FINAL

2013 Groundwater Sampling Results Technical Memorandum

University of California, Berkeley
Richmond Field Station, Richmond, California

Prepared for
Office of Environment, Health and Safety
University of California, Berkeley
317 University Hall, No. 1150
Berkeley, California 94720

October 10, 2013

Prepared by

TETRA TECH, INC.
1999 Harrison Street, Suite 500
Oakland, California 94612

REGISTERED GEOLOGIST
JASON D. BRODERSEN
No. 6262
STATE OF CALIFORNIA

Jason Brodersen, P.G., No 6262

CONTENTS

CONTENTS (Continued)

Figures

Tables

CONTENTS (Continued)

Appendix

Attachments

ACRONYMS AND ABBREVIATIONS

µg/L	Micrograms per liter
bgs	Below ground surface
CSV	Cherokee Simeon Venture I, LLC
DPT	Direct-push technology
DQO	Data quality objective
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
FSW	Field Sampling Workplan
ft/ft	Feet per foot
HSA	Hollow-stem auger
IDW	Investigation-derived waste
J	Estimated value
LCS	Laboratory control sample
MCL	Maximum contaminant level
MDL	Method detection level
MS	Matrix spike
MSD	Matrix spike duplicate
ORP	Oxidation-reduction potential
PAH	Polycyclic aromatic hydrocarbons
PCE	Tetrachloroethene
PVC	Polyvinyl chloride
QA	Quality assurance
QC	Quality control
QL	Quantitation limit
R	Rejected data
RFS	Richmond Field Station
SIM	Selective ion monitoring
SVOC	Semivolatile organic compound
TCE	Trichloroethene
TDS	Total dissolved solids
Tetra Tech	Tetra Tech EM Inc. (1996-2012); currently Tetra Tech, Inc.
U	Not detected
UC	University of California
UJ	Not detected at an estimated value
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 No. IS/E-RAO 06/07-004, dated September 15, 2006. This technical memorandum presents the results of monitoring conducted during the October 2012 – April 2013 time period as proposed in the Phase I November 2010 through April 2012 Groundwater Sampling Results Technical Memorandum, dated December 12, 2012 (Tetra Tech, Inc. [Tetra Tech] 2012) at the Richmond Field Station (RFS). The field work consisted of dry and wet season water level measurements, wet season groundwater sampling, and abandonment and replacement of two piezometers affected by root growth. The sampling event was conducted in accordance with the Field Sampling Workplan (FSW) Phase I Groundwater Sampling Plan, dated June 2, 2010 (Tetra Tech 2010). The objective of the FSW was to address data gaps identified in the Current Conditions Report (Tetra Tech 2008) and to identify immediate or potential risks to public health and the environment. The objective of continued monitoring at the RFS is to monitor the water level and direction of groundwater flow bi-annually, and to continue to annually monitor concentrations of chemicals in groundwater at piezometers where sample results exceed one-half of screening criteria during any of the Phase I monitoring events.

This technical memorandum presents a summary of field activities, site hydrology, data quality assessment, and data evaluation associated with the October 2012 water level measurement and April 2013 groundwater sampling event. It also presents a general comparison of the April 2013 results to the previous four rounds of groundwater sampling. The report attachments provide field documentation forms as well as complete analytical results.

1.1 PHYSICAL SETTING

RFS is located at 1301 South 46th Street, Richmond, California, along the southeastern shoreline of the City of Richmond on the San Francisco Bay (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. In 1950, the UC Regents purchased the property from the California Cap Company. UC Berkeley initially used the RFS for research for the College of Engineering; later, it was also used by other campus departments.

Three habitat type areas have been identified at RFS: (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 RFS 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 RFS: 47 in the shallow groundwater zone and four 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 purpose of the continued monitoring is to evaluate seasonal groundwater elevations and fluctuations in chemical concentrations over time. As a follow-up to the first four bi-annual rounds of groundwater sampling completed between November 2010 and April 2012, the 2013 annual groundwater sampling consisted of the following activities:

- Collecting depth-to-water measurements at all 50 shallow zone piezometers and four deep piezometers both in October 2012 and in April 2013. These 50 piezometers include the 47 shallow piezometers installed by UC Berkeley during 2010 and three piezometers (PZ8, PZ9, and PZ11) previously installed by the owner of the adjacent property, Cherokee Simeon Venture I, LLC (CSV).
- Sampling 40 of the 50 shallow zone piezometers in April 2013 for chemical analysis, based on the results of past rounds of groundwater investigations.
- Abandoning piezometers B197 and DH because roots had grown within the piezometers and installing replacement piezometers B197R and DHR adjacent to the original piezometer locations.

2.0 FIELD ACTIVITIES

In October 2012, depth to water measurements were collected at all 50 shallow zone piezometers and four deep piezometers to calculate the potentiometric surface. In April 2013, the sampling strategy consisted of measuring depth to water consistent with the October 2012 approach, as well as sampling groundwater at 40 completed piezometers throughout the RFS. Groundwater samples were analyzed for dissolved metals (field-filtered), semivolatile organic compounds (SVOC), polycyclic aromatic hydrocarbons (PAH), or volatile organic compounds (VOC), as indicated in Table 1. Monitoring consisted of chemical analysis at piezometers with sample results exceeding one-half of the lesser of the California or federal maximum contaminant levels (MCL) during any of the previous four monitoring events (Tetra Tech 2012).

In addition, the following water quality parameters were measured at each of the 40 sampled locations during the April 2013 sampling event: total dissolved solids (TDS), pH, temperature, specific conductance, turbidity, dissolved oxygen, and oxidation-reduction potential (ORP). Groundwater sampling locations, depths, and the analytical suite are presented in Table 1.

2.1 WATER LEVEL MEASUREMENTS

A comprehensive set of depth to water measurements for all piezometers were recorded on October 1, 2012, and April 1 and 2, 2013, to coincide with similar field events occurring on the adjacent Campus Bay property. The depth to water in all 47 of the shallow and four of the deep Phase I piezometers was measured from the top of the polyvinyl chloride (PVC) casing to 0.01-foot accuracy using an electronic water level indicator; the data are presented in Table 2. Additionally, depth to water measurements were recorded in piezometers PZ8, PZ9, and PZ11, which were installed by CSV on the RFS property.

The well caps were removed a minimum of 15 minutes before the depth to water measurement was collected 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 9.

2.2 PIEZOMETER MAINTENANCE

Tetra Tech contracted with Woodward Drilling to abandon and install two piezometers because roots had intruded into the screened intervals of each. The drilling work was completed on March 26 (utility clearance, abandonment, and installation) and April 1 (development). The piezometers were abandoned according to the Notification of Piezometer Abandonment and Installation, and Scope of Work, dated March 5, 2013 (Tetra Tech 2013a). All piezometers were installed in accordance with the FSW, Phase I Groundwater Sampling Plan, dated June 2, 2010 (Tetra Tech 2010). Field activities are described in detail in the Technical Memorandum for Piezometer Abandonment (B197 and DH) and Installation (B197R and DHR) (Tetra Tech 2013b).

The two shallow piezometers, B197 and DH, were overdrilled and the borehole was grouted to the surface under the supervision of a Contra Costa County Health and Safety Division representative. Once abandonment was completed, the Contra Costa County Health and Safety

Division closure permits and Department of Water Resources Well Completion Reports were completed, signed by the C-57-licensed driller at Cascade Drilling, and submitted to the appropriate agencies.

The replacement piezometers, B197R and DHR, were installed with a dual direct-push technology (DPT) and hollow-stem auger (HSA) drill rig. Boreholes were initially advanced using 2-inch diameter DPT rods that collected a continuous core sample in acetate sleeves for analysis by an on-site geologist. Closure permits for piezometers B197 and DH, and well installation permits, geologic boring logs, well completion logs, and well development logs for B197R and DHR are included in Attachment 2. The new piezometers were placed approximately 5 feet upgradient from the original locations; the final locations were surveyed and are shown on Figure 3.

The replacement piezometer boreholes were drilled to 12 inches in diameter, and the piezometers were fitted with centralizers in an attempt to prevent root growth into the new piezometers. The total drilled depth for piezometer B197R is 14 feet below ground surface (bgs), and the screened interval extends from 3 to 13 feet bgs. The total depth for piezometer DHR is 14 feet and the screened interval extends from 3.5 to 13.5 feet bgs. Completion information is shown in Table 4. The piezometers were constructed from 2 inch-diameter schedule 40 PVC blank casing with 2-inch diameter schedule 40 PVC screen with 0.01-inch slot size, and the screen intervals of the piezometers were encased in a filter pack consisting of #2/12 kiln-fired sands that was tremied into place through the HSA. The filter pack extended from the bottom of the boring to 1 foot above the top of the PVC screen, where a 2-foot-thick seal of hydrated bentonite chips was installed. The remainder of the boring surrounding the PVC casing was filled with an annular seal of Portland cement grout with 10% bentonite powder to the ground surface under the supervision of a Contra Costa County Health and Safety Division representative. Both piezometers were mounted flush to the ground.

The newly installed piezometers were developed according to the protocols employed for installation of the previously installed piezometers. Soil samples were collected for analysis during drilling to determine the appropriate investigation-derived waste (IDW) disposal (Tetra Tech 2013b). Piezometers were locked following development.

The soil cuttings and development water from drilling were drummed, labeled, and moved to the secured on-site drum storage location west of Building 110.

Additionally, maintenance work on piezometers B180, CTP, TP2, and WTA occurred during the annual monitoring event. At location B180, the well cap was rusted lid missing a bolt; the well cap was replaced on April 9, 2013, and this was noted on the well sampling form (Attachment 1). The missing bolt will be replaced during the semi-annual groundwater level measurement event scheduled for October 7, 2013. The well caps at locations CTP, TP2, WTA were also replaced on April 9, 2013, and this maintenance was noted on the well sampling forms.

Similarly to locations B197 and DH, the well sampling form for location CCCT indicates potential root growth within the piezometer casing. This piezometer will be inspected during the semi-annual groundwater level measurement event scheduled for October 7, 2013 to determine if the piezometer needs to be replaced.

2.3 Groundwater Sampling

Groundwater samples were collected from April 2 through April 9, 2013. The groundwater from each piezometer sampled was collected through sterile Teflon and silicon tubing using a low-flow, peristaltic pump. The discharge from the pump ran through a flow cell that measured TDS, pH, temperature, specific conductance, turbidity, dissolved oxygen, 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 Attachment 1 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, SVOCs, PAHs, or dissolved metals, as indicated in Table 1. Samples were immediately placed in coolers containing ice. At the end of each day, the samples were delivered to Curtis and Tompkins laboratory located in Berkeley, California, using chain-of-custody procedures.

2.4 Waste Characterization and Disposal

All IDW created during the field effort was drummed, labeled, and moved to a fenced storage location west of Building 110. The IDW produced from this sampling investigation consisted of:

- Three drums containing water purged from piezometers during the sampling processes
- Seven drums containing soil from closure and reinstallation of piezometers B197 and DH
- Two drums of development purge water from B197R and DHR, and
- One drum of decontamination water from cleaning the HSA during the installation of piezometers B197R and DHR.

Casing material from the over-drilling abandonment of wells B197 and DH was disposed of as municipal waste. The wastewater was characterized as nonhazardous waste through the samples collected and analyzed as part of the field sampling effort. The soil, development water, and decontamination water drums were also sampled and determined to be nonhazardous. The drums were disposed of by Clean Harbors in Buttonwillow, California, on May 28, 2013.

3.0 GEOLOGY

As presented in the Site Characterization Report (Tetra Tech 2013c) four major geologic units were defined for the RFS area as follows:

- 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 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 10. Cross section B-B' is along a north-south transect and is shown on Figure 11. 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 RFS include 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 51 piezometers throughout the site as part of the FSW investigation during 2010; 47 shallow piezometers were installed with 10-foot screen intervals to a maximum total depth of 20 feet bgs, and four deep piezometers were installed with 10-foot screen intervals, with the exception of piezometer B480deep which has a 5-foot screen interval, to a maximum depth of 40 feet bgs. In addition, three piezometers (PZ8, PZ9, and PZ11) were previously installed by the owner of the adjacent property, CSV, on RFS property. During the April 2012 sampling event, UC Berkeley discovered that two of the piezometers (B197 and DH) had been compromised by root growth in the vadose zone. These piezometers were abandoned and reinstalled in compliance with Contra Costa County Environmental Health Department specifications on March 26, 2013, as described in the Technical Memorandum for Piezometer Abandonment (B197 and DH) and Installation (B197R and DHR) (Tetra Tech 2013b). The replacement piezometers (B197R and DHR) were installed approximately 5 feet upgradient of the original locations.

RFS-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 50 shallow piezometers at RFS 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 9 show the shallow groundwater elevations measured between November 2010 and April 2013 and the corresponding elevation contours for the shallow piezometers. The November 2010, October 2011, and October 2012 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, 2012, and 2013 measurements were collected toward the end of the annual wet season. 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 were observed, as would be expected from wet to dry seasons. Groundwater elevations will continue to be measured semiannually to gather a comprehensive dataset and continued assessment of seasonal variation in groundwater flow.

The horizontal groundwater gradient or slope is estimated from the groundwater contours. Horizontal gradient is expressed as a ratio of change in vertical elevation by change in horizontal distance; a steep gradient is larger than a flat gradient. The horizontal groundwater gradient varies across RFS with representative slopes ranging from 0.002 feet per foot (ft/ft) to 0.01 ft/ft. Representative gradients calculated for the October 2012 and April 2013 events are shown in several locations on Figures 8 and 9, respectively.

Fall measurements are intended to represent the dry season; the October 2012 gradients are consistent with previous measurements conducted in the fall (November 2010 and October 2011). Dry season groundwater contours are shown on Figures 4, 6, and 8. Spring measurements are intended to represent the wet season. While there are some differences between northern and southern gradients measured in April 2013 compared with previous events (April 2011 and April 2012), generally the gradients are consistent. Wet season contours are shown on Figures 5, 7, and 9. 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 RFS 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, extremely low hydraulic conductivity in clays result in slower response to increases in groundwater recharge than sands which have higher conductivity. While the RFS 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 is identified near location B150, where the groundwater elevations are higher than in nearby piezometers, as manifested by the concentric groundwater contours around location B150 shown on Figures 4 through 9. This elevated groundwater may have been caused by past discharges from a broken freshwater pipe identified and repaired in the fall of 2010; however, continued elevated measurements in the area suggest there may be ongoing artificial sources of water from nearby irrigation, landscape maintenance, or other leaky pipes contributing to higher water levels in the area. Given the low permeability of soils at RFS, the natural lowering of the groundwater level in the absence of irrigation or leakage in this area could take years. A decrease in the mounding has been observed since the initial groundwater elevation measurements; however, as of April 2013, this groundwater variation is still present.

Vertical groundwater gradients were also estimated from the water level measurements at the shallow/deep well pairs. The following table shows the vertical gradients estimated from the water level measurements collected between November 2010 and April 2013.

Vertical Groundwater Gradients (ft/ft)							
Well Pair	**November 2010**	**February 2011**	**April 2011**	**October 2011**	**April 2012**	**October 2012**	**April 2013**
B480/ B480deep	0.25 Up	0.18 Up	0.13 Up	0.23 Up	0.19 Up	0.22 Up	0.19 Up
B128/ B128deep	0.031 Dn	0.01 Up	0.046 Up	0.019 Dn	0.091 Dn	0.006 Up	0.078 Up
B38/ B38deep	0.015 Up	0.008 Dn	0.04 Dn	0.015 Up	0.059 Dn	0.02 Up	0.0007 Dn
CTP/ CTPdeep	0.038 Dn	0.013 Up	0.068 Dn	0.006 Dn	0.01 Up	0.005 Up	0.011 Up

Notes:

Dn Downward gradient Up Upward gradient

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.

5.0 DATA QUALITY ASSESSMENT

5.1 DATA QUALITY OBJECTIVES

Data quality objectives (DQO) 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 at the RFS 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 that spanned the RFS from fenceline to fenceline and also targeted specific locations defined as data gaps in the Current Conditions Report (Tetra Tech 2008).

The data collected during the first four rounds of groundwater sampling were adequate to create hydraulic gradient maps to gain a better understanding of the general hydrology at the RFS. 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 were sampled in April 2013 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 below, along with a general comparison to the previous four rounds of data in Section 7.0.

5.2 LABORATORY DATA REVIEW

Assignment of data qualification flags for analytical data from Curtis and Tompkins conformed to U.S. Environmental Protection Agency (EPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA 2008) and Inorganic Data Review (EPA 2010). 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 that is actually present in the sample. The laboratory-reported concentration is considered an estimate of 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 quality control [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, 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

The following section addresses quality review findings for the inorganic and organic data collected in April 2013.

A review of the inorganic data quality determined that quality assurance (QA)/QC objectives for bias and precision were met for most analytical results, with the following exceptions:

- Matrix spike (MS) recoveries resulted in qualification of results as "estimated" ("J") for dissolved nickel in one sample (RFSGWB16305).

- As a result of high response in the continuing calibration verification in the dissolved metal analysis, aluminum results in eight samples (RFSGWPZ1105, RFSGWBULB105, RFSGWPZ1105D, RFSGWBULB205, RFSGWEERC05, RFSGWB15805, RFSGWPZ805, and RFSGWB197R05), lead results in two samples (RFSGWCCC305 and RFSGWB15005), and silver results in four samples (RFSGWCCC305, RFSGWB19505, RFSGWB19505D, and RFSGWCCC205) were "J" qualified as estimated based on calibration QC violations. Approximately 2 percent of all the inorganic groundwater data were qualified as a result of these criteria violations.

- Based on serial dilution violations in the dissolved metals analysis, barium in two sample results (RFSGWB16305 and RFSGWETA05) and magnesium and potassium in one sample result were "J" qualified as estimated (RFSGWB16305).

- As a result of laboratory blank contamination, dissolved antimony results in three samples (RFSGWB16305, RFSGWB48005, and RFSGWB45005), dissolved iron results in one sample (RFSGWB19505), dissolved manganese results in three samples (RFSGWB19505, RFSGWB19505D, and RFSGWB15005), dissolved molybdenum results in 21 samples (RFSGWB17805, RFSGWB19505, RFSGWB19505D, RFSGWCCC305, RFSGWCCC205, RFSGWCCC205D, RFSGWB175S05, RFSGWB16305, RFSGWB48005, RFSGWB45005, RFSGWCTP05, RFSGWDHR05, RFSGWTP105, RFSGWPZ1105, RFSGWPZ1105D, RFSGWB12805, RFSGWBULB105, RFSGWETA05, RFSGWEERC05, RFSGWB15805, and RFSGWB197R05), dissolved nickel results in three samples (RFSGWB19505, RFSGWB19505D, and RFSGWB175S05), and dissolved selenium results in three samples (RFSGWFG05, RFSGWCTP05, and RFSGWDHR05) are considered nondetect and "UJ" qualified. One sample result (RFSGWCTP05) for iron and one for lead was qualified nondetect as a result of field blank contamination. Less than 5 percent of the inorganic groundwater data were qualified based on laboratory blank contamination problems, and less than 1 percent of the inorganic groundwater data were qualified based on field blank contamination.

- Several inorganic sample results were estimated because they were reported at concentrations between the MDL and the laboratory quantitation limit (QL). The analytical instrument can make reliable qualitative identification of analyte concentrations above the MDL but below the QL; however, detected results below the QL are considered quantitatively uncertain. Approximately 15 percent of the inorganic groundwater data was affected; however, these results are considered usable as qualified.

A review of the organic data quality determined that QA/QC objectives for bias and precision were met for most analytical results, with the following exceptions:

- MS/matrix spike duplicate (MSD) and laboratory control sample (LCS) spike recoveries resulted in qualification of results as estimated ("J") for PAHs bis(2-ethylhexyl)phthlate in one sample (RFSGWWTA05) and hexachlorocyclopentadiene in five samples (RFSGWCTP05, RFSGWB28OA05, RFSGWEPA05, RFSER0501, and RFSSB0501), as well as two VOCs (n-butylbenzene and trichloroethene) in one sample result (RFSGWB16305).

- High relative percent difference between the LCS and LCS duplicate resulted in qualification of one sample result (RFSGWWTA05) as estimated "J" for bis(2-ethylhexyl) phthalate.

- As a result of laboratory blank contamination, bis(2-ethylhexyl)phthalate results in two samples (RFSGWB16305 and RFSGWWTA05) are considered nondetect and "UJ" qualified. Less than 0.5 percent of the organic groundwater data were qualified as a result of laboratory and field blank contamination problems.

- The results for several organic compounds in a few samples were estimated because they were reported at a concentration between the MDL and the QL. The analytical instrument can make reliable qualitative identification of analyte concentrations above the MDL but below the QL; however, detected results below the QL are considered quantitatively uncertain. Less than 2 percent of the organic groundwater data was affected.

Although some qualifiers were added to the data, a final review of the data set against the EPA data quality parameters indicated that 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 and the RFS Quality Assurance Project Plan (EPA 2002; 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.

5.4 DEVIATIONS

There were no deviations from the sampling plan proposed in the Phase I November 2010 through April 2012 Groundwater Sampling Results Technical Memorandum, dated December 12, 2012 (Tetra Tech 2012). Wells B197 and DH were deemed no longer functional due to the growth of roots at the water table. These wells were replaced in adjacent locations and renamed B197R and DHR. The wells were installed in accordance with the FSW, Phase I Groundwater Sampling Plan, dated June 2, 2010; methods are described in detail in the Technical Memorandum for Piezometer Abandonment (B197 and DH) and Installation (B197R and DHR) dated May 13, 2013 (Tetra Tech 2013b).

6.0 APRIL 2013 DATA EVALUATION

This section provides an overview of the compounds detected during the groundwater sampling conducted between April 2 and April 9, 2013. State and federal water quality criteria consistent with those used for the groundwater data evaluation at the adjacent Campus Bay site, 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 9 provide summaries of the detected data. Complete analytical results are included in Attachment 3.

6.1 VOLATILE ORGANIC COMPOUNDS

Groundwater samples from 31 piezometers were submitted for analysis of VOCs by EPA Method 8260 (Table 1); three duplicate samples were also collected. While VOCs were detected at all 31 sampling locations, only 15 of the 71 target analytes analyzed by this method were detected. These results are presented in Table 7. Of the VOCs detected, seven compounds — 1,2-dichloroethane, carbon tetrachloride, cis-1,2-dicloroethene, tetrachloroethene (PCE), trans-1,2-dichloroethene, trichloroethene (TCE), and vinyl chloride — exceeded an MCL; results for these compounds are discussed below.

1,2-Dichloroethane. 1,2-Dichloroethane was detected at seven of the 31 sampling locations with concentrations ranging from 0.2 to 8 micrograms per liter (µg/L); four locations (B178, B185, B195, and B197R) exceeded the California MCL of 0.5 µg/L, and one location, B163, exceeded the federal MCL of 5 µg/L, at a concentration of 8 µg/L.

Carbon Tetrachloride. Carbon tetrachloride was detected at five locations: B185, B277, B280A, CTP, and GEO. Concentrations ranged from 0.5 to 18 µg/L; all detections exceeded the California MCL of 0.5 µg/L and carbon tetrachloride was detected at concentrations of 8.1 and 18 µg/L at two locations, B185 and CTP, which exceed the federal MCL of 5 µg/L. Carbon tetrachloride concentrations reported between 2010 and 2013 are presented in Figure 12.

Cis-1,2-Dichloroethene. Cis-1,2-dichloroethene was detected at 15 of the 31 sampling locations with concentrations ranging from 0.2 to 200 µg/L; one location, PZ11, exceeded the California MCL of 6 µg/L and the federal MCL of 70 µg/L at a concentration of 200 µg/L in the original and duplicate samples.

Tetrachloroethene. PCE was detected at 17 locations with concentrations ranging from 0.2 µg/L to 12 µg/L. PCE was detected at concentrations of 11 and 12 µg/L at two locations, B163 and PZ11, which exceed the California and federal MCL (5 µg/L).

Trans-1,2-Dichloroethene. Trans-1,2-dichloroethene was detected at seven locations, with concentrations ranging from 0.2 to 56 µg/L; one location, PZ11, exceeded the California MCL of 10 µg/L at a concentration of 56 µg/L and 57 µg/L in the original and duplicate samples.

Trichloroethene. TCE was detected at 23 of the 31 locations, 18 of which exceeded the California and federal MCL of 5 µg/L. Reported concentrations exceeding the MCL ranged from 6.3 µg/L to 240 µg/L. The concentrations of TCE that exceeded the MCLs were predominantly found along the eastern RFS property boundary. TCE concentrations reported between 2010 and 2013 are presented in Figure 13.

Vinyl Chloride. Vinyl chloride was detected at four locations with concentrations ranging from 0.2 to 0.9 µg/L; vinyl chloride was detected at concentrations of 0.9 µg/L, which exceeds the California MCL of 0.5 µg/L at two locations, B163 and PZ11.

6.2 SEMIVOLATILE ORGANIC COMPOUNDS AND POLYCYCLIC AROMATIC HYDROCARBONS

Groundwater samples from 10 piezometers were submitted for analysis of SVOCs by EPA Method 8270, and PAHs by EPA Method 8270-SIM (selective ion monitoring) to obtain a lower QL and MDL (Table 1); one duplicate sample was also collected. SVOCs were detected infrequently across the RFS; only one of the 71 target analytes analyzed by this method was detected, 1,4-dioxane. The concentrations ranged from 0.04 to 1.9 µg/L at five locations; there is no MCL for 1,4-dioxane. The detected results are presented in Table 8.

6.3 METALS

Groundwater samples from 24 piezometers were submitted for analysis of dissolved metals by EPA Methods 6010B, 6020A, and 7470A (Table 1); three duplicate samples were also collected. All samples were field filtered. With the exception of thallium, metals were detected in all samples submitted for analysis. A summary of all detected metals is presented in Table 9. Of the metals detected, four metals — antimony, cadmium, mercury, and nickel — exceeded an MCL; results for metals are discussed below.

Aluminum. Aluminum was detected at 15 of the 24 sampling locations, ranging in concentration from 6.5 to 100 µg/L. There is no MCL for aluminum.

Antimony. Antimony was detected at eight of the 24 sampling locations, ranging in concentration from 0.29 to 8.1 µg/L. Concentrations at locations B195 and FG exceeded the California and federal MCL of 6 µg/L, at 6.5 and 8.1 µg/L.

Arsenic. Arsenic was detected in 23 of the 24 sampling locations, with concentrations ranging from 0.77 to 7 µg/L. No detections of exceeded the California and federal MCL of 10 µg/L.

Barium. Barium was detected in all samples with concentrations ranging from 8.5 to 110 µg/L. No detections exceeded the California and federal MCL of 2,000 µg/L.

Beryllium. Beryllium was detected at one of the sampling locations, with a concentration of 0.18 µg/L. The detected concentration did not exceed the California and federal MCL of 4 µg/L.

Cadmium. Cadmium was detected in four sampling locations at concentrations ranging from 0.39 to 5.9 µg/L, with the samples at locations PZ11 and B163 exceeding the California and federal MCL of 5 µg/L. The sample concentrations were 5.2 µg/L at location B163 and 5.9 and 6.5 µg/L at location PZ11, in the original and duplicate samples. Piezometer PZ11 is located near the eastern property boundary where Campus Bay has recently 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.

Chromium. Chromium was detected at 14 of the 24 sampling locations, with concentrations ranging from of 0.17 and 18 µg/L. No detection exceeded the California MCL of 50 µg/L or the federal MCL of 100 µg/L.

Cobalt. Cobalt was detected at 12 sampling locations, with concentrations ranging from 0.17 to 6.3 µg/L. There is no MCL for cobalt.

Copper. Copper was detected in nine samples, with concentrations ranging from 0.8 to 21 µg/L. No sample concentration exceeded the California and federal MCL of 1,300 µg/L.

Lead. Lead was detected at five locations, with concentrations ranging from 0.16 to 0.35 µg/L. No detection exceeded the California and federal MCL of 15 µg/L.

Manganese. Manganese was detected in 22 of the 24 samples, ranging in concentration from 2.3 to 19,000 µg/L. There is no MCL for manganese. The samples collected from 13 of the 24 locations exceeded the secondary MCL of 50 µg/L,

Mercury. Mercury was detected at 10 sampling locations, with concentrations ranging from 0.024 to 9.9 µg/L. The samples collected from location B195 exceeded the California and federal MCL of 2 µg/L, with a concentration of 9.9 µg/L in the original sample and 11 µg/L detected in the duplicate sample.

Nickel. Nickel was detected in 11 of the 24 sampling locations at concentrations ranging from 1.1 to 640 µg/L, with the two values at locations B163 (200 µg/L) and PZ11 (580 and 640 µg/L in the original and duplicate samples) exceeding the California Department of Public Health MCL of 100 µg/L. Piezometers PZ11 is located near the eastern property boundary where Campus Bay has recently 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.

Selenium. Selenium was detected at ten sampling locations, with concentrations ranging from 0.28 and 29 µg/L. No detection exceeded the California and federal MCL of 50 µg/L.

Silver. Silver was detected in three samples with concentrations ranging from 0.16 to 0.91 µg/L. There is no MCL for silver. No detection exceeded the secondary MCL of 100 µg/L.

Vanadium. Vanadium was detected in 22 of the 24 sampling locations, ranging in concentration from 0.45 to 4.7 µg/L. There is no MCL for vanadium.

Zinc. Zinc was detected at 17 locations, with concentrations ranging from 6.5 to 1,700 µg/L, with the highest concentration at PZ11. There is no MCL for zinc. Piezometer PZ11 is located near the eastern property boundary where Campus Bay has recently 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. No detection exceeded the secondary MCL of 5,000 µg/L.

7.0 COMPARISON OF APRIL 2013 DATA TO PREVIOUS SAMPLING EVENTS

The Phase I November 2010 through April 2012 Groundwater Sampling Results Technical Memorandum (Tetra Tech 2012) evaluated and described chemical trends observed during the previous four rounds of sampling. The data collected in April 2013 were consistent with previous rounds of data in that analytes were detected at similar concentrations in the same geographic areas.

