	7.46	7.91
CCC1	7/27/10	14	2.0 PVC	3.5-13.5	8/18/10	11.5	9/8/10	4/14/11	10/5/11	4/10/12	NS	NS	NS	NS	NS	NS	15.38	15.67
CCC2	7/27/10	14	2.0 PVC	4-14	8/16/10	19	9/8/10	4/14/11	10/4/11	4/10/12	4/2/13	4/2/14	4/15/15	4/7/16	4/6/17	4/5/18	14.60	14.75
CCC3	7/27/10	15	2.0 PVC	4-14	8/16/10	27	9/3/10	9/3/10	10/4/11	4/10/12	4/2/13	4/2/14	4/15/15	NS	NS	NS	11.67	12.13
CCCT	8/2/10	15.5	2.0 PVC	5.5-15.5	8/20/10	31	9/3/10	4/18/11	10/3/11	4/4/12	4/2/13	4/8/14	4/15/15	4/7/16	4/4/17	4/5/18	12.13	13.19

Table 4: Piezometer Completion Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site, Richmond, California

Piezometer Name	Well Installation Date	Total Depth (ft bgs)	Casing Diameter (inches)	Screen Interval (ft bgs)	Development Date	Development Gallons Purged	Round 1 Sampling Date	Round 2 Sampling Date	Round 3 Sampling Date	Round 4 Sampling Date	Round 5 Sampling Date	Round 6 Sampling Date	Round 7 Sampling Date	Round 8 Sampling Date	Round 9 Sampling Date	Round 10 Sampling Date	TOC (a)	Approximate Ground Surface Elevation (a)
CTP	7/30/10	17	2.0 PVC	7-17	8/26/10	20	9/30/10	4/14/11	10/6/11	4/3/12	4/4/13	4/3/14		4/11/16	4/6/17	4/4/18	17.27	18.26
CTPdeep	8/12/10	40	2.0 PVC	30-40	8/26/10	47	10/15/10	--	--	NS	NS	NS	NS	NS	NS	NS	17.67	18.16
CTPS	7/28/10	14	2.0 PVC	4-14	8/19/10	7	9/30/2010, 10/1/10, 10/18/10	4/19/11	10/10/11	4/5/12	NS	NS	NS	NS	NS	NS	15.25	15.43
DH	7/27/10	13.5	2.0 PVC	3.5-13.5	8/18/10	13	9/30/10	4/14/11	10/5/11	4/6/12	--	--	--	NS	NS	NS	13.25	13.55
DHR	3/26/13	14	2.0 PVC	3.5-13.5	4/1/13	12	--	--	--	--	4/4/13	4/10/14	4/13/15	4/8/16	4/5/17	4/5/18	13.54	13.80
EERC	8/9/10	17	2.0 PVC	7-17	8/31/10	7.5	10/1/2010, 10/15/10	4/20/11	10/7/11	4/6/12	4/8/13	4/3/14	4/16/15	4/11/16	4/6/17	4/5/18	21.84	22.01
EPA	7/28/10	14	2.0 PVC	4-14	8/19/10	13.5	9/16/10	4/19/11	10/6/11	4/6/12	4/4/13	4/10/14	4/17/15	NS	NS	NS	10.59	11.20
ETA	7/28/10	14	2.0 PVC	3.5-13.5	9/2/10	32	9/24/10	4/12/11	9/30/11	4/10/12	4/5/13	4/8/14	4/13/15	4/5/16	4/5/17	4/4/18	7.54	7.72
ETA01	1/28/15	15	2.0 PVC	5-15	1/30/15	115	--	--	--	--	--	--	2/2/15 (b)	4/5/16	4/5/17	4/4/18	5.93	NR
ETA02	1/28/15	20	2.0 PVC	15-20	1/30/15	75	--	--	--	--	--	--	2/2/15 (b)	4/5/16	4/5/17	4/4/18	9.53	NR
ETA03	1/28/15	20	2.0 PVC	15-20	1/30/15	15	--	--	--	--	--	--	2/2/15 (b)	4/5/16	4/5/17	4/4/18	10.48	NR
FG	8/6/10	16	2.0 PVC	6-16	8/30/10	7	9/23/10	4/19/11	10/10/11	4/9/12	4/3/13	4/9/14	4/16/15	4/7/16	4/6/17	NS	25.31	25.79
GEO	7/26/10	17.5	2.0 PVC	6.5-16.5	9/1/10	20	9/3/10	4/20/11	10/6/11	4/6/12	4/4/13	4/9/14	4/16/15	4/11/16	4/6/17	4/4/18	16.37	16.73
MFA	7/28/10	13.5	2.0 PVC	3.5-13.5	9/2/10	37	9/24/10	4/12/11	10/3/11	4/5/12	4/5/13	4/8/14	4/13/15	4/8/16	4/6/17	4/5/18	8.23	8.51
NRLF	7/26/10	19.5	2.0 PVC	9-19	8/26/10	10	9/16/10	4/20/11	10/6/11	4/9/12	4/3/13	4/9/14	4/16/15	4/8/16	4/6/17	4/5/18	22.62	22.99
PZ11	10/6/09	19	2.0 PVC	9-19	unk	unk	10/15/10	4/20/11	10/10/11	4/5/12	4/5/13	4/9/14	4/16/15	4/8/16	4/6/17	4/3/18	21.48	21.73
PZ8	4/12/07	21	2.0 PVC	8-21	unk	unk	10/1/10	4/18/11	10/4/11	4/3/12	4/8/13	4/8/14	4/14/15	NS	NS	NS	14.12	14.52
PZ9	4/12/07	20	2.0 PVC	9-20	unk	unk	9/24/10	4/20/11	10/7/11	4/6/12	4/3/13	4/9/14	4/16/15	4/7/16	4/4/17	4/3/18	23.29	23.72
RWF	8/4/10	18	2.0 PVC	8-18	8/23/10	30	9/15/10	4/18/11	10/6/11	4/4/12	4/8/13	4/9/14	4/14/15	4/8/16	4/4/17	4/5/18	16.46	16.78
TP1	8/5/10	17	2.0 PVC	7-17	8/23/10	13	9/29/10	4/18/11	10/7/11	4/5/12	4/4/13	4/2/14	4/10/15	4/7/16	4/4/17	4/3/18	19.33	19.91
TP2	8/4/10	16	2.0 PVC	6-16	8/23/10	20	9/29/10	4/18/11	10/7/11	4/9/12	4/4/13	4/2/14	4/10/15	4/8/16	4/4/17	4/5/18	18.91	19.24
WSM01	1/28/15	15	2.0 PVC	5-15	1/30/15	35	--	--	--	--	--	--	2/2/15 (b)	4/5/16	4/5/17	4/4/18	7.83	NR
WTA	7/27/10	14	2.0 PVC	4-14	8/18/10	28	9/30/10	4/14/11	10/5/11	4/5/12	4/5/13	4/10/14	4/13/15	NS	NS	NS	8.61	8.93

Notes: Total depth of boring assumed to be bottom of screen unless otherwise specified on boring log or well completion form.

(a) Ground surface elevation and TOC given in feet NGVD29.

(b) Piezometer was not sampled during the April 2015 sampling event; sampling results for February 2015 samples are presented in the Phase IV Sampling Results Technical Memorandum (Tetra Tech 2015).

-- Piezometer not sampled because piezometer was either abandoned or had not yet been constructed.

ft bgs Feet below ground surface

NGVD National Geodetic Vertical Datum

NR Not recorded; piezometers ETA01, ETA02, and ETA03 are flush mounted, and piezometer WSM01 is elevated from the ground surface.

NS Not Sampled

PVC Polyvinyl chloride

TOC Top of casing

unk Unknown

Table 5: State and Federal Water Quality Criteria

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

Chemical	Berkeley Global Campus Risk-Based Concentrations (1,2)		MCL (1,3)		
	Commercial Workers via Vapor Intrusion to Indoor Air	Construction Workers in a Construction Trench	California	EPA	Secondary
VOCs					
1,1-Dichloroethene	7,860	257	6	7	
1,2-Dichloroethane	360	2,900	0.5	5	
1,2-Dichloropropane	94	5.71	5	5	
2-Butanone (MEK)	762,000	11,700			
Acetone	43,700,000	82,000			
Benzene	610	440	1	5	
Carbon tetrachloride	2.63	2.68	0.5	5	
Chlorobenzene	14,300	69.8		100	
Chloroform	25.5	4.43			
cis-1,2-Dichloroethene	34,000	270,000	6	70	
Dibromomethane					
tert-Butyl methyl ether (MTBE)	7,200		13		
Tetrachloroethene (PCE)	110	22	5	5	
Toluene	45,100	374	150	1,000	
trans-1,2-Dichloroethene	7,600	77.9	10	100	
Trichloroethene (TCE)	270	890	5	5	
Vinyl chloride	3.60	300	0.5	2	
SVOCs					
1-Methylnaphthalene		148			
1,4-Dioxane		14,000			2.5
Acenaphthene		3,640			
Bis(2-ethylhexyl)phthalate		294		6	
Fluoranthene		712			
Naphthalene	93.6	3.42			
Pyrene		594			
Metals					
Aluminum			1,000		200
Antimony			6	6	
Arsenic		66.1	10	10	
Barium			1,000	2,000	
Beryllium			4	4	
Boron					
Cadmium		8,960	5	5	
Calcium					
Chromium			50	100	
Cobalt					
Copper		359,000	1,300	1,300	1,000
Iron					300
Lead			15	15	
Magnesium					
Manganese					50

Table 5: State and Federal Water Quality Criteria

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

Chemical	Berkeley Global Campus Risk-Based Concentrations (1,2)		MCL (1,3)		
	Commercial Workers via Vapor Intrusion to Indoor Air	Construction Workers in a Construction Trench	California	EPA	Secondary
Mercury			2	2	
Molybdenum					
Nickel			100		
Potassium					
Selenium		44,800	50	50	
Silver					100
Sodium					
Thallium			2	2	
Vanadium					
Zinc					5,000

Notes:

(1) All values are presented in µg/L.

(2) Risk-based concentrations are calculated and presented in Appendix C of the Final SCR (Tetra Tech 2013). Commercial vapor intrusion risk-based concentrations for 1,2-dichloroethane, benzene, cis-1,2-dichloroethene, PCE, TCE, and vinyl chloride are SSGs for an on-site commercial/industrial worker, and for an on-site resident, as established by DTSC for the Campus Bay site (Terraphase 2008, 2012).Commercial vapor intrusion RBCs for 1,2-dichloroethane, benzene, cis-1,2-dichloroethene, PCE, TCE, and vinyl chloride are SSGs for an on-site groundskeeper/maintenance worker, as established by DTSC for the Campus Bay site (Terraphase 2008, 2012).

(3) MCLs are based on CDPH (2008) and EPA (2009).

µg/L	Micrograms per liter
CDPH	California Department of Public Health
EPA	U.S. Environmental Protection Agency
MCL	Maximum contaminant level
mg/L	Milligrams per liter
PRG	Preliminary remediation goal
RBC	Risk-based concentrations
RDX	Cyclotrimethylenetrinitramine
RSL	Regional Screening Level
SCR	Site Characterization Report
SVOC	Semivolatile organic compound
SWRCB	State Water Resources Control Board
VOC	Volatile organic compound

References:

CDPH. 2008. "Maximum Contaminant Levels and Regulatory Dates for Drinking Water U.S EPA vs. California, November 2008."

EPA. 2009. "National Primary Drinking Water Regulations - List of Contaminants and their MCLs." Available on-line at: <http://water.epa.gov/drink/contaminants/index.cfm#List>.

Tetra Tech. 2013. Final Site Characterization Report, Proposed Richmond Bay Campus, Research, Education, and Support Area and Groundwater within the Richmond Field Station Site. May 28.

TABLE 6: STATISTICAL SUMMARY OF CHEMICALS DETECTED IN APRIL 2018

2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Analyte	Detection Frequency [a]	Maximum Detected Result	Average Detected Result	Location of Maximum Detected Result	Number of Locations with Detected Results	California MCL [b]	Number of Samples with Results Greater than or Equal to California MCL	Federal MCL [c]	Number of Samples with Results Greater than or Equal to Federal MCL
Metals (µg/L)									
Filtered (Dissolved)									
ANTIMONY	3/17	0.73 J	0.455	B474	3	6	0	6	0
ARSENIC	14/17	19	5.19	DHR	14	10	2	10	2
BARIUM	17/17	490	76.2	BULB2	17	1,000	0	2,000	0
CADMIUM	4/17	5.7	2.73	B163	4	5	1	5	1
CHROMIUM	3/17	0.95 J	0.713	B474	3	50	0	100	0
COBALT	15/17	120	10.6	ETA03	15	NC	0	NC	0
COPPER	6/17	11	5.14	ETA	6	1,300	0	1,300	0
LEAD	4/17	0.42 J	0.149	CCC2	4	15	0	15	0
MERCURY	8/17	7.3 J	1.40	ETA01	8	2	2	2	2
MOLYBDENUM	9/17	11	3.28	B474	9	NC	0	NC	0
NICKEL	17/17	170	32.7	B163, PZ11	17	100	3	NC	0
SELENIUM	8/17	10 J	2.32	DHR	8	50	0	50	0
SILVER	6/17	4.2 J	0.889	DHR	6	NC	0	NC	0
VANADIUM	9/17	4.2	3.20	PZ11	9	NC	0	NC	0
ZINC	9/17	2,300	335	ETA03	9	NC	0	NC	0
Volatile Organic Compounds (µg/L)									
1,1,2-TRICHLOROETHANE	1/29	0.2 J	0.200	ETA03	1	NC	0	5	0
1,1-DICHLOROETHENE	13/29	1.5	0.485	ETA03	13	6	0	7	0
1,2-DICHLOROETHANE	10/29	18	3.99	ETA03	10	0.5	5	5	3
BENZENE	3/29	0.3 J	0.233	WSM01	3	1	0	5	0
CARBON TETRACHLORIDE	4/29	5.5	2.00	CTP	4	0.5	4	5	1
CHLOROBENZENE	6/29	32	7.67	WSM01	6	NC	0	100	0
CHLOROFORM	3/29	3.8	1.50	CTP	3	NC	0	NC	0
CHLOROMETHANE	2/29	0.4 J	0.400	ETA01, ETA03	2	NC	0	NC	0
CIS-1,2-DICHLOROETHENE	21/29	110	9.82	PZ11	21	6	5	70	1
METHYL TERT-BUTYL ETHER	2/29	0.2 J	0.150	BULB2	2	13	0	NC	0
TETRACHLOROETHENE	19/29	22	2.49	ETA03	19	5	4	5	4

TABLE 6: STATISTICAL SUMMARY OF CHEMICALS DETECTED IN APRIL 2018 (Continued)

2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Analyte	Detection Frequency [a]	Maximum Detected Result	Average Detected Result	Location of Maximum Detected Result	Number of Locations with Detected Results	California MCL [b]	Number of Samples with Results Greater than or Equal to California MCL	Federal MCL [c]	Number of Samples with Results Greater than or Equal to Federal MCL
Volatile Organic Compounds (µg/L)									
TRANS-1,2-DICHLOROETHENE	10/29	24	2.77	PZ11	10	10	1	100	0
TRICHLOROETHENE	26/29	95	32.0	B120, B178	26	5	21	5	21
VINYL CHLORIDE	7/29	190	27.4	PZ11	7	0.5	2	2	1
PCBs/Pesticides (µg/L)									
PCBs									
None Detected	0/ 2	ND	ND	-	0	-	0	-	0

Notes:

a	Total number of samples does not include duplicates.
b	California MCLs are from CDPH (2008).
c	Federal MCLs are from EPA (2009).
-	Not applicable
CDPH	California Department of Public Health
EPA	U.S. Environmental Protection Agency
J	Estimated value
MCL	Maximum contaminant level
NC	No criteria
ND	None detected
PCB	Polychlorinated biphenyl
µg/L	Micrograms per liter

California Department of Public Health (CDPH). 2008. "Maximum Contaminant Levels and regulatory Dates for Drinking Water U.S EPA vs. California, November 2008." Available on-line at: http://www.cdph.ca.gov/certlic/drinkingwater/Documents/DWdocuments/EPAandCDPH-11-28-2008.pdf. Updated November 28.

U.S. Environmental Protection Agency (EPA). 2009. "National Primary Drinking Water Regulations - List of Contaminants and their MCLs." Available on-line at: <http://water.epa.gov/drink/contaminants/index.cfm#List>.

Table 7: VOC Detected Results Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer ID	Sample ID	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROETHANE	BENZENE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE	METHYL TERT-BUTYL ETHER	TETRACHLOROETHENE	TRANS-1,2-DICHLOROETHENE	TRICHLOROETHENE	VINYL CHLORIDE
California MCLs			6	0.5	1	0.5				6	13	5	10	5	0.5
Federal MCLs		5	7	5	5	5	100			70		5	100	5	2
B120	20180403B120	1 U	0.3 J	***0.4 J***	1 U	1 U	1 U	1 U	1 U	**19**	1 U	0.8 J	0.5 J	**95**	1 U
B163	20180403B163	1 U	0.5 J	**6.4**	0.2 J	1 U	4.9	1 U	1 U	***3.5***	1 U	**5.2**	0.3 J	**56 J**	**0.7 J**
B163	20180403B163D	1 U	0.8 J	**8.8**	0.3 J	1 U	6.5	1.3 J+	1 U	***4.9***	1 U	**7.4**	0.5 J	**86 J**	**0.9 J**
B175S	20180405B175S	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	0.1 J	1 U	1 U	1 U	***4***	1 U
B178	20180403B178	1 U	0.2 J	***0.3 J***	1 U	1 U	1 U	1 U	1 U	**15**	1 U	0.6 J	0.5 J	**95**	1 U
B185	20180405B185	1 U	0.3 J	**0.7 J**	1 U	**1.5**	0.5 J	0.5 J	1 U	1.5	1 U	0.2 J	1 U	**56**	1 U
B195	20180404B195	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U	1.1	0.2 J	**41**	1 U
B197R	20180404B197R	1 U	0.6 J	0.2 J	1 U	1 U	1 U	1 U	1 U	***3.1***	1 U	0.8 J	0.2 J	**53**	1 U
B197R	20180404B197RD	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	2.8	1 U	0.9 J	0.2 J	**59**	1 U
B277	20180405B277	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B278	20180405B278	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	**11**	1 U
B280A	20180405B280A	1 U	1 U	1 U	1 U	***0.5 J***	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B450	20180405B450	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	0.5 J	1 U	**17**	1 U
B473	20180403B473	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U	0.5 J	1 U	**10**	1 U
B480	20180405B480	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	**14**	1 U
BULB2	20180404BULB2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	0.2 J	1 U	1 U	0.9 J	0.1 J
CCC2	20180405CCC2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U
CCC2	20180405CCC2D	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U
CCCT	20180405CCCT	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	***3.2***	1 U	0.3 J	1 U	**87**	1 U
CTP	20180404CTP	1 U	1 U	1 U	1 U	**5.5**	1 U	3.8	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U
ETA	20180404ETA	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1.8	1 U	1 U	0.3 J	**12**	1 U
ETA01	20180404ETA01	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	0.4 J	2.1	0.1 J	1 U	1 U	**12**	0.2 J
ETA02	20180404ETA02	1 U	0.7 J	**12**	1 U	1 U	2.8	1 U	1 U	**20**	1 U	**6.4**	0.5 J	**36**	0.1 J
ETA03	20180404ETA03	0.2 J	1.5	**18**	0.2 J	1 U	5.7	1 U	0.4 J	**11**	1 U	**22**	1	**68**	1 U
ETA03	20180404ETA03D	0.2 J	1.6	**14**	0.2 J	1 U	6.4	1 U	1 U	**12**	1 U	**24**	1.1	**65**	1 U
GEO	20180404GEO	1 U	1 U	1 U	1 U	***0.5 J***	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U
MFA	20180405MFA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U	1 U	**13**	0.2 J
PZ-9	20180403PZ9	1 U	0.3 J	0.1 J	1 U	1 U	1 U	1 U	1 U	***4.7***	1 U	0.8 J	1 U	**52**	***0.4 J***
PZ11	20180403PZ11	1 U	0.6 J	0.1 J	1 U	1 U	0.1 J	1 U	1 U	**110**	1 U	1 J	**24**	**22**	**190**
RWF	20180405RWF	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	**7.3**	1 U
TP1	20180403TP1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1.8	1 U
TP2	20180405TP2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	0.6 J	1 U	**21**	1 U
WSM01	20180404WSM01	1 U	0.4 J	**1.7**	0.3 J	1 U	32	1 U	1 U	***5.1***	1 U	**5.8**	0.2 J	**47**	1 U

Notes:

Indicates the value equals or exceeds both the California and Federal MCL		µg/L	Micrograms per liter	MCL	Maximum contaminant level
Indicates the value equals or exceeds the California MCL		ID	Identification	U	Not detected
Indicates the value equals or exceeds one-half of the California or Federal MCL		J	Estimated value	VOC	Volatile organic compound

All results are presented in µg/L.

Table 8: Metals Detected Results Summary
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer ID	Sample ID	ANTIMONY	ARSENIC	BARIUM	CADMIUM	CHROMIUM	COBALT	COPPER	LEAD	MERCURY	MOLYBDENUM	NICKEL	SELENIUM	SILVER	VANADIUM	ZINC
California MCLs		6	10	1,000	5	50		1,300	15	2		100	50			
Federal MCLs		6	10	2,000	5	100		1,300	15	2			50			
Secondary MCLs								1,000								
B163	20180403B163	0.066 J	1.3	15	**5.7**	0.61 J	4.9	0.58 J	0.058 J	0.12 J	0.59 J	**170**	0.28 J	0.19 J	3.8	6.3 J
B163	20180403B163D	1 U	1.3	15	**6**	0.56 J	4.7	0.44 J	1 U	0.22	0.56 J	**170**	0.32 J	0.14 J	3.5	5.5 J
B195	20180404B195	2.5 U	3.2 U	32	2.5 U	5 U	2.5 U	2.6 U	2.5 U	**3.3**	3 U	1.3 J	2.5 U	2.5 U	3 J	11 U
B197R	20180404B197R	2.5 U	2.4 J	30	2.5 U	5 U	0.52 J	2.6 U	2.5 U	0.2 U	3 U	2.1 J	3.7	2.5 U	3.2 U	11 U
B197R	20180404B197RD	2.5 U	2.5 J	30	2.5 U	5 U	0.56 J	2.6 U	2.5 U	0.2 U	3 U	2 J	1.8 J	2.5 U	3.2 U	11 U
B474	20180403B474	0.73 J	2.1	44	1 U	0.95 J	0.11 J	5.8	0.056 J	0.078 J	11	2.1	1 U	0.073 J	3.4 J+	1.5 J
BULB1	20180404BULB1	13 U	**17**	130 J	13 U	25 U	0.8 J	13 U	13 U	0.2 U	15 U	1.9 J	1.6 J	13 U	16 U	57 U
BULB2	20180404BULB2	2.5 U	1.8 J	490	2.5 U	5 U	1.2 J	2.6 U	2.5 U	0.2 U	2.4 J	4.8	0.42 J	0.45 J	2 J	15
CCC2	20180405CCC2	2.5 U	3.2 U	60	2.5 U	5 U	2.5 U	3.6	0.42 J	0.053 J	3 U	9.8	2.5 U	2.5 U	3.2 U	5 J
CCC2	20180405CCC2D	2.5 U	3.2 U	54	2.5 U	5 U	2.5 U	3	2.5 U	0.2 U	3 U	9.1	2.5 U	2.5 U	3.2 U	11 U
DHR	20180405DHR	13 U	**19**	150	13 U	25 U	10 J	13 U	13 U	0.2 U	15 U	32	10 J	4.2 J	16 U	57 U
EERC	20180405EERC	2.5 U	3.5	27	2.5 U	5 U	2.5	2.6 U	2.5 U	0.2 U	1.1 J	5.4	2.5 U	2.5 U	2.3 J	11 U
ETA	20180404ETA	0.57 J	***8.6***	56 J	1.3 J	5 U	3.2	11	2.5 U	0.047 J	2.7 J	5.9	2.5 U	2.5 U	4.1	47
ETA01	20180404ETA01	2.5 U	1.7 J	32	2.5 U	5 U	0.31 J	2.6 U	2.5 U	**7.3 J**	2.3 J	8.2	2.5 U	2.5 U	3.5	16
ETA02	20180404ETA02	2.5 U	1.3 J	18	2.5 U	5 U	2.5	2.6 U	2.5 U	0.2 U	3 U	20	0.34 J	0.15 J	3.2 U	11 U
ETA03	20180404ETA03	2.5 U	3.2 U	12	2.2 J	5 U	120	2.6 U	2.5 U	0.2 U	3 U	**110**	2.5 U	2.5 U	3.2 U	2,300
ETA03	20180404ETA03D	2.5 U	3.2 U	12	2.1 J	5 U	130	0.91 J	2.5 U	0.2 U	3 U	**120**	2.5 U	2.5 U	3.2 U	2,200
NRLF	20180405NRLF	2.5 U	***5***	90	2.5 U	5 U	0.82 J	2.6 U	2.5 U	0.2 U	3 U	2.2 J	2.5 U	2.5 U	3.2 U	11 U
PZ11	20180403PZ11	1 U	1.5	22 J+	1.7	0.58 J	3.3 J	9.7 J	0.06 J	0.066 J	5.1	**170**	0.15 J	0.27 J	4.2	430
TP1	20180403TP1	1 U	***6.3***	71	1 U	1 U	0.64 J	0.18 J	1 U	0.2 J	2	2.7	2.1	1 U	1 U	10 U
WSM01	20180404WSM01	2.5 U	1.1 J	16	2.5 U	5 U	7.5	2.6 U	2.5 U	0.2 U	2.3 J	6.9	2.5 U	2.5 U	2.5 J	190

Notes:

Indicates the value equals or exceeds both the California and Federal MCL	µg/L	Micrograms per liter	MCL	Maximum Contaminant Level
Indicates the value equals or exceeds the California MCL	ID	Identification	U	Not detected
Indicates the value equals or exceeds one-half of the California or Federal MCL	J	Estimated value		

All results are presented in µg/L.

Table 9: Piezometers Recommended for Sampling in 2019
2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

Piezometer	Volatile Organic Compounds EPA Method 8260B	Field Filtered Metals EPA Method 6020A/7400 Series
B120	X	
B150*		X
B163	X	X
B175S	X	
B175W*	X	
B178	X	
B185	X	
B195	X	X
B197R	X	X
B277	X	
B278	X	
B280A	X	
B450	X	X
B473	X	
B474		X
B480	X	
Bulb1		X
Bulb2	X	X
CCC2	X	X
CCCT	X	
CTP	X	X
DHR		X
EERC		X
ETA	X	X
ETA01	X	X
ETA02	X	X
ETA03	X	X
FG*		X
GEO	X	
MFA	X	
NRLF		X
PZ11	X	X
PZ9	X	
RWF	X	
TP1	X	X
TP2	X	
WSM01	X	X

* Piezometer not sampled during 2018 sampling event
All proposed piezometers and analytes are consistent with the 2017 sampling event.

APPENDIX A
WELL SAMPLING FORMS

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 / 9:55 Project Site/Subsite: Richmond Field Station

Well ID: TP01 Sample ID: 20180403 TP1

Depth to Water Level: 10.56 ft below top of casing prior to sampling, 10.56 after sampling

Depth to Well Bottom: 15.93 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.3 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		–	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	–	–	
1	9:25	17.65	7.07	-51	~~3.10~~ 0.317	3.1	2.96	2.01	1.6	0.3
2	9:30	17.50	7.19	-63	0.320	1.4	2.79	2.05	1.7	1.0
3	9:35	17.52	7.21	-67	0.325	1.6	2.54	2.08	1.7	1.0
4	9:40	17.50	7.23	-69	0.328	1.7	2.20	2.10	1.7	1.0
5	9:45	17.57	7.29	-71	0.329	1.6	2.17	2.10	1.7	1.0
6	9:50	17.58	7.24	-72	0.324	1.4	2.09	2.07	1.7	1.0
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20										

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? No (Yes) _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments Well cap and lock in good shape. only screws in on one side

Sample(s) Collected By: Cord & Mgr

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/03/18 11:~~45~~ 53 Project Site/Subsite: Richmond Field Station

Well ID: B163 Sample ID: 20180403B163

Depth to Water Level: 4.41 ft below top of casing prior to sampling, 4.50 after sampling

Depth to Well Bottom: 16.55 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 10 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ 0.20 L/Min Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	11:20	17.72	5.55	188	3.29	12.5	1.65	2.11	1.7	
2	11:25	17.79	5.49	202	3.29	2.2	1.05	2.09	1.7	
3	11:30	17.84	5.48	207	3.26	0.3	1.03	2.09	1.7	
4	11:35	17.83	5.47	213	3.25	0.0	1.02	2.08	1.7	
5	11:40	17.81	5.48	216	3.24	0.0	1.29	2.07	1.7	
6										
7										
8										
9										
10										
11										
12										
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14										
15										
16										
17										
18										
19										
20										

Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) 20180403B163 ~~Dup~~
↳ Time of Collection: 12:00

MS/MSD Sample Collected? (No) Yes

Sample Remarks (odors, colors, sediment):

Comments Casing cover not locked, water surrounding casing, one cover bolt broken

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 / 11:45 Project Site/Subsite: Richmond Field Station

Well ID: PZ 11 Sample ID: Q0180403PZ-11

Depth to Water Level: 9.11 ft below top of casing prior to sampling, 9.16 after sampling

Depth to Well Bottom: 18.74 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.5 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	11:15	19.27	7.06	79	0.388	0.0	2.07	2.48	2.0	0.5
2	11:20	18.90	7.02	83	0.392	0.0	2.02	2.51	2.1	1.0
3	11:25	18.34	6.99	95	0.394	0.0	1.92	2.52	2.1	1.0
4	11:30	17.20	6.97	106	0.401	0.0	1.87	2.56	2.1	1.0
5	11:35	16.75	6.96	113	0.402	0.0	1.85	2.57	2.1	1.0
6	11:40	16.46	6.96	115	0.404	0.0	1.85	2.59	2.1	1.0
7										
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9										
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11										
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13										
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15										
16										
17										
18										
19										
20										

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? No (Yes) _____

Sample Remarks (odors, colors, sediment): N/A (no color or odor)

Comments Well lock & cap in good shape

Sample(s) Collected By: Cora Lomar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 / 13:45 Project Site/Subsite: Richmond Field Station

Well ID: ~~20~~ B178 Sample ID: 20180403B178

Depth to Water Level: 3.20 ft below top of casing prior to sampling, 3.22 after sampling

Depth to Well Bottom: 13.39 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 20 Liters (Max 20 L) Purge Rate goal = ~~0.15 Liters~~/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	12:58	20.50	6.26	257	0.001	377	9.21	0.001	0.0	
2	13:03	17.39	6.12	55	2.92	44.1	2.51	1.87	1.5	
3	13:08	16.53	6.08	45	2.96	35.6	1.28	1.89	1.5	
4	13:13	16.47	6.08	40	2.91	29.6	1.17	1.86	1.5	
5	13:18	16.39	6.15	34	2.81	20.4	1.07	1.80	1.4	
6	13:23	16.42	6.13	32	2.68	3.4	1.02	1.71	1.4	
7	13:28	16.41	6.13	30	2.59	0.9	2.12	1.65	1.3	
8	13:33	16.39	6.14	29	2.54	0.7	0.95	1.62	1.3	
9	13:43	16.47	6.17	28	2.44	0.0	0.96	1.56	1.3	
10	13:48	16:44	6.17	28	2.44	0.0	0.91	1.56	1.2	
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/A

Comments n/A

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 / 13:45 Project Site/Subsite: Richmond Field Station

Well ID: B473 Sample ID: 20180403B473

Depth to Water Level: 10.98 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 16.97 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.3 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	13:12	16.96	8.56	174	43.2	2.8	6.67	0.280	0.20	0.3
2	13:17	17.06	7.53	181	42.8	1.7	6.16	0.278	0.20	1.0
3	13:22	17.08	7.16	182	42.3	1.4	5.93	0.275	0.20	1.0
4	13:27	17.23	7.10	181	42.9	1.2	5.92	0.279	0.2	1.0
5	13:32	17.17	7.09	181	43.6	0.9	5.92	0.283	0.2	1.0
6	13:37	17.21	7.09	182	43.8	0.7	5.94	0.285	0.2	1.0
7	~~13:42~~									
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no odor or color

Comments lock, well cap, and screws in good condition

Sample(s) Collected By: Cora LeMar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 , ~~3:~~ 16:12 Project Site/Subsite: Richmond Field Station

Well ID: B120 Sample ID: 20180403B120

Depth to Water Level: 4.34 ft below top of casing prior to sampling, 4.45 after sampling

Depth to Well Bottom: 13.07 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 15 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	~~8~~ 15:35	17.16	6.38	-70	4.40	62.0	1.42	2.82	2.3	
2	15:40	16.35	6.40	-80	4.52	34.8	1.16	2.90	2.4	
3	15:45	16.05	6.38	-78	4.39	18.7	1.10	2.80	2.3	
4	15:50	15.97	6.36	-64	3.91	4.7	0.97	2.48	2.0	
5	15:55	15.86	6.34	-51	3.43	1.6	0.93	2.18	1.8	
6	16:00	15.84	6.32	-44	3.16	1.4	0.89	2.02	1.6	
7	16:05	15.82	6.30	-41	3.09	2.2	0.90	1.97	1.6	
8	16:10	15.80	6.29	-38	3.00	1.3	0.87	1.91	1.5	
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): none

Comments casing cover not locked, rust / FeO_2 on interior

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18 / 15:10 Project Site/Subsite: Richmond Field Station

Well ID: B474 Sample ID: 20180304B474

Depth to Water Level: 13.08 ft below top of casing prior to sampling, 13.10 after sampling

Depth to Well Bottom: 19.09 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.45 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.15 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	14:25	20.48	8.22	172	35.3	6.3	3.74	0.229	0.2	0.2
2	14:30	16.15	7.34	180	38.5	190	7.52	0.251	0.2	0.75
3	~~14:35~~									~~0.75~~
4	14:40	15.90	7.30	177	39.0	32.4	4.76	0.253	0.20	0.75
5	14:45	15.48	7.21	181	38.6	9.8	4.18	0.251	0.20	0.75
6	14:50	15.19	7.16	182	38.8	9.1	4.13	0.252	0.20	0.75
7	14:55	15.24	7.18	179	38.6	5.3	4.27	0.251	0.20	0.75
8	15:00	15.25	7.18	177	38.6	5.0	4.26	0.250	0.20	0.75
9	15:05	15.29	7.18	175	38.6	4.4	4.21	0.251	0.20	0.75
10										
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able shoot well/stand up well →

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no odor or color

Comments lock and well cap are in good shape

Sample(s) Collected By: Cora Lemay

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/3/18, 16:10 Project Site/Subsite: Richmond Field Station

Well ID: PZ9 Sample ID: 20180403 PZ9

Depth to Water Level: 11.93 ft below top of casing prior to sampling, 11.78 after sampling

Depth to Well Bottom: 19.43 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.4 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	15:40	17.17	7.27	183	63.5	0.7	2.62	0.407	0.3	0.4
2	15:45	17.16	6.88	179	63.9	1.0	2.04	0.409	0.3	1.0
3	15:50	17.08	6.89	172	64.6	0.6	1.80	0.413	0.3	1.0
4	15:55	17.06	6.93	167	68.1	0.0	1.64	0.436	0.3	1.0
5	16:00	17.04	6.95	166	68.5	0.2	1.60	0.439	0.3	1.0
6	16:05	17.00	6.97	165	69.7	0.2	1.54	0.446	0.3	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments: lock & well cap in good shape

Sample(s) Collected By: Cora Lemar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 9:21 Project Site/Subsite: Richmond Field Station

Well ID: Bulb #2 Sample ID: ~~Bulb2~~ 20180404Bulb 2

Depth to Water Level: 3.62 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 18.46 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump) ~~Filtered~~ ~~Just metals~~ Both samples

Well Diameter: ~~4~~ 15 (2 inch) 4 inch

Total Purged 15 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	8:37	13.74	5.99	42	7.67	91.8	2.80	4.84	4.2	
2	8:42	14.31	6.29	-4	7.85	87.3	1.63	4.95	4.3	
3	8:47	14.40	6.38	-44	7.89	77.4	1.04	4.97	4.3	
4	8:52	14.47	6.43	-66	7.91	69.7	0.97	4.98	4.4	
5	8.57	14.56	6.47	-77	7.97	61.0	0.89	5.03	4.4	
6	9:02	14.67	6.50	-86	8.11	58.0	0.77	5.11	4.5	
7	9:08	14.70	6.53	-93	8.18	2.2	0.82	5.15	4.5	
8	9:13	14.69	6.55	-95	8.17	0.0	0.73	5.15	4.5	
9	9:18	.77	6.55	-98	8.16	0.3	0.68	5.14	4.5	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): N/A

Comments Casing hoover locks not secure * See below *

Sample(s) Collected By: MW

Note! I initially forgot to attach filter before sampling for metals. I noticed after removing tubes and so I ~~acquired~~ new tubing and retrieved another, filtered sample

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 9:50 Project Site/Subsite: Richmond Field Station

Well ID: Bulb 1 Sample ID: 20180404 Bulb 1

Depth to Water Level: 4.11 ft below top of casing prior to sampling, 7.80 after sampling

Depth to Well Bottom: 18.05 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 15.4 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	8:34	13.90	6.13	-72	4.29	0.0	2.94	26.1	27.2	0.4
2	8:39	14.37	7.48	-126	4.18	0.0	2.19	25.5	26.5	1.0
3	8:44	14.48	7.93	-146	4.08	0.0	1.93	24.9	25.8	1.0
4	8:49	14.53	8.09	-134	3.99	0.0	1.92	24.3	25.1	1.0
5	8:54	14.55	7.99	-97	3.94	0.0	3.08	24.0	24.8	1.0
6	8:59	14.68	7.98	-100	3.95	0.0	3.17	24.1	24.9	1.0
7	9:04	14.76	8.00	-106	3.95	0.0	2.88	24.1	24.9	1.0
8	9:09	14.87	8.02	-110	3.95	0.0	2.69	24.1	24.9	1.0
9	9:14	14.95	8.04	-115	3.96	0.0	2.47	24.1	25.0	1.0
10	9:19	15.07	8.06	-123	3.97	0.0	2.17	24.2	25.0	1.0
11	9:24	15.20	8.09	-134	3.97	0.0	1.83	24.2	25.0	1.0
12	9:29	15.32	8.11	-141	3.97	0.0	1.68	24.2	25.1	1.0
13	9:34	15.33	8.11	-150	3.97	0.0	1.52	24.2	25.1	1.0
14	9:39	15.40	8.13	-161	3.99	0.0	1.37	24.3	25.2	1.0
15	9:44	15.42	8.14	-162	3.98	0.0	1.34	24.3	25.1	1.0
16	9:49	15.47	8.14	-163	3.98	0.0	1.33	24.3	25.1	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments well lock & lid in good shape

Sample(s) Collected By: Cora Le Mar

Water level meter sensitive to water. ringing out of well

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 11:00 Project Site/Subsite: Richmond Field Station

Well ID: ETA Sample ID: 20180404ETA

Depth to Water Level: 2.94 ft below top of casing prior to sampling, 3.00 after sampling

Depth to Well Bottom: 13.36 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: [redacted] (2 inch) 4 inch

Total Purged 10 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate ~~2.0~~ 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	10:37	14.49	6.83	40	1.77	8.7	2.88	1.13	0.9	
2	10:42	14.32	6.73	50	1.76	0.0	1.27	1.13	0.9	
3	10:47	14.32	6.70	58	1.76	0.0	1.14	1.13	0.9	
4	10:52	14.37	6.69	54	1.75	0.0	1.01	1.12	0.9	
5	10:57	14.39	6.66	52	1.75	0.0	0.89	1.12	0.9	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments: casing cover lock not secure

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 11:30 Project Site/Subsite: Richmond Field Station

Well ID: ETA01 Sample ID: 20180404 ETA01

Depth to Water Level: 1.62 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 15.15 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 8.3 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.26 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	10:45	15.31	8.14	66	0.204	0.0	2.89	1.30	1.0	0.3
2	10:50	14.69	7.40	66	0.204	0.0	2.25	1.31	1.0	1.0
3	10:55	14.39	7.09	77	0.204	0.0	1.84	1.31	1.0	1.0
4	~~10~~ 11:00	14.43	7.08	92	0.203	0.0	1.72	1.30	1.0	1.0
5	11:05	14.40	7.01	97	0.204	0.0	1.69	1.31	1.0	1.0
6	11:10	14.42	7.00	103	0.205	0.0	1.64	1.31	1.0	1.0
7	11:15	14.36	6.98	121	0.203	0.0	1.69	1.30	1.0	1.0
8	11:20	14.45	6.99	124	0.203	0.0	1.65	1.30	1.0	1.0
9	11:25	14.49	7.00	129	0.202	0.0	1.54	1.29	1.0	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments needs new well cap. lock is ok but starting to rust some

Sample(s) Collected By: Cora LeMar

* Water depth was not collected after sampling

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 12:45 Project Site/Subsite: Richmond Field Station

Well ID: ETA02 Sample ID: ~~[illegible]~~ 20180404ETA02

Depth to Water Level: 4.93 ft below top of casing prior to sampling, 6.39 after sampling

Depth to Well Bottom: 20.02 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump) Both samples types

Well Diameter: (2 inch) 4 inch

Total Purged 15 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		–	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	–	–	
1	11:40	16.27	6.65	453	4.77	44.7	2.33	3.05	2.5	
2	11:45	15.77	6.34	389	4.85	41.1	1.12	3.10	2.6	
3	11:50	15.86	6.33	164	4.87	36.8	0.89	3.12	2.6	
4	11:55	16.09	6.32	1	4.87	18.5	0.89	3.12	2.6	
5	12:00	16.31	6.31	-47	4.87	10.9	0.84	3.12	2.6	
6	12:05	16.44	6.29	-76	4.86	0.6	1.39	3.11	2.6	
7	12:10	16.59	6.27	-86	4.84	0.0	0.76	3.10	2.6	
New Battery 8	12:20	17.80	6.19	-94	4.79	0.0	0.92	3.08	2.6	
9	12:25	16.56	6.18	-98	4.76	0.0	0.73	3.05	2.5	
10	12:30	16.45	6.16	-99	4.73	0.0	0.76	3.03	2.5	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): _____

Comments Casing cover lock not secure. replaced battery

Sample(s) Collected By: MW Fortuny Through

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18, 13:20 Project Site/Subsite: Richmond Field Station

Well ID: WSMØ1 Sample ID: 2Ø18Ø4Ø4 WSMØ1

Depth to Water Level: 4.37 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 17.45 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 8.4 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	12:35	15.16	7.13	132	0.231	0.0	2.75	1.48	1.2	0.4
2	12:40	15.03	6.96	107	0.231	0.0	2.28	1.48	1.2	1.0
3	12:45	15.00	6.90	96	0.230	0.0	2.02	1.47	1.2	1.0
4	12:50	15.06	6.87	85	0.227	0.0	1.87	1.45	1.2	1.0
5	12:55	15.09	6.83	75	0.225	0.0	1.77	1.44	1.2	1.0
6	13:00	15.06	6.81	69	0.224	0.0	1.71	1.43	1.2	1.0
7 13:05	~~13:05~~	15.07	6.78	63	0.222	0.0	1.64	1.42	1.1	1.0
8	13:10	15.07	6.76	60	0.220	0.0	1.60	1.41	1.1	1.0
9	13:15	15.04	6.74	58	0.220	0.0	1.56	1.41	1.1	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments: lock and well cap in good shape

Sample(s) Collected By: CoraLeMar

* Water Depth was not collected after sampling

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18, 14:37 Project Site/Subsite: Richmond Field Station

Well ID: ETA03 Sample ID: 20180404ETA03

Depth to Water Level: 6.18 ft below top of casing prior to sampling, 6.23 after sampling

Depth to Well Bottom: 20.16 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 20 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	13:50	17.04	5.85	40	5.88	73.5	2.15	3.72	3.2	
2	13:55	16.55	5.40	66	5.92	70.0	1.17	3.73	3.2	
3	14:00	16.54	5.37	78	5.88	61.3	61.9	3.70	3.2	
4	14:05	16.59	5.36	83	5.83	39.4	0.86	3.67	3.1	
5	14:10	16.68	5.38	85	5.79	23.8	0.83	3.64	3.1	
6	14:15	16.67	5.39	87	5.75	17.3	0.78	3.62	3.1	
7	14:20	16.73	5.38	90	5.72	8.1	1.15	3.60	3.1	
8	14:25	16.72	5.41	90	5.68	6.0	0.74	3.58	3.1	
9	14:30	16.73	5.40	92	5.67	1.8	0.7	3.57	3.1	
10	14:35	16.72	5.40	93	5.66	2.0	0.67	3.56	3.1	
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Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) 20180404ETA03D – 14:45 Time

MS/MSD Sample Collected? (No) Yes

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: ~~B19~~ / 16:04 ET 4/4/18 Project Site/Subsite: Richmond Field Station

Well ID: B197R Sample ID: 20180404B197R

Depth to Water Level: 5.75 ft below top of casing prior to sampling, 5.78 after sampling

Depth to Well Bottom: 8.54 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 10 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	15:43	16.83	6.53	-66	2.78	35.1	1.76	1.79	1.4	
2	15:48	16.42	6.47	-74	2.84	9.4	1.32	1.81	1.5	
3	15:53	16.55	6.47	-73	2.90	0.0	0.98	1.86	1.5	
4	15 ~~16~~:58	16.58	6.47	-72	2.93	0.0	0.91	1.88	1.5	
5	16:03	16.63	6.47	-73	2.99	0.0	0.83	1.91	1.6	
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Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) 20180404B197RD Time: 16:16

MS/MSD Sample Collected? (No) Yes

Sample Remarks (odors, colors, sediment):

Comments Casing cover lock not secure

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 16:45 Project Site/Subsite: Richmond Field Station

Well ID: CTP Sample ID: 201 8040 4 CTP

Depth to Water Level: 10.77 ft below top of casing prior to sampling, 10.90 after sampling

Depth to Well Bottom: 17.08 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 6.6 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	16:12	18.21	7.20	160	86.8	0.0	3.72	0.555	0.4	0.6
2	16:17	17.29	7.15	159	87.8	0.0	3.31	0.562	0.4	1.0
3	16:22	16.85	7.14	157	88.8	0.0	3.08	0.569	0.4	1.0
4	16:27	16.51	7.11	135	90.7	0.0	3.33	0.580	0.4	1.0
5	16:32	16.36	7.06	128	92.0	0.0	3.82	0.589	0.5	1.0
6	16:37	16.32	7.03	126	92.4	0.0	3.80	0.592	0.5	1.0
7	16:42	16.16	7.03	124	92.9	0.0	3.83	0.595	0.5	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments lock & well cap in good shape

Sample(s) Collected By: Corale/Mar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/18 / 17:45 Project Site/Subsite: Richmond Field Station

Well ID: 4-1 GEO Sample ID: 20180404GEO

Depth to Water Level: 9.13 ft below top of casing prior to sampling, 9.13 after sampling

Depth to Well Bottom: 16.10 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 4.7 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	17:23	16.93	8.20	145	92.8	0.0	4.39	0.594	0.5	0.7
2	17:28	16.28	7.31	161	93.1	0.0	3.96	0.596	0.5	1.0
3	17:33	16.03	7.23	162	93.6	0.0	3.90	0.599	0.5	1.0
4	17:38	15.94	7.22	162	93.8	0.0	3.84	0.600	0.5	1.0
5	17:43	15.83	7.21	162	94.0	0.0	3.79	0.602	0.5	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments needs new lock

Sample(s) Collected By: Cora LeMay

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/4/16 17:58 Project Site/Subsite: Richmond Field Station

Well ID: B195 Sample ID: ~~B195~~ 20180404B195

Depth to Water Level: 6.11 ft below top of casing prior to sampling, 6.10 after sampling

Depth to Well Bottom: 16.15 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	17:23	16.30	7.36	102	0.979	1.7	3.55	0.629	0.5	
2	17:28	15.46	6.61	120	0.986	0.0	1.76	0.681	0.5	
3	17:33	15.35	6.53	129	1.06	0.7	1.88	~~1.05~~ 0.659	0.5	
4	17:38	15.31	6.44	141	1.81	0.0	1.75	0.758	0.6	
5	17:43	15.30	6.44	146	1.20	0.0	1.75	0.766	0.6	
6	17:48	15.31	6.28	154	1.24	0.0	1.68	0.793	0.6	
7	17:53	15.25	6.34	152	1.25	0.0	1.57	0.799	0.6	
8	17:58	15.23	6.39	151	1.27	0.0	1.70	0.81	0.6	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): _____

Comments Upon Carls & Jessons request we collected an additional 1-Liter amber bottle to examine PCBs.

Sample(s) Collected By: _____

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 , 8:45 Project Site/Subsite: Richmond Field Station

Well ID: NRLF Sample ID: 20180405NRLF

Depth to Water Level: 13.21 ft below top of casing prior to sampling, 14.02 after sampling

Depth to Well Bottom: 18.80 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.3 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	08:16	14.79	6.23	-16	39.9	0.0	3.63	0.576	0.4	0.3
2	08:21	14.75	6.44	-44	37.5	0.0	2.99	0.560	0.4	1.0
3	08:26	14.82	6.48	-44	87.1	0.0	2.65	0.558	0.4	1.0
4	08:31	14.88	6.52	-58	86.9	0.0	2.34	0.556	0.4	1.0
5	08:36	14.95	6.52	-58	87.0	0.0	2.26	0.557	0.4	1.0
6	08:41	15.06	6.55	-57	86.8	0.0	2.12	0.556	0.4	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments lock is rusty (needs replaced), only one screw screws in

Sample(s) Collected By: Cora LeMar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 9:03 Project Site/Subsite: Richmond Field Station

Well ID: MFA Sample ID: 20180405MFA

Depth to Water Level: 3.20 ft below top of casing prior to sampling, 3.22 after sampling

Depth to Well Bottom: 13.74 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 10 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	8:20	13.72	6.21	182	1.17	79.1	2.13	0.715	0.6	
2	8:25	14.06	6.56	160	1.15	32.0	1.18	0.737	0.6	
3	8:30	14.32	6.59	127	1.14	23.1	1.04	0.726	0.6	
4	8:35	14.54	6.63	78	1.11	32.2	1.00	0.707	0.5	
5	8:40	14.66	6.65	71	1.09	23.0	0.84	0.697	0.5	
6	8:45	14.79	6.66	73	1.08	13.0	0.87	0.689	0.5	
7	8:50	14.87	6.63	76	1.07	6.9	1.02	0.687	0.5	
8	8:55	14.93	6.67	78	1.07	3.2	0.86	0.685	0.5	
9	9:00	14.96	6.67	80	1.07	6.0	0.88	0.684	0.5	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 9:50 Project Site/Subsite: Richmond Field Station

Well ID: B480 Sample ID: 20180405B480

Depth to Water Level: 11.52 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 15.86 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 6.5 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	9:15	16.26	6.82	145	94.4	0.0	6.42	0.604	0.5	0.5
2	9:20	16.55	6.78	146	92.9	0.0	6.16	0.595	0.5	1.0
3	9:25	16.70	6.77	151	91.9	0.0	5.86	0.588	0.5	1.0
4	9:30	16.83	6.76	156	92.0	0.0	5.48	0.589	0.5	1.0
5	9:35	16.90	6.75	159	92.0	0.0	5.03	0.589	0.5	1.0
6	9:40	16.95	6.75	162	92.0	0.0	4.79	0.589	0.5	1.0
7	9:45	16.98	6.74	165	92.1	0.0	4.71	0.590	0.5	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments ~~[illegible]~~ needs new lock (rusty), both screws work

Sample(s) Collected By: Cora Lemar

* water depth not collected after sampling

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 10:17 Project Site/Subsite: Richmond Field Station

Well ID: CCT Sample ID: 20180405CCT

Depth to Water Level: 5.38 ft below top of casing prior to sampling, 5.95 after sampling

Depth to Well Bottom: 15.05 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged ≈ 10 Liters (Max 20 L) Purge Rate goal = ~~0.15~~ Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	9:36	14.41	7.26	234	2.67	40.0	6.58	1.73	1.4	
2	9:41	14.35	6.47	179	2.71	24.8	1.32	1.74	1.4	
3	9:46	14.32	6.51	54	2.72	23.9	0.97	1.74	1.4	
4	9:51	14.41	6.54	3	2.70	25.5	0.89	1.73	1.4	
5	9:56	14.51	6.56	-27	2.64	12.2	0.83	1.69	1.4	
6	10:01	14.71	6.58	-44	2.55	5.2	0.79	1.63	1.3	
7	10:06	14.76	6.58	-50	2.49	0.0	0.85	1.59	1.3	
8	10:11	14.82	6.59	-55	2.42	0.0	0.76	1.55	1.2	
9	10:16	14.89	~~14.89~~	-56	2.33	0.0	0.76	1.49	1.2	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 10:55 Project Site/Subsite: Richmond Field Station

Well ID: B450 Sample ID: 20180405 B450

Depth to Water Level: 12.17 ft below top of casing prior to sampling, 12.17 after sampling

Depth to Well Bottom: 15.58 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.55 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.15 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	10:15	16.92	6.98	167	98.9	48.2	4.50	0.633	0.5	0.3
2	10:20	16.96	6.58	173	99.3	77.9	4.54	0.635	0.5	0.75
3	10:25	16.96	6.53	177	99.4	11.0	4.52	0.636	0.5	0.75
4	10:30	16.94	6.53	181	99.1	7.6	4.50	0.634	0.5	0.75
5	10:35	16.94	6.52	184	98.4	6.0	4.44	0.629	0.5	0.75
6	10:40	16.94	6.52	186	97.5	0.0	4.42	0.624	0.5	0.75
7	10:45	16.98	6.53	188	96.3	0.0	4.42	0.624	0.5	0.75
8	10:50	17.01	6.52	189	95.5	0.0	4.47	0.611	0.5	0.75
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): _____

Comments lock & cap in good shape

Sample(s) Collected By: Coralemar

Tetra Tech, Inc.

4/5/18 **MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: CLL2 / 11:32 - Dup Project Site/Subsite: Richmond Field Station

Well ID: CLL2 Sample ID: 20180405CLL2

Depth to Water Level: ~~8.37~~ 8.31 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 14.16 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged ~10 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate .20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	10:54	15.55	7.15	138	0.898	32.4	6.00	0.575	0.4	
2	10:59	15.55	6.35	159	1.00	16.6	4.31	0.643	0.5	
3	11:04	15.63	6.25	170	1.10	11.4	4.3	0.707	0.5	
4	11:09	15.67	6.19	178	1.18	9.7	4.76	0.760	0.6	
5	11:14	16.04	6.20	176	1.24	6.8	5.81	0.795	0.6	
6	11:19	15.95	6.18	181	1.24	6.8	5.20	0.794	0.6	
7	11:24	16.00	6.17	184	1.28	5.1	5.42	0.818	0.6	
8	11:29	15.42	6.14	189	1.37	5.8	5.05	0.879	0.7	
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Duplicate Sample Collected? No (Yes) (Sample ID of Duplicate) 20180405CLL2 D -11:37

MS/MSD Sample Collected? (No) Yes _____ non-Dup sample bottles

Sample Remarks (odors, colors, sediment): _____

Comments All duplicate sample bottles were filled first (11:32) preceeding the normal, non DUP, bottles. (11:37)

Sample(s) Collected By: MW

* water depth was not collected after sampling

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 , 12:15 Project Site/Subsite: Richmond Field Station

Well ID: EERC Sample ID: 2018040 5 EERC

Depth to Water Level: 12.16 ft below top of casing prior to sampling, 15.16 after sampling

Depth to Well Bottom: 16.88 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: 6.25 2 (inch) 4 inch

Total Purged ~~7.0~~ Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.15 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	11:27	17.87	6.95	174	0.393	0.0	2.22	2.53	2.1	0.25
2	11:32	17.73	6.75	170	0.383	0.0	1.90	2.45	2.0	0.75
3	11:37	17.63	6.70	165	0.378	0.0	1.71	2.42	2.0	0.75
4	11:42	17.54	6.69	163	0.381	0.0	1.58	2.44	2.0	0.75
5	11:47	17.44	6.69	159	0.387	0.0	1.53	2.48	2.0	0.75
6	11:52	17.36	6.65	-90	0.448	0.0	1.50	2.86	2.4	0.75
7	11:57	17.20	6.69	-52	0.401	0.0	1.62	2.57	2.1	0.75
8	12:02	17.14	6.69	-52	0.402	0.0	1.54	2.58	2.1	0.75
9	12:07	17.07	6.69	-51	0.409	0.0	1.46	2.62	2.1	0.75
10	~~12:12~~									~~0.75~~
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments needs new lock, only one screw works

Sample(s) Collected By: Coralemar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/13 12:50 Project Site/Subsite: Richmond Field Station

Well ID: DHR Sample ID: 20180405DHR

Depth to Water Level: ~~8.7~~ 8.72 ft below top of casing prior to sampling, 9.71 after sampling

Depth to Well Bottom: 18.56 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged ~~4~~ 10 Liters (Max 20 L) Purge Rate goal = 0.~~1~~5 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	~~12:22~~	~~16.45~~	~~5.85~~	~~203~~	~~0.000~~	~~225~~	~~7.85~~	~~0.000~~	~~0.0~~	
1st reading → 2	12:30	15.79	6.13	-87	13.8	26.6	1.22	8.59	8.0	
3	12:35	15.72	6.12	-96	13.8	0.0	0.84	8.57	7.9	
4	12:40	15.70	6.12	-100	13.8	0.0	0.76	8.55	7.9	
5	12:45	15.74	6.13	-100	13.8	0.0	0.72	8.56	7.9	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 / 13:35 Project Site/Subsite: Richmond Field Station

Well ID: TP2 Sample ID: 20180405 TP2

Depth to Water Level: 10.25 ft below top of casing prior to sampling, 10.30 after sampling

Depth to Well Bottom: 17.08 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 4.85 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.15 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	13:01	16.80	7.30	155	0.138	0.0	2.60	0.880	0.7	0.35
2	13:06	16.65	6.83	98	0.136	0.0	2.21	0.869	0.7	0.75
3	13:11	16.68	6.73	54	0.133	0.0	1.92	0.851	0.7	0.75
4	13:16	16.70	6.70	38	0.130	0.0	1.81	0.834	0.6	0.75
5	13:21	16.71	6.68	36	0.128	0.0	1.70	0.821	0.6	0.75
6	13:26	16.73	6.65	37	0.127	0.0	1.82	0.811	0.6	0.75
7	13:31	16.76	6.65	37	0.126	0.0	1.74	0.803	0.6	0.75
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: Cora LeMar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/13, 13:52 Project Site/Subsite: Richmond Field Station

Well ID: B27B Sample ID: 20130405B27B

Depth to Water Level: 8.41 ft below top of casing prior to sampling, 8.88 after sampling

Depth to Well Bottom: 16.17 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 10 Liters (Max 20 L) Purge Rate goal ~~= 0.15~~ Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	13:27	15.19	6.83	125	3.00	0.0	5.89	1.92	1.6	
2	13:32	15.09	6.65	118	3.02	0.0	4.18	1.93	1.6	
3	13:37	15.19	6.64	120	3.02	0.0	3.99	1.93	1.6	
4	13:42	15.32	6.62	122	3.02	0.0	3.90	1.93	1.6	
5	13:47	15.51	6.61	123	3.01	0.0	3.83	1.92	1.6	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 / 14:35 Project Site/Subsite: Richmond Field Station

Well ID: RWF Sample ID: ~~2~~ 20180405RWF

Depth to Water Level: 8.29 ft below top of casing prior to sampling, _____ after sampling

Depth to Well Bottom: 17.66 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.3 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	14:10	16.11	7.02	155	0.148	5.1	2.83	0.947	0.7	0.30
2	14:15	15.83	6.72	157	0.148	0.0	2.09	0.945	0.7	~~1.0~~ 1.0
3	14:20	15.76	6.72	156	0.147	0.0	2.12	0.941	0.7	1.0
4	14:25	15.75	6.70	155	0.146	0.0	2.00	0.935	0.7	1.0
5	14:30	15.73	6.67	157	0.146	0.0	1.95	0.935	0.7	1.0
6	14:35	15.75	6.71	155	0.145	0.0	1.94	0.930	0.7	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): ~~no co~~ no color, some root/grass initially in water no odor

Comments lock needs replaced (rusty), both screws work

Sample(s) Collected By: Cora LeMar

* Water depth not collected after sample collection

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 15:24 Project Site/Subsite: Richmond Field Station

Well ID: B175S Sample ID: 20180405B175S

Depth to Water Level: 8.28 ft below top of casing prior to sampling, 8.32 after sampling

Depth to Well Bottom: 14.77 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: 2 inch 4 inch

Total Purged 20 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 ~~0.20~~ Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	14:40	15.30	7.08	137	0.757	0.0	5.56	0.485	0.4	
2	14:45	15.34	6.58	150	0.762	28.5	3.87	0.488	0.4	
3	14:50	15.50	6.47	154	0.766	25.8	3.20	0.490	0.4	
4	14:55	15.55	6.43	156	0.771	22.7	3.01	0.493	0.4	
5	15:00	15.61	6.41	155	0.776	23.1	2.85	0.497	0.4	
6	15:05	15.63	6.39	155	0.780	20.6	2.67	0.499	0.4	
7	15:10	15.70	6.40	153	0.786	0.0	2.72	0.503	0.4	
8	15:15	15.71	6.39	155	0.787	0.0	2.43	0.504	0.4	
9	15:20	15.73	6.34	159	0.788	0.0	2.44	0.504	0.4	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): none

Comments none

Sample(s) Collected By: MW

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 15:40 Project Site/Subsite: Richmond Field Station

Well ID: B28ØA Sample ID: 2Ø15Ø4Ø5B28ØA

Depth to Water Level: 10.57 ft below top of casing prior to sampling, 10.81 after sampling

Depth to Well Bottom: 13.51 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.5 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	15:11	16.27	7.07	161	85.5	7.6	2.61	0.545	0.4	0.5
2	15:16	16.21	6.93	136	85.4	0.0	2.05	0.547	0.4	1.0
3	15:21	16.19	6.94	128	85.7	0.0	1.88	0.549	0.4	1.0
4	15:26	16.19	6.92	127	86.1	0.0	1.78	0.551	0.4	1.0
5	15:31	16.19	6.92	126	86.1	0.0	1.68	0.551	0.4	1.0
6	15:36	16.18	6.91	126	86.2	0.0	1.65	0.553	0.4	1.0
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): water looks a little dirty / black debris

Comments lock cap broken, well lid has no screws, no lock

Sample(s) Collected By: Cora LeMar

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18 / 16:25 Project Site/Subsite: Richmond Field Station

Well ID: B277 Sample ID: 20180405B277

Depth to Water Level: 9.92 ft below top of casing prior to sampling, 9.95 after sampling

Depth to Well Bottom: 17.48 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged 5.40 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	15:58	16.46	7.20	135	87.0	0.0	2.01	0.557	0.4	0.40
2	16:06	16.54	7.16	129	86.3	0.0	1.55	0.552	0.4	1.0
3	16:08	16.55	7.19	127	86.2	0.0	1.52	0.552	0.4	1.0
4	16:16	16.56	7.20	126	85.9	0.0	1.48	0.550	0.40	1.0
5	16:21	16.54	7.24	123	85.5	0.0	1.48	0.547	0.40	1.0
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Wait to take CTPDL reading

Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): no color or odor

Comments: lock rusty, screws (2) bk, well cap o/c

Sample(s) Collected By: Coralem W

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/18, 16:48 Project Site/Subsite: Richmond Field Station

Well ID: B185 Sample ID: 20180405B185

Depth to Water Level: 3.35 ~~8.38~~ ft below top of casing prior to sampling, 4.82 after sampling

Depth to Well Bottom: 13.79 ft. below top of casing

Method of Purging: Bladder Pump (Peristaltic Pump)

Well Diameter: (2 inch) 4 inch

Total Purged: 10 Liters (Max 20 L) Purge Rate goal = 0.15 Liters/Min. Actual purge rate 0.20 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measurement Number	Time	Temperature (°C)	pH	ORP (mV	Specific Conductance (S/m)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Total Dissolved Solids (g/L)	Salinity (ppt)	Each Volume/ Total Purged (L)
Stabilization Criteria		--	+/- 0.1	+/- 10%	+/- 3%	+/- 10%, when > 10 NTU	+/- 10%, or 0.3 mg/L	--	--	
1	~~16~~ 16:10	14.70	5.79	255	1.49	80.9	1.92	0.953	0.7	
2	16:15	14.66	5.51	248	1.51	2.2	1.60	0.967	0.8	
3	16:20	15.00	5.78	214	1.66	0.0	1.03	1.07	0.8	
4	16:25	15.14	5.89	204	1.74	0.0	1.00	1.11	0.9	
5	16:30	15.24	5.95	193	1.82	0.0	1.06	1.17	0.9	
6	16:35	15.36	6.02	181	1.93	0.0	0.85	1.23	1.0	
7	16:40	15.36	6.03	181	1.93	0.0	0.80	1.24	1.0	
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Duplicate Sample Collected? (No) Yes (Sample ID of Duplicate) _____

MS/MSD Sample Collected? (No) Yes _____

Sample Remarks (odors, colors, sediment): n/a

Comments n/a

Sample(s) Collected By: [illegible]

APPENDIX B
COMPLETE ANALYTICAL RESULTS

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B120	09/09/2010	33	1 U	2.2	26	0.5 U	100	1 U	170000	1.2	0.4 J	2.2	59 J	2 U	METAL
B120	04/15/2011	75 UJ	1 U	1.6 J	20	1 UJ	NA	2 U	210000	0.34 J	1 U	4.3	16 J	0.43 J	DMETAL
B120	10/04/2011	50 U	2.4	4.2	19	0.23 J	NA	1 U	190000	0.48 J	0.38 J	1.6 U	100 U	1 U	DMETAL
B120	04/03/2012	50 U	1 U	2.6 UJ	25	1 U	NA	0.25 J	160000	0.44 J	1 U	1.6 J	50 U	1 U	DMETAL
B121	09/08/2010	33	1 U	1.8	57	0.5 U	86 J	1 U	49000	1.5	0.31 J	2 U	100 U	2 U	METAL
B121	04/13/2011	50 UJ	0.2 J	1.2	55	1 U	NA	1 U	42000	1.3	0.14 J	0.5 J	50 U	0.31 J	DMETAL
B121	10/04/2011	50 U	1 U	3.2	62	0.22 J	NA	0.44 J	48000	0.88 J	1 U	1.6 U	100 U	1 U	DMETAL
B121	04/04/2012	50 U	0.45 J	0.97 J	59	1 U	NA	1 U	47000	1.1	1 U	2.3 U	15 UJ	1 U	DMETAL
B128	09/23/2010	55	1 U	5.7	23	0.5 U	320	1 U	69000	1.1	0.58	1.3 J	250	2 U	METAL
B128	09/23/2010	41	1 U	3.5	24	0.5 U	280	1 U	64000	1.1	0.28 J	1.6 J	72 J	2 U	METAL
B128	04/18/2011	50 U	0.7 J	0.95 J	41	1 UJ	NA	2 U	27000	1 U	1 U	8.4 J	50 UJ	0.71 J	DMETAL
B128	10/04/2011	50 U	0.62 J	5.8	22	1 U	NA	1 U	30000	1 U	0.47 J	1.6 U	59 UJ	1 U	DMETAL
B128	04/02/2012	9.6 J	0.33 UJ	0.89 UJ	57	1 U	NA	0.94 J	24000	0.54 J	1 U	2.3 U	50 U	1 U	DMETAL
B128	04/05/2013	50 U	1.4	0.77 J	44	1 U	NA	1 U	22000	1 U	0.17 J	2.3 U	31 J	1 U	DMETAL
B128	04/10/2014	50 U	0.76 J	0.8 J	52	1 U	NA	1 U	26000	0.41 J	1 U	3.4 U	71 U	1 U	DMETAL
B128	04/13/2015	50 U	1 U	1.2	72	1 U	NA	0.19 J	27000	1.2	0.057 J	1 U	42 J	1 U	DMETAL
B128	04/13/2015	50 U	1 U	1.4	68	1 U	NA	1 U	27000	1.3	1 U	1 U	41 J	1 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B150	09/08/2010	14 J	1 U	0.89 J	12	0.5 U	95 J	1 U	27000	1 U	0.5 U	1.6 J	100 U	2 U	METAL
B150	04/13/2011	50 UJ	0.19 J	0.57 J	26	1 U	NA	0.44 J	18000	0.73 J	1 U	4.2 J	50 U	0.46 J	DMETAL
B150	10/05/2011	34 J	0.34 J	0.67 J	20	1 UJ	NA	1 U	21000	0.37 J	1 U	3.4	50 U	0.25 J	DMETAL
B150	10/05/2011	49 J	0.14 J	1 U	14	1 UJ	NA	1 U	19000	0.32 J	1 U	1 U	50 U	1 U	DMETAL
B150	04/04/2012	6.5 J	1 U	0.39 J	35	1 U	NA	1 U	16000	0.98 J	1 U	2.3 U	50 U	1 U	DMETAL
B150	04/04/2012	18 J	1 U	0.5 J	35	0.28 J	NA	0.099 J	16000	0.89 J	1 U	2.3 U	15 UJ	1 U	DMETAL
B150	04/02/2013	50 U	1 U	1 U	44	1 U	NA	1 U	18000	1.6	1 U	9.8	50 U	0.17 J	DMETAL
B150	04/01/2014	50 U	1	0.52 J	39	4.3 U	NA	1.3 U	15000	1.6	1 U	1 U	71 U	1 U	DMETAL
B150	04/15/2015	13 UJ	0.74 J	0.7 J	49	1 U	NA	1 U	18000	4.7	1 U	0.46 UJ	42 J	1 U	DMETAL
B150	04/15/2015	20 UJ	0.38 J	0.45 J	45	1 U	NA	1 U	16000	4.3	1 U	0.89 UJ	50 U	0.1 UJ	DMETAL
B150	04/07/2016	NA	10 U	5 U	40	2 U	NA	5 U	NA	5 U	5 U	1.7 UJ	NA	5 U	DMETAL
B150	04/07/2016	NA	10 U	5 U	39	2 U	NA	5 U	NA	1.1 J	5 U	2.1 UJ	NA	5 U	DMETAL
B150	04/04/2017	270	1 U	2.8 J	61	2 U	NA	1 U	21000	2.3 J	5 U	5 U	130	5 U	DMETAL
B158	09/08/2010	590	1 U	6.3	13	0.5 U	64 J	1 U	4200	2.8	0.5 U	1.4 J	500	2 U	METAL
B158	04/15/2011	120 J	0.3 J	4.5	6	1 UJ	NA	2 U	3600	1.3	1 U	6.8	66	0.47 J	DMETAL
B158	10/05/2011	99 J	0.82 J	6.2	4.4 J	1 U	NA	1 U	3200	2	0.22 J	0.94 J	50 UJ	1 U	DMETAL
B158	04/06/2012	21 UJ	1 U	4.9	7.4	0.57 J	NA	0.35 UJ	4000	2.1	1 U	2.3 U	50 U	1 U	DMETAL
B158	04/08/2013	15 J	1 U	4.6	8.5	1 U	NA	1 U	2400	2	1 U	2.3 U	25 J	1 U	DMETAL
B158	04/02/2014	79 J	1 U	4.6	8.9	1 U	NA	1 U	3200	1.9	1 U	3.4 U	65 J	1 U	DMETAL
B158	04/16/2015	9 J	1 U	4.7	9.8	1 U	NA	1 U	3200	1.3	0.074 J	0.32 UJ	50 U	0.092 UJ	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B163	09/02/2010	44	1 U	1.6	17	0.5 U	240	5.2	260000	5 U	6	2.5	70 J	2 U	METAL
B163	04/12/2011	58	0.17 J	0.74 J	13	1 U	NA	6.2	240000	0.23 J	4.8	1 U	89 UJ	1 U	METAL
B163	04/12/2011	50 U	0.18 J	1.3	12	1 U	NA	5.5	230000	0.14 J	4.6	0.35 J	50 U	0.38 J	DMETAL
B163	10/03/2011	72	0.18 J	1.2	13 J	1 U	NA	5.9 J	300000	1 U	4.8	1.6 U	91	1 U	METAL
B163	10/03/2011	50 U	0.17 J	4.2	13	1 U	NA	5.2	290000	0.34 UJ	4.6	1.6 U	45 J	1 U	DMETAL
B163	04/02/2012	500	3.5	1.3	14 J	0.8 J	NA	7	240000	0.92 J	5	2.3 U	570	1 U	METAL
B163	04/02/2012	33 J	0.63 UJ	2.3 UJ	12	1 U	NA	6.2	240000	1 U	4.2	2.3 U	71	1 U	DMETAL
B163	04/03/2013	13 J	0.38 UJ	1.8	12 J	1 U	NA	5.2	220000	1	4.7	2.3 U	5000 U	1 U	DMETAL
B163	04/01/2014	50 U	3.3	1.3	14	4.3 U	NA	5.4	270000	1 U	4.9	1 U	71 U	1 U	DMETAL
B163	04/14/2015	50 U	1 U	1.8	14	1 U	NA	5.8	280000	0.23 J	5.5	1 U	330	1 U	DMETAL
B163	04/05/2016	NA	10 U	5 U	12	2 U	NA	3.5 J	NA	16	4.9 J	5 U	NA	2.7 UJ	DMETAL
B163	04/04/2017	100 U	1 U	13	15	1.1 J	NA	7.7	260000	6	4.1 J	5 U	29 J	5 U	DMETAL
B163	04/03/2018	NA	0.066 J	1.3	15	1 U	NA	5.7	NA	0.61 J	4.9	0.58 J	NA	0.058 J	DMETAL
B163	04/03/2018	NA	1 U	1.3	15	1 U	NA	6	NA	0.56 J	4.7	0.44 J	NA	1 U	DMETAL
B175S	09/03/2010	17 J	1 U	1.6	56	0.5 U	97 J	1 U	53000	0.81 J	0.36 J	1.4 J	100 U	2 U	METAL
B175S	04/13/2011	50 U	1 U	0.69 J	33	1 U	NA	0.43 J	38000	0.8 J	1 U	1 UJ	50 U	0.4 J	DMETAL
B175S	10/04/2011	50 U	0.12 J	7	55	1 U	NA	1 U	46000	1.4	1 U	1.6 U	100 U	1 U	DMETAL
B175S	04/04/2012	50 U	0.36 J	1.5	43	1 U	NA	1 U	42000	0.29 J	1 U	2.3 U	50 U	1 U	DMETAL
B175S	04/02/2013	7.3 J	1 U	0.81 J	57	1 U	NA	1 U	55000	0.48 J	1 U	2.3 U	50 U	1 U	DMETAL
B175S	04/01/2014	50 U	1 U	1.1	62	4.3 U	NA	1.3 U	63000	0.77 J	1 U	1 U	71 U	1 U	DMETAL
B175S	04/15/2015	50 U	2	1.2	52	1 U	NA	1 U	52000	0.77 UJ	1 U	0.33 UJ	19 J	0.088 UJ	DMETAL
B175W	09/08/2010	99	1 U	1.7	26	0.5 U	130	1 U	17000	1.3	0.5 U	1 J	120	2 U	METAL
B175W	04/13/2011	50 U	0.18 J	2.1	11	1 U	NA	0.26 J	15000	0.43 J	1 U	4.7 J	50 U	0.54 J	DMETAL
B175W	10/04/2011	50 U	1 U	3	21	0.32 J	NA	1 U	18000	3.9	0.33 J	1.6 U	3400	1 U	DMETAL
B175W	04/04/2012	130	1 U	1.1	11 J	0.36 J	NA	1 U	12000	0.63 J	1 U	2.3 U	63 UJ	1 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B177	09/23/2010	22	1 U	1.1	32	0.5 U	77 J	1 U	12000	0.91 J	0.5 U	1.7 J	100 U	2 U	METAL
B177	04/18/2011	9.9 J	0.41 J	0.48 J	63	1 UJ	NA	2 U	15000	0.55 J	1 U	2.6 J	50 UJ	0.41 J	DMETAL
B177	10/05/2011	50 UJ	1 U	0.83 J	37 J	1 UJ	NA	1 U	13000	0.61 J	1 U	1 U	50 UJ	1 U	DMETAL
B177	04/04/2012	9.2 J	1 U	0.49 J	71	1 U	NA	1 U	19000	1 U	1 U	2.3 U	50 U	1 U	DMETAL
B178	09/02/2010	20 U	1 U	1.8	25	0.5 U	130	1 U	170000	1 U	0.87	2.2	100 U	2 U	METAL
B178	04/15/2011	75 UJ	1.1 U	1.6 J	20	3.2 UJ	NA	2 U	170000	1.3 U	0.44 J	2.7	89 U	1.9 U	DMETAL
B178	10/04/2011	50 U	4.1	9.1	23	0.34 J	NA	1 U	170000	1 U	1 U	1.6 U	100 U	1 U	DMETAL
B178	04/03/2012	20 J	0.21 UJ	3.2 UJ	25 J	1 U	NA	0.51 J	150000	1 U	0.29 J	2.3 U	180 U	1 U	DMETAL
B178	04/02/2013	50 U	1 U	0.87 J	22	0.18 J	NA	1 U	150000	0.31 J	2.3	2.3 U	280	1 U	DMETAL
B178	04/08/2014	50 U	2.6	4.9	23	1 U	NA	1 U	180000	1 U	1.5	3.4 U	1100 J	1 U	DMETAL
B178	04/10/2015	9 J	0.21 J	1.7	17	1 U	NA	1 U	170000	0.26 UJ	0.82 J	1 U	800	1 U	DMETAL
B180	09/15/2010	380	1 U	3.8	22	0.5 U	74 J	1 U	5600	2.9	0.5	3.6	400	2 U	METAL
B180	04/13/2011	50 UJ	0.22 J	2.9	6.5	1 U	NA	0.46 J	5500	2.9	1 U	36 J	50 U	2.7	DMETAL
B180	10/06/2011	58	0.34 UJ	3.2	17	1 U	NA	1 U	4900 J	3.1	1 U	1 U	50 U	1 U	DMETAL
B180	10/06/2011	50 U	0.63 UJ	3.6	16	1 U	NA	1 U	5200 J	3	1 U	1 U	50 U	1 U	DMETAL
B180	04/04/2012	50 U	0.31 J	3.6	6.4	1 U	NA	1 U	4900	1.2	1 U	2.3 U	50 U	1 U	DMETAL
B185	09/02/2010	10 J	1 U	1.7	15	0.5 U	120	1 U	160000	0.57 J	0.63	1.6 J	100 U	2 U	METAL
B185	04/15/2011	75 UJ	1.1 U	1.1 J	13	3.2 UJ	NA	2 U	150000	0.39 J	1 U	6.4	16 J	1.9 U	DMETAL
B185	04/15/2011	75 UJ	1.1 U	0.8 J	14	3.2 UJ	NA	2 U	160000	0.22 J	0.18 J	4.3	34 J	1.9 U	DMETAL
B185	10/03/2011	50 U	1 U	3	14	1 U	NA	0.25 J	170000	0.74 UJ	0.14 J	1.9 J	50 U	1 U	DMETAL
B185	10/03/2011	50 U	0.13 J	2.7	14	1 U	NA	0.14 J	170000	0.75 UJ	0.18 J	1.6 U	500 U	1 U	DMETAL
B185	04/02/2012	14 J	0.18 UJ	2 UJ	19	1 U	NA	0.48 J	150000	0.44 J	1 U	2.3 U	71	1 U	DMETAL
B194	09/09/2010	64	1 U	2.6	55	0.5 U	160	1 U	55000	0.97 J	0.42 J	1.7 J	84 J	2 U	METAL
B194	04/13/2011	50 U	0.19 J	1.8	100	1 U	NA	1.2	51000	0.99 J	1 U	1.5 J	50 U	0.41 J	DMETAL
B194	10/04/2011	50 U	0.21 J	2.7	110	0.11 J	NA	1 U	52000	0.99 J	0.11 J	1.6 U	100 U	1 U	DMETAL
B194	04/04/2012	50 U	0.23 J	0.87 J	95	1 U	NA	1 U	48000	0.65 J	1 U	2.3 U	50 U	1 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B195	09/09/2010	53	1 U	2	34	0.5 U	110	1 U	150000	0.73 J	0.45 J	1.8 J	73 J	2 U	METAL
B195	04/13/2011	50 U	0.21 J	1.5	18	1 U	NA	0.28 J	51000	0.78 J	1 U	75 J	50 U	4.6	DMETAL
B195	04/13/2011	64	0.19 J	0.77 J	20	1 U	NA	0.28 J	55000	0.8 J	0.13 J	1 U	50 UJ	1 U	METAL
B195	04/13/2011	68	0.17 J	1.6 J	20	1 U	NA	0.27 J	55000	0.82 J	1 U	1 U	50 UJ	1 U	METAL
B195	04/13/2011	50 U	0.2 J	1.3	17	1 U	NA	0.21 J	49000	0.62 J	1 U	7.5 J	50 U	0.83 J	DMETAL
B195	10/04/2011	44 J	1 U	1.4	52	1 U	NA	1 U	180000	1 U	1 U	1.6 U	41 J	1 U	METAL
B195	10/04/2011	50 U	0.72 J	2.9	47	0.2 J	NA	0.4 J	160000	1.2	0.19 J	1.6 U	100 U	1 U	DMETAL
B195	04/03/2012	7.9 J	1 U	1.4 UJ	16	1 U	NA	1 U	61000	0.68 J	0.1 J	2.3 U	180 U	1 U	METAL
B195	04/03/2012	50 U	1 U	1.3 UJ	19	1 U	NA	0.16 J	68000	1.2	1 U	1.6 J	50 U	1 U	DMETAL
B195	04/02/2013	12 J	8.1	2.2	35	1 U	NA	1 U	97000	0.66 J	1 U	0.8 J	19 UJ	1 U	DMETAL
B195	04/02/2013	11 J	0.64 J	0.97 J	32	1 U	NA	1 U	95000	0.46 J	1 U	5.4	50 U	1 U	DMETAL
B195	04/02/2014	17 J	1 U	1.2	21	1 U	NA	1 U	110000	0.62 J	1 U	1.5 J	45 J	0.11 J	DMETAL
B195	04/02/2014	14 J	1.2	1.3	20	1 U	NA	1 U	110000	0.61 J	1 U	3.4 U	53 J	0.1 J	DMETAL
B195	04/14/2015	50 U	0.14 J	1.3	23	0.17 J	NA	1 U	76000	0.62 J	1 U	0.69 J	50 U	0.085 J	DMETAL
B195	04/11/2016	NA	10 U	4.9 J	15	2 U	NA	5 U	NA	5 U	5 U	5 U	NA	5 U	DMETAL
B195	04/06/2017	100 U	1 U	3.3 J	15	2 U	NA	1 U	42000	5 U	5 U	0.9 J	100 U	5 U	DMETAL
B195	04/06/2017	100 U	1 U	4.3 J	15	2 U	NA	1 U	41000	5 U	5 U	5 U	100 U	5 U	DMETAL
B195	04/04/2018	NA	2.5 U	3.2 U	32	2.5 U	NA	2.5 U	NA	5 U	2.5 U	2.6 U	NA	2.5 U	DMETAL
B197	09/09/2010	17 J	1 U	1.8	26	0.5 U	98 J	1 U	140000	1.1	0.3 J	1.7 J	100 U	2 U	METAL
B197	09/09/2010	20 U	1 U	1.8	25	0.5 U	93 J	1 U	140000	1.2	0.29 J	1.6 J	100 U	2 U	METAL
B197	04/13/2011	50 U	0.17 J	2	28	1 U	NA	1 U	160000	1 U	1.6	1 UJ	50 U	0.31 J	DMETAL
B197	10/04/2011	50 U	0.42 J	4.5	22	0.11 J	NA	0.24 J	140000	0.97 J	0.81 J	1.6 U	1300	1 U	DMETAL
B197	04/03/2012	50 U	1 U	10	35	1 U	NA	1 U	180000	1 U	1	1.2 J	980	1 U	DMETAL
B197	04/03/2012	50 U	1 U	9	33	1 U	NA	1 U	180000	1 U	0.97 J	1.3 J	920	1 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B197R	04/08/2013	22 J	1 U	1.8	20	1 U	NA	1 U	150000	0.79 J	1 U	0.81 J	17 J	0.29 J	DMETAL
B197R	04/08/2014	50 U	0.82 J	10	61	1 U	NA	1 U	220000	1 U	1.3	3.4 U	2500 J	1 U	DMETAL
B197R	04/14/2015	30 J	0.16 J	2.3	24	0.19 J	NA	1 U	180000	1 U	0.35 J	1 U	1300 J	1 U	DMETAL
B197R	04/05/2016	NA	7.4 J	5 U	28	2 U	NA	5 U	NA	3.3 J	5 U	1.7 J	NA	5 U	DMETAL
B197R	04/05/2016	NA	9.5 J	5 U	29	2 U	NA	5 U	NA	1.4 J	5 U	1.6 J	NA	5 U	DMETAL
B197R	04/04/2017	100 U	1 U	20	31	1.1 J	NA	1 U	270000	5 U	5 U	5 U	480	5 U	DMETAL
B197R	04/04/2018	NA	2.5 U	2.4 J	30	2.5 U	NA	2.5 U	NA	5 U	0.52 J	2.6 U	NA	2.5 U	DMETAL
B197R	04/04/2018	NA	2.5 U	2.5 J	30	2.5 U	NA	2.5 U	NA	5 U	0.56 J	2.6 U	NA	2.5 U	DMETAL
B277	09/15/2010	35	1 U	1.9	34	0.5 U	110	1 U	54000	1.8	0.5 U	2 U	100 U	2 U	METAL
B277	04/18/2011	50 U	1 U	2.2	73	1 UJ	NA	2 U	57000	1.8	1 U	3.3 J	50 UJ	0.54 J	DMETAL
B277	10/05/2011	50 U	0.13 J	0.52 J	61	1 UJ	NA	1 U	54000	0.31 J	1 U	1 U	50 U	1 U	DMETAL
B277	04/03/2012	50 U	0.32 UJ	1.9 UJ	61	1 U	NA	0.34 J	56000	1.5	1 U	2.3 U	50 U	1 U	DMETAL
B278	09/16/2010	23 J	1 U	2	56	0.5 U	140	1 U	280000	1.6	0.57	1.8 J	100 U	2 U	METAL
B278	04/19/2011	50 U	0.78 J	1.5 J	59	1 U	NA	2 U	230000	1.4	1 U	1.1 J	89 UJ	0.94 J	DMETAL
B278	10/05/2011	50 U	1 U	1 U	51	1 U	NA	1 U	260000	0.49 J	1 U	1 U	50 U	1 U	DMETAL
B278	04/05/2012	50 U	1 U	2	62	1 U	NA	1 U	270000	1.4	1 U	2.3 U	50 U	1 U	DMETAL
B280A	09/16/2010	20 U	1 U	1.4	66	0.5 U	94 J	1 U	68000	0.93 J	0.5 U	1.1 J	100 U	2 U	METAL
B280A	04/14/2011	75 U	1.1 U	1 J	84	1 UJ	NA	2 U	50000	0.25 J	1 U	1.9 J	24 J	1.9 U	DMETAL
B280A	10/06/2011	50 U	0.42 UJ	0.55 J	110	1 U	NA	0.33 J	57000 J	0.54 J	1 U	0.52 J	120	1 U	DMETAL
B280A	04/03/2012	50 U	1 U	1.7	110	1 U	NA	1 U	64000	0.53 J	1 U	2.3 U	50 U	1 U	DMETAL
B280B	10/01/2010	19 J	1 U	3.4	8	0.5 U	280	1 U	51000	1.5	0.5 U	2 U	100 U	2 U	METAL
B280B	04/14/2011	50 U	1.1 U	1.7 J	6.4	1 UJ	NA	2 U	53000	2.1	1 U	5.8	23 J	1.9 U	DMETAL
B280B	10/06/2011	50 U	0.33 UJ	2.8	6.5	1 U	NA	1 U	52000 J	1 U	1 U	1 U	50 U	1 U	DMETAL
B280B	04/03/2012	11 J	0.2 UJ	3.3 UJ	5.2	1 U	NA	1 U	55000	1.3	1 U	0.87 J	50 U	1 U	DMETAL

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B300	09/09/2010	23	1 U	2	90	0.5 U	150	1 U	150000	1.7	0.48 J	1.3 J	100 U	2 U	METAL
B300	04/15/2011	50 UJ	1 U	1.4 J	250	1 UJ	NA	2 U	280000	1 U	8.9	6	1200	0.5 J	DMETAL
B300	10/06/2011	2000 U	5 UJ	26 U	23	20 U	NA	20 U	18000 J	20 U	20 U	21 U	2000 U	20 U	DMETAL
B300	04/09/2012	50 U	1 U	2.3	150	1 U	NA	0.11 J	210000	1 U	2.1	2.3 U	4600	1 U	DMETAL
B38	09/15/2010	44	1 U	1.2	50	0.5 U	150	1 U	31000	2.3	0.5 U	3.3	72 J	2 U	METAL
B38	04/19/2011	50 U	0.22 J	1 J	47	1 U	NA	2 U	24000	0.93 J	1 U	2.2	89 U	0.57 J	DMETAL
B38	04/19/2011	50 U	0.3 J	1.3 J	51	1 U	NA	2 U	26000	1.3	1 U	65	89 U	3.6	DMETAL
B38	10/06/2011	50 U	0.33 UJ	1.5	40	1 U	NA	0.32 J	14000 J	0.14 J	1 U	1 U	150	1 U	DMETAL
B38	04/04/2012	14 J	1 U	0.99 J	37	1 U	NA	1 U	18000	0.6 J	1 U	2 J	19 UJ	1 U	DMETAL
B450	04/19/2011	50 U	2.6	1.7 J	50	0.4 J	NA	2 U	59000	1 J	1 U	1.8 J	89 U	0.43 J	DMETAL
B450	04/19/2011	110	1.2	2.3	53	1 U	NA	2 U	65000	2	1 U	2.2 U	180	1.9 U	METAL
B450	10/10/2011	50 U	1.1	1	71	1 U	NA	0.21 J	36000	0.85 J	1 U	1 U	50 U	1 U	DMETAL
B450	04/06/2012	6.8 UJ	3.3	1.8	78	0.38 J	NA	1 U	73000	0.94 J	1 U	1 J	50 U	1 U	DMETAL
B450	04/03/2013	50 U	0.23 UJ	1.3	50	1 U	NA	1 U	46000	0.51 J	1 U	2.3 U	50 U	0.17 J	DMETAL
B450	04/03/2014	50 U	0.19 J	1.5	120	1 U	NA	1 U	80000	0.74 J	1 U	1 U	63 U	1 U	DMETAL
B450	04/14/2015	9.8 J	0.18 J	1.6	91	0.14 J	NA	1 U	64000	1	1 U	0.53 UJ	50 U	1 U	DMETAL
B450	04/07/2016	NA	4.2 J	5 U	56	2 U	NA	5 U	NA	5 U	5 U	1.8 UJ	NA	5 U	DMETAL
B450	04/06/2017	100 U	0.39 J	10 U	52	2 U	NA	1 U	32000	5 U	5 U	5 U	100 U	5 U	DMETAL
B460	09/15/2010	160	1 U	3.2	13	0.5 U	82 J	1 U	31000	0.53 J	1.2	1.9 J	280	2 U	METAL
B460	04/20/2011	75 U	0.38 J	2.4	8.8 J	3.2 U	NA	2 U	43000	1.3 U	1 U	21	89 U	0.96 J	DMETAL
B460	10/07/2011	50 U	0.39 J	3.4	8.4	1 U	NA	0.31 J	40000	0.38 J	0.46 J	1 U	210	1 U	DMETAL
B460	04/06/2012	8.5 UJ	0.18 J	2.7	5.4	1 U	NA	1 U	30000	0.67 J	1 U	2.3 U	50 U	1 U	DMETAL
B473	09/24/2010	180	1 U	2	64	0.5 U	140	1 U	25000	3.9	0.31 J	4.7	330	2 U	METAL
B473	04/20/2011	75 U	1.1 U	2.2	22 J	3.2 U	NA	2 U	44000	1.6	1 U	9.1	89 UJ	0.8 J	DMETAL
B473	10/07/2011	50 U	0.35 J	1.9	19	1 U	NA	1 U	19000	1.3	1 U	1 U	50 U	1 U	DMETAL
B473	04/06/2012	14 UJ	0.4 J	2.3	12	0.32 J	NA	0.18 UJ	17000	1.4	1 U	0.97 J	50 U	1 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
B474	09/23/2010	450	1 U	9.8	25	0.5 U	200	1 U	24000	1.7	1.6	2	1400	2 U	METAL
B474	04/20/2011	75 U	1.1 U	3.9	6.2 J	3.2 U	NA	2 U	35000	1.3 U	1 U	5.1	89 U	1.9 U	DMETAL
B474	04/20/2011	31 J	0.45 J	4.3	7.4	3.2 U	NA	2 U	35000	1.3 U	1 U	4.7	89 UJ	1.9 U	METAL
B474	10/07/2011	240	1.5	2.8	36	0.69 J	NA	1 U	17000	1.2	1.2	21	990	7.3	METAL
B474	10/07/2011	50 U	1.7	1.6	8.1	1 U	NA	1 U	12000	1.7	1 U	12	240	0.72 J	DMETAL
B474	04/09/2012	67	3.1	2.6	34	1 U	NA	0.57 J	28000	0.84 J	0.89 J	6.8	150	0.97 J	METAL
B474	04/09/2012	50 U	0.49 J	2.7	46	1 U	NA	0.42 J	32000	0.74 J	0.96 J	2.3 U	47 J	1 U	DMETAL
B474	04/03/2013	40 J	2.8	3.4	52	1 U	NA	1 U	21000	1 U	0.59 J	4.4	92	0.16 J	DMETAL
B474	04/03/2014	15 J	1.2	2.2	74	1 U	NA	1 U	34000	1.5	0.56 J	22	40 J	2.2	DMETAL
B474	04/16/2015	16 J	0.41 J	3.8	52	1 U	NA	1 U	25000	1.5	0.55 J	0.9 UJ	220	0.14 UJ	DMETAL
B474	04/11/2016	NA	10 U	5 U	55	2 U	NA	5 U	NA	5 U	5 U	18	NA	5 U	DMETAL
B474	04/04/2017	100 U	8.7	5.7 J	86	2 U	NA	1 U	34000	5 U	5 U	3.6 J	100 U	5 U	DMETAL
B474	04/03/2018	NA	0.73 J	2.1	44	1 U	NA	1 U	NA	0.95 J	0.11 J	5.8	NA	0.056 J	DMETAL
B480	09/24/2010	22	1 U	6.5	41	0.5 U	110	1 U	53000	0.68 J	1.5	2 U	420	2 U	METAL
B480	04/19/2011	32 J	1 J	3.1	42	1 U	NA	2 U	51000	1.2 J	1 U	7.8	89 U	0.54 J	DMETAL
B480	10/07/2011	50 U	0.52 J	2.6	39	1 U	NA	0.81 J	34000	0.34 J	0.2 J	0.28 J	50 U	1 U	DMETAL
B480	04/09/2012	50 U	0.23 J	2.8	75	1 U	NA	0.65 J	51000	1.8	1 U	2.3 U	50 U	1 U	DMETAL
B480	04/03/2013	8.1 J	0.41 UJ	2.5	93	1 U	NA	1 U	50000	1.3	1 U	2.3 U	50 U	1 U	DMETAL
B480	04/03/2014	50 U	0.25 J	3	130	1 U	NA	1 U	54000	1.8	0.24 J	3.4 U	63 U	1 U	DMETAL
B480	04/17/2015	50 U	1 U	2.1	140	1 U	NA	1 U	54000	1.5	1 U	1 U	50 U	1 U	DMETAL
B490	09/16/2010	21	1 U	2.2	53	0.5 U	130	1 U	52000	2.6	0.5 U	1.1 J	100 U	2 U	METAL
B490	04/20/2011	75 U	1.1 U	1.6 J	79 J	3.2 U	NA	2 U	52000	4.4	1 U	11	89 U	1.5 J	DMETAL
B490	10/10/2011	50 U	5 U	1.8	90	1 U	NA	1 U	45000	2.7	1 U	5.2 U	50 U	0.37 J	DMETAL
B490	04/09/2012	50 U	2.8	2.4	93	1 U	NA	1 U	46000	3.2	1 U	2.3 U	37 J	1 U	DMETAL

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
BULB1	10/19/2010	70	10 U	17	230	1 U	1700	10 U	370000	2.1	18	6.6	100	20 U	METAL
BULB1	04/12/2011	50 UJ	1.4	12	110	1 U	NA	1 U	330000	0.13 J	2.3	14 J	50 UJ	0.91 J	DMETAL
BULB1	04/12/2011	140	0.24 J	12 J	140	1 U	NA	0.99 J	420000	0.99 J	4.7 J	1 U	660	0.47 J	METAL
BULB1	09/30/2011	81	0.45 J	9.7	170 J	1 U	NA	1 U	440000	1 U	0.24 J	1.6 U	340 J	13	METAL
BULB1	09/30/2011	50 U	0.31 J	12	150	1 U	NA	0.09 J	380000	1.2 UJ	1.3	1.6 U	50 U	1 U	DMETAL
BULB1	04/05/2012	34 UJ	3.2	9.3	120	0.22 J	NA	0.31 UJ	290000	2.5	0.38 J	2.3 U	380	1 U	METAL
BULB1	04/05/2012	17 J	1.2	9	120	0.25 J	NA	0.2 J	320000	0.49 J	0.52 J	2.3 U	320	1 U	DMETAL
BULB1	04/05/2013	14 J	0.36 J	5.9	110	1 U	NA	0.39 J	310000	0.17 J	1 U	1.3 J	220	1 U	DMETAL
BULB1	04/10/2014	50 U	2.4	8.6	120	1 U	NA	1 U	380000	0.28 J	0.23 J	3.4 U	600	0.12 J	DMETAL
BULB1	04/13/2015	50 U	1 U	6.4	100	1 U	NA	0.28 J	220000	0.5 J	1 U	1 U	240	1 U	DMETAL
BULB1	04/13/2015	16 J	1 U	6.6	99	1 U	NA	0.25 J	210000	0.25 J	1 U	1 U	240	1 U	DMETAL
BULB1	04/08/2016	NA	6.7 J	15	110	1.1 J	NA	5 U	NA	5 U	5 U	5 U	NA	5 U	DMETAL
BULB1	04/06/2017	100 U	0.9 J	28	140	1.9 J	NA	0.22 J	410000	5 U	5 U	2.6 J	880	5 U	DMETAL
BULB1	04/04/2018	NA	13 U	17	130 J	13 U	NA	13 U	NA	25 U	0.8 J	13 U	NA	13 U	DMETAL
BULB2	10/19/2010	770	1 U	8.9	540	0.5 U	850	1 U	130000	3	8.1	5.6 J	2800	3.9	METAL
BULB2	04/12/2011	50 UJ	2.5	3	55	1 U	NA	0.55 J	19000	0.23 J	1.1	28 J	50 UJ	1.3	DMETAL
BULB2	04/12/2011	240	1.8	5 J	230	1 U	NA	1.4	75000	1.4	4.3	0.94 J	1500	0.71 J	METAL
BULB2	09/30/2011	220	0.52 J	2.6	66 J	1 U	NA	0.14 J	31000	1 U	1.4	1.6 U	880 J	0.67 J	METAL
BULB2	09/30/2011	50 U	0.13 J	3.8	53	1 U	NA	1 U	31000	1.8 UJ	1.1	1.6 U	1200	0.18 J	DMETAL
BULB2	04/05/2012	17 J	0.21 J	3.1	370 J	1 U	NA	1 U	180000 J	0.56 J	1.8	1.7 J	3100 J	1 U	DMETAL
BULB2	04/05/2012	40 UJ	0.38 J	3.4	370 J	0.21 J	NA	0.54 UJ	180000	0.34 J	1.7	5.2	3100	0.91 J	METAL
BULB2	04/05/2013	12 J	1 U	2	65	1 U	NA	1 U	41000	1 U	1.3	2.3 U	220	1 U	DMETAL
BULB2	04/10/2014	50 U	1 U	2.4	74	4.3 U	NA	1.3 U	43000	0.2 J	1.4	1 U	520	0.14 J	DMETAL
BULB2	04/13/2015	50 U	1 U	3.3	53	1 U	NA	1 U	29000	1 U	0.72 J	1 U	720	1 U	DMETAL
BULB2	04/08/2016	NA	2.3 J	5 U	350	0.7 J	NA	5 U	NA	5 U	5 U	1.2 UJ	NA	5 U	DMETAL
BULB2	04/06/2017	100 U	0.53 J	10 U	100	2 U	NA	1 U	51000	5 U	5 U	5 U	820	5 U	DMETAL
BULB2	04/04/2018	NA	2.5 U	1.8 J	490	2.5 U	NA	2.5 U	NA	5 U	1.2 J	2.6 U	NA	2.5 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
CCC1	09/08/2010	72	1 U	3	6.3	0.5 U	91 J	1 U	27000	0.84 J	0.5 U	1.5 J	88 J	2 U	METAL
CCC1	04/14/2011	75 U	1.2	2.4	6.4	3.2 UJ	NA	2 U	34000	1.9	1 U	4.6	43 J	1.9 U	DMETAL
CCC1	10/05/2011	50 U	1 U	0.45 J	3.2	1 UJ	NA	1 U	37000	1 U	1 U	1 U	50 U	1 U	DMETAL
CCC1	04/10/2012	50 U	1 U	2.5	6.8	1 U	NA	0.27 J	44000	0.34 J	1 U	2.3 U	50 U	1 U	DMETAL
CCC2	09/08/2010	20 U	1 U	2.3	24	0.5 U	140	1 U	48000	32	0.5 U	1.5 J	100 U	2 U	METAL
CCC2	04/14/2011	17 J	1 U	0.96 J	39	1 U	NA	0.66 J	210000	2.3	1 U	1 U	50 UJ	1 U	METAL
CCC2	04/14/2011	75 U	0.51 J	0.85 J	36	3.2 UJ	NA	2 U	210000	2.1	1 U	20	47 J	2.6	DMETAL
CCC2	10/04/2011	130	4	1.8	19	1 U	NA	0.13 J	62000	12	1 U	1.6 U	140	0.3 J	METAL
CCC2	10/04/2011	50 U	0.54 J	3.6	21	1 U	NA	1 U	65000	13	0.25 J	1.6 U	540	1 U	DMETAL
CCC2	04/10/2012	50 U	1 U	1.2	35	1 U	NA	0.34 J	120000	4.5	1 U	2.3 U	12 J	1 U	DMETAL
CCC2	04/10/2012	50 U	0.2 J	1.1	29	1 U	NA	0.24 J	96000	9.4	1 U	2.3 U	17 J	1 U	METAL
CCC2	04/02/2013	50 U	0.29 J	0.9 J	23	1 U	NA	1 U	66000	18	1 U	2.3 U	50 U	1 U	DMETAL
CCC2	04/02/2013	50 U	1 U	0.86 J	21	1 U	NA	1 U	63000	16	1 U	2.3 U	50 U	1 U	DMETAL
CCC2	04/02/2014	50 U	0.51 J	1.3	23	1 U	NA	1 U	59000	28	1 U	3.4 U	63 U	1 U	DMETAL
CCC2	04/15/2015	50 U	1 U	1.6	45	1 U	NA	1 U	65000	26 J	1 U	0.68 UJ	110 U	1 U	DMETAL
CCC2	04/07/2016	NA	10 U	5 U	61	2 U	NA	5 U	NA	1.9 J	5 U	5 U	NA	1.6 J	DMETAL
CCC2	04/06/2017	100 U	1 U	15	45	0.57 J	NA	1 U	180000	5 U	5 U	5 U	100 U	5 U	DMETAL
CCC2	04/06/2017	100 U	1 U	16	47	2 U	NA	1 U	180000	4.3 J	5 U	4.3 J	140	5 U	DMETAL
CCC2	04/05/2018	NA	2.5 U	3.2 U	54	2.5 U	NA	2.5 U	NA	5 U	2.5 U	3	NA	2.5 U	DMETAL
CCC2	04/05/2018	NA	2.5 U	3.2 U	60	2.5 U	NA	2.5 U	NA	5 U	2.5 U	3.6	NA	0.42 J	DMETAL

METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
CCC3	09/03/2010	390	1 U	5.9	27	0.5 U	190	1 U	68000	2.8	2.1	2.4	550	2 U	METAL
CCC3	09/03/2010	29	1 U	4.6	22	0.5 U	130	1 U	64000	1.1	1.8	1.3 J	91 J	2 U	METAL
CCC3	04/12/2011	50 U	0.19 J	2.9	9.6	1 U	NA	1 U	45000	0.86 J	1 U	12 J	50 U	0.55 J	DMETAL
CCC3	10/04/2011	50 U	0.45 J	6.7	18	1 U	NA	1 U	61000	1 U	0.48 J	1.6 U	100 U	1 U	DMETAL
CCC3	10/04/2011	50 U	0.15 J	2.4	17	1 U	NA	1 U	59000	0.67 J	0.68 J	1.6 U	100 U	1 U	DMETAL
CCC3	04/10/2012	50 U	1 U	4.4	13	1 U	NA	1 U	61000	0.28 J	0.73 J	2.3 U	14 J	1 U	DMETAL
CCC3	04/02/2013	100	1.8	2	13	1 U	NA	1 U	55000	0.46 J	1 U	0.83 J	63	0.35 J	DMETAL
CCC3	04/02/2014	50 U	1 U	2.6	14	1 U	NA	1 U	61000	1 U	0.2 J	3.4 U	32 J	1 U	DMETAL
CCC3	04/15/2015	50 U	0.22 J	2.7	15	1 U	NA	1 U	50000	1 U	0.15 J	0.63 UJ	50 U	1 U	DMETAL
CCCT	09/03/2010	55	1 U	3.9	28	0.5 U	210	1 U	100000	1 U	2	1.8 J	260	2 U	METAL
CCCT	04/18/2011	50 U	0.6 J	1.7 J	24	1 UJ	NA	2 U	100000	1.3 U	1 U	12 J	50 UJ	0.69 J	DMETAL
CCCT	10/03/2011	50 U	0.11 J	3.5	22	1 U	NA	1 U	98000	0.53 UJ	0.44 J	1.6 U	98	1 U	DMETAL
CCCT	04/04/2012	50 U	1.4	2.6	24	1 U	NA	1 U	110000	1 U	0.26 J	2.3 U	70 UJ	1 U	DMETAL
CTP	09/30/2010	23	1 U	2.6	38	0.5 U	120	1 U	50000	1.1	0.54	2 U	150	2 U	METAL
CTP	09/30/2010	17 J	1 U	2.5	39	0.5 U	110	1 U	50000	1.1	0.52	2 U	140	2 U	METAL
CTP	04/14/2011	75 U	1.1 U	1.3 J	55	1 UJ	NA	9.3	50000	0.47 J	0.61 J	5.4	44 J	1.9 U	DMETAL
CTP	10/06/2011	50 U	0.32 UJ	0.81 J	65	1 U	NA	0.52 J	47000 J	0.45 J	1 U	1 U	50 U	1 U	DMETAL
CTP	04/03/2012	50 U	0.27 UJ	2.1 UJ	57	1 U	NA	0.62 J	57000	1	1 U	2.3 U	50 U	1 U	DMETAL
CTP	04/04/2013	50 U	1 U	0.81 J	66	1 U	NA	1	57000	0.34 J	0.22 J	2.3 U	19 UJ	0.12 UJ	DMETAL
CTP	04/03/2014	50 U	0.12 J	0.92 J	85	1 U	NA	2	62000	1.4	0.2 J	3.4 U	25 J	1 U	DMETAL
CTP	04/03/2014	50 U	0.13 J	0.98 J	81	1 U	NA	2.1	61000	1.4	0.23 J	3.4 U	63 U	1 U	DMETAL
CTP	04/17/2015	50 U	1 U	1.2	80	1 U	NA	2.6	58000	1.4	0.32 J	1 U	28 J	0.088 UJ	DMETAL
CTP	04/11/2016	NA	10 U	5 U	77	2 U	NA	1.5 J	NA	1 J	5 U	5 U	NA	5 U	DMETAL
CTP	04/06/2017	100 U	1 U	3.6 J	56	2 U	NA	0.92 J	59000	3.5 J	5 U	5 U	100 U	5 U	DMETAL
CTPS	09/30/2010	36	1 U	3.6	82	0.5 U	260	1 U	130000	1.4	1.6	1.8 J	240	2 U	METAL
CTPS	04/19/2011	50 U	0.39 J	0.96 J	13	0.14 J	NA	2 U	47000	1.3 U	1 U	5	89 U	1.1	DMETAL
CTPS	10/07/2011	50 U	0.52 J	1.5	20	1 U	NA	0.82 J	55000	1 U	1 U	1 U	50 U	1 U	DMETAL
CTPS	04/05/2012	50 U	1 U	1.1	17	0.26 J	NA	1 U	36000	0.37 J	1 U	1.2 J	50 U	1 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
DH	09/30/2010	20 U	1 U	3.5	41	0.5 U	320	0.75 J	530000	1 U	1.2	2.8	100 U	2 U	METAL
DH	04/14/2011	75 U	1.1 U	1.3 J	89	1 UJ	NA	1.9 J	590000	0.28 J	0.33 J	3.5	89 U	1.9 U	DMETAL
DH	10/05/2011	50 U	0.18 J	1.6	100	1 UJ	NA	1 U	810000	1 U	2.7	53	50 U	1.3	DMETAL
DH	04/06/2012	34 UJ	0.21 J	18	88	1 U	NA	0.46 UJ	510000	1.5	12	2.3 U	10000	1 U	DMETAL
DHR	04/04/2013	50 U	1 U	2.4	46	1 U	NA	0.43 J	690000	1 U	1.1	17	50 U	1 U	DMETAL
DHR	04/10/2014	50 U	0.32 J	2.6	82	1 U	NA	0.28 J	860000	1 U	3.9	3.4 U	330	1 U	DMETAL
DHR	04/13/2015	50 U	1 U	9.8	71	1 U	NA	0.16 J	710000	0.41 J	5.8	1 U	7200	1 U	DMETAL
DHR	04/08/2016	NA	10 U	5 U	82	2 U	NA	5 U	NA	11	9.7	5 U	NA	5 U	DMETAL
DHR	04/05/2017	62 J	0.35 J	21	95	1.1 J	NA	1 U	280000	3 J	16	5 U	17000	5 U	DMETAL
DHR	04/05/2018	NA	13 U	19	150	13 U	NA	13 U	NA	25 U	10 J	13 U	NA	13 U	DMETAL
EERC	10/01/2010	10 J	1 U	11	39	0.5 U	480	1 U	450000	1 U	11	2.9	840	2 U	METAL
EERC	04/20/2011	75 U	0.52 J	1.7 J	22	3.2 U	NA	2 U	460000	1.3 U	0.37 J	0.96 J	89 UJ	1.9 U	METAL
EERC	04/20/2011	75 U	1.1 U	2.9	19 J	3.2 U	NA	2 U	420000	1.3 U	0.54 J	6.2	89 U	1.9 U	DMETAL
EERC	10/07/2011	420	0.87 J	5.2	27	0.16 J	NA	0.29 J	350000	0.81 J	5.6	2.4	1000	0.41 J	METAL
EERC	10/07/2011	50 U	0.56 J	3.1	20	1 U	NA	1 U	350000	1 U	5.1	1 U	32 J	1 U	DMETAL
EERC	04/06/2012	19 J	2.9	2.4	25	1 U	NA	0.13 J	320000	0.74 J	1 U	0.96 J	36 UJ	1 U	METAL
EERC	04/06/2012	7 UJ	0.34 J	2.6	23	0.28 J	NA	1 U	330000	0.62 J	1 U	0.86 J	50 U	1 U	DMETAL
EERC	04/08/2013	6.5 J	1 U	5.2	26	1 U	NA	1 U	420000	1 U	6.3	2.3 U	380	1 U	DMETAL
EERC	04/03/2014	50 U	0.25 J	4.2	28	1 U	NA	1 U	440000	0.19 J	3.3	3.4 U	980	1 U	DMETAL
EERC	04/16/2015	24 J	0.14 J	4.2	30	1 U	NA	1 U	310000	1 U	5.1	0.49 UJ	960	1 U	DMETAL
EERC	04/11/2016	NA	11	6 J	31	2 U	NA	5 U	NA	5 U	5 U	4.3 UJ	NA	5 U	DMETAL
EERC	04/06/2017	100 U	0.42 J	6.6 J	25	0.85 J	NA	1 U	300000	5 U	5 U	2.9 J	100 U	5 U	DMETAL
EERC	04/05/2018	NA	2.5 U	3.5	27	2.5 U	NA	2.5 U	NA	5 U	2.5	2.6 U	NA	2.5 U	DMETAL
EPA	09/16/2010	130	1 U	3.2	50	0.5 U	190	1 U	88000	2.1	0.74	2.7	230	2 U	METAL
EPA	04/19/2011	50 U	0.48 J	1.6 J	42	0.14 J	NA	2 U	120000	1.4	1 U	2.1 J	89 U	0.57 J	DMETAL
EPA	10/06/2011	50 U	0.41 UJ	2.3	38	1 U	NA	0.3 J	89000 J	1 U	1 U	7.5	50 U	1 U	DMETAL
EPA	04/06/2012	50 U	1 U	1.9	45	1 U	NA	1 U	100000	1 U	0.44 J	2.3 U	66 UJ	1 U	DMETAL
EPA	04/06/2012	50 U	1 U	1.8	51	0.44 J	NA	1 U	120000	0.86 J	0.91 J	1.2 J	50 U	1 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
ETA	09/24/2010	1600	1 U	22	39	0.5 U	150	0.93 J	110000	5.8	3.8	22	3300	9.8	METAL
ETA	09/24/2010	630	1 U	13	28	0.5 U	140	1 U	110000	2.6	2.4	8	1800	3.2	METAL
ETA	04/12/2011	50 U	0.26 J	7.4	18	1 U	NA	0.37 J	120000	0.093 J	1.3	2.1 J	120	0.36 J	DMETAL
ETA	04/12/2011	870	0.56 J	17 J	34	1 U	NA	2.4	120000	3.1	2.4	8.3	2100	4.1	METAL
ETA	09/30/2011	430	1.3	5.9	21 J	1 U	NA	0.46 J	96000	0.69 J	3.4	2.9	1900 J	2.4	METAL
ETA	09/30/2011	50 U	0.38 J	5.3	16	1 U	NA	0.28 J	99000	0.75 UJ	3	1.6 U	380	1 U	DMETAL
ETA	04/10/2012	50 U	1 U	5.5	20	1 U	NA	0.45 J	150000	0.23 J	2.4	2.3 U	410	1 U	DMETAL
ETA	04/10/2012	140	0.4 J	5.7	21	0.64 J	NA	0.7 J	120000	0.4 J	2.7	2.9	930	0.94 J	METAL
ETA	04/10/2012	120	0.37 J	5.3	20	1 U	NA	0.47 J	110000	0.35 J	2.7	2.6	880	0.56 J	METAL
ETA	04/10/2012	50 U	1 U	5.9	20	1 U	NA	0.73 J	140000	0.23 J	2.2	2.3 U	390	1 U	DMETAL
ETA	04/05/2013	50 U	1 U	3.3	17 J	1 U	NA	1 U	100000	1 U	2.6	2.3 U	930	1 U	DMETAL
ETA	04/08/2014	56	0.15 J	4.4	24	1 U	NA	1 U	130000	1 U	3.7	3.4 U	1000 J	0.29 J	DMETAL
ETA	04/13/2015	14 J	0.18 J	5.7	25	0.098 UJ	NA	0.16 J	150000	0.14 J	2.7	1 U	1300	0.17 J	DMETAL
ETA	04/05/2016	NA	10 U	5 U	22	2 U	NA	5 U	NA	4.8 J	2.2 J	3.1 J	NA	5 U	DMETAL
ETA	04/05/2017	100 U	0.25 J	18	19	2 U	NA	1 U	100000	3.5 J	1.2 J	4.7 J	450	5 U	DMETAL
ETA	04/04/2018	NA	0.57 J	8.6	56 J	2.5 U	NA	1.3 J	NA	5 U	3.2	11	NA	2.5 U	DMETAL
ETA01	02/02/2015	12 J	1 U	2	31	1 U	NA	0.2 J	56000	1 U	1.3	3.7 U	29 J	1 U	METAL
ETA01	04/05/2016	NA	10 U	5 U	38	2 U	NA	5 U	NA	5 U	2 J	3.2 J	NA	5 U	DMETAL
ETA01	04/05/2017	100 U	1 U	8 J	33	2 U	NA	1 U	64000	3.7 J	5 U	3.3 J	75 J	5 U	DMETAL
ETA01	04/04/2018	NA	2.5 U	1.7 J	32	2.5 U	NA	2.5 U	NA	5 U	0.31 J	2.6 U	NA	2.5 U	DMETAL
ETA02	02/02/2015	50 U	1 U	2.7	19	1 U	NA	0.54 J	480000	1 U	1.6	3.7 U	200	1 U	METAL
ETA02	02/02/2015	50 U	1 U	3.1	19	1 U	NA	0.52 J	450000	1 U	1.5	3.7 U	250	1 U	METAL
ETA02	04/05/2016	NA	2.6 J	5 U	18	2 U	NA	5 U	NA	4.2 J	3.1 J	5 U	NA	5 U	DMETAL
ETA02	04/05/2017	100 U	0.56 J	27	20	1 J	NA	1 U	470000	3.4 J	1.7 J	4 J	2300	5 U	DMETAL
ETA02	04/04/2018	NA	2.5 U	1.3 J	18	2.5 U	NA	2.5 U	NA	5 U	2.5	2.6 U	NA	2.5 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
ETA03	02/02/2015	30 J	0.41 J	0.63 J	22	0.16 J	NA	2.5	580000	1 U	110	3.7 U	12000	1 U	METAL
ETA03	04/05/2016	NA	10 U	5 U	11	2 U	NA	5 U	NA	14	130	5 U	NA	5 U	DMETAL
ETA03	04/05/2017	100 U	0.38 J	13	13	1.2 J	NA	2.2	520000	5.7	120	5 U	56000	5 U	DMETAL
ETA03	04/04/2018	NA	2.5 U	3.2 U	12	2.5 U	NA	2.2 J	NA	5 U	120	2.6 U	NA	2.5 U	DMETAL
ETA03	04/04/2018	NA	2.5 U	3.2 U	12	2.5 U	NA	2.1 J	NA	5 U	130	0.91 J	NA	2.5 U	DMETAL
EXT	09/30/2011	50 U	0.32 J	0.46 J	55	1 U	NA	1 U	14000	0.72 UJ	1 U	1.6 U	50 U	1 U	DMETAL
EXT	09/30/2011	50 U	1 U	0.32 J	54	1 U	NA	1 U	12000	1 U	1 U	1 U	100	1 U	METAL
FG	09/23/2010	30000	1 U	9.7	190	2.6	120	1.9	120000	50	49	56	34000	33	METAL
FG	04/19/2011	50 U	0.47 J	1.2 J	21	0.25 J	NA	2 U	33000	1.3 U	1 U	24	89 U	2.8	DMETAL
FG	04/19/2011	1500	0.63 J	2.2	33	0.31 J	NA	2 U	34000	3.8	0.98 J	2.5	1600	0.87 J	METAL
FG	04/19/2011	50 U	0.4 J	1.2 J	21	0.14 J	NA	2 U	33000	0.61 J	1 U	35	89 U	2.2	DMETAL
FG	04/19/2011	760	0.58 J	1.7 J	29	0.25 J	NA	2 U	34000	2.2	1.7	2.4	1100	0.72 J	METAL
FG	10/10/2011	50 U	0.35 UJ	1.4	23	1 U	NA	0.19 J	48000	1 U	1 U	5.2	50 U	0.2 J	DMETAL
FG	10/10/2011	75	0.22 J	1 J	29	1 U	NA	0.25 J	50000	0.61 J	1 U	0.71 J	180	0.17 J	METAL
FG	04/09/2012	50 U	1 U	1.4	15 J	1 U	NA	1 U	25000	0.48 J	1 U	2.3 U	35 J	1 U	DMETAL
FG	04/09/2012	150	1 U	1.4	16	1 U	NA	0.11 J	25000	0.73 J	0.24 J	1 J	200	1 U	METAL
FG	04/03/2013	77	6.4	1.1	24	1 U	NA	1 U	28000	1 U	1 U	2.3 U	22 J	1 U	DMETAL
FG	04/09/2014	50 U	2.7	1.3	19	1 U	NA	1 U	18000	0.37 J	0.15 J	2.3 J	58 UJ	1 U	DMETAL
FG	04/16/2015	45 J	0.16 J	1.7	31	1 U	NA	1 U	26000	0.41 J	1 U	0.36 UJ	50 J	0.11 UJ	DMETAL
FG	04/07/2016	NA	10 U	5 U	25	2 U	NA	5 U	NA	5 U	5 U	1.3 UJ	NA	5 U	DMETAL
FG	04/06/2017	100 U	1 U	10 U	17	2 U	NA	1 U	13000	5 U	5 U	5 U	100 U	5 U	DMETAL
GEO	09/03/2010	12 J	1 U	1.8	56	0.5 U	120	1 U	59000	1.6	0.5 U	1.1 J	100 U	2 U	METAL
GEO	04/20/2011	75 U	1.1 U	1.7 J	88 J	3.2 U	NA	2 U	69000	1.3 U	0.63 J	27	89 UJ	1.7 J	DMETAL
GEO	10/06/2011	50 U	0.27 UJ	2.5	67	1 U	NA	1 U	51000 J	1.7	1 U	1 U	50 U	1 U	DMETAL
GEO	04/06/2012	15 UJ	1 U	1.6	94	0.26 J	NA	0.17 UJ	67000	0.62 J	1 U	2.3 U	50 U	1 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
MFA	09/24/2010	160	1 U	2.3	33	0.5 U	140	1 U	75000	0.65 J	1.1	1.8 J	220	2 U	METAL
MFA	04/12/2011	50 UJ	0.98 J	1.4	28	1 U	NA	1 U	45000	0.28 J	0.81 J	9.5 J	50 U	0.62 J	DMETAL
MFA	10/03/2011	50 U	0.11 J	0.47 J	48	1 U	NA	0.15 J	74000	0.8 UJ	0.71 J	6.2	500 U	1 U	DMETAL
MFA	04/05/2012	50 U	0.79 J	2.3	31	1 U	NA	0.57 J	47000	1 U	0.92 J	1.6 J	5.8 UJ	1 U	DMETAL
MFA	04/08/2014	50 U	0.15 J	1.5	38	1 U	NA	1 U	72000	1 U	0.99 J	3.4 U	45 J	1 U	DMETAL
NRLF	09/16/2010	25	1 U	3.3	13	0.5 U	110	1 U	50000	1 U	0.57	2 U	300	2 U	METAL
NRLF	04/20/2011	75 U	0.41 J	5.2	15 J	3.2 U	NA	2 U	63000	1.3 U	0.86 J	82	150 UJ	4.1	DMETAL
NRLF	10/06/2011	50 U	0.38 UJ	1.4	30	1 U	NA	1 U	34000 J	1 U	1 U	1 U	50 U	1 U	DMETAL
NRLF	04/09/2012	50 U	0.61 J	2.9	58	1 U	NA	1 U	47000	1 U	0.64 J	2.3 U	180	1 U	DMETAL
NRLF	04/03/2013	50 U	1 U	7	60	1 U	NA	1 U	48000	1 U	0.37 J	2.3 U	3100	1 U	DMETAL
NRLF	04/09/2014	50 U	0.21 J	2	81	1 U	NA	1 U	50000	0.2 J	0.34 J	3.4 U	110 UJ	1 U	DMETAL
NRLF	04/16/2015	50 U	1 U	4.5	87	1 U	NA	1 U	51000	1 U	0.33 J	1 U	900	0.085 UJ	DMETAL
NRLF	04/08/2016	NA	2.4 J	6.7	92	2 U	NA	5 U	NA	5 U	5 U	5 U	NA	5 U	DMETAL
NRLF	04/06/2017	100 U	1 U	6.5 J	88	2 U	NA	1 U	63000	5 U	5 U	5 U	1400	5 U	DMETAL
NRLF	04/05/2018	NA	2.5 U	5	90	2.5 U	NA	2.5 U	NA	5 U	0.82 J	2.6 U	NA	2.5 U	DMETAL
OBS6	09/30/2011	33 J	0.21 J	3.6	100	1 U	NA	1 U	40000	1.5 UJ	1 U	1.6 U	50 U	1 U	DMETAL
OBS6	09/30/2011	50 U	1 U	1.7	110	1 U	NA	1 U	37000	0.15 J	1 U	2.7	22 J	2.4	METAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
PZ11	10/01/2010	20 U	1 U	2.5	11	0.5 U	77 J	2.7	200000	1 U	1	22	100 U	2 U	METAL
PZ11	04/20/2011	1200	0.56 J	0.82 J	13	1.8 J	NA	35	260000	0.74 J	3.4	1300	95 UJ	0.67 J	METAL
PZ11	04/20/2011	1200	1.1 U	0.67 J	12 J	2.1 J	NA	30	240000	1 J	3.7	1200	89 UJ	2.6	DMETAL
PZ11	10/10/2011	50 U	0.17 J	1.4	10	1 U	NA	3.4	230000	1 U	1.3	34	38 J	1 U	METAL
PZ11	10/10/2011	50 U	0.37 UJ	1.6	10	1 U	NA	4.9	230000	1 U	1.2	12	50 U	1 U	DMETAL
PZ11	04/05/2012	740	0.18 J	0.5 J	10	0.98 J	NA	19	130000	68 U	1.4	770	50 U	1 U	METAL
PZ11	04/05/2012	600	1 U	1.1	11	1.1	NA	22	160000	1.9	1.5	800	17 UJ	1 U	DMETAL
PZ11	04/05/2013	32 J	5.3	1.1	15	1 U	NA	5.9	210000	1 U	3.3	21	83	1 U	DMETAL
PZ11	04/05/2013	34 J	1 U	1.2	14	1 U	NA	6.5	240000	1 U	3.6	23	67	1 U	DMETAL
PZ11	04/09/2014	50 U	0.36 J	1.6	22	1 U	NA	1 U	320000	1 U	5.7	2.7 J	400	1 U	DMETAL
PZ11	04/16/2015	50 U	0.13 J	1.7	17	1 U	NA	4.9	190000	1 U	2.6	8.4	29 J	1 U	DMETAL
PZ11	04/08/2016	NA	10 U	5 U	16	0.6 J	NA	6.2	NA	4.3 J	1.8 J	200	NA	5 U	DMETAL
PZ11	04/06/2017	100 U	0.34 J	10 U	280	0.67 J	NA	1 U	180000	7	5 U	5 U	5600	5 U	DMETAL
PZ11	04/03/2018	NA	1 U	1.5	22 J+	1 U	NA	1.7	NA	0.58 J	3.3 J	9.7 J	NA	0.06 J	DMETAL
PZ8	10/15/2010	68	1 U	1.6	96	0.5 U	97 J	1 U	44000	1.3	0.29 J	1.5 J	110	2 U	METAL
PZ8	04/18/2011	50 U	0.32 J	2	84	1 UJ	NA	2 U	40000	1.1 J	1 U	3.7 J	50 UJ	0.45 J	DMETAL
PZ8	10/04/2011	50 U	0.36 J	7.7	99	1 U	NA	1 U	44000	1.2	1 U	1.6 U	100 U	1 U	DMETAL
PZ8	04/03/2012	50 U	1 U	2.1 UJ	88	1 U	NA	0.48 J	44000	1	1 U	1.6 J	50 U	1 U	DMETAL
PZ8	04/08/2013	15 J	1 U	1.1	84	1 U	NA	1 U	45000	0.89 J	1 U	1.1 J	50 U	1 U	DMETAL
PZ8	04/08/2014	30 J	0.17 J	1.3	95	1 U	NA	1 U	53000	0.97 J	0.24 J	3.4 U	41 J	0.14 J	DMETAL
PZ8	04/14/2015	50 U	0.26 J	1.5	84	0.1 J	NA	1 U	48000	1	1 U	1 U	50 U	0.076 J	DMETAL
PZ8	04/14/2015	50 U	0.18 J	1.3	84	1 U	NA	1 U	47000	1.2	1 U	1 U	50 U	1 U	DMETAL
PZ9	09/24/2010	20 U	1 U	2.7	79	0.5 U	62 J	1 U	36000	1 U	0.29 J	2 U	100 U	2 U	METAL
PZ9	04/20/2011	75 U	1.1 U	1.9	84 J	3.2 U	NA	2 U	37000	1.3 U	0.8 J	5.8	89 UJ	1.9 U	DMETAL
PZ9	10/07/2011	50 U	0.4 J	2.3	67	1 U	NA	1 U	29000	1 U	1 U	1 U	50 U	1 U	DMETAL
PZ9	10/07/2011	50 U	0.45 J	3.2	66	1 U	NA	0.19 J	30000	1 U	0.17 J	1 U	50 U	1 U	DMETAL
PZ9	04/06/2012	26 UJ	0.32 J	3	130 J	1 U	NA	1 U	47000	1 U	1	2.3 U	92 UJ	1 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
RWF	09/15/2010	54	1 U	1.3	120	0.5 U	100	1 U	72000	1.6	0.5 U	1.6 J	83 J	2 U	METAL
RWF	04/18/2011	10 J	0.26 J	0.63 J	79	1 UJ	NA	2 U	72000	0.58 J	1 U	3.7 J	50 UJ	0.49 J	DMETAL
RWF	10/06/2011	50 U	0.43 UJ	1.3	120	1 U	NA	1 U	63000 J	0.78 J	1 U	1 U	50 U	1 U	DMETAL
RWF	04/04/2012	50 U	0.18 J	2.2	150	0.21 J	NA	1.1	71000	0.47 J	0.52 J	1 J	28 UJ	1 U	DMETAL
TP1	09/29/2010	22	1 U	1.9	29	0.5 U	90 J	1 U	67000	1 U	0.28 J	1.3 J	100 U	2 U	METAL
TP1	04/18/2011	50 U	0.24 J	2.2	42	1 UJ	NA	2 U	160000	1.3 U	1.3	7.8 J	310	0.55 J	DMETAL
TP1	10/07/2011	50 U	0.52 J	1.4	23	1 U	NA	1 U	59000	1 U	0.86 J	1 U	50 U	1 U	DMETAL
TP1	04/05/2012	50 U	1 U	8.4	54	1 U	NA	1 U	180000	1 U	6.5	1.1 J	1200	1 U	DMETAL
TP1	04/04/2013	12 J	1 U	1.5	30	1 U	NA	1 U	100000	1 U	0.22 J	2.3 U	1500	1 U	DMETAL
TP1	04/02/2014	50 U	1 U	11	35	1 U	NA	1 U	160000	0.17 J	2.3	3.4 U	3000	1 U	DMETAL
TP1	04/10/2015	9.1 J	0.23 J	3.8	26	0.11 J	NA	1 U	140000	0.16 UJ	0.29 J	0.3 J	3000 J	0.076 J	DMETAL
TP1	04/07/2016	NA	4.1 J	5 U	34	2 U	NA	5 U	NA	5 U	5 U	1.8 UJ	NA	5 U	DMETAL
TP1	04/04/2017	100 U	1 U	10	33	0.66 J	NA	1 U	120000	5 U	5 U	5 U	1200	5 U	DMETAL
TP1	04/03/2018	NA	1 U	6.3	71	1 U	NA	1 U	NA	1 U	0.64 J	0.18 J	NA	1 U	DMETAL
TP2	09/29/2010	90	1 U	1.3	110	0.5 U	110	1 U	87000	1.9	0.39 J	2 U	150	2 U	METAL
TP2	04/18/2011	50 U	0.22 J	0.74 J	97	1 UJ	NA	2 U	75000	1.2 J	1 U	2.2 UJ	50 UJ	0.16 J	DMETAL
TP2	10/07/2011	50 U	1	2.4	81	1 U	NA	0.38 J	76000	0.7 J	1 U	1 U	50 U	0.27 J	DMETAL
TP2	04/09/2012	50 U	0.28 J	1.3	89	1 U	NA	0.42 J	77000	1.7	1 U	2.3 U	5.3 J	1 U	DMETAL
TP2	04/09/2012	50 U	1 U	1.9	91	1 U	NA	0.22 J	78000	1.7	1 U	2.3 U	50 U	1 U	DMETAL
WSM01	02/02/2015	34 J	1 U	4	16	1 U	NA	1 U	120000	1 U	14	3.7 U	1300	1 U	METAL
WSM01	04/05/2016	NA	10 U	5 U	19	2 U	NA	5 U	NA	1.7 J	9.8	2.2 J	NA	5 U	DMETAL
WSM01	04/05/2017	100 U	1 U	12	16	2 U	NA	1 U	91000	3.7 J	5.9	2.8 J	280	5 U	DMETAL
WSM01	04/04/2018	NA	2.5 U	1.1 J	16	2.5 U	NA	2.5 U	NA	5 U	7.5	2.6 U	NA	2.5 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Analysis Group
California MCLs		1000	6	10	1000	4		5		50		1300		15	
Federal MCLs			6	10	2000	4		5		100		1300		15	
WTA	09/30/2010	30	1 U	2.2	36	0.5 U	150	1 U	110000	9.5	0.33 J	2 U	100 U	2 U	METAL
WTA	04/14/2011	75 U	0.51 J	1.3 J	36	3.2 UJ	NA	2 U	99000	6	1 U	11	89 U	1.9 U	DMETAL
WTA	04/14/2011	86	1 U	1.5 J	39	1 U	NA	0.34 J	100000	6	0.17 J	1 U	100 UJ	1 U	METAL
WTA	04/14/2011	75 U	1.1 U	1.6 J	37	3.2 UJ	NA	2 U	93000	6.1	1 U	3	89 U	1.9 U	DMETAL
WTA	04/14/2011	66	1 U	1.7 J	39	1 U	NA	0.47 J	110000	6.1	0.16 J	1 U	80 UJ	1 U	METAL
WTA	10/05/2011	50 U	1 U	0.55 J	41	1 UJ	NA	1 U	100000	4.5	1 U	1 U	50 U	1 U	DMETAL
WTA	10/05/2011	150	1 U	1.6	47	1 U	NA	0.25 J	98000	5.1	0.49 J	5.2 U	270	0.17 J	METAL
WTA	04/05/2012	87 UJ	0.23 J	2.3	48	1 U	NA	0.35 UJ	90000	5.2	1 U	2.3 U	68 UJ	1 U	METAL
WTA	04/05/2012	17 J	1 U	2.4	55	1 U	NA	1 U	100000	5.8	1 U	2.3 U	8.1 UJ	1 U	DMETAL

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B120	09/09/2010	150000	92	0.03 U	2.7	7.1	1600 J	2 U	0.5 U	170000	2 U	4.6	15	METAL
B120	04/15/2011	180000	140	0.2 U	2.2 UJ	1 U	1300	1 U	1.7 U	160000	1 U	5.2	3.3 J	DMETAL
B120	10/04/2011	170000	290	0.2 U	0.79 UJ	11	1900	0.97 J	1 U	160000	0.13 J	7.6	9 U	DMETAL
B120	04/03/2012	160000	330	0.079 J	0.9 J	6.5	1700 U	1 U	1 U	180000	1 U	4.7	9 U	DMETAL
B121	09/08/2010	39000	320	0.02 J	1.7	4.3	1600 J	2 U	0.5 U	75000	2 U	2.5 J	6.4	METAL
B121	04/13/2011	34000	7.7	0.2 U	0.33 J	1.2	850	1 U	1 U	59000	1 U	4	20	DMETAL
B121	10/04/2011	40000	8.2	0.2 U	1 U	1 U	640	1 U	0.14 J	64000	1 U	5.9	9.8	DMETAL
B121	04/04/2012	40000	7.6	0.2 U	0.89 J	1 U	470	0.34 UJ	1 U	68000	1 U	4.4	3.8 J	DMETAL
B128	09/23/2010	46000	360	0.048	2.8	2.7	6400	2 U	0.5 U	180000	2 U	4 U	2.8 J	METAL
B128	09/23/2010	39000	56	0.015 J	1.7	2	7700	2 U	0.5 U	170000	2 U	4 U	6.9	METAL
B128	04/18/2011	16000	69	0.11 J	0.91 J	10	730	0.4 J	1.7 U	93000	0.11 J	1.5 UJ	9 U	DMETAL
B128	10/04/2011	22000	170	0.052 UJ	0.36 UJ	7.1	1300	1 U	0.095 J	130000	1 U	2.5	21	DMETAL
B128	04/02/2012	17000	15	0.089 J	1 U	7.2	170 U	0.58 UJ	0.6 J	83000	1 U	1.9	9 U	DMETAL
B128	04/05/2013	17000	86	0.025 J	0.6 UJ	5.8	510	1 U	1 U	110000	1 U	1.2	20 U	DMETAL
B128	04/10/2014	17000	3.6	0.2 U	0.45 J	6	600	1 U	1 U	120000	1 U	1.2	5 U	DMETAL
B128	04/13/2015	18000	35	0.2 U	0.5 UJ	11	210 J	1 U	1 U	98000	1 U	1.8 UJ	12 U	DMETAL
B128	04/13/2015	18000	37	0.2 U	0.46 UJ	10	270 J	0.21 UJ	1 U	100000	1 U	2 UJ	12 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B150	09/08/2010	19000	30	0.03 U	0.36 J	5.3	1300 J	3.2	0.5 U	36000	2 U	4 U	3.1 J	METAL
B150	04/13/2011	14000	2.2	0.2 U	1 U	2.7	560	37	1 U	26000	1 U	1.4	18	DMETAL
B150	10/05/2011	16000 UJ	5 U	0.2 U	1 U	1 U	580	14	1 U	29000	1 U	6	5 U	DMETAL
B150	10/05/2011	16000 J	5 U	0.2 U	1 U	1 U	590	10	1 U	29000	1 U	2.8	5 U	DMETAL
B150	04/04/2012	13000	1 U	0.2 U	0.22 J	0.58 J	170 U	67	1 U	30000	1 U	2.3	4.6 J	DMETAL
B150	04/04/2012	14000	0.9 J	0.2 U	0.53 J	0.71 J	170 U	66	1 U	30000	1 U	3.1	9 U	DMETAL
B150	04/02/2013	14000	0.76 UJ	0.2 U	1 U	3.4	50 U	29	1 U	26000	1 U	1.2	17 J	DMETAL
B150	04/01/2014	12000	4.6	0.2 U	3.2 U	3.7	250	82	1 U	26000	1 U	0.6 J	5.6 J	DMETAL
B150	04/15/2015	14000	0.16 UJ	0.2 U	0.56 UJ	3.9	170	36	1 U	31000	1 U	3 UJ	12 U	DMETAL
B150	04/15/2015	12000	0.16 UJ	0.2 U	0.52 UJ	3.3	140	31	1 U	27000	1 U	2.8 UJ	12 U	DMETAL
B150	04/07/2016	NA	NA	0.2 U	5 U	1.7 J	NA	40	1.9 J	NA	1 U	5 U	20 U	DMETAL
B150	04/07/2016	NA	NA	0.2 U	1 J	1.9 J	NA	38	1.7 J	NA	1 U	1.1 J	20 U	DMETAL
B150	04/04/2017	19000	8	0.2 U	1.4 J	2.8 J	440 J	76	1 J	43000	1 U	9.9	20 U	DMETAL
B158	09/08/2010	2600	13	0.03 U	0.87	1.8	1100 J	2 U	0.5 U	52000	2 U	6.4	3 J	METAL
B158	04/15/2011	1900	1.8	0.2 U	1.9 U	1 U	380	0.3 J	1.7 U	36000	0.068 J	5.9	9 U	DMETAL
B158	10/05/2011	2500	2.3 J	0.2 U	1 U	1 U	350 J	1 U	1 U	50000	1 U	8	5 U	DMETAL
B158	04/06/2012	2900	1.3	0.2 U	0.52 J	1 U	170 U	1 U	0.18 J	53000	1 U	7.3	35	DMETAL
B158	04/08/2013	2200	5.5	0.2 U	0.38 UJ	1 U	340	0.31 J	1 U	50000	1 U	7.3	20 U	DMETAL
B158	04/02/2014	2400	9.5	0.2 U	0.72 J	4.2 U	320	1 U	1 U	48000	1 U	7.1	2.4 J	DMETAL
B158	04/16/2015	2200	54	0.2 U	0.61 UJ	2.2	170	1 U	1 U	49000	1 U	7.1	12 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B163	09/02/2010	200000	17000	0.083	0.95	170	2800	2 U	0.5 U	230000	2 U	4 U	9.2	METAL
B163	04/12/2011	190000	19000	0.19 J	1 UJ	200	1600	0.39 J	1 U	190000	0.063 J	2.2	27	METAL
B163	04/12/2011	180000	15000	0.2 UJ	0.23 J	180	1500	1 UJ	1 U	190000	0.08 J	1.9	27	DMETAL
B163	10/03/2011	240000	20000	0.18 J	0.35 UJ	200	2200 J	0.36 UJ	1 U	250000	1 U	2.2	4.1 J	METAL
B163	10/03/2011	330000	20000	0.17 UJ	0.71 UJ	200	1800	0.65 J	1 U	240000	1 U	0.68 J	15	DMETAL
B163	04/02/2012	200000 J	17000	0.22	1.2 UJ	200	990	1.3 J	1 U	220000	1 U	2.7	7.9 J	METAL
B163	04/02/2012	200000	16000	0.23	2.4	180	1800	1.2 UJ	1 U	210000	1 U	3.3	9.1	DMETAL
B163	04/03/2013	230000 J	19000	0.095 J	1.7 UJ	200 J	1800 J	1 U	1 U	190000	1 U	1.9	30	DMETAL
B163	04/01/2014	220000	19000	0.2 U	3.2 U	200	1600	0.39 J	1 U	230000	1 U	2.6	8.8 J	DMETAL
B163	04/14/2015	220000	20000	0.053 J	1.1 UJ	210	13000	0.22 J	1 U	200000	1 U	2.5	6.9 J	DMETAL
B163	04/05/2016	NA	NA	0.15 J	1.8 J	170	NA	12	2.8 J	NA	10 UJ	5 U	6.4 J	DMETAL
B163	04/04/2017	210000	18000	0.11 J	4.2 J	200	2000	10 U	13	140000	1 U	17	20 U	DMETAL
B163	04/03/2018	NA	NA	0.12 J	0.59 J	170	NA	0.28 J	0.19 J	NA	1 U	3.8	6.3 J	DMETAL
B163	04/03/2018	NA	NA	0.22	0.56 J	170	NA	0.32 J	0.14 J	NA	1 U	3.5	5.5 J	DMETAL
B175S	09/03/2010	43000	250	0.072	1.3	3.3	2100	2 U	0.5 U	91000	2 U	4 U	2.5 J	METAL
B175S	04/13/2011	30000	12	0.2 U	0.23 J	2.3	740	0.86 J	1 U	67000	0.062 J	2.3	14	DMETAL
B175S	10/04/2011	38000	39	0.054 UJ	0.27 UJ	1 U	630	0.26 J	1 U	67000	1 U	2.7	7.1 J	DMETAL
B175S	04/04/2012	35000	4.6	0.2 U	1 U	1 U	110 J	0.76 UJ	1 U	74000	1 U	2.3	9 U	DMETAL
B175S	04/02/2013	45000	8.2	0.06 J	0.52 UJ	0.59 UJ	450	0.28 J	1 U	84000	1 U	2.9	14 J	DMETAL
B175S	04/01/2014	49000	4.1	0.2 U	3.2 U	1.8 J	490	1.5	1 U	100000	1 U	3.5	16 U	DMETAL
B175S	04/15/2015	42000	3.7	0.033 J	1.6 UJ	1.4	500	1.2	1 U	82000	0.12 J	3.3 UJ	12 U	DMETAL
B175W	09/08/2010	12000	17	0.03 U	0.54	2.5	2700	2 U	0.5 U	56000	2 U	4 U	3.8 J	METAL
B175W	04/13/2011	9700	3.2	0.2 U	0.78 J	0.96 J	1600	1 UJ	1 U	45000	1 U	2.4	15	DMETAL
B175W	10/04/2011	13000	39	0.065 UJ	0.93 UJ	1 U	890	1 U	1 U	45000	1 U	4.7	18	DMETAL
B175W	04/04/2012	11000	4	0.2 U	3	1 U	280	1.1 UJ	1 U	45000	1 U	2	9 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B177	09/23/2010	9900	3.9	0.03 U	0.27 J	1.8	2000 U	1.1 J	0.5 U	32000	2 U	4 U	4 J	METAL
B177	04/18/2011	14000	0.95 J	0.038 J	0.52 J	1 U	280	1.8	1.7 U	34000	1 U	1.7 UJ	5 U	DMETAL
B177	10/05/2011	11000 J	9.8	0.2 U	1 U	1 U	250 J	1 U	1 U	29000	0.28 J	3	5.8	DMETAL
B177	04/04/2012	21000	0.44 J	0.2 U	0.23 J	7.1	170 U	2.6	1 U	45000	1 U	2	9.3	DMETAL
B178	09/02/2010	140000	570	0.03 U	2.4	7.5	2800	2 U	0.5 U	150000	2 U	2.9 J	4.7 J	METAL
B178	04/15/2011	140000	430	0.2 U	2.4 UJ	1 U	1400	2.5 U	1.7 U	160000	1 U	4.7	3.4 J	DMETAL
B178	10/04/2011	150000	810	0.2 U	2.3 UJ	12	1400	1.5	0.16 J	130000	0.37 J	6.5	6 J	DMETAL
B178	04/03/2012	150000	1100	0.2 U	1.7	12 J	1500	0.41 UJ	1 U	250000	1 U	3.6	3.7 J	DMETAL
B178	04/02/2013	160000	1800	0.2 U	2.9 UJ	7.7	1200	0.51 J	1 U	160000	1 U	2.1	20 U	DMETAL
B178	04/08/2014	190000	2400	0.2 U	1.8	5.1	1600	0.63 J	1 U	250000	0.054 J	0.46 J	3.2 J	DMETAL
B178	04/10/2015	160000	2200	0.2 U	1.6	4.2	1200	1 U	1 U	160000	1 U	1.6 UJ	12 U	DMETAL
B180	09/15/2010	5200	20	0.03 U	1.2	2.2	2000 U	2 U	0.5 U	92000	2 U	9.6	4.2 J	METAL
B180	04/13/2011	4200	2.7	0.2 U	0.91 J	0.53 J	640	1 UJ	1 U	83000	1 U	6.2	54	DMETAL
B180	10/06/2011	5500 J	0.5 J	0.2 U	1.1 UJ	1 U	340	0.66 J	1 U	76000	1 U	9.6	9.6	DMETAL
B180	10/06/2011	5600 J	0.29 J	0.2 U	1 UJ	1 U	320	0.34 J	1 U	76000	1 U	8.5	28	DMETAL
B180	04/04/2012	4700	0.8 J	0.2 U	1.7	1 U	98 J	0.55 UJ	1 U	78000	1 U	6.7	9 U	DMETAL
B185	09/02/2010	130000	330	0.03 U	1	7.1	2400	2 U	0.5 U	130000	2 U	4 U	3.6 J	METAL
B185	04/15/2011	120000	130	0.2 U	1.9 U	1 U	990	2.5 U	1.7 U	92000	1 U	3.4	8.3	DMETAL
B185	04/15/2011	130000	120	0.2 U	1.9 U	1 U	1000	2.5 U	1.7 U	97000	1 U	3.6	5.8 J	DMETAL
B185	10/03/2011	140000	170	0.088 UJ	0.69 UJ	8.4	1200	0.28 J	1 U	120000	1 U	5.7	47	DMETAL
B185	10/03/2011	220000	170	0.088 UJ	1 U	1 U	1300	1 U	1 U	130000	1 U	5.2	29	DMETAL
B185	04/02/2012	140000	440	0.041 J	0.77 J	5.2	780	0.89 UJ	1 U	120000	1 U	4.8	9 U	DMETAL
B194	09/09/2010	39000	180	0.03 U	2.3	1.8	4400	2 U	0.5 U	120000	2 U	2.4 J	5 U	METAL
B194	04/13/2011	35000	1.8	0.2 U	0.74 J	0.79 J	1100	1 UJ	1 U	99000	1 U	3.9	27	DMETAL
B194	10/04/2011	36000	8.7	0.2 U	1 U	1 U	1000	0.51 J	1 U	110000	0.24 J	4.7	9 U	DMETAL
B194	04/04/2012	35000	0.36 J	0.2 U	1 U	1 U	350 U	1 U	1 U	110000	1 U	4.4	5.4 J	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B195	09/09/2010	110000	63	10	1.1	3.1	2900	2 U	0.5 U	130000	2 U	4 U	4.3 J	METAL
B195	04/13/2011	36000	5	1.2	0.36 J	1.1	570	1 UJ	1 U	57000	1 U	4	57	DMETAL
B195	04/13/2011	39000	11	2.4	1 UJ	1.1	660	0.43 J	1 U	59000	1 U	4.1	5 UJ	METAL
B195	04/13/2011	40000	8.1	2.2	1 UJ	2.9 U	690	0.41 J	1 U	60000	1 U	3.9	8 UJ	METAL
B195	04/13/2011	35000	5.1	1.1	0.39 J	1	560	0.44 J	1 U	56000	1 U	3.6	27	DMETAL
B195	10/04/2011	150000	16	15	2.5	1.5	870	1 U	1 U	140000	0.45 J	4	9 U	METAL
B195	10/04/2011	120000	15	10	1.2 UJ	3.3	820	1 U	1 U	110000	1.6	5	9 J	DMETAL
B195	04/03/2012	43000	7 J	2.7	1 U	0.41 J	740	1.3	1 U	65000	1 U	1.9	9 U	METAL
B195	04/03/2012	50000	8.3	2	0.71 J	1 U	390	1.1 UJ	1 U	69000	1 U	6.2	9 U	DMETAL
B195	04/02/2013	78000	1.3 UJ	9.9	1.8 UJ	0.96 UJ	740	0.37 J	0.91 J	99000	1 U	3.9	20 U	DMETAL
B195	04/02/2013	76000	1.2 UJ	11	0.33 UJ	0.89 UJ	650	0.4 J	0.51 J	100000	1 U	3.8	20 U	DMETAL
B195	04/02/2014	84000	5	4.51	0.94 J	2.6 J	790	0.47 J	1 U	100000	0.075 J	3.8	9.2	DMETAL
B195	04/02/2014	78000	3.6	4.59	0.97 J	1.5 J	550	0.61 J	1 U	91000	0.068 J	3.7	4.9 J	DMETAL
B195	04/14/2015	57000	0.3 J	4.8	2.6 UJ	1.1	580	0.54 J	1 U	89000	1 U	5	12 U	DMETAL
B195	04/11/2016	NA	NA	2.1	1.9 J	1.9 J	NA	10 U	5 U	NA	2 J	4.8 J	20 U	DMETAL
B195	04/06/2017	29000	4.2 J	2.7	1.9 J	5 U	460 J	10 U	5 U	54000	1 U	15	20 U	DMETAL
B195	04/06/2017	29000	4.3 J	2.6	1.9 J	5 U	370 J	4 J	5 U	54000	1 U	16	20 U	DMETAL
B195	04/04/2018	NA	NA	3.3	3 U	1.3 J	NA	2.5 U	2.5 U	NA	1.3 U	3 J	11 U	DMETAL
B197	09/09/2010	120000	36	0.03 U	1.5	2.8	2000	2 U	0.5 U	130000	2 U	2.7 J	5.8	METAL
B197	09/09/2010	120000	34	0.03 U	1.4	2.6	1800 J	2 U	0.5 U	130000	2 U	2.8 J	3.8 J	METAL
B197	04/13/2011	150000	1300	0.2 U	1.3	8.4	1300	1 U	1 U	140000	1 U	2.4	10	DMETAL
B197	10/04/2011	120000	530	0.2 U	0.73 UJ	8	1300	0.68 J	0.21 J	110000	1 U	6.7	14	DMETAL
B197	04/03/2012	170000	2500	0.049 J	1 U	3.3	1700 U	0.44 UJ	1 U	170000	1 U	1 U	9 U	DMETAL
B197	04/03/2012	160000	2400	0.062 J	1 U	2.2	1700 U	0.47 UJ	1 U	170000	1 U	1 U	9 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B197R	04/08/2013	160000	16	0.2 U	2.3 UJ	1 U	6300	0.66 J	1 U	180000	1 U	3.4	9.5 J	DMETAL
B197R	04/08/2014	230000	7100	0.2 U	1.6	6.1	2500	1 U	1 U	260000	1 U	0.34 J	16	DMETAL
B197R	04/14/2015	170000	2700	0.2 U	0.8 UJ	2.2	1200 J	1.1 J	1 U	150000 J	0.042 J	1.5	12 U	DMETAL
B197R	04/05/2016	NA	NA	0.077 J	3 J	1.7 J	NA	10 U	5.4	NA	10 U	5 U	20 U	DMETAL
B197R	04/05/2016	NA	NA	0.2 U	2 J	0.89 J	NA	10 U	3.2 J	NA	10 U	5 U	4.5 J	DMETAL
B197R	04/04/2017	290000	1400	0.2 U	4.6 J	1.5 J	1700	3.8 J	10	220000	1 U	14	20 U	DMETAL
B197R	04/04/2018	NA	NA	0.2 U	3 U	2.1 J	NA	3.7	2.5 U	NA	1.3 U	3.2 U	11 U	DMETAL
B197R	04/04/2018	NA	NA	0.2 U	3 U	2 J	NA	1.8 J	2.5 U	NA	1.3 U	3.2 U	11 U	DMETAL
B277	09/15/2010	23000	9.9	0.03 U	1	1 U	2000	2 U	0.5 U	58000	2 U	2.5 J	5 U	METAL
B277	04/18/2011	22000	37	0.07 J	1.4	1 U	1200	0.53 J	1.7 U	45000	1 U	4.5	7.8 J	DMETAL
B277	10/05/2011	23000 J	35	0.2 U	0.3 J	1 U	1100	1 U	1 U	55000	1 U	6.6	25	DMETAL
B277	04/03/2012	24000	4.8	0.2 U	1.1	1 U	1000	0.56 UJ	1 U	47000	1 U	6.2	12	DMETAL
B278	09/16/2010	150000	150	0.015 J	0.62	2.7	3900	2 U	0.5 U	190000	2 U	4 U	6.4	METAL
B278	04/19/2011	130000	35	0.15 J	1.9 UJ	2.3 J	2100	2.5 U	1.7 U	170000	1 U	3	38 J	DMETAL
B278	10/05/2011	150000	46	0.2 U	1 U	1 U	2500	1 U	1 U	170000	1 U	5.1	29	DMETAL
B278	04/05/2012	150000	19	0.036 UJ	0.79 UJ	2.7	1700 U	1 U	1 U	200000	1 U	4.1	20 U	DMETAL
B280A	09/16/2010	29000	15	0.03 U	1.6	0.77 J	1200 J	2 U	0.5 U	66000	2 U	2.4 J	5 U	METAL
B280A	04/14/2011	22000	8.3	0.2 U	1.9 UJ	1 U	570	2.5 U	1.7 U	48000	1 U	3.7	9 U	DMETAL
B280A	10/06/2011	25000 J	14	0.2 U	1.6 UJ	0.37 J	840	0.31 J	1 U	54000	1 U	4.8	8.9	DMETAL
B280A	04/03/2012	27000	6.6	0.2 U	1 U	1 U	730	1 U	1 U	62000	1 U	6.3	9 U	DMETAL
B280B	10/01/2010	25000	7.2	0.03 U	3.8	0.62 J	8900	2 U	0.5 U	130000	2 U	4 U	3.2 J	METAL
B280B	04/14/2011	20000	0.86 J	0.2 U	1.9 UJ	1 U	3900	2.5 U	1.7 U	87000	1 U	2.7	6.5 J	DMETAL
B280B	10/06/2011	21000 J	22	0.2 U	2.8	1 U	3000	1 U	1 U	72000	1 U	2.3	7.3	DMETAL
B280B	04/03/2012	20000	3.8	0.066 J	1 U	1 U	2900	1 U	1 U	78000	1 U	5.1	9 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B300	09/09/2010	82000	110	0.03 U	1	2.8	4100	2 U	0.5 U	110000	2 U	4 U	5 U	METAL
B300	04/15/2011	160000	12000	0.2 U	1.9 UJ	0.8 J	9100 J	0.4 J	1.7 U	190000	1 U	0.73 J	9 U	DMETAL
B300	10/06/2011	5300 J	1400	0.11 UJ	20 U	23 U	13000	20 U	20 U	6500	10 U	12 J	1000	DMETAL
B300	04/09/2012	130000	9200	0.06 UJ	1 U	7.6	3800	1 U	1 U	140000	1 U	0.51 J	53	DMETAL
B38	09/15/2010	23000	37	0.03 U	0.58	3.9	1600 J	2 U	0.5 U	57000	2 U	4 U	3.6 J	METAL
B38	04/19/2011	18000	4.3	0.2 U	1 UJ	2.2 J	520	2.5 U	1.7 U	47000	1 U	2.6	11	DMETAL
B38	04/19/2011	18000	4	0.089 J	1 UJ	2.6 J	590	2.5 U	1.7 U	51000	1 U	2.7	40	DMETAL
B38	10/06/2011	15000 J	31	0.2 U	0.36 UJ	3.1	480	1 U	1 U	37000	1 U	3.1	8.6	DMETAL
B38	04/04/2012	17000	11	0.2 U	0.32 J	0.67 J	170 U	0.46 UJ	1 U	42000	1 U	3.5	6.5 J	DMETAL
B450	04/19/2011	43000	5.1	0.055 J	1.4 UJ	2.9 U	1800	2.5 U	1.7 U	73000	0.36 J	3.2	3.3 J	DMETAL
B450	04/19/2011	51000	22	0.099 J	1.4 J	1 U	2200	2.5 U	1.7 U	84000	0.48 J	3.5	9 U	METAL
B450	10/10/2011	35000	73	0.2 U	0.69 J	1.5	1400	0.32 J	1 U	52000	0.16 J	3.6	38	DMETAL
B450	04/06/2012	61000	1.4	0.2 U	1.4	1 U	2100	1.7	1 U	79000	1 U	2.6	17 J	DMETAL
B450	04/03/2013	40000	5.8	0.2 U	0.27 UJ	1 U	1400	1 U	1 U	47000	1 U	2.5	39	DMETAL
B450	04/03/2014	66000	0.48 J	0.2 U	3.2 U	2.3 J	2800	0.27 J	1 U	72000	1 U	2.4	3.1 J	DMETAL
B450	04/14/2015	52000	1.4	0.2 U	1.3 UJ	1.6	1800	0.46 J	1 U	55000	1 U	3.9	12 U	DMETAL
B450	04/07/2016	NA	NA	0.2 U	1.5 J	5 U	NA	10 U	1.9 J	NA	1 U	3 J	20 U	DMETAL
B450	04/06/2017	26000	4.2 J	0.2 U	2 J	5 U	1100	10 U	5 U	49000	0.11 J	14	20 U	DMETAL
B460	09/15/2010	17000	500	0.03 U	0.65	2.8	3300	2 U	0.5 U	44000	2 U	4 U	8.2	METAL
B460	04/20/2011	18000 J	7.2	0.08 J	1.9 UJ	1.3 J	2900	2.5 U	1.7 U	45000	1 U	1.7 J	23	DMETAL
B460	10/07/2011	18000	270	0.2 U	1.5 UJ	0.75 J	1800	1 U	1 U	37000	1 U	1.4	7.1	DMETAL
B460	04/06/2012	15000	35	0.2 U	0.64 J	1 U	1000	1 U	1 U	36000	1 U	2.1	17 J	DMETAL
B473	09/24/2010	26000	42	0.03 U	0.95	2	1900 J	2 U	0.5 U	100000	2 U	4.1	23	METAL
B473	04/20/2011	44000 J	1.2 J	0.067 J	1.9 UJ	1.2 J	4000	2.5 U	1.7 U	99000	1 U	3.7	14	DMETAL
B473	10/07/2011	22000	0.55 UJ	0.2 U	0.38 UJ	1 U	1400	1 U	1 U	67000	1 U	3.7	8.4	DMETAL
B473	04/06/2012	18000	2.8	0.2 U	0.89 J	1 U	1000	1 U	1 U	59000	1 U	3.1	12 J	DMETAL