- VOCs were detected at similar concentrations and in the same general areas as in previous rounds of data collection. The majority of the VOCs detected at concentrations that exceed the California or federal MCL were found along the eastern property boundary, primarily at locations PZ11 and B163. The exceptions were detections of carbon tetrachloride, which was detected at concentrations exceeding the MCL at locations B185 and CTP.

- SVOCs and PAHs have historically been detected infrequently across the RFS. This latest round of sampling was consistent with previous data collected; only one compound (1,4-dioxane) was detected and no concentrations exceeded an MCL.

- Metals were also detected at similar concentrations and in the same general areas as in previously collected rounds of data. The MCLs for metals were exceeded in a total of seven samples. Elevated concentrations of metals at piezometers PZ11 may be due to the reducing conditions in the soil created by the pilot study.

Groundwater elevations will be monitored in November 2013 and April 2014, and samples will be collected for chemical analysis in April 2014. The number of wells and analyses will be proposed in a memorandum to DTSC to be completed in January 2014.

8.0 REFERENCES

Tetra Tech EM Inc. (Tetra Tech). 2008. Current Conditions Report, University of California, Berkeley, Richmond Field Station, Richmond, California. November 21.

Tetra Tech. 2010. Phase I Groundwater Sampling, Field Sampling Workplan, University of California, Berkeley, Richmond Field Station, Richmond, California. June 2.

Tetra Tech. 2011. Final Phase I Groundwater Sampling Results, Technical Memorandum, University of California, Berkeley, Richmond Field Station, Richmond, California. August 22.

Tetra Tech. 2012. Phase I November 2010 through April 2012 Groundwater Sampling Results Technical Memorandum, University of California, Berkeley, Richmond Field Station, Richmond, California. December 12.

Tetra Tech. 2013a. Notification of Piezometer Abandonment and Installation, and Scope of Work. University of California, Richmond Field Station, Richmond, California. March 5.

Tetra Tech. 2013b. Technical Memorandum for Piezometer Abandonment (B197 and DH) and Installation (B197R and DHR), Richmond Field Station, Richmond, California. May 13.

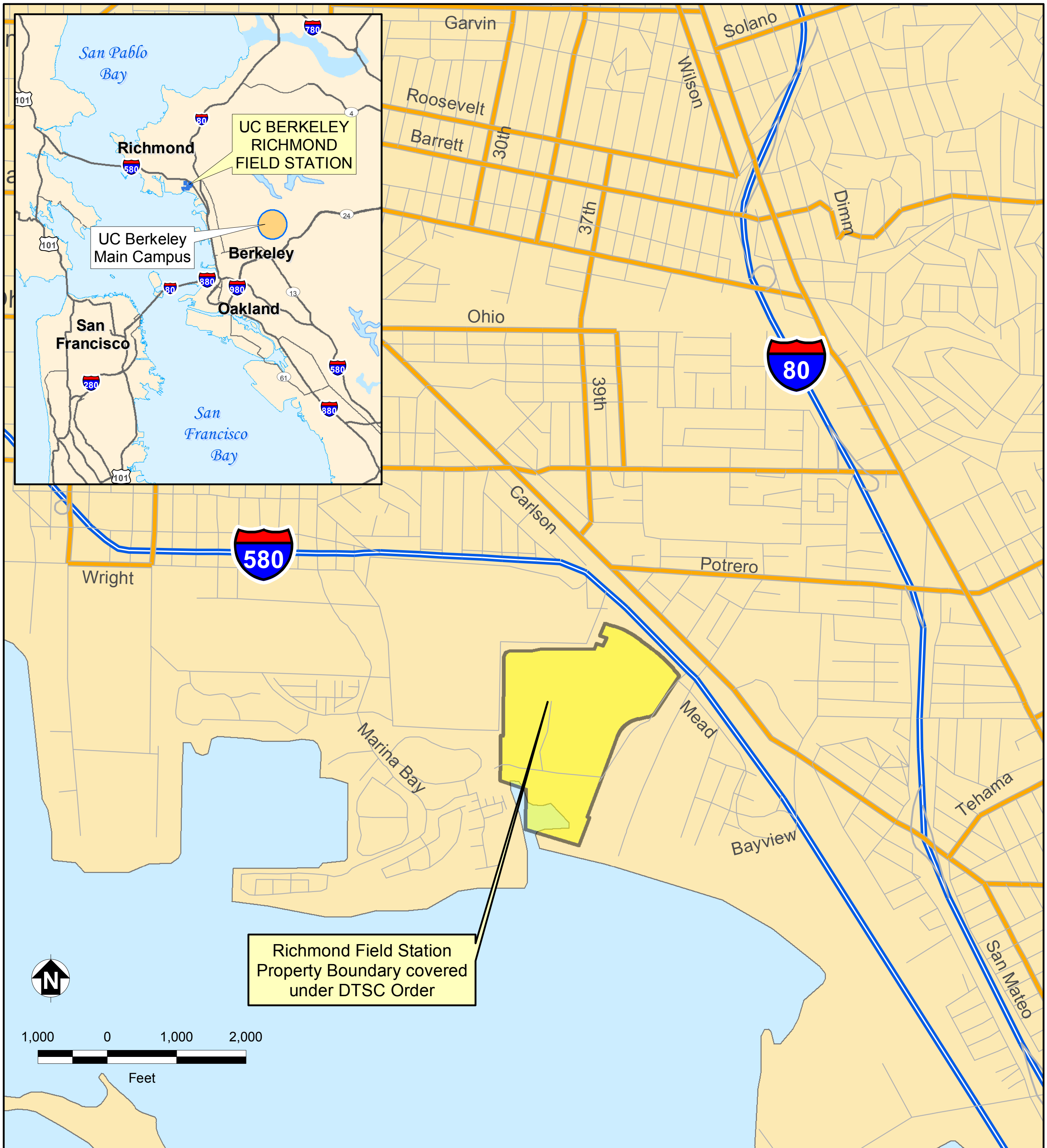
Tetra Tech. 2013c. Site Characterization Report. Proposed Richmond Bay Campus, Research, Education, and Support Area and Groundwater within the Richmond Field Station Site. May 28.

U.S. Environmental Protection Agency (EPA). 2002. Guidance for Quality Assurance Project Plans. Document Number EPA QA/G-5. December.

EPA. 2008. USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review." Document Number EPA-540-R-08-01. June.

EPA. 2010. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review." Document Number EPA-540-R-10-011. January.

FIGURES



Notes:

DTSC Department of Toxic Substances Control.

TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 1
SITE LOCATION MAP

2013 Groundwater Sampling Results

8/6/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\Site Location Map.mxd TtEMI-OAK yashekia.evans

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

Property Boundary
Approximate Property Boundary

TETRA TECH

Richmond Field Station
University of California, Berkeley

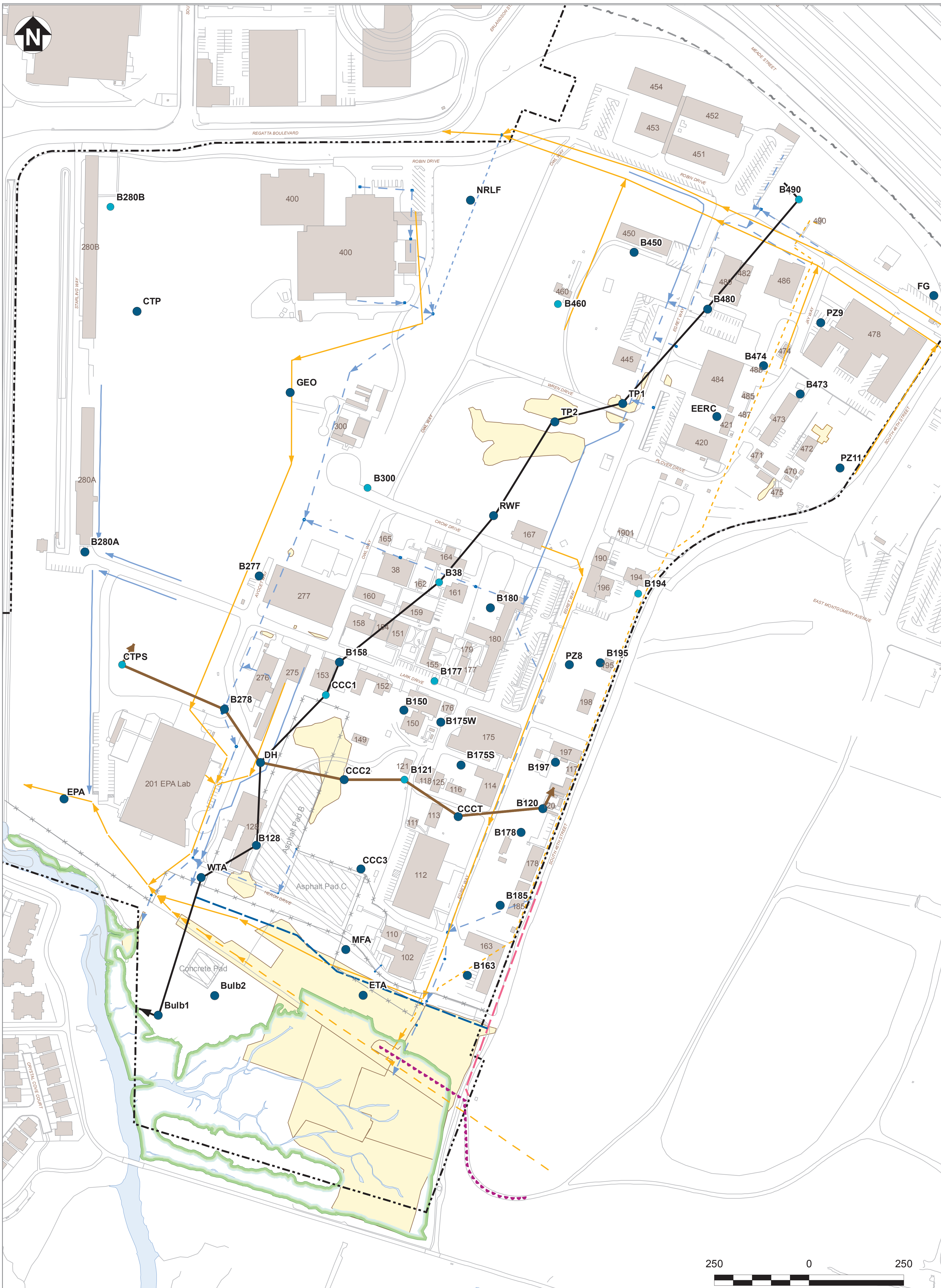
FIGURE 2
SITE MAP

2013 Groundwater Sampling Results

Notes:

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

7/25/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\Site Map.mxd TtEMI-OAK yashekia.evans



Existing Buildings

Asphalt/Concrete Pads

Remediated Areas

Surface Water

Marsh Boundary

Property Boundary

Approximate Property Boundary

Roads and Other Landscape Features

Fenceline

A-A' Cross-Section, see Figure 10

B-B' Cross-Section, see Figure 11

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 April 2013

Piezometer Not Sampled April 2013

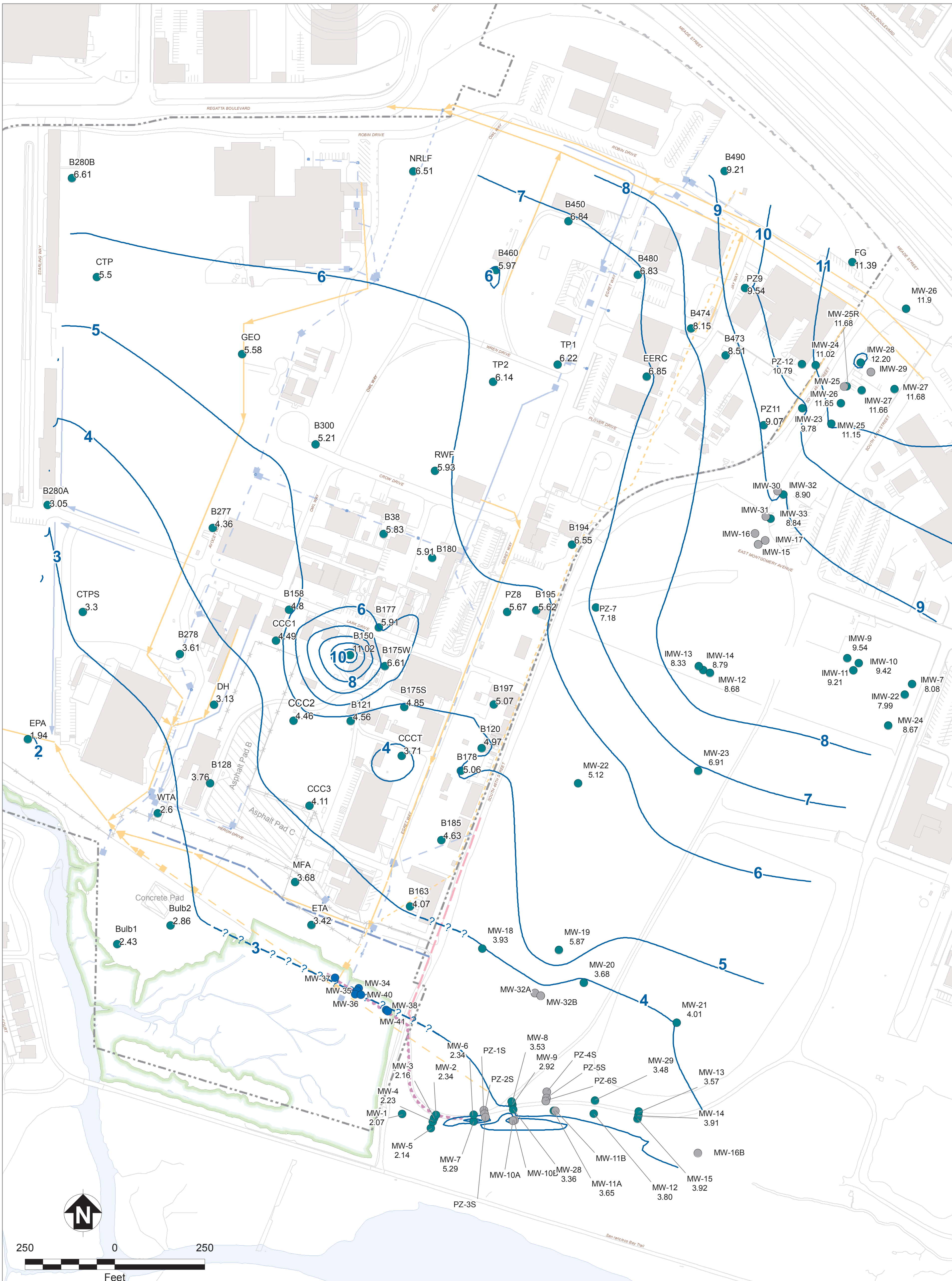
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 3
GROUNDWATER
SAMPLING LOCATIONS

2013 Groundwater Sampling Results

2013-10-09 V:\Misc_GIS\Richmond_Field_Station\Projects\R5_GW_Report\Layouts\Groundwater Sampling Locations 2013.mxd TtEMI-OAK yashekia.evans.



- Piezometer Location
- Piezometer Groundwater Elevation Not Measured in November 2010
- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Note:
Groundwater contours given in feet above mean sea level.
Datum : NAD 83 CA State Plane Zone III

BAPB Biologically Active Permeable Barrier

MW-10A 5.27 — Piezometer ID / Groundwater Elevation

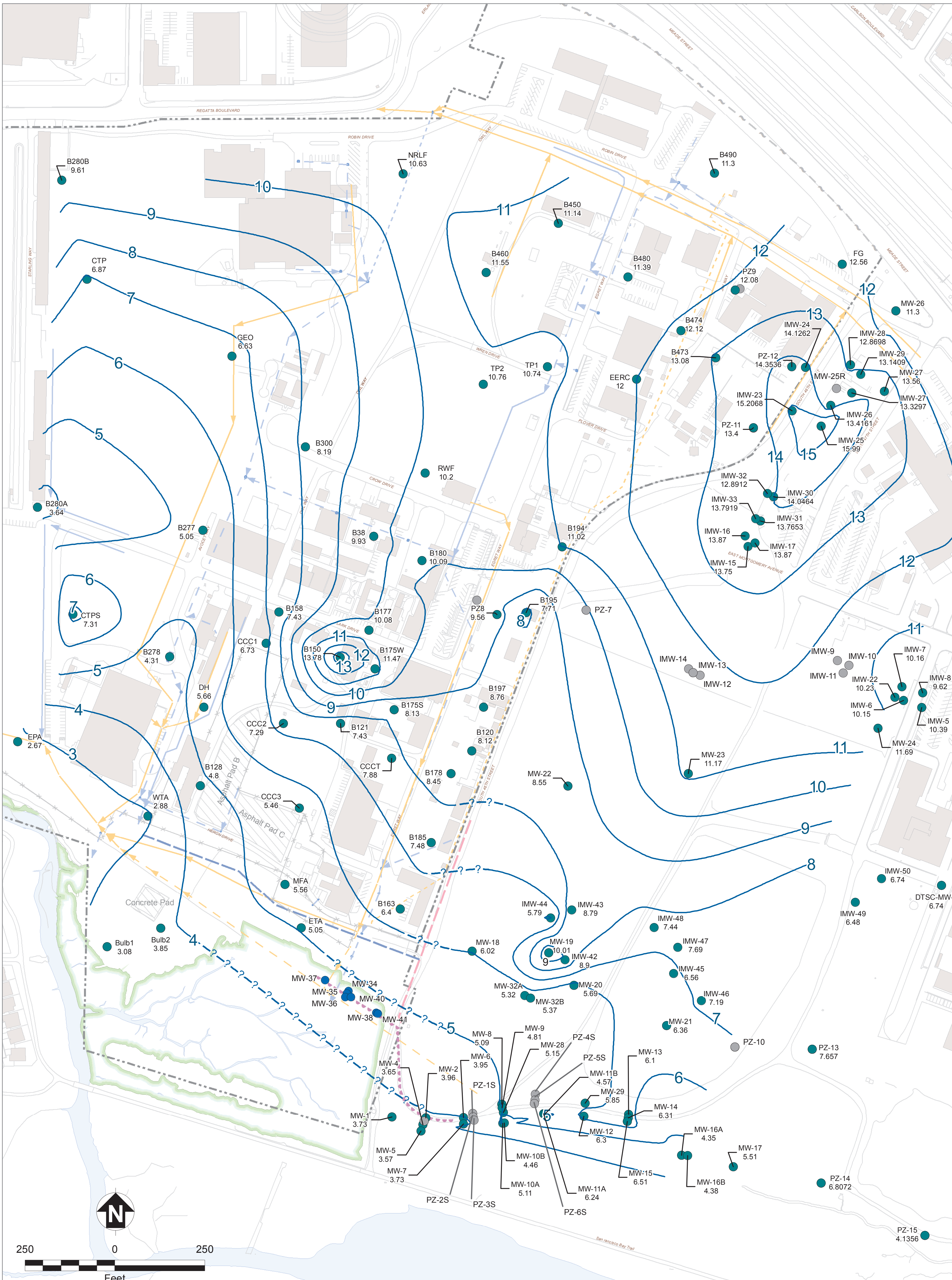
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 4
SHALLOW GROUNDWATER ELEVATION CONTOURS, NOVEMBER 1, 2010

2013 Groundwater Sampling Results

8/21/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_II\GW_Sampling\Layouts\Shallow GW Elevation Contours 2010 Nov 1.mxd TtEMI-OAK yashekia.evans



- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Note:
Groundwater contours given in feet above mean sea level.

BAPB Biologically Active Permeable Barrier
bgs below ground surface
ft feet

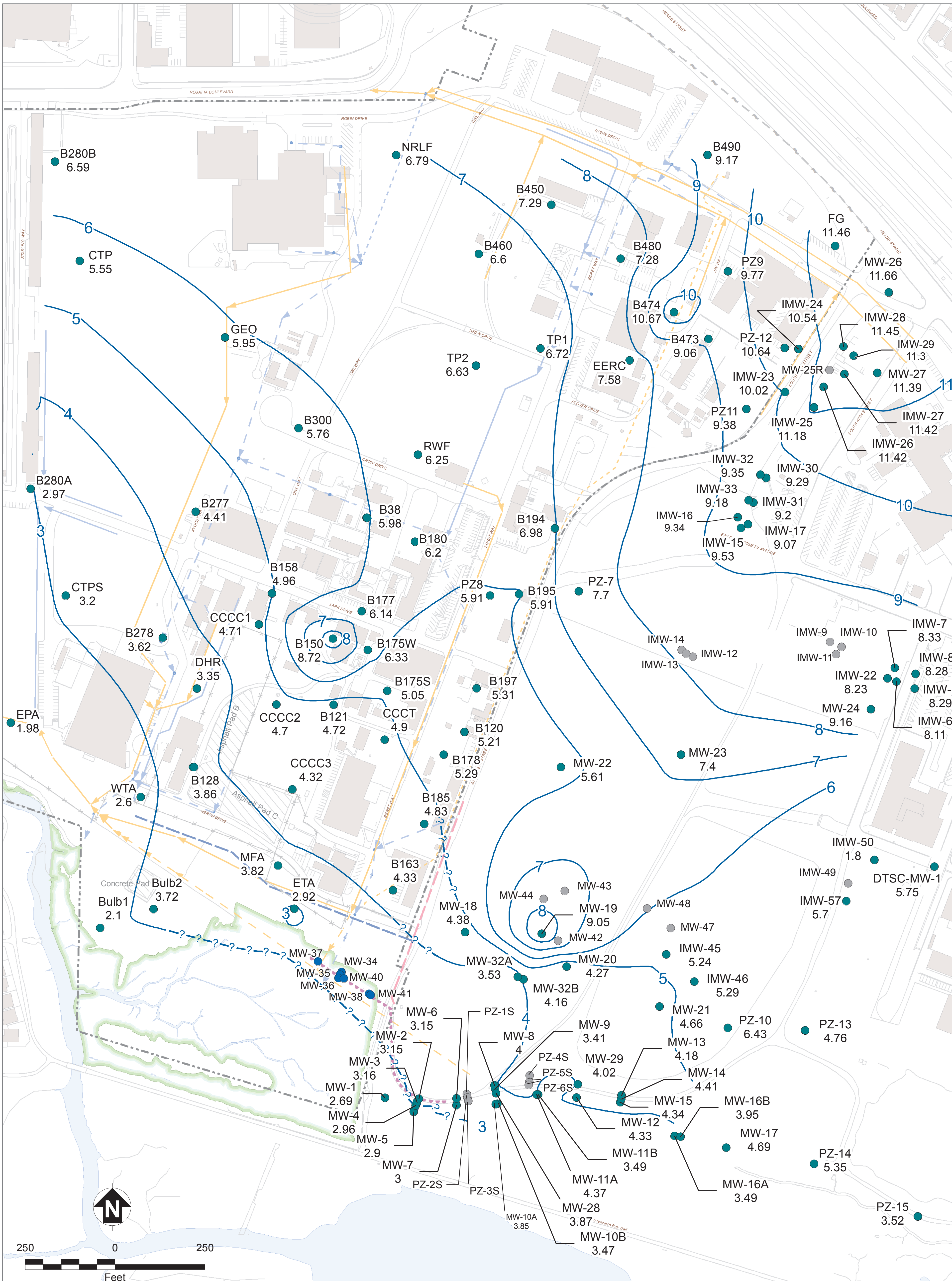
Piezometer ID
MW-10A
5.27
Groundwater Elevation

TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 5
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 11, 2011

2013 Groundwater Sampling Results



- Piezometer Groundwater Elevation Measured in October 2011
- Piezometer Groundwater Elevation Not Measured in October 2011
- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Note:
Groundwater contours given in feet above mean sea level

BAPB	Biologically Active Permeable Barrier
bgs	below ground surface
ft	feet

MW-10A — Piezometer ID
5.27 — Groundwater Elevation

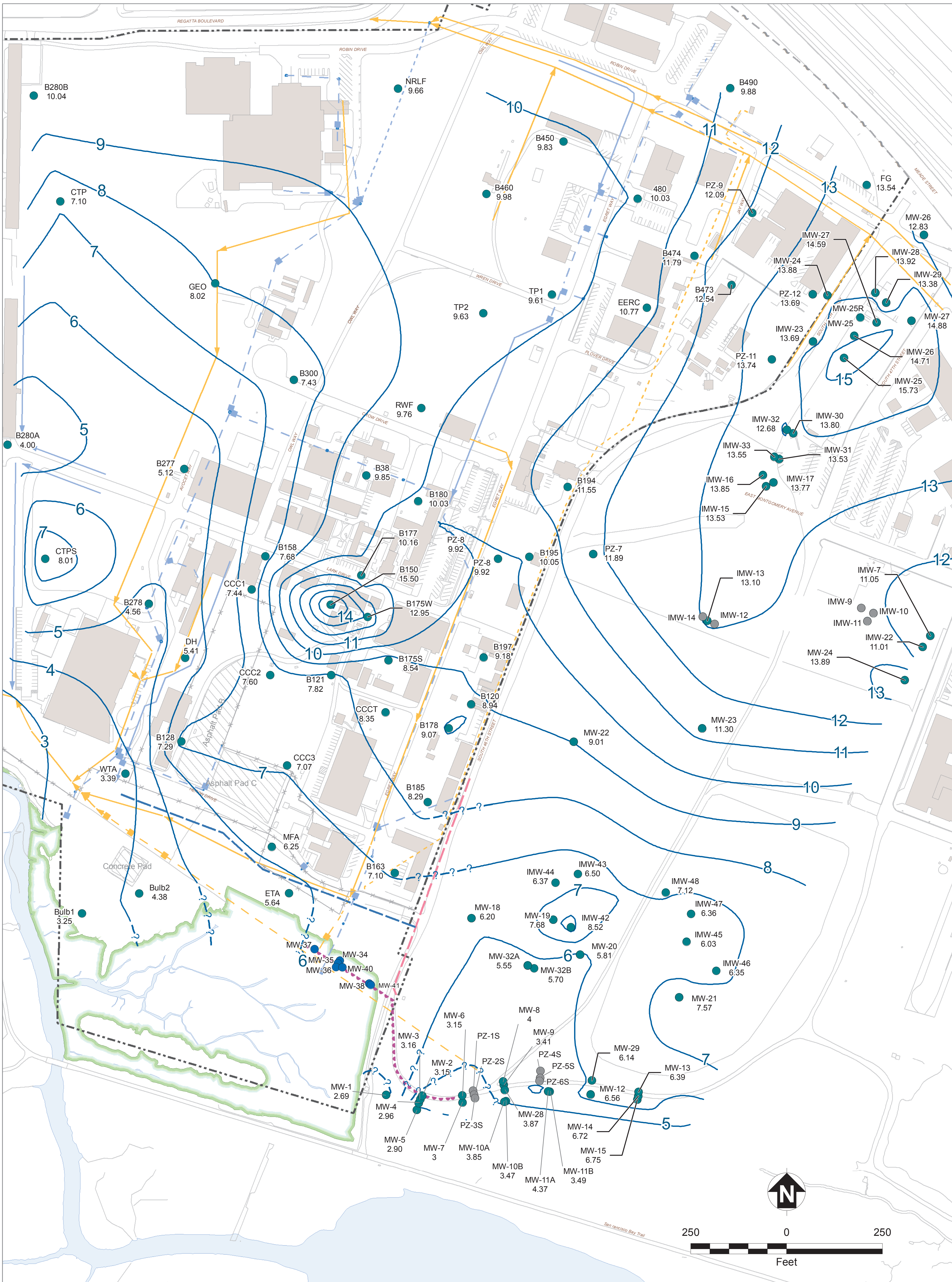
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 6
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 3, 2011

2013 Groundwater Sampling Results

8/27/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_II\GW_Sampling\Layouts\Shallow GW Elevation Contours 2011 Oct 3.mxd TtEMI-OAK yashekia.evans



- Piezometer Groundwater Elevation Measured in April 2012
- Piezometer Groundwater Elevation Not Measured in April 2012
- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Notes:
1. Groundwater contours given in feet above mean sea level.
2. Groundwater contours were developed for the Richmond Field Station property and land immediately surrounding the property line.
3. Datum : NAD 83 CA State Plane Zone III

BAPB Biologically Active Permeable Barrier

MW-10A — Piezometer ID
5.27 — Groundwater Elevation

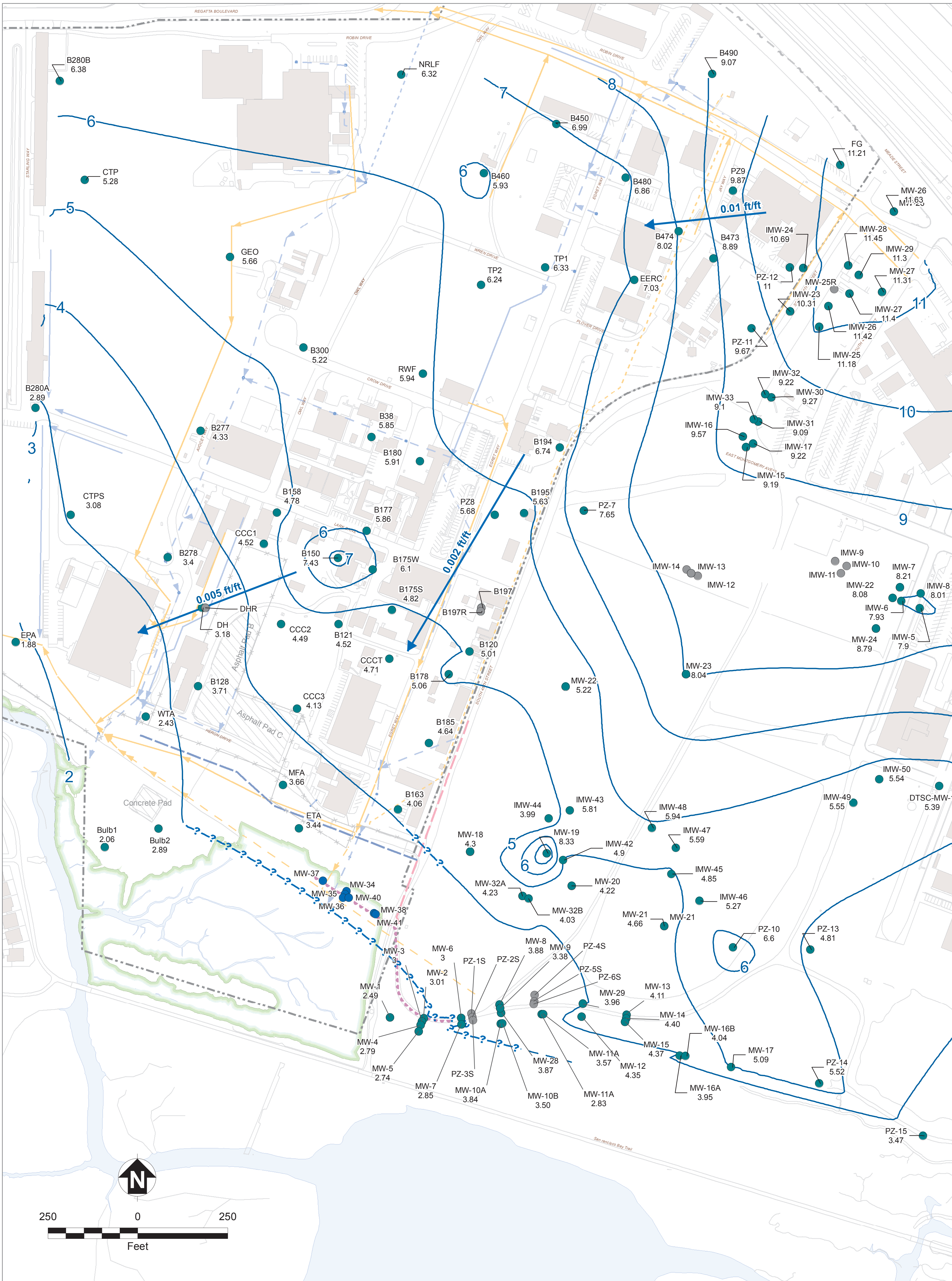
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 7
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 2, 2012

2013 Groundwater Sampling Results

8/21/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\Shallow GW Elevation Contours 2012 April 2.mxd TtEMI-OAK yashekia.evans



- Piezometer Groundwater Elevation Measured in October 2012
- Piezometer Groundwater Elevation Not Measured in October 2012
- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Note:
Groundwater contours given in feet above mean sea level.
Horizontal groundwater gradient directions are estimated based on the estimated groundwater contours.

BAPB Biologically Active Permeable Barrier
ft feet

Piezometer ID
MW-10A
5.27
Groundwater Elevation

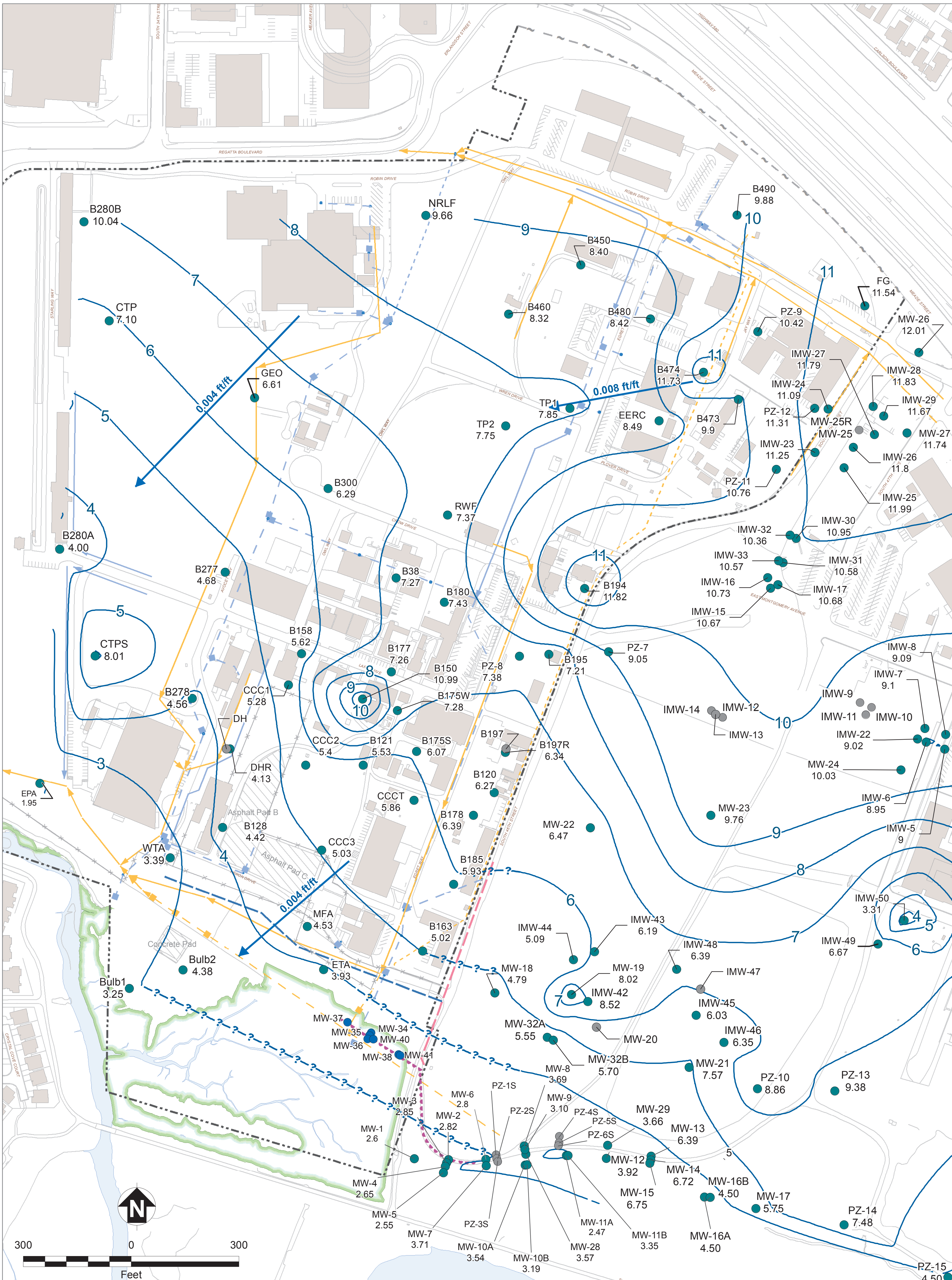
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 8
SHALLOW GROUNDWATER ELEVATION CONTOURS, OCTOBER 1, 2012

2013 Groundwater Sampling Results

8/27/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\Shallow GW Elevation Contours 2012 Oct 1.mxd TtEMI-OAK yashekia.evans



- Piezometer Groundwater Elevation Measured in April 2013
- Piezometer Groundwater Elevation Not Measured in April 2013
- BAPB Wells on RFS Property
- 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
- Property Boundary
- Approximate Property 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

Note:
Groundwater contours given in feet above mean sea level.
Horizontal groundwater gradient directions are estimated based on the estimated groundwater contours.

BAPB Biologically Active Permeable Barrier
ft feet

Piezometer ID
MW-10A
5.27
Groundwater Elevation

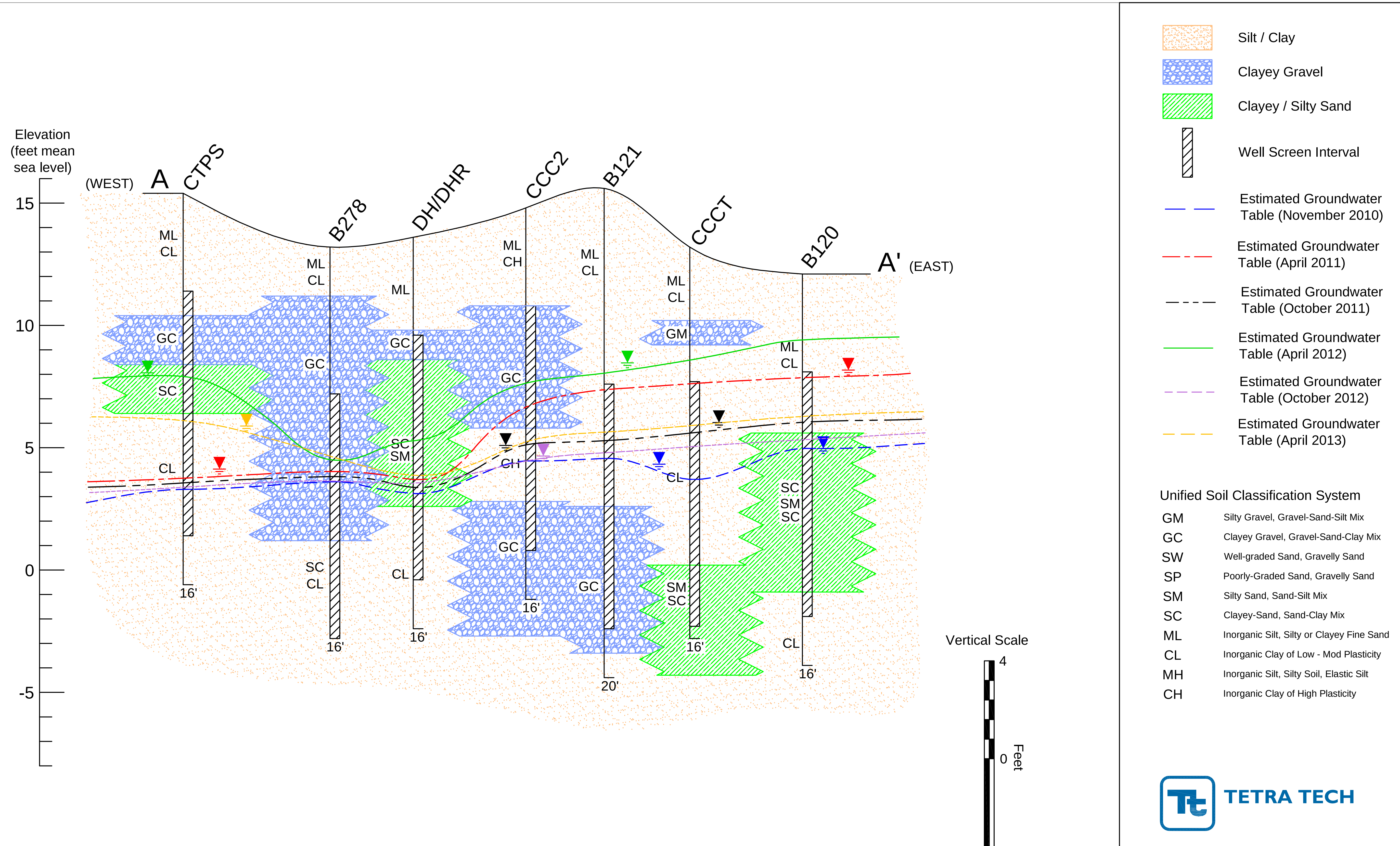
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 9
SHALLOW GROUNDWATER ELEVATION CONTOURS, APRIL 1, 2013

2013 Groundwater Sampling Results

8/26/2013 V:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_II\GW_Sampling\Layouts\Shallow GW Elevation Contours 2013 April 1.mxd TTEMI-OAK yashekia.evans

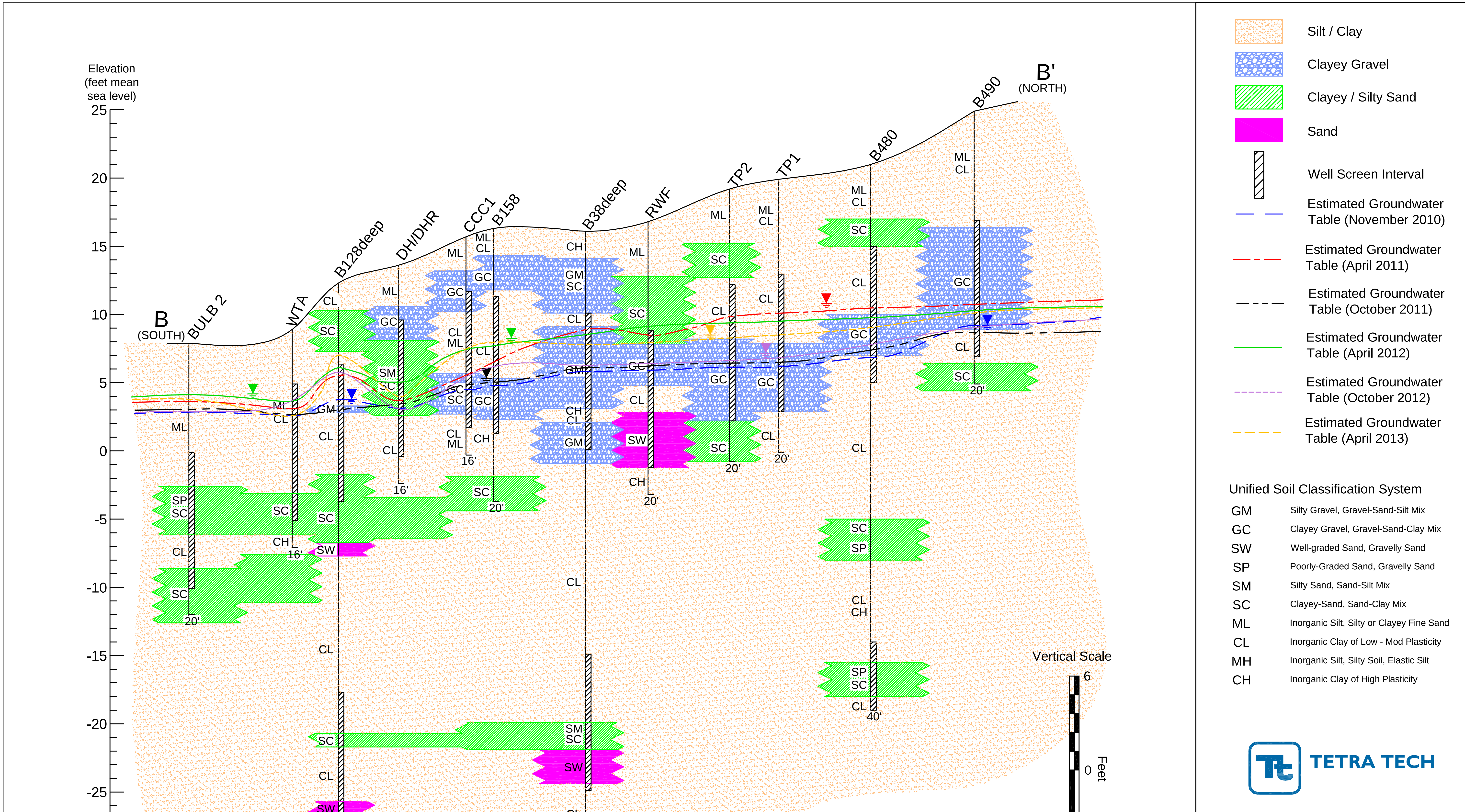


Richmond Field Station
University of California, Berkeley

FIGURE 10
GEOLOGIC CROSS SECTION
A - A'

2013 Groundwater Sampling Results

c:\my projects\rfs\rfs_cross-sections -four wls.dwg TtEMI-OAK duffy, mark

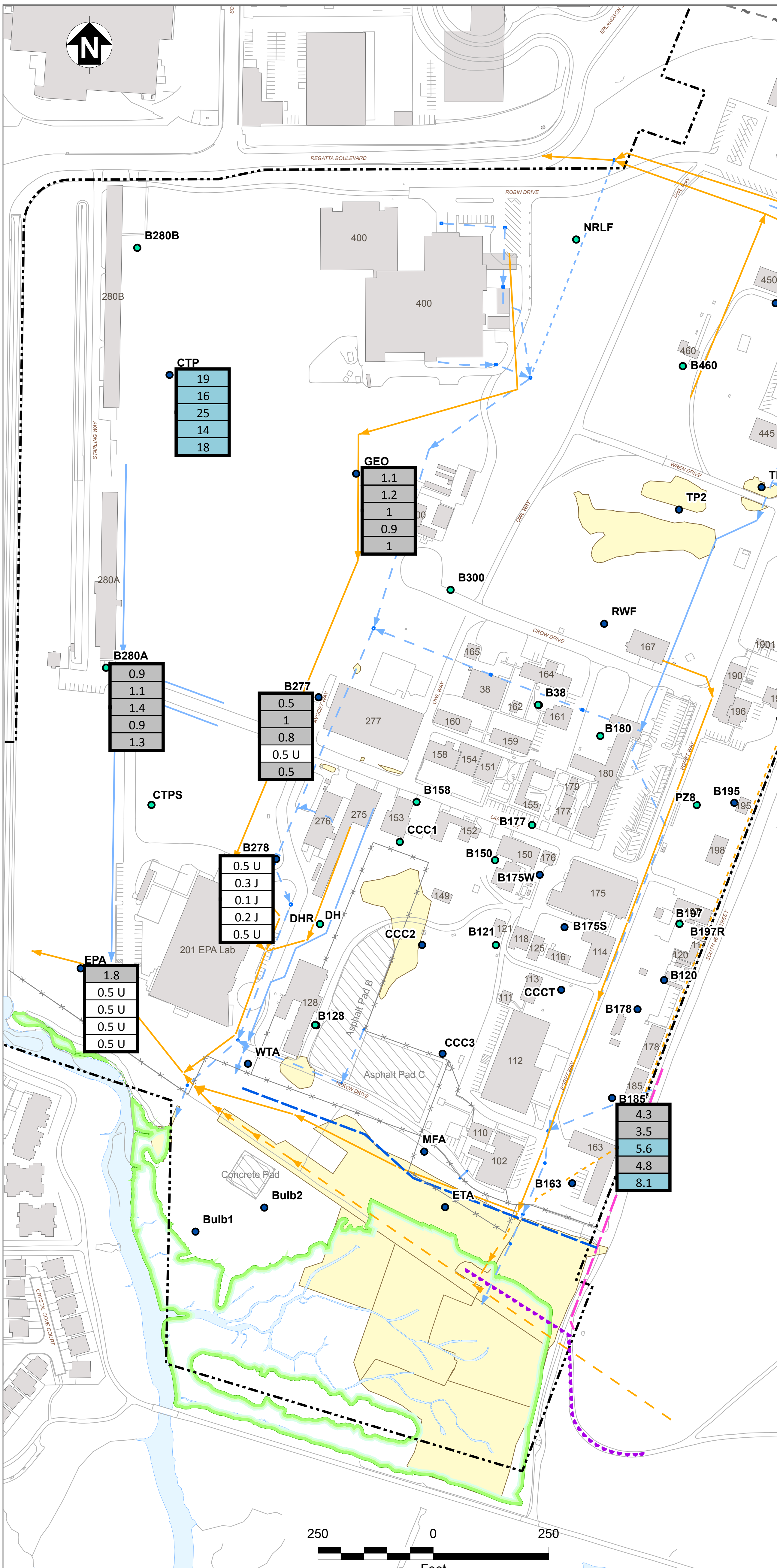


Richmond Field Station
University of California, Berkeley

FIGURE 11
GEOLOGIC CROSS SECTION
B - B'

2013 Groundwater Sampling Results

c:\my projects\rfs\rfs_cross-sections -four wls.dwg TtEMI-OAK duffy, mark



Notes:
Only data from the original sample collected from a location is displayed (no duplicate data).

If no data is displayed, all sample results were non-detects.

Samples are shown in order of collection:
November 2010
April 2011
October 2011
April 2012
April 2013

Indicates the sample result exceeds the Federal MCL of 5 ug/L
Indicates the sample result exceeds the California MCL of 0.5 ug/L

EPA	Environmental Protection Agency
J	Estimated result
MCL	Maximum Contaminant Level
U	Not detected
ug/L	Micrograms per liter
VOC	Volatile Organic Compound

- Groundwater Sampling Locations
- Shallow Piezometers Not Sampled for VOCs in April 2013
- Existing Buildings
- Asphalt/Concrete Pads
- Remediated Areas
- Surface Water
- Marsh Boundary
- Property Boundary
- Approximate Property 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

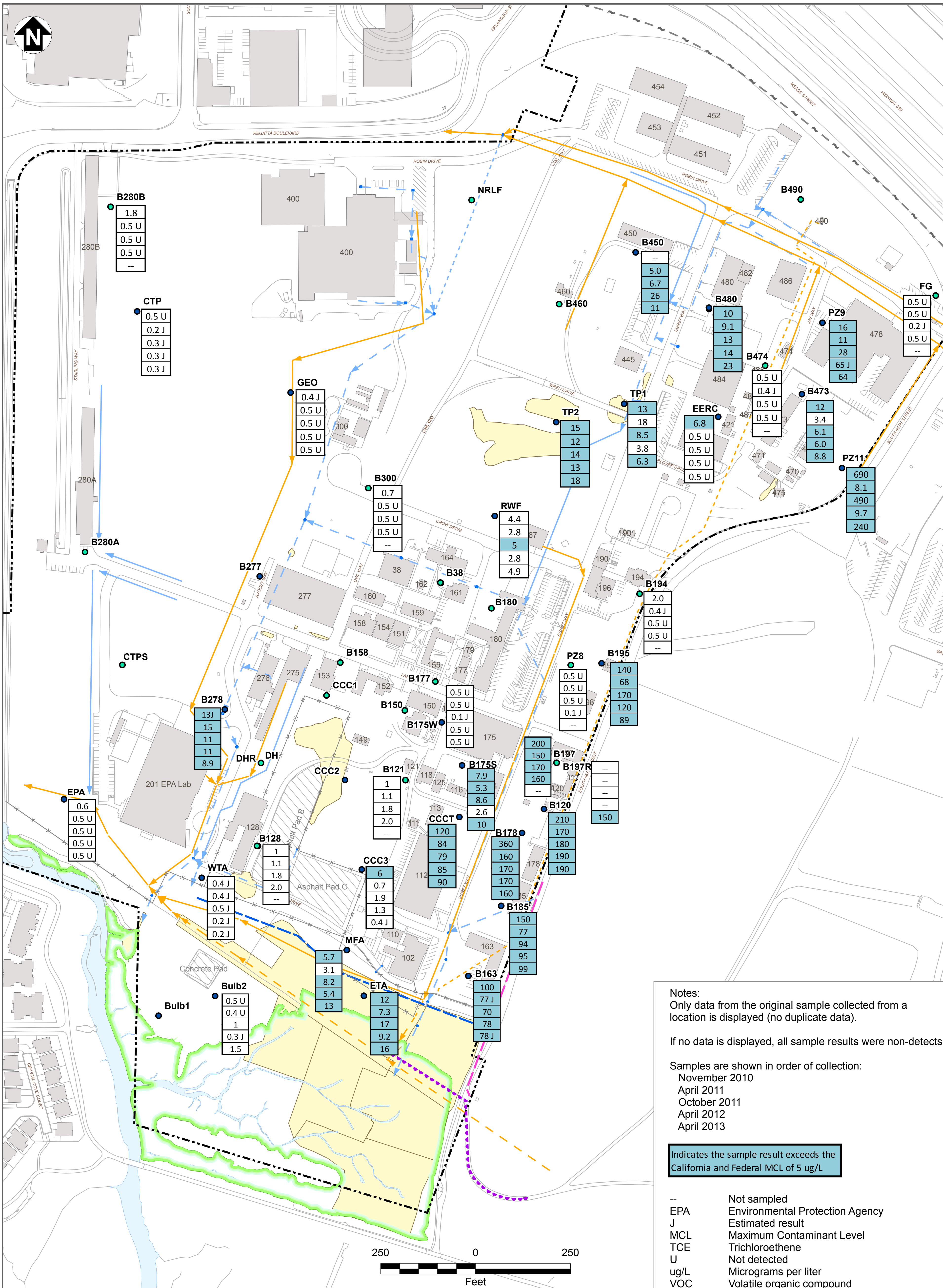
TETRA TECH

Richmond Field Station
University of California, Berkeley

FIGURE 12
CARBON TETRACHLORIDE GROUNDWATER CONCENTRATIONS

2013 Groundwater Sampling Results

2013-10-08 C:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\CarbonTet Groundwater Concentrations_2013.mxd TetraTech Michelle.Handley



Notes:
Only data from the original sample collected from a location is displayed (no duplicate data).

If no data is displayed, all sample results were non-detects.

Samples are shown in order of collection:
November 2010
April 2011
October 2011
April 2012
April 2013

Indicates the sample result exceeds the California and Federal MCL of 5 ug/L

--	Not sampled
EPA	Environmental Protection Agency
J	Estimated result
MCL	Maximum Contaminant Level
TCE	Trichloroethene
U	Not detected
ug/L	Micrograms per liter
VOC	Volatile organic compound

- Groundwater Sampling Locations
- Shallow Piezometers Not Sampled for VOCs in April 2013
- Existing Buildings
- Asphalt/Concrete Pads
- Remediated Areas
- Surface Water
- Marsh Boundary
- Property Boundary
- Approximate Property 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
University of California, Berkeley

FIGURE 13
TCE GROUNDWATER CONCENTRATIONS

2013 Groundwater Sampling Results

2013-10-08 C:\Misc_GIS\Richmond_Field_Station\Projects\Field_Sampling_Workplan\Phase_I\GW_Sampling\Layouts\TCE Groundwater Concentrations_2013.mxd TetraTech Michelle.Handley

TABLES

Table 1: Groundwater Sampling Registry
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Groundwater Samples							
			Analysis	VOCs (EPA Method 8260B)	SVOCs (EPA Method 8270C)	PAH (EPA Method 8270-SIM)	Dissolved Metals (EPA Method 6020A/7470A series)
			Sample Container	3 40mL Amber VOA vials with HCl	1 Liter Amber	1 Liter Amber	500mL Poly with HNO3
			Holding Time	14 Days	7/40 days	7/40 days	Metals – 6 Months (except Mercury – 28 Days)
Sample ID	Point Location ID	Sampling Date	Screening Interval (feet bgs)				
RFSGWB12005	B120	4/2/2013	4-14	X			
--	B121	NS	8-18				
RFSGWB12805	B128	4/5/2013	6-16		X	X	X
--	B128deep	NS	30-40				
RFSGWB15005	B150	4/2/2013	5.5-15.5				X
RFSGWB15805	B158	4/8/2013	5-15				X
RFSGWB16305	B163	4/3/2013	7-17	X	X	X	X
RFSGWB175S05	B175S	4/2/2013	5-15	X			X
RFSGWB175W05	B175W	4/2/2013	5-15	X			
--	B177	NS	9-19				
RFSGWB17805	B178	4/3/2013	4.5-14.5	X			X
RFSGWB18005	B180	4/8/2013	6-16		X	X	
RFSGWB18505	B185	4/2/2013	4-14	X			
--	B194	NS	7-17				
RFSGWB19505	B195	4/2/2013	6-16	X			X
RFSGWB19505D	B195	4/2/2013	6-16	X			X
RFSGWB197R05	B197R	4/8/2013	4-14	X			X
RFSGWB27705	B277	4/4/2013	7-17	X			
RFSGWB27805	B278	4/4/2013	6-16	X			
RFSGWB280A05	B280A	4/4/2013	4-14	X	X	X	
--	B280B	NS	6-16				
--	B300	NS	7-17				
--	B38	NS	7-17				
--	B38deep	NS	31-41				
RFSGWB45005	B450	4/3/2013	6-16	X			X
--	B460	NS	8-18				
RFSGWB47305	B473	4/3/2013	7-17	X			
RFSGWB47405	B474	4/3/2013	6-16				X
RFSGWB48005	B480	4/3/2013	6-16	X			X
--	B480deep	NS	35-40				
--	B490	NS	8-18				
RFSGWBULB105	Bulb1	4/5/2013	8-18	X			X
RFSGWBULB205	Bulb2	4/5/2013	9-19	X	X	X	X
--	CCC1	NS	3.5-13.5				
RFSGWCCC205	CCC2	4/2/2013	4-14	X	X	X	X
RFSGWCCC205D	CCC2	4/2/2013	4-14	X	X	X	X
RFSGWCCC305	CCC3	4/2/2013	4-14	X			X
RFSGWCCCT05	CCCT	4/2/2013	5.5-15.5	X			
RFSGWCTP05	CTP	4/4/2013	7-17	X	X	X	X
--	CTPdeep	NS	30-40				
--	CTPS	NS	4-14				
RFSGWDHR05	DHR	4/4/2013	3.5-13.5				X
RFSGWEERC05	EERC	4/8/2013	7-17	X			X
RFSGWEPA05	EPA	4/4/2013	4-14	X	X	X	
RFSGWETA05	ETA	4/5/2013	3.5-13.5	X			X
RFSGWFG05	FG	4/3/2013	6-16				X
RFSGWGEO05	GEO	4/4/2013	6.5-16.5	X			
RFSGWMFA05	MFA	4/5/2013	3.5-13.5	X	X	X	
RFSGWNRLF05	NRLF	4/3/2013	9-19				X
RFSGWPZ1105	PZ11	4/5/2013	9-19	X			X
RFSGWPZ1105D	PZ11	4/5/2013	9-19	X			X
RFSGWPZ805	PZ8	4/8/2013	8-21				X
RFSGWPZ905	PZ9	4/3/2013	9-20	X			
RFSGWRWF05	RWF	4/8/2013	8-18	X			
RFSGWTP105	TP1	4/4/2013	7-17	X			X
RFSGWTP205	TP2	4/4/2013	6-16	X			
RFSGWWTA05	WTA	4/5/2013	4-14	X	X	X	

Notes:

bgs	Below ground surface	NS	Not sampled
EPA	U.S. Environmental Protection Agency	PAH	Polycyclic aromatic hydrocarbons
HCl	Hydrochloric acid	SVOC	Semivolatile organic compounds
HNO3	Nitric Acid	VOA	Volatile organic analysis
ID	Identification	VOC	Volatile organic compounds
ml	Milliliters		