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
B474	09/23/2010	24000	540	0.024 J	2.1	5.3	3500	2 U	0.5 U	120000	2 U	2.4 J	6.4	METAL
B474	04/20/2011	27000 J	42	0.066 J	2.5 UJ	1.5 J	3000	2.5 U	1.7 U	81000	1 U	4.2	36	DMETAL
B474	04/20/2011	26000	55	0.2 UJ	3.1	1.7 J	2900	2.5 U	1.7 U	78000	0.057 J	3.7	9 U	METAL
B474	10/07/2011	14000	66	0.22	21	6	2000	0.31 J	1 U	17000	1 U	4.6	17	METAL
B474	10/07/2011	10000	4 UJ	0.11 UJ	18	3.5	1500	1 U	1 U	20000	1 U	3.5	98	DMETAL
B474	04/09/2012	14000	140	0.038 J	9.5	6	2200	0.45 J	1 U	20000	1 U	1.7	16 J	METAL
B474	04/09/2012	16000	140	0.07 UJ	8.7	6.7	2300	1 U	1 U	16000	1 U	4.7	11 J	DMETAL
B474	04/03/2013	12000	82	0.027 J	7.8	5.3	1600	1 U	1 U	14000	1 U	2.5	8.4 J	DMETAL
B474	04/03/2014	14000	37	0.106 J	43	7.5	3000	1 U	0.12 J	9600	1 U	2.8	12	DMETAL
B474	04/16/2015	13000	43	0.022 J	14	5.2	2100	1 U	1 U	20000	1 U	2.9	12 U	DMETAL
B474	04/11/2016	NA	NA	0.2 U	15	5 U	NA	4 J	4.6 J	NA	10 U	5.8 UJ	20 U	DMETAL
B474	04/04/2017	29000	33	0.2 U	12	3.1 J	2000	4.9 J	1.4 J	36000	0.11 J	12	20 U	DMETAL
B474	04/03/2018	NA	NA	0.078 J	11	2.1	NA	1 U	0.073 J	NA	1 U	3.4 J+	1.5 J	DMETAL
B480	09/24/2010	46000	480	0.03 U	1.5	2	3900	2 U	0.5 U	110000	2 U	2 J	3.3 J	METAL
B480	04/19/2011	39000	37	0.1 J	1.9 UJ	1.3 J	2200	2.5 U	1.7 U	86000	0.082 J	4.1	11	DMETAL
B480	10/07/2011	32000	42 UJ	0.2 U	1.3 UJ	2	1500	0.37 J	1 U	61000	1 U	3.8	30	DMETAL
B480	04/09/2012	50000	3.8	0.06 UJ	1 U	3.3	1700	1 U	1 U	92000	1 U	6.8	21	DMETAL
B480	04/03/2013	49000	11	0.2 U	0.38 UJ	1 U	1100	1 U	1 U	83000	1 U	4.7	9.1 J	DMETAL
B480	04/03/2014	50000	7.9	0.2 U	0.66 J	2.7 J	1100	1 U	1 U	79000	1 U	6	3.7 J	DMETAL
B480	04/17/2015	48000	0.43 J	0.022 J	0.35 UJ	1.5 UJ	1000	1 U	1 U	93000	1 U	6.3	12 U	DMETAL
B490	09/16/2010	54000	86	0.03 U	0.66	2.1	1600 J	2 U	0.5 U	55000	2 U	3.2 J	5 U	METAL
B490	04/20/2011	52000	1.4 J	0.2 U	1.9 UJ	1.1 J	860	2.5 U	1.7 U	56000	1 U	5.2	16	DMETAL
B490	10/10/2011	42000	11	0.2 U	1.2 UJ	0.37 J	500 U	1 U	0.076 J	50000	0.42 J	5.3	18	DMETAL
B490	04/09/2012	50000	4.9	0.049 UJ	0.33 J	2.5	510	1 U	1 U	53000	1 U	6.7	9.8 J	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
BULB1	10/19/2010	850000	5600	0.09	33	46	150000	8.6	5 U	7700000	20 U	10 U	20	METAL
BULB1	04/12/2011	670000	1300	0.2 UJ	5.5	4	190000	1 UJ	1 U	5700000	0.1 J	0.9 J	18	DMETAL
BULB1	04/12/2011	710000	2000	0.15 J	7.7	7.5	150000	0.6 J	1 U	6400000	0.39 J	1.3	38	METAL
BULB1	09/30/2011	980000	750	0.09 J	4.7	1 U	300000	0.73 UJ	1 U	9700000	1 U	1.3	9 U	METAL
BULB1	09/30/2011	1400000	950	0.2 U	6.5	5	230000	1 J	0.19 J	8200000	1 U	10	19	DMETAL
BULB1	04/05/2012	860000	510	0.043 J	6.2	1.4	260000	1.1 UJ	1 U	7300000	1 U	4.5	20 U	METAL
BULB1	04/05/2012	970000	640	0.2 U	6.5	2.7	270000	0.87 J	1 U	8000000	1 U	0.64 J	20 U	DMETAL
BULB1	04/05/2013	810000	450	0.039 J	3.5 UJ	1 U	230000	1 U	1 U	7000000	1 U	1.2	6.5 J	DMETAL
BULB1	04/10/2014	950000	580	0.2 U	5.1	4.2 U	260000	0.64 J	1 U	8500000	0.086 J	1.1	5.8	DMETAL
BULB1	04/13/2015	920000	230	0.2 U	3.7	0.61 J	300000	0.97 UJ	1 U	8100000	1 U	2 UJ	12 U	DMETAL
BULB1	04/13/2015	930000	220	0.2 U	3.8	0.25 J	310000	0.96 UJ	1 U	8100000	1 U	1.6 UJ	12 U	DMETAL
BULB1	04/08/2016	NA	NA	0.2 U	4.3 J	1.7 J	NA	15	10	NA	1 U	5 U	20 U	DMETAL
BULB1	04/06/2017	910000	870	0.2 U	8.7	5 U	230000	11	4.6 J	7500000	0.058 J	15	20 U	DMETAL
BULB1	04/04/2018	NA	NA	0.2 U	15 U	1.9 J	NA	1.6 J	13 U	NA	6.3 U	16 U	57 U	DMETAL
BULB2	10/19/2010	190000	5600	2.5	7.9	25	40000	3	0.5 U	1900000	2 U	2.8 J	22	METAL
BULB2	04/12/2011	21000	460	0.2 U	6.6	3.2	10000	1 UJ	1 U	400000	0.22 J	2.1	48	DMETAL
BULB2	04/12/2011	85000	2800	0.2 J	8.1	16	17000	0.36 J	1 U	740000	0.18 J	3.2	61	METAL
BULB2	09/30/2011	44000	770	0.31	5.6	0.12 J	9100	1 U	1 U	240000	1 U	3.9	9 U	METAL
BULB2	09/30/2011	42000	760	0.2 U	7.3	2.5	7900	1 U	1 U	220000	1 U	4.9	15	DMETAL
BULB2	04/05/2012	190000	1600	0.047 UJ	4.2	13	37000	1.3	1 U	1500000	1 U	2.8	8.8 J	DMETAL
BULB2	04/05/2012	200000 J	1400 J	0.099 J	5.9	5.3	30000	0.46 UJ	1 U	1500000 J	1 U	2.5	15 J	METAL
BULB2	04/05/2013	43000	770	0.026 J	6.4	1 U	10000	1 U	1 U	220000	1 U	1.1	20 U	DMETAL
BULB2	04/10/2014	60000	1100	0.2 U	7	2.2 J	9900	0.28 J	1 U	260000	1 U	1.2	16 U	DMETAL
BULB2	04/13/2015	29000	390	0.2 U	6.1	1.8	11000	1 U	1 U	310000	1 U	2.1 UJ	12 U	DMETAL
BULB2	04/08/2016	NA	NA	0.2 U	5.9	10	NA	16	4.1 J	NA	1 U	3.2 J	20 U	DMETAL
BULB2	04/06/2017	46000	550	0.2 U	5.1	2.7 J	18000	5.3 J	5 U	560000	1 U	18	20 U	DMETAL
BULB2	04/04/2018	NA	NA	0.2 U	2.4 J	4.8	NA	0.42 J	0.45 J	NA	1.3 U	2 J	15	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
CCC1	09/08/2010	17000	4.1	0.03 U	2.2	1.2	2500	2 U	0.5 U	98000	2 U	3.3 J	3.5 J	METAL
CCC1	04/14/2011	20000	18	0.047 J	2.4 UJ	1.4 J	1400	2.5 U	1.7 U	91000	0.11 J	3.6	9 UJ	DMETAL
CCC1	10/05/2011	23000 J	24	0.2 U	0.9 J	1 U	1300	1 U	1 U	89000	1 U	6.3	2.1 J	DMETAL
CCC1	04/10/2012	28000	7.7	0.043 UJ	0.24 J	3	1500	0.28 J	1 U	120000	1 U	3.9	17 J	DMETAL
CCC2	09/08/2010	32000	42	0.03 U	2.4	1.6	3600	6.6	0.5 U	120000	2 U	2 J	3.4 J	METAL
CCC2	04/14/2011	180000	100	0.2 U	1 U	40	2100	6.1	1 U	160000	1 U	1.2	5.7 UJ	METAL
CCC2	04/14/2011	160000	69	0.2 U	1.9 U	38	2000	5.4	1.7 U	140000	0.62 J	0.82 J	55	DMETAL
CCC2	10/04/2011	46000	120	0.2 U	1.3 UJ	4	1700	6.6	1 U	99000	0.63 J	3	9 U	METAL
CCC2	10/04/2011	47000	110	0.05 UJ	0.85 UJ	1 U	1700	6.8	1 U	110000	1 U	2.4	13	DMETAL
CCC2	04/10/2012	84000	200	0.059 UJ	1 U	11	1800	3.5	1 U	110000	1 U	2.3	49	DMETAL
CCC2	04/10/2012	72000	140	0.043 J	0.75 J	9	2000	4.8	1 U	89000	1 U	1.6	7 J	METAL
CCC2	04/02/2013	51000	5.7	0.2 U	0.34 UJ	4.2	1200	9.6	0.16 J	100000	1 U	2.2	8.7 J	DMETAL
CCC2	04/02/2013	50000	5.7	0.2 U	0.31 UJ	3	910	8.5	1 U	100000	1 U	2.3	11 J	DMETAL
CCC2	04/02/2014	43000	1.7	0.2 U	0.74 J	1.8 J	1100	7.8	1 U	90000	1 U	2.8	5 U	DMETAL
CCC2	04/15/2015	50000	35	0.2 U	0.93 UJ	5.4	2100 J	3.7	1 U	92000 J	0.042 J	1.5 UJ	5 U	DMETAL
CCC2	04/07/2016	NA	NA	0.2 U	5 U	24	NA	10 U	2.8 J	NA	1 U	5 U	20 J	DMETAL
CCC2	04/06/2017	160000	16	0.2 U	2.7 J	38	850	10 U	3.5 J	230000	1 U	16	20 U	DMETAL
CCC2	04/06/2017	150000	19	0.2 U	2.8 J	47	950	13	3.7 J	170000	1 U	14	20 U	DMETAL
CCC2	04/05/2018	NA	NA	0.2 U	3 U	9.1	NA	2.5 U	2.5 U	NA	1.3 U	3.2 U	11 U	DMETAL
CCC2	04/05/2018	NA	NA	0.053 J	3 U	9.8	NA	2.5 U	2.5 U	NA	1.3 U	3.2 U	5 J	DMETAL

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
CCC3	09/03/2010	47000	940	0.019 J	4	6.5	4200	2 U	0.5 U	110000	2 U	3.5 J	3.9 J	METAL
CCC3	09/03/2010	46000	1200	0.03 U	3.3	5.8	2800	2 U	0.5 U	99000	2 U	4 U	5 U	METAL
CCC3	04/12/2011	35000	31	0.2 U	1.1	1	2000	1 U	1 U	86000	1 U	3.1	13	DMETAL
CCC3	10/04/2011	45000	510	0.2 U	1.6 UJ	1 U	2000	1 U	1 U	91000	1 U	3.5	9 U	DMETAL
CCC3	10/04/2011	44000	520	0.058 UJ	2.3 UJ	1 U	1900	1 U	1 U	85000	1 U	3	9 U	DMETAL
CCC3	04/10/2012	46000	350	0.053 UJ	0.51 J	4.9	2500	1 U	1 U	95000	1 U	2.6	10 J	DMETAL
CCC3	04/02/2013	35000	24	0.024 J	1.6 UJ	1 U	1600	0.31 J	0.4 J	94000	1 U	3.4	20 U	DMETAL
CCC3	04/02/2014	46000	190	0.2 U	1.5	1.9 J	1300	1 U	1 U	86000	1 U	2.4	2.4 J	DMETAL
CCC3	04/15/2015	38000	47	0.2 U	1.1 UJ	1.8	1200	1 U	1 U	90000	1 U	4.3	12 U	DMETAL
CCCT	09/03/2010	81000	1400	0.015 J	2.5	6.6	5000	2 U	0.5 U	150000	2 U	4 U	3.3 J	METAL
CCCT	04/18/2011	68000	86	0.12 J	1.7	1 U	2300	0.47 J	1.7 U	120000	0.072 J	3.2 UJ	2.7 J	DMETAL
CCCT	10/03/2011	84000	210	0.091 UJ	1.6 UJ	1 U	1900	0.26 J	1 U	140000	1 U	1 U	53	DMETAL
CCCT	04/04/2012	91000	210	0.2 U	2.9	1.6	1500	0.5 UJ	1 U	140000	1 U	2.9	7.5 J	DMETAL
CTP	09/30/2010	27000	400	0.03 U	1.2	2.1	2000	2 U	0.5 U	76000	2 U	4 U	5 U	METAL
CTP	09/30/2010	28000	400	0.03 U	1.2	2.1	1700 J	2 U	0.5 U	76000	2 U	4 U	5 U	METAL
CTP	04/14/2011	28000	280	0.2 U	1.9 UJ	1 U	1500	2.5 U	1.7 U	52000	1 U	2.9	230	DMETAL
CTP	10/06/2011	26000 J	230	0.2 U	0.74 UJ	0.9 J	890	0.17 J	1 U	56000	1 U	2.9	63	DMETAL
CTP	04/03/2012	30000	110	0.2 U	1 U	1 U	1000	0.67 UJ	1 U	63000	1 U	1.9	57	DMETAL
CTP	04/04/2013	33000	37	0.2 U	0.78 UJ	2.3	760	0.23 UJ	1 U	67000	1 U	2.5	59	DMETAL
CTP	04/03/2014	34000	66	0.2 U	0.84 J	4.2 U	600	1 U	1 U	71000	1 U	2.8	42	DMETAL
CTP	04/03/2014	34000	66	0.2 U	0.78 J	2.1 J	650	0.41 J	1 U	67000	1 U	2.7	44	DMETAL
CTP	04/17/2015	31000	100	0.2 U	0.6 UJ	1.4 UJ	690	0.26 J	1 U	73000	1 U	4	44	DMETAL
CTP	04/11/2016	NA	NA	0.2 U	2.6 J	2.6 J	NA	5.3 J	5 U	NA	5.9 J	3.3 J	34	DMETAL
CTP	04/06/2017	31000	24	0.2 U	2.4 J	1.3 J	1200	10 U	5 U	75000	1 U	12	14 J	DMETAL
CTPS	09/30/2010	69000	1000	0.03 U	1.3	4.4	7500	2 U	0.5 U	150000	2 U	4 U	2.7 J	METAL
CTPS	04/19/2011	25000	6.8	0.2 U	1 UJ	1.7 J	1300	2.5 U	1.7 U	65000	1 U	0.94 J	11	DMETAL
CTPS	10/07/2011	30000	37 UJ	0.2 U	0.51 UJ	2.4	2000	0.3 J	1 U	78000	0.27 J	1.5	11	DMETAL
CTPS	04/05/2012	24000	1.7	0.023 UJ	0.57 UJ	3.1	430	1 U	0.37 J	62000	1 U	2.1	20 U	DMETAL

METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
DH	09/30/2010	340000	1300	0.03 U	2.2	37	6700	2 U	0.5 U	520000	2 U	4 U	5	METAL
DH	04/14/2011	420000	980	0.2 U	1.9 UJ	39	5100	2.5 U	1.7 U	480000	1 U	2.8	17	DMETAL
DH	10/05/2011	560000 J	4500	0.2 U	0.21 J	14	4200	1 U	1 U	570000	1 U	2.4	41	DMETAL
DH	04/06/2012	390000	19000	0.066 J	1.6	56	7900	1 U	1 U	560000	1 U	2.2	25	DMETAL
DHR	04/04/2013	480000	970	0.025 J	0.95 UJ	7	25000	0.46 UJ	1 U	590000	1 U	1.1	29	DMETAL
DHR	04/10/2014	630000	4800	0.2 U	1.3	69	7600	0.26 J	1 U	810000	0.043 J	0.56 J	5.5	DMETAL
DHR	04/13/2015	510000	25000	0.2 U	0.78 UJ	21	3400	0.6 UJ	1 U	610000	1 U	1.2 UJ	12 U	DMETAL
DHR	04/08/2016	NA	NA	0.2 U	1.1 J	770	NA	14	4.2 J	NA	10 U	5 U	17 J	DMETAL
DHR	04/05/2017	280000	13000	0.086 J	3 J	670	2100	38	2.9 J	500000	0.061 J	23	20 U	DMETAL
DHR	04/05/2018	NA	NA	0.2 U	15 U	32	NA	10 J	4.2 J	NA	6.3 U	16 U	57 U	DMETAL
EERC	10/01/2010	350000	5500	0.015 J	2.9	18	9800	2 U	0.5 U	480000	2 U	4 U	7.5	METAL
EERC	04/20/2011	330000	190	0.2 UJ	1.8 J	9.7	4300	2.5 U	1.7 U	570000	0.07 J	3.3	9 U	METAL
EERC	04/20/2011	330000 J	320	0.044 J	1.9 UJ	9.5 J	5000	2.5 U	1.7 U	520000	1 U	3.1	11	DMETAL
EERC	10/07/2011	270000	3500	0.2 U	2.4	13	2800	0.56 J	1 U	430000	1 U	2.9	11	METAL
EERC	10/07/2011	270000	2900	0.2 U	1.7 UJ	9.9	2900	0.71 J	1 U	400000	1 U	1.2	5.4	DMETAL
EERC	04/06/2012	260000	45	0.2 U	2.9	2.7	3500	0.78 J	1 U	430000	1 U	3.1	20 U	METAL
EERC	04/06/2012	270000	23	0.2 U	1.5	1 U	3300	0.35 J	1 U	440000	1 U	3.6	7.6 J	DMETAL
EERC	04/08/2013	330000	3100	0.2 U	1.4 UJ	1 U	1900	1 U	1 U	420000	1 U	0.45 J	20 U	DMETAL
EERC	04/03/2014	350000	2100	0.2 U	1.1	6.6	2100	1 U	1 U	440000	1 U	1.6	5.3	DMETAL
EERC	04/16/2015	250000	1800	0.2 U	1 UJ	7.6	1800	1 U	1 U	350000	1 U	1.2 UJ	12 U	DMETAL
EERC	04/11/2016	NA	NA	0.2 U	2.5 J	1.9 J	NA	10 U	6.6	NA	7 J	7.2 UJ	5.7 J	DMETAL
EERC	04/06/2017	230000	79	0.2 U	3.9 J	3.7 J	2700	5.9 J	4.9 J	390000	1 U	17	20 U	DMETAL
EERC	04/05/2018	NA	NA	0.2 U	1.1 J	5.4	NA	2.5 U	2.5 U	NA	1.3 U	2.3 J	11 U	DMETAL
EPA	09/16/2010	39000	700	0.017 J	2.5	2.1	5100	2 U	0.5 U	130000	2 U	4 U	6.2	METAL
EPA	04/19/2011	39000	130	0.2 U	2 UJ	1.3 J	2700	2.5 U	1.7 U	150000	1 U	1.8	4.5 J	DMETAL
EPA	10/06/2011	37000 J	390	0.2 U	1.8 UJ	1 U	2200	0.24 J	1 U	120000	1 U	2.5	11	DMETAL
EPA	04/06/2012	48000	520	0.2 U	1.4	1 U	1700	1 U	1 U	150000	1 U	1	15 J	DMETAL
EPA	04/06/2012	45000	410	0.2 U	1.4	1 U	1300	1 U	1 U	160000	1 U	1.3	8.1 J	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
ETA	09/24/2010	86000	4600	2.3	2.7	10	1900 J	2 U	0.5 U	150000	2 U	5.4	110	METAL
ETA	09/24/2010	86000	4600	1.3	2.9	4.9	1600 J	2 U	0.5 U	150000	2 U	4 U	50	METAL
ETA	04/12/2011	81000	4000	0.2 U	4.3	2.8	1300	1 U	1 U	130000	0.3 J	0.55 J	47	DMETAL
ETA	04/12/2011	89000	4300	1.6	4.9	6.3	1800	0.15 J	1 U	130000	1 U	3.9	95	METAL
ETA	09/30/2011	84000	4800	1.6	1.8	4.3 J	980	1 U	1 U	160000	1 U	2.2	61	METAL
ETA	09/30/2011	81000	5000	0.2 U	2.1 UJ	3.6	900	0.8 J	0.06 J	150000	1 U	13	47	DMETAL
ETA	04/10/2012	130000	5100	0.083 UJ	1.8	3.8	1300	1 U	1 U	190000	1 U	0.99 J	57	DMETAL
ETA	04/10/2012	90000	4900	0.78	3	4	780	1 U	0.74 J	110000	0.28 J	1.1	54	METAL
ETA	04/10/2012	87000	4900	0.64	3	3.9	1200	1 U	1 U	110000	1 U	0.96 J	49	METAL
ETA	04/10/2012	110000	4800	0.095 UJ	2	3.6	1200	1 U	1 U	170000	1 U	1.1	55	DMETAL
ETA	04/05/2013	92000	5400	0.2 U	3.2 UJ	1 U	770	1 U	1 U	140000	1 U	0.52 J	40	DMETAL
ETA	04/08/2014	130000	6100	0.2 U	2.6	4.6	1200	1 U	1 U	190000	1 U	1	44	DMETAL
ETA	04/13/2015	120000	7100	0.2 U	2.3	3.1	1300	0.41 UJ	1 U	150000	1 U	1.7 UJ	30	DMETAL
ETA	04/05/2016	NA	NA	0.071 J	4.8 J	1.3 J	NA	4.4 J	5.3	NA	10 U	5 U	34	DMETAL
ETA	04/05/2017	69000	2500	0.2 U	6.7	8.9	1400	6.3 J	1.6 J	200000	1 U	14	12 J	DMETAL
ETA	04/04/2018	NA	NA	0.047 J	2.7 J	5.9	NA	2.5 U	2.5 U	NA	1.3 U	4.1	47	DMETAL
ETA01	02/02/2015	64000	930	4.7	5.6	1 U	13000	1 UJ	1 U	310000	1 U	4.4	15	METAL
ETA01	04/05/2016	NA	NA	15	6.1	9.9	NA	5.4 J	2.9 J	NA	3.4 J	7.1	14 J	DMETAL
ETA01	04/05/2017	71000	1500	5.8	5.8	14	11000	7.2 J	2.8 J	290000	1 U	19	9.9 J	DMETAL
ETA01	04/04/2018	NA	NA	7.3 J	2.3 J	8.2	NA	2.5 U	2.5 U	NA	1.3 U	3.5	16	DMETAL
ETA02	02/02/2015	290000	700	0.2 U	2.2	27	3800	0.36 J	1 U	260000	1 U	3.1	40	METAL
ETA02	02/02/2015	270000	660	0.2 U	3.3	27	3800	0.63 J	1 U	250000	1 U	2.9	27	METAL
ETA02	04/05/2016	NA	NA	0.2 U	1.2 J	13	NA	8.7 J	7.8	NA	8.8 J	5 U	4.9 J	DMETAL
ETA02	04/05/2017	290000	1300	0.2 U	4.6 J	20	2300	6.3 J	2.7 J	290000	0.11 J	15	20 U	DMETAL
ETA02	04/04/2018	NA	NA	0.2 U	3 U	20	NA	0.34 J	0.15 J	NA	1.3 U	3.2 U	11 U	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
ETA03	02/02/2015	340000	18000	0.2 U	1.1	140	7300	0.62 J	1 U	310000	0.24 J	0.5 J	1200	METAL
ETA03	04/05/2016	NA	NA	0.069 J	5 U	110	NA	10 U	1.2 J	NA	10 U	5 U	3300	DMETAL
ETA03	04/05/2017	330000	17000	0.2 U	2.6 J	120	3200	8 J	12	360000	1 U	21	3700	DMETAL
ETA03	04/04/2018	NA	NA	0.2 U	3 U	110	NA	2.5 U	2.5 U	NA	1.3 U	3.2 U	2300	DMETAL
ETA03	04/04/2018	NA	NA	0.2 U	3 U	120	NA	2.5 U	2.5 U	NA	1.3 U	3.2 U	2200	DMETAL
EXT	09/30/2011	20000	3.4	0.2 U	3.3	0.085 J	2100	0.23 J	1 U	48000	1 U	14	11	DMETAL
EXT	09/30/2011	18000	8	0.2 U	2.3	1 U	1400	1 U	1 U	46000	1 U	0.18 J	7.6	METAL
FG	09/23/2010	130000	4200	0.015 J	0.93	130	2700	8 U	0.5 U	130000	2 U	91	170	METAL
FG	04/19/2011	33000	28	0.063 J	1 UJ	2.7 J	800	2.5 U	1.7 U	83000	1 U	1.9	29	DMETAL
FG	04/19/2011	35000	70	0.14 J	1.1 J	7.3	1200	2.5 U	1.7 U	91000	0.21 J	5.8	9 U	METAL
FG	04/19/2011	31000	31	0.057 J	1 UJ	0.26 J	810	2.5 U	1.7 U	79000	1 U	1.8	29	DMETAL
FG	04/19/2011	35000	84	0.1 J	1.9 U	6.7	1000	2.5 U	1.7 U	87000	0.15 J	4.2	9 U	METAL
FG	10/10/2011	50000	93	0.2 U	0.73 UJ	3.8	2100	0.19 J	1 U	94000	1 U	2	31	DMETAL
FG	10/10/2011	54000	160	0.2 U	0.66 J	4.9	1200	0.21 J	1 U	100000	1 U	1.8	10	METAL
FG	04/09/2012	29000	1.8	0.032 UJ	1 U	1 U	420	0.28 J	1 U	75000	1 U	4.2	20 U	DMETAL
FG	04/09/2012	27000	13	0.2 U	0.8 UJ	2.1	810	1 U	1 U	73000	1 U	1.9	20 U	METAL
FG	04/03/2013	33000	4.8	0.2 U	2.4	2.8	1100	0.73 UJ	1 U	83000	1 U	1.7	13 J	DMETAL
FG	04/09/2014	21000	6.9	0.2 U	0.72 UJ	2 J	330	0.48 J	1 U	75000	0.044 J	2.2	16 U	DMETAL
FG	04/16/2015	28000	3.1	0.2 U	0.45 UJ	2.3	520	1 U	1 U	90000	1 U	3.8	12 U	DMETAL
FG	04/07/2016	NA	NA	0.2 U	5 U	5 U	NA	3.4 J	1.5 J	NA	1 U	1.9 J	20 U	DMETAL
FG	04/06/2017	16000	4 J	0.2 U	5 U	2.9 J	840	10 U	5 U	55000	1 U	9.1	20 U	DMETAL
GEO	09/03/2010	30000	43	0.03 U	2.6	1.5	2800	2 U	0.5 U	85000	2 U	2.5 J	5 U	METAL
GEO	04/20/2011	31000 J	440	0.071 J	4.5 UJ	6.2 J	3700	2.5 U	1.7 U	69000	0.17 J	3.2	58	DMETAL
GEO	10/06/2011	25000 J	230	0.2 U	3.4	1.5	1900	0.32 J	1 U	54000	1 U	4	26	DMETAL
GEO	04/06/2012	33000	27	0.2 U	1.6	1 U	810	1 U	1 U	71000	1 U	4.6	36	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
MFA	09/24/2010	61000	580	0.18	5.2	7.9	1400 J	2 U	0.5 U	150000	2 U	3.9 J	4.4 J	METAL
MFA	04/12/2011	37000	230	0.2 UJ	4.2	7.1	510	1 UJ	1 U	99000	1 U	4.6	39	DMETAL
MFA	10/03/2011	60000	410	0.82	4.1 J	16	450	0.23 J	1 U	120000	1 U	3.3	8.2 J	DMETAL
MFA	04/05/2012	43000	270	0.52	5.4	9.4	200	1 U	1 U	130000	0.21 J	6.4	20 U	DMETAL
MFA	04/08/2014	59000	330	0.505	5.4	11	590	0.54 J	1 U	120000	0.089 J	5.2	5 U	DMETAL
NRLF	09/16/2010	26000	440	0.03 U	1.1	1.9	2400	2 U	0.5 U	57000	2 U	4 U	5 U	METAL
NRLF	04/20/2011	30000 J	640	0.2 U	1.9 UJ	2.9 UJ	2700	2.5 U	1.7 U	81000	1 U	0.92 J	83	DMETAL
NRLF	10/06/2011	22000 J	110	0.2 U	1 UJ	0.31 J	920	1 U	1 U	42000	1 U	2.8	22	DMETAL
NRLF	04/09/2012	25000	210	0.053 UJ	1 U	4.9	1300	1 U	1 U	54000	1 U	0.89 J	11 J	DMETAL
NRLF	04/03/2013	27000	920	0.2 U	1 U	1.1	1200	1 U	1 U	58000	1 U	1 U	13 J	DMETAL
NRLF	04/09/2014	26000	80	0.2 U	0.97 UJ	1.6 J	970	1 U	1 U	56000	1 U	2.4	9 UJ	DMETAL
NRLF	04/16/2015	25000	160	0.2 U	0.42 UJ	1.3	970	1 U	1 U	55000	1 U	1.5	6.3 J	DMETAL
NRLF	04/08/2016	NA	NA	0.2 U	1.2 J	5 U	NA	9.8 J	2.1 J	NA	1 U	5 U	20 U	DMETAL
NRLF	04/06/2017	33000	700	0.26	1.6 J	0.52 J	910	63	5 U	86000	1 U	11	20 U	DMETAL
NRLF	04/05/2018	NA	NA	0.2 U	3 U	2.2 J	NA	2.5 U	2.5 U	NA	1.3 U	3.2 U	11 U	DMETAL
OBS6	09/30/2011	23000	1 U	0.2 U	2.1 UJ	1 U	1800	0.76 J	1 U	49000	1 U	3	4.3 J	DMETAL
OBS6	09/30/2011	21000	100	0.2 U	0.31 J	0.67 UJ	1300	1 U	1 U	45000	1 U	1.7	51	METAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
PZ11	10/01/2010	210000	1700	0.03 U	3.8	140	1100 J	2 U	0.5 U	170000	2 U	3.8 J	430	METAL
PZ11	04/20/2011	290000	13000	0.23 UJ	1.9 U	2400	430	2.5 U	1.7 U	200000	0.1 J	1.7 U	13000	METAL
PZ11	04/20/2011	290000 J	11000	0.08 J	1.9 UJ	1700 J	350	2.5 U	1.7 U	180000	1 U	1.7 U	10000	DMETAL
PZ11	10/10/2011	270000	3700	0.2 U	3.6	340	490	1 U	1 U	160000	1 U	3.8	810	METAL
PZ11	10/10/2011	250000	3200	0.2 U	3.4	300	730	0.22 J	1 U	150000	1 U	4.4	740	DMETAL
PZ11	04/05/2012	180000	5400	0.03 J	0.41 UJ	1200	170 U	0.48 UJ	1 U	160000	1 U	0.4 J	6600	METAL
PZ11	04/05/2012	200000	6600	0.049 UJ	1 U	1400	170 U	0.35 J	1 U	170000	1 U	1	7600	DMETAL
PZ11	04/05/2013	290000	4900	0.2 U	3.8 UJ	580	730	0.78 J	1 U	180000	1 U	2.1	1700	DMETAL
PZ11	04/05/2013	310000	5200	0.2 U	2 UJ	640	710	1 U	1 U	180000	1 U	2.5	1700	DMETAL
PZ11	04/09/2014	450000	13000	0.2 U	4.6	150	1100	0.42 J	1 U	270000	1 U	2.2	260	DMETAL
PZ11	04/16/2015	250000	8300	0.2 U	5.6	300	790	1 U	1 U	170000	1 U	5.5	880	DMETAL
PZ11	04/08/2016	NA	NA	0.2 U	2.5 J	730	NA	10 U	2.6 J	NA	10 U	5 U	3500	DMETAL
PZ11	04/06/2017	170000	23000	0.2 U	5 U	3.7 J	8600	26	8.9	180000	0.051 J	20	20 U	DMETAL
PZ11	04/03/2018	NA	NA	0.066 J	5.1	170	NA	0.15 J	0.27 J	NA	1 U	4.2	430	DMETAL
PZ8	10/15/2010	40000	27	0.03 UJ	0.49 J	2.5	2000 U	2 U	0.5 U	66000	2 U	3.5 J	3.4 J	METAL
PZ8	04/18/2011	31000	2.9	0.04 J	0.56 J	1 U	800	0.26 J	1.7 U	53000	1 U	4.1	5 U	DMETAL
PZ8	10/04/2011	40000	0.73 J	0.07 UJ	0.56 UJ	0.87 J	490	0.26 J	0.099 J	62000	1 U	4.2	9 U	DMETAL
PZ8	04/03/2012	42000	4.5	0.2 U	1 U	1 U	130 J	0.44 J	1 U	56000	1 U	3.1	9 U	DMETAL
PZ8	04/08/2013	41000	2.3	0.2 U	1 U	1 U	700	0.29 J	1 U	59000	1 U	3.8	7.7 J	DMETAL
PZ8	04/08/2014	46000	37	0.2 U	0.46 J	3.6 J	770	0.34 J	1 U	64000	1 U	4.2	4.4 J	DMETAL
PZ8	04/14/2015	41000	0.73 J	0.2 U	0.45 UJ	0.96 J	690	0.92 J	1 U	64000	1 U	5	12 U	DMETAL
PZ8	04/14/2015	41000	0.41 J	0.2 U	0.63 UJ	0.8 J	890	0.67 J	1 U	64000	1 U	5	12 U	DMETAL
PZ9	09/24/2010	36000	260	0.17	0.95	3.5	2000 U	2 U	0.5 U	54000	2 U	2.3 J	4.9 J	METAL
PZ9	04/20/2011	34000 J	1900	0.2 U	1.9 UJ	5.3 J	330	2.5 U	1.7 U	45000	1 U	2.1	10	DMETAL
PZ9	10/07/2011	31000	190	0.022 UJ	0.54 UJ	2.7	560	1 U	1 U	42000	1 U	3.8	69	DMETAL
PZ9	10/07/2011	32000	200	0.2 U	0.64 UJ	1 U	570	1 U	1 U	43000	1 U	3.6	60	DMETAL
PZ9	04/06/2012	44000	2900 J	0.026 J	1.7	1 U	170 U	1 U	1 U	53000	1 U	0.47 J	8.3 J	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
RWF	09/15/2010	60000	88	0.03 U	0.71	2.8	2000	2 U	0.5 U	77000	2 U	2.1 J	3.8 J	METAL
RWF	04/18/2011	55000	3.1	0.2 U	1	1 U	1100	0.21 J	1.7 U	75000	1 U	2.6 UJ	9 U	DMETAL
RWF	10/06/2011	53000 J	19	0.2 U	0.52 UJ	0.78 J	1000	0.54 J	1 U	61000	1 U	3.7	29	DMETAL
RWF	04/04/2012	57000	290	0.029 J	0.86 J	2.9	2300	1 U	1 U	70000	1 U	3.9	120	DMETAL
TP1	09/29/2010	60000	260	0.33	1.3	5.8	2000	2 U	0.5 U	92000	2 U	2.3 J	7.2	METAL
TP1	04/18/2011	94000	980	0.17 J	1.9	1 U	3900	0.21 J	1.7 U	210000	1 U	1.7 UJ	5.5 J	DMETAL
TP1	10/07/2011	60000	420	0.056 UJ	0.65 UJ	11	980	1 U	1 U	71000	1 U	1.8	12	DMETAL
TP1	04/05/2012	120000	3400	0.2 UJ	2.7	20	1300	1 U	1 U	290000	1 U	1.1	20 U	DMETAL
TP1	04/04/2013	94000	3300	0.028 J	0.8 UJ	1 U	700	1 U	1 U	110000	1 U	1 U	12 J	DMETAL
TP1	04/02/2014	120000	3600	0.139 J	2.3	12	1100	1 U	1 U	230000	1 U	0.79 J	6.8	DMETAL
TP1	04/10/2015	120000	3700	0.026 J	1.1	2.4	1000 J	0.23 J	1 U	160000 J	0.087 J	1.1 UJ	12 U	DMETAL
TP1	04/07/2016	NA	NA	0.2 J	1.9 J	1.5 J	NA	29	4 J	NA	10 U	5 U	20 U	DMETAL
TP1	04/04/2017	58000	1200	0.048 J	4 J	2.8 J	1000	4.8 J	4.9 J	170000	1 U	15	20 U	DMETAL
TP1	04/03/2018	NA	NA	0.2 J	2	2.7	NA	2.1	1 U	NA	1 U	1 U	10 U	DMETAL
TP2	09/29/2010	72000	120	0.03 U	1.1	8.6	1600 J	2 U	0.5 U	88000	2 U	2.9 J	5 U	METAL
TP2	04/18/2011	56000	3.3	0.2 U	0.82 J	1 U	2300	0.78 J	1.7 U	75000	1 U	3.9	4.2 J	DMETAL
TP2	10/07/2011	67000	5.1 UJ	0.2 U	0.68 UJ	1 U	1300	0.17 J	1 U	73000	0.11 J	3.4	42	DMETAL
TP2	04/09/2012	66000	5.4	0.054 UJ	1 U	4.1	1800	1 U	1 U	75000	1 U	5.7	8.5 J	DMETAL
TP2	04/09/2012	67000	6.1	0.058 UJ	1 U	3.4	1500	0.28 J	1 U	79000	1 U	6.8	8.7 J	DMETAL
WSM01	02/02/2015	120000	6600	0.2 U	2.3	1 U	15000	1 UJ	1 U	220000	1 U	0.62 J	200	METAL
WSM01	04/05/2016	NA	NA	0.2 U	2.9 J	9.8	NA	10 U	5.6	NA	10 U	3.1 J	260	DMETAL
WSM01	04/05/2017	72000	2400	0.2 U	3.5 J	11	2900	5.9 J	3.9 J	320000	1 U	18	140	DMETAL
WSM01	04/04/2018	NA	NA	0.2 U	2.3 J	6.9	NA	2.5 U	2.5 U	NA	1.3 U	2.5 J	190	DMETAL

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METALS (µg/L)

Location ID	Sample Date	Magnesium	Manganses	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Analysis Group
California MCLs				2		100		50			2			
Federal MCLs				2				50			2			
WTA	09/30/2010	66000	48	0.03 U	1.4	1.5	2100	2 U	0.5 U	150000	2 U	3 J	5 U	METAL
WTA	04/14/2011	61000	21	0.2 U	1.9 UJ	0.97 J	1100	2.5 U	1.7 U	120000	0.093 J	3.8	4.3 J	DMETAL
WTA	04/14/2011	63000	31	0.041 J	1 UJ	2.9 U	1200	1 U	1 U	130000	1 U	4.1	5 UJ	METAL
WTA	04/14/2011	61000	20	0.2 U	1.9 UJ	1 J	1100	2.5 U	1.7 U	120000	0.1 J	4.1	9 U	DMETAL
WTA	04/14/2011	64000	29	0.042 J	1 UJ	2.9 U	1200	1 U	1 U	130000	1 U	4.1	9 U	METAL
WTA	10/05/2011	64000 J	93	0.2 U	0.25 J	1 U	1300	1 U	1 U	140000	1 U	4.1	5 U	DMETAL
WTA	10/05/2011	67000 J	120 J	0.2 U	1.2	2.7 UJ	1100	0.66 J	1 U	130000	0.15 J	5.2	5.6	METAL
WTA	04/05/2012	55000	46	0.2 U	1.5 UJ	1 U	500	0.97 UJ	1 U	140000	1 U	3.9	6.7 J	METAL
WTA	04/05/2012	60000	26	0.03 UJ	1.3 UJ	1.1	990	1 U	1 U	150000	1 U	5.1	20 U	DMETAL

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B120	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B120	04/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.5 J	1.3 U
B120	10/04/2011	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	8 U	2 U	2 U	0.6 J	2 U
B120	04/03/2012	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.6 J	1.3 U
B120	04/02/2013	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U
B120	04/01/2014	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.5 J	1.3 U
B120	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B120	04/05/2016	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.4 UJ	2 U
B120	04/04/2017	2 U	2 U	2 U	2 U	2 U	0.5 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 J	2 U
B120	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U
B121	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B121	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B121	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B121	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B150	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B158	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B158	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B158	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B158	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B163	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	8.5	0.5 U
B163	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	9	0.5 U
B163	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	7.1	0.5 U
B163	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	8.2	0.5 U
B163	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	8	0.5 U
B163	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	8	0.5 U
B163	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	7.6	0.5 U
B163	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	9.3	1 U
B163	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8.8	1 U
B163	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	6.4	1 U
B163	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8.8	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B175S	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B175S	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B175S	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B175W	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B175W	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B177	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B177	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B177	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B177	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B178	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5	0.5 U
B178	04/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.4 J	1.3 U
B178	10/04/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.5 J	1.3 U
B178	04/03/2012	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	0.5 J	1.7 U
B178	04/02/2013	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.6 J	1.3 U
B178	04/08/2014	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.4 J	1 U
B178	04/10/2015	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.5 J	1 U
B178	04/05/2016	2 U	2 U	2 U	2 U	2 U	0.8 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
B178	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U
B178	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U
B180	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B180	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B180	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B185	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.4	0.5 U
B185	04/15/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	1	0.7 U
B185	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.3	0.5 U
B185	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.6	0.5 U
B185	10/03/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.3 J	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	1.1	0.7 U
B185	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.1	0.5 U
B185	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.8	0.5 U
B185	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.2	0.5 U
B185	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.8	0.5 U
B185	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U
B185	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2	1 U
B185	04/05/2018	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U
B194	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B194	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B194	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B194	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B195	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1	0.5 U
B195	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.3 J	0.5 U
B195	04/13/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	0.2 J	0.7 U
B195	10/04/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	0.7 J	1.3 U
B195	04/03/2012	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.6 J	1 U
B195	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B195	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B195	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B195	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.6	0.5 U
B195	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.3 J	0.5 U
B195	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B195	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B197	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5	0.5 U
B197	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5	0.5 U
B197	04/13/2011	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U
B197	10/04/2011	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	0.4 J	1.7 U
B197	04/03/2012	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.7 J	1 U
B197	04/03/2012	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.7 J	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B197R	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.7	0.5 U
B197R	04/08/2014	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.4 J	1 U
B197R	04/14/2015	1 U	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	0.5 J	1 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	0.4 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	0.4 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
B197R	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B277	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B277	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B277	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B278	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B278	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B278	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B280A	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B280A	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B280A	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B280B	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280B	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280B	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B280B	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B300	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B300	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B300	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B300	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/19/2011	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B450	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B450	04/06/2017	1 U	0.1 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B450	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B460	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B460	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B460	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B460	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B473	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B473	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B473	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B474	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B474	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B474	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B474	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
B480	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B480	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B480	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
B490	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B490	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B490	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
B490	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	10/19/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
BULB2	10/19/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
BULB2	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
CCC1	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC1	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC1	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC1	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
CCC2	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
CCCT	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
CCCT	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
CCCT	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
CCCT	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
CCCT	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
CCCT	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.3 J	0.5 U
CCCT	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CCCT	04/07/2016	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 UJ	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CCCT	04/05/2018	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CTP	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
CTP	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
CTPDEEP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTPS	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTPS	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTPS	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
CTPS	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
DH	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
DH	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
DH	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
DH	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
EPA	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
ETA	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
ETA	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
ETA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
ETA	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 UJ	1 U
ETA	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U
ETA	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
ETA01	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.2 J	0.5 U
ETA01	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 UJ	1 U
ETA01	04/05/2017	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U
ETA01	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
ETA02	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	12	0.5 U
ETA02	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	12	0.5 U
ETA02	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	13	1 U
ETA02	04/05/2017	1 U	1 U	1 U	0.1 J	1 U	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	12	1 U
ETA02	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	12	1 U
ETA03	02/02/2015	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	15	0.5 U
ETA03	04/05/2016	1 U	1 U	1 U	0.2 J	1 U	1.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20	1 U
ETA03	04/05/2017	1 U	1 U	1 U	0.2 J	1 U	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	19	1 U
ETA03	04/04/2018	1 U	1 U	1 U	0.2 J	1 U	1.5	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	18	1 U
ETA03	04/04/2018	1 U	1 U	1 U	0.2 J	1 U	1.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	14	1 U
EXT	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
GEO	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
GEO	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
GEO	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MFA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MFA	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
MFA	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
NRLF	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
NRLF	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
NRLF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
NRLF	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
OBS6	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ11	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ11	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ11	10/10/2011	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	2.4 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	13 U	3.1 U	3.1 U	3.1 U	3.1 U
PZ11	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ11	04/05/2013	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	2.2	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U
PZ11	04/05/2013	2 U	2 U	2 U	2 U	2 U	2.1	2 U	2 U	2 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U
PZ11	04/09/2014	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.6 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U
PZ11	04/16/2015	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.6 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U
PZ11	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
PZ11	04/06/2017	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
PZ11	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U
PZ8	10/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ8	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ8	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ8	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
PZ9	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/07/2016	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
PZ9	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
PZ-9	04/03/2018	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U
RWF	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
RWF	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
RWF	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
TP1	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TP1	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TP1	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TP2	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TP2	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TP2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
California MCLs			200				6									0.5	5
Federal MCLs			200		5		7				70					5	5
WSM01	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	1.6	0.5 U
WSM01	04/05/2016	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.8	1 U
WSM01	04/05/2017	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.5	1 U
WSM01	04/04/2018	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.7	1 U
WTA	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5
WTA	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.4 J
WTA	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.4 J
WTA	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 J
WTA	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
WTA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.1 J
WTA	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
WTA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B120	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B120	04/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B120	10/04/2011	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U	2 U	2 U	2 U	2 U	4 U
B120	04/03/2012	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B120	04/02/2013	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U	2 U	2 U	2 U	2 U	4 U
B120	04/01/2014	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 UJ	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B120	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B120	04/05/2016	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
B120	04/04/2017	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
B120	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B121	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B121	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B121	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B121	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B128	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	43	0.5 U	NA	0.5 U	NA	11 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	49	0.5 U	NA	0.5 U	NA	14 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B128	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B128	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B128	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B150	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B150	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B150	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B150	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B150	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B150	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B158	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B158	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B158	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B158	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B163	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	4 U	0.5 U	NA	0.5 U	NA	2.7 UJ	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U
B163	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.3 J	0.5 U	0.5 U	0.5 U	1 U
B163	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.3 J	0.5 U	0.5 U	0.5 U	1 U
B163	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.4 J	0.5 U	0.5 U	0.5 U	1 U
B163	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.3 J	0.5 U	0.5 U	0.5 U	1 U
B163	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.3 J	0.5 U	0.5 U	0.5 U	1 U
B163	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.3 J	0.5 U	0.5 U	0.5 U	1 U
B163	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
B163	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
B163	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.2 J	1 U	1 U	1 U	1 U
B163	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
B175S	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	4 U	0.5 U	NA	0.5 U	NA	2.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B175S	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175S	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B175S	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B175S	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B175W	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B175W	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	04/01/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B175W	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B175W	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B177	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B177	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B177	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B177	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B178	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B178	04/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B178	10/04/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B178	04/03/2012	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	33 U	1.7 U	33 U	33 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U
B178	04/02/2013	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B178	04/08/2014	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 UJ	1 U	1 U	1 U	1 U	2 U
B178	04/10/2015	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 U	1 U	1 U	1 U	1 U	2 U
B178	04/05/2016	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
B178	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B178	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B180	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B180	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B180	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B185	09/02/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B185	04/15/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	14 U	0.7 U	14 U	14 U	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U
B185	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.1 J	0.5 U	0.5 U	0.5 U	1 U
B185	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.1 J	0.5 U	0.5 U	0.5 U	1 U
B185	10/03/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	14 U	0.7 U	14 U	14 U	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U
B185	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.1 J	0.5 U	0.5 U	0.5 U	1 U
B185	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.2 J	0.5 U	0.5 U	0.5 U	1 U
B185	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.1 J	0.5 U	0.5 U	0.5 U	1 U
B185	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.2 J	0.5 U	0.5 U	0.5 U	1 U
B185	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B185	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.1 J	1 U	1 U	1 U	1 U
B185	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B194	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.1 J	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B194	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B194	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B194	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B195	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B195	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/13/2011	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	14 U	0.7 U	14 U	14 U	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U
B195	10/04/2011	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
B195	04/03/2012	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 UJ	1 U	1 U	1 U	1 U	2 U
B195	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B195	04/11/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B195	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B197	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B197	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B197	04/13/2011	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	33 U	1.7 U	33 U	33 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U
B197	10/04/2011	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	33 U	1.7 U	33 U	33 U	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U
B197	04/03/2012	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 UJ	1 U	1 U	1 U	1 U	2 U
B197	04/03/2012	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 U	1 U	1 U	1 U	1 U	2 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B197R	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B197R	04/08/2014	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 U	1 U	1 U	1 U	1 U	2 U
B197R	04/14/2015	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 U	1 U	1 U	1 U	1 U	2 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
B197R	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B277	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B277	04/11/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B277	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B277	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