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

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
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
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
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
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
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
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
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

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
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
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
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
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
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
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

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
B197R	4/1/13	13.19	6.85	6.34
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
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
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
B280A	4/1/13	14.04	10.69	3.35
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
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

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
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
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
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
B473	10/1/12	22.29	13.40	8.89
B473	4/1/13	22.29	12.39	9.90
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
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

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
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
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
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
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
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
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
CCCT	11/1/10	12.13	8.42	3.71

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
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
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
DH	11/1/10	13.25	10.12	3.13
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
DHR	4/1/13	13.54	9.41	4.13
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
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
ETA	11/1/10	7.54	4.12	3.42
ETA	2/10/11	7.54	3.10	4.44

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
GEO	11/1/10	16.37	10.79	5.58
GEO	2/10/11	16.37	9.04	7.33
GEO	4/11/11	16.37	9.74	6.63
GEO	10/3/11	16.37	10.42	5.95
GEO	4/2/11	16.37	8.35	8.02
GEO	10/1/12	16.37	10.71	5.66
GEO	4/1/13	16.37	9.76	6.61
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
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
PZ11	11/1/10	21.48	12.41	9.07
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

Table 2: Groundwater Elevation Data
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Piezometer Name	Sample Date	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Groundwater Elevation (feet NGVD)
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
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
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
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
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
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

Notes:

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

Table 3: Groundwater Sampling Parameters Summary
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Point Location ID	Date	Total Dissolved Solids (mg/L)	pH	Temperature (C)	Specific Conductance (umhos/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
B120	4/2/2013	1910	6.67	14.72	2.70	0	0.91	96
B128	4/5/2013	449	6.27	19.55	0.702	0	0.69	-74
B150	4/2/2013	206	6.42	14.50	0.314	10.2	5.34	158
B158	4/8/2013	171	6.45	16.38	0.264	272	2.71	155
B163	4/3/2013	2090	5.81	15.63	3.40	5.4	1.34	176
B175S	4/2/2013	619	6.55	15.90	0.908	3.9	2.24	85
B175W	4/2/2013	240	6.38	16.65	0.355	0	1.92	124
B178	4/3/2013	1510	6.58	15.32	2.26	0	1.02	22
B180	4/8/2013	317	7.12	16.55	0.487	44.9	7.09	133
B185	4/2/2013	1330	6.39	14.24	2.10	0	1.45	-19
B195	4/2/2013	1040	6.62	14.53	1.43	7.8	3.81	208
B197R	4/8/2013	1630	7.01	17.54	2.54	0	3.34	158
B277	4/4/2013	477	7.22	15.00	0.746	1.8	1.14	112
B278	4/4/2013	2120	6.77	15.18	3.32	0	0.94	128
B280A	4/4/2013	541	6.86	15.73	0.846	0	1.19	144
B450	4/3/2013	458	6.64	17.57	0.737	0	2.96	145
B473	4/3/2013	346	6.81	16.64	0.532	10.3	4.58	152
B474	4/3/2013	200	6.61	15.37	0.278	70.9	1.28	47
B480	4/3/2013	622	6.79	19.07	0.953	3.7	2.02	-41
BULB1	4/5/2013	21900	7.95	16.65	35.7	1.2	1.01	-246
BULB2	4/5/2013	1020	6.92	15.01	1.59	2.1	0.90	-13
CCC2	4/2/2013	811	6.56	16.12	1.26	0	1.26	153
CCC3	4/2/2013	612	6.99	16.31	0.878	126	1.81	104
CCCT	4/2/2013	1290	6.73	14.44	1.84	9.1	1.05	-189
CTP	4/4/2013	560	6.81	14.56	0.888	0.2	2.49	20
DHR	4/4/2013	6120	6.58	14.79	9.71	0	4.71	192
EERC	4/8/2013	3290	6.61	15.53	5.21	0	1.61	-11
EPA	4/4/2013	1020	7.1	14.84	1.60	5	1.38	-15
ETA	4/5/2013	1200	6.73	14.20	1.88	65	1.33	-95
FG	4/3/2013	497	6.4	16.81	0.825	49.9	1.49	170

Table 3: Groundwater Sampling Parameters Summary

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

Point Location ID	Date	Total Dissolved Solids (mg/L)	pH	Temperature (C)	Specific Conductance (umhos/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
GEO	4/4/2013	583	7.03	14.28	0.911	0	1.75	99
MFA	4/5/2013	871	6.86	15.03	1.36	13.5	0.94	104
NRLF	4/3/2013	431	6.68	20.39	0.674	0	1.43	-176
PZ11	4/5/2013	2240	6.09	15.13	3.49	1.5	1.18	145
PZ8	4/8/2013	492	6.69	16.25	0.768	6.9	1.85	161
PZ9	4/3/2013	407	6.54	17.54	0.754	0	0.9	137
RWF	4/8/2013	756	6.67	15.87	1.18	0	1.07	127
TP1	4/4/2013	1040	6.59	16.64	1.62	0	0.93	-173
TP2	4/4/2013	749	6.59	16.39	1.17	21.3	0.93	142
WTA	4/5/2013	518	7.02	17.48	0.804	3.2	0.67	91

Notes:

--	Not sampled
C	Celsius
DO	Dissolved Oxygen
ID	Identification
mg/L	Milligrams per liter
mV	Millivolts
NTU	Nephelometric Turbidity Units
ORP	Oxidation reduction potential
umhos/cm	Micromhms per centimeter

Table 4: Piezometer Completion Summary
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, 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	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	4/3/2012	4/2/2013	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	4/4/2012	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	4/2/2012	4/5/2013	11.62	12.21
B128deep	8/12/10	40	2.0 PVC	30-40	9/1/10	65	10/15/10	--	--	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	4/4/2012	4/2/2013	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	4/6/2012	4/8/2013	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	4/2/2012	4/3/2013	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	4/4/2012	4/2/2013	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	4/4/2012	4/2/2013	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	4/4/2012	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	4/3/2012	4/2/2013	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	4/4/2012	4/8/2013	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	4/2/2012	4/2/2013	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	4/4/2012	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	4/3/2012	4/2/2013	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	4/3/2012	--	13.01	13.37
B197R	3/26/13	14	2.0 PVC	3-13	4/1/13	65	--	--	--	--	4/8/2013	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	4/3/2012	4/4/2013	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	4/5/2012	4/4/2013	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	4/3/2012	4/4/2013	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	4/3/2012	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	4/9/2012	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	4/4/2012	NS	15.78	16.08
B38deep	8/10/10	41	2.0 PVC	31-41	8/24/10	47	10/18/10	--	--	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	4/6/2012	4/3/2013	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	4/6/2012	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	4/6/2012	4/3/2013	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	4/9/2012	4/3/2013	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	4/9/2012	4/3/2013	20.84	21.04
B480deep	8/12/10	40	2.0 PVC	35-40	8/27/10	52	10/15/10	--	--	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	4/9/2012	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	4/5/2012	4/5/2013	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	4/5/2012	4/5/2013	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	4/10/2012	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	4/10/2012	4/2/2013	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	4/10/2012	4/2/2013	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	4/4/2012	4/2/2013	12.13	13.19

Table 4: Piezometer Completion Summary
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, 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	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	4/3/2012	4/4/2013	17.27	18.26
CTPdeep	8/12/10	40	2.0 PVC	30-40	8/26/10	47	10/15/10	--	--	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 and 10/18/10	4/19/11	10/10/11	4/5/2012	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	4/6/2012	--	13.25	13.55
DHR	3/26/13	14	2.0 PVC	3.5-13.5	4/1/13	12	--	--	--	--	4/4/2013	13.54	13.80
EERC	8/9/10	17	2.0 PVC	7-17	8/31/10	7.5	10/1/2010 and 10/15/10	4/20/11	10/7/11	4/6/2012	4/8/2013	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	4/6/2012	4/4/2013	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	4/10/2012	4/5/2013	7.54	7.72
FG	8/6/10	16	2.0 PVC	6-16	8/30/10	7	9/23/10	4/19/11	10/10/11	4/9/2012	4/3/2013	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	4/6/2012	4/4/2013	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	4/5/2012	4/5/2013	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	4/9/2012	4/3/2013	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	4/5/2012	4/5/2013	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	4/3/2012	4/8/2013	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	4/6/2012	4/3/2013	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	4/4/2012	4/8/2013	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	4/5/2012	4/4/2013	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	4/9/2012	4/4/2013	18.91	19.24
WTA	7/27/10	14	2.0 PVC	4-14	8/18/10	28	9/30/10	4/14/11	10/5/11	4/5/2012	4/5/2013	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 above mean sea level (NGVD29)
ft bgs	Feet below ground surface
NGVD	National Geodedic Vertical Datum
NS	Not Sampled
PVC	Polyvinyl chloride
TOC	Top of casing
unk	Unknown

Table 5: State and Federal Water Quality Criteria in µg/L
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

	Human Health Risk-Based SSGs (1)			Aquatic Criteria (2)													
	Upland			Near BAPB	Uplands	Lower horizon		MCL (4)			SWRCB			EPA 2004 PRG		EPA 2010 RSL	
Chemical	On-Site Residential	On-Site Commercial/ Industrial Worker	On-Site Groundskeeper/ Maintenance Worker	5x Aquatic Criteria	40x Aquatic Criteria	160x Aquatic Criteria	Drinking Water Standard (3)	California	EPA	Secondary	Drinking Water Criteria (5)	Non-Drinking Water Criteria (6)	Surface Water Screening Levels, Estuary Habitats (7)	Cancer (8)	Non-cancer (8)	Tapwater (Cancer) (9)	Tapwater (Non-cancer) (9)
VOCs																	
1,1-Dichloroethene	1,900	8,900	630,000	160	3.2	6		6	7		6	25	3				340
1,2-Dichloroethane	120	360	2,900	5,000	99	0.5		0.5	5		0.5	200	99			0.15	640
1,2-Dichloropropane	120	370	1,900	2,000	39	5		5	5		5	100	10			0.39	8
2-Butanone (MEK)	2,800,000	13,000,000	140,000,000								4,200	14,000	8,400				7,100
Acetone	7,900,000	37,000,000	220,000,000								1,500	1,500	1,500				22,000
Benzene	20	61	440	3,600	71	1		1	5		1	46	71			0.41	44
Carbon tetrachloride								0.5	5		0.5	9.3	4			0.44	86
Chlorobenzene	250,000	1,100,000	140,000	1,100,000	21,000	70			100		25	25	50				91
Chloroform	130	400	2,500	24,000	470	80					70	330	470			0.91	130
cis-1,2-Dichloroethene	7,200	34,000	270,000			6		6	70		6	590	22,000				370
Dibromomethane															61		
Naphthalene	210	640	90								17	24	21				
Tetrachloroethene	38	110	22	440	8.9	5		5	5		5	120	9			0.11	220
Toluene								150	1,000		40	130	40				2,300
trans-1,2-Dichloroethene	6,700	31,000	510,000	7,000,000	140,000	10		10	100		10	590	260				110
Trichloroethene	180	540	2,700	4,100	81	5		5	5		5	360	81			2	
Vinyl chloride	1	3.6	300	26,000	530	0.5		0.5	2		0.5	3.8	530			0.016	72
SVOCs																	
1-Methylnaphthalene																2.3	2,600
1,4-Dioxane											3	5,000	5,000			6.1	3,700
Acenaphthene																	
Bis(2-ethylhexyl) phthalate									6		4	32	5.9			4.8	730
Fluoranthene											8	8	8				1,500
Fluorene											3.9	3.9	30				1,500
Naphthalene											17	24	21			0.14	6.2
Pyrene											2	2	2		180		1,100
Metals																	
Aluminum								1,000		200							37,000
Antimony			150,000	220,000	1,700,000	6,900,000	6	6	6		6	30	500				15
Arsenic			110	180	1,400	5,800	10	10	10		36	36	0.14	0.071		0.045	11
Barium			75,000,000				1,000	1,000	2,000		1,000	1,000	1,000				7,300
Beryllium								4	4		0.53	0.53	0.53				73
Boron											1.6	1.6	1.6				7,300
Cadmium			190,000	47	370	1,500	5	5	5		0.25	0.25	9.3				18
Calcium																	
Chromium			560,000,000				50	50	100		50	180	180				
Cobalt											3	3	3				11
Copper			15,000,000	16	120	500	1,300	1,300	1,300	1,000	3.1	3.1	3.1				1,500
Iron										300							26,000
Lead				41	320	1,300	15	15	15		2.5	2.5	5.6				
Magnesium																	
Manganese										50							880
Mercury			110,000	11	84	340	2	2	2		0.025	0.025	0.025				0.57
Molybdenum											35	240	240				180
Nickel			93,000,000	41	330	1,300	100	100			8.2	8.2	8.2				730
Potassium																	
Selenium			1,900,000	25	200	800	50	50	50		5	5	71				180
Silver			3,100,000	9.5	76	300	100			100	0.19	0.19	0.19				180
Sodium																	
Thallium			25,000	320	2,500	10,000	2	2	2		2	4	4				
Vanadium			370,000								15	19	19				180
Zinc			180,000,000	410	3,200	13,000	5,000			5,000	81	81	81				11,000
Hardness, as CaCO3 IN mg/L																	

Table 5: State and Federal Water Quality Criteria in µg/L
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

	Human Health Risk-Based SSGs (1)			Aquatic Criteria (2)				MCL (4)			SWRCB			EPA 2004 PRG		EPA 2010 RSL	
	Upland			Near BAPB	Uplands	Lower horizon											
Chemical	On-Site Residential	On-Site Commercial/ Industrial Worker	On-Site Groundskeeper/ Maintenance Worker	5x Aquatic Criteria	40x Aquatic Criteria	160x Aquatic Criteria	Drinking Water Standard (3)	California	EPA	Secondary	Drinking Water Criteria (5)	Non-Drinking Water Criteria (6)	Surface Water Screening Levels, Estuary Habitats (7)	Cancer (8)	Non-cancer (8)	Tapwater (Cancer) (9)	Tapwater (Non-cancer) (9)
TPH																	
TPH as Gasoline											100	210					
TPH - Diesel Range Organics																	
TPH - Oil Range Organics																	
Explosive Residue																	
RDX																	

Notes:

(1) Groundwater SSGs are developed in Appendix G of the Campus Bay Revised HHRA (EKI 2008a). The formulas used to calculate the SSGs are presented in Appendix H of the Revised HHR
(2) The aquatic criteria are the more stringent of the 10x Human Consumption of Aquatic organisms value and the Salt Water Aquatic Criteria Value, presented in the Quarterly Groundwater and Surface Water Monitoring Report (Arcadis 20
The dilution factors of 5, 40, and 160 for groundwater are developed and presented in Appendix I of the Draft Feasibility Study and Remedial Action Plans for Lots 1, 2, and 3 (EKI 200
(3) The drinking water criteria are the more stringent of the federal (EPA 2009) and California (CDPH 2008) primary and secondary maximum contaminant levels (MC
(4) http://www.cdph.ca.gov/certlic/drinkingwater/Documents/DWdocuments/EPAandCDPH-11-28-2008.pd
http://water.epa.gov/drink/contaminants/index.cfm
(5) Values taken from the California Regional Water Quality Control Board 2008 Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table F-1a.
(http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf)
(6) Values taken from the California Regional Water Quality Control Board 2008 Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table F-1b.
(http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf)
(7) Values taken from the California Regional Water Quality Control Board 2008 Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table F-2c.
(http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf)
(8) EPA 2004 Regional Screening Levels (formerly Preliminary Remediation Goals) (http://www.epa.gov/region9/superfund/pr
(9) EPA 2010 Regional Screening Levels for tap water (http://www.epa.gov/reg3hwmd/risk/human

µg/L	Micrograms per liter
BAPB	Biologically active permeable barrie
CDPH	California Department of Public Healtl
HHRA	Human health risk assessmen
EPA	U.S. Environmental Protection Agenc
mg/L	Milligrams per liter
PRG	Preliminary remediation goa
RDX	Cyclotrimethylenetrinitramin
RSL	Regional Screening Leve
SSG	Site-specific goal
SVOC	Semivolatile organic compoun
SWRCB	State Water Resources Control Boarc
TPH	Total petroleum hydrocarbon
VOC	Volatile organic compoun

Sources:

CDPH. 2008. "Maximum Contaminant Levels and regulatory Dates for Drinking Water U.S EPA vs. California, November 2008."
EKI 2008a. Revised Human Health Risk Assessment and Calculation of Site Specific Goals for Lot 1, 2 and 3, Campus Bay Site, Richmond, California, April 30, 20
EKI 2008b. Draft Feasibility Study and Remedial Action Plan for Lots 1, 2, and 3, Campus Bay Site, Richmond, California, December 23, 20(
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#Lis

TABLE 6: STATISTICAL SUMMARY OF CHEMICALS DETECTED IN APRIL 2013

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

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)									
ALUMINUM	15/24	100	25.7	CCC3	15	1,000	0	NC	0
ANTIMONY	8/24	8.1	3.31	B195	8	6	2	6	2
ARSENIC	23/24	7	2.36	NRLF	23	10	0	10	0
BARIUM	24/24	110	42.4	BULB1	24	1,000	0	2,000	0
BERYLLIUM	1/24	0.18 J	0.180	B178	1	4	0	4	0
CADMIUM	5/24	5.9	2.58	PZ11	5	5	2	5	2
CALCIUM	24/24	690,000	125,000	DHR	24	NC	0	NC	0
CHROMIUM	14/24	18	2.04	CCC2	14	50	0	100	0
COBALT	12/24	6.3	1.93	EERC	12	NC	0	NC	0
COPPER	9/24	21	6.34	PZ11	9	1,300	0	1,300	0
IRON	14/24	3,100	497	NRLF	14	NC	0	NC	0
LEAD	5/24	0.35 J	0.228	CCC3	5	15	0	15	0
MAGNESIUM	24/24	810,000	132,000	BULB1	24	NC	0	NC	0
MANGANESE	22/24	19,000	1,860	B163	22	NC	0	NC	0
MERCURY	10/24	9.9	1.02	B195	10	2	1	2	1
MOLYBDENUM	3/24	7.8	5.53	B474	3	NC	0	NC	0
NICKEL	11/24	580	74.5	PZ11	11	100	2	NC	0
POTASSIUM	23/24	230,000	12,700	BULB1	23	NC	0	NC	0
SELENIUM	10/24	29	4.21	B150	10	50	0	50	0
SILVER	3/24	0.91 J	0.490	B195	3	NC	0	NC	0
SODIUM	24/24	7,000,000	424,000	BULB1	24	NC	0	NC	0
VANADIUM	22/24	7.3	2.44	B158	22	NC	0	NC	0
ZINC	17/24	1,700	119	PZ11	17	NC	0	NC	0
Volatile Organic Compounds (µg/L)									
1,1-DICHLOROETHENE	8/31	2.2	0.513	PZ11	8	6	0	7	0
1,2-DICHLOROETHANE	7/31	8	1.73	B163	7	0.5	5	5	1
1,2-DICHLOROPROPANE	1/31	0.1 J	0.100	WTA	1	5	0	5	0

TABLE 6: STATISTICAL SUMMARY OF CHEMICALS DETECTED IN APRIL 2013 (Continued)

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

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)									
BENZENE	2/31	0.3 J	0.250	B163	2	1	0	5	0
BROMOMETHANE	1/31	0.4 J	0.400	BULB1	1	NC	0	NC	0
CARBON DISULFIDE	2/31	2.9	2.10	BULB1	2	NC	0	NC	0
CARBON TETRACHLORIDE	5/31	18	5.78	CTP	5	0.5	5	5	2
CHLOROBENZENE	4/31	6.9	2.25	B163	4	NC	0	100	0
CHLOROFORM	10/31	8.4	1.45	CTP	10	NC	0	NC	0
CIS-1,2-DICHLOROETHENE	15/31	200	15.1	PZ11	15	6	1	70	1
METHYL TERT-BUTYL ETHER	3/31	0.8	0.400	BULB2	3	13	0	NC	0
TETRACHLOROETHENE	17/31	12	2.17	PZ11	17	5	2	5	2
TRANS-1,2-DICHLOROETHENE	7/31	56	8.41	PZ11	7	10	1	100	0
TRICHLOROETHENE	23/31	240	55.8	PZ11	23	5	18	5	18
VINYL CHLORIDE	4/31	0.9	0.575	B163, PZ11	4	0.5	2	2	0
Semivolatile Organic Compounds (µg/L)									
1,4-DIOXANE	5/10	1.9	0.668	MFA	5	NC	0	NC	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
- 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
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Sample ID	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloropropane	Benzene	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Methyl tert butyl ether	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
On site Residential	1,900	120	120	20			3	250,000	130	7,200		38	6,700	180	1
On-site Commercial/Industrial	8,900	360	370	61			9	1,100,000	400	34,000		110	31,000	540	4
On site groundskeeper/maintenance	630,000	2,900	1,900	440			160	140,000	2,500	270,000		22	510,000	2,700	300
5x aquatic criteria	160	5,000	2,000	3,600			220	1,100,000	24,000			440	7,000,000	4,100	26,000
40x aquatic criteria	1,300	40,000	16,000	28,000			1,800	8,400,000	190,000			3,500	56,000,000	32,000	210,000
160x aquatic criteria	5,100	160,000	62,000	110,000			7,000	34,000,000	750,000			14,000	220,000,000	130,000	840,000
Storm-water criteria															
Drinking water Standards															
California MCLs	6	0.5	5	1			0.5			6	13	5	10	5	0.5
Federal MCLs	7	5	5	5			5	100		70		5	100	5	2
Secondary MCLs											5				
SWRCB Groundwater (drinking water source)	6	0.5	5	1			0.5	25	70	6		5	10	5	0.5
SWRCB Groundwater (not drinking water source)	25	200	100	46			9.3	25	330	590		120	590	360	3.8
SWRCB Surface water (marine)	3.2	99	10	71			4.4	50	470	22,000		8.9	260	81	530
Cal-modified 2004 PRGs (cancer)															
Cal-modified 2004 PRGs (non-cancer)															
EPA 2011 RSL tapwater (cancer)		0.15	0.39	0.41			0.44		0.91		12	0.11		2	0.016
EPA 2010 RSL tapwater (non-cancer)	340							91		73			110		
RFSGWB12005	2 U	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	***3.4***	2 U	2 U	2 U	**190**	2 U
RFSGWB16305	0.5	**8**	0.5 U	0.3 J	1 U	0.5 U	0.5 U	6.9	2.2	***3.6***	0.5 U	**11**	0.5 J	**78 J**	0.9
RFSGWB175S05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.1 J	0.2 J	0.5 U	0.2 J	0.5 U	**10**	0.5 U
RFSGWB175W05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U	0.5 U
RFSGWB17805	1.3 U	0.6 J	1.3 U	1.3 U	2.5 U	1.3 U	1.3 U	1.3 U	1.3 U	***3.4***	1.3 U	0.5 J	0.5 J	**160**	1.3 U
RFSGWB18505	0.2 J	1.8	0.5 U	0.2 J	1 U	0.5 U	**8.1**	1.7	1.8	1.8	0.3 J	0.4 J	0.2 J	**99**	***0.3 J***
RFSGWB19505	0.2 J	0.6	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	***3.1***	0.5 U	***3.2***	0.4 J	**89**	0.5 U
RFSGWB19505D	0.2 J	0.6	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	***3***	0.5 U	***3.1***	0.4 J	**98**	0.5 U
RFSGWB197R05	0.2 J	0.7	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.2 J	0.1 J	***3.3***	0.5 U	1.5	0.4 J	**150**	0.5 U
RFSGWB27705	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RFSGWB27805	0.5 U	0.5 U	0.5 U	0.5 U	1 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	**8.9**	0.5 U
RFSGWB280A05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1.3	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RFSGWB45005	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	**11**	0.5 U
RFSGWB47305	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	**8.8**	0.5 U
RFSGWB48005	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 J	0.5 U	**23**	0.5 U
RFSGWBULB105	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	2.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RFSGWBULB205	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.8	0.5 U	0.5 U	1.5	0.5 U
RFSGWCCC205	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	1.7	0.5 U	0.5 U	0.5 U
RFSGWCCC205D	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	2.1	0.5 U	0.5 U	0.5 U
RFSGWCCC305	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U
RFSGWCCCT05	0.2 J	0.2 J	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	0.5 U	0.5 U	0.5 U	**90**	0.5 U
RFSGWCTP05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	**18**	0.5 U	8.4	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U
RFSGWEERC05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RFSGWEPA05	0.5 U	0.5 U	0.5 U	0.5 U	1 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	0.5 U	0.5 U
RFSGWETA05	0.4 J	0.2 J	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4	0.1 J	0.2 J	0.9	**16**	0.5 U

Table 7: VOC Detected Results Summary
2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

Sample ID	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloropropane	Benzene	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Methyl tert butyl ether	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl chloride
On site Residential	1,900	120	120	20			3	250,000	130	7,200		38	6,700	180	1
On-site Commercial/Industrial	8,900	360	370	61			9	1,100,000	400	34,000		110	31,000	540	4
On site groundskeeper/maintenance	630,000	2,900	1,900	440			160	140,000	2,500	270,000		22	510,000	2,700	300
5x aquatic criteria	160	5,000	2,000	3,600			220	1,100,000	24,000			440	7,000,000	4,100	26,000
40x aquatic criteria	1,300	40,000	16,000	28,000			1,800	8,400,000	190,000			3,500	56,000,000	32,000	210,000
160x aquatic criteria	5,100	160,000	62,000	110,000			7,000	34,000,000	750,000			14,000	220,000,000	130,000	840,000
Storm-water criteria															
Drinking water Standards															
California MCLs	6	0.5	5	1			0.5			6	13	5	10	5	0.5
Federal MCLs	7	5	5	5			5	100		70		5	100	5	2
Secondary MCLs											5				
SWRCB Groundwater (drinking water source)	6	0.5	5	1			0.5	25	70	6		5	10	5	0.5
SWRCB Groundwater (not drinking water source)	25	200	100	46			9.3	25	330	590		120	590	360	3.8
SWRCB Surface water (marine)	3.2	99	10	71			4.4	50	470	22,000		8.9	260	81	530
Cal-modified 2004 PRGs (cancer)															
Cal-modified 2004 PRGs (non-cancer)															
EPA 2011 RSL tapwater (cancer)		0.15	0.39	0.41			0.44		0.91		12	0.11		2	0.016
EPA 2010 RSL tapwater (non-cancer)	340							91		73			110		
RFSGWGEO05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1	0.5 U	0.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
RFSGWMFA05	0.2 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	2.2	0.5 U	0.5 U	0.5 U	**13**	0.2 J
RFSGWPZ1105	2.2	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	1.3 U	1.3 U	1.3 U	**200**	1.3 U	**12**	56	**240**	0.9 J
RFSGWPZ1105D	2.1	2 U	2 U	2 U	4 U	2 U	2 U	2 U	2 U	**200**	2 U	**12**	57	**240**	0.8 J
RFSGWPZ905	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1	0.5 U	1.2	0.5 U	**64**	0.5 U
RFSGWRWF05	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	***4.9***	0.5 U
RFSGWTP105	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1.3	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	**6.3**	0.5 U
RFSGWTP205	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.3 J	0.5 U	**18**	0.5 U
RFSGWWTA05	0.5 U	0.5 U	0.1 J	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	0.5 U	0.2 J	0.5 U

Notes:

Indicates the value equals or exceeds both the California and Federal MCL

Indicates the value equals or exceeds the California MCL

Indicates the value equals or exceeds one-half of the California or Federal MCL

µg/L	Micrograms per liter
EPA	U.S. Environmental Protection Agency
ID	Identification
J	Estimated value
MCL	Maximum contaminant level
PRG	Preliminary Remediation Goals
RSL	Regional Screening Level
SWRCB	State Water Resources Control Board
U	Not detected
VOC	Volatile organic compound

Table 8: SVOC Detected Results Summary

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

Sample ID	1,4-Dioxane
MCL	
SWRCB Groundwater (drinking water source)	3
SWRCB Groundwater (not drinking water source)	5,000
SWRCB Surface water (marine)	5,000
EPA 2010 RSL tapwater (cancer)	6.1
EPA 2010 RSL tapwater (non-cancer)	3,700
EPA 2004 PRGs (non-cancer)	
RFSGWB12805	0.9 U
RFSGWB16305	0.2 J
RFSGWB18005	0.9 U
RFSGWB280A05	0.2 J
RFSGWBULB205	1 J
RFSGWCCC205	0.9 U
RFSGWCCC205D	0.9 U
RFSGWCTP05	1 U
RFSGWEPA05	0.9 U
RFSGWMFA05	1.9
RFSGWWTA05	0.04 J

Notes:

No California or Federal MCLs are available for SVOCs detected in April

All results are presented in µg/L.

µg/L	Micrograms per liter
EPA	U.S. Environmental Protection Agency
ID	Identification
J	Estimated value
MCL	Maximum contaminant level
PRG	Preliminary Remediation Goals
RSL	Regional Screening Level
SVOC	Semi-volatile organic compound
SWRCB	State Water Resources Control Board

Table 9: Metals Detected Results Summary

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

Sample ID	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
On site Residential											
On-site Commercial/Industrial											
On site groundskeeper/maintenance		150,000	110	75,000,000		190,000		560,000,000		15,000,000	
5x aquatic criteria		220,000	180			47				16	
40x aquatic criteria		1,700,000	1,400			370				120	
160x aquatic criteria		6,900,000	5,800			1,500				500	
Storm-water criteria		4,300	36			1.1		180		3.1	
Drinking water Standards		6	10	1,000		5		50		1,300	
California MCLs	1,000	6	10	1,000	4	5		50		1,300	
Federal MCLs		6	10	2,000	4	5		100		1,300	
Secondary MCLs	200									1,000	300
SWRCB Groundwater (drinking water source)		6	36	1,000	0.53	0.25		50	3	3.1	
SWRCB Groundwater (not drinking water source)		30	36	1,000	0.53	0.25		180	3	3.1	
SWRCB Surface water (marine)		500	0.14	1,000	0.53	9.3		180	3	3.1	
Cal-modified 2004 PRGs (cancer)			0.071								
Cal-modified 2004 PRGs (non-cancer)											
EPA 2011 RSL tapwater (cancer)			0.045								
EPA 2010 RSL tapwater (non-cancer)	37,000	15		7,300	73	18			11	1,500	26,000
RFSGWB12805	50 U	1.4	0.77 J	44	1 U	1 U	22000	1 U	0.17 J	2.3 U	31 J
RFSGWB15005	50 U	1 U	1 U	44	1 U	1 U	18000	1.6	1 U	9.8	50 U
RFSGWB15805	15 J	1 U	4.6	8.5	1 U	1 U	2400	2	1 U	2.3 U	25 J
RFSGWB16305	13 J	0.38 UJ	1.8	12 J	1 U	**5.2**	220000	1	4.7	2.3 U	5000 U
RFSGWB175S05	7.3 J	1 U	0.81 J	57	1 U	1 U	55000	0.48 J	1 U	2.3 U	50 U
RFSGWB17805	50 U	1 U	0.87 J	22	0.18 J	1 U	150000	0.31 J	2.3	2.3 U	280
RFSGWB19505	12 J	**8.1**	2.2	35	1 U	1 U	97000	0.66 J	1 U	0.8 J	19 UJ
RFSGWB19505D	11 J	0.64 J	0.97 J	32	1 U	1 U	95000	0.46 J	1 U	5.4	50 U
RFSGWB197R05	22 J	1 U	1.8	20	1 U	1 U	150000	0.79 J	1 U	0.81 J	17 J
RFSGWB45005	50 U	0.23 UJ	1.3	50	1 U	1 U	46000	0.51 J	1 U	2.3 U	50 U
RFSGWB47405	40 J	2.8	3.4	52	1 U	1 U	21000	1 U	0.59 J	4.4	92
RFSGWB48005	8.1 J	0.41 UJ	2.5	93	1 U	1 U	50000	1.3	1 U	2.3 U	50 U
RFSGWBULB105	14 J	0.36 J	***5.9***	110	1 U	0.39 J	310000	0.17 J	1 U	1.3 J	220
RFSGWBULB205	12 J	1 U	2	65	1 U	1 U	41000	1 U	1.3	2.3 U	220
RFSGWCCC205	50 U	0.29 J	0.9 J	23	1 U	1 U	66000	18	1 U	2.3 U	50 U
RFSGWCCC205D	50 U	1 U	0.86 J	21	1 U	1 U	63000	16	1 U	2.3 U	50 U
RFSGWCCC305	100	1.8	2	13	1 U	1 U	55000	0.46 J	1 U	0.83 J	63
RFSGWCTP05	50 U	1 U	0.81 J	66	1 U	1	57000	0.34 J	0.22 J	2.3 U	19 UJ
RFSGWDHR05	50 U	1 U	2.4	46	1 U	0.43 J	690000	1 U	1.1	17	50 U
RFSGWEERC05	6.5 J	1 U	***5.2***	26	1 U	1 U	420000	1 U	6.3	2.3 U	380
RFSGWETA05	50 U	1 U	3.3	17 J	1 U	1 U	100000	1 U	2.6	2.3 U	930
RFSGWFG05	77	**6.4**	1.1	24	1 U	1 U	28000	1 U	1 U	2.3 U	22 J
RFSGWNRLF05	50 U	1 U	***7***	60	1 U	1 U	48000	1 U	0.37 J	2.3 U	3100
RFSGWPZ1105	32 J	***5.3***	1.1	15	1 U	**5.9**	210000	1 U	3.3	21	83
RFSGWPZ1105D	34 J	1 U	1.2	14	1 U	**6.5**	240000	1 U	3.6	23	67
RFSGWPZ805	15 J	1 U	1.1	84	1 U	1 U	45000	0.89 J	1 U	1.1 J	50 U
RFSGWTP105	12 J	1 U	1.5	30	1 U	1 U	100000	1 U	0.22 J	2.3 U	1500

Sample ID	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc
On site Residential													
On-site Commercial/Industrial													
On site groundskeeper/maintenance				110,000		93,000,000		1,900,000	3,100,000		25,000	370,000	180,000,000
5x aquatic criteria	41			11		41		25	9.5		320		410
40x aquatic criteria	320			84		330		200	76		2,500		3,200
160x aquatic criteria	1300			340		1,300		800	300		10,000		13,000
Storm-water criteria	2.5			0.003		8.2		5	1.9		6.3		81
Drinking water Standards	15			2		100		50	100		2		5,000
California MCLs	15			2		100		50			2		
Federal MCLs	15			2				50			2		
Secondary MCLs			50						100				5,000
SWRCB Groundwater (drinking water source)	2.5			0.025	35	8.2		5	0.19		2	15	81
SWRCB Groundwater (not drinking water source)	2.5			0.025	240	8.2		5	0.19		4	19	81
SWRCB Surface water (marine)	5.6			0.025	240	8.2		71	0.19		4	19	81
Cal-modified 2004 PRGs (cancer)													
Cal-modified 2004 PRGs (non-cancer)													
EPA 2011 RSL tapwater (cancer)													
EPA 2010 RSL tapwater (non-cancer)			880	.63	180	180		180	180			180	11,000
RFSGWB12805	1 U	17000	86	0.025 J	0.6 UJ	5.8	510	1 U	1 U	110000	1 U	1.2	20 U
RFSGWB15005	0.17 J	14000	0.76 UJ	0.2 U	1 U	3.4	50 U	***29***	1 U	26000	1 U	1.2	17 J
RFSGWB15805	1 U	2200	5.5	0.2 U	0.38 UJ	1 U	340	0.31 J	1 U	50000	1 U	7.3	20 U
RFSGWB16305	1 U	230000 J	19000	0.095 J	1.7 UJ	200 J	1800 J	1 U	1 U	190000	1 U	1.9	30
RFSGWB175S05	1 U	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
RFSGWB17805	1 U	160000	1800	0.2 U	2.9 UJ	7.7	1200	0.51 J	1 U	160000	1 U	2.1	20 U
RFSGWB19505	1 U	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
RFSGWB19505D	1 U	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
RFSGWB197R05	0.29 J	160000	16	0.2 U	2.3 UJ	1 U	6300	0.66 J	1 U	180000	1 U	3.4	9.5 J
RFSGWB45005	0.17 J	40000	5.8	0.2 U	0.27 UJ	1 U	1400	1 U	1 U	47000	1 U	2.5	39
RFSGWB47405	0.16 J	12000	82	0.027 J	7.8	5.3	1600	1 U	1 U	14000	1 U	2.5	8.4 J
RFSGWB48005	1 U	49000	11	0.2 U	0.38 UJ	1 U	1100	1 U	1 U	83000	1 U	4.7	9.1 J
RFSGWBULB105	1 U	810000	450	0.039 J	3.5 UJ	1 U	230000	1 U	1 U	7000000	1 U	1.2	6.5 J
RFSGWBULB205	1 U	43000	770	0.026 J	6.4	1 U	10000	1 U	1 U	220000	1 U	1.1	20 U
RFSGWCCC205	1 U	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
RFSGWCCC205D	1 U	50000	5.7	0.2 U	0.31 UJ	3	910	8.5	1 U	100000	1 U	2.3	11 J
RFSGWCCC305	0.35 J	35000	24	0.024 J	1.6 UJ	1 U	1600	0.31 J	0.4 J	94000	1 U	3.4	20 U
RFSGWCTP05	0.12 UJ	33000	37	0.2 U	0.78 UJ	2.3	760	0.23 UJ	1 U	67000	1 U	2.5	59
RFSGWDHR05	1 U	480000	970	0.025 J	0.95 UJ	7	25000	0.46 UJ	1 U	590000	1 U	1.1	29
RFSGWEERC05	1 U	330000	3100	0.2 U	1.4 UJ	1 U	1900	1 U	1 U	420000	1 U	0.45 J	20 U
RFSGWETA05	1 U	92000	5400	0.2 U	3.2 UJ	1 U	770	1 U	1 U	140000	1 U	0.52 J	40
RFSGWFG05	1 U	33000	4.8	0.2 U	2.4	2.8	1100	0.73 UJ	1 U	83000	1 U	1.7	13 J
RFSGWNRLF05	1 U	27000	920	0.2 U	1 U	1.1	1200	1 U	1 U	58000	1 U	1 U	13 J
RFSGWPZ1105	1 U	290000	4900	0.2 U	3.8 UJ	580	730	0.78 J	1 U	180000	1 U	2.1	1700
RFSGWPZ1105D	1 U	310000	5200	0.2 U	2 UJ	640	710	1 U	1 U	180000	1 U	2.5	1700
RFSGWPZ805	1 U	41000	2.3	0.2 U	1 U	1 U	700	0.29 J	1 U	59000	1 U	3.8	7.7 J
RFSGWTP105	1 U	94000	3300	0.028 J	0.8 UJ	1 U	700	1 U	1 U	110000	1 U	1 U	12 J

Notes

Indicates the value equals or exceeds both the California and Federal MCL

Indicates the value equals or exceeds the California MCL

Indicates the value equals or exceeds one-half of the California or Federal MCL

All results are presented in µg/L.

µg/L	Micrograms per liter	J	Estimated value
EPA	U.S. Environmental Protection Agency	MCL	Maximum Contaminant Level
ID	Identification	PRG	Preliminary Remediation Goals
RSL	Regional Screening Levels	SWRCB	State Water Resources Control Board
U	Not detected		

APPENDIX A
RESPONSE TO COMMENTS

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Deborah O. Raphael, Director
700 Heinz Avenue
Berkeley, California 94710-2721

Edmund G. Brown Jr.
Governor

September 13, 2013

Mr. Greg Haet
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 2013 Groundwater Sampling Results Technical Memorandum* (Memorandum), for the University of California, Berkeley, Richmond Field Station Site located in Richmond, California. The Memorandum, dated August 9, 2013 was prepared by Tetra Tech, Inc. on behalf of the University of California Berkeley (UC) and presents a summary of the data collected during the water level sampling events in October 2012 and April 2013, and groundwater sampling event conducted in April 2013. DTSC has reviewed the Memorandum and has the following comments:

1. Section 5.3, Data Quality Review Findings, page 11, first bullet: As part of the evaluation of the data, laboratory blank contamination was detected, resulting in some samples being qualified as "UJ". Describe what corrective action(s) will be taken to prevent this from occurring in the future.

2. Section 6.3, Metals, page 15: While there is no primary MCL for manganese, zinc or silver, include the following secondary MCLs: manganese: 0.05 mg/L, zinc: 5.0 mg/L, and silver: 0.1 mg/L.

3. Figures: Include a figure depicting the concentrations of carbon tetrachloride detected at the site.

4. Attachment 1, Well Sampling Forms: Review of the Well Sampling Forms indicate that the following wells require maintenance:
    a. B180- Rusted well cap and well lid missing a bolt.
    b. CTP – Well cap needs replacing.
    c. TP2 – Needs new cap.

    Include a discussion in the Memorandum describing these issues. Describe how and when the issues identified have been corrected or how and when they will be corrected.

    In addition, the Well Sampling Form for well CCCT indicates that there may be roots in the well. This well should be evaluated similar to wells B197 and DH to determine if it needs to be replaced. Include a discussion regarding well CCCT in the Memorandum.

Submit a revised Memorandum that incorporates the revisions discussed above within 21 days of the date of this letter.

If you have any questions, please contact Lynn Nakashima at (510) 540-3839 or email at lnakashi@dtsc.ca.gov.

Sincerely,

Lynn Nakashima

Mark Vest

Lynn Nakashima, Project Manager
Senior Hazardous Substances Scientist
Brownfields and Environmental
Restoration Program
Berkeley Office - Cleanup Operations

Mark Vest, P.G.
Senior Engineering Geologist
Brownfields and Environmental
Restoration Program
Sacramento Office - Geologic Services

cc: Karl Hans
University of California, Berkeley
Environmental Health & Safety
317 University Hall, No 1150
Berkeley, California 94720

Jason Brodersen
Tetra Tech EM Inc.
1999 Harrison Street, Suite 500
Oakland, CA 94612

Draft 2013 Groundwater Sampling Results, Technical Memorandum
University of California, Richmond Field Station
August 9, 2013

Response to Comments
Department of Toxic Substances Control, September 13, 2013

UC Berkeley Ref. No.	Page / Sect No.	DTSC Comment No.	DTSC Comment	UC Berkeley Response
1	Page 11, Section 5.3, Data Quality Review Findings	1	As part of the evaluation of the data, laboratory blank contamination was detected, resulting in some samples being qualified as "UJ". Describe what corrective actions(s) will be taken to prevent this from occurring in the future.	Each method blank is critically evaluated as to the nature of the interference and the effect on the analysis of each sample within the batch. If a blank is determined to be contaminated, the cause is investigated and corrective measures are taken to minimize or eliminate the problem if appropriate. Samples associated with a contaminated blank are evaluated as to the best corrective action for the samples (e.g., reprocessing or data qualifying codes). In all cases, the corrective action is documented. In this case, the laboratory was notified of the blank contamination recorded in samples collected at the Richmond Field Station and the Campus Bay properties. Often there is interference from the instrument when detection limits are very low. As stated in the report, although some qualifiers were added to the data, a final review of the data set against the EPA data quality parameters indicated that 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 and the RFS Quality Assurance Project Plan.
2	Page 15, Section 6.3, Metals	2	While there is no primary MCL for manganese, zinc, or silver, include the following secondary MCLs: manganese: 0.05 mg/L, zinc: 5.0 mg/L, and silver: 0.1 mg/L.	Text has been revised to include a comparison of manganese, silver, and zinc concentrations to the secondary MCL.
3	Figures	3	Include a figure depicting the concentrations of carbon tetrachloride detected at the site.	Figure 13 has been added to display the detected concentrations of carbon tetrachloride.

UC Berkeley Ref. No.	Page / Sect No.	DTSC Comment No.	DTSC Comment	UC Berkeley Response
4	Page 4, Section 2.2 Piezometer Maintenance and Attachment 1, Well Sampling Forms	4	Review of Well Sampling Forms indicate that the following wells require maintenance: a. B180- Rusted well cap and well lid missing a bolt. b. CTP- Well cap needs replacing. c. TP2- Needs new cap. Include a discussion in the Memorandum describing these issues. Describe how and when the issues identified have been corrected or how and when they will be corrected. In addition the Well Sampling Form for well CCCT indicates that there may be roots in the well. This well should be evaluated similar to wells B197 and DH to determine if it needs to be replaced. Include a discussion regarding well CCCT in the Memorandum.	The text in Section 2.2 has been updated to reflect well maintenance activities. Additionally, the well sampling forms in Attachment 1 have been updated to reflect these changes. The revised text states: Additionally, maintenance work on piezometers B180, CTP, TP2, and WTA occurred during the annual monitoring event. At location B180, the well cap was rusted and the lid was missing a bolt; the well cap was replaced on April 9, 2013, and this was noted on the well sampling form (Attachment 1). The missing bolt will be replaced during the semi-annual groundwater level measurement event scheduled for October 7, 2013. The well caps at locations CTP, TP2, and WTA were also replaced on April 9, 2013, and this maintenance was noted on the well sampling forms. Similarly to locations B197 and DH, the well sampling form for location CCCT indicates potential root growth within the piezometer casing. This piezometer will be inspected during the semi-annual groundwater level measurement event scheduled for October 7, 2013 to determine if the piezometer needs to be replaced.

ATTACHMENT 1
WELL SAMPLING FORMS

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/2/13 / 1030 Project Site/Subsite: RFS

Sample ID: ~~RFSGt~~ RFSGW B12805

Well ID: B120 Point Name:

Depth to Well Bottom: 13.04 ft. below top of casing (PVC cap)

Depth to Water Level: 5.34 ft. below PVC cap

Depth to Water Level: 5.37 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well N/A Liters

Control Box Settings: Box # N/A Refill= N/A Discharge= N/A Throttle= N/A psi

Total Purged 11 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1007	1012	1017	1022	1027						
PH	6.78	6.77	6.72	6.69	6.67					+/- 0.2	
Temperature (°C)	14.86	14.69	14.65	14.69	14.72					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	3.44	3.35	2.90	2.75	2.70					+/- 3%	
Turbidity (NTU)	740	64.1	4.2	0.6	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	1.45	1.19	1.05	0.97	0.91					+/- 0.2	
ORP (mV)	1.33	100	90	94	96					+/- 10	
Each Volume Purged (L)	1	2.5	2.5	2.5	2.5						
Total Liters Purged	1	3.5	6	8.5	11.0						

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): sulfur smell

Comments TDS (recorded 4/5/13 @ 1330) 1.91 g/L (2 L purged)

Sample(s) Collected By: Mark Doherty, Dayna Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 9/5/2013 / 1345 Project Site/Subsite: RFS

Sample ID: RFSGWB128Φ5

Well ID: B128 Point Name: ____

Depth to Well Bottom: 16 ft. below top of casing (PVC cap)

Depth to Water Level: 7.01 ft. below PVC cap

Depth to Water Level: 9.43 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer peristaltic pump

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 7.9 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1317	1321	1325	1329	1333	1337	1341				
PH	6.41	6.30	6.29	6.28	6.28	6.27	6.27			+/- 0.2	
Temperature (°C)	19.47	19.22	19.17	19.22	19.36	19.44	19.55			+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.022	0.733	0.706	0.703	0.699	0.700	0.702			+/- 3%	
Turbidity (NTU)	0.2	Φ	1.0	0	0	Φ	Φ			+/- 10%	
Dissolved Oxygen (mg/L)	1.45	1.03	0.92	0.84	0.77	0.73	0.69			+/- 0.2	
ORP (mV)	43	-13	-45	-61	-73	-80	-74			+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	0.506	0.465	0.454	0.450	.448	0.448	0.449				
Total Liters Purged	1	2.3	3.6	4.9	5.2	6.5	7.9				

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): ____

Comments ____

Sample(s) Collected By: C Ferric | D. Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-2-13 / 1605 Project Site/Subsite: RFS

Sample ID: RFS GW B150 05

Well ID: B150 Point Name: ____

Depth to Well Bottom: 15.07 ft. below top of casing (PVC cap)

Depth to Water Level: 6.17 ft. below PVC cap

Depth to Water Level: 6.72 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged ____ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1540	1544	1548	1552	1556	1600					
PH	6.60	6.42	6.42	6.42	6.42	6.42				+/- 0.2	
Temperature (°C)	15.38	14.76	14.62	14.53	14.55	14.50				+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.329	0.330	0.324	0.320	0.318	0.314				+/- 3%	
Turbidity (NTU)	4.3	1.8	13.1	8.7	8.1	10.2				+/- 10%	
Dissolved Oxygen (mg/L)	5.20	4.75	5.81	5.95	5.51	5.34				+/- 0.2	
ORP (mV)	132	142	148	153	156	158				+/- 10	
Each Volume Purged (L)	0.5	2.0	2.0	2.0	2.0	2.0					
Total Liters Purged	0.5	2.5	4.5	6.5	8.5	10.5					

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): clear

Comments TDS (recorded 4/5/13 @ 1620) 0.206 g/L (2.5 L purged)

Sample(s) Collected By: Mark Duffy, Dayna Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 14.08.2013/ 1313 Project Site/Subsite: RFS

Sample ID: RFSGWB15805

Well ID: B158 Point Name:

Depth to Well Bottom: 14.85 ft. below top of casing (PVC cap)

Depth to Water Level: 9.91 ft. below PVC cap

Depth to Water Level: 10.47 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer √ Peristaltic Pump

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well NA Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 7.7 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1249	1253	1257	1301	1305	1309	1313				
PH	6.50	6.45	6.45	6.44	6.45	6.45	6.45			+/- 0.2	
Temperature (°C)	17.33	16.82	16.59	16.38	16.40	16.39	16.38			+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.262	0.262	0.263	0.264	0.264	0.264	0.264			+/- 3%	
Turbidity (NTU)	520	302	266	270	271	271	272			+/- 10%	
Dissolved Oxygen (mg/L)	2.79	2.66	2.39	2.62	2.57	2.70	2.71			+/- 0.2	
ORP (mV)	143	146	147	151	151	153	155			+/- 10	
TDS (G/L) ~~Each Volume Purged (L)~~	0.170	0.171	0.171	0.264	0.172	0.172	0.171				
Total Liters Purged	0.5	1.7	2.9	4.1	5.3	6.5	7.7				

1.2 1.2 1.2 1.2 1.2 1.2

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): CLEAR

Comments CTT

Sample(s) Collected By: M DUFFY Φ JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 0920 Project Site/Subsite: RFS

Sample ID: RFSGWB163Ø5

Well ID: B163 Point Name: ______

Depth to Well Bottom: 16.61 ft. below top of casing (PVC cap)

Depth to Water Level: 5.31 ft. below PVC cap

Depth to Water Level: 5.40 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic Pump

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well ______ Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged 10.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0854	0858	0902	0906	0910	0914					
PH	5.78	5.80	5.81	5.81	5.81	5.81				+/- 0.2	
Temperature (°C)	14.37	15.00	15.26	15.37	15.46	15.63				+/- 2.0 °C	
Specific Conductance (~~µmhos~~/cm) mS/cm	3.50	3.46	3.43	3.42	3.41	3.40				+/- 3%	
Turbidity (NTU)	67.2	44.4	9.2	9.5	3.4	5.4				+/- 10%	
Dissolved Oxygen (mg/L)	2.77	2.20	1.82	1.60	1.45	1.34				+/- 0.2	
ORP (mV)	182	176	175	176	176	176				+/- 10	
Each Volume Purged (L)	0.5	2.0	2.0	2.0	2.0	2.0					
Total Liters Purged	0.5	2.5	4.5	6.5	8.5	10.5					

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

MS/MSD Sample Collected? No Yes ______

Sample Remarks (odors, colors, sediment): Clear

Comments TDS (recorded on 4/5/13@1505) 2.09 g/L (2 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: ~~B175S~~/4/2/13 /1450 Project Site/Subsite: RFS

Sample ID: RFSGWB175S05

Well ID: B175S Point Name:

Depth to Well Bottom: 14.78 ft. below top of casing (PVC cap)

Depth to Water Level: 9.02 ft. below PVC cap

Depth to Water Level: ~~14~~.9.05 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged ______ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1430	1434	1438	1442	1446	1450					
PH	6.67	6.55	6.54	6.54	6.55	6.55				+/- 0.2	
Temperature (°C)	16.25	15.92	15.86	15.85	15.86	15.90				+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.923	0.916	0.922	0.917	0.909	0.908				+/- 3%	
Turbidity (NTU)	140	147	28.0	10.7	6.5	3.9				+/- 10%	
Dissolved Oxygen (mg/L)	3.46	2.74	2.46	2.51	2.33	2.24				+/- 0.2	
ORP (mV)	-58	-9	35	60	77	85				+/- 10	
Each Volume Purged (L)	0.5	2.0	2.0	2.0	2.0	2.0					
Total Liters Purged	0.5	2.5	4.5	6.5	8.5	10.5					

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments TDS (recorded 4/5/13@1630) 0.619 g/L (2 L purged)

Sample(s) Collected By: Dayna Argen, Mark Duffy

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-2-13 / 1525 Project Site/Subsite: RFS

Sample ID: RFSGWB175W05

Well ID: B175W Point Name: ____________

Depth to Well Bottom: 14.72 ft. below top of casing (PVC cap)

Depth to Water Level: 9.00 ft. below PVC cap

Depth to Water Level: 9.41 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic

Minimum Purge Volume: Two-inch well N/A Liters

Four-inch well NA Liters

Control Box Settings: Box # NA Refill= NA Discharge= NA Throttle= NA psi

Total Purged 6.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1509	1513	1517	1521						
PH	6.49	6.42	6.46	6.38 ~~6.63~~					+/- 0.2	
Temperature (°C)	16.78	16.70	16.72	16.65					+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.357	0.335	0.354	0.355					+/- 3%	
Turbidity (NTU)	0.0	0.0	0.0	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	1.82	1.91	1.94	1.92					+/- 0.2	
ORP (mV)	111	114	120	124					+/- 10	
Each Volume Purged (L)	0.5	2.0	2.0	2.0						
Total Liters Purged	0.5	2.5	4.5	6.5						

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

MS/MSD Sample Collected? No Yes ____________

Sample Remarks (odors, colors, sediment): Clear

Comments TDS (recorded 4/5/13 @ 1625) 0.240 g/L (2 L purged)

Sample(s) Collected By: Mark Ostby, Dayna Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/2/13, 0950 Project Site/Subsite: RFS

Sample ID: RFSGW17805 B

Well ID: B178 Point Name:

Depth to Well Bottom: 13.41 ft. below top of casing (PVC cap)

Depth to Water Level: 4.19 ft. below PVC cap

Depth to Water Level: 4.21 ft below PVC cap ~~prior to~~ after sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well NA Liters

Control Box Settings: Box # NA Refill= NA Discharge= NA Throttle= NA psi

Total Purged 14 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.4 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	918	923	928	933	938	943				
PH	6.66	6.65	6.65	6.62	6.60	6.58			+/- 0.2	
Temperature (°C)	14.98	15.2	15.25	15.27	15.31	15.32			+/- 2.0 °C	
Specific Conductance (μmhos/cm)	2.43	2.45	2.43	2.33	2.28	2.26			+/- 3%	
Turbidity (NTU)	27.2	16.8	6.6	0.1	0.0	0.0			+/- 10%	
Dissolved Oxygen (mg/L)	2.06	1.43	1.23	1.16	1.08	1.02			+/- 0.2	
ORP (mV)	160	95	54	38	26	22			+/- 10	
Each Volume Purged (L)	1	2.5	2.5	2.5	2.5	2.5				
Total Liters Purged	1	3.5	6	8.5	11.5	14				

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments TDS (recorded 4/5/13 @ 1325 · 1.515/L (2 L purged))

Sample(s) Collected By: Dayna Aragon Mark Duffy

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.08.2013/ 1205 Project Site/Subsite: RFS

Sample ID: RFSGWB18005

Well ID: B180 Point Name:

Depth to Well Bottom: 15.98 ft. below top of casing (PVC cap)

Depth to Water Level: 7.26 ft. below PVC cap

Depth to Water Level: 7.31 ft below PVC cap ~~prior~~ after to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump ✓ Peristaltic Pump

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well NA Liters

Control Box Settings: Box # ~~NA Refill= Discharge= Throttle=~~ psi

Total Purged 9.2 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.4 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1142	1146	1150	1154	1158	1202	1204				
PH	7.19	7.15	7.14	7.13	7.13	7.12	7.12			+/- 0.2	
Temperature (°C)	17.47	17.16	16.86	16.76	16.62	16.54	16.55			+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.518	0.507	0.496	0.492	0.487	0.486	0.487			+/- 3%	
Turbidity (NTU)	117	122	122	128	71.0	40.0	44.9			+/- 10%	
Dissolved Oxygen (mg/L)	7.20	7.16	6.94	6.91	6.99	7.04	7.09			+/- 0.2	
ORP (mV)	119	123	126	128	131	132	133			+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	0.329	0.324	0.322	0.320	0.317	0.316	0.317				
Total Liters Purged	0.5	2.1	3.7	5.3	6.9	8.5	9.2				

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): clear water

Comments trouble w/ Peristaltic pump, electrical short,

Sample(s) Collected By: M.DUFFY P.JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

* Rusted well cap needs to be replaced - replaced on 4/9/13

* well lid missing one of two bolts

MONIWELL.FRM

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-2-13 / 848 Project Site/Subsite: RFS

Sample ID: RFS GW B185 05

Well ID: B185 Point Name:

Depth to Well Bottom: 13.84 ft. below top of casing (PVC cap)

Depth to Water Level: 4.05 ft. below PVC cap

Depth to Water Level: 4.44 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well NA Liters

Control Box Settings: Box # NA Refill= NA Discharge= NA Throttle= NA psi

Total Purged ~~205~~ ~~20.2~~ 22.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.45 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0808	0813	0818	0823	0828	0833	0838	0841 ~~0843~~	0844		
PH	6.01	6.30	6.33	6.35	6.37	6.39	6.40	6.39	6.39	+/- 0.2	
Temperature (°C)	12.40	13.46	13.71	13.91	14.03	14.13	14.18	14.22	14.24	+/- 2.0 °C	
Specific Conductance (~~µmhos~~ mS/cm)	2.10	2.05	2.05	2.06	2.10	2.11	2.11	2.10	2.10	+/- 3%	
Turbidity (NTU)	40.3	11.0	7.1	20.6	5.4	0.0	0.0	0.0	0.0	+/- 10%	
Dissolved Oxygen (mg/L)	4.42	2.40	2.03	1.83	1.69	1.53	1.55	1.48	1.45	+/- 0.2	
ORP (mV)	318	296	289	283	237	56	18	-9	-19	+/- 10	
Each Volume Purged (L)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		
Total Liters Purged	2.5	5	7.5	10	12.5	15	17.5	20	22.5		

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): Clear, no odor

Comments TDS (recorded on 4/5/13@ 1515) 1.33 g/L (purged 2L)

Sample(s) Collected By: Mark Duffy

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-2-13 / 1115 Project Site/Subsite: RFS

Sample ID: ~~B195~~ RFSGWB19505

Well ID: B195 Point Name:

Depth to Well Bottom: 16.15 ft. below top of casing (PVC cap)

Depth to Water Level: 7.01 ft. below PVC cap

Depth to Water Level: 7.03 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump Bailer