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2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B278	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B278	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B278	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B278	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B278	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B280A	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B280A	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280A	04/11/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B280A	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B280A	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B280B	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B280B	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280B	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B280B	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B300	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B300	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B300	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	1.5 J	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B300	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B38	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B38	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B38	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B450	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B450	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B450	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B460	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	27	0.5 U	NA	0.5 U	NA	22	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B460	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B460	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B460	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B473	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B473	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B473	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B473	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B474	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	180	0.5 U	NA	0.5 U	NA	40 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B474	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B474	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B474	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
B480	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	3.2 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B480	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B480	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B480	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
B490	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B490	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B490	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
B490	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	10/19/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2.3 J	2.3	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
BULB2	10/19/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	3.3 J	4.1	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
BULB2	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
BULB2	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCC1	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC1	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC1	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC1	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
CCC2	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC2	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC2	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	2 U	20 U	20 U	2 U	2 U	2 U	2 U	2 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	30	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	32	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCC3	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
CCCT	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	3.2 J	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CCCT	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CCCT	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CCCT	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	35 J	0.5 U	NA	0.5 U	NA	7 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	17 J	0.5 U	NA	0.5 U	NA	4.4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CTP	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTP	04/11/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CTP	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CTP	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
CTPDEEP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
CTPS	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CTPS	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTPS	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
CTPS	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
DH	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2.4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DH	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
DH	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
DH	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	15 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EERC	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EERC	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
EPA	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
EPA	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA01	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA01	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA01	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA01	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA02	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
ETA02	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.1 J	0.5 U	0.5 U	0.5 U	1 U
ETA02	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA02	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
ETA02	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
ETA03	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	10 U	0.5 U	10 U	10 U	0.2 J	0.5 U	0.5 U	0.5 U	1 U
ETA03	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.2 J	1 U	1 U	1 U	1 U
ETA03	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
ETA03	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.2 J	1 U	1 U	1 U	1 U
ETA03	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.2 J	1 U	1 U	1 U	1 U
EXT	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
FG	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
FG	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
FG	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
GEO	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
GEO	04/11/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
GEO	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
GEO	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
MFA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MFA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
MFA	04/06/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
MFA	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
NRLF	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	200	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
NRLF	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
NRLF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
NRLF	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
OBS6	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
PZ11	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ11	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ11	10/10/2011	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	63 U	3.1 U	63 U	3.1 U	63 U	63 U	3.1 U	3.1 U	3.1 U	3.1 U	6.3 U
PZ11	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ11	04/05/2013	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	25 U	1.3 U	25 U	25 U	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U
PZ11	04/05/2013	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U	2 U	2 U	2 U	2 U	4 U
PZ11	04/09/2014	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	50 U	2.5 U	50 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
PZ11	04/16/2015	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	50 U	2.5 U	50 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U
PZ11	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
PZ11	04/06/2017	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	25 U	2.5 U	25 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
PZ11	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 UJ	1 U	1 U	1 U
PZ8	10/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ8	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ8	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ8	04/03/2012	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PZ9	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	04/03/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
PZ9	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
PZ9	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
PZ-9	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
RWF	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RWF	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
RWF	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
RWF	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
RWF	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
TP1	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TP1	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP1	04/07/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
TP1	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
TP1	04/03/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 UJ	1 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-pentanone	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform
California MCLs													1				
Federal MCLs													5				
TP2	09/29/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	4 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TP2	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/10/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
TP2	04/08/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
TP2	04/04/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
TP2	04/05/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
WSM01	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	190	0.5 U	10 U	0.5 U	10 U	74	0.2 J	0.5 U	0.5 U	0.5 U	1 U
WSM01	04/05/2016	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.2 J	1 U	1 U	1 U	1 U
WSM01	04/05/2017	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
WSM01	04/04/2018	1 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	1 U	10 U	10 U	0.3 J	1 U	1 U	1 U	1 U
WTA	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4 U	0.5 U	NA	0.5 U	NA	2 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
WTA	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
WTA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	10 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B120	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.1	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B120	04/15/2011	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	0.3 J	2.5 U	3.6	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B120	10/04/2011	4 U	2 U	2 U	2 U	4 U	2 U	4 U	3.5	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U
B120	04/03/2012	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B120	04/02/2013	4 U	2 U	2 U	2 U	4 U	2 U	4 U	3.4	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U
B120	04/01/2014	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3.8	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B120	04/10/2015	1 U	0.5 U	0.5 U	0.1 J	1 U	0.2 J	1 U	4.5	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B120	04/05/2016	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3.1	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
B120	04/04/2017	2 U	2 U	2 U	2 U	2 U	2 U	2 U	4.7	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
B120	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	19	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B121	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B121	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B121	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B121	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B128	09/23/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B128	09/23/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B128	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B128	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B128	04/02/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B150	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	1.4	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B150	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B150	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.6	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B150	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B150	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B150	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B158	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	4	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B158	04/15/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	1.6	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B158	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	2	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B158	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	1.6 UJ	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B163	09/02/2010	0.5 U	NA	0.5 U	6.5	0.5 U	2.1	0.5 U	3	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B163	04/12/2011	1 U	0.5 U	0.5 U	8.4	1 U	2.3	1 U	3.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B163	10/03/2011	1 U	0.5 U	0.5 U	7.6	1 U	2.4	1 U	3.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B163	04/02/2012	1 U	0.5 U	0.5 U	7.5	1 U	2.3	1 U	3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B163	04/03/2013	1 U	0.5 U	0.5 U	6.9	1 U	2.2	1 U	3.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B163	04/01/2014	1 U	0.5 U	0.5 U	6.9	1 U	1.9	1 U	4.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B163	04/14/2015	1 U	0.5 U	0.5 U	6.4	1 U	1.6	1 U	4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B163	04/05/2016	1 U	1 U	1 U	5.9	1 U	1.3	1 U	4.4	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B163	04/04/2017	0.5 J	1 U	1 U	6.5	1 U	1.6	1 U	4.4	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B163	04/03/2018	1 U	1 U	1 U	4.9	1 U	1 U	1 U	3.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B163	04/03/2018	1 U	1 U	1 U	6.5	1 U	1.3 J+	1 U	4.9	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B175S	09/03/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B175S	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	04/01/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	04/15/2015	1 U	0.5 UJ	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175S	04/07/2016	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B175S	04/04/2017	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B175S	04/05/2018	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	0.1 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B175W	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.4 J	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B175W	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	04/01/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	04/15/2015	1 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B175W	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B175W	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B177	09/23/2010	0.5 UJ	NA	0.5 U	0.5 U	0.5 U	9.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 UJ	NA
B177	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	2.7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B177	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	6.5	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B177	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B178	09/02/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	2.5	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B178	04/15/2011	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	0.4 J	2.5 U	2.7	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B178	10/04/2011	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3.2	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B178	04/03/2012	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	2.3	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U
B178	04/02/2013	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3.4	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B178	04/08/2014	2 U	0.5 J	1 U	1 U	2 U	1 U	2 U	3	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B178	04/10/2015	2 U	1 U	1 U	1 U	2 U	1 U	2 U	4.8	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B178	04/05/2016	2 U	2 U	2 U	2 U	2 U	2 U	2 U	11	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
B178	04/04/2017	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	55	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B178	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	15	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B180	09/15/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B180	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B180	10/06/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B180	10/06/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B180	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B185	09/02/2010	0.5 U	NA	4.3	1.2	0.5 U	1.3	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B185	04/15/2011	1.4 U	0.7 U	3.5	1	1.4 U	0.8	1.4 U	1	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U
B185	04/15/2011	1 U	0.5 U	4.7	1.1	1 U	1.2	1 U	1.5	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B185	10/03/2011	1 U	0.5 U	5.6	1.6	1 U	1.4	1 U	1.4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B185	10/03/2011	1.4 U	0.7 U	4.1	1.1	1.4 U	1	1.4 U	1.3	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U
B185	04/02/2012	1 U	0.5 U	4.8	1.2	1 U	0.9	1 U	1.1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B185	04/02/2013	1 U	0.5 U	8.1	1.7	1 U	1.8	1 U	1.8	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B185	04/08/2014	1 U	0.5 U	4.4	1	1 U	1.1	1 U	1.5	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B185	04/10/2015	1 U	0.5 U	8.2	1.7	1 U	3.7	1 U	2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B185	04/05/2016	1 U	1 U	0.5 J	0.4 J	1 U	0.4 J	1 U	1.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B185	04/04/2017	0.4 J	1 U	1.9	0.7 J	1 U	1	1 U	2.3	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B185	04/05/2018	1 U	1 U	1.5	0.5 J	1 U	0.5 J	1 U	1.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B194	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B194	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B194	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B194	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B195	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	3.7	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B195	04/13/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/13/2011	1.4 U	0.7 U	0.7 U	0.7 U	1.4 U	0.7 U	1.4 UJ	1	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U
B195	10/04/2011	2.5 U	1.3 UJ	1.3 U	0.9 J	2.5 U	1.3 U	2.5 UJ	4.1	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
B195	04/03/2012	2 U	1 U	1 U	0.9 J	2 U	1 U	2 U	1.7	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B195	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	3.1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/02/2014	1 U	0.5 U	0.5 U	2	1 U	0.1 J	1 U	3.9	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/02/2014	1 U	0.5 U	0.5 U	2.1	1 U	0.1 J	1 U	3.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/14/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	2.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B195	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.9 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B195	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B195	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B197	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.8	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B197	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B197	04/13/2011	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 UJ	2.2	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U
B197	10/04/2011	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	3.6	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U
B197	04/03/2012	2 U	1 U	1 U	1 U	2 U	1 U	2 U	2.3	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B197	04/03/2012	2 U	1 U	1 U	1 U	2 U	1 U	2 U	2.5	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U

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VOCs (µg/L)

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California MCLs				0.5					6								
Federal MCLs				5					70								
B197R	04/08/2013	1 U	0.5 U	0.5 U	0.2 J	1 U	0.1 J	1 U	3.3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B197R	04/08/2014	2 U	1 U	1 U	1 U	2 U	1 U	2 U	2.9	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B197R	04/14/2015	2 U	1 U	1 U	1 U	2 U	1 U	2 U	4.4	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3.1	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
B197R	04/05/2016	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3.2	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
B197R	04/04/2017	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	2.4	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B197R	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.8	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B277	09/15/2010	0.5 U	NA	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B277	04/18/2011	1 U	0.5 U	1	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B277	10/05/2011	1 UJ	0.5 U	0.8	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B277	04/03/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B277	04/04/2013	1 U	0.5 U	0.5	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B277	04/02/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B277	04/16/2015	1 U	0.5 U	0.4 J	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B277	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B277	04/05/2017	1 U	1 U	0.2 J	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B277	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B278	09/16/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	1.7	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B278	04/19/2011	1 U	0.5 U	0.3 J	0.5 U	1 U	2.1	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B278	10/05/2011	1 UJ	0.5 U	0.1 J	0.5 U	1 U	0.9	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B278	04/05/2012	1 U	0.5 U	0.2 J	0.5 U	1 U	1	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B278	04/04/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B278	04/09/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B278	04/17/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B278	04/08/2016	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B278	04/05/2017	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B278	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B280A	09/16/2010	0.5 U	NA	0.9	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B280A	04/14/2011	1 U	0.5 U	1.1	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	10/06/2011	1 U	0.5 U	1.4	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	04/03/2012	1 U	0.5 U	0.9	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	04/04/2013	1 U	0.5 U	1.3	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	04/09/2014	1 U	0.5 U	0.5	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	04/17/2015	1 U	0.5 U	1.3	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280A	04/11/2016	1 U	1 U	0.6 J	1 U	1 U	0.2 J	1 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B280A	04/05/2017	1 U	1 U	0.4 J	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B280A	04/05/2018	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B280B	10/01/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B280B	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280B	10/06/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B280B	04/03/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B300	09/09/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B300	04/15/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B300	10/06/2011	0.3 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5.1	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B300	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B38	09/15/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B38	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B38	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B38	10/06/2011	0.4 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	3.1	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B38	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	10/10/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 UJ	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B450	04/03/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	04/03/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	04/14/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B450	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B450	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B450	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B460	09/15/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B460	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B460	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B460	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B473	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B473	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
B473	04/03/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	04/03/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	04/03/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.8	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	04/16/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B473	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B473	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B473	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B474	09/23/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B474	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B474	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B474	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
B480	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
B480	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	04/03/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	04/03/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	04/17/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B480	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B480	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B480	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
B490	09/16/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
B490	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B490	10/10/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
B490	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	10/19/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
BULB1	04/12/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	09/30/2011	1 U	0.6	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	04/05/2012	1 U	0.4 J	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	04/05/2013	0.4 J	2.9	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	04/10/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB1	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
BULB2	10/19/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
BULB2	04/12/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB2	09/30/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB2	04/05/2012	1 U	0.5 U	0.5 U	0.3 J	1 U	0.5 U	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.1 J	2 U	1 U
BULB2	04/05/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB2	04/10/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB2	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
BULB2	04/08/2016	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
BULB2	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCC1	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	1.2	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
CCC1	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC1	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
CCC1	04/10/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
CCC2	09/08/2010	0.5 U	NA	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
CCC2	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/10/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/02/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/15/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC2	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U	10 U	2 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCC3	09/03/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CCC3	09/03/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CCC3	04/12/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	04/10/2012	1 U	0.5 J	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	04/02/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCC3	04/15/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
CCCT	09/03/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CCCT	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	10/03/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	04/02/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	04/08/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	04/15/2015	1 U	0.5 UJ	0.5 U	0.5 U	1 U	0.5 U	1 U	0.9	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CCCT	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.7	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.9	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CCCT	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.2	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CTP	09/30/2010	0.5 U	NA	19	0.5 U	0.5 U	8.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CTP	09/30/2010	0.5 U	NA	20	0.5 U	0.5 U	8.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CTP	04/14/2011	1 U	0.5 U	16	0.5 U	1 U	5.5	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	10/06/2011	1 U	0.5 U	25	0.5 U	1 U	7.6	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/03/2012	1 U	0.5 U	14	0.5 U	1 U	6.6	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/03/2012	1 U	0.5 U	22	0.5 U	1 U	7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/04/2013	1 U	0.5 U	18	0.5 U	1 U	8.4	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/03/2014	1 U	0.5 U	14	0.5 U	1 U	6.5	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/03/2014	1 U	0.5 U	15	0.5 U	1 U	7.4	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/17/2015	1 U	0.5 U	11	0.5 U	1 U	5.2	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTP	04/11/2016	1 U	1 U	7.8	1 U	1 U	3.5	1 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CTP	04/06/2017	1 U	0.1 J	5.8	1 U	1 U	2.7	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CTP	04/04/2018	1 U	1 U	5.5	1 U	1 U	3.8	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
CTPDEEP	04/03/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
CTPS	09/30/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	6.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
CTPS	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTPS	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
CTPS	04/05/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
DH	09/30/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
DH	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
DH	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
DH	04/05/2012	1 U	24	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EERC	10/01/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
EERC	04/20/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EERC	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EERC	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
EERC	04/08/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EERC	04/03/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EERC	04/16/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
EPA	09/16/2010	0.5 U	NA	1.8	0.5 U	0.5 U	2.3	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
EPA	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EPA	10/06/2011	1 U	0.5 U	0.5 U	0.1 J	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EPA	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
EPA	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
EPA	04/04/2013	1 U	0.5 U	0.5 U	0.2 J	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EPA	04/10/2014	1 U	0.5 U	0.5 U	0.2 J	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
EPA	04/17/2015	1 U	0.5 U	0.5 U	0.2 J	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
ETA	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
ETA	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
ETA	04/12/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	09/30/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/10/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/10/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/05/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/08/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	3.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA	04/05/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5.6	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.8	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA01	02/02/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA01	04/05/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA01	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA01	04/04/2018	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	2.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA02	02/02/2015	1 U	0.5 U	0.5 U	4.1	1 U	0.2 J	1 U	6.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA02	02/02/2015	1 U	0.5 U	0.5 U	4.1	1 U	0.2 J	1 U	6.3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA02	04/05/2016	1 U	1 U	1 U	1.4	1 U	1 U	1 U	14	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA02	04/05/2017	1 U	0.2 J	1 U	2	1 U	1 U	1 U	17	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA02	04/04/2018	1 U	1 U	1 U	2.8	1 U	1 U	1 U	20	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
ETA03	02/02/2015	1 U	0.5 U	0.5 U	4.5	1 U	0.2 J	1 U	9	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
ETA03	04/05/2016	1 U	1 U	1 U	5	1 U	0.3 J	1 U	10	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA03	04/05/2017	1 U	1 U	1 U	5.7	1 U	0.3 J	1 U	11	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA03	04/04/2018	1 U	1 U	1 U	5.7	1 U	1 U	0.4 J	11	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
ETA03	04/04/2018	1 U	1 U	1 U	6.4	1 U	1 U	1 U	12	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
EXT	09/30/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
FG	09/23/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
FG	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
FG	04/19/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
FG	10/10/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
FG	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	09/03/2010	0.5 U	NA	1.1	0.5 U	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
GEO	04/20/2011	1 U	0.5 U	1.2	0.5 U	1 U	0.7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	10/06/2011	1 U	0.5 U	1	0.5 U	1 U	0.5	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	04/06/2012	1 U	0.5 U	0.9	0.5 U	1 U	0.8 UJ	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
GEO	04/04/2013	1 U	0.5 U	1	0.5 U	1 U	0.7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	04/09/2014	1 U	0.5 U	0.9	0.5 U	1 U	0.7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	04/16/2015	1 U	0.5 U	1	0.5 U	1 U	0.7	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
GEO	04/11/2016	1 U	1 U	0.8 J	1 U	1 U	0.6 J	1 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
GEO	04/06/2017	1 U	1 U	0.7 J	1 U	1 U	0.7 J	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
GEO	04/04/2018	1 U	1 U	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
MFA	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
MFA	04/12/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	10/03/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	04/05/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	04/05/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	04/08/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.3	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
MFA	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
MFA	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
MFA	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
NRLF	09/16/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
NRLF	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
NRLF	10/06/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
NRLF	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
OBS6	09/30/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
PZ11	10/01/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
PZ11	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ11	10/10/2011	6.3 U	3.1 U	3.1 U	3.1 U	6.3 U	3.1 U	6.3 U	87	3.1 U	3.1 U	3.1 U	NA	3.1 U	3.1 U	13 U	6.3 U
PZ11	04/05/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ11	04/05/2013	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	200	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U
PZ11	04/05/2013	4 U	2 U	2 U	2 U	4 U	2 U	4 U	200	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U
PZ11	04/09/2014	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	410	2.5 U	2.5 U	2.5 U	NA	2.5 U	2.5 U	10 U	5 U
PZ11	04/16/2015	5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	480	2.5 U	2.5 U	2.5 U	NA	2.5 U	2.5 U	10 U	5 U
PZ11	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.8	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
PZ11	04/06/2017	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	34	2.5 U	2.5 U	2.5 U	NA	NA	2.5 U	13 U	2.5 U
PZ11	04/03/2018	1 U	1 U	1 U	0.1 J	1 U	1 U	1 U	110	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
PZ8	10/15/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
PZ8	04/18/2011	0.1 J	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ8	10/04/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ8	04/03/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	1.4	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	09/24/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
PZ9	04/20/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	04/06/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.2	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
PZ9	04/03/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	04/09/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.6	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	04/16/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.5	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
PZ9	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
PZ9	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
PZ-9	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.7	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
RWF	09/15/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
RWF	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	10/06/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	04/04/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	04/08/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	04/09/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	04/14/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
RWF	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
RWF	04/04/2017	0.5 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
RWF	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
TP1	09/29/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
TP1	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	04/05/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	04/04/2013	1 U	1.3	0.5 U	0.5 U	1 U	0.5 U	1 U	0.3 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	04/02/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	04/10/2015	1 U	0.1 J	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP1	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
TP1	04/04/2017	0.6 J	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
TP1	04/03/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Bromomethane	Carbon disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,2-Dichloroethene	Cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethyl tert-butyl ether	Ethylbenzene	Freon 113	Freon 12
California MCLs				0.5					6								
Federal MCLs				5					70								
TP2	09/29/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA
TP2	04/18/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	10/07/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/09/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/04/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/02/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/10/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/10/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.7	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
TP2	04/08/2016	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
TP2	04/04/2017	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.8 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
TP2	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
WSM01	02/02/2015	1 U	0.5 U	0.5 U	7.1	1 U	0.5 U	1 U	6.4	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WSM01	04/05/2016	1 U	1 U	1 U	26	1 U	0.2 J	1 U	3.6	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
WSM01	04/05/2017	1 U	1 U	1 U	40	1 U	0.3 J	1 U	2.5	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
WSM01	04/04/2018	1 U	1 U	1 U	32	1 U	1 U	1 U	5.1	1 U	1 U	1 U	NA	NA	1 U	5 U	1 U
WTA	09/30/2010	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA
WTA	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WTA	04/14/2011	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WTA	10/05/2011	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ
WTA	04/05/2012	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WTA	04/05/2013	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WTA	04/10/2014	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U
WTA	04/13/2015	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B120	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B120	04/15/2011	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B120	10/04/2011	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U
B120	04/03/2012	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B120	04/02/2013	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U
B120	04/01/2014	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B120	04/10/2015	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
B120	04/05/2016	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
B120	04/04/2017	4 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
B120	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B121	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B121	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B121	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B121	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B128	09/23/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B128	09/23/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B128	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B128	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B128	04/02/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B150	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B150	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B150	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B150	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B150	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B150	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B158	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B158	04/15/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B158	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B158	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	09/02/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B163	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	10/03/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	04/02/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	04/03/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 UJ	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	04/01/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	04/14/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B163	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B163	04/04/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B163	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B163	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B175S	09/03/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B175S	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	04/01/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	04/15/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175S	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B175S	04/04/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B175S	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B175W	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B175W	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 UJ	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	04/01/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	04/15/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B175W	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B175W	04/04/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B177	09/23/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B177	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B177	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B177	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B178	09/02/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B178	04/15/2011	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B178	10/04/2011	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B178	04/03/2012	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U
B178	04/02/2013	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B178	04/08/2014	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U
B178	04/10/2015	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 UJ	1 U	1 U
B178	04/05/2016	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
B178	04/04/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B178	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B180	09/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B180	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B180	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B180	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B180	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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VOCs (µg/L)

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California MCLs						13											
Federal MCLs					100000						100000			100			
B185	09/02/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B185	04/15/2011	2.9 U	0.7 U	0.7 U	0.7 U	0.2 J	14 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	0.7 U
B185	04/15/2011	2 U	0.5 U	0.5 U	0.5 U	0.3 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B185	10/03/2011	2 U	0.5 U	0.5 U	0.5 U	0.2 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B185	10/03/2011	2.9 U	0.7 U	0.7 U	0.7 U	0.2 J	14 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	0.7 U
B185	04/02/2012	2 U	0.5 U	0.5 U	0.5 U	0.2 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B185	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.3 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B185	04/08/2014	2 U	0.5 U	0.5 U	0.5 U	0.2 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B185	04/10/2015	2 U	0.5 U	0.5 U	0.5 U	0.2 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
B185	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B185	04/04/2017	2 U	NA	1 U	1 U	0.1 J	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B185	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B194	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B194	04/13/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B194	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B194	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B195	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B195	04/13/2011	2 UJ	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B195	04/13/2011	2.9 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	0.7 U	2.9 U	0.7 U	0.7 U	0.7 U	0.7 U	14 U	0.7 U	0.7 U
B195	10/04/2011	5 U	1.3 U	1.3 U	0.4 J	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
B195	04/03/2012	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U
B195	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B195	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B195	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
B195	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
B195	04/14/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B195	04/11/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B195	04/06/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B195	04/06/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B195	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B197	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B197	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B197	04/13/2011	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U
B197	10/04/2011	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U	6.7 U	1.7 U	1.7 U	1.7 U	1.7 U	33 U	1.7 U	1.7 U
B197	04/03/2012	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U
B197	04/03/2012	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B197R	04/08/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B197R	04/08/2014	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U
B197R	04/14/2015	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U	20 U	1 U	1 U
B197R	04/05/2016	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
B197R	04/05/2016	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
B197R	04/04/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B197R	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B197R	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B277	09/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B277	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B277	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B277	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B277	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B277	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
B277	04/16/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B277	04/11/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B277	04/05/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B277	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B278	09/16/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B278	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	04/09/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	04/17/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B278	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B278	04/05/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B278	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B280A	09/16/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B280A	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	04/09/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	04/17/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280A	04/11/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B280A	04/05/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B280A	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B280B	10/01/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B280B	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280B	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B280B	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B300	09/09/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B300	04/15/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.2 J	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B300	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	1.6 J	0.5 U	3.5	0.5 U	0.5 U	10 U	0.5 U	0.1 J
B300	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.2 J	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B38	09/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B38	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B38	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B38	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.2 J	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B38	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	10/10/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/03/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/14/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B450	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B450	04/06/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B450	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B460	09/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B460	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B460	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B460	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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VOCs (µg/L)

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California MCLs						13											
Federal MCLs					100000						100000			100			
B473	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B473	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/03/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/16/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B473	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B473	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B473	04/04/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B473	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B474	09/23/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B474	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B474	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B474	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
B480	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B480	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	04/03/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	04/17/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B480	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B480	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B480	04/06/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B480	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
B490	09/16/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
B490	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B490	10/10/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
B490	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	10/19/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
BULB1	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	09/30/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	04/05/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	04/10/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB1	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
BULB2	10/19/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
BULB2	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.9	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB2	09/30/2011	2 U	0.5 U	0.5 U	0.5 U	0.9	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB2	04/05/2012	2 U	0.5 U	0.3 J	0.2 J	0.6	10 U	0.5 U	0.5 U	2 UJ	0.3 J	0.5 U	0.1 J	0.5 U	10 U	0.5 U	0.5 U
BULB2	04/05/2013	2 U	0.5 U	0.5 U	0.5 U	0.8	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB2	04/10/2014	2 U	0.5 U	0.5 U	0.5 U	0.7	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB2	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.5	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
BULB2	04/08/2016	1 U	NA	1 U	1 U	0.2 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
BULB2	04/04/2018	2 U	NA	1 U	1 U	0.2 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCC1	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CCC1	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC1	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC1	04/10/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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VOCs (µg/L)

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California MCLs						13											
Federal MCLs					100000						100000			100			
CCC2	09/08/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CCC2	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	04/10/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
CCC2	04/15/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC2	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCC2	04/06/2017	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
CCC2	04/06/2017	2 U	NA	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	NA	2 U
CCC2	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCC2	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCC3	09/03/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CCC3	09/03/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CCC3	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC3	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC3	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC3	04/10/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC3	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCC3	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
CCC3	04/15/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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California MCLs						13											
Federal MCLs					100000						100000			100			
CCCT	09/03/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CCCT	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	10/03/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	04/02/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	04/08/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	04/15/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CCCT	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCCT	04/04/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCCT	04/04/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CCCT	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CTP	09/30/2010	0.5 U	NA	0.5 U	1 U	2 U	0.4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CTP	09/30/2010	0.5 U	NA	0.5 U	1 U	2 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CTP	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/17/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTP	04/11/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CTP	04/06/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CTP	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
CTPDEEP	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9 J	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
CTPS	09/30/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
CTPS	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTPS	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
CTPS	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
DH	09/30/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
DH	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
DH	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
DH	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.1 J	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	10/01/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
EERC	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	04/08/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	04/03/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EERC	04/16/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	09/16/2010	0.5 U	NA	0.5 U	1 U	2 U	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
EPA	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	04/10/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
EPA	04/17/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
ETA	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
ETA	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
ETA	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	09/30/2011	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/10/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/10/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/05/2013	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/08/2014	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
ETA	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA	04/05/2017	2 U	NA	1 U	1 U	1 U	0.2 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA	04/04/2018	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA01	02/02/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
ETA01	04/05/2016	1 U	NA	1 U	1 U	0.1 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA01	04/05/2017	2 U	NA	1 U	1 U	0.1 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA01	04/04/2018	2 U	NA	1 U	1 U	0.1 J	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA02	02/02/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2.1 J	0.5 U	0.5 U
ETA02	02/02/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
ETA02	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA02	04/05/2017	2 U	NA	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA02	04/04/2018	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
ETA03	02/02/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	2.7 J	0.5 U	0.5 U
ETA03	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA03	04/05/2017	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA03	04/04/2018	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
ETA03	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
EXT	09/30/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
FG	09/23/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
FG	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
FG	04/19/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
FG	10/10/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
FG	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	09/03/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
GEO	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	04/09/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	04/16/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
GEO	04/11/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
GEO	04/06/2017	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
GEO	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
MFA	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
MFA	04/12/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	10/03/2011	2 U	0.5 U	0.5 U	0.5 U	0.1 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	04/05/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	04/08/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
MFA	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
MFA	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
MFA	04/06/2017	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
MFA	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
NRLF	09/16/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
NRLF	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
NRLF	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
NRLF	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
OBS6	09/30/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
PZ11	10/01/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
PZ11	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ11	10/10/2011	13 U	3.1 U	3.1 U	3.1 U	3.1 U	63 U	3.1 U	3.1 U	13 U	3.1 U	3.1 U	3.1 U	3.1 U	63 U	3.1 U	3.1 U
PZ11	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ11	04/05/2013	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U	5 U	1.3 U	1.3 U	1.3 U	1.3 U	25 U	1.3 U	1.3 U
PZ11	04/05/2013	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U
PZ11	04/09/2014	10 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U
PZ11	04/16/2015	10 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U	10 U	2.5 U	2.5 U	2.5 U	2.5 U	50 U	2.5 U	2.5 U
PZ11	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
PZ11	04/06/2017	2.5 U	NA	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	NA	NA	2.5 U
PZ11	04/03/2018	1 UJ	NA	1 UJ	1 U	1 U	10 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
PZ8	10/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
PZ8	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ8	10/04/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ8	04/03/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	09/24/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
PZ9	04/20/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	04/06/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	04/03/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	04/09/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	04/16/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
PZ9	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
PZ9	04/04/2017	1 U	NA	1 U	0.4 J	1 U	10 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	NA	NA	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
PZ-9	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
RWF	09/15/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
RWF	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	10/06/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	04/04/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	04/08/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	04/09/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	04/14/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
RWF	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
RWF	04/04/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
RWF	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
TP1	09/29/2010	0.5 U	NA	0.5 U	1 U	2 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
TP1	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP1	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP1	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP1	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP1	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
TP1	04/10/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
TP1	04/07/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
TP1	04/04/2017	2 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
TP1	04/03/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U

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VOCs (µg/L)

Location ID	Sample Date	Hexachlorobutadiene	Isopropyl ether	Isopropylbenzene	M,P-Xylene	Methyl Tert-Butyl Ether	Methylene Chloride	N-Butylbenzene	N-Propylbenzene	Naphthalene	O-Xylene	P-Isopropyltoluene	Sec-Butylbenzene	Styrene	Tert Butyl Alcohol	Tert-amyl methyl ether	Tert-Butylbenzene
California MCLs						13											
Federal MCLs					100000						100000			100			
TP2	09/29/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
TP2	04/18/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP2	10/07/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP2	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP2	04/09/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP2	04/04/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
TP2	04/02/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
TP2	04/10/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
TP2	04/10/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
TP2	04/08/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
TP2	04/04/2017	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
TP2	04/05/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
WSM01	02/02/2015	2 U	0.5 U	0.5 U	0.5 U	0.2 J	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 UJ	0.5 U	0.5 U
WSM01	04/05/2016	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
WSM01	04/05/2017	2 U	NA	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
WSM01	04/04/2018	1 U	NA	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U
WTA	09/30/2010	0.5 U	NA	0.5 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
WTA	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	04/14/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	10/05/2011	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	04/05/2012	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	04/05/2013	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	04/10/2014	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U
WTA	04/13/2015	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B120	09/09/2010	0.4 J	0.5 U	0.5 U	0.5 U	210	0.5 U	NA	0.5 U
B120	04/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	170	2.5 U	25 U	1.3 U
B120	10/04/2011	0.4 J	2 U	0.4 J	2 U	180	4 U	40 U	2 U
B120	04/03/2012	0.7 J	1.3 U	1.3 U	1.3 U	190	2.5 U	25 U	1.3 U
B120	04/02/2013	2 U	2 U	2 U	2 U	190	4 U	40 U	2 U
B120	04/01/2014	0.6 J	1.3 U	0.4 J	1.3 U	160	2.5 U	25 U	1.3 U
B120	04/10/2015	0.7	0.5 U	0.5 J	0.5 U	140	1 U	10 U	0.5 U
B120	04/05/2016	0.5 J	2 U	0.4 J	2 U	120	2 U	20 U	2 U
B120	04/04/2017	0.3 J	2 U	0.5 J	2 U	96	2 U	20 U	2 U
B120	04/03/2018	0.8 J	1 U	0.5 J	1 U	95	1 U	10 U	1 U
B121	09/08/2010	0.3 J	0.5 U	0.5 U	0.5 U	0.8	0.5 U	NA	0.5 UJ
B121	04/13/2011	0.4 J	0.5 U	0.5 U	0.5 U	1.1	1 U	10 U	0.5 U
B121	10/04/2011	0.3 J	0.5 U	0.5 U	0.5 U	1.8	1 U	10 U	0.5 U
B121	04/04/2012	0.3 J	0.5 U	0.5 U	0.5 U	2	1 U	10 U	0.5 U
B128	09/23/2010	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B128	09/23/2010	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B128	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B128	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B128	04/02/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B150	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B150	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B150	10/05/2011	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B150	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B150	04/04/2012	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B150	04/04/2012	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B158	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B158	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B158	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B158	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B163	09/02/2010	8.4	0.5 U	0.3 J	0.5 U	100	0.5 U	NA	0.7
B163	04/12/2011	9.5	0.5 U	0.4 J	0.5 U	77 J	1 U	10 UJ	1.2
B163	10/03/2011	12	0.5 U	0.4 J	0.5 U	70	1 U	10 U	0.8
B163	04/02/2012	11	0.5 U	0.4 J	0.5 U	78	1 U	10 UJ	0.9
B163	04/03/2013	11	0.5 U	0.5 J	0.5 U	78 J	1 U	10 U	0.9
B163	04/01/2014	9.3	0.5 U	0.6	0.5 U	80	1 U	10 U	1
B163	04/14/2015	9	0.5 U	0.6	0.5 U	93	1 U	10 U	1
B163	04/05/2016	8.6	1 U	0.5 J	1 U	89	1 U	10 U	0.9 J
B163	04/04/2017	6.7	1 U	0.6 J	1 U	84	1 U	10 U	1.1
B163	04/03/2018	5.2	1 U	0.3 J	1 U	56 J	1 U	10 U	0.7 J
B163	04/03/2018	7.4	1 U	0.5 J	1 U	86 J	1 U	10 U	0.9 J

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B175S	09/03/2010	0.2 J	0.5 U	0.5 U	0.5 U	7.9	0.5 U	NA	0.5 U
B175S	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	5.3	1 U	10 U	0.5 U
B175S	10/04/2011	0.1 J	0.5 U	0.5 U	0.5 U	8.6	1 U	10 U	0.5 U
B175S	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	2.6	1 U	10 U	0.5 U
B175S	04/02/2013	0.2 J	0.5 U	0.5 U	0.5 U	10	1 U	10 U	0.5 U
B175S	04/01/2014	0.1 J	0.5 U	0.5 U	0.5 U	3.9	1 U	10 U	0.5 U
B175S	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	7.9	1 U	10 U	0.5 U
B175S	04/07/2016	1 U	1 U	1 U	1 U	2.9	1 U	10 U	1 U
B175S	04/04/2017	1 U	1 U	1 U	1 U	0.6 J	1 U	10 U	1 U
B175S	04/05/2018	1 U	1 U	1 U	1 U	4	1 U	10 U	1 U
B175W	09/08/2010	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B175W	04/13/2011	1.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B175W	10/04/2011	1.6	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
B175W	04/04/2012	2.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B175W	04/02/2013	2	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B175W	04/01/2014	2.3	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
B175W	04/15/2015	2.1	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
B175W	04/07/2016	1.4	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B175W	04/04/2017	2	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B177	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B177	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B177	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B177	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B178	09/02/2010	0.2 J	0.5 U	0.4 J	0.5 U	360	0.5 U	NA	0.5 U
B178	04/15/2011	0.3 J	1.3 U	1.3 U	1.3 U	160	2.5 U	25 U	1.3 U
B178	10/04/2011	0.3 J	1.3 U	0.5 J	1.3 U	170	2.5 U	25 U	1.3 U
B178	04/03/2012	1.7 U	1.7 U	1.7 U	1.7 U	170	3.3 U	33 U	1.7 U
B178	04/02/2013	0.5 J	1.3 U	0.5 J	1.3 U	160	2.5 U	25 U	1.3 U
B178	04/08/2014	0.4 J	1 U	0.4 J	1 U	110	2 U	20 U	1 U
B178	04/10/2015	0.4 J	1 U	0.4 J	1 U	130	2 U	20 U	1 U
B178	04/05/2016	2 U	2 U	0.5 J	2 U	92	2 U	20 U	2 U
B178	04/04/2017	0.2 J	1 U	0.7 J	1 U	58	1 U	10 U	0.2 J
B178	04/03/2018	0.6 J	1 U	0.5 J	1 U	95	1 U	10 U	1 U
B180	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B180	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B185	09/02/2010	0.4 J	0.5 U	0.5 U	0.5 U	150	0.5 U	NA	0.2 J
B185	04/15/2011	0.3 J	0.7 U	0.7 U	0.7 U	77	1.4 U	14 UJ	0.2 J
B185	04/15/2011	0.3 J	0.5 U	0.2 J	0.5 U	93	1 U	10 U	0.1 J
B185	10/03/2011	0.4 J	0.5 U	0.2 J	0.5 U	94	1 U	10 U	0.3 J
B185	10/03/2011	0.4 J	0.7 U	0.2 J	0.7 U	77	1.4 U	14 U	0.7 U
B185	04/02/2012	0.4 J	0.5 U	0.5 U	0.5 U	95	1 U	10 UJ	0.2 J
B185	04/02/2013	0.4 J	0.5 U	0.2 J	0.5 U	99	1 U	10 U	0.3 J
B185	04/08/2014	0.3 J	0.5 U	0.1 J	0.5 U	85	1 U	10 U	0.1 J
B185	04/10/2015	0.6	0.5 U	0.2 J	0.5 U	72	1 U	10 U	0.3 J
B185	04/05/2016	1 U	1 U	1 U	1 U	65	1 U	10 U	1 U
B185	04/04/2017	0.2 J	1 U	0.2 J	1 U	80	1 U	10 U	0.2 J
B185	04/05/2018	0.2 J	1 U	1 U	1 U	56	1 U	10 U	1 U
B194	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	NA	0.5 UJ
B194	04/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B194	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B194	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B195	09/09/2010	3.1	0.5 U	0.4 J	0.5 U	140	0.5 U	NA	0.5 UJ
B195	04/13/2011	2.2	0.5 U	0.2 J	0.5 U	68	1 U	10 UJ	0.5 U
B195	04/13/2011	1.7	0.7 U	0.7 U	0.7 U	65	1.4 U	14 U	0.7 U
B195	10/04/2011	3	1.1 J	0.5 J	1.3 U	170 J	2.5 U	25 U	1.3 U
B195	04/03/2012	2.8	1 U	0.3 J	1 U	120	2 U	20 U	1 U
B195	04/02/2013	3.2	0.5 U	0.4 J	0.5 U	89	1 U	10 U	0.5 U
B195	04/02/2013	3.1	0.5 U	0.4 J	0.5 U	98	1 U	10 U	0.5 U
B195	04/02/2014	3.8	0.5 U	0.4 J	0.5 U	140	1 U	10 U	0.5 U
B195	04/02/2014	3.4	0.5 U	0.4 J	0.5 U	140	1 U	10 U	0.5 U
B195	04/14/2015	2.2	0.5 U	0.3 J	0.5 U	79	1 U	10 U	0.5 U
B195	04/11/2016	1.6	1 U	1 U	1 U	45	1 U	10 U	1 U
B195	04/06/2017	0.6 J	1 U	1 U	1 U	18	1 U	10 U	1 U
B195	04/06/2017	0.6 J	1 U	1 U	1 U	16	1 U	10 U	1 U
B195	04/04/2018	1.1	1 U	0.2 J	1 U	41	1 U	10 U	1 U
B197	09/09/2010	1	0.5 U	0.4 J	0.5 U	200	0.5 U	NA	0.5 U
B197	09/09/2010	1	0.5 U	0.4 J	0.5 U	170	0.5 U	NA	0.5 U
B197	04/13/2011	1.7 U	1.7 U	1.7 U	1.7 U	150	3.3 U	33 U	1.7 U
B197	10/04/2011	1.1 J	1.7 U	0.4 J	1.7 U	170	3.3 U	33 U	1.7 U
B197	04/03/2012	1.1	1 U	0.3 J	1 U	160	2 U	20 U	1 U
B197	04/03/2012	0.9 J	1 U	0.3 J	1 U	170	2 U	20 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B197R	04/08/2013	1.5	0.5 U	0.4 J	0.5 U	150	1 U	10 U	0.5 U
B197R	04/08/2014	0.8 J	1 U	1 U	1 U	110	2 U	20 U	1 U
B197R	04/14/2015	1.2	1 U	0.4 J	1 U	140	2 U	20 U	1 U
B197R	04/05/2016	0.8 J	2 U	2 U	2 U	85	2 U	20 U	2 U
B197R	04/05/2016	0.9 J	2 U	2 U	2 U	84	2 U	20 U	2 U
B197R	04/04/2017	0.8 J	1 U	0.2 J	1 U	62	1 U	10 U	1 U
B197R	04/04/2018	0.8 J	1 U	0.2 J	1 U	53	1 U	10 U	1 U
B197R	04/04/2018	0.9 J	1 U	0.2 J	1 U	59	1 U	10 U	1 U
B277	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B277	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B277	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B277	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B277	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B278	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	13 J	0.5 U	NA	0.5 U
B278	04/19/2011	0.1 J	0.5 U	0.5 U	0.5 U	15	1 U	10 UJ	0.5 U
B278	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	11	1 U	10 UJ	0.5 U
B278	04/05/2012	0.1 J	0.5 U	0.5 U	0.5 U	11	1 U	10 U	0.5 U
B278	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	8.9	1 U	10 U	0.5 U
B278	04/09/2014	0.1 J	0.5 U	0.5 U	0.5 U	6.5	1 U	10 U	0.5 U
B278	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	8	1 U	10 U	0.5 U
B278	04/08/2016	1 U	1 U	1 U	1 U	8.8	1 U	10 U	1 U
B278	04/05/2017	1 U	1 U	1 U	1 U	8.7	1 U	10 U	1 U
B278	04/05/2018	0.1 J	1 U	1 U	1 U	11	1 U	10 U	1 U
B280A	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B280A	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	04/09/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B280A	04/05/2017	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B280A	04/05/2018	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
B280B	10/01/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	1.8	0.5 U	NA	0.5 U
B280B	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280B	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280B	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B300	09/09/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.7	0.5 U	NA	0.5 UJ
B300	04/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B300	10/06/2011	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B300	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B38	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B38	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B38	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B38	04/04/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B450	04/19/2011	0.2 J	0.5 U	0.5 U	0.5 U	5	1 U	10 UJ	0.5 U
B450	10/10/2011	0.1 J	0.5 U	0.5 U	0.5 U	6.7	1 U	10 U	0.5 U
B450	04/06/2012	0.4 J	0.5 U	0.5 U	0.5 U	26	1 U	10 U	0.5 U
B450	04/03/2013	0.3 J	0.5 U	0.5 U	0.5 U	11	1 U	10 U	0.5 U
B450	04/03/2014	0.6	0.5 U	0.5 U	0.5 U	31	1 U	10 U	0.5 U
B450	04/14/2015	0.6	0.5 U	0.5 U	0.5 U	21	1 U	10 U	0.5 U
B450	04/07/2016	0.4 J	1 U	1 U	1 U	14	1 U	10 U	1 U
B450	04/06/2017	0.3 J	1 U	1 U	1 U	6.6	1 U	10 U	1 U
B450	04/05/2018	0.5 J	1 U	1 U	1 U	17	1 U	10 U	1 U
B460	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B460	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B460	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B460	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B473	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	NA	0.5 U
B473	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	3.4	1 U	10 UJ	0.5 U
B473	10/07/2011	0.1 J	0.5 U	0.5 U	0.5 U	6.1	1 U	10 U	0.5 U
B473	04/06/2012	0.2 J	0.5 U	0.5 U	0.5 U	6	1 U	10 U	0.5 U
B473	04/03/2013	0.3 J	0.5 U	0.5 U	0.5 U	8.8	1 U	10 U	0.5 U
B473	04/03/2014	0.9	0.5 U	0.5 U	0.5 U	37	1 U	10 U	0.5 U
B473	04/03/2014	1	0.5 U	0.5 U	0.5 U	37	1 U	10 U	0.5 U
B473	04/16/2015	0.7	0.5 U	0.5 U	0.5 U	26	1 U	10 U	0.5 U
B473	04/08/2016	0.3 J	1 U	1 U	1 U	8	1 U	10 U	1 U
B473	04/08/2016	0.1 J	1 U	1 U	1 U	9.3	1 U	10 U	1 U
B473	04/04/2017	1 U	1 U	1 U	1 U	4	1 U	10 U	1 U
B473	04/03/2018	0.5 J	1 U	1 U	1 U	10	1 U	10 U	1 U
B474	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B474	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 UJ	0.5 U
B474	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B474	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
B480	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	10	0.5 U	NA	0.5 U
B480	04/19/2011	0.1 J	0.5 U	0.5 U	0.5 U	9.1	1 U	10 UJ	0.5 U
B480	10/07/2011	0.2 J	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.5 U
B480	04/09/2012	0.2 J	0.5 U	0.5 U	0.5 U	14	1 U	10 U	0.5 U
B480	04/03/2013	0.5 J	0.5 U	0.5 U	0.5 U	23	1 U	10 U	0.5 U
B480	04/03/2014	0.4 J	0.5 U	0.5 U	0.5 U	21	1 U	10 U	0.5 U
B480	04/17/2015	0.5	0.5 U	0.5 U	0.5 U	23	1 U	10 U	0.5 U
B480	04/07/2016	0.3 J	1 U	1 U	1 U	15	1 U	10 U	1 U
B480	04/07/2016	0.2 J	1 U	1 U	1 U	15	1 U	10 U	1 U
B480	04/06/2017	0.2 J	1 U	1 U	1 U	6.5	1 U	10 U	1 U
B480	04/05/2018	0.4 J	1 U	1 U	1 U	14	1 U	10 U	1 U
B490	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B490	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B490	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B490	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	10/19/2010	0.5 U	3.4	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BULB1	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
BULB1	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
BULB2	10/19/2010	0.5 U	6.8	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
BULB2	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 UJ	0.5 U
BULB2	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	1	1 U	10 U	0.5 U
BULB2	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
BULB2	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	1.5	1 U	10 U	0.5 U
BULB2	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	1.7	1 U	10 U	0.5 U
BULB2	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	2.4	1 U	10 U	0.5 U
BULB2	04/08/2016	1 U	1 U	1 U	1 U	1.1	1 U	10 U	1 U
BULB2	04/04/2018	1 U	1 U	1 U	1 U	0.9 J	1 U	10 U	0.1 J
CCC1	09/08/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
CCC1	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC1	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
CCC1	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
CCC2	09/08/2010	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
CCC2	04/14/2011	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	10/04/2011	2.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	04/10/2012	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	04/02/2013	1.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	04/02/2013	2.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	04/02/2014	3.3	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
CCC2	04/15/2015	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	04/07/2016	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U
CCC2	04/06/2017	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	0.3 J	1 U	10 U	1 U
CCC2	04/05/2018	1 U	1 U	1 U	1 U	0.3 J	1 U	10 U	1 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	6	0.5 U	NA	0.5 U
CCC3	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	6.2	0.5 U	NA	0.5 U
CCC3	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.7	1 U	10 UJ	0.5 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.9	1 U	10 U	0.5 U
CCC3	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.9	1 U	10 U	0.5 U
CCC3	04/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1.3	1 U	10 U	0.5 U
CCC3	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
CCC3	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	1	1 U	10 U	0.5 U
CCC3	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U

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Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
CCCT	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	120	0.5 U	NA	0.5 U
CCCT	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	84	1 U	10 U	0.5 U
CCCT	10/03/2011	0.5 U	0.5 U	0.1 J	0.5 U	79	1 U	10 U	0.5 U
CCCT	04/04/2012	0.5 U	0.5 U	0.1 J	0.5 U	85	1 U	10 U	0.5 U
CCCT	04/02/2013	0.5 U	0.5 U	0.5 U	0.5 U	90	1 U	10 U	0.5 U
CCCT	04/08/2014	0.1 J	0.5 U	0.2 J	0.5 U	97	1 U	10 U	0.5 U
CCCT	04/15/2015	0.5 U	0.5 U	0.5 U	0.5 U	22	1 U	10 U	0.5 U
CCCT	04/07/2016	1 U	1 U	1 U	1 U	74	1 U	10 U	1 U
CCCT	04/04/2017	1 U	1 U	1 U	1 U	77	1 U	10 U	1 U
CCCT	04/04/2017	0.2 J	1 U	1 U	1 U	83	1 U	10 U	1 U
CCCT	04/05/2018	0.3 J	1 U	1 U	1 U	87	1 U	10 U	1 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTP	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTP	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
CTP	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
CTP	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
CTP	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
CTP	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
CTP	04/11/2016	1 U	1 U	1 U	1 U	0.3 J	1 U	10 U	1 U
CTP	04/06/2017	1 U	1 U	1 U	1 U	0.2 J	1 U	10 U	1 U
CTP	04/04/2018	1 U	1 U	1 U	1 U	0.2 J	1 U	10 U	1 U
CTPDEEP	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
CTPS	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTPS	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
CTPS	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CTPS	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
DH	09/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
DH	04/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
DH	10/05/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
DH	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	10/01/2010	0.3 J	0.5 U	0.5 U	0.5 U	6.8	0.5 U	NA	0.5 UJ
EERC	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
EERC	10/07/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	04/08/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	04/03/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.5 U	NA	0.5 U
EPA	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
EPA	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	04/10/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	04/17/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	NA	0.5 U
ETA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	14	0.5 U	NA	0.5 U
ETA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	7.3	1 U	10 UJ	0.5 U
ETA	09/30/2011	0.3 J	0.5 U	0.3 J	0.5 U	17	1 U	10 U	0.5 U
ETA	04/10/2012	0.5 U	0.5 U	1	0.5 U	9.2	1 U	10 U	0.5 U
ETA	04/10/2012	0.5 U	0.5 U	0.9	0.5 U	9.3	1 U	10 U	0.5 U
ETA	04/05/2013	0.2 J	0.5 U	0.9	0.5 U	16	1 U	10 U	0.5 U
ETA	04/08/2014	0.2 J	0.5 U	1.6	0.5 U	16	1 U	10 U	0.5 U
ETA	04/13/2015	0.5 U	0.5 U	1.9	0.5 U	16	1 U	10 U	0.5 U
ETA	04/05/2016	1 U	1 U	2.7	1 U	7.6	1 U	10 U	1 U
ETA	04/05/2017	1 U	1 U	0.9 J	1 U	9.8	1 U	10 U	1 U
ETA	04/04/2018	1 U	1 U	0.3 J	1 U	12	1 U	10 U	1 U
ETA01	02/02/2015	0.5 U	0.5 U	0.5 U	0.5 U	15	1 U	10 U	0.2 J
ETA01	04/05/2016	1 U	1 U	1 U	1 U	14	1 U	10 U	0.1 J
ETA01	04/05/2017	1 U	1 U	1 U	1 U	8.5	1 U	10 U	0.2 J
ETA01	04/04/2018	1 U	1 U	1 U	1 U	12	1 U	10 U	0.2 J
ETA02	02/02/2015	14	0.5 U	0.7	0.5 U	57	1 U	10 U	0.5 U
ETA02	02/02/2015	14	0.5 U	0.7	0.5 U	56	1 U	10 U	0.1 J
ETA02	04/05/2016	3.8	1 U	0.3 J	1 U	21	1 U	10 U	1 U
ETA02	04/05/2017	4.3	1 U	0.4 J	1 U	26	1 U	10 U	0.2 J
ETA02	04/04/2018	6.4	1 U	0.5 J	1 U	36	1 U	10 U	0.1 J

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
ETA03	02/02/2015	25	0.5 U	1	0.5 U	60	1 U	10 U	0.5 U
ETA03	04/05/2016	25	1 U	1	1 U	69	1 U	10 U	1 U
ETA03	04/05/2017	21	1 U	1	1 U	66	1 U	10 U	0.5 J
ETA03	04/04/2018	22	1 U	1	1 U	68	1 U	10 U	1 U
ETA03	04/04/2018	24	1 U	1.1	1 U	65	1 U	10 U	1 U
EXT	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
FG	09/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
FG	04/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
FG	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
FG	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	09/03/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	NA	0.5 U
GEO	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
GEO	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	04/06/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	04/09/2014	0.1 J	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
GEO	04/16/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	04/11/2016	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
GEO	04/06/2017	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
GEO	04/04/2018	0.1 J	1 U	1 U	1 U	1 U	1 U	10 U	1 U

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Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
MFA	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	5.7	0.5 U	NA	0.5 U
MFA	04/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	3.1	1 U	10 UJ	0.5 U
MFA	10/03/2011	0.5 U	0.5 U	0.5 U	0.5 U	8.2	1 U	10 U	0.2 J
MFA	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	5.4	1 U	10 U	0.5 U
MFA	04/05/2013	0.5 U	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.2 J
MFA	04/08/2014	0.5 U	0.5 U	0.5 U	0.5 U	15	1 U	10 U	0.5 U
MFA	04/13/2015	0.5 U	0.5 U	0.5 U	0.5 U	19	1 U	10 U	0.3 J
MFA	04/08/2016	1 U	1 U	1 U	1 U	12	1 U	10 U	0.2 J
MFA	04/08/2016	1 U	1 U	1 U	1 U	9.7	1 U	10 U	0.1 J
MFA	04/06/2017	1 U	1 U	1 U	1 U	8	1 U	10 U	0.3 J
MFA	04/05/2018	1 U	1 U	1 U	1 U	13	1 U	10 U	0.2 J
NRLF	09/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
NRLF	04/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
NRLF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
NRLF	04/09/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
OBS6	09/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

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Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
PZ11	10/01/2010	67	0.5 U	2.4	0.5 UJ	690	0.5 U	NA	0.6
PZ11	04/20/2011	1.2	0.5 U	0.5 U	0.5 U	8.1	1 U	10 UJ	0.5 U
PZ11	10/10/2011	53	3.1 U	9.6	3.1 U	490	6.3 U	63 U	3.1 U
PZ11	04/05/2012	0.9	0.5 U	0.5 U	0.5 U	9.7	1 U	10 U	0.5 U
PZ11	04/05/2013	12	1.3 U	56	1.3 U	240	2.5 U	25 U	0.9 J
PZ11	04/05/2013	12	2 U	57	2 U	240	4 U	40 U	0.8 J
PZ11	04/09/2014	3.5	2.5 U	61	2.5 U	120	5 U	50 U	5.8
PZ11	04/16/2015	3	2.5 U	53	2.5 U	75	5 U	50 U	17
PZ11	04/08/2016	0.6 J	1 U	0.3 J	1 U	8.3	1 U	10 U	0.2 J
PZ11	04/06/2017	2.5 U	2.5 U	4.4	2.5 U	0.3 J	2.5 U	25 U	64
PZ11	04/03/2018	1 J	1 U	24	1 U	22	1 U	10 U	190
PZ8	10/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
PZ8	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
PZ8	10/04/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
PZ8	04/03/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
PZ9	09/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	16	0.5 U	NA	0.5 U
PZ9	04/20/2011	0.2 J	0.5 U	0.5 U	0.5 U	11	1 U	10 UJ	0.5 U
PZ9	10/07/2011	0.3 J	0.5 U	0.5 U	0.5 U	28	1 U	10 U	0.5 U
PZ9	10/07/2011	0.4 J	0.5 U	0.5 U	0.5 U	27	1 U	10 U	0.5 U
PZ9	04/06/2012	0.6	0.5 U	0.5 U	0.5 U	65 J	1 U	10 UJ	0.5 U
PZ9	04/03/2013	1.2	0.5 U	0.5 U	0.5 U	64	1 U	10 U	0.5 U
PZ9	04/09/2014	1.1	0.5 U	0.5 U	0.5 U	69	1 U	10 U	0.5 U
PZ9	04/16/2015	0.9	0.5 U	0.5 U	0.5 U	63	1 U	10 U	0.5 U
PZ9	04/07/2016	0.8 J	1 U	1 U	1 U	60	1 U	10 U	1 U
PZ9	04/04/2017	0.3 J	0.3 J	1 U	1 U	15	1 U	10 U	1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
PZ-9	04/03/2018	0.8 J	1 U	1 U	1 U	52	1 U	10 U	0.4 J
RWF	09/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	4.4	0.5 U	NA	0.5 U
RWF	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	2.8	1 U	10 U	0.5 U
RWF	10/06/2011	0.5 U	0.5 U	0.5 U	0.5 U	5	1 U	10 U	0.5 U
RWF	04/04/2012	0.1 J	0.5 U	0.5 U	0.5 U	2.8	1 U	10 U	0.5 U
RWF	04/08/2013	0.1 J	0.5 U	0.5 U	0.5 U	4.9	1 U	10 U	0.5 U
RWF	04/09/2014	0.1 J	0.5 U	0.5 U	0.5 U	4	1 U	10 U	0.5 U
RWF	04/14/2015	0.5 U	0.5 U	0.5 U	0.5 U	4.8	1 U	10 U	0.5 U
RWF	04/08/2016	1 U	1 U	1 U	1 U	2.8	1 U	10 U	1 U
RWF	04/04/2017	1 U	1 U	1 U	1 U	4.2	1 U	10 U	1 U
RWF	04/05/2018	0.2 J	1 U	1 U	1 U	7.3	1 U	10 U	1 U
TP1	09/29/2010	0.5 U	0.5 U	0.5 UJ	0.5 U	13	0.5 U	NA	0.5 U
TP1	04/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.8	1 U	10 U	0.5 U
TP1	10/07/2011	0.1 J	0.5 U	0.5 U	0.5 U	8.5	1 U	10 U	0.5 U
TP1	04/05/2012	0.5 U	0.5 U	0.5 U	0.5 U	3.8	1 U	10 U	0.5 U
TP1	04/04/2013	0.5 U	0.5 U	0.5 U	0.5 U	6.3	1 U	10 U	0.5 U
TP1	04/02/2014	0.5 U	0.5 U	0.5 U	0.5 U	4.2	1 U	10 U	0.5 U
TP1	04/10/2015	0.2 J	0.5 U	0.5 U	0.5 U	4.7	1 U	10 U	0.5 U
TP1	04/07/2016	1 U	1 U	1 U	1 U	1.2	1 U	10 U	1 U
TP1	04/04/2017	1 U	1 U	1 U	1 U	0.2 J	1 U	10 U	1 U
TP1	04/03/2018	1 U	1 U	1 U	1 U	1.8	1 U	10 U	1 U