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well ——— Liters

Control Box Settings: Box # ——— Refill= ——— Discharge= ——— Throttle= ——— psi

Total Purged 10.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1053	1058	1103	1108	1113						
PH	6.64	6.62	6.62	6.62	6.62					+/- 0.2	
Temperature (°C)	14.62	14.46	14.47	14.52	14.53					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	1.79	1.53	1.45	1.43	1.43					+/- 3%	
Turbidity (NTU)	53.9	22.1	11.5	8.1	7.8					+/- 10%	
Dissolved Oxygen (mg/L)	2.30	2.39	4.00	3.94	3.81					+/- 0.2	
ORP (mV)	197	199	201	205	208					+/- 10	
Each Volume Purged (L)	0.5	2.5	2.5	2.5	2.5						
Total Liters Purged	0.5	3.0	5.5	8.0	10.5						

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) RFSGWB19505D (@ 1120)

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): clear

Comments TDS (recorded 4/9/13) ~~2450~~ 1.04 g/L (2 L purged) @ ~~1024~~ 1325

Sample(s) Collected By: Mark Duffy, Dayna Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

MONIWELL.FRM

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013 1043 Project Site/Subsite: RFS

Sample ID: RFSGWB27705

Well ID: B277 Point Name:

Depth to Well Bottom: 17.52 ft. below top of casing (PVC cap)

Depth to Water Level: 10.11 ft. below PVC cap

Depth to Water Level: 10.147 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer ~~PARA~~ ~~PERISTAC~~ PERISTALIC

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ________ Refill= ________ Discharge= ________ Throttle= ________ psi

Total Purged 12.4 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1019	1023	1027	1031	1035	1039	1043				
PH	7.19	7.20	7.21	7.22	7.22	7.22	7.22			+/- 0.2	
Temperature (°C)	14.95	14.96	14.99	15.00	15.02	15.01	15.00			+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.743	0.746	0.747	0.747	0.746	0.746	0.746			+/- 3%	
Turbidity (NTU)	28.0	18.8	9.7	5.3	3.8	1.6	1.8			+/- 10%	
Dissolved Oxygen (mg/L)	2.27	1.89	1.68	1.44	1.30	1.19	1.14			+/- 0.2	
ORP (mV)	128	123	120	117	115	114	112			+/- 10	
~~Each Volume Purged (L)~~ TDS g/L	0.476	0.478	0.478	0.478	0.478	0.477	0.477				
Total Liters Purged	4.2	5.4	6.6	7.8	10	11.2	12.4				

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): CLEAR

Comments

Sample(s) Collected By: D. ARAGON Q. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 14.04.2013 / 1411   Project Site/Subsite: RFS

Sample ID: RFSGW B27805

Well ID: B278   Point Name:

Depth to Well Bottom: 16.15 ft. below top of casing (PVC cap)

Depth to Water Level: 8.87 ft. below PVC cap

Depth to Water Level: 9.35 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump   Submersible Pump
Bailer   PERISTALIC PUMP

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ________ Refill= ________ Discharge= ________ Throttle= ________ psi

Total Purged 9.6 Liters   Purge Rate goal = 0.5 Liters/Min.   Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1343	1347	1351	1355	1359	1403	1407	1411			
PH	6.83	6.82	6.80	6.79	6.79	6.78	6.78	6.77		+/- 0.2	
Temperature (°C)	14.74	14.77	14.81	14.89	14.91	15.01	15.08	15.18		+/- 2.0 °C	
Specific Conductance (µmhos/cm)	3.33	3.33	3.34	3.33	3.34	3.33	3.32	3.32		+/- 3%	
Turbidity (NTU)	43.6	22.7	13.3	12.1	4.4	2.1	1.5	0.0		+/- 10%	
Dissolved Oxygen (mg/L)	1.81	~~1.55~~ 1.60	1.42	1.27	1.17	1.05	1.00	0.94		+/- 0.2	
ORP (mV)	161	155	150	146	144	141	137	128		+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.12			
Total Liters Purged	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6			

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments

Sample(s) Collected By: D. ARAGON   P. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.08.2013 / 1451   Project Site/Subsite: RFS

Sample ID: RFSGWB197R05

Well ID: B197R   Point Name: ____________

Depth to Well Bottom: 13.17 ft. below top of casing (PVC cap)

Depth to Water Level: 6.35 ft. below PVC cap

Depth to Water Level: 6.55 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump   Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ——— ~~Refill= ________ Discharge= ________ Throttle= ________~~ psi

Total Purged 12 Liters   Purge Rate goal = 0.5 Liters/Min.   Actual purge rate 0.35 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading	1423			1435	1439				Stabilization Criteria	Final
Time	1419	1423	1427	1431	~~1445~~	~~1449~~	1443	1447	1451		
PH	7.05	7.05	7.03	7.03	7.03	7.03	7.03	7.02	7.01	+/- 0.2	
Temperature (°C)	17.26	17.47	17.49	17.50	17.57	17.64	17.58	17.53	17.54	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	2.66	2.64	2.64	2.64	2.63	2.62	2.61	2.58	2.54	+/- 3%	
Turbidity (NTU)	5.9	1.2	2.4	2.1	2.8	0.3	0.0	0.0	0.0	+/- 10%	
Dissolved Oxygen (mg/L)	6.10	5.17	4.79	4.45	4.11	3.96	3.74	3.49	3.34	+/- 0.2	
ORP (mV)	157	157	157	157	157	157	157	158	158	+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	1.70	1.69	1.69	1.69	1.69	1.67	1.67	1.65	1.63		
Total Liters Purged	1	2.4	3.8	5.2	6.6	8.0	9.4	10.6	12.0		

1.4 1.4 1.4

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

MS/MSD Sample Collected? No Yes ____________

Sample Remarks (odors, colors, sediment): CLEAR

Comments ____________

Sample(s) Collected By: M. DUFFY   P. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013 / 11:38 Project Site/Subsite: RFS

Sample ID: ~~RFSD~~ RFSGWB280A05

Well ID: B280A Point Name: ____

Depth to Well Bottom: 13.56 ft. below top of casing (PVC cap)

Depth to Water Level: 10.65 ft. below PVC cap

Depth to Water Level: 10.64 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer ~~PARA~~. PERISTALIC

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 5.6 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate ~~0.35~~ 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1122	1126	1130	1134							
PH	6.85	6.86	6.85	6.86						+/- 0.2	
Temperature (°C)	15.60	15.67	15.71	15.73						+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.853	0.849	0.847	0.846						+/- 3%	
Turbidity (NTU)	4.6	0	0	0						+/- 10%	
Dissolved Oxygen (mg/L)	3.64	2.05	2.19	1.9						+/- 0.2	
ORP (mV)	152	150	147	144						+/- 10	
~~Each Volume Purged~~ TDS g/(L)	0.545	0.543	0.542	0.541							
Total Liters Purged	2	3.2	4.4	5.6							

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): CLEAR

Comments ____

Sample(s) Collected By: D. ARAGON P. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 1510 Project Site/Subsite: RFS

Sample ID: RFSGW B450Ø5

Well ID: B450 Point Name:

Depth to Well Bottom: 15.64 ft. below top of casing (PVC cap)

Depth to Water Level: 12.91 ft. below PVC cap

Depth to Water Level: 12.91 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer ~~Submersible Pump~~ Peristaltic

Minimum Purge Volume: Two-inch well ___ Liters

Four-inch well N/A Liters

Control Box Settings: Box # N/A Refill= Discharge= Throttle= psi

Total Purged 4.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading										Stabilization Criteria	Final
Time	1447	1451	1455	1459	~~14~~ 1503	1507						
PH	6.98	6.71	6.68	6.66	6.65	6.64					+/- 0.2	
Temperature (°C)	19.60	17.99	17.69	17.56	17.57	17.57					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.744	0.754	0.747	0.743	0.739	0.737					+/- 3%	
Turbidity (NTU)	119	81.7	12.7	0.0	0.0	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	3.10	2.62	2.79	2.88	2.89	2.96					+/- 0.2	
ORP (mV)	96	120	11.5	137	141	145					+/- 10	
Each Volume Purged (L)	0.5	0.8	0.8	0.8	0.8	0.4						
Total Liters Purged	0.5	1.3	2.1	2.9	3.7	4.5						

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments VOC's, metals Analyses, TDS recorded 4/8/13 @ 1624 0.458 g/L (2 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13/1325 Project Site/Subsite: RFS

Sample ID: RFSGWB473 05

Well ID: B473 Point Name:

Depth to Well Bottom: 17.02 ft. below top of casing (PVC cap)

Depth to Water Level: 12.25 ft. below PVC cap

Depth to Water Level: 13.33 ft below PVC cap ~~prior to~~ after sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic Pump

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # N/A ~~Refill=~~ ~~Discharge=~~ Throttle= 0 psi

Total Purged 16.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.40 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1252	1256	1300	1304	1308	1312	1316	1320	1324		
PH	6.83	6.80	6.81	6.82	6.82	6.82	6.82	6.81	6.81	+/- 0.2	
Temperature (°C)	16.74	16.43	16.37	16.26	16.28	16.22	16.43	16.54	16.64	+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.516	0.518	0.520	0.524	0.527	0.531	0.532	0.531	0.532	+/- 3%	
Turbidity (NTU)	51.4	30.5	24.0	17.0	17.6	30.6	16.6	15.1	10.3	+/- 10%	
Dissolved Oxygen (mg/L)	4.40	4.50	4.71	5.09	5.11	4.60	4.76	4.82	4.58	+/- 0.2	
ORP (mV)	135	139	141	145	147	149	150	152	152	+/- 10	
Each Volume Purged (L)	0.5	~~0.5~~ 2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Total Liters Purged	0.5	2.5	4.5	6.5	8.5	10.5	12.5	14.5	16.5		

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments TDS Recorded 4/8/13 @ 1250 @ 0.346 g/L (2 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 1215 Project Site/Subsite: RFS

Sample ID: RFSGWB474Ø5

Well ID: B474 Point Name: ____

Depth to Well Bottom: 19.14 ft. below top of casing (PVC cap)

Depth to Water Level: 17.30 ft. below PVC cap after purge

Depth to Water Level: 12.99 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # N/A ~~Refill=~~ ____ ~~Discharge=~~ ____ ~~Throttle=~~ ____ psi

Total Purged 16.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1136	1140	1144	1148	1152	1156	1200	1204	1208		
PH	6.69	6.60	6.58	6.58	6.58	6.59	6.61	6.61	6.61	+/- 0.2	
Temperature (°C)	15.59	15.24	15.11	15.10	15.12	15.18	15.24	15.33	15.37	+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.284	0.285	0.285	0.284	0.284	0.281	0.276	Ø.275	Ø.278	+/- 3%	
Turbidity (NTU)	145	87.8	40.3	20.3	26.6	56.0	48.7	72.2	70.9	+/- 10%	
Dissolved Oxygen (mg/L)	3.50	2.87	2.20	1.85	1.54	1.19	1.Ø5	1.Ø3	1.28	+/- 0.2	
ORP (mV)	151	155	158	158	156	153	118	67	47	+/- 10	
Each Volume Purged (L)	0.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Total Liters Purged	0.5	2.5	4.5	6.5	8.5	10.5	12.5	14.5	16.5		

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): ____

Comments TDS (Recorded 4/8/13 @1310 0.200 g/L (2 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 1430 Project Site/Subsite: RFS

Sample ID: RFSGWB48005

Well ID: B480 Point Name: ____

Depth to Well Bottom: 15.92 ft. below top of casing (PVC cap)

Depth to Water Level: 12.40 ft. below PVC cap

Depth to Water Level: 12.85 ft below PVC cap ~~prior to~~ after sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer Peristaltic Pump

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # NA ~~Refill= Discharge= Throttle=~~ ____ psi

Total Purged ____ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.4 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1353	1357	1401	1405	1409	1413	1417	1419	1421		
PH	6.85	6.76	6.76	6.76	6.77	6.78	6.79	6.78	6.79	+/- 0.2	
Temperature (°C)	20.88	19.23	18.84	18.96	19.05	19.09	19.17	19.24	19.07	+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.925	0.952	0.958	0.959	0.956	0.952	0.950	0.950	0.953	+/- 3%	
Turbidity (NTU)	6.9	4.1	3.3	1.3	9.2	7.0	3.9	5.8	3.7	+/- 10%	
Dissolved Oxygen (mg/L)	3.07	2.42	2.02	1.89	2.29	2.16	2.03	2.00	2.02	+/- 0.2	
ORP (mV)	154	157	157	156	156	89	-30	-31	-41	+/- 10	
Each Volume Purged (L)	0.5	1.6	1.6	1.6	1.6	1.6	1.6	~~1.6~~ 0.8	0.8		
Total Liters Purged	0.5	2.1	3.7	5.3	6.9						

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): ____

Comments TDS (Recorded 4/8/13 @ 1645 0.622 g/L (3 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/13 / 1240 Project Site/Subsite: ____

Sample ID: RFSGWBULB105

Well ID: Bulb1 Point Name: ____

Depth to Well Bottom: 18.10 ft. below top of casing (PVC cap)

Depth to Water Level: 4.19 ft. below PVC cap

Depth to Water Level: 7.28 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged ____ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1220	1227	1231	1235	1239						
PH	7.39	7.89	7.93	7.93	7.95					+/- 0.2	
Temperature (°C)	16.98	16.40	16.39	16.53	16.65					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	35.9	35.8	35.8	35.7	35.7					+/- 3%	
Turbidity (NTU)	12.3	1.8	~~12.1~~ 2.1	1.9	1.2					+/- 10%	
Dissolved Oxygen (mg/L)	2.20	1.29	1.15	1.06	1.01					+/- 0.2	
ORP (mV)	-160	-237	-242	-244	-246					+/- 10	
~~Each Volume Purged (L)~~ TDS (g/L)	21.9	21.9	21.8	21.8	21.9						
Total Liters Purged	1	2.5	3.7	4.9	6.1						

l = 22.5 ft

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): ____

Comments vegetation debris in purgewater

Sample(s) Collected By: Dayna Aragon, Carolyn Fowlie

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/13 / 1200 Project Site/Subsite: RFS

Sample ID: RFSGWBULB2Ø5

Well ID: ~~Bulb1~~ Bulb2 Point Name: ______

Depth to Well Bottom: 18.5 ft. below top of casing (PVC cap)

Depth to Water Level: 3.98 ft. below PVC cap

Depth to Water Level: 4.20 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump / Bailer / Submersible Pump / peristaltic

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well ______ Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged ______ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1121	1128	1132	1136	1140	1144	1148	1152	1156		
PH	7.04	7.05	7.00	6.95	6.94	6.93	6.94	6.93	6.92	+/- 0.2	
Temperature (°C)	15.39	14.95	14.93	14.92	14.93	14.96	14.94	14.94	15.01	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	2.69	1.70	1.68	1.62	1.61	1.61	1.61	1.60	1.59	+/- 3%	
Turbidity (NTU)	74.5	39.9	26.8	20.7	11.5	7.2	3.8	2.9	2.1	+/- 10%	
Dissolved Oxygen (mg/L)	2.92	1.38	1.80	1.08	0.99	0.92	1.70	1.17	0.90	+/- 0.2	
ORP (mV)	-31	12	10	-1	-5	-9	-1	-3	-13	+/- 10	
TDS(g/L) ~~Each Volume Purged (L)~~	1.69	1.13	1.08	1.04	1.03	1.03	1.03	1.02	1.02		
Total Liters Purged	1	2.8	4.0	5.2	6.4	7.6	8.8	10	11.2		

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

MS/MSD Sample Collected? No Yes ______

Sample Remarks (odors, colors, sediment): some particulate.

Comments ______

Sample(s) Collected By: Dayna Aragon, Carolyn Forlic

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/2/13 / 1320 Project Site/Subsite: RFS

Sample ID: RFSGWCCC2Ø5

Well ID: CCC2 Point Name:

Depth to Well Bottom: 14.19 ft. below top of casing (PVC cap)

Depth to Water Level: 9.08 ft. below PVC cap

Depth to Water Level: 9.70 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # ___ Refill= ___ Discharge= ___ Throttle= ___ psi

Total Purged ___ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.45 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1252	1257	1300	1304	1309	1312	1315				
PH	6.61	6.51	6.49	6.51	6.54	6.55	6.56			+/- 0.2	
Temperature (°C)	17.27	16.04	16.16	16.17	16.19	16.18	16.12			+/- 2.0 °C	
Specific Conductance (μmhos/cm)	1.45	1.48	1.49	1.41	1.35	1.30	1.26			+/- 3%	
Turbidity (NTU)	39.3	12.8	8.0	0	0	0	0			+/- 10%	
Dissolved Oxygen (mg/L)	4.31	2.75	2.17	1.59	1.35	1.21	1.26			+/- 0.2	
ORP (mV)	169	170	168	160	155	~~164~~ 154	153			+/- 10	
Each Volume Purged (L)	1	2.5	1.5	2	2.5	1.5	1.5				
Total Liters Purged	1	3.5	5	7	9.5	11	12.5				

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) RFSGWCCC2Ø5D (1325)

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): clear

Comments TDS (recorded 4/5/12@ 1540) ~~1.29~~ g/L (2L purged) 0.811

Sample(s) Collected By: Dayna Argen, Mark Duffy

Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection liters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/2/13 , 1235 Project Site/Subsite: RFS

Sample ID: RFSGWCCC3Ø5

Well ID: CCC3 Point Name: ____

Depth to Well Bottom: 14.20 ft. below top of casing (PVC cap)

Depth to Water Level: 6.51 ft. below PVC cap

Depth to Water Level: 10.90 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 19 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.45 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1200	1205	1210	1215	1219	1222	1226	1229	1232		
PH	6.84	6.77	6.72	6.74	6.78	6.83	6.89	6.94	6.99	+/- 0.2	
Temperature (°C)	15.71	15.64	15.58	15.56	15.74	15.93	16.01	15.98	16.31	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.859	0.833	0.828	0.842	.851	.859	0.868	0.854	0.878	+/- 3%	
Turbidity (NTU)	151	131	128	95.6	81.7	58.7	124	124	126	+/- 10%	
Dissolved Oxygen (mg/L)	4.33	2.75	1.80	1.41	1.25	1.19	1.15	3.58	1.61	+/- 0.2	
ORP (mV)	166	168	167	164	151	88	~~42~~ 81	90	104	+/- 10	
Each Volume Purged (L)	1.5	2.5	2.5	2.5	2	2	2	2	2		
Total Liters Purged	1.5	4	6.5	9	11	13	15	17	19		

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): clear

Comments experienced drawdown - slow recharge TDS (recorded 4/5/13 @ 1530) .6123 g/L (2 ppm)

Sample(s) Collected By: Mark Duffy, Dayna Aragon

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/2/13 / 1410 Project Site/Subsite: RFS

Sample ID: RFSGWCCCTØ5

Well ID: CCCT Point Name:

Depth to Well Bottom: 15.09 ft. below top of casing (PVC cap)

Depth to Water Level: 6.17 ft. below PVC cap

Depth to Water Level: 6.31 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # — Refill= — Discharge= — Throttle= — psi

Total Purged 11.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1346	1350	1354	1357	1402	1407					
PH	6.90	6.79	6.78	6.76	6.74	6.73				+/- 0.2	
Temperature (°C)	~~16~~.81	14.26	14.30	14.34	14.41	14.44				+/- 2.0 °C	
Specific Conductance (μmhos/cm)	2.07	2.14	2.01	1.92	1.87	1.84				+/- 3%	
Turbidity (NTU)	43.3	20.5	17.2	12.4	10.4	9.1				+/- 10%	
Dissolved Oxygen (mg/L)	3.09	1.78	1.53	1.30	1.15	1.05				+/- 0.2	
ORP (mV)	-88	-180	-188	-190	-190	-189				+/- 10	
Each Volume Purged (L)	1	2	2	~~2~~1.5	2.5	2.5					
Total Liters Purged	1	3	5	~~7~~6.5	9.0	11.5					

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): some roots, clear water

Comments roots, seemed like maybe roots in well TDS (recorded 4/5/13 1540) 1.29 g/L (2L purged)

Sample(s) Collected By: Dayna Arager, Mark Duffy

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04 04 2013 / 0856   Project Site/Subsite: RFS

Sample ID: RFSGWCTP05

Well ID: CTP   Point Name:

Depth to Well Bottom: 17.1 ft. below top of casing (PVC cap)

Depth to Water Level: 11.34 ft. below PVC cap

Depth to Water Level: 11.54 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump ~~PARA~~ PERI

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 10.4 Liters   Purge Rate goal = 0.5 Liters/Min.   Actual purge rate 0.3 Liters/Min .3

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading		(0832)							Stabilization Criteria	Final
Time	0825	0829	~~0832~~	0835	0840	0844	0848	0852	0856		
PH	6.07	6.79	6.85	6.84	6.84	6.82	6.82	6.81	6.81	+/- 0.2	
Temperature (°C)	13.67	14.32	14.42	14.49	14.41	14.47	14.53	14.55	14.56	+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.963	0.935	0.919	0.908	0.899	0.895	0.891	0.889	0.888	+/- 3%	
Turbidity (NTU)	5.3	2.6	5.9	5.7	9.5	4.3	1.7	0.5	0.2	+/- 10%	
Dissolved Oxygen (mg/L)	9.91	9.63	9.55	9.01	3.25	2.60	2.59	2.55	2.49	+/- 0.2	
ORP (mV)	199	178	28	-2	2	6	10	16	20	+/- 10	
Each Volume Purged (L)	1	1.3	0.9	0.9	~~4.5~~ 1.5	1.2	1.2	1.2	1.2		
Total Liters Purged		2.3	3.2	4.1	~~9.0~~ 5.6	6.8	8.0	9.2	10.4		

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment):

Comments TSD Recorded 4/8/13 ~~[illegible]~~ 0.560 g/L (5 L purged) @ 1550

Sample(s) Collected By: Dayra Aragon, [illegible]

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

X Well cap needs to be Replaced - replaced on ~~4/[illegible]~~ 4/9/13

MONIWELL.FRM

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013/ 1319 Project Site/Subsite: RFS

Sample ID: RFSGWDHR05

Well ID: DHR Point Name: ____________________

Depth to Well Bottom: 13.62 ft. below top of casing (PVC cap)

Depth to Water Level: 9.28 ft. below PVC cap

Depth to Water Level: 9.97 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # _______ Refill= _________ Discharge= _____________ Throttle= ___________ psi

Total Purged 5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1303	1307	1311	1315	1319						
PH	6.67	6.64	6.60	6.58	6.58					+/- 0.2	
Temperature (°C)	14.81	14.80	14.80	14.80	14.79					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	9.79	9.77	9.72	9.71	9.71					+/- 3%	
Turbidity (NTU)	0.2	0.0	0.0	0.0	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	5.73	5.30	4.88	4.77	4.71					+/- 0.2	
ORP (mV)	211	207	197	193	192					+/- 10	
~~Each Volume Purged (L)~~ TDS g/L	6.17	6.15	6.12	6.12	6.12						
Total Liters Purged	.1	2	3	4	5						

.25

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

MS/MSD Sample Collected? No Yes ____________________

Sample Remarks (odors, colors, sediment): Cl

Comments Pumped wrong way 1-2 mins (DO)

Sample(s) Collected By: D. ARAGON Q. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04 08 2013 / 1025 Project Site/Subsite: RFS

Sample ID: RFSGWEERC05

Well ID: EERC Point Name: ____

Depth to Well Bottom: 16.89 ft. below top of casing (PVC cap)

Depth to Water Level: 12.97 ft. below PVC cap

Depth to Water Level: 15.75 ft below PVC cap ~~prior to~~ after sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer
✓ Peristaltic Pump

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well NA Liters

Control Box Settings: Box # NA ~~Refill=~~ ~~Discharge=~~ ~~Throttle=~~ psi

Total Purged 6.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1000	1004	1008	1012	1016	1018	1020	1022	1024		
PH	6.53	6.62	6.63	6.64	6.63	6.62	~~6.42~~ 6.62	6.61	6.61	+/- 0.2	
Temperature (°C)	14.65	14.68	14.94	15.10	15.32	15.38	15.42	15.48	15.53	+/- 2.0 °C	
Specific Conductance (µmhos/cm)	5.24	4.94	4.88	4.90	5.05	5.08	5.13	5.17	5.21	+/- 3%	
Turbidity (NTU)	1.9	0.0	0.0	0.0	0.0	0.0	0.0	~~0.0~~	0.6	+/- 10%	
Dissolved Oxygen (mg/L)	2.94	2.17	1.90	1.76	1.59	1.55	1.52	1.49	1.61	+/- 0.2	
ORP (mV)	17	29	36	34	10	6	-1	-4	-11	+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	3.30	3.15	3.12	3.14	3.19	3.20	3.24	3.26	3.29		
Total Liters Purged	0.5	1.5	2.5	3.5	4.5	5.0	5.5	6.0	6.5		

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): Clear water

Comments: calibrate Horiba U-52 @ 950

Sample(s) Collected By: Mark Duffy, Quinn Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013/ 1235 Project Site/Subsite: RFS

Sample ID: RFSGW EPA 05

Well ID: EPA Point Name: ____

Depth to Well Bottom: 14.16 ft. below top of casing (PVC cap)

Depth to Water Level: 8.12 ft. below PVC cap

Depth to Water Level: 12.11 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer PERISTALIC

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 13.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.35 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1206	1210	1214	1218	1222	1226	1227	1231	1235		
PH	6.99	7.05	7.09	7.09	7.09	7.18	7.15	7.10	7.10	+/- 0.2	
Temperature (°C)	14.65	14.46	14.47	14.53	14.59	14.72	14.79	14.82	14.84	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	1.49	1.37	1.47	1.48	1.56	1.50	1.56	1.58	1.60	+/- 3%	
Turbidity (NTU)	19.0	22.4	12.2	7.2	37.1	~~140~~	10.8	3.9	5.0	+/- 10%	
Dissolved Oxygen (mg/L)	2.31	1.60	1.27	1.14	1.56		1.56	1.69	1.38	+/- 0.2	
ORP (mV)	7.01	29	-1	-3	-5	6	8	-1	-15	+/- 10	
~~Each Volume Purged (L)~~ TDS g/L	0.944	0.899	0.937	0.955	0.988		0.996	1.01	1.02		
Total Liters Purged	1	3	4.5	6	7.5		10.5	12	13.5		

1.5 1.5 1.5

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): ____

Comments No water running through pump @ 1222

Sample(s) Collected By: D. ARAGON Q. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/13, 1050 Project Site/Subsite: RFA3

Sample ID: RFSGW ETA05

Well ID: ETA Point Name: ____

Depth to Well Bottom: 13.43 ft. below top of casing (PVC cap)

Depth to Water Level: 3.40 ft. below PVC cap

Depth to Water Level: 4.06 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well ____ Liters

Four-inch well ____ Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged ____ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1014	1018	1022	1026	1030	1034	1038	1042	1046		
PH	6.80	6.73	6.73	6.73	6.73	6.73	6.73	6.73	6.73	+/- 0.2	
Temperature (°C)	14.57	14.11	14.04	14.08	14.11	14.09	14.10	14.14	14.20	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	1.88	1.91	1.90	1.90	1.90	1.90	1.89	1.89	1.88	+/- 3%	
Turbidity (NTU)	264	203	195	116	134	115	109	95.7	65	+/- 10%	
Dissolved Oxygen (mg/L)	3.11	1.25	1.06	1.03	.96	0.92	0.90	0.89	1.33	+/- 0.2	
ORP (mV)	134	105	37	11	-48	-87	-101	-105	-95	+/- 10	
~~Each Volume Purged (L)~~ TDS (g/L)	~~0.5~~ 1.24	1.22	1.22	1.22	1.22	1.21	1.21	1.21	1.20		
Total Liters Purged	0.5	1.5	2.9	4.1	5.3	6.5	7.7	9.9	11.1		

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

MS/MSD Sample Collected? ~~No~~ Yes MSMSD

Sample Remarks (odors, colors, sediment): brownish at first, cleared up by sampling time - at sample time, water was slightly turbid.

Comments ____

Sample(s) Collected By: Dayna Aragon, Carolyn Barlie

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 1040 Project Site/Subsite: RFS

Sample ID: RFSGWFG05

Well ID: FG Point Name:

Depth to Well Bottom: 16.25 ft. below top of casing (PVC cap)

Depth to Water Level: 13.73 ft. below PVC cap

Depth to Water Level: 14.40 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer Peristaltic Pump

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well ↓ Liters

Control Box Settings: Box # N/A Refill= Discharge= Throttle= psi

Total Purged 2.8 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.15 Liters/Min

* went Dry at 0.5 L/min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1012	1016	1020	DRY	1025	1028	1031	1034			
PH	6.38	6.37	6.37		6.38	6.38	6.39	6.40		+/- 0.2	
Temperature (°C)	15.94	16.05	16.46		16.48	16.65	16.76	16.81		+/- 2.0 °C	
Specific Conductance (~~µmhos~~ mS/cm)	0.846	0.835	0.823		0.823	0.825	0.825	0.825		+/- 3%	
Turbidity (NTU)	39.2	25.9	24.2		266	104	65.7	49.9		+/- 10%	
Dissolved Oxygen (mg/L)	2.62	2.22	1.91		1.87	1.63	1.53	1.49		+/- 0.2	
ORP (mV)	163	164	165		167	168	170	170		+/- 10	
Each Volume Purged (L)	0.25	0.6	0.6		0.0	0.45	0.45	0.45			
Total Liters Purged	0.25	0.85	1.45		1.45	1.90	2.35	2.80			

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): Clear water

Comments went Dry at 0.5 L/min, went dry at 0.15 L/min

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

TDS (Recorded 4/8/13 @1709 0.497 g/L (2.5 L purged)

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013 0957 Project Site/Subsite: RFS

Sample ID: RFSGW9E005

Well ID: 9E0 Point Name: ____

Depth to Well Bottom: 16.13 ft. below top of casing (PVC cap)

Depth to Water Level: 9.73 ft. below PVC cap

Depth to Water Level: 9.74 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump peristaltic
Bailer

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well NA Liters

Control Box Settings: Box # ____ Refill= ____ Discharge= ____ Throttle= ____ psi

Total Purged 10 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0933	0937	0941	0945	0949	0953	0957				
PH	7.06	7.04	7.04	7.04	7.04	7.03	7.03			+/- 0.2	
Temperature (°C)	14.27	14.30	14.26	14.24	14.26	14.27	14.28			+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.910	0.911	0.910	0.911	0.911	0.911	0.911			+/- 3%	
Turbidity (NTU)	17.1	7.4	1.2	0.0	1.1	0.6	0.0			+/- 10%	
Dissolved Oxygen (mg/L)	2.30	1.96	1.79	1.77	1.77	1.73	1.75			+/- 0.2	
ORP (mV)	102	98	97	97	98	98	99			+/- 10	
6 TDS ~~Each Volume Purged~~ (L)	~~1~~	~~3~~	~~1.2~~ ~~0.91~~	~~1.2~~	~~1.2~~ 0.583	~~0.583~~	0.583				
Total Liters Purged		4	~~4.9~~ 5.2	6.4	7.6	8.8	10				

0.583

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): clear

Comments ____

Sample(s) Collected By: Dayra Arazen, Quinn Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/15/13 / ~~09~~ 0955 Project Site/Subsite: RFS

Sample ID: RFSGWMFA05

Well ID: MFA Point Name: ____________

Depth to Well Bottom: ~~18~~ 13.85 ft. below top of casing (PVC cap)

Depth to Water Level: 3.41 ft. below PVC cap

Depth to Water Level: 3.43 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump peristaltic

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ______ Refill= ________ Discharge= ____________ Throttle= __________ psi

Total Purged __________ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.35 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0920	0924	0928	0932	0936	0940	0944	0949	0953		
PH	6.91	6.88	6.88	6.87	6.87	6.86	6.84	6.87	6.86	+/- 0.2	
Temperature (°C)	14.93	14.82	14.77	14.79	14.80	14.83	1490	14.96	15.03	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	149	1.37	1.35	1.36	1.36	1.36	1.36	1.36	1.36	+/- 3%	
Turbidity (NTU)	57.1	58.4	34.0	230	21.4	21.8	20.6	17.1	13.5	+/- 10%	
Dissolved Oxygen (mg/L)	261	1.63	1.30	1.19	1.11	1.36	1.01	1.16	0.94	+/- 0.2	
ORP (mV)	120	113	106	1.18	105	105	105	107	104	+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	.932	0.878	.864	.867	.870	.873	.869	.871	.871		
Total Liters Purged	0.5	1.5	2.7	3.9	5.1	6.3	7.5	8.7	9.9		

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

MS/MSD Sample Collected? No Yes ____________

Sample Remarks (odors, colors, sediment): ____________

Comments ____________

Sample(s) Collected By: Dayna Aragon, Carolyn Fortic

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13/ 1550 Project Site/Subsite: RFS

Sample ID: RFSGWNRLFØ5

Well ID: NRLF Point Name: ____________

Depth to Well Bottom: 15.95 ft. below top of casing (PVC cap)

Depth to Water Level: 13.52 ft. below PVC cap

Depth to Water Level: 14.32 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer Peristaltic Pump

Minimum Purge Volume: Two-inch well NA Liters

Four-inch well ↓ Liters

Control Box Settings: Box # NA Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged 3.7 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1528 ~~1628~~	1532 ~~1632~~	1536 ~~163~~	1540	1544						
PH	6.67	6.67	6.66	6.66	6.66					+/- 0.2	
Temperature (°C)	22.81	21.30	21.09	20.75	20.39					+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.654	0.667	0.669	0.673	0.674					+/- 3%	
Turbidity (NTU)	1.4	0.9	0.3	0.0	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	2.48	1.63	1.59	1.50	1.43					+/- 0.2	
ORP (mV)	-178	-184	-186	-178	-176					+/- 10	
Each Volume Purged (L)	0.5	0.8	0.8	0.8	0.8						
Total Liters Purged	0.5	1.3	2.1	2.9	3.7						

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

MS/MSD Sample Collected? No Yes ____________

Sample Remarks (odors, colors, sediment): sulfur odor

Comments Metals analyses, TDS (RECORDED 4/10/13 @ 1607, ~~$~~0.431 g/L, 2L purged)

Sample(s) Collected By: Mark Otty, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-8-13 / 1120   Project Site/Subsite: RFS

Sample ID: RFSGW RWF Ø5

Well ID: RWF   Point Name:

Depth to Well Bottom: 17.70 ft. below top of casing (PVC cap)

Depth to Water Level: 8.73 ft. below PVC cap

Depth to Water Level: 8.79 ft below PVC cap ~~prior~~ after to sampling

Method of Purging: Bladder Pump / Bailer   Submersible Pump   ✓ Peristaltic Pump

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well NA Liters

Control Box Settings: Box # NA Refill= ~~______ Discharge= ______ Throttle= ______~~ psi

Total Purged 9.5 Liters   Purge Rate goal = 0.5 Liters/Min.   Actual purge rate 0.4 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1056	1100	1104	1108	1112	1116					
PH	6.72	6.68	6.68	6.67	6.67	6.67				+/- 0.2	
Temperature (°C)	16.36	16.03	15.92	15.89	15.89	15.87				+/- 2.0 °C	
Specific Conductance (µmhos/cm)	1.21	1.18	1.17	1.21	1.18	1.18				+/- 3%	
Turbidity (NTU)	73.1	47.1	31.5	1.4	2.0	0.0				+/- 10%	
Dissolved Oxygen (mg/L)	1.44	1.25	1.19	1.14	1.09	1.07				+/- 0.2	
ORP (mV)	102	112	116	121	124	127				+/- 10	
TDS (g/L) ~~Each Volume Purged~~ (L)	0.776	0.755	0.752	0.750	0.753	0.756					
Total Liters Purged	0.5	2.1	3.7	5.3	6.9	9.5					

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): clear water

Comments VOC analyses

Sample(s) Collected By: Mark Duffy Quinn Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: Apr. 5 / 0845 Project Site/Subsite: RFS

Sample ID: RFS-GW-PZ11 ~~R5~~

Well ID: PZ11 Point Name: ____________

Depth to Well Bottom: 18.78 ft. below top of casing (PVC cap)

Depth to Water Level: 10.61 ft. below PVC cap

Depth to Water Level: ____________ ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump Peristaltic

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ______ Refill= ________ Discharge= ________ Throttle= ________ psi

Total Purged ________ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0810	0815	0819	0823	0827	0831	0835	0838	0841		
PH	6.08	6.08	6.08	6.08	6.08	6.08	6.09	6.08	6.09	+/- 0.2	
Temperature (°C)	14.79	14.91	14.94	14.93	14.97	14.99	14.97	14.99	15.13	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	3.54	3.52	3.51	351	3.51	3.51	3.50	350	349	+/- 3%	
Turbidity (NTU)	9.5	6.6	5.4	4.0	2.6	2.3	1.0	1.1	1.5	+/- 10%	
Dissolved Oxygen (mg/L)	1.94	1.71	1.64	1.57	1.47	1.35	1.53	1.27	1.18	+/- 0.2	
ORP (mV)	166	159	157	157	157	157	155	154	145	+/- 10	
TDS (g/L) ~~Each Volume Purged (L)~~	2.26	2.26	2.25	2.25	2.25	2.24	2.24	2.24	2.24		
Total Liters Purged	1	2.5	3.7	4.9	6.1	7.3	8.5	9.5	10.7		

Duplicate Sample Collected? No Yes (Sample ID of Duplicate) RFSGWPZ11Ø5D, 0850

MS/MSD Sample Collected? No Yes ____________

Sample Remarks (odors, colors, sediment): ____________

Comments ____________

Sample(s) Collected By: Dayna Aragon, Carolyn Farlic

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liter
of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.08.2013 1352 Project Site/Subsite: RFS

Sample ID: RFSGWPZ805

Well ID: PZ8 Point Name: ______

Depth to Well Bottom: 20.45 ft. below top of casing (PVC cap)

Depth to Water Level: 6.57 ft. below PVC cap

Depth to Water Level: 6.58 ft below PVC cap ~~prior to~~ after sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well ______ Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged 7.7 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.4 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1334	1337	1340	~~1344~~ 1343	1346	1349	1352				
PH	6.67	6.68	6.69	6.69	6.69	6.69	6.69			+/- 0.2	
Temperature (°C)	16.46	16.31	16.21	16.13	16.14	16.19	16.25			+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.756	0.760	0.765	0.766	0.767	0.767	0.768			+/- 3%	
Turbidity (NTU)	6.3	1.4	0.0	0.0	0.0	0.0	6.9			+/- 10%	
Dissolved Oxygen (mg/L)	1.29	1.02	0.95	1.51	0.85	0.85	1.85			+/- 0.2	
ORP (mV)	169	167	165	162	163	162	161			+/- 10	
~~Each Volume Purged (L)~~ TDS (g/L)	0.484	0.490	0.490	0.490	0.491	0.490	0.492				
Total Liters Purged	0.5	1.7	2.9	4.1	5.3	6.5	7.7				

1.2 1.2 1.2 1.2 1.2 1.2

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

MS/MSD Sample Collected? No Yes ______

Sample Remarks (odors, colors, sediment): CLEAR

Comments ______

Sample(s) Collected By: M.DUFFY Q.JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4-3-13 / 1115 Project Site/Subsite: RFS

Sample ID: RFSGWPZ905

Well ID: PZ9 Point Name: ____

Depth to Well Bottom: 19.53 ft. below top of casing (PVC cap)

Depth to Water Level: 12.88 ft. below PVC cap

Depth to Water Level: ~~19.53~~ 12.99 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump ~~Submersible Pump~~ Peristaltic Pump
Bailer

Minimum Purge Volume: Two-inch well N/A Liters

Four-inch well ____ Liters

Control Box Settings: Box # NA ~~Refill=~~ Discharge= ____ Throttle= ____ psi

Total Purged 8.5 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.5 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1055	1059	1103	1107	1111						
PH	6.54	6.54	6.54	6.54	6.54					+/- 0.2	
Temperature (°C)	17.79	17.35	17.26	17.25	17.54					+/- 2.0 °C	
Specific Conductance (µmhos/cm)	0.765	0.732	0.739	0.748	0.754					+/- 3%	
Turbidity (NTU)	31.3	7.4	6.9	1.7	0.0					+/- 10%	
Dissolved Oxygen (mg/L)	1.79	1.19	1.03	0.96	0.90					+/- 0.2	
ORP (mV)	163	150	144	141	137					+/- 10	
Each Volume Purged (L)	0.5	~~1.5~~ 2.0	2.0	2.0	2.0						
Total Liters Purged	0.5	~~2.0~~ 2.5	4.5	6.5	8.5						

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

MS/MSD Sample Collected? No Yes ____

Sample Remarks (odors, colors, sediment): clear water, no odor

Comments TDS (Recorded 4/8/13 @ 1230 0.407 g/L (2 L purged)

Sample(s) Collected By: Mark Duffy, Rebecca Johnson

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013/ 1556 Project Site/Subsite: RFS

Sample ID: RFSGWTP105

Well ID: TP1 Point Name:

Depth to Well Bottom: 16.03 ft. below top of casing (PVC cap)

Depth to Water Level: 11.39 ft. below PVC cap

Depth to Water Level: 11.38 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well ______ Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged 7.7 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1532	1536	1540	1544	1548	1552	1556				
PH	6.68	6.62	6.60	6.60	6.60	6.59	6.59			+/- 0.2	
Temperature (°C)	16.53	16.64	16.58	16.59	16.64	16.62	16.64			+/- 2.0 °C	
Specific Conductance (μmhos/cm)	2.54	1.93	1.77	1.76	1.72	1.67	1.62			+/- 3%	
Turbidity (NTU)	40.6	11.9	15	0.4	0.0	0.0	0.0			+/- 10%	
Dissolved Oxygen (mg/L)	1.82	1.27	1.08	1.05	1.01	0.97	0.93			+/- 0.2	
ORP (mV)	-53	-151	-165	-166	-169	-172	-173			+/- 10	
TDS (g/L) ~~Each Volume Purged~~ (L)	1.61	1.21	1.13	1.13	1.10	1.07	1.04				
Total Liters Purged	0.5	1.7	2.9	4.1	5.3	6.5	7.7				

0.5 1.2 1.2 1.2 1.2 1.2

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

MS/MSD Sample Collected? No Yes

Sample Remarks (odors, colors, sediment): CLEAR

Comments

Sample(s) Collected By: D. ARAGON Q. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 04.04.2013/ 15:05 Project Site/Subsite: RFS

Sample ID: RFSGWTP205

Well ID: TP2 Point Name:

Depth to Well Bottom: 17.14 ft. below top of casing (PVC cap)

Depth to Water Level: 11.07 ft. below PVC cap

Depth to Water Level: 11.07 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer PERISTALIC

Minimum Purge Volume: Two-inch well ________ Liters

Four-inch well ________ Liters

Control Box Settings: Box # ________ Refill= ________ Discharge= ________ Throttle= ________ psi

Total Purged ________ Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1438	1442	1446	1450	1454	1458	1502				
PH	6.60	6.60	6.60	6.59	6.59	6.59	6.59			+/- 0.2	
Temperature (°C)	16.30	16.34	16.35	16.30	16.33	16.43	16.39			+/- 2.0 °C	
Specific Conductance (μmhos/cm)	1.17	1.17	1.17	1.17	1.17	1.17	1.17			+/- 3%	
Turbidity (NTU)	65.9	23.1	10.2	3.4	2.0	~~0.5~~ 0.2	1.3			+/- 10%	
Dissolved Oxygen (mg/L)	2.40	1.41	1.20	1.08	~~1.17~~ 1.01	0.96	0.93			+/- 0.2	
ORP (mV)	142	142	142	141	142	142	142			+/- 10	
TDS (g/L) ~~Each Volume Purged~~ (L)	0.747	.748	0.748	0.748	.749	0.749	0.749				
Total Liters Purged	1.5	2.7	3.9	5.1	6.3	7.5	8.7				

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

MS/MSD Sample Collected? No Yes ________

Sample Remarks (odors, colors, sediment): ________

Comments ________

Sample(s) Collected By: D. ARAGON Q. JOHNSON

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

$\boxed{\text{needs new cap}}$ - cap replaced on 4/9/13

Tetra Tech, Inc.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 4/5/2013 1442 Project Site/Subsite: RFS

Sample ID: RFSGWWTA05

Well ID: WTA Point Name: ______

Depth to Well Bottom: 14.0 ft. below top of casing (PVC cap)

Depth to Water Level: 5.89 ft. below PVC cap

Depth to Water Level: 6.17 ft below PVC cap prior to sampling

Method of Purging: Bladder Pump Submersible Pump
Bailer peristaltic pump

Minimum Purge Volume: Two-inch well ______ Liters

Four-inch well ______ Liters

Control Box Settings: Box # ______ Refill= ______ Discharge= ______ Throttle= ______ psi

Total Purged 10.7 Liters Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1408	1412	1416	1420	1424	1428	1432	1436	1440		
PH	6.91	6.91	6.91	6.93	6.95	6.97	7.00	7.01	7.02	+/- 0.2	
Temperature (°C)	17.72	17.45	17.22	17.71	17.48	17.44	17.14	17.18	17.48	+/- 2.0 °C	
Specific Conductance (μmhos/cm)	0.304	0.327	0.374	0.435	0.563	0.649	0.713	0.766	0.804	+/- 3%	
Turbidity (NTU)	26.7	45.7	42.4	40.7	17.2	10.4	5.4	8.5	3.2	+/- 10%	
Dissolved Oxygen (mg/L)	3.11	2.29	1.73	1.25	0.93	0.83	0.77	1.03	0.67	+/- 0.2	
ORP (mV)	81	93	97	98	97	95	94	90	91	+/- 10	
TDS ~~Each Volume Purged (L)~~	0.208	0.214	0.247	0.288	0.369	0.423	0.457	0.496	0.518		
Total Liters Purged	0.3	1.6	2.9	4.2	5.5	6.8	8.1	9.4	10.7		

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

MS/MSD Sample Collected? No Yes ______

Sample Remarks (odors, colors, sediment): ______

Comments ______

Sample(s) Collected By: C. Fenric, D. Aragon.

Well Volume purge Calc: Length of tubing X 9.6 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

ATTACHMENT 2
WELL CLOSURE PERMITS FOR PIEZOMETERS B197 AND DH, AND WELL INSTALLATION PERMITS, GEOLOGIC BORING LOGS, WELL COMPLETION LOGS, AND WELL DEVELOPMENT LOGS FOR PIEZOMETERS B197R AND DHR

CONTRA COSTA
HEALTH SERVICES

CONTRA COSTA ENVIRONMENTAL HEALTH DIVISION

2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org

Well Permit

PR Number:	59297	PE Number:	4368
Date Received:	12 MARCH 2013	Permit Number:	13M-1090

Permit Approved/Issued by: ______ Date Issued: 15 MAR 2013 Date Expires: 16 AUG 2013

Environmental Health Specialist

NEW WELL	( ) SOIL BORINGS	WELL ABANDONMENT B197	REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address:	1301 S 46TH ST, RICHMOND		
APN:	560 060 008	Lot/Parcel #:	
Subdivision #:		Minor Subdivision #:	

DRILLER / CONSULTANT INFORMATION

Driller:	WOODWARD DRILLING	Contact Person:	RYAN
Phone #:	707 374-4300	FAX#:	707 374-5677
Consultant:	TETRA TECH, INC	Contact Person:	DAYNA ARAGON
Phone #:	510 302-6242	FAX#:	510 433-0830

LEGAL OWNER INFORMATION

Property Owner	UC BERKELEY	Responsible Party:	SAME AS OWNER
Owner Address:	317 UNIVERSITY HALL	Address:	
City/State/Zip:	BERKELEY, CA 94612	City/State/Zip:	
Phone #:	510 643-8676	Phone#	

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 48 hours in advance (excluding weekends, holidays and Mandatory County Furlough Days) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must possess a valid C-57 license and must have on file a performance bond of $5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. Overdrill existing well & backfill borehole with approved grouting material.

Final Approval by: ______ Date: 4/12/13

(06/08)

CONTRA COSTA
HEALTH SERVICES

CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org

Well Permit

PR Number:	59296	PE Number:	4368
Date Received:	12 MARCH 2013	Permit Number:	13M-1089

Permit Approved/Issued by: [signature] Date Issued: 15 MAR 2013 Date Expires: 16 AUG 2013

Environmental Health Specialist

NEW WELL	( ) SOIL BORINGS	WELL ABANDONMENT DH	REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address:	1301 S 46TH ST, RICHMOND		
APN:	560 060 008	Lot/Parcel #:	
Subdivision #:		Minor Subdivision #:	

DRILLER / CONSULTANT INFORMATION

Driller:	WOODWARD DRILLING	Contact Person:	RYAN
Phone #:	707 374-4300	FAX#:	707 374-5677
Consultant:	TETRA TECH, INC	Contact Person:	DAYNA ARAGON
Phone #:	510 302-6242	FAX#:	510 433-0830

LEGAL OWNER INFORMATION

Property Owner	UC BERKELEY	Responsible Party:	SAME AS OWNER
Owner Address:	317 UNIVERSITY HALL	Address:	
City/State/Zip:	BERKELEY, CA 94612	City/State/Zip:	
Phone #:	510 643-8676	Phone#	

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 48 hours in advance (excluding weekends, holidays and Mandatory County Furlough Days) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.
Well drillers must possess a valid C-57 license and must have on file a performance bond of $5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. Overdrill existing well & backfill borehole with approved grouting material.

Final Approval by: [signature] Date: 4/12/13

CONTRA COSTA
HEALTH SERVICES

CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org

Well Permit

PR Number:	59295	PE Number:	4367
Date Received:	12 MARCH 2013	Permit Number:	13M-1088

Permit Approved/Issued by: _[signature]_ Date Issued: 15 MAR 2013 Date Expires: 16 AUG 2013

Environmental Health Specialist

NEW PIEZO W/CASING B197R	( ) SOIL BORINGS	WELL ABANDONMENT	REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address:	1301 S 46TH ST, RICHMOND		
APN:	560 060 008	Lot/Parcel #:	
Subdivision #:		Minor Subdivision #:	

DRILLER / CONSULTANT INFORMATION

Driller:	WOODWARD DRILLING	Contact Person:	RYAN
Phone #:	707 374-4300	FAX#:	707 374-5677
Consultant:	TETRA TECH, INC	Contact Person:	DAYNA ARAGON
Phone #:	510 302-6242	FAX#:	510 433-0830

LEGAL OWNER INFORMATION

Property Owner	UC BERKELEY	Responsible Party:	SAME AS OWNER
Owner Address:	317 UNIVERSITY HALL	Address:	
City/State/Zip:	BERKELEY, CA 94612	City/State/Zip:	
Phone #:	510 643-8676	Phone#	

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 48 hours in advance (excluding weekends, holidays and Mandatory County Furlough Days) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must possess a valid C-57 license and must have on file a performance bond of $5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. OTHER: ______

Final Approval by: _[signature]_ Date: 4/12/13

(06/08)

CONTRA COSTA
HEALTH SERVICES

CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org

Well Permit

PR Number:	59294	PE Number:	4367
Date Received:	12 MARCH 2013	Permit Number:	13M-1087

Permit Approved/Issued by: Date Issued: 15 MAR 2013 Date Expires: 16 AUG 2013

Environmental Health Specialist

NEW PIEZO W/CASING DHR	( ) SOIL BORINGS	WELL ABANDONMENT	REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address:	1301 S 46TH ST, RICHMOND		
APN:	560 060 008	Lot/Parcel #:	
Subdivision #:		Minor Subdivision #:	

DRILLER / CONSULTANT INFORMATION

Driller:	WOODWARD DRILLING	Contact Person:	RYAN
Phone #:	707 374-4300	FAX#:	707 374-5677
Consultant:	TETRA TECH, INC	Contact Person:	DAYNA ARAGON
Phone #:	510 302-6242	FAX#:	510 433-0830

LEGAL OWNER INFORMATION

Property Owner	UC BERKELEY	Responsible Party:	SAME AS OWNER
Owner Address:	317 UNIVERSITY HALL	Address:	
City/State/Zip:	BERKELEY, CA 94612	City/State/Zip:	
Phone #:	510 643-8676	Phone#	

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 48 hours in advance (excluding weekends, holidays and Mandatory County Furlough Days) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must possess a valid C-57 license and must have on file a performance bond of $5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. OTHER: ______

Final Approval by: ______ Date: 4/12/13

(06/08)

CONTRA COSTA
HEALTH SERVICES

REC'D
MAR 11 2013
CCEH

ENVIRONMENTAL HEALTH DIVISION
2120 Diamond Blvd., Suite 200
Concord, CA 94520
Phone: (925) 692-2500
Fax: (925) 692-2504
www.cchsd.org

REQUEST FOR VARIANCE

Site Location Richmond Field Station, 1301 South 46th Street	*City/Zip Code* Richmond, CA 94804
Assessors Parcel Number 560060008	*Contact Email* carolyn.ferlic@tetratech.com
Requesting Party Da y na Ar agon, Tetra Tech, Inc	*Daytime Phone* (510) 302-6242 or (805)452-2822 (cell)
Mailing Address 1999 Harrison Street, Suite 500	*City/Zip Code* Oakland, CA 94612
Owner(s) Mark Freiberg, Director, Environmental Health and Safety	*Daytime Phone* (510) 643 - 8676
Mailing Address 317 University Hall	*City/Zip Code* Berkeley, CA 94720

Variance Request:
Annular seal less than 10 feet bgs.

Reason for Request:
Proposed annular seal will be less than 10 feet bgs. Groundwater is expected at most boring locations at 7 - 8 feet bgs. The proposed well diagram is attached.

Supporting Documentation: (attach additional sheet if necessary)

Submitted by: Dayna Aragon Date: 08 Mar 2013

DO NOT WRITE BELOW THIS LINE – OFFICE USE ONLY

Reviewed by: [signature], Environmental Health Specialist Date: 3/14/13
Recommendations:
Approve request for shallow annular seal, less than 10 feet below ground surface, for piezometers DHR and B197R. This area is known for shallow groundwater. The total borehole depth shall not exceed 20 feet bgs.

☒ Approved ☐ Denied [signature] 3/14/13, Supervising EHS

FA# 13059	PR# 59293	PE: 4370	REHS: SR
Amount Due: $213	Amount Paid: 1168	Receipt #: 46278	Received by: Takeya Foster
Check # 1616450	Cash:	Credit Card:	Date: 3-12-13

2101 / 933 MC XR46279

TETRA TECH EM INC.

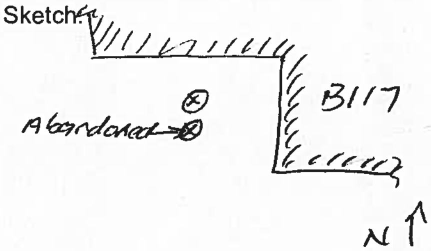
SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

DO:

Bldg./Site: RFS

Project Name:

Boring Number: B197R	Date Started: 3/26/13
Drilling Method: (*Circle one*) HSA Continuous Core/Direct Push/Hand Auger no cores, Auger cuttings only	Date Completed: 3/26/13
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: V. EAZLY
Outer Diameter of Boring: 12"	Drilling Subcontractor: WOODWARD
~~Inner~~ Diameter of Well Casing: 2"	Driller: JUAN
Depth to Water (ft./bgs.) UNKNOWN	Location Sketch:



Time	Depth (ft) bgs	Drive Interval	Recovered Interval	Sample ID	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
0840			n/a		HAND AUGER	Gravel & SAND + silt ROAD BASE	GM		n/A
						V. DK BRN 7.5YR 2.5/3 Sandy Clay w/silt 30% SAND med-stiff MOIST	CL		
	4					Pale Olive 5Y 4/3 clayey SAND/SANDY CLAY + silt 40-60% SAND	CL SC		
						Olive 5Y 4/3 clayey SAND - 60% SAND - WET	SC		
	8								
						~ some gravel ~	GC GM		
	12						CL		
0930						bottom of boring			
	16								

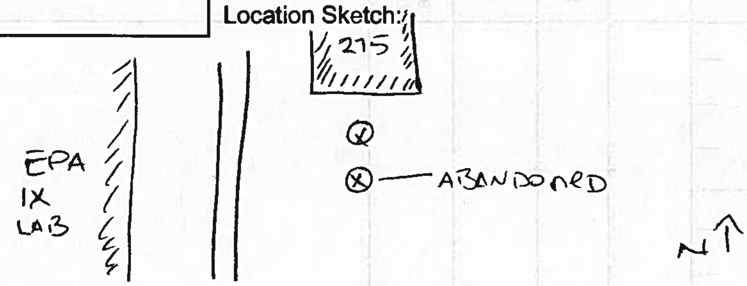
S:\AECRU\Hunters Point Shipyard\DO 0019 (PLOB X027)\WE2-Plans\Draft SAP\for Angela\appendices\Appendix C\04. Soil Boring and Well Installation Log.doc

TETRA TECH EM INC.

SOIL BORING AND WELL INSTALLATION AND VISUAL CLASSIFICATION LOG

DO:
Bldg./Site: RFS
Project Name:

Boring Number: DHR	Date Started: 3/26/13
Drilling Method: (Circle one) HSA Continuous Core/Direct Push/Hand Auger	Date Completed:
Air Rotary/Mud Rotary/Dual Tube Percussion/Sonic/Vacuum	Logged By: V. EARLY
Outer Diameter of Boring: 12"	Drilling Subcontractor: WOODWARD
Inner Diameter of Well Casing:	Driller: JUAN
Depth to Water (ft./bgs.) UNKNOWN	Location Sketch:



Time	Depth (ft) bgs	Drive Interval	Recovered Interval	Sample ID	Blow count (per 6 inches) / V.B. utility type, dia.	Description	USCS soil symbol	Well construction	OVM (ppm)
						vegetation/grass			
1205			n/a			DK olive brn 2.5Y 3/3 SANDY SILT DRY 30% SAND	ML		n/a
	4					Lt olive brn. 2.5Y 5/4 SANDY silty Gravel 30% SAND DRY	GM		
	8					Lt. Olive BRN 2.5Y 5/6 Clayey silty SAND to silty Clay 30-60% SAND MOIST soft	SC SM CL		
	12					Lt Olive BRN 2.5Y 5/6 Clay w/ silt of SAND 10-20% SAND	CL		
1235						bottom of boring			
	16								

TETRA TECH EM INC.

V. EARly

MONITORING WELL COMPLETION RECORD

DRILLING INFORMATION

DRILLING BEGAN:
DATE 3/26/13 TIME 0840

WELL INSTALLATION BEGAN:
DATE 3/26/13 TIME 0930

WELL COMPLETION FINISHED:
DATE 3/26/13 TIME 1100

DRILLING CO. woodward
DRILLER JUAN
LICENSE
DRILL RIG BK-8
DRILLING METHOD:
- ☒ HOLLOW STEM AUGER
- ☐ AIR ROTARY
- ☐

DIAMETER OF AUGERS:
ID OD 12"

BENTONITE SEAL

AMOUNT CALCULATED
AMOUNT USED 50 lbs
- ☐ PELLETS, SIZE
- ☒ CHIPS, SIZE medium
- ☐

PRODUCT Pure GoLD
MFG. BY cetco
METHOD INSTALLED
☒ POURED ☐ TREMIE
AMOUNT OF WATER USED 6 GAL.