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VOCs (µg/L)

Location ID	Sample Date	Tetrachloroethene	Toluene	Trans-1,2-Dichloroethene	Trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane	Vinyl Acetate	Vinyl Chloride
California MCLs		5	150	10		5			0.5
Federal MCLs		5	1000	100		5			2
TP2	09/29/2010	0.2 J	0.5 U	0.5 U	0.5 U	15	0.5 U	NA	0.5 U
TP2	04/18/2011	0.3 J	0.5 U	0.5 U	0.5 U	12	1 U	10 U	0.5 U
TP2	10/07/2011	0.3 J	0.5 U	0.5 U	0.5 U	14	1 U	10 U	0.5 U
TP2	04/09/2012	0.3 J	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.5 U
TP2	04/09/2012	0.2 J	0.5 U	0.5 U	0.5 U	12	1 U	10 U	0.5 U
TP2	04/04/2013	0.3 J	0.5 U	0.5 U	0.5 U	18	1 U	10 U	0.5 U
TP2	04/02/2014	0.4 J	0.5 U	0.5 U	0.5 U	22	1 U	10 U	0.5 U
TP2	04/10/2015	0.5	0.5 U	0.5 U	0.5 U	29	1 U	10 U	0.5 U
TP2	04/10/2015	0.5	0.5 U	0.5 U	0.5 U	28	1 U	10 U	0.5 U
TP2	04/08/2016	0.4 J	1 U	1 U	1 U	23	1 U	10 U	1 U
TP2	04/04/2017	0.4 J	1 U	1 U	1 U	23	1 U	10 U	1 U
TP2	04/05/2018	0.6 J	1 U	1 U	1 U	21	1 U	10 U	1 U
WSM01	02/02/2015	4.2	0.5 U	0.4 J	0.5 U	68	1 U	10 U	0.5 U
WSM01	04/05/2016	6	1 U	1 U	1 U	59	1 U	10 U	1 U
WSM01	04/05/2017	5.6	1 U	0.2 J	1 U	42	1 U	10 U	0.3 J
WSM01	04/04/2018	5.8	1 U	0.2 J	1 U	47	1 U	10 U	1 U
WTA	09/30/2010	3.2	0.5 U	0.5 U	0.5 UJ	0.4 J	0.5 U	NA	0.5 U
WTA	04/14/2011	3.8	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
WTA	04/14/2011	4.1	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
WTA	10/05/2011	3.2	0.5 U	0.5 U	0.5 U	0.5 J	1 U	10 UJ	0.5 U
WTA	04/05/2012	1.3	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
WTA	04/05/2013	1.5	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
WTA	04/10/2014	1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
WTA	04/13/2015	1.5	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B120	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	09/09/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 UJ	0.9 U	0.9 U
B120	04/15/2011	NA	NA	NA	NA	0.03 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B120	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B120	04/03/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	04/03/2012	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B121	09/08/2010	NA	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	09/08/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
B121	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B121	04/13/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B121	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B128	09/23/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	09/23/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B128	09/23/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B128	09/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/02/2012	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B128	04/02/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	04/10/2014	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/10/2014	9.8 U	9.8 U	9.8 U	9.8 U	NA	NA	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	9.8 U	9.8 U	9.8 U
B128	04/13/2015	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/13/2015	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	04/13/2015	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	04/13/2015	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B150	09/08/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	4.8 U	4.8 U	4.8 U	4.8 U	19 U	1 U	1 U	1 U
B150	09/08/2010	NA	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B158	09/08/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	09/08/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B158	04/15/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B158	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B158	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B163	09/02/2010	1 U	1 U	1 U	1 U	0.5 J	NA	1 UJ	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B163	09/02/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B163	10/03/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B163	10/03/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/02/2012	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B163	04/02/2012	NA	NA	NA	NA	0.09 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/03/2013	11 U	11 U	11 U	11 U	NA	NA	11 U	11 U	11 U	11 U	11 U	11 U	21 U	11 U	11 U	11 U
B163	04/03/2013	NA	NA	NA	NA	0.2 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	NA	NA	NA	NA	0.2 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B163	04/14/2015	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/14/2015	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
B175S	09/03/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
B175S	09/03/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175S	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175S	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B175W	09/08/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B175W	09/08/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B177	09/23/2010	0.9 U	0.9 U	0.9 U	0.9 UJ	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
B177	09/23/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B177	04/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B177	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B178	09/02/2010	1 U	1 U	1 U	1 U	1 U	NA	1 UJ	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B178	09/02/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B178	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B178	04/03/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/03/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B180	09/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	09/15/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	4.8 U	4.8 U	4.8 U	4.8 U	19 U	1 UJ	1 U	1 U
B180	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B180	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B180	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B180	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	9.7 U	9.7 U	9.7 U	9.7 U	NA	NA	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	19 U	9.7 U	9.7 U	9.7 U
B180	04/08/2013	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/08/2013	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
B180	04/08/2014	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B180	04/08/2014	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/14/2015	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B180	04/14/2015	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B185	09/02/2010	0.9 U	0.9 U	0.9 U	0.9 U	10	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
B185	09/02/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	NA	NA	NA	NA	6	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	04/15/2011	NA	NA	NA	NA	6.8	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	NA	NA	NA	NA	6.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	NA	NA	NA	NA	6.3	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	04/02/2012	NA	NA	NA	NA	4.4	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/02/2012	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B194	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	09/09/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 UJ	0.9 U	0.9 U
B194	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B194	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B194	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B195	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	09/09/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 UJ	0.9 U	0.9 U
B195	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	04/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	04/03/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/03/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
B197	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 UJ	0.9 U	0.9 U
B197	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	4.8 U	4.8 U	4.8 U	4.8 U	19 U	1 UJ	1 U	1 U
B197	04/13/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B197	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B197	04/03/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B197	04/03/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B277	09/15/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B277	09/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B277	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B277	04/03/2012	NA	NA	NA	NA	0.1 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/03/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
B278	09/16/2010	1 U	1 U	1 U	1 U	1.4	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B278	09/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	NA	NA	NA	NA	0.9 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B278	04/05/2012	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B280A	09/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	09/16/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B280A	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B280A	04/14/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B280A	04/03/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B280A	04/03/2012	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
B280A	04/09/2014	NA	NA	NA	NA	0.2 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/09/2014	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
B280A	04/17/2015	NA	NA	NA	NA	0.2 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/17/2015	9.8 U	9.8 U	9.8 U	9.8 U	NA	NA	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	9.8 U	9.8 U	9.8 U
B280B	10/01/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/01/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B280B	04/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	04/14/2011	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
B280B	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B280B	04/03/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	04/03/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B300	09/09/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	09/09/2010	0.9 U	0.9 U	0.9 U	0.9 U	1.4	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 UJ	0.9 U	0.9 U
B300	04/15/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B300	10/06/2011	NA	NA	NA	NA	5.9	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	10/06/2011	97 U	97 U	97 U	97 U	NA	NA	97 U	97 U	97 U	97 U	97 U	97 U	190 UJ	97 U	97 U	97 U
B300	04/09/2012	NA	NA	NA	NA	0.8 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	09/15/2010	NA	NA	NA	NA	NA	0.05 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	09/15/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B38	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
B38	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B450	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	10/10/2011	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	NA	NA	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	19 UJ	9.6 UJ	9.6 UJ	9.6 UJ
B450	04/06/2012	NA	NA	NA	NA	0.5 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B460	09/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	09/15/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B460	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B460	10/07/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	10/07/2011	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
B460	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B473	09/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	09/24/2010	1 U	1 U	1 U	1 U	0.5 J	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B473	04/20/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B473	10/07/2011	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B473	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B474	09/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	09/23/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B474	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B474	10/07/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B474	04/09/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
B480	09/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	09/24/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
B480	04/19/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B480	10/07/2011	NA	NA	NA	NA	0.3 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	10/07/2011	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
B480	04/09/2012	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B490	09/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	09/16/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
B490	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	10/10/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B490	04/09/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB1	10/19/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	10/19/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 UJ	0.9 U	0.9 U	0.9 U
BULB1	04/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB1	09/30/2011	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
BULB1	09/30/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
BULB2	10/19/2010	1 U	1 U	1 U	1 U	1.3	NA	1 U	NA	5 U	5 U	5 U	5 U	20 UJ	1 U	1 U	1 U
BULB2	10/19/2010	NA	NA	NA	NA	NA	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	09/30/2011	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	09/30/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	04/05/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	04/05/2013	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
BULB2	04/05/2013	NA	NA	NA	NA	1 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	NA	NA	NA	NA	1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	04/13/2015	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
BULB2	04/13/2015	NA	NA	NA	NA	0.8 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
CCC1	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC1	04/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC1	04/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	04/10/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
CCC2	09/08/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	09/08/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	4.8 U	4.8 U	4.8 U	4.8 U	19 U	1 U	1 U	1 U
CCC2	04/14/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	04/10/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	04/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CCC2	04/02/2013	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
CCC2	04/02/2014	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2014	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	04/15/2015	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	04/15/2015	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
CCC3	09/03/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
CCC3	09/03/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
CCC3	04/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	10/04/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	10/04/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	04/10/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	04/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	09/03/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
CCCT	09/03/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	NA	NA	NA	NA	0.1 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CCCT	10/03/2011	NA	NA	NA	NA	0.08 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	10/03/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCCT	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
CTP	09/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
CTP	09/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
CTP	04/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTP	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
CTP	04/03/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CTP	04/04/2013	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/04/2013	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
CTP	04/03/2014	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
CTP	04/03/2014	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
CTP	04/17/2015	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/17/2015	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
CTPS	10/01/2010	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	NA	1.2 U	NA	6 U	6 U	6 U	6 U	24 U	1.2 U	1.2 U	1.2 U
CTPS	10/18/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTPS	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTPS	10/10/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	04/05/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CTPS	04/05/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
DH	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
DH	04/14/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
DH	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	04/05/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EERC	10/01/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
EERC	10/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EERC	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EERC	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	04/06/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
EPA	09/16/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
EPA	09/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EPA	10/06/2011	9.8 U	9.8 U	9.8 U	9.8 U	NA	NA	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 UJ	9.8 U	9.8 U	9.8 U
EPA	10/06/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	NA	NA	NA	NA	0.5 J	0.05 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EPA	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EPA	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/04/2013	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
EPA	04/04/2013	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
EPA	04/17/2015	9.6 U	9.6 U	9.6 U	9.6 U	NA	NA	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	9.6 U	9.6 U	9.6 U
EPA	04/17/2015	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
ETA	09/24/2010	NA	NA	NA	NA	NA	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	09/24/2010	0.9 U	0.9 U	0.9 U	0.9 U	12	NA	0.9 U	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
ETA	09/24/2010	1 U	1 U	1 U	1 U	12	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
ETA	09/24/2010	NA	NA	NA	NA	NA	0.032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	NA	NA	NA	NA	8.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	09/30/2011	NA	NA	NA	NA	6.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	09/30/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	NA	NA	NA	NA	12	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/10/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	NA	NA	NA	NA	12	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EXT	09/30/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EXT	09/30/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
FG	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
FG	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/09/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
GEO	09/03/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	09/03/2010	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	0.9 UJ	NA	4.7 U	4.7 U	4.7 U	4.7 U	19 U	0.9 U	0.9 U	0.9 U
GEO	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
GEO	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
GEO	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	09/24/2010	1 U	1 U	1 U	1 U	2.3	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
MFA	09/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	04/12/2011	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	NA	NA	NA	NA	1.7	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	04/05/2012	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	04/05/2013	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
MFA	04/05/2013	NA	NA	NA	NA	1.9	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	NA	NA	NA	NA	1.8	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	9.3 U	9.3 U	9.3 U	9.3 U	NA	NA	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U	9.3 U	9.3 U
MFA	04/13/2015	NA	NA	NA	NA	1.6	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/13/2015	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
NRLF	09/16/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	4.8 U	4.8 U	4.8 U	4.8 U	19 U	1 UJ	1 U	1 U
NRLF	09/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
NRLF	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 UJ	9.5 U	9.5 U	9.5 U
NRLF	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
NRLF	04/09/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ11	10/01/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/01/2010	1 U	1 U	1 U	1 U	0.7 J	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
PZ11	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ11	04/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/10/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ11	10/10/2011	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
PZ8	10/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/15/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 UJ	1 U	1 U	1 U
PZ8	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ8	04/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ8	04/03/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	04/03/2012	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	NA	NA	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	19 UJ	9.7 UJ	9.7 UJ	9.7 UJ
PZ9	09/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	09/24/2010	1 U	1 U	1 U	1 U	1.6	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
PZ9	04/20/2011	NA	NA	NA	NA	0.9 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	NA	NA	NA	NA	1.2	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ9	04/06/2012	NA	NA	NA	NA	1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	04/06/2012	9.4 UJ	9.4 U	9.4 UJ	9.4 UJ	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
RWF	09/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	09/15/2010	1 U	1 U	1 U	1 U	0.7 J	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 UJ	1 U	1 U
RWF	04/18/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
RWF	10/06/2011	NA	NA	NA	NA	0.6 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	10/06/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	9.4 U
RWF	04/04/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	04/04/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP1	09/29/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	09/29/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
TP1	04/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP1	10/07/2011	NA	NA	NA	NA	0.05 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP1	04/05/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	04/05/2012	9.5 U	9.5 U	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
TP2	09/29/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	09/29/2010	1 U	1 U	1 U	1 U	1.1	NA	1 U	NA	5 U	5 U	5 U	5 U	20 U	1 U	1 U	1 U
TP2	04/18/2011	NA	NA	NA	NA	0.7 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	NA	NA	NA	NA	0.9 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	04/09/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	04/09/2012	NA	NA	NA	NA	0.4 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane	1-Methylnaphthalene	2,2'-Oxybis(1-Chloropropane)	2,3,4,6-Tetrachlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene
California MCLs																	
Federal MCLs		70															
WTA	09/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	09/30/2010	1 U	1 U	1 U	1 U	1 U	NA	1 U	NA	5 U	5 U	5 U	5 U	20 UJ	1 U	1 U	1 U
WTA	04/14/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/14/2011	NA	NA	NA	NA	0.07 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	10/05/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	10/05/2011	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/05/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/05/2012	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/05/2013	9.8 U	9.8 U	9.8 U	9.8 U	NA	NA	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	9.8 U	9.8 U	9.8 U
WTA	04/05/2013	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/10/2014	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/10/2014	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/13/2015	9.4 U	9.4 U	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/13/2015	NA	NA	NA	NA	0.03 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B120	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	09/09/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 UJ
B120	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B120	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B120	04/03/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	04/03/2012	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B121	09/08/2010	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	09/08/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 U
B121	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B121	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B121	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B128	09/23/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	09/23/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B128	09/23/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B128	09/23/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B128	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B128	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/02/2012	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B128	04/02/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B128	04/10/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/10/2014	9.8 U	NA	9.8 U	20 U	20 U	20 U	20 U	NA	20 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	20 U
B128	04/13/2015	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	04/13/2015	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B128	04/13/2015	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B128	04/13/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B150	09/08/2010	4.8 U	1 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	1 U	4.8 U	4.8 U	1 U	NA	4.8 U	4.8 U
B150	09/08/2010	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B150	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B150	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B150	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B150	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B158	09/08/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	09/08/2010	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B158	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B158	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B158	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B163	09/02/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 UJ	1 U	5 U	5 U	1 U	5 U	5 U	5 U
B163	09/02/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	19 U	19 U
B163	10/03/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B163	10/03/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/02/2012	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B163	04/02/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/03/2013	11 U	NA	11 U	21 U	21 U	21 U	21 U	NA	21 U	11 U	11 U	11 U	11 U	11 U	21 U	21 U
B163	04/03/2013	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B163	04/14/2015	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	04/14/2015	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
B175S	09/03/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U
B175S	09/03/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B175S	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B175S	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B175W	09/08/2010	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B175W	09/08/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B175W	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B175W	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B177	09/23/2010	4.7 U	0.9 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 U
B177	09/23/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B177	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B177	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B178	09/02/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 UJ	1 U	5 U	5 U	1 U	5 U	5 U	5 U
B178	09/02/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B178	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B178	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	04/03/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B180	09/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	09/15/2010	4.8 U	1 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 UJ	1 U	4.8 U	4.8 U	1 U	NA	4.8 U	4.8 UJ
B180	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B180	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B180	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B180	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	9.7 U	NA	9.7 U	19 U	19 U	19 U	19 U	NA	19 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	19 U	19 U
B180	04/08/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/08/2013	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
B180	04/08/2014	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B180	04/08/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	04/14/2015	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B180	04/14/2015	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B185	09/02/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	4.7 U
B185	09/02/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B185	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B185	10/03/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B185	10/03/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B185	04/02/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	04/02/2012	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B194	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	09/09/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 UJ
B194	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B194	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B194	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B195	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	09/09/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 UJ
B195	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B195	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B195	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B195	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	04/03/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
B197	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 UJ
B197	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	4.8 U	1 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 UJ	1 U	4.8 U	4.8 U	1 U	NA	4.8 U	4.8 UJ
B197	04/13/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/13/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B197	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B197	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B197	04/03/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B277	09/15/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B277	09/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B277	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B277	04/03/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	04/03/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
B278	09/16/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B278	09/16/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B278	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B278	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B278	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B280A	09/16/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	09/16/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B280A	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B280A	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B280A	04/03/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B280A	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
B280A	04/09/2014	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/09/2014	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
B280A	04/17/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	04/17/2015	9.8 U	NA	9.8 U	20 U	20 U	20 U	20 U	NA	20 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	20 U
B280B	10/01/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/01/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B280B	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	04/14/2011	10 U	10 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
B280B	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B280B	04/03/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	04/03/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B300	09/09/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	09/09/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 UJ
B300	04/15/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	04/15/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B300	10/06/2011	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	10/06/2011	97 U	NA	97 U	190 U	190 U	190 U	190 U	NA	190 U	97 U	97 U	97 U	97 U	97 U	190 U	190 U
B300	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B38	09/15/2010	NA	0.05 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	09/15/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B38	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B38	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B38	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B38	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B450	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B450	10/10/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	10/10/2011	9.6 UJ	NA	9.6 UJ	19 UJ	19 UJ	19 UJ	19 UJ	NA	19 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	19 UJ	19 UJ
B450	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B460	09/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	09/15/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B460	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B460	10/07/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	10/07/2011	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
B460	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B473	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	09/24/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B473	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B473	10/07/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B473	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B474	09/23/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	09/23/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B474	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B474	10/07/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B474	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
B480	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	09/24/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
B480	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B480	10/07/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	10/07/2011	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
B480	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B490	09/16/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	09/16/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
B490	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B490	10/10/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	10/10/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
B490	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
BULB1	10/19/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	10/19/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 U
BULB1	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	19 U
BULB1	09/30/2011	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
BULB1	09/30/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
BULB2	10/19/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
BULB2	10/19/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 UJ	19 U
BULB2	09/30/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	09/30/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
BULB2	04/05/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
BULB2	04/05/2013	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
BULB2	04/05/2013	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
BULB2	04/13/2015	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
BULB2	04/13/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 U
CCC1	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC1	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC1	04/10/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	04/10/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
CCC2	09/08/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	09/08/2010	4.8 U	1 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	1 U	4.8 U	4.8 U	1 U	NA	4.8 U	4.8 U
CCC2	04/14/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC2	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC2	04/10/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC2	04/10/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
CCC2	04/02/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
CCC2	04/02/2014	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2014	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC2	04/15/2015	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC2	04/15/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
CCC3	09/03/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U
CCC3	09/03/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U
CCC3	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	19 U	19 U
CCC3	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC3	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC3	04/10/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCC3	04/10/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	09/03/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U
CCCT	09/03/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	9.5 U	9.5 U	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
CCCT	10/03/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	10/03/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CCCT	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
CTP	09/30/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	13	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
CTP	09/30/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	9	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
CTP	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CTP	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CTP	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
CTP	04/04/2013	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/04/2013	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
CTP	04/03/2014	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
CTP	04/03/2014	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
CTP	04/17/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	04/17/2015	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
CTPS	10/01/2010	6 U	1.2 UJ	6 UJ	6 U	6 U	6 UJ	6 U	6 U	6 UJ	1.2 U	6 U	6 U	1.2 U	NA	6 U	6 U
CTPS	10/18/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CTPS	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
CTPS	10/10/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	04/05/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
CTPS	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
DH	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
DH	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
DH	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	3.2 J	19 U	19 U
EERC	10/01/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
EERC	10/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EERC	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EERC	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	04/06/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
EPA	09/16/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
EPA	09/16/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EPA	10/06/2011	9.8 U	NA	9.8 U	20 U	20 U	20 U	20 U	NA	20 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	20 U
EPA	10/06/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EPA	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EPA	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/04/2013	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
EPA	04/04/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
EPA	04/17/2015	9.6 U	NA	9.6 U	19 U	19 U	19 U	19 U	NA	19 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	19 U	19 U
EPA	04/17/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
ETA	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	09/24/2010	4.7 U	0.9 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	4.7 U	4.7 U	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	NA	4.7 U	4.7 U
ETA	09/24/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
ETA	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	19 U	19 U
ETA	09/30/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	09/30/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
ETA	04/10/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	04/10/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
ETA	04/10/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
ETA	04/10/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EXT	09/30/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
EXT	09/30/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
FG	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
FG	04/19/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
FG	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
FG	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
GEO	09/03/2010	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	09/03/2010	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	NA	4.7 UJ	0.9 U	4.7 U	4.7 U	0.9 U	4.7 U	4.7 U	4.7 U
GEO	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
GEO	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
GEO	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
MFA	09/24/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
MFA	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/12/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	19 U	19 U
MFA	04/12/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
MFA	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
MFA	04/05/2013	10 U	NA	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U	10 U	10 U	20 U	20 U
MFA	04/05/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	9.3 U	NA	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	19 U
MFA	04/13/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	04/13/2015	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
NRLF	09/16/2010	4.8 U	1 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 UJ	1 U	4.8 U	4.8 U	1 U	NA	4.8 U	4.8 UJ
NRLF	09/16/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
NRLF	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U
NRLF	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
NRLF	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ11	10/01/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/01/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
PZ11	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ11	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/10/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ11	10/10/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
PZ8	10/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/15/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
PZ8	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ8	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ8	04/03/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	04/03/2012	9.7 UJ	NA	9.7 UJ	19 UJ	19 UJ	19 UJ	19 UJ	NA	19 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	19 UJ	19 UJ
PZ9	09/24/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	09/24/2010	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 U
PZ9	04/20/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	04/20/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ9	10/07/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ9	10/07/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
PZ9	04/06/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	04/06/2012	9.4 UJ	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
RWF	09/15/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	09/15/2010	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U	1 U	NA	5 U	5 UJ
RWF	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
RWF	10/06/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	10/06/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
RWF	04/04/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	04/04/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP1	09/29/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	09/29/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
TP1	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP1	10/07/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP1	04/05/2012	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	04/05/2012	9.5 U	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	19 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
TP2	09/29/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	09/29/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
TP2	04/18/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/18/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP2	10/07/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP2	10/07/2011	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP2	04/09/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
TP2	04/09/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	2-Chlorophenol	2-Methylnaphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Nitroaniline	3/4-Methylphenol	4,6-Dinitro-2-Methylphenol	4-Bromophenyl-Phenylether	4-Chloro-3-Methylphenol	4-Chloroaniline	4-Chlorophenyl-Phenylether	4-Methylphenol	4-Nitroaniline	4-Nitrophenol
California MCLs																	
Federal MCLs																	
WTA	09/30/2010	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	09/30/2010	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ	1 U	NA	5 U	5 U
WTA	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	04/14/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	10/05/2011	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	10/05/2011	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	04/05/2012	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/05/2012	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	04/05/2013	9.8 U	NA	9.8 U	20 U	20 U	20 U	20 U	NA	20 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	20 U
WTA	04/05/2013	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/10/2014	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	04/10/2014	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	04/13/2015	9.4 U	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	19 U
WTA	04/13/2015	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B120	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B120	09/09/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 UJ	0.9 U
B120	04/15/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B120	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B120	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B120	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B120	04/03/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B120	04/03/2012	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B121	09/08/2010	0.048 U	0.048 U	0.048 U	NA	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	NA	NA	NA	NA	NA	NA	NA
B121	09/08/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U
B121	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B121	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B121	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B121	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B121	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B128	09/23/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B128	09/23/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	6.2	1 UJ	1 U
B128	09/23/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 UJ	1 U
B128	09/23/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/02/2012	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B128	04/02/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/05/2013	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B128	04/10/2014	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/10/2014	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	49 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U
B128	04/13/2015	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B128	04/13/2015	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B128	04/13/2015	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B128	04/13/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B150	09/08/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	4.8 U	1 U	1 U	1 UJ	1 U	1 U
B150	09/08/2010	0.048 U	0.048 U	0.048 U	NA	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B150	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B150	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B150	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B150	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B150	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B158	09/08/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B158	09/08/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	5 U	1 U	1 U	1 UJ	1 U	1 U
B158	04/15/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B158	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B158	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B158	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	2.4 UJ	9.4 U	9.4 U
B158	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B158	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B163	09/02/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	5 U	1 U	1 U	5.7	1 U	1 U
B163	09/02/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B163	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B163	10/03/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B163	10/03/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B163	04/02/2012	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B163	04/02/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B163	04/03/2013	NA	NA	NA	11 U	NA	NA	NA	NA	NA	53 U	11 U	11 U	11 U	8.9 UJ	11 U	11 U
B163	04/03/2013	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B163	04/01/2014	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B163	04/14/2015	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B163	04/14/2015	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	10 U	10 U	10 U
B175S	09/03/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
B175S	09/03/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175S	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B175S	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175S	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B175S	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175S	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B175W	09/08/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	5 U	1 U	1 U	1 UJ	1 U	1 U
B175W	09/08/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175W	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B175W	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B177	09/23/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 U	0.9 UJ	0.9 U
B177	09/23/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B177	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B177	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B177	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B177	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B177	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B178	09/02/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	5 U	1 U	1 U	1 U	1 U	1 U
B178	09/02/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B178	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B178	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B178	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B178	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B178	04/03/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B180	09/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B180	09/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U
B180	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B180	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B180	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B180	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	20 UJ	9.4 U	9.4 U
B180	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B180	04/04/2012	NA	NA	NA	9.7 U	NA	NA	NA	NA	NA	49 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U
B180	04/08/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B180	04/08/2013	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
B180	04/08/2014	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	79 UJ	9.4 U	9.4 U
B180	04/08/2014	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B180	04/14/2015	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B180	04/14/2015	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B185	09/02/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.5 UJ	0.9 U	0.9 U
B185	09/02/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	20 UJ	9.4 U	9.4 U
B185	04/15/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B185	10/03/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B185	04/02/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B185	04/02/2012	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B194	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B194	09/09/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 UJ	0.9 U
B194	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B194	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B194	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B194	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B194	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B194	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B195	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B195	09/09/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 UJ	0.9 U
B195	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B195	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B195	10/04/2011	0.09 U	0.09 U	0.09 UJ	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B195	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B195	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B195	04/03/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
B197	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 UJ	0.9 U
B197	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U
B197	04/13/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B197	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B197	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B197	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B197	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B197	04/03/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B197	04/03/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B277	09/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B277	09/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B277	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B277	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B277	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B277	04/03/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B277	04/03/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
B278	09/16/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B278	09/16/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B278	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B278	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B278	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B280A	09/16/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B280A	09/16/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B280A	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B280A	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280A	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B280A	04/03/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B280A	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280A	04/04/2013	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	10 U	10 U	10 U
B280A	04/09/2014	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B280A	04/09/2014	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
B280A	04/17/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B280A	04/17/2015	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	49 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U
B280B	10/01/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B280B	10/01/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
B280B	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280B	04/14/2011	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U
B280B	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B280B	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B280B	04/03/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B280B	04/03/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B300	09/09/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
B300	09/09/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 UJ	0.9 U
B300	04/15/2011	0.09 U	0.08 J	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B300	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B300	10/06/2011	0.5 U	4.9	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	NA	NA	NA	NA	NA
B300	10/06/2011	NA	NA	NA	97 U	NA	NA	NA	NA	NA	180 J	73 J	97 U	97 U	97 U	97 U	97 U
B300	04/09/2012	0.09 U	0.2	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B300	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B38	09/15/2010	0.05 UJ	0.05 UJ	0.05 UJ	NA	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	NA	NA	NA	NA	NA	NA	NA
B38	09/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B38	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B38	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B38	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B38	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B38	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B38	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	13 UJ	9.4 U	9.4 U
B450	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B450	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B450	10/10/2011	NA	NA	NA	9.6 UJ	NA	NA	NA	NA	NA	48 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ
B450	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B450	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U

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Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
B460	09/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B460	09/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B460	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B460	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B460	10/07/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B460	10/07/2011	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
B460	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B460	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
B473	09/24/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B473	09/24/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	0.5 J	1 UJ	1 U
B473	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B473	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B473	10/07/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B473	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B473	04/06/2012	0.09 U	0.09 U	0.02 J	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B473	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B474	09/23/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B474	09/23/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 UJ	1 U
B474	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B474	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B474	10/07/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B474	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B474	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B474	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

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California MCLs																	
Federal MCLs															6		
B480	09/24/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B480	09/24/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	0.8 J	1 UJ	1 U
B480	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B480	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B480	10/07/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
B480	10/07/2011	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
B480	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B480	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B490	09/16/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
B490	09/16/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
B490	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B490	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B490	10/10/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B490	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
B490	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB1	10/19/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
BULB1	10/19/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	0.6 UJ	0.9 U	0.9 U
BULB1	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB1	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB1	09/30/2011	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
BULB1	09/30/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB1	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
BULB2	10/19/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
BULB2	10/19/2010	0.062	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB2	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB2	09/30/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB2	09/30/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U
BULB2	04/05/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
BULB2	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB2	04/05/2013	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	10 U	10 U	10 U
BULB2	04/05/2013	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
BULB2	04/10/2014	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB2	04/13/2015	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
BULB2	04/13/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
CCC1	09/08/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U
CCC1	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC1	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC1	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC1	04/10/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC1	04/10/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
CCC2	09/08/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
CCC2	09/08/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA	4.8 U	1 U	1 U	0.6 J	1 U	1 U
CCC2	04/14/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CCC2	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC2	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC2	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
CCC2	04/10/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC2	04/10/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
CCC2	04/02/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2013	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
CCC2	04/02/2014	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CCC2	04/02/2014	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC2	04/15/2015	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	11 UJ	9.4 U	9.4 U
CCC2	04/15/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
CCC3	09/03/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
CCC3	09/03/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
CCC3	09/03/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	1 UJ	0.9 U	0.9 U
CCC3	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC3	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
CCC3	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC3	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCC3	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC3	04/10/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC3	04/10/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCCT	09/03/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
CCCT	09/03/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CCCT	04/18/2011	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
CCCT	10/03/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCCT	10/03/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCCT	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CCCT	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
CTP	09/30/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
CTP	09/30/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
CTP	09/30/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
CTP	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CTP	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CTP	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
CTP	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
CTP	04/04/2013	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/04/2013	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	10 U	10 U	10 U
CTP	04/03/2014	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
CTP	04/03/2014	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/03/2014	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	10 U	10 U	10 U
CTP	04/17/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CTP	04/17/2015	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
CTPS	10/01/2010	1.2 U	1.2 U	1.2 U	NA	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	NA	6 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
CTPS	10/18/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
CTPS	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CTPS	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
CTPS	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CTPS	10/10/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
CTPS	04/05/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
CTPS	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
DH	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
DH	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
DH	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	2.2 UJ	9.4 U	9.4 U
DH	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
DH	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
DH	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EERC	10/01/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
EERC	10/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
EERC	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EERC	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
EERC	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EERC	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EERC	04/06/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 UJ	9.5 U	9.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
EPA	09/16/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
EPA	09/16/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EPA	10/06/2011	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	49 U	9.8 U	9.8 U	9.8 U	9.8 UJ	9.8 U	9.8 U
EPA	10/06/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	0.2	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EPA	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EPA	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/04/2013	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
EPA	04/04/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
EPA	04/10/2014	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U
EPA	04/17/2015	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U	9.6 U	9.6 U	9.6 U	9.6 UJ	9.6 U	9.6 U
EPA	04/17/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
ETA	09/24/2010	0.11	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
ETA	09/24/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	NA	4.7 U	0.9 U	0.9 U	1.1	0.9 UJ	0.9 U
ETA	09/24/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	0.5 J	1 UJ	1 U
ETA	09/24/2010	0.11	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
ETA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
ETA	09/30/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
ETA	09/30/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
ETA	04/10/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
ETA	04/10/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
EXT	09/30/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
EXT	09/30/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
FG	09/23/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 UJ	1 U
FG	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
FG	10/10/2011	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
FG	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
FG	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
GEO	09/03/2010	0.047 U	0.047 U	0.047 U	NA	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	NA	NA	NA	NA	NA	NA
GEO	09/03/2010	0.9 U	0.9 U	0.9 U	NA	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	NA	4.7 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
GEO	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
GEO	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
GEO	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
GEO	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
GEO	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
MFA	09/24/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	27	1 UJ	1 U
MFA	09/24/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
MFA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
MFA	04/12/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
MFA	10/03/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
MFA	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
MFA	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
MFA	04/05/2013	NA	NA	NA	10 U	NA	NA	NA	NA	NA	50 U	10 U	10 U	10 U	9.4 U	10 U	10 U
MFA	04/05/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	0.09 U	0.09 U	0.09 UJ	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
MFA	04/08/2014	NA	NA	NA	9.3 U	NA	NA	NA	NA	NA	47 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
MFA	04/13/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
MFA	04/13/2015	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
NRLF	09/16/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U
NRLF	09/16/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
NRLF	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
NRLF	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
NRLF	10/06/2011	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 UJ	9.5 U	9.5 U
NRLF	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
NRLF	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
OBS6	09/30/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ11	10/01/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
PZ11	10/01/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
PZ11	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ11	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ11	10/10/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ11	10/10/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ11	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
PZ8	10/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
PZ8	10/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
PZ8	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ8	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ8	10/04/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ8	04/03/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ8	04/03/2012	NA	NA	NA	9.7 UJ	NA	NA	NA	NA	NA	49 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ
PZ9	09/24/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
PZ9	09/24/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 UJ	1 U
PZ9	04/20/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ9	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ9	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ9	04/06/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
PZ9	04/06/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
RWF	09/15/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
RWF	09/15/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 UJ	1 UJ	1 U
RWF	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
RWF	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
RWF	10/06/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
RWF	10/06/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
RWF	04/04/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
RWF	04/04/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP1	09/29/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
TP1	09/29/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
TP1	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
TP1	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP1	10/07/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
TP1	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP1	04/05/2012	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
TP1	04/05/2012	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
TP2	09/29/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
TP2	09/29/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
TP2	04/18/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
TP2	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
TP2	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
TP2	04/09/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	23 UJ	9.4 U	9.4 U
TP2	04/09/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Benzoic Acid	Benzyl Alcohol	Bis(2-Chloroethoxy)Methane	Bis(2-Chloroethyl)Ether	Bis(2-Ethylhexyl)Phthalate	Butylbenzylphthalate	Carbazole
California MCLs																	
Federal MCLs															6		
WTA	09/30/2010	0.05 U	0.05 U	0.05 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	NA	NA	NA	NA	NA
WTA	09/30/2010	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA	5 U	1 U	1 U	1 U	1 U	1 U
WTA	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U
WTA	04/14/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	10/05/2011	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	10/05/2011	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	3.3 UJ	9.4 U	9.4 U
WTA	04/05/2012	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	04/05/2012	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	04/05/2013	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	49 U	9.8 U	9.8 U	9.8 U	9.2 UJ	9.8 U	9.8 U
WTA	04/05/2013	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	04/10/2014	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	04/10/2014	0.09 U	0.09 U	0.09 U	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	NA	NA	NA	NA	NA	NA
WTA	04/13/2015	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	04/13/2015	0.1 U	0.1 U	0.1 U	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B120	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B120	09/09/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B120	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B120	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B120	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B120	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B120	04/03/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B120	04/03/2012	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B121	09/08/2010	0.048 U	NA	NA	0.048 U	NA	NA	NA	NA	0.048 U	0.048 U	NA	NA	NA	NA	0.048 U	NA
B121	09/08/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
B121	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B121	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B121	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B121	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B121	04/04/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B121	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B128	09/23/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B128	09/23/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B128	09/23/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B128	09/23/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B128	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B128	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/02/2012	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B128	04/02/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/05/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/05/2013	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B128	04/10/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/10/2014	NA	9.8 U	9.8 U	NA	9.8 U	9.8 U	9.8 U	NA	NA	NA	9.8 U	9.8 U	20 U	9.8 U	NA	9.8 U
B128	04/13/2015	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	04/13/2015	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B128	04/13/2015	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B128	04/13/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B150	09/08/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.8 U	1 U	1 U	1 U
B150	09/08/2010	0.048 U	NA	NA	0.048 U	NA	NA	NA	NA	0.048 U	0.048 U	NA	NA	NA	NA	0.048 U	NA
B150	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B150	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B150	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B150	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B158	09/08/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B158	09/08/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
B158	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B158	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B158	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B163	09/02/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
B163	09/02/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B163	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B163	10/03/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B163	10/03/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	04/02/2012	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B163	04/02/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	04/03/2013	NA	11 U	11 U	NA	11 U	11 U	11 U	NA	NA	NA	11 U	11 U	21 U	11 U	NA	11 U
B163	04/03/2013	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B163	04/01/2014	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B163	04/01/2014	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B163	04/14/2015	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	04/14/2015	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 U	10 U	NA	10 U
B175S	09/03/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
B175S	09/03/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B175S	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175S	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B175S	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B175W	09/08/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
B175W	09/08/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B175W	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B175W	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B177	09/23/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B177	09/23/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B177	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B177	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B177	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B178	09/02/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U
B178	09/02/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B178	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B178	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B178	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B178	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B178	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B178	04/03/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B180	09/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B180	09/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U
B180	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B180	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	10/06/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B180	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B180	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B180	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	04/04/2012	NA	9.7 U	9.7 U	NA	9.7 U	9.7 U	9.7 U	NA	NA	NA	9.7 U	9.7 U	19 U	9.7 U	NA	9.7 U
B180	04/08/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	04/08/2013	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U
B180	04/08/2014	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B180	04/08/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	04/14/2015	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B180	04/14/2015	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B185	09/02/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
B185	09/02/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B185	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	10/03/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B185	10/03/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	10/03/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B185	04/02/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	04/02/2012	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B194	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B194	09/09/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B194	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B194	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B194	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B194	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B194	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B194	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B195	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B195	09/09/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B195	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 UJ	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B195	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	04/03/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
B197	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B197	09/09/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B197	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B197	09/09/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U
B197	04/13/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B197	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B197	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	04/03/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B197	04/03/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B197	04/03/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B277	09/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B277	09/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B277	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B277	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B277	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B277	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B277	04/03/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B277	04/03/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
B278	09/16/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B278	09/16/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B278	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B278	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B278	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B278	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B278	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B280A	09/16/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B280A	09/16/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B280A	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B280A	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B280A	04/03/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B280A	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	04/04/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	04/04/2013	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 UJ	10 U	NA	10 U
B280A	04/09/2014	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B280A	04/09/2014	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U
B280A	04/17/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B280A	04/17/2015	NA	9.8 U	9.8 U	NA	9.8 U	9.8 U	9.8 U	NA	NA	NA	9.8 U	9.8 U	20 U	9.8 U	NA	9.8 U
B280B	10/01/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B280B	10/01/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B280B	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280B	04/14/2011	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
B280B	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280B	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B280B	04/03/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B280B	04/03/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B300	09/09/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
B300	09/09/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
B300	04/15/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B300	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B300	10/06/2011	0.5 U	NA	NA	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	NA
B300	10/06/2011	NA	97 U	97 U	NA	97 U	97 U	97 U	NA	NA	NA	97 U	97 U	190 U	97 U	NA	97 U
B300	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B300	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B38	09/15/2010	0.05 UJ	NA	NA	0.05 UJ	NA	NA	NA	NA	0.05 UJ	0.05 UJ	NA	NA	NA	NA	0.05 UJ	NA
B38	09/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B38	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B38	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B450	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B450	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B450	10/10/2011	NA	9.6 UJ	9.6 UJ	NA	9.6 UJ	9.6 UJ	9.6 UJ	NA	NA	NA	9.6 UJ	9.6 UJ	19 UJ	9.6 UJ	NA	9.6 UJ
B450	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B450	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B460	09/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B460	09/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B460	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B460	10/07/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	10/07/2011	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
B460	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B473	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B473	09/24/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B473	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B473	10/07/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B473	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B474	09/23/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B474	09/23/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B474	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B474	10/07/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B474	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
B480	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B480	09/24/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B480	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B480	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B480	10/07/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
B480	10/07/2011	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
B480	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B480	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B490	09/16/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
B490	09/16/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
B490	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	10/10/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
B490	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
BULB1	10/19/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
BULB1	10/19/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
BULB1	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB1	09/30/2011	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
BULB1	09/30/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
BULB2	10/19/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
BULB2	10/19/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
BULB2	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB2	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	09/30/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB2	09/30/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
BULB2	04/05/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
BULB2	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
BULB2	04/05/2013	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 U	10 U	NA	10 U
BULB2	04/05/2013	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
BULB2	04/10/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB2	04/10/2014	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
BULB2	04/13/2015	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
BULB2	04/13/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCC1	09/08/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC1	09/08/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
CCC1	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC1	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC1	04/10/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	04/10/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
CCC2	09/08/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC2	09/08/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.8 U	1 U	1 U	1 U
CCC2	04/14/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCC2	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC2	04/10/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC2	04/10/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	04/02/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	04/02/2013	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
CCC2	04/02/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	04/02/2013	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U
CCC2	04/02/2014	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCC2	04/02/2014	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC2	04/15/2015	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC2	04/15/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
CCC3	09/03/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
CCC3	09/03/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC3	09/03/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC3	09/03/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
CCC3	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC3	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC3	04/10/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCC3	04/10/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCCT	09/03/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
CCCT	09/03/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCCT	04/18/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCCT	04/18/2011	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CCCT	10/03/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCCT	10/03/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CCCT	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCCT	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
CTP	09/30/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTP	09/30/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
CTP	09/30/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTP	09/30/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
CTP	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTP	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CTP	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	04/03/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
CTP	04/04/2013	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CTP	04/04/2013	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 UJ	10 U	NA	10 U
CTP	04/03/2014	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U
CTP	04/03/2014	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CTP	04/03/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	04/03/2014	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 U	10 U	NA	10 U
CTP	04/17/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CTP	04/17/2015	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
CTPS	10/01/2010	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	6 UJ	1.2 U	1.2 U	1.2 U
CTPS	10/18/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTPS	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTPS	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTPS	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
CTPS	10/10/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
CTPS	04/05/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
CTPS	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
DH	09/30/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
DH	09/30/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
DH	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
DH	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
DH	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
DH	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
DH	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
DH	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
EERC	10/01/2010	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
EERC	10/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
EERC	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EERC	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EERC	10/07/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
EERC	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
EERC	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EERC	04/06/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U

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University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
EPA	09/16/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
EPA	09/16/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
EPA	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EPA	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EPA	10/06/2011	NA	9.8 U	9.8 U	NA	9.8 U	9.8 U	9.8 U	NA	NA	NA	9.8 U	9.8 U	20 U	9.8 U	NA	9.8 U
EPA	10/06/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
EPA	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.04 J	0.03 J	NA	NA	NA	NA	0.09 U	NA
EPA	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
EPA	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
EPA	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EPA	04/04/2013	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 UJ	9.3 U	NA	9.3 U
EPA	04/04/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EPA	04/10/2014	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
EPA	04/10/2014	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
EPA	04/17/2015	NA	9.6 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U
EPA	04/17/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
ETA	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.041 J	0.17	NA	NA	NA	NA	0.05 U	NA
ETA	09/24/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 UJ	0.9 U	0.9 U	0.9 U
ETA	09/24/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
ETA	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.035 J	0.16	NA	NA	NA	NA	0.05 U	NA
ETA	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	09/30/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	09/30/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
ETA	04/10/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	04/10/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
ETA	04/10/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
ETA	04/10/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
EXT	09/30/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
EXT	09/30/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	09/23/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
FG	09/23/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
FG	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	10/10/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	10/10/2011	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
FG	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
FG	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
GEO	09/03/2010	0.047 U	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA
GEO	09/03/2010	0.9 U	0.9 U	0.9 UJ	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	4.7 U	0.9 U	0.9 U	0.9 U
GEO	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
GEO	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
GEO	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
MFA	09/24/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
MFA	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
MFA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	04/12/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	10/03/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	10/03/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
MFA	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
MFA	04/05/2013	NA	10 U	10 U	NA	10 U	10 U	10 U	NA	NA	NA	10 U	10 U	20 U	10 U	NA	10 U
MFA	04/05/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	04/08/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	04/08/2014	NA	9.3 U	9.3 U	NA	9.3 U	9.3 U	9.3 U	NA	NA	NA	9.3 U	9.3 U	19 U	9.3 U	NA	9.3 U
MFA	04/13/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
MFA	04/13/2015	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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California MCLs																	
Federal MCLs																	
NRLF	09/16/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U
NRLF	09/16/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
NRLF	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
NRLF	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
NRLF	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
NRLF	10/06/2011	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U
NRLF	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
NRLF	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
OBS6	09/30/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
OBS6	09/30/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
PZ11	10/01/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ11	10/01/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
PZ11	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ11	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	10/10/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
PZ11	10/10/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
PZ8	10/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ8	10/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
PZ8	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ8	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	10/04/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	10/04/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
PZ8	04/03/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	04/03/2012	NA	9.7 UJ	9.7 UJ	NA	9.7 UJ	9.7 UJ	9.7 UJ	NA	NA	NA	9.7 UJ	9.7 UJ	19 UJ	9.7 UJ	NA	9.7 UJ
PZ9	09/24/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ9	09/24/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
PZ9	04/20/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ9	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
PZ9	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
PZ9	10/07/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ9	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
PZ9	04/06/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ9	04/06/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U

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California MCLs																	
Federal MCLs																	
RWF	09/15/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
RWF	09/15/2010	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
RWF	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
RWF	10/06/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	10/06/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
RWF	04/04/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	04/04/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
TP1	09/29/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
TP1	09/29/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
TP1	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP1	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP1	10/07/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP1	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
TP1	04/05/2012	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
TP1	04/05/2012	NA	9.5 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U

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California MCLs																	
Federal MCLs																	
TP2	09/29/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
TP2	09/29/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
TP2	04/18/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP2	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
TP2	10/07/2011	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA
TP2	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP2	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
TP2	04/09/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
TP2	04/09/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	Chrysene	Di-N-Butylphthalate	Di-N-Octylphthalate	Dibenz(A,H)Anthracene	Dibenzofuran	Diethylphthalate	Dimethylphthalate	Diphenyl Amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-Cd)Pyrene	Isophorone
California MCLs																	
Federal MCLs																	
WTA	09/30/2010	0.05 U	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA
WTA	09/30/2010	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U
WTA	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/14/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	10/05/2011	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	10/05/2011	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
WTA	04/05/2012	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	04/05/2012	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
WTA	04/05/2013	NA	9.8 U	9.8 U	NA	9.8 U	9.8 U	9.8 U	NA	NA	NA	9.8 U	9.8 U	20 U	9.8 U	NA	9.8 U
WTA	04/05/2013	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	04/10/2014	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
WTA	04/10/2014	0.09 U	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	04/13/2015	NA	9.4 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U
WTA	04/13/2015	0.1 U	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B120	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B120	09/09/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B120	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B120	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B120	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B120	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B120	04/03/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B120	04/03/2012	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B121	09/08/2010	NA	NA	NA	0.048 U	NA	NA	0.048 U	NA	0.048 U
B121	09/08/2010	0.9 U	NA	NA	0.9 U	0.9 UJ	4.7 U	0.9 U	4.7 U	0.9 U
B121	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B121	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B121	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B121	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B121	04/04/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B121	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B128	09/23/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B128	09/23/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B128	09/23/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B128	09/23/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B128	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B128	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B128	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/02/2012	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B128	04/02/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/05/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/05/2013	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B128	04/10/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/10/2014	9.8 U	9.8 U	9.8 U	NA	9.8 U	20 U	NA	9.8 U	NA
B128	04/13/2015	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B128	04/13/2015	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B128	04/13/2015	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B128	04/13/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B150	09/08/2010	1 U	NA	NA	1 U	1 U	4.8 U	1 U	4.8 U	1 U
B150	09/08/2010	NA	NA	NA	0.048 U	NA	NA	0.048 U	NA	0.048 U
B150	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B150	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B150	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B150	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B150	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B150	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B150	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B150	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B150	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B150	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B158	09/08/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B158	09/08/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B158	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B158	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B158	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B158	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B158	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B158	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B163	09/02/2010	1 UJ	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B163	09/02/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B163	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B163	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B163	10/03/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B163	10/03/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B163	04/02/2012	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B163	04/02/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B163	04/03/2013	11 U	11 U	11 U	NA	11 U	21 U	NA	11 U	NA
B163	04/03/2013	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B163	04/01/2014	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B163	04/01/2014	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B163	04/14/2015	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B163	04/14/2015	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
B175S	09/03/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B175S	09/03/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B175S	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175S	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175S	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175S	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B175S	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175S	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B175W	09/08/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B175W	09/08/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B175W	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175W	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B175W	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B175W	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175W	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B175W	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B177	09/23/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B177	09/23/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B177	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B177	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B177	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B177	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B177	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B177	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B178	09/02/2010	1 UJ	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B178	09/02/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B178	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B178	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B178	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B178	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B178	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B178	04/03/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B180	09/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B180	09/15/2010	1 U	NA	NA	1 U	1 U	4.8 U	1 U	4.8 U	1 U
B180	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B180	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B180	10/06/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B180	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B180	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B180	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B180	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B180	04/04/2012	9.7 U	9.7 U	9.7 U	NA	9.7 U	19 U	NA	9.7 U	NA
B180	04/08/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B180	04/08/2013	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
B180	04/08/2014	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B180	04/08/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B180	04/14/2015	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B180	04/14/2015	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B185	09/02/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B185	09/02/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B185	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.02 J
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B185	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B185	10/03/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B185	10/03/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B185	10/03/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B185	10/03/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B185	04/02/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B185	04/02/2012	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B194	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B194	09/09/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B194	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B194	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B194	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B194	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B194	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B194	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B195	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B195	09/09/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B195	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B195	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B195	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B195	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B195	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B195	04/03/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
B197	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B197	09/09/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B197	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B197	09/09/2010	1 U	NA	NA	1 U	1 U	4.8 U	1 U	4.8 U	1 U
B197	04/13/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B197	04/13/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B197	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B197	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B197	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B197	04/03/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B197	04/03/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B197	04/03/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B277	09/15/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B277	09/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B277	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B277	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B277	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B277	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B277	04/03/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B277	04/03/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
B278	09/16/2010	1 U	NA	NA	1 U	1 UJ	5 U	1 U	5 U	1 U
B278	09/16/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B278	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B278	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B278	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B278	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B278	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B278	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B280A	09/16/2010	NA	NA	NA	0.035 J	NA	NA	0.05 U	NA	0.05 U
B280A	09/16/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B280A	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B280A	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280A	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280A	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B280A	04/03/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B280A	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280A	04/04/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280A	04/04/2013	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
B280A	04/09/2014	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B280A	04/09/2014	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
B280A	04/17/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B280A	04/17/2015	9.8 U	9.8 U	9.8 U	NA	9.8 U	20 U	NA	9.8 U	NA
B280B	10/01/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B280B	10/01/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B280B	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280B	04/14/2011	10 U	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U
B280B	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B280B	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B280B	04/03/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B280B	04/03/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B300	09/09/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
B300	09/09/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
B300	04/15/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B300	04/15/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B300	10/06/2011	NA	NA	NA	0.5 U	NA	NA	0.5 U	NA	0.5 U
B300	10/06/2011	97 U	97 U	97 U	NA	97 U	190 U	NA	97 U	NA
B300	04/09/2012	NA	NA	NA	0.02 J	NA	NA	0.09 U	NA	0.09 U
B300	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B38	09/15/2010	NA	NA	NA	0.05 UJ	NA	NA	0.05 UJ	NA	0.05 UJ
B38	09/15/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B38	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B38	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B38	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B38	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B38	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B38	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B450	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B450	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	NA	NA	NA	0.02 J	NA	NA	0.09 U	NA	0.09 U
B450	10/10/2011	9.6 UJ	9.6 UJ	9.6 UJ	NA	9.6 UJ	19 UJ	NA	9.6 UJ	NA
B450	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B450	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B460	09/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B460	09/15/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B460	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 UJ
B460	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B460	10/07/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B460	10/07/2011	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
B460	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B460	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B473	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B473	09/24/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B473	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B473	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B473	10/07/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B473	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B473	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B473	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B474	09/23/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B474	09/23/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B474	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B474	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B474	10/07/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B474	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B474	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B474	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
B480	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B480	09/24/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B480	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B480	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B480	10/07/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
B480	10/07/2011	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
B480	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B480	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B490	09/16/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
B490	09/16/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
B490	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B490	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B490	10/10/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
B490	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
B490	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
BULB1	10/19/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
BULB1	10/19/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
BULB1	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB1	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB1	09/30/2011	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
BULB1	09/30/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB1	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB1	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
BULB2	10/19/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
BULB2	10/19/2010	NA	NA	NA	0.19	NA	NA	0.05 U	NA	0.05 U
BULB2	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB2	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
BULB2	09/30/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB2	09/30/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
BULB2	04/05/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
BULB2	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
BULB2	04/05/2013	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
BULB2	04/05/2013	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
BULB2	04/10/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
BULB2	04/10/2014	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
BULB2	04/13/2015	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
BULB2	04/13/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CCC1	09/08/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
CCC1	09/08/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
CCC1	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC1	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC1	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC1	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC1	04/10/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC1	04/10/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
CCC2	09/08/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
CCC2	09/08/2010	1 U	NA	NA	1 U	1 U	4.8 U	1 U	4.8 U	1 U
CCC2	04/14/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CCC2	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC2	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC2	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC2	04/10/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC2	04/10/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC2	04/02/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC2	04/02/2013	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
CCC2	04/02/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC2	04/02/2013	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
CCC2	04/02/2014	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CCC2	04/02/2014	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC2	04/15/2015	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC2	04/15/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
CCC3	09/03/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
CCC3	09/03/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
CCC3	09/03/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
CCC3	09/03/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
CCC3	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC3	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CCC3	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC3	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC3	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCC3	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC3	04/10/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCC3	04/10/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCCT	09/03/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
CCCT	09/03/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
CCCT	04/18/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CCCT	04/18/2011	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U	9.5 U	9.5 U
CCCT	10/03/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCCT	10/03/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CCCT	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CCCT	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
CTP	09/30/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
CTP	09/30/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
CTP	09/30/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
CTP	09/30/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
CTP	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CTP	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTP	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CTP	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CTP	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CTP	04/03/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
CTP	04/04/2013	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CTP	04/04/2013	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
CTP	04/03/2014	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
CTP	04/03/2014	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CTP	04/03/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CTP	04/03/2014	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
CTP	04/17/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
CTP	04/17/2015	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
CTPS	10/01/2010	1.2 U	NA	NA	1.2 U	1.2 U	6 U	1.2 U	6 U	1.2 U
CTPS	10/18/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
CTPS	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
CTPS	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
CTPS	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
CTPS	10/10/2011	NA	NA	NA	0.02 J	NA	NA	0.1 U	NA	0.1 U
CTPS	04/05/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
CTPS	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
DH	09/30/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
DH	09/30/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
DH	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
DH	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
DH	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
DH	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
DH	04/05/2012	NA	NA	NA	0.03 J	NA	NA	0.09 U	NA	0.09 U
DH	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
EERC	10/01/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
EERC	10/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
EERC	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EERC	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
EERC	10/07/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
EERC	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
EERC	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
EERC	04/06/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
EPA	09/16/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
EPA	09/16/2010	NA	NA	NA	0.042 J	NA	NA	0.05 U	NA	0.05 U
EPA	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
EPA	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
EPA	10/06/2011	9.8 U	9.8 U	9.8 U	NA	9.8 U	20 U	NA	9.8 U	NA
EPA	10/06/2011	NA	NA	NA	0.02 J	NA	NA	0.1 U	NA	0.1 U
EPA	04/06/2012	NA	NA	NA	0.4	NA	NA	0.02 J	NA	0.02 J
EPA	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
EPA	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
EPA	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
EPA	04/04/2013	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
EPA	04/04/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
EPA	04/10/2014	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
EPA	04/10/2014	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
EPA	04/17/2015	9.6 U	9.6 U	9.6 U	NA	9.6 U	19 U	NA	9.6 U	NA
EPA	04/17/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
ETA	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.088
ETA	09/24/2010	0.9 U	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
ETA	09/24/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
ETA	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.074
ETA	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
ETA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
ETA	09/30/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.04 J
ETA	09/30/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
ETA	04/10/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.03 J
ETA	04/10/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
ETA	04/10/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
ETA	04/10/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.03 J
EXT	09/30/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
EXT	09/30/2011	NA	NA	NA	0.04 J	NA	NA	0.09 U	NA	0.09 U
FG	09/23/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
FG	09/23/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
FG	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
FG	04/19/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
FG	10/10/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
FG	10/10/2011	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
FG	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
FG	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
GEO	09/03/2010	NA	NA	NA	0.047 U	NA	NA	0.047 U	NA	0.047 U
GEO	09/03/2010	0.9 UJ	NA	NA	0.9 U	0.9 U	4.7 U	0.9 U	4.7 U	0.9 U
GEO	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
GEO	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 UJ
GEO	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
GEO	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
GEO	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
GEO	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
MFA	09/24/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
MFA	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
MFA	04/12/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
MFA	04/12/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
MFA	10/03/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
MFA	10/03/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
MFA	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
MFA	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
MFA	04/05/2013	10 U	10 U	10 U	NA	10 U	20 U	NA	10 U	NA
MFA	04/05/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
MFA	04/08/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 UJ
MFA	04/08/2014	9.3 U	9.3 U	9.3 U	NA	9.3 U	19 U	NA	9.3 U	NA
MFA	04/13/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
MFA	04/13/2015	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
NRLF	09/16/2010	1 U	NA	NA	1 U	1 U	4.8 U	1 U	4.8 U	1 U
NRLF	09/16/2010	NA	NA	NA	0.029 J	NA	NA	0.05 U	NA	0.05 U
NRLF	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
NRLF	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 UJ
NRLF	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
NRLF	10/06/2011	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA
NRLF	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
NRLF	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
OBS6	09/30/2011	NA	NA	NA	0.04 J	NA	NA	0.09 U	NA	0.09 U
OBS6	09/30/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
PZ11	10/01/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
PZ11	10/01/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
PZ11	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ11	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ11	10/10/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
PZ11	10/10/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ11	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ11	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
PZ8	10/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
PZ8	10/15/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
PZ8	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ8	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ8	10/04/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ8	10/04/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
PZ8	04/03/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ8	04/03/2012	9.7 UJ	9.7 UJ	9.7 UJ	NA	9.7 UJ	19 UJ	NA	9.7 UJ	NA
PZ9	09/24/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
PZ9	09/24/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
PZ9	04/20/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 UJ
PZ9	04/20/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
PZ9	10/07/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
PZ9	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
PZ9	10/07/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ9	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
PZ9	04/06/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
PZ9	04/06/2012	9.4 U	9.4 U	9.4 U	NA	9.4 UJ	19 U	NA	9.4 U	NA

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Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
RWF	09/15/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
RWF	09/15/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
RWF	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
RWF	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
RWF	10/06/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
RWF	10/06/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
RWF	04/04/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
RWF	04/04/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
TP1	09/29/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.036 UJ
TP1	09/29/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
TP1	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
TP1	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP1	10/07/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
TP1	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
TP1	04/05/2012	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
TP1	04/05/2012	9.5 U	9.5 U	9.5 U	NA	9.5 U	19 U	NA	9.5 U	NA

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station Site

SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
TP2	09/29/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
TP2	09/29/2010	1 U	NA	NA	1 U	1 U	5 U	1 U	5 U	1 U
TP2	04/18/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
TP2	04/18/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
TP2	10/07/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
TP2	10/07/2011	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U
TP2	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
TP2	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
TP2	04/09/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
TP2	04/09/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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SVOC AND PAH (µg/L)

Location ID	Sample Date	N-Nitroso-Di-N-Propylamine	N-Nitrosodimethylamine	N-Nitrosodiphenylamine(1)	Naphthalene	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
California MCLs										
Federal MCLs										
WTA	09/30/2010	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U
WTA	09/30/2010	1 U	NA	NA	1 U	1 UJ	5 U	1 U	5 U	1 U
WTA	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	04/14/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	04/14/2011	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U	9.4 U	9.4 U
WTA	10/05/2011	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	10/05/2011	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
WTA	04/05/2012	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	04/05/2012	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
WTA	04/05/2013	9.8 U	9.8 U	9.8 U	NA	9.8 U	20 U	NA	9.8 U	NA
WTA	04/05/2013	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	04/10/2014	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
WTA	04/10/2014	NA	NA	NA	0.09 U	NA	NA	0.09 U	NA	0.09 U
WTA	04/13/2015	9.4 U	9.4 U	9.4 U	NA	9.4 U	19 U	NA	9.4 U	NA
WTA	04/13/2015	NA	NA	NA	0.1 U	NA	NA	0.1 U	NA	0.1 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

		PCBs (µg/L)									PESTICIDES (µg/L)						
Location ID	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Aroclor-1262	Aroclor-1268	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha-BHC	Alpha-Chlordane	Beta-BHC
B120	09/09/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.09 J	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B121	09/08/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B128	09/23/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B128	09/23/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B150	09/08/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B158	09/08/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
B163	09/02/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B175S	09/03/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B175W	09/08/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B177	09/23/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
B178	09/02/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B180	09/15/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B185	09/02/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B185	04/05/2018	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	09/09/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B195	09/09/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B195	04/04/2018	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B197	09/09/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B277	09/15/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B278	09/16/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B280A	09/16/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B280B	10/01/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B300	09/09/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 UJ	0.05 U	0.05 U	0.05 U
B38	09/15/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B460	09/15/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2018 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station Site

		PCBs (µg/L)									PESTICIDES (µg/L)						
Location ID	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Aroclor-1262	Aroclor-1268	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha-BHC	Alpha-Chlordane	Beta-BHC
B473	09/24/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B474	09/23/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B480	09/24/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
B490	09/16/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
BULB1	10/19/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
BULB2	10/19/2010	0.19 UJ	0.38 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
CCC1	09/08/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
CCC2	09/08/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
CCC3	09/03/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
CCC3	09/03/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
CCCT	09/03/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
CTP	09/30/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
CTP	09/30/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
CTPS	09/30/2010	0.22 UJ	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	NA	NA	NA	NA	NA	NA	NA
CTPS	10/18/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.11 U	0.11 U	0.11 U	0.05 U	0.05 U	0.05 U	0.05 U
DH	09/30/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
EERC	10/01/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	NA	NA	NA	NA	NA	NA	NA
EERC	10/15/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
EPA	09/16/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
ETA	09/24/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
ETA	09/24/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
EXT	09/30/2011	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
FG	09/23/2010	0.2 UJ	0.4 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
GEO	09/03/2010	0.19 U	0.38 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
MFA	09/24/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
NRLF	09/16/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U

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University of California, Berkeley, Richmond Field Station Site

		PCBs (µg/L)									PESTICIDES (µg/L)						
Location ID	Sample Date	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Aroclor-1262	Aroclor-1268	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	Alpha-BHC	Alpha-Chlordane	Beta-BHC
OBS6	09/30/2011	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
PZ11	10/01/2010	0.19 UJ	0.38 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
PZ8	10/15/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
PZ9	09/24/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
RWF	09/15/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
TP1	09/29/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U
TP2	09/29/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U
WTA	09/30/2010	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U

PESTICIDES (µg/L)

Location ID	Sample Date	Chlordane	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-BHC (Lindane)	Gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
B120	09/09/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
B121	09/08/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
B128	09/23/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B128	09/23/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B150	09/08/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
B158	09/08/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
B163	09/02/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B175S	09/03/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
B175W	09/08/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
B177	09/23/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
B178	09/02/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B180	09/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B185	09/02/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B185	04/05/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	09/09/2010	NA	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	NA
B195	09/09/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B195	04/04/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	09/09/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
B197	09/09/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
B277	09/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B278	09/16/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B280A	09/16/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B280B	10/01/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B300	09/09/2010	NA	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	NA
B38	09/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U

PESTICIDES (µg/L)

Location ID	Sample Date	Chlordane	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-BHC (Lindane)	Gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
B460	09/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B473	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B474	09/23/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B480	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
B490	09/16/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
BULB1	10/19/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
BULB2	10/19/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
CCC1	09/08/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
CCC2	09/08/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
CCC3	09/03/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
CCC3	09/03/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
CCCT	09/03/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
CTP	09/30/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
CTP	09/30/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
CTPS	09/30/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	10/18/2010	5.5 U	0.05 U	0.11 U	0.05 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.05 U	0.05 U	0.05 U	0.05 U	0.55 U	5.5 U
DH	09/30/2010	4.8 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.48 U	4.8 U
EERC	10/01/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
EPA	09/16/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
ETA	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
ETA	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
EXT	09/30/2011	NA	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	1 U
FG	09/23/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
GEO	09/03/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U

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PESTICIDES (µg/L)

Location ID	Sample Date	Chlordane	Delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-BHC (Lindane)	Gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
MFA	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
NRLF	09/16/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
OBS6	09/30/2011	NA	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	NA	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.9 U
PZ11	10/01/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
PZ8	10/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
PZ9	09/24/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
RWF	09/15/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
TP1	09/29/2010	4.7 U	0.05 U	0.09 U	0.05 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.05 U	0.05 U	0.05 U	0.05 U	0.47 U	4.7 U
TP2	09/29/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U
WTA	09/30/2010	5 U	0.05 U	0.1 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	5 U

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
B120	09/09/2010	0.24 U	0.95 U	0.07 Z	2 U	1000	1900
B120	04/15/2011	0.05 U	0.3 U	0.086	NA	NA	2510
B120	10/04/2011	0.013 J	0.3 U	0.1 YZ	NA	NA	2230
B120	04/03/2012	0.05 U	0.3 U	0.097 UJ	NA	NA	2190
B121	09/08/2010	0.25 U	1 U	0.05 U	2 U	280	520
B121	04/13/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	520
B121	10/04/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	530
B121	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	510
B128	09/23/2010	0.25 U	1 U	0.05 U	2 U	360	800
B128	09/23/2010	0.25 U	1 U	0.05 U	2 U	320	970
B128	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	500
B128	10/04/2011	0.028 J	0.3 U	0.05 UJ	NA	NA	560
B128	04/02/2012	0.05 UJ	0.3 U	0.05 UJ	NA	NA	440
B128DEEP	10/15/2010	NA	NA	NA	2 U	NA	440
B150	09/08/2010	0.24 U	0.95 U	0.05 U	2 U	150	290
B150	04/13/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	220
B150	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	290
B150	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	280
B150	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	150
B150	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	190
B158	09/08/2010	0.24 U	0.95 U	0.05 U	2 U	21	200
B158	04/15/2011	0.05 U	0.3 U	0.05 U	NA	NA	180
B158	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	310
B158	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	200
B163	09/02/2010	0.2 ZJ	1 U	0.046 ZJ	2 U	1500	2900
B163	04/12/2011	0.05 U	0.3 U	0.064 Y	NA	NA	2820
B163	10/03/2011	0.011 J	0.3 U	0.062 Z	NA	NA	2860
B163	04/02/2012	0.05 UJ	0.3 U	0.05 UJ	NA	NA	2700

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
B175S	09/03/2010	0.24 U	0.95 U	0.05 U	2 U	310	590
B175S	04/13/2011	0.053 UJ	0.3 U	0.05 UJ	NA	NA	580
B175S	10/04/2011	0.017 J	0.3 U	0.05 UJ	NA	NA	540
B175S	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	550
B175W	09/08/2010	0.25 U	1 U	0.05 U	2 U	92	270
B175W	04/13/2011	0.052 UJ	0.3 U	0.012 UJ	NA	NA	270
B175W	10/04/2011	0.051 Y	0.091 J	0.05 UJ	NA	NA	290
B175W	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	210
B177	09/23/2010	0.24 U	0.95 U	0.05 U	2 U	71	190
B177	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	250
B177	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	200
B177	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	270
B178	09/02/2010	0.25 U	1 U	0.063 Z	1.9 J	990	1800
B178	04/15/2011	0.05 U	0.3 U	0.073 UJ	NA	NA	2050
B178	10/04/2011	0.05 U	0.3 U	0.12 YZ	NA	NA	1810
B178	04/03/2012	0.011 J	0.3 U	0.094 UJ	NA	NA	2190
B180	09/15/2010	0.25 U	1 U	0.05 U	2 U	35	360
B180	04/13/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	330
B180	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	350
B180	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	350
B180	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	260
B185	09/02/2010	0.12 ZJ	0.95 U	0.036 ZJ	3.1	920	1700
B185	04/15/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	1630
B185	04/15/2011	0.05 U	0.3 U	0.062 UJ	NA	NA	1610
B185	10/03/2011	0.05 U	0.3 U	0.055 YZ	NA	NA	1670
B185	10/03/2011	0.05 U	0.3 U	0.048 J	NA	NA	1630
B185	04/02/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	1670

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
B194	09/09/2010	0.24 U	0.95 U	0.05 U	2 U	300	670
B194	04/13/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	660
B194	10/04/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	630
B194	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	570
B195	09/09/2010	0.24 U	0.95 U	0.059 ZJ	2 U	830	1600
B195	04/13/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	570
B195	04/13/2011	0.05 UJ	0.3 U	0.051 Z	NA	NA	550
B195	10/04/2011	0.05 U	0.3 U	0.15 YZ	NA	NA	1610
B195	04/03/2012	0.05 U	0.3 U	0.088 UJ	NA	NA	790
B197	09/09/2010	0.25 U	1 U	0.073 Z	2 U	830	1500
B197	09/09/2010	0.24 U	0.95 U	0.074 Z	2 U	830	1500
B197	04/13/2011	0.05 UJ	0.3 U	0.1 YZ	NA	NA	2170
B197	10/04/2011	0.05 U	0.3 U	0.11 YZ	NA	NA	1560
B197	04/03/2012	0.05 U	0.3 U	0.092 UJ	NA	NA	2290
B197	04/03/2012	0.05 U	0.3 U	0.095 UJ	NA	NA	2240
B277	09/15/2010	0.25 U	1 U	0.05 U	2 U	230	400
B277	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	450
B277	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	400
B277	04/03/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	420
B278	09/16/2010	0.25 U	1 U	0.05 U	2 U	1300	2300
B278	04/19/2011	0.05 U	0.3 U	0.019 J	NA	NA	2050 J
B278	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	2250
B278	04/05/2012	0.01 J	0.3 U	0.05 UJ	NA	NA	NA
B280A	09/16/2010	0.25 U	1 U	0.05 U	2 U	290	510
B280A	04/14/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	430
B280A	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	510
B280A	04/03/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	540

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
B280B	10/01/2010	0.25 U	1 U	0.05 U	2 U	230	650
B280B	04/14/2011	0.05 U	0.3 U	0.05 U	NA	NA	580
B280B	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	530
B280B	04/03/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	490
B300	09/09/2010	0.24 U	0.95 U	0.05 U	2 U	720	1100
B300	04/15/2011	0.05 U	0.3 U	0.05 U	NA	NA	2480
B300	10/06/2011	0.33 Y	0.3 U	0.21 YZ	NA	NA	580
B300	04/09/2012	0.0086 J	0.3 U	0.05 UJ	NA	NA	1680
B38	09/15/2010	0.25 U	1 U	0.05 U	2 U	170	310
B38	04/19/2011	0.05 U	0.3 U	0.05 U	NA	NA	350
B38	04/19/2011	0.05 U	0.3 U	0.05 U	NA	NA	350
B38	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	290
B38	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	240
B38DEEP	10/18/2010	NA	NA	NA	2 U	NA	350
B450	04/19/2011	0.013 J	0.3 U	0.018 J	NA	NA	610
B450	10/10/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	120
B450	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	770
B460	09/15/2010	0.25 U	1 U	0.05 U	2 U	150	290
B460	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	320
B460	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	320
B460	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	270
B473	09/24/2010	0.25 U	1 U	0.05 U	2 U	170	460
B473	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	590
B473	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	350
B473	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	300

APPENDIX B: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
B474	09/23/2010	0.37 ZJ	1 U	0.049 ZJ	2 U	160	430
B474	04/20/2011	0.05 U	0.3 U	0.05 U	NA	NA	420
B474	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	130
B474	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	250
B480	09/24/2010	0.25 U	1 U	0.05 U	2 U	320	670
B480	04/19/2011	0.014 J	0.3 U	0.019 J	NA	NA	620
B480	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	490
B480	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	640
B480DEEP	10/15/2010	NA	NA	NA	2 U	NA	360
B490	09/16/2010	0.25 U	1 U	0.05 U	2 U	350	540
B490	04/20/2011	0.05 U	0.3 U	0.05 U	NA	NA	560
B490	10/10/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	270
B490	04/09/2012	0.008 J	0.3 U	0.05 UJ	NA	NA	550
BULB1	10/19/2010	0.24 U	0.94 U	0.038 J	40 U	4400	25000
BULB1	04/12/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	22800
BULB1	09/30/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	27600
BULB1	04/05/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	NA
BULB2	10/19/2010	0.17 ZJ	1 U	0.077	10 U	1100	5900
BULB2	04/12/2011	0.0078 J	0.3 U	0.05 UJ	NA	NA	1530
BULB2	09/30/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	930
BULB2	04/05/2012	0.013 J	0.3 U	0.05 UJ	NA	NA	NA
CCC1	09/08/2010	0.24 U	0.95 U	0.05 U	2 U	140	440
CCC1	04/14/2011	0.05 UJ	0.3 U	0.05 U	NA	NA	520
CCC1	10/05/2011	0.012 J	0.3 U	0.05 UJ	NA	NA	510
CCC1	04/10/2012	0.049 U	0.29 U	0.05 UJ	NA	NA	640

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
CCC2	09/08/2010	0.25 U	1 U	0.05 U	2 U	250	630
CCC2	04/14/2011	0.05 UJ	0.3 U	0.05 U	NA	NA	1990
CCC2	10/04/2011	0.014 J	0.3 U	0.05 UJ	NA	NA	770
CCC2	04/10/2012	0.049 U	0.29 U	0.05 UJ	NA	NA	1140
CCC3	09/03/2010	0.24 U	0.95 U	0.05 U	2 U	360	730
CCC3	09/03/2010	0.25 U	1 U	0.05 U	2 U	350	710
CCC3	04/12/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	720
CCC3	10/04/2011	0.018 J	0.3 U	0.05 UJ	NA	NA	700
CCC3	10/04/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	710
CCC3	04/10/2012	0.049 U	0.29 U	0.05 UJ	NA	NA	740
CCCT	09/03/2010	0.24 U	0.94 U	0.038 ZJ	1.6 J	590	1100
CCCT	04/18/2011	0.05 U	0.3 U	0.055 UJ	NA	NA	1110
CCCT	10/03/2011	0.05 U	0.3 U	0.046 JYZ	NA	NA	1120
CCCT	04/04/2012	0.05 U	0.3 U	0.054 UJ	NA	NA	1240
CTP	09/30/2010	0.25 U	1 U	0.05 U	2 U	240	490
CTP	09/30/2010	0.25 U	1 U	0.05 U	2 U	240	500
CTP	04/14/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	480
CTP	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	480
CTP	04/03/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	540
CTPDEEP	10/15/2010	NA	NA	NA	2 U	NA	370
CTPS	09/30/2010	NA	NA	0.05 U	NA	610	NA
CTPS	04/19/2011	0.05 U	0.3 U	0.013 J	NA	NA	520
CTPS	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	500
CTPS	04/05/2012	0.013 J	0.3 U	0.05 UJ	NA	NA	NA

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
DH	09/30/2010	0.25 U	1 U	0.05 U	4 U	2700	5500
DH	04/14/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	5350
DH	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	7480
DH	04/05/2012	NA	NA	0.05 UJ	NA	NA	NA
DH	04/06/2012	0.0085 J	0.3 U	NA	NA	NA	4580
EERC	10/01/2010	0.16 J	1 U	0.05 U	NA	2500	NA
EERC	10/15/2010	NA	NA	NA	4 U	NA	4800
EERC	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	4260
EERC	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	3530
EERC	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	4190
EPA	09/16/2010	0.25 U	1 U	0.05 U	2 U	380	710
EPA	04/19/2011	0.05 U	0.3 U	0.013 J	NA	NA	950
EPA	10/06/2011	0.012 UJ	0.3 U	0.05 UJ	NA	NA	950
EPA	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	1050
EPA	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	1100
ETA	09/24/2010	0.12 J	1 U	0.05 U	2 U	630	1300
ETA	09/24/2010	0.12 J	1 U	0.05 U	2 U	620	1300
ETA	04/12/2011	0.014 J	0.3 U	0.05 UJ	NA	NA	1410
ETA	09/30/2011	0.014 J	0.3 U	0.05 UJ	NA	NA	1290
ETA	04/10/2012	0.049 U	0.29 U	0.05 UJ	NA	NA	1510
ETA	04/10/2012	0.049 U	0.29 U	0.05 UJ	NA	NA	1510
EXT	09/30/2011	0.014 J	0.3 U	0.05 UJ	NA	NA	240
FG	09/23/2010	0.25 U	1 U	0.05 U	2 U	820	1300
FG	04/19/2011	0.05 U	0.3 U	0.021 J	NA	NA	590
FG	04/19/2011	0.05 U	0.3 U	0.016 J	NA	NA	580
FG	10/10/2011	0.05 UJ	0.3 UJ	0.05 UJ	NA	NA	800
FG	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	500

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
GEO	09/03/2010	0.24 U	0.95 U	0.05 U	2 U	270	510
GEO	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	560
GEO	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	520
GEO	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	570
MFA	09/24/2010	0.25 U	1 U	0.05 U	2 U	440	900
MFA	04/12/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	640
MFA	10/03/2011	0.036 J	0.3 U	0.05 UJ	NA	NA	930
MFA	04/05/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	NA
NRLF	09/16/2010	0.12 ZJ	1 U	0.041 ZJ	2 U	230	400
NRLF	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	560
NRLF	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	420
NRLF	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	430
OBS6	09/30/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	360
PZ11	10/01/2010	0.25 U	1 U	0.31 ZJ	2 U	1400	2500
PZ11	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	2930
PZ11	10/10/2011	0.05 U	0.3 U	0.21 YZJ	NA	NA	3090
PZ11	04/05/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	NA
PZ8	10/15/2010	0.25 U	1 U	0.05 U	2 UJ	270	510
PZ8	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	480
PZ8	10/04/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	540
PZ8	04/03/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	560
PZ9	09/24/2010	0.25 U	1 U	0.05 U	2 U	240	400
PZ9	04/20/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	370
PZ9	10/07/2011	0.05 U	0.13 J	0.05 UJ	NA	NA	340
PZ9	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	330
PZ9	04/06/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	450

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		TPH (mg/L)			MISCELLANEOUS (mg/L)		
Location ID	Sample Date	Diesel Range Organic	Motor Oil Range Organic	Gasoline Range Organic	Perchlorate	Hardness	Total Dissolved Solids
RWF	09/15/2010	0.24 U	0.95 U	0.05 U	2 U	430	720
RWF	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	780
RWF	10/06/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	760
RWF	04/04/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	720
TP1	09/29/2010	0.24 U	0.95 U	0.05 U	2 U	410	720
TP1	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	1770
TP1	10/07/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	750
TP1	04/05/2012	0.013 J	0.3 U	0.05 UJ	NA	NA	NA
TP2	09/29/2010	0.25 U	1 U	0.05 U	2 U	510	830
TP2	04/18/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	810
TP2	10/07/2011	0.031 J	0.3 U	0.05 UJ	NA	NA	800
TP2	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	820
TP2	04/09/2012	0.05 U	0.3 U	0.05 UJ	NA	NA	790
WTA	09/30/2010	0.25 U	1 U	0.05 U	2 U	550	1000
WTA	04/14/2011	0.05 UJ	0.3 U	0.05 U	NA	NA	1020
WTA	04/14/2011	0.05 UJ	0.3 U	0.05 UJ	NA	NA	1010
WTA	10/05/2011	0.05 U	0.3 U	0.05 UJ	NA	NA	1050
WTA	04/05/2012	0.0099 J	0.3 U	0.05 UJ	NA	NA	NA

Notes:

Gray highlights indicate the result equals or exceeds the Federal MCL.

Outlined boxes indicate the result equals or exceeds the California MCL.

BHC	Hexachlorocyclohexane	MCL	Maximum Contaminant Level	SVOC	Semivolatile Organic Compounds
DDD	Dichlorodiphenyldichloroethane	METAL	Total (unfiltered) metal	TPH	Total Petroleum Hydrocarbons
DDE	Dichlorodiphenyldichloroethene	mg/L	Milligrams per liter	U	Nondetect
DDT	Dichlorodiphenyltrichloroethane	NA	Not analyzed	VOC	Volatile Organic Compounds
DMETAL	Dissolved (filtered) metal	PAH	Polycyclic aromatic hydrocarbon	Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks)
J	Estimated value	PCB	Polychlorinated biphenyl	µg/L	Micrograms per liter

APPENDIX C
CONCENTRATION-TIME GRAPHS FOR CARBON TETRACHLORIDE, MERCURY, AND TRICHLOROETHENE

This appendix presents concentration-time graphs and trend lines for groundwater collected from 2010 through 2018 at the Richmond Field Station Site, located at the Berkeley Global Campus at Richmond Bay. Concentrations of carbon tetrachloride, trichloroethene, and mercury were plotted because results of these analytes have consistently exceeded California and federal maximum contaminant levels (MCL) throughout the duration of the groundwater investigations. Other chemicals that have exceeded MCLs in at least one sampling event but are not presented include 1,2-dichloroethane, cis-1,2-dichloroethene, tetrachloroethene, trans-1,2-dichloroethene, bis(2-ethylhexyl)phthalate, vinyl chloride, aluminum, antimony, arsenic, cadmium, chromium (unfiltered samples only), copper (unfiltered samples only), lead (unfiltered samples only), nickel, and selenium; these chemicals were excluded from the trend analysis because were not detected frequently above the MCLs.

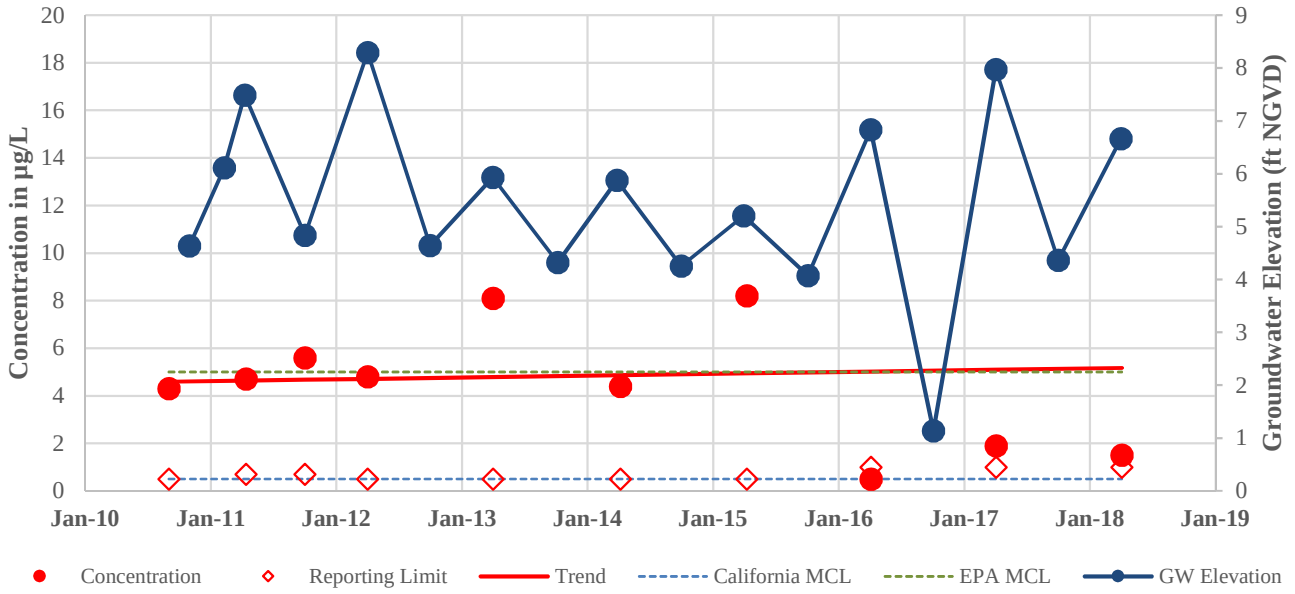
For piezometers with duplicate sample results, the maximum value of the duplicate is presented on the concentration-time graphs and used for calculation of the trend line. Where non-detects were present, the reporting limit value is presented on the graphs and used for the trend calculations.

Trend lines were calculated by importing the data into ProUCL 5.0 (EPA 2013) and calculating a Theil-Sen trend test at a 95 percent confidence level. The slope and intercept of the Thiel-Sen line were used to plot the Theil-Sen line.

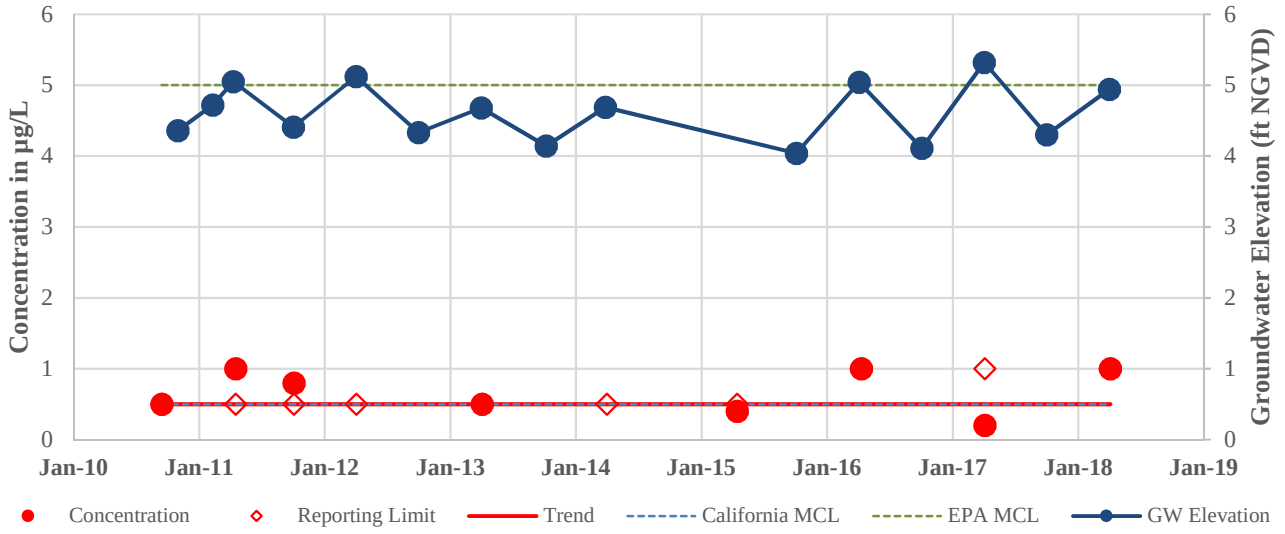
Reference:

EPA. 2013. ProUCL Version 5.0.00 Technical Guide: Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations. EPA/600/R-07/041. September.

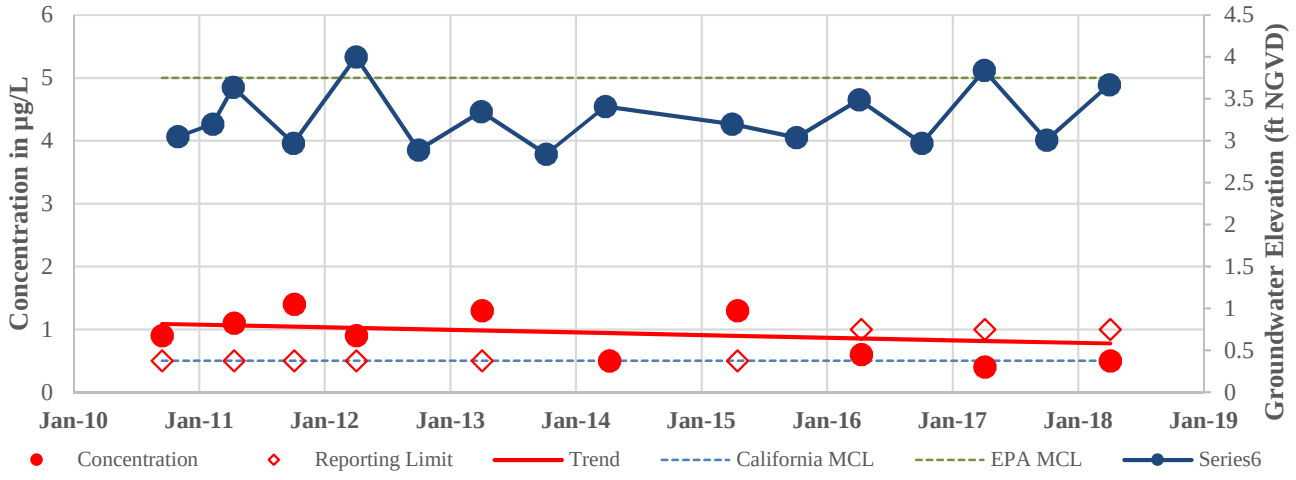
Carbon Tetrachloride Concentration in B185

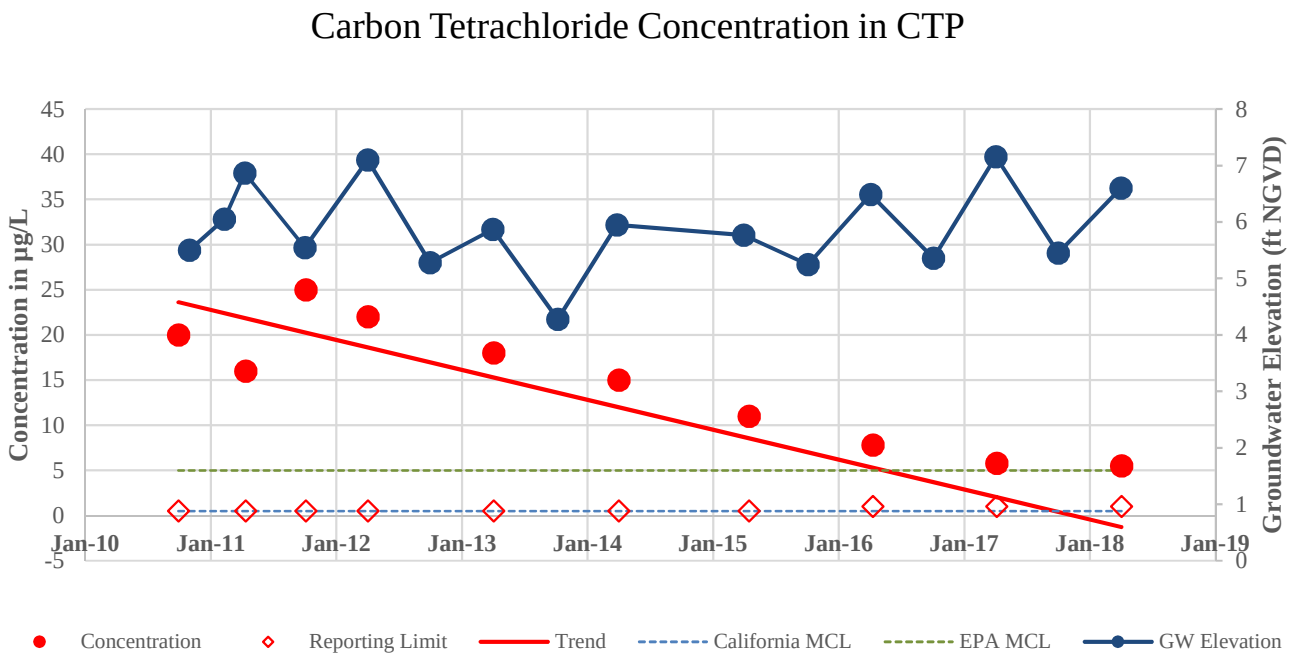


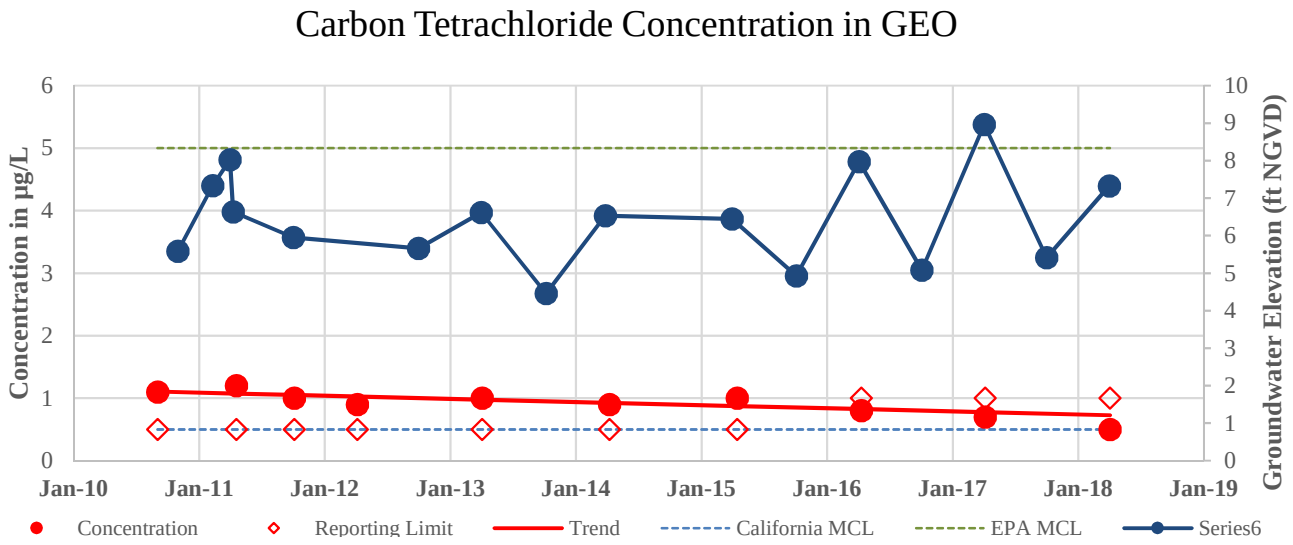
Carbon Tetrachloride Concentration in B277

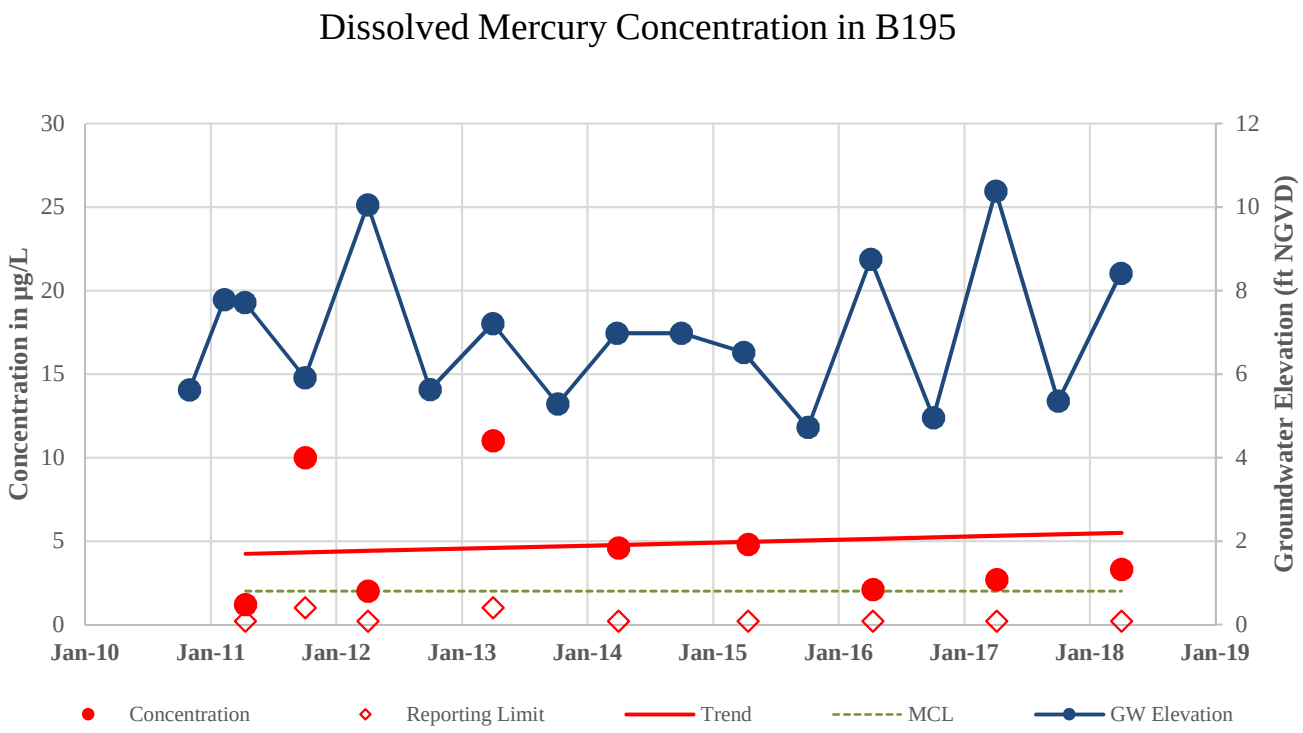


Carbon Tetrachloride Concentration in B280A

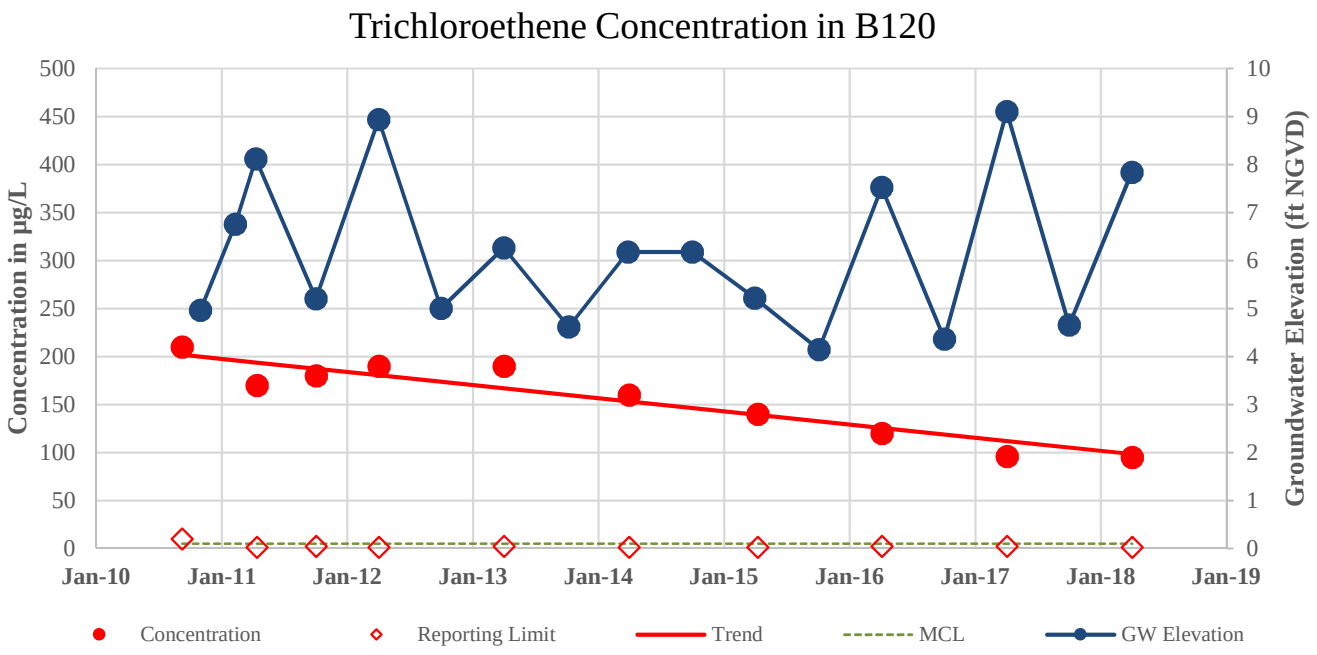


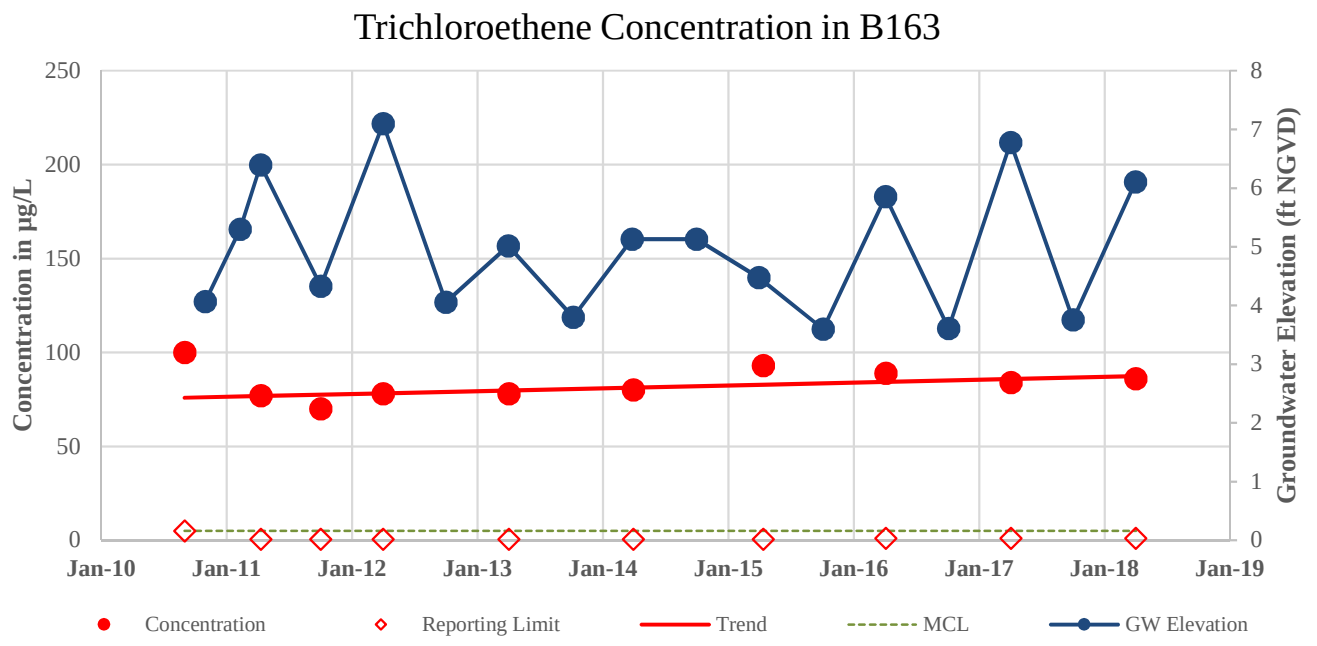

Carbon Tetrachloride Concentration in CTP
Concentration in µg/L
Groundwater Elevation (ft NGVD)
45
40
35
30
25
20
15
10
5
0
-5
8
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
California MCL
EPA MCL
GW Elevation

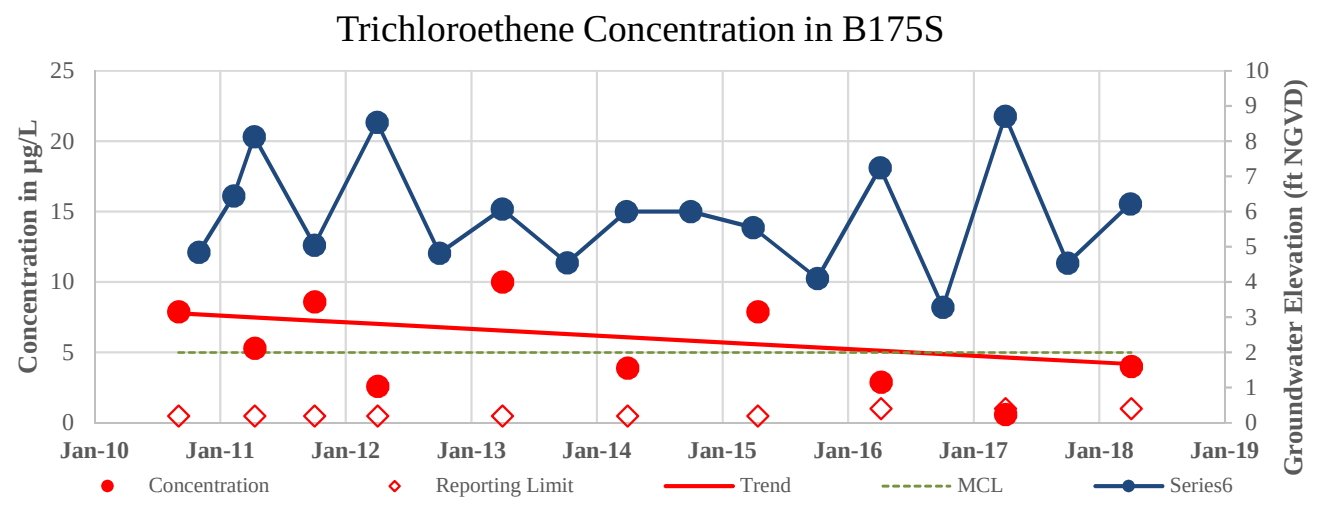

Carbon Tetrachloride Concentration in GEO
Concentration in µg/L
Groundwater Elevation (ft NGVD)
6
5
4
3
2
1
0
10
9
8
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
California MCL
EPA MCL
Series6



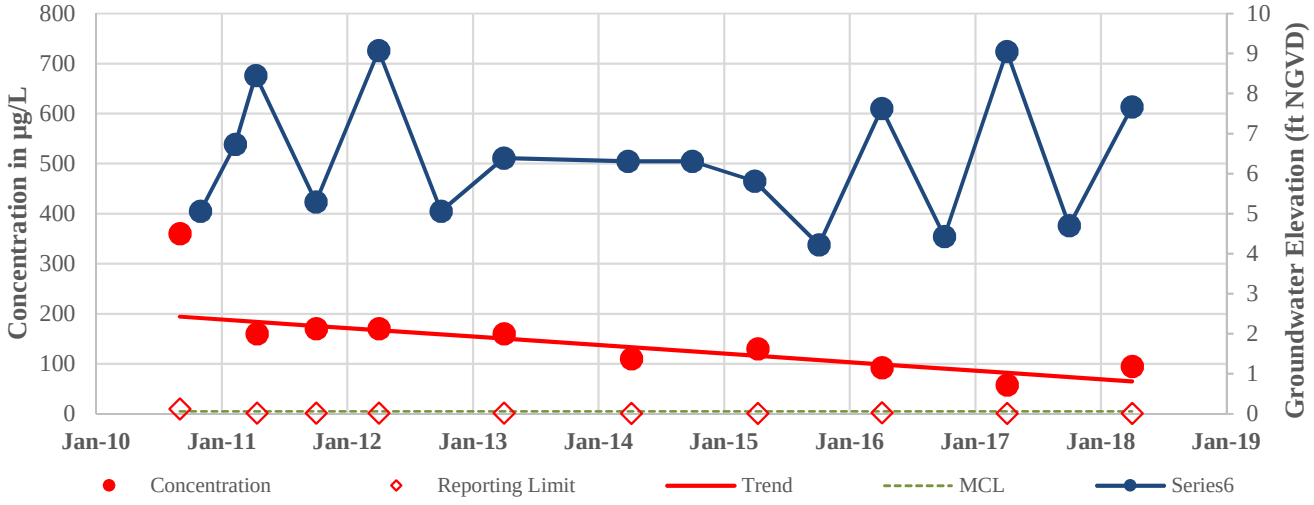
Note: Dissolved mercury concentrations were reported, as MCLs are based on dissolved concentrations of metals. Results for unfiltered mercury collected between 2010 and 2012 were not reported. See Appendix B for complete analytical results.


Trichloroethene Concentration in B120
Concentration in µg/L
Groundwater Elevation (ft NGVD)
500
450
400
350
300
250
200
150
100
50
0
10
9
8
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
GW Elevation

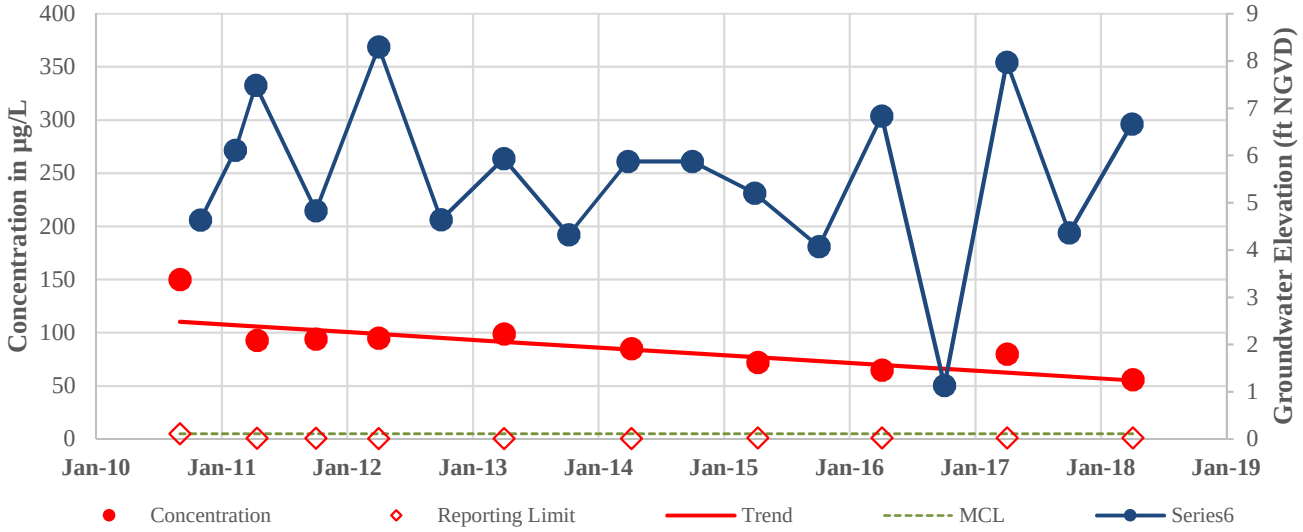

Trichloroethene Concentration in B163
Concentration in µg/L
Groundwater Elevation (ft NGVD)
250
200
150
100
50
0
8
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
GW Elevation


Trichloroethene Concentration in B175S
Concentration in µg/L
Groundwater Elevation (ft NGVD)
25
20
15
10
5
0
10
9
8
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
Series6

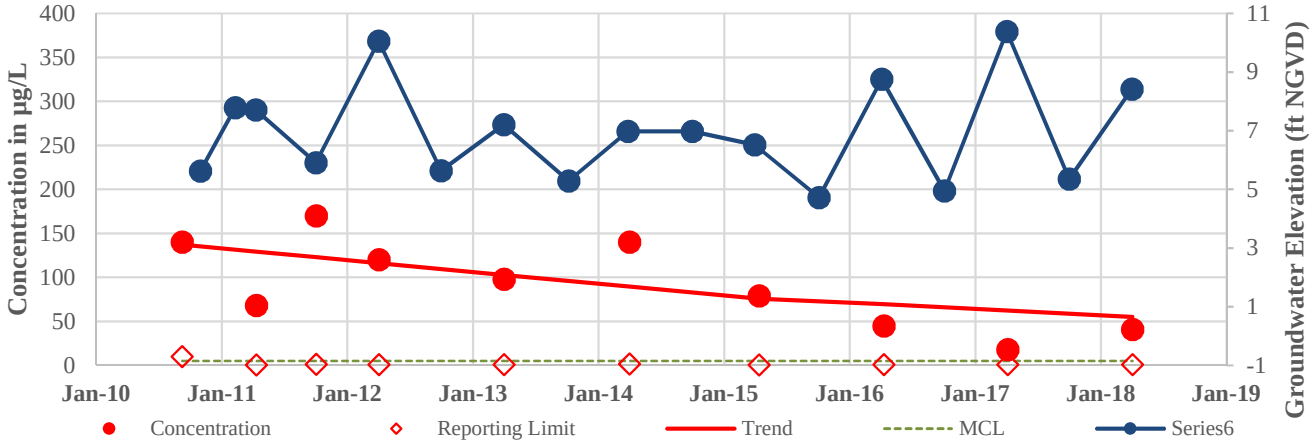
Trichloroethene Concentration in B178



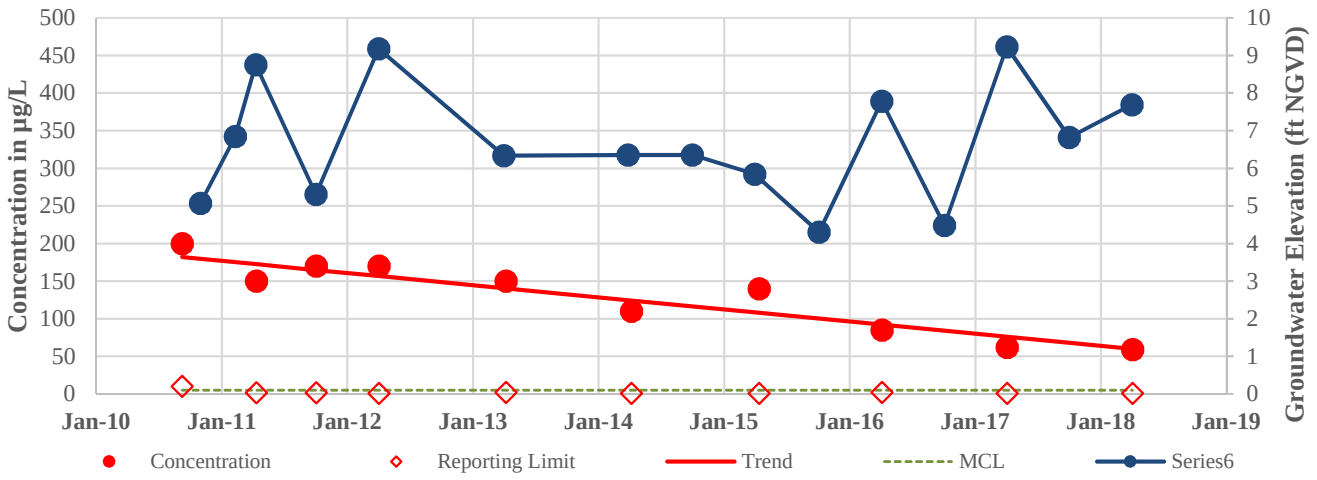
Trichloroethene Concentration in B185



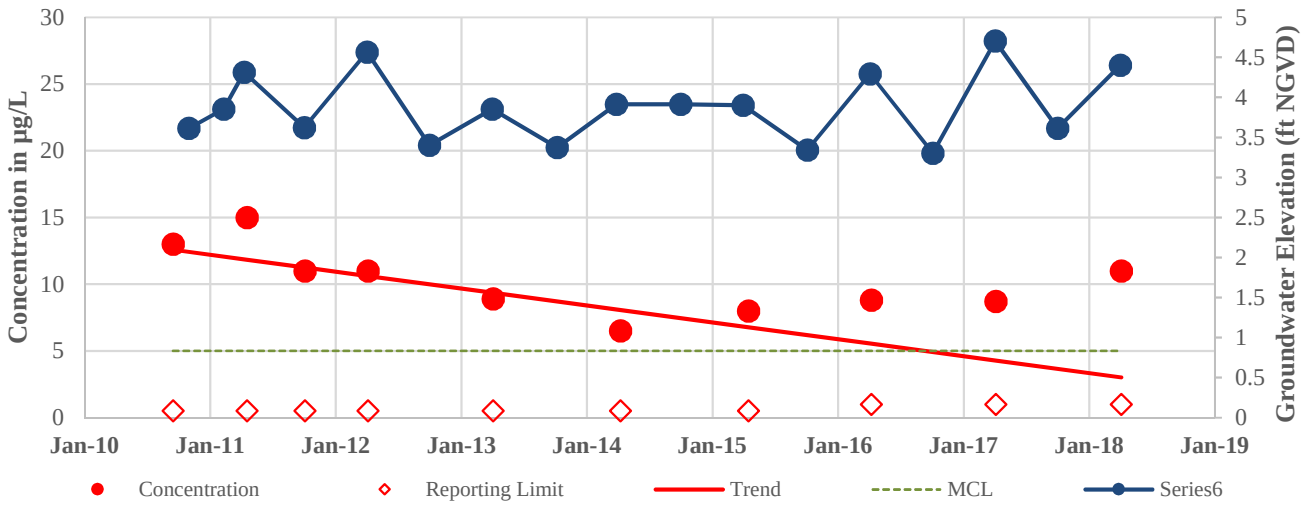
Trichloroethene Concentration in B195



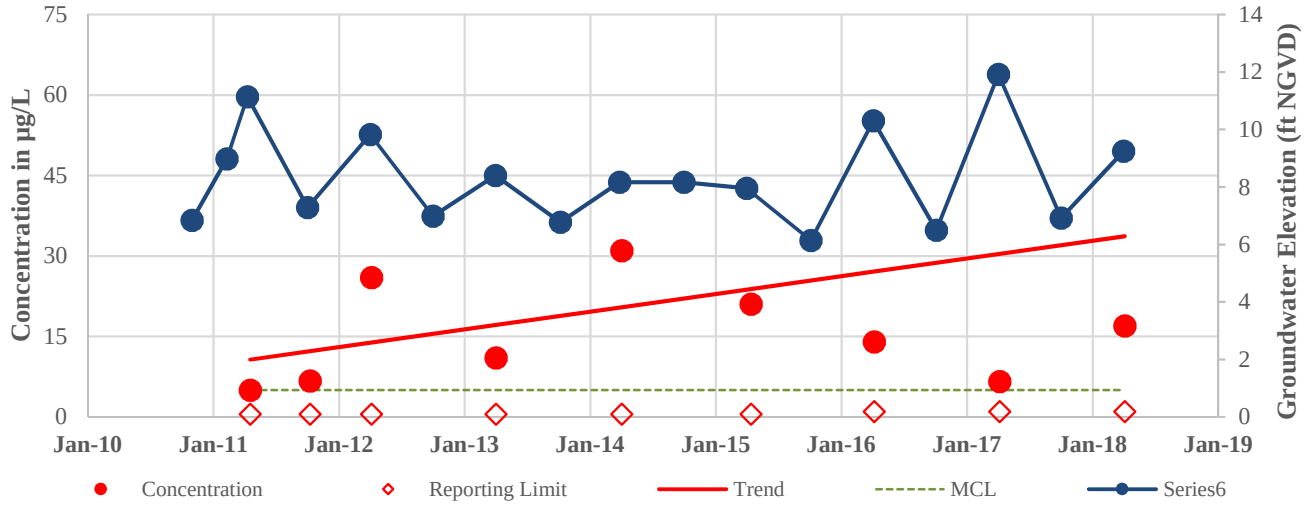
Trichloroethene Concentration in B197/B197R



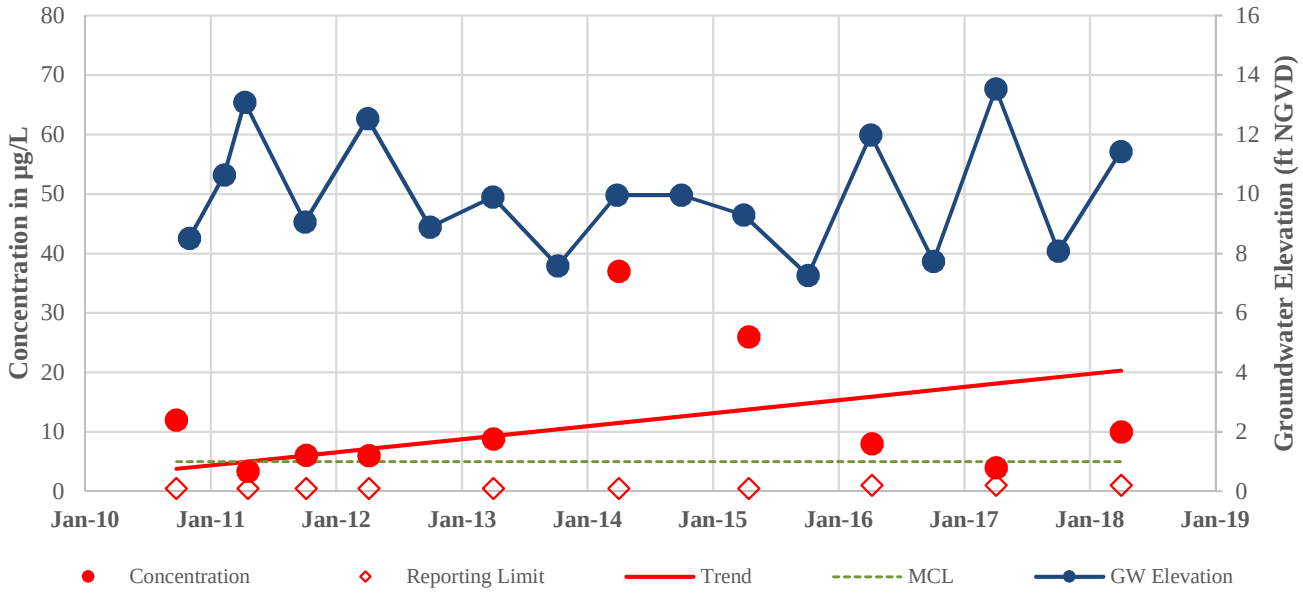
Trichloroethene Concentration in B278



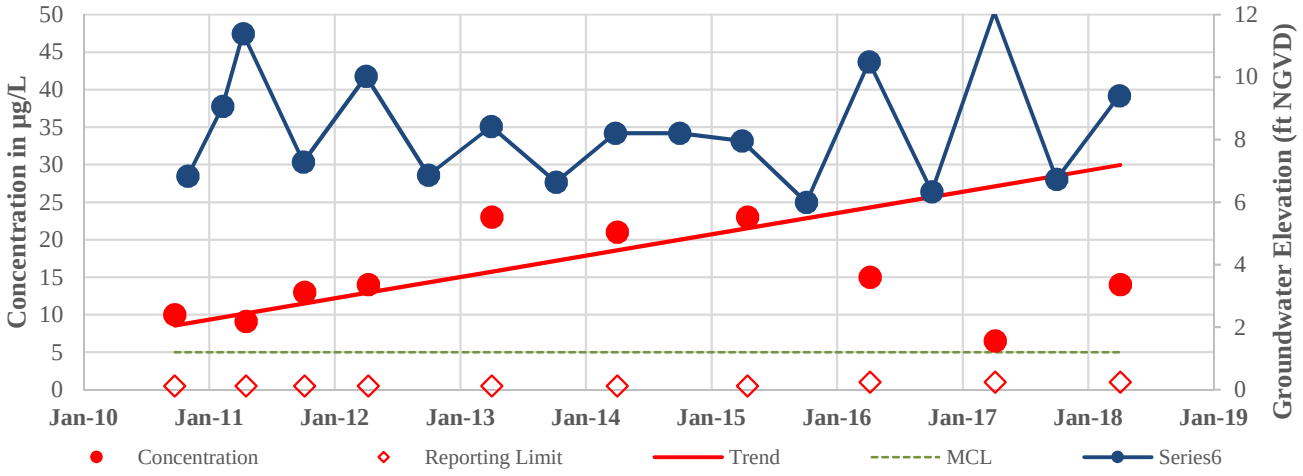
Trichloroethene Concentration in B450



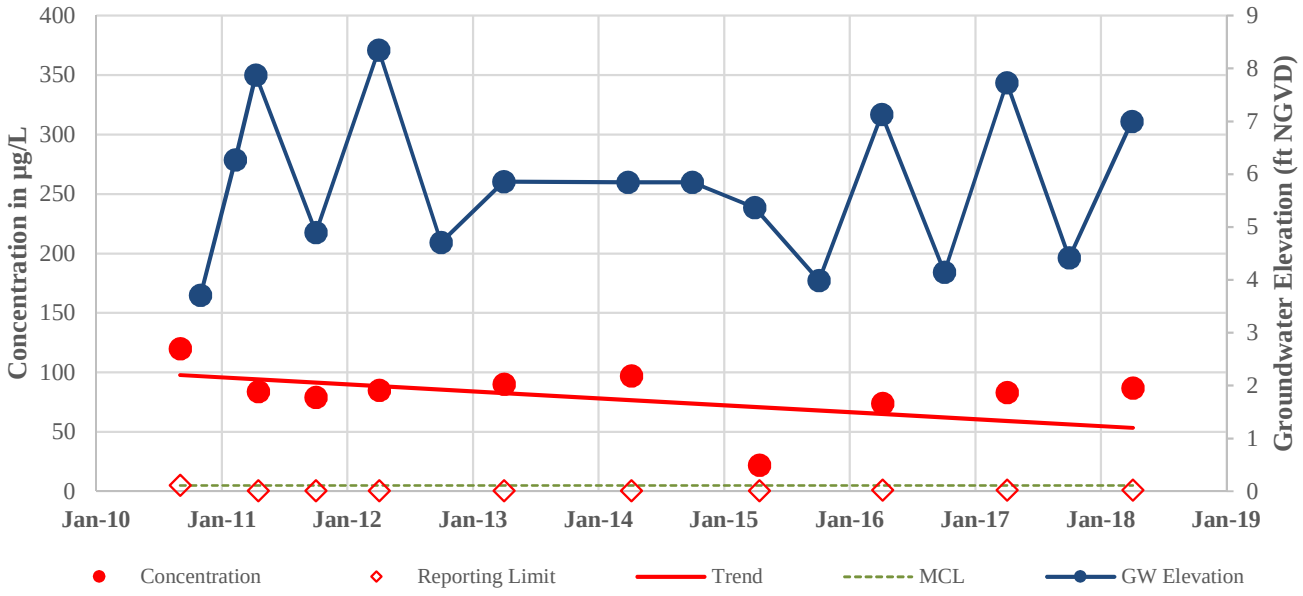
Trichloroethene Concentration in B473



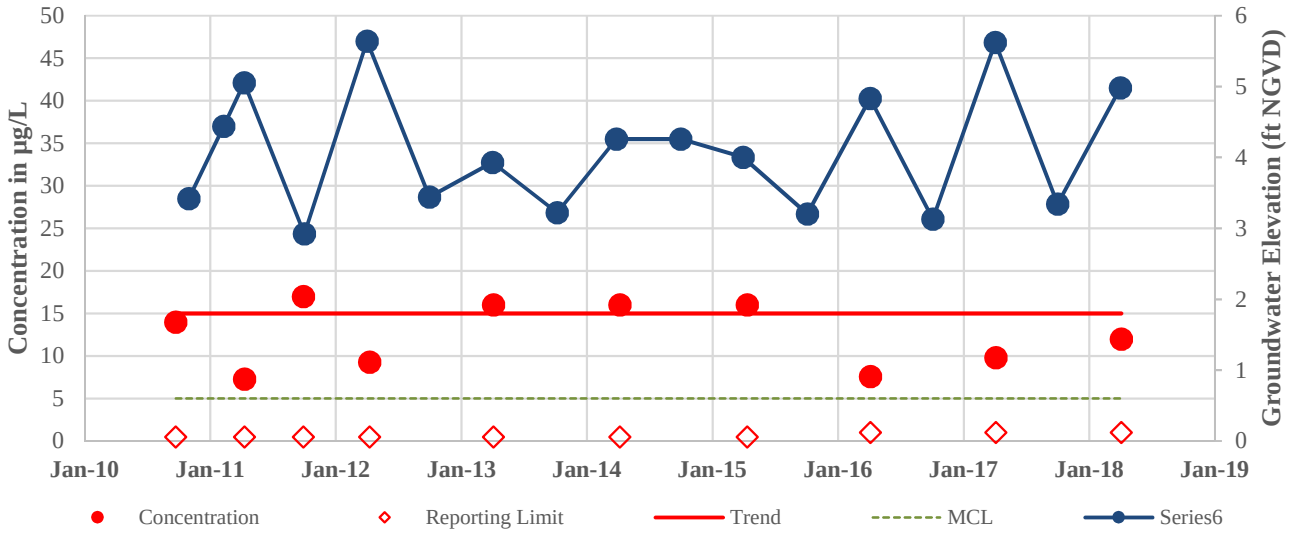
Trichloroethene Concentration in B480

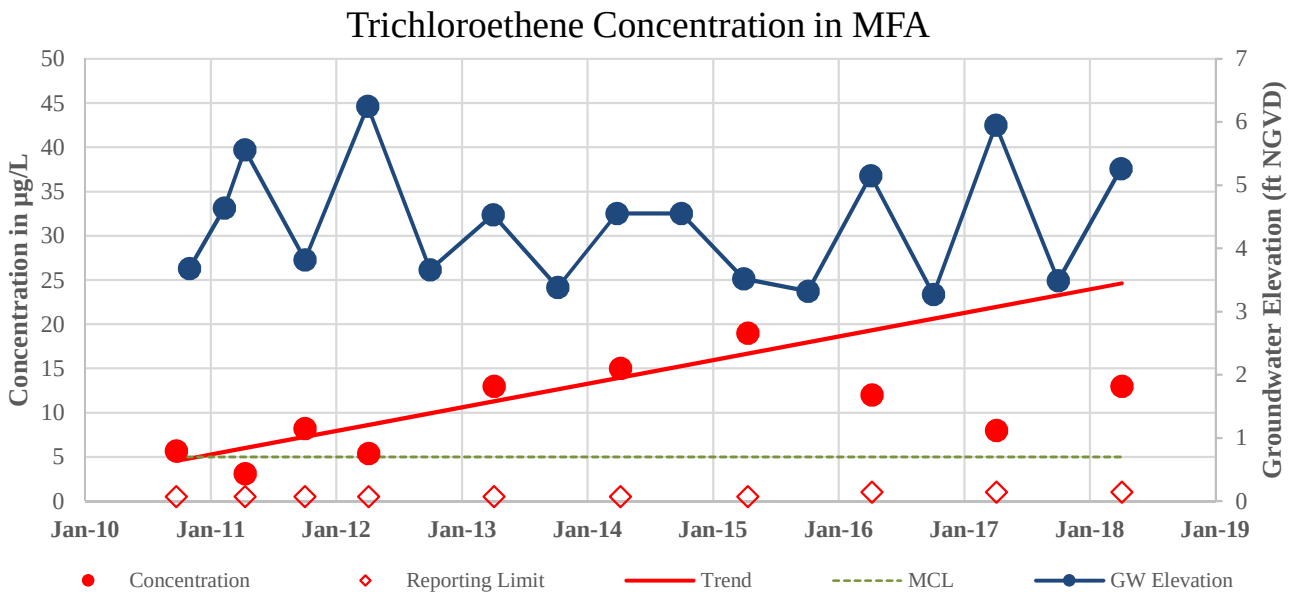


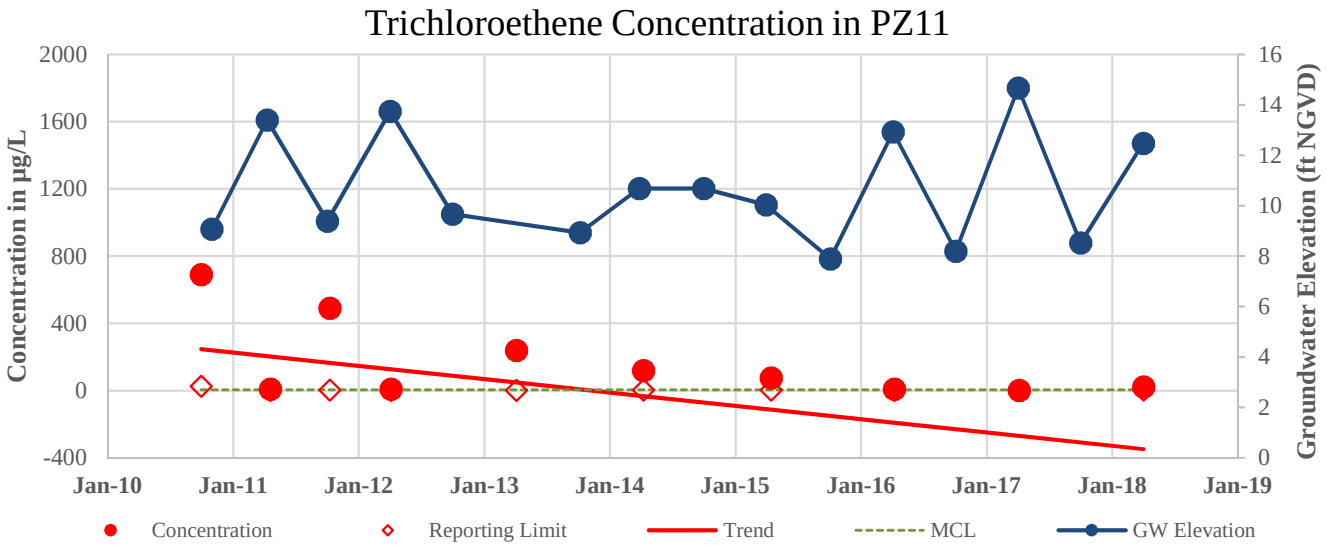
Trichloroethene Concentration in CCCT

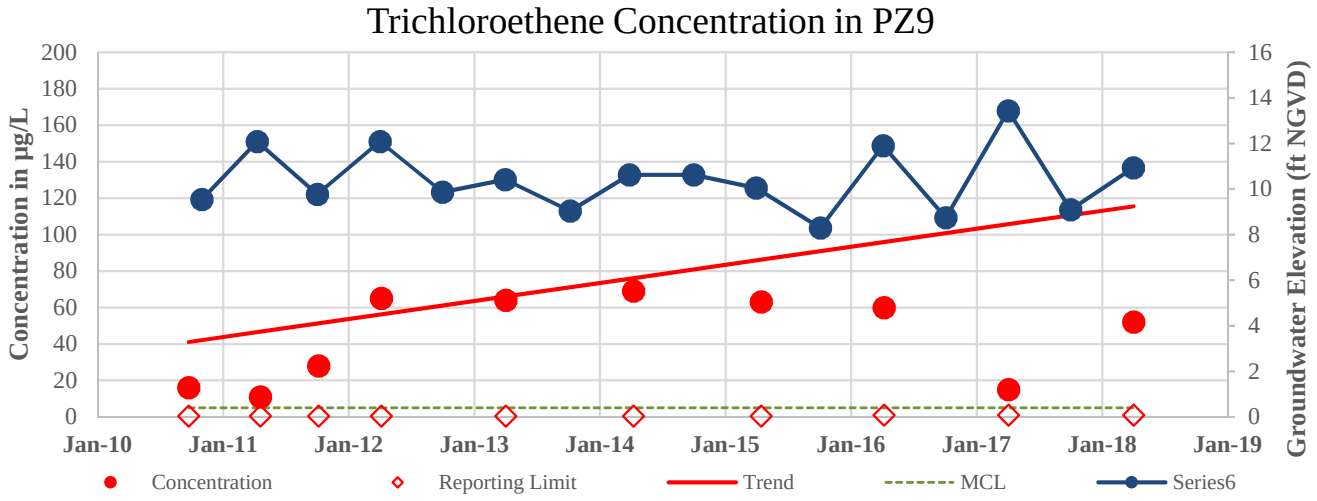


Trichloroethene Concentration in ETA

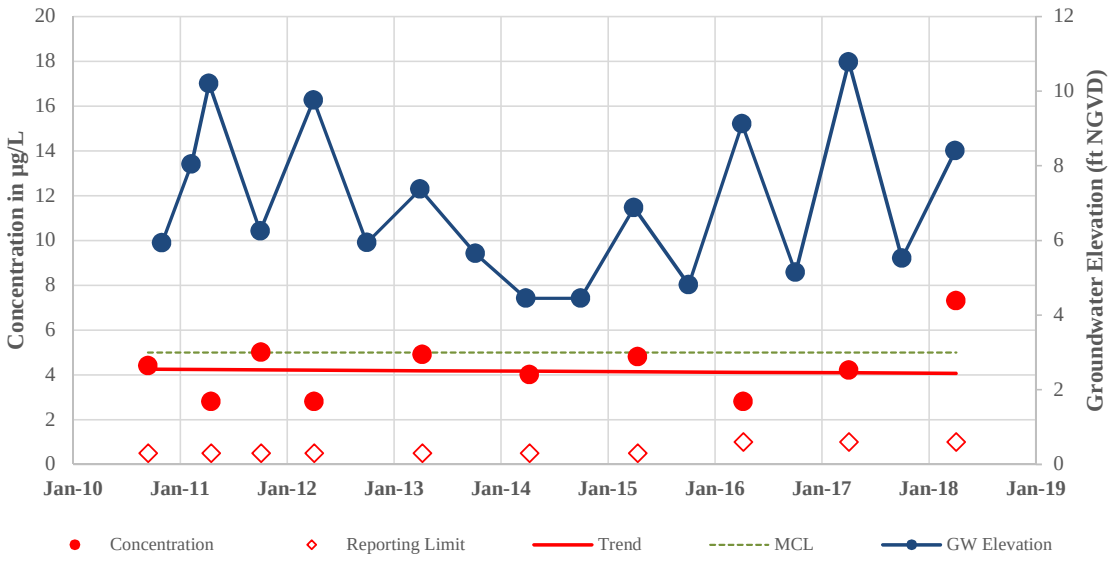



Trichloroethene Concentration in MFA
Concentration in µg/L
Groundwater Elevation (ft NGVD)
50
45
40
35
30
25
20
15
10
5
0
7
6
5
4
3
2
1
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
GW Elevation

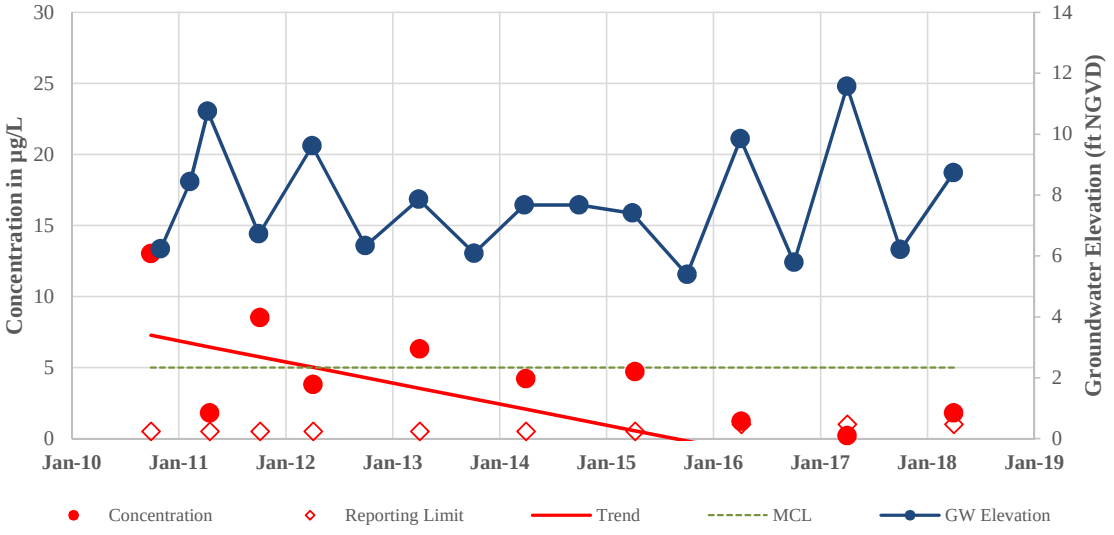

Trichloroethene Concentration in PZ11
Concentration in µg/L
Groundwater Elevation (ft NGVD)
2000
1600
1200
800
400
0
-400
16
14
12
10
8
6
4
2
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
GW Elevation


Trichloroethene Concentration in PZ9
Concentration in µg/L
Groundwater Elevation (ft NGVD)
200
180
160
140
120
100
80
60
40
20
0
16
14
12
10
8
6
4
2
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Concentration
Reporting Limit
Trend
MCL
Series6

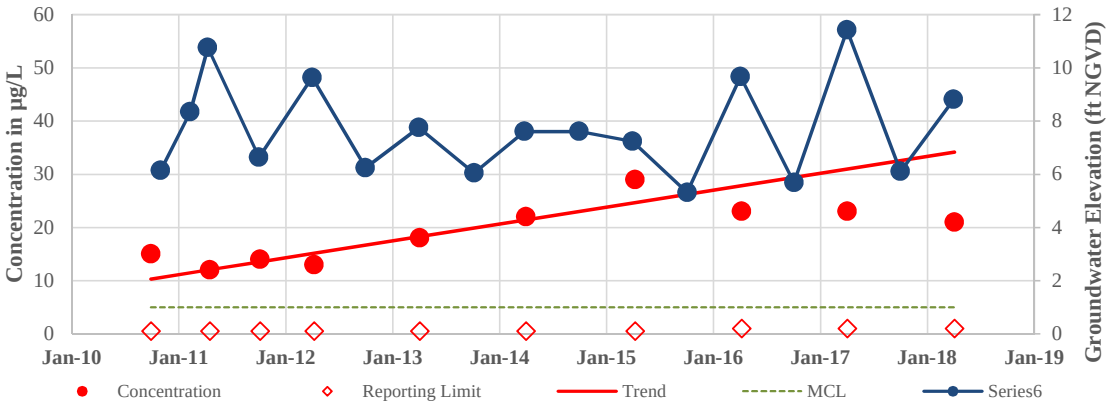
Trichloroethene Concentration in RWF



Trichloroethene Concentration in TP1



Trichloroethene Concentration in TP2



APPENDIX D
WATER LEVEL MEASUREMENT SAMPLING FORMS

14.11
15.88

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
B120					0922	10/3/17			7.06	13.06	
B197R					0830				6.37	13.12	
B175W					0841				10.84	14.71	
B175S					1220				10.62	14.75	
CCCT					0850				7.71	15.00	
B480					0904				14.11	15.88	
B480 deep					0907				10.32	40.23	
B450					0913				14.42	15.56	
B460					0918				15.54	16.34	
TP1					0923				13.13	15.82	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: _____ **Field Staff Signature:** _____

Page No.: _____ **Date:** _____

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
FG					0934	10/3/17			14.37	16.2	
D490					0940				15.41	17.96	
NRLF					0951				16.17	18.77	
GEO					1050				10.96	16.91	
CTP					1020				11.82	17.1	
CTPdeep					1027				12.28	40.24	
B280B					1040				13.02	15.90	
B227					1100				10.52	17.58	
B280A					1110				11.03	13.52	plug not on, lid (unsn. missing bolts collapsed
CTPS					1115				10.42	13.82	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: _____ **Field Staff Signature:** _____

Page No.: _____ **Date:** _____

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
EPA					1122	10/3/17			8.85	14.11	
WTA					1135				5.99	14.95	
OHR					1140				11.33	13.54	
B278					1145				9.14	16.12	
B121					1210				10.54	17.69	
CCC3					1230				7.71	14.19	
PZ8					1235				8.76	20.41	monument loose
ETA03					1250				7.06	20.20	
ETA02					1255				6.49	20.05	
ETA01					1300				2.89	15.14	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: _____ **Field Staff Signature:** _____

Page No.: _____ **Date:** _____

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
ETA					1305	10/3/17			4.20	13.39	
MFA					1315				4.74	13.70	
B128					1340				8.06	15.91	
B163					1400				6.61		

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: _____ **Field Staff Signature:** _____

Page No.: _____ **Date:** _____

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information: PID/FID Reading (ppm)	Organic Vapor Information: Date	Water Level Information: Well previously equilibrated? (Yes/No)	Water Level Information: If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information: Time	Depth to Groundwater Information: Date	Depth to Groundwater Information: Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Depth to Groundwater[1] from Top of PVC Casing (feet)	Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
B185					8:15	10/2/17			5.05	13.78	
B178					8:25	↓			5.97	13.48	sediment @ bottom
B195					8:35	↓			8.93	16.30	
B194					8:50	↓			12.15	—	
PZ9					9:10	↓			14.20	—	
B473					9:20	↓			14.21	~~15.18~~	
B474					9:25	↓			15.98	—	
PZ11					9:35	↓			12.96	~~12.8~~	
EERC					9:50	↓			15.14	—	buried - 7 used metal detector in LS
TP2					10:10	↓			12.81	—	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora LeMar

Field Staff Signature: Cora LeMar

Page No.: 1 of 3

Date: 10/2/17

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
RWF					10:15	10/2/17			10.94		
B300					11:03				13.08		used metal detector (covered)
B38 Deep					11:30				8.54		
B38					11:32				10.23		bailed water
B180					11:41				9.39		
B177					11:50				12:01		
B158					12:00				11.30		bailed water
B156					12:15				11.74		
CCC1					12:30				11.05		
CCC2					12:40				10.30		no lock

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora LeMar **Field Staff Signature:** [signature]

Page No.: 2 of 3 **Date:** 10/2/17

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
Bulb 2					13:00	10/2/17			4.58		
Bulb 1					13:15	10/2/17			4.41		
WSm01					13:30	10/2/17			5.22		
B12SDeep					13:50				8.34		

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora Lemay ✓ Field Staff Signature: Coralemay

Page No.: 3 of 3 Date: 10/2/17

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information: PID/FID Reading (ppm)	Organic Vapor Information: Date	Water Level Information: Well previously equilibrated? (Yes/No)	Water Level Information: If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information: Time	Depth to Groundwater Information: Date	Depth to Groundwater Information: Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: * Depth to Groundwater[1] from Top of PVC Casing (feet)	* Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
ETA03					4/2/18	~~9:28~~ 9:43			5.95	21.58	
ETA02					10:03	4/2/18			4.93	20.00	
ETA01					10:18	4/2/18			1.42	15.15	
WSM01					10:36	4/2/18			4.22	17.45	
Bulb1					10:52				4.15	18.05	required key
Bulb2					11:12				3.55	18.47	
ETA					11:25				2.56	13.38	
B163					11:43				4.26	16.56	casing surrounded by stagnat water
MFA					11:53				2.97	13.75	
B185									3.35[1]	13.79[1]	Metal Dumpster* blocks access return another day* hold cont

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Mark Wolford & Cora LeMan **Field Staff Signature:** [signature]

Page No.: 1 of 3 **Date:** 4/2/18

1. recored Depths* on Thursday after dumpster was removed

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information: PID/FID Reading (ppm)	Organic Vapor Information: Date	Water Level Information: Well previously equilibrated? (Yes/No)	Water Level Information: If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information: DATE ~~Time~~	Depth to Groundwater Information: Time ~~Date~~	Depth to Groundwater Information: Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater Information: Depth to Groundwater[1] from Top of PVC Casing (feet)	Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
B178					4/2/18	12:15			3.00	13.32	
B120						13 1:40			3.88	13.02	
CCCT						13 1:51			5.13	15.03	Bailed casing
CCC3						13 2:10			5.51	14.12	
B121						13 2:23			8.14	17.72	Black Widow
CCC2						13 2:36			7.99	14.15	
DHR						[redacted] 14 2:58			8.49	10.40	
EPA						15 3:30			7.03	14.10	Bailed
CTPS						15 3:38			7.14	13.82	
B218						15 3:47			8.35	16.15	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Mark Wolford & Corey LeMar

Field Staff Signature: Mark Wolford

Page No.: 2 of 3

Date: 4/2/18

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time / Date	Date / Time	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
CCC1					4/2	15:55			8.81	13.01	
B150					4/2	16:15			4.85	15.05	
B175W					4/2	16:35			6.74	14.71	
P28					4/2	16:54			5.71	20.48	Well casing - red spider severely damaged
B195					4/2	17:00			5.87	16.12	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Mark Wolford **Field Staff Signature:** Mark Wolf

Page No.: 3 of 3 **Date:** 4/2/18

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information						
					Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
Pz-11					9:30	4/2/18			9.01	18.74	
B473					10:00				10.86	16.97	
B474					10:05				13.04	19.09	
Pz-9					10:10				12.36	19.43	
B480deep					10:45				7.90	40.51	good amount of silt in well
B480					10:50				11.44	15.86	bailed water out of well
EERC					11:05				11.91	16.88	bailed water out of well
B450					11:15				12.09	15.58	
FG					11:25				12.64	16.20	bailed water out of well
B490					11:40				13.65	18.00	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora LeMar **Field Staff Signature:** Cora LeMar

Page No.: 1 **Date:** 4/2/18

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
					Depth to Groundwater Information						
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
TP1					11:55	4/2/18			10.60	15.93	good amt. of silt at bottom
TP2					12:00				10.10	17.08	
B460					12:05				12.46	15.56	good amt. of silt at bottom
B180					12:30				6.47	16.00	bailed water out of well/silt
B38					12:35				7.33	15.78	bailed water out of well
B38deep					12:40				8.66	40.82	well is closest to bldg 161 (reference note)
RWF					13:30				8.06	17.66	bailed water
B300					13:45				11.25	17.12	
GEO					14:00				9.05	16.10	good amt. of silt at bottom
CTP deep					14:30				10.91	40.22	

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora Leman **Field Staff Signature:** Cora Leman

Page No.: 2 **Date:** 4/2/18

TETRA TECH EM INC.
GROUNDWATER LEVEL MEASUREMENTS LOG

Type of organic vapor meter used (circle): PID FID

Well Identification Number	Organic Vapor Information		Water Level Information							Depth to Well Bottom from Top of PVC Casing[2] (feet)	Comments
	PID/FID Reading (ppm)	Date	Well previously equilibrated? (Yes/No)	If not previously equilibrated, pressure detected when cap removed? (NA/Yes/No)	Depth to Groundwater Information						
					Time	Date	Depth to Groundwater[1] from Pump Platform or Riser, if present (feet)	Thickness of Pump Platform or Riser, if present (feet)	Depth to Groundwater[1] from Top of PVC Casing (feet)		
CTP					14:40	4/2/18			10.67	17.08	
B280B					14:55				11.81	15.93	
NRLF					15:10				13.04	18.80	
B194					15:20				8.18	17.00	some silt at bottom
B280A					15:40				10.37	13.51	need new well cap & screws
B877					15:45				9.88	17.48	
B158					15:55				9.15	14.86	bailed water out of well
B177					16:20				9.32	18.71	
B175S					16:35				8.94	14.75	bailed water
B197R					16:55				5.50	13.16	bailed water / lots of silt at bottom

Notes: 1 Where bladder pump sampling platform or riser is present, depth to water must be corrected to depth from top of PVC casing.
2 Note if access to well bottom is limited by presence of dedicated bladder pump.

Field Staff: Cora LeMar **Field Staff Signature:** Cora LeMar

Page No.: 3 **Date:** 4/2/18

ATTACHMENT 1
DTSC COMMENT LETTER, RESPONSE TO COMMENTS

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Edmund G. Brown Jr.
Governor

October 25, 2018

Greg Haet, P.E.
EH&S Associate Director, Environmental Protection
Office of Environment, Health & Safety
University of California, Berkeley
University Hall, 3rd Floor, #1150
Berkeley, California 94720

Dear Mr. Haet:

The Department of Toxic Substances Control (DTSC) received the *Draft 2018 Groundwater Sampling Results Technical Memorandum* (Draft Memorandum); dated July 27, 2018, for the Richmond Field Station, located in Richmond, California. The Draft Memorandum was prepared by Tetra Tech, Inc. on behalf of The University of California, Berkeley, and describes the results of annual groundwater monitoring and maintenance conducted between October 2017 and April 2018. Field work included groundwater level measurements collected in October 2017 (54 shallow-zone piezometers and 4 deep piezometers) and April 2018 (52 shallow-zone piezometers and 3 deep-zone piezometers), and collection of groundwater samples from 34 shallow-zone piezometers in April 2018. DTSC has reviewed the Draft Memorandum and has the following comments:

1. Page 3, Section 2.2 Groundwater Sampling: This section states that groundwater samples were collected and placed in coolers containing ice. At the end of every other field day, the samples were then delivered to the analytical laboratory. Provide a description stating where the samples were stored, and how chain-of-custody and proper preservation was maintained.

2. Section 5.3.1 Sample Delivery Group 298607: This section indicates that the chain-of-custody form did not include a sample analysis request for sample 20180503PZ9, and two VOA vials labeled "TB" were not listed on the COC form. The laboratory made assumptions and analyzed the samples for VOCs. Indicate what corrective measures will be instituted for future sampling events to ensure that similar incidents do not occur.

3. Section 5.3.2 Sample Delivery Group 298682: This section states that one sample arrived at the laboratory without identifying information on the label. The laboratory

was able through the process of elimination to identify the sample. Indicate what corrective measures will be instituted for future sampling events to ensure that a similar incident does not occur.

4. Section 5.3.1 and 5.3.2: Both sections state that VOA vials contained air bubbles. Indicate whether modification to sample collection procedures can be made to eliminate the bubbles from the vials. Also, both VOAs used as the trip blank for sample delivery group 298607 contained air bubbles. If the laboratory is preparing trip blanks, all VOA vials should be inspected and those with air bubbles should be rejected by the sampling team. If the trip blanks are being prepared by the sampling team, they should also be inspected and any containing bubbles should be rejected. Indicate in the Technical Memorandum what corrective measures will be instituted for future sampling events.

5. Page 16, Trichloroethene: The text references figure 22 in the discussion; however, figure 25 presents TCE concentrations. Revise the text.

Please provide a revised document within 45 days of the date of this letter that responds to the above comments.

If you have any questions, please contact Lynn Nakashima at (510) 540-3839 or lynn.nakashima@dtsc.ca.gov.

Sincerely,

Lynn Nakashima, Project Manager
Senior Hazardous Substances Scientist
Site Mitigation and Restoration Program
Berkeley Office - Cleanup Operations

Gerard F. Aarons, PG, CHG
Engineering Geologist
Site Mitigation and Restoration Program
Geological Services Branch

CERTIFIED HYDROGEOLOGIST
GERARD AARONS
CHG 771
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STATE OF CALIFORNIA

cc: Alicia Bihler
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Jason Brodersen, PG, QSD
Tetra Tech, Inc.
1999 Harrison Street, Suite 500
Oakland, CA 94612
Jason.Brodersen@tetratech.com

Draft 2018 Groundwater Sampling Results Technical Memorandum
University of California, Richmond Field Station
July 27, 2018

Response to Comments
Department of Toxic Substances Control
October 25, 2018

UC Berkeley Ref. No.	Page / Sect No.	DTSC Comment No.	DTSC Comment	UC Berkeley Response
1	Page 3, Section 2.2 Groundwater Sampling	1	This section states that groundwater samples were collected and placed in coolers containing ice. At the end of every other field day, the samples were then delivered to the analytical laboratory. Provide a description stating where the samples were stored, and how chain-of-custody and proper preservation was maintained.	Text will be amended to clarify that the samples were stored in RFS Building 185, which is locked at all times, and that fresh ice was added to each sample cooler every morning.
2	Section 5.3.1 Sample Delivery Group 298607	2	This section indicates that the chain- of-custody form did not include a sample analysis request for sample 20180503PZ9, and two VOA vials labeled "TB" were not listed on the COC form. The laboratory made assumptions and analyzed the samples for VOCs. Indicate what corrective measures will be instituted for future sampling events to ensure that similar incidents do not occur.	Prior to the initiation of the next field sampling event, the field team will be reminded of thorough quality control checks of samples with chain-of-custody forms. There are no changes proposed to the report text.
3	Section 5.3.2 Sample Delivery Group 298682	3	This section states that one sample arrived at the laboratory without identifying information on the label. The laboratory was able through the process of elimination to identify the sample. Indicate what corrective measures will be instituted for future sampling events to ensure that a similar incident does not occur.	Prior to the initiation of the next field sampling event, the field team will be reminded of thorough quality control checks of sample labels with chain-of-custody forms. There are no changes proposed to the report text.

4	Sections 5.3.1 and 5.3.2	4	Both sections state that VOA vials contained air bubbles. Indicate whether modification to sample collection procedures can be made to eliminate the bubbles from the vials. Also, both VOAs used as the trip blank for sample delivery group 298607 contained air bubbles. If the laboratory is preparing trip blanks, all VOA vials should be inspected and those with air bubbles should be rejected by the sampling team. If the trip blanks are being prepared by the sampling team, they should also be inspected and any containing bubbles should be rejected. Indicate in the Technical Memorandum what corrective measures will be instituted for future sampling events.	Prior to the initiation of the next field sampling event, the Tetra Tech project manager will meet with the field team to discuss the proper protocols for collecting samples for volatile analyses, according to standard operating procedures. Trip blanks are provided by the laboratory and will be rejected in the future if they contain air bubbles. Section 7.2 will be amended to clarify that the tailgate meeting for the 2019 groundwater event will specifically discuss the protocols for collection of groundwater for volatiles analysis, as well as the rejection of trip blanks with air bubbles.
5	Page 16, Trichloroethene	5	The text references figure 22 in the discussion; however, figure 25 presents TCE concentrations. Revise the text.	Text will be amended to indicate Figure 24 as the correct figure presenting trichloroethene data.

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
700 Heinz Avenue
Berkeley, California 94710-2721

Gavin Newsom
Governor

March 7, 2019

Greg Haet, P.E.
EH&S Associate Director, Environmental Protection
Office of Environment, Health & Safety
University of California, Berkeley
University Hall, 3rd Floor, #1150
Berkeley, California 94720

Dear Mr. Haet:

The Department of Toxic Substances Control (DTSC) received the response to comments on the *Draft 2018 Groundwater Sampling Results Technical Memorandum* (Technical Memorandum) for the University of California, Berkeley (UC Berkeley), Richmond Field Station Site, located at 1301 S. 46th Street, Richmond, California. The Technical Memorandum was prepared by Tetra Tech, Inc. on behalf of UC Berkeley and provides the results of the annual groundwater monitoring and maintenance activities conducted during the October 2017 to April 2018 time period. DTSC has reviewed the response to comments and found that they adequately address our October 25, 2018 comments. The Technical Memorandum is conditionally approved based upon submittal of a revised memorandum that includes the additional text described in the response to comments.

Please submit the revised memorandum within 30 days of the date of this letter.

If you have any questions, please contact Lynn Nakashima at (510) 540-3839 or lynn.nakashima@dtsc.ca.gov.

Sincerely,

Lynn Nakashima, Project Manager
Senior Hazardous Substances Scientist
Site Mitigation and Restoration Program
Berkeley Office - Cleanup Operations

Gerard F. Aarons, PG, CHG
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Printed on Recycled Paper

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ATTACHMENT 2
ENTHALPY LABORATORY REPORTS

Provided on electronic version only