FILTER PACK

AMOUNT CALCULATED
AMOUNT USED 850 lbs.
- ☒ SAND, SIZE 2/12
- ☐ FORMATION COLLAPSE:

FROM TO
PRODUCT LAPIS LUSTRE
MFG. BY cemex
METHOD INSTALLED:
☐ POURED ☒ TREMIE (AUGER)

SURVEY INFORMATION

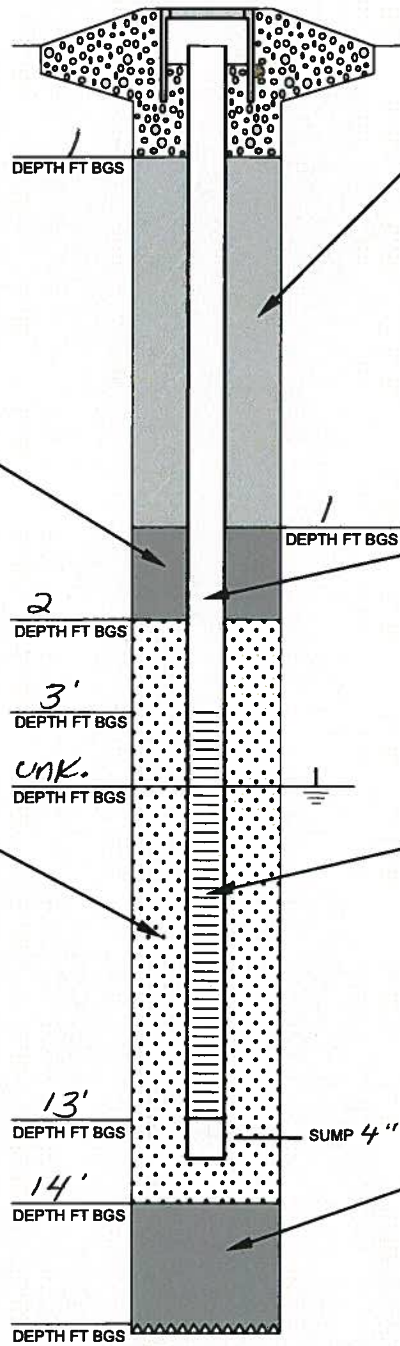
TOC ELEVATION
GROUND ELEVATION
NORTHING COORD.
EASTING COORD.
DATE SURVEYED
SURVEY CO.

CENTRALIZERS USED?

☒ YES ☐ NO
CENTRALIZER DEPTHS: 3' & 13'

SURFACE COMPLETION

- ☒ FLUSH MOUNT
- ☐ ABOVE GROUND W/BUMPER POST
- ☐ CONCRETE ☐ ASPHALT



MONITORING WELL

MONITORING WELL NO. B197R
PROJECT RFS
SITE
BOREHOLE NO. B197R
WELL PERMIT NO.
TOC TO BOTTOM OF WELL

ANNULAR SEAL

AMOUNT CALCULATED
AMOUNT USED 47 #
☒ GROUT FORMULA
PORTLAND CEMENT 90% Type II-V
BENTONITE 10% powder
WATER 3GAL
☐ PREPARED MIX
PRODUCT
MFG. BY Basaltite
METHOD INSTALLED
☒ POURED ☐ TREMIE

CASING

- ☒ SCHEDULE 40 PVC
- ☐

PRODUCT
MFG BY.
CASING DIAMETER:
ID OD 2"
LENGTH OF CASING 3'

WELL SCREEN

- ☒ SCHEDULE 40 PVC
- ☐

PRODUCT
MFG. BY:
CASING DIAMETER:
ID OD 2"
SLOT SIZE .010"
LENGTH OF SCREEN 10'

BOREHOLE BACKFILL

AMOUNT CALCULATED n/A
AMOUNT USED
- ☐ BENTONITE CHIPS, SIZE
- ☐ BENTONITE PELLETS, SIZE
- ☐ SLURRY
- ☐ FORMATION COLLAPSE

FROM TO
PRODUCT
MFG. BY
METHOD INSTALLED:
☐ POURED ☐ TREMIE

TETRA TECH EM INC.

MONITORING WELL COMPLETION RECORD

V.EARLY

DRILLING INFORMATION

DRILLING BEGAN:
DATE 3/26/13 TIME 1205
WELL INSTALLATION BEGAN:
DATE 3/26/13 TIME 1240
WELL COMPLETION FINISHED:
DATE 3/26/13 TIME 1525
DRILLING CO. WOODWARD
DRILLER JUAN
LICENSE
DRILL RIG BK 80
DRILLING METHOD:
☒ HOLLOW STEM AUGER
☐ AIR ROTARY
☐
DIAMETER OF AUGERS:
ID OD 12"

BENTONITE SEAL

AMOUNT CALCULATED
AMOUNT USED 50 lbs.
☐ PELLETS, SIZE
☒ CHIPS, SIZE medium
☐
PRODUCT Pure Gold
MFG. BY
METHOD INSTALLED
☒ POURED ☐ TREMIE
AMOUNT OF WATER USED 6 gal

FILTER PACK

AMOUNT CALCULATED
AMOUNT USED
☒ SAND, SIZE 2/12
☐ FORMATION COLLAPSE:
FROM TO
PRODUCT Lapis Lustre
MFG. BY Cemex
METHOD INSTALLED:
☐ POURED ☒ TREMIE (auger)

SURVEY INFORMATION

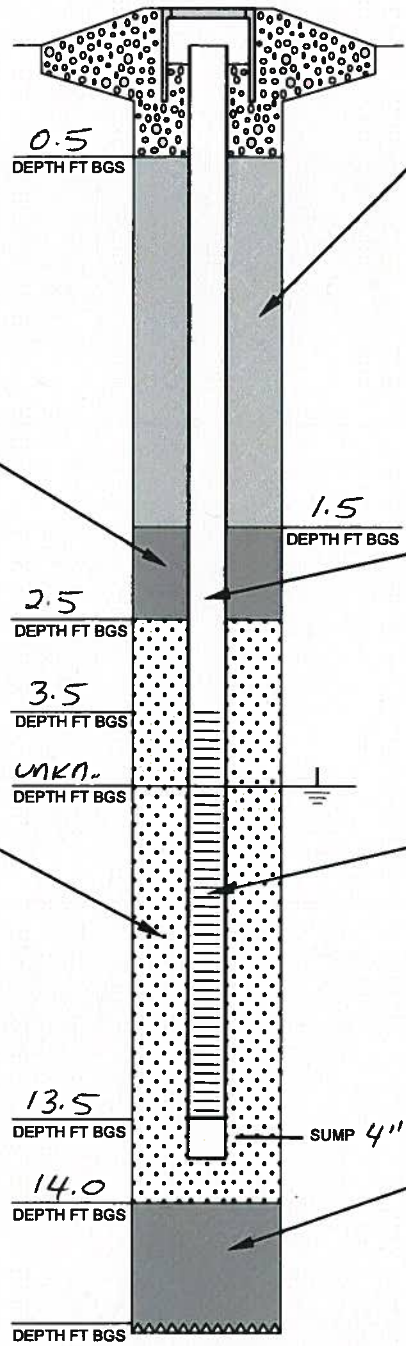
TOC ELEVATION
GROUND ELEVATION
NORTHING COORD.
EASTING COORD.
DATE SURVEYED
SURVEY CO.

CENTRALIZERS USED?

☒ YES ☐ NO
CENTRALIZER DEPTHS: 3.5' & 13.5'

SURFACE COMPLETION

☒ FLUSH MOUNT
☐ ABOVE GROUND W/BUMPER POST
☐ CONCRETE ☐ ASPHALT



MONITORING WELL

MONITORING WELL NO. DHR
PROJECT RFS
SITE
BOREHOLE NO.
WELL PERMIT NO.
TOC TO BOTTOM OF WELL

ANNULAR SEAL

AMOUNT CALCULATED
AMOUNT USED 47#
☒ GROUT FORMULA
PORTLAND CEMENT 90% Type II-V
BENTONITE 10% Bentonite pow
WATER 3 gal.
☐ PREPARED MIX
PRODUCT
MFG. BY Basalite
METHOD INSTALLED
☐ POURED ☒ TREMIE (auger)

CASING

☒ SCHEDULE 40 PVC
☐
PRODUCT
MFG BY.
CASING DIAMETER:
ID OD 2"
LENGTH OF CASING 3.5'

WELL SCREEN

☒ SCHEDULE 40 PVC
☐
PRODUCT
MFG. BY:
CASING DIAMETER:
ID OD 2"
SLOT SIZE .010
LENGTH OF SCREEN 10'

BOREHOLE BACKFILL

AMOUNT CALCULATED n/A
AMOUNT USED
☐ BENTONITE CHIPS, SIZE
☐ BENTONITE PELLETS, SIZE
☐ SLURRY
☐ FORMATION COLLAPSE
FROM TO
PRODUCT
MFG. BY
METHOD INSTALLED:
☐ POURED ☐ TREMIE

TETRA TECH EM INC.

Sheet 1 of 1

WELL DEVELOPMENT DATA SHEET

BORING NO. B197R WELL NO. B197R

Project: RFS
Project No.:
Date(s) of Installation: 3-26-13
Date(s) of Development: 4-1-13
Personnel/Company: Woodward drilling
Type of Rig Used: Hollow Stem Auger B-57

Casing Diameter/Type: 2"
Borehole Diameter: 12"
Screened Interval(s): 3' - 13'
Total Length of Well Casing: 13'4"
Measured Total Depth (TOC) Initial: 13.33 Final: 13.37
DTW after Development 10.01
Initial Depth to Water (TOC): 7.19 Date 4-1-13 Time 0950
Stabilized Depth to Water (TOC): 6.85 Date 4-1-13 Time 1024

TECHNIQUE(S)	DEVELOPMENT EQUIPMENT TYPE/CAPACITY
___ Jetting (Airlift)	
X Surge Block	Steel w/ Rubber Plunger ~1.75"
X Bailing	Steel Bailer ~1.75"
X Pumping	Whale Pump
___ Other	

PURGE VOLUME CALCULATION

Casing Volume: 6.14 Ft. of water
x 0.1631 Gallons/Foot
= 1.0 Gallons per Single Casing Volume 3 Vol = 3 gal
Sand Pack Volume: 12 Ft. of Saturated Sand Pack
x 5.88 Gallons/Foot (borehole diameter)
70.56 = ~~78.38~~ Gallons (in borehole)
- 1.0 ~~3.33~~ Gallons of Casing Volume
69.56 = ~~65.05~~ x 0.3 (Assuming porosity = 30%)
20.86 ~~19.51~~ = ~~19.95~~ Gallons Within Sand Pack
Single Purge Volume: ~~2.95~~ 21.86 ~~20.51~~ Gallons (Casing Vol. + Sand Pack Vol. + Fluids Added)
Minimum Purge Volume: 68.58 Gallons 3 borehole volumes
Actual Purge Volume: Gallons
Volume Measured by: M. Duffy
Rate of Development: 2 Gallons/Minute (Hour,Day) variable start/stop
Pumping Rate/Depth: 2 GPM @ 13 Ft. (Below Grd.)
Immiscible Phases Present: Y (N) Thickness ——

FLUIDS ADDED

Lost Drilling Fluid: NONE Gallons
Lost Purge Water: Gallons
Water During Installation: Gallons
Total Fluids Added: Gallons
Source of Added Water:
Ground Water Quality Parameters of Added Water Measured: Y N
Sample Collected of Added Water: Y N
Sample Designation of Added Water:

INSTRUMENT CALIBRATION

pH Meter: Horiba U-52
pH 4.0 = 4.0 @ 19 °C
4.4 pH ~~7.0~~ = — @ — °C
pH 10.0 = — @ — °C
Dissolved Oxygen Meter: Horiba U-52
Spec. Conductance Meter: Horiba U-52
Standard 4.49 ~~µmhos/cm~~ @ 25°C
Reading 4.49 mS/cm ~~µmhos/cm~~ @ 18 °C
Turbidity Meter: 0.0 = 0.0 mS/cm
Other:

	Total Volume Discharged	Rate of Discharge	Time	Temp (C°)	pH	Specific* mS/cm Conductance	Turbidity ~~or D.O.~~	Clarity, Odor, PID Readings, Other:
Initial	0.0	Bailer	1040	16.00	6.94	3.92	872	Poor clarity, muddy brown
w/surge	5.0	Bailer	1100	15.95	7.35	3.84	972	"
pump	5.0	Pump	1105	16.40	7.31	4.07	>1000	" (Brown)
	10.0	Bailer	1110	17.77	7.04	2.43	683	Clearing a little (light br)
D=13.37	20.0	~~Pump~~	1130	17.78	7.02	2.58	657	"
	25.0	Pump	1145	17.64	7.23	2.66	445	Clear
2 GPM	35.0		1210	18.33	7.21	2.31	320	Very light brown
	45.0		1230	18.05	7.26	2.20	238	
	55.0		1255	17.25	6.97	2.14	81 (no)	
	65.0		1315	17.30	~~7.05~~ 6.98	2.17	45	

Development Completed at 69 Gallons Discharged Date 4-1-13 Time: 1330
Criteria: See SOP Personnel: M. Duffy

* Specific Conductance readings temperature compensated to 25°C, if not, report temperatures at which reading obtained.

69 1330 6.90 2.08 49

1105 - Start pumping at 2.0 gpm. Pump stops. Around 4' water 9.60 DTW

TETRA TECH EM INC.

Sheet 1 of 1

WELL DEVELOPMENT DATA SHEET

BORING NO. DHR WELL NO. DHR

Project: RFS
Project No.:
Date(s) of Installation: ~~4~~ 3-26-13
Date(s) of Development: 4-1-13
Personnel/Company: Mark Duffy Tetra Tech, Woodward Drilling
Type of Rig Used: Hollow stem B-57

Casing Diameter/Type: 2"
Borehole Diameter: 12"
Screened Interval(s): 3.5 - 13.5
Total Length of Well Casing: 13'9"
Measured Total Depth (TOC) Initial: 13.60 Final: 13.77
Initial Depth to Water (TOC): 9.41 Date: 4-1-13 Time: 1355
Stabilized Depth to Water (TOC): DRY Date: Time:

TECHNIQUE(S)	DEVELOPMENT EQUIPMENT TYPE/CAPACITY
Jetting (Airlift)	
X Surge Block	steel w/Rubber Plunger ≈ 1.75"
X Bailing	Steel
X Pumping	Whale Pump
Other	

PURGE VOLUME CALCULATION

Casing Volume: 4.19 Ft. of water
x 0.1631 Gallons/Foot
= 0.683 Gallons per Single Casing Volume
Sand Pack Volume: 11.5 Ft. of Saturated Sand Pack
x 5.88 Gallons/Foot (borehole diameter)
= 67.62 Gallons (in borehole)
\- 0.683 Gallons of Casing Volume
66.97 = ~~63.43~~ x 0.3 (Assuming porosity = 30%)
= 20.09 Gallons Within Sand Pack
Single Purge Volume: 20.09 Gallons (Casing Vol. + Sand Pack Vol. + Fluids Added)
Minimum Purge Volume: 60.27 Gallons
Actual Purge Volume: 12 Gallons
Volume Measured by: 5 gallon Bucket
Rate of Development: 2 Gallons/Minute (Hour,Day) Intermittent Pump Bail
Pumping Rate/Depth: 2 GPM @ 13 Ft. (Below Grd.)
Immiscible Phases Present: Y (N) Thickness —

FLUIDS ADDED

Lost Drilling Fluid: NONE Gallons
Lost Purge Water: Gallons
Water During Installation: Gallons
Total Fluids Added: Gallons
Source of Added Water:
Ground Water Quality Parameters of Added Water Measured: Y N
Sample Collected of Added Water: Y N
Sample Designation of Added Water:

INSTRUMENT CALIBRATION

pH Meter: See B197R Spec. Conductance Meter: SEE B197R
pH 4.0 = @ °C Standard µmhos/cm@ 25°C
pH 7.0 = @ °C Reading µmhos/cm @ °C
pH 10.0 = @ °C Turbidity Meter:
Dissolved Oxygen Meter: Other:

* Slow Recharge

Total Volume Discharged	Rate of Discharge	Time	Temp	pH	Specific* mS/cm Conductance	Turbidity or D.O.	Clarity, Odor, PID Readings, Other:
initial 0.0	Bailer	1405	16.68	6.98	10.2	140	Clear, some sediment
5.0	Pump	1420	15.57	6.95	10.0	82.7	↓
10.0	Pump	1520	16.65	7.05	10.1	72.5	↓
* DRY : Slow Recharge							↓
12.0	Pump	1540	16.68	7.04	10.1	49.1	clear
CAll	VICTOR	Early	to	Discuss	at		1530

Development Completed at 1550/12 Gallons Discharged. Date: 4-1-13 Time: 1550
Criteria: See SOP Personnel: Mark Duffy

* Specific Conductance readings temperature compensated to 25°C, if not, report temperatures at which reading obtained.

When pumping : 2 gpm

* well can not pump at 2 Gpm. After pumping well goes dry (1st pump = 7 gal)

ATTACHMENT 3
COMPLETE ANALYTICAL RESULTS

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
B120	9/9/2010	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	4/15/2011	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	10/4/2011	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	4/3/2012	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	9/8/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	9/23/2010	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	9/23/2010	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	4/18/2011	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	10/4/2011	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	4/2/2012	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	4/5/2013	50 U	1.4	0.77 J	44	1 U	1 U	1 U	22000	1 U	0.17 J	2.3 U	31 J	1 U	DMETAL
B150	9/8/2010	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	4/13/2011	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	10/5/2011	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	10/5/2011	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	4/4/2012	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	4/4/2012	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	4/2/2013	50 U	1 U	1 U	44	1 U	1 U	1 U	18000	1.6	1 U	9.8	50 U	0.17 J	DMETAL
B158	9/8/2010	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	4/15/2011	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	10/5/2011	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	4/6/2012	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	4/8/2013	15 J	1 U	4.6	8.5	1 U	1 U	1 U	2400	2	1 U	2.3 U	25 J	1 U	DMETAL
B163	9/2/2010	44	1 U	1.6	17	0.5 U	240	5.2	260000	5 U	6	2.5	70 J	2 U	METAL
B163	4/12/2011	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	4/12/2011	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	10/3/2011	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	10/3/2011	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	4/2/2012	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	4/2/2012	500	3.5	1.3	14 J	0.8 J	NA	7	240000	0.92 J	5	2.3 U	570	1 U	METAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
B163	4/3/2013	13 J	0.38 UJ	1.8	12 J	1 U	5.2	5.2	220000	1	4.7	2.3 U	5000 U	1 U	DMETAL
B175S	9/3/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	4/2/2013	7.3 J	1 U	0.81 J	57	1 U	1 U	1 U	55000	0.48 J	1 U	2.3 U	50 U	1 U	DMETAL
B175W	9/8/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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
B177	9/23/2010	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	4/18/2011	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	10/5/2011	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	4/4/2012	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	9/2/2010	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	4/15/2011	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	10/4/2011	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	4/3/2012	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	4/2/2013	50 U	1 U	0.87 J	22	0.18 J	1 U	1 U	150000	0.31 J	2.3	2.3 U	280	1 U	DMETAL
B180	9/15/2010	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	4/13/2011	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	10/6/2011	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	10/6/2011	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	4/4/2012	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	9/2/2010	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	4/15/2011	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	4/15/2011	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	10/3/2011	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	10/3/2011	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	4/2/2012	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	9/9/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
B195	9/9/2010	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	4/13/2011	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	4/13/2011	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	4/13/2011	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	4/13/2011	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	10/4/2011	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	10/4/2011	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	4/3/2012	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	4/3/2012	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	4/2/2013	12 J	8.1	2.2	35	1 U	1 U	1 U	97000	0.66 J	1 U	0.8 J	19 UJ	1 U	DMETAL
B195	4/2/2013	11 J	0.64 J	0.97 J	32	1 U	1 U	1 U	95000	0.46 J	1 U	5.4	50 U	1 U	DMETAL
B197	9/9/2010	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	9/9/2010	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	4/13/2011	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	10/4/2011	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	4/3/2012	50 U	1 U	10	35	1 U	NA	1 U	180000	1 U	1	1.2 J	980	1 U	DMETAL
B197	4/3/2012	50 U	1 U	9	33	1 U	NA	1 U	180000	1 U	0.97 J	1.3 J	920	1 U	DMETAL
B197R	4/8/2013	22 J	1 U	1.8	20	1 U	1 U	1 U	150000	0.79 J	1 U	0.81 J	17 J	0.29 J	DMETAL
B277	9/15/2010	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	4/18/2011	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	10/5/2011	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	4/3/2012	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	9/16/2010	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	4/19/2011	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	10/5/2011	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	4/5/2012	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	9/16/2010	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	4/14/2011	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	10/6/2011	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	4/3/2012	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	10/1/2010	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	4/14/2011	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	10/6/2011	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	4/3/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
B300	9/9/2010	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	4/15/2011	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	10/6/2011	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	4/9/2012	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	9/15/2010	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	4/19/2011	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	4/19/2011	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	10/6/2011	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	4/4/2012	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	4/19/2011	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	4/19/2011	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	4/6/2012	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	4/3/2013	50 U	0.23 UJ	1.3	50	1 U	1 U	1 U	46000	0.51 J	1 U	2.3 U	50 U	0.17 J	DMETAL
B460	9/15/2010	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	4/20/2011	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	10/7/2011	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	4/6/2012	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	9/24/2010	180	1 U	2	64	0.5 U	140	1 U	25000	3.9	0.31 J	4.7	330	2 U	METAL
B473	4/20/2011	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	10/7/2011	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	4/6/2012	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
B474	9/23/2010	450	1 U	9.8	25	0.5 U	200	1 U	24000	1.7	1.6	2	1400	2 U	METAL
B474	4/20/2011	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	4/20/2011	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	10/7/2011	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	10/7/2011	240	1.5	2.8	36	0.69 J	NA	1 U	17000	1.2	1.2	21	990	7.3	METAL
B474	4/9/2012	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	4/9/2012	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	4/3/2013	40 J	2.8	3.4	52	1 U	1 U	1 U	21000	1 U	0.59 J	4.4	92	0.16 J	DMETAL
B480	9/24/2010	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	4/19/2011	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	10/7/2011	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	4/9/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
B480	4/3/2013	8.1 J	0.41 UJ	2.5	93	1 U	1 U	1 U	50000	1.3	1 U	2.3 U	50 U	1 U	DMETAL
B490	9/16/2010	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	4/20/2011	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	4/9/2012	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
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	4/12/2011	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	4/12/2011	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	9/30/2011	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	9/30/2011	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	4/5/2012	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	4/5/2012	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	4/5/2013	14 J	0.36 J	5.9	110	1 U	0.39 J	0.39 J	310000	0.17 J	1 U	1.3 J	220	1 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	4/12/2011	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	4/12/2011	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	9/30/2011	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	9/30/2011	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	4/5/2012	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	4/5/2012	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	4/5/2013	12 J	1 U	2	65	1 U	1 U	1 U	41000	1 U	1.3	2.3 U	220	1 U	DMETAL
CCC1	9/8/2010	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	4/14/2011	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	10/5/2011	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	4/10/2012	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	9/8/2010	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	4/14/2011	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	4/14/2011	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	10/4/2011	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	10/4/2011	130	4	1.8	19	1 U	NA	0.13 J	62000	12	1 U	1.6 U	140	0.3 J	METAL
CCC2	4/10/2012	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	4/10/2012	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	4/2/2013	50 U	0.29 J	0.9 J	23	1 U	1 U	1 U	66000	18	1 U	2.3 U	50 U	1 U	DMETAL
CCC2	4/2/2013	50 U	1 U	0.86 J	21	1 U	1 U	1 U	63000	16	1 U	2.3 U	50 U	1 U	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
CCC3	9/3/2010	390	1 U	5.9	27	0.5 U	190	1 U	68000	2.8	2.1	2.4	550	2 U	METAL
CCC3	9/3/2010	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	4/12/2011	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	10/4/2011	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	10/4/2011	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	4/10/2012	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	4/2/2013	100	1.8	2	13	1 U	1 U	1 U	55000	0.46 J	1 U	0.83 J	63	0.35 J	DMETAL
CCCT	9/3/2010	55	1 U	3.9	28	0.5 U	210	1 U	100000	1 U	2	1.8 J	260	2 U	METAL
CCCT	4/18/2011	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	10/3/2011	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	4/4/2012	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	9/30/2010	23	1 U	2.6	38	0.5 U	120	1 U	50000	1.1	0.54	2 U	150	2 U	METAL
CTP	9/30/2010	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	4/14/2011	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	10/6/2011	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	4/3/2012	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	4/4/2013	50 U	1 U	0.81 J	66	1 U	1	1	57000	0.34 J	0.22 J	2.3 U	19 UJ	0.12 UJ	DMETAL
CTPS	9/30/2010	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	4/19/2011	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	10/7/2011	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	4/5/2012	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
DH	9/30/2010	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	4/14/2011	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	10/5/2011	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	4/6/2012	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	4/4/2013	50 U	1 U	2.4	46	1 U	0.43 J	0.43 J	690000	1 U	1.1	17	50 U	1 U	DMETAL
EERC	10/1/2010	10 J	1 U	11	39	0.5 U	480	1 U	450000	1 U	11	2.9	840	2 U	METAL
EERC	4/20/2011	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	4/20/2011	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	10/7/2011	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	10/7/2011	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	4/6/2012	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	4/6/2012	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	4/8/2013	6.5 J	1 U	5.2	26	1 U	1 U	1 U	420000	1 U	6.3	2.3 U	380	1 U	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
EPA	9/16/2010	130	1 U	3.2	50	0.5 U	190	1 U	88000	2.1	0.74	2.7	230	2 U	METAL
EPA	4/19/2011	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	10/6/2011	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	4/6/2012	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	4/6/2012	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
ETA	9/24/2010	1600	1 U	22	39	0.5 U	150	0.93 J	110000	5.8	3.8	22	3300	9.8	METAL
ETA	9/24/2010	630	1 U	13	28	0.5 U	140	1 U	110000	2.6	2.4	8	1800	3.2	METAL
ETA	4/12/2011	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	4/12/2011	870	0.56 J	17 J	34	1 U	NA	2.4	120000	3.1	2.4	8.3	2100	4.1	METAL
ETA	9/30/2011	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	9/30/2011	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	4/10/2012	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	4/10/2012	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	4/10/2012	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	4/10/2012	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	4/5/2013	50 U	1 U	3.3	17 J	1 U	1 U	1 U	100000	1 U	2.6	2.3 U	930	1 U	DMETAL
FG	9/23/2010	30000	1 U	9.7	190	2.6	120	1.9	120000	50	49	56	34000	33	METAL
FG	4/19/2011	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	4/19/2011	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	4/19/2011	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	4/19/2011	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	4/9/2012	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	4/9/2012	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	4/3/2013	77	6.4	1.1	24	1 U	1 U	1 U	28000	1 U	1 U	2.3 U	22 J	1 U	DMETAL
GEO	9/3/2010	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	4/20/2011	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	10/6/2011	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	4/6/2012	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
MFA	9/24/2010	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	4/12/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
MFA	10/3/2011	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	4/5/2012	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
NRLF	9/16/2010	25	1 U	3.3	13	0.5 U	110	1 U	50000	1 U	0.57	2 U	300	2 U	METAL
NRLF	4/20/2011	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	10/6/2011	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	4/9/2012	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	4/3/2013	50 U	1 U	7	60	1 U	1 U	1 U	48000	1 U	0.37 J	2.3 U	3100	1 U	DMETAL
PZ11	10/1/2010	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	4/20/2011	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	4/20/2011	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	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	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	4/5/2012	600	1 U	1.1	11	1.1	NA	22	160000	1.9	1.5	800	17 UJ	1 U	DMETAL
PZ11	4/5/2012	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	4/5/2013	32 J	5.3	1.1	15	1 U	5.9	5.9	210000	1 U	3.3	21	83	1 U	DMETAL
PZ11	4/5/2013	34 J	1 U	1.2	14	1 U	6.5	6.5	240000	1 U	3.6	23	67	1 U	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	4/18/2011	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	10/4/2011	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	4/3/2012	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	4/8/2013	15 J	1 U	1.1	84	1 U	1 U	1 U	45000	0.89 J	1 U	1.1 J	50 U	1 U	DMETAL
PZ9	9/24/2010	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	4/20/2011	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	10/7/2011	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	10/7/2011	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	4/6/2012	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
RWF	9/15/2010	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	4/18/2011	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	10/6/2011	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	4/4/2012	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	9/29/2010	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	4/18/2011	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

METALS (µg/L)

Location ID	Sample Date	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	BORON	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	ANLYGRP
TP1	10/7/2011	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	4/5/2012	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	4/4/2013	12 J	1 U	1.5	30	1 U	1 U	1 U	100000	1 U	0.22 J	2.3 U	1500	1 U	DMETAL
TP2	9/29/2010	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	4/18/2011	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	10/7/2011	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	4/9/2012	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	4/9/2012	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
WTA	9/30/2010	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	4/14/2011	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	4/14/2011	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	4/14/2011	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	4/14/2011	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	10/5/2011	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	10/5/2011	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	4/5/2012	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
WTA	4/5/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
B120	9/9/2010	150000	92	0.03 U	2.7	7.1	1600 J	170000	2 U	0.5 U	2 U	4.6	15	METAL
B120	4/15/2011	180000	140	0.2 U	2.2 UJ	1 U	1300	160000	1 U	1.7 U	1 U	5.2	3.3 J	DMETAL
B120	10/4/2011	170000	290	0.2 U	0.79 UJ	11	1900	160000	0.97 J	1 U	0.13 J	7.6	9 U	DMETAL
B120	4/3/2012	160000	330	0.079 J	0.9 J	6.5	1700 U	180000	1 U	1 U	1 U	4.7	9 U	DMETAL
B121	9/8/2010	39000	320	0.02 J	1.7	4.3	1600 J	75000	2 U	0.5 U	2 U	2.5 J	6.4	METAL
B121	4/13/2011	34000	7.7	0.2 U	0.33 J	1.2	850	59000	1 U	1 U	1 U	4	20	DMETAL
B121	10/4/2011	40000	8.2	0.2 U	1 U	1 U	640	64000	1 U	0.14 J	1 U	5.9	9.8	DMETAL
B121	4/4/2012	40000	7.6	0.2 U	0.89 J	1 U	470	68000	0.34 UJ	1 U	1 U	4.4	3.8 J	DMETAL
B128	9/23/2010	46000	360	0.048	2.8	2.7	6400	180000	2 U	0.5 U	2 U	4 U	2.8 J	METAL
B128	9/23/2010	39000	56	0.015 J	1.7	2	7700	170000	2 U	0.5 U	2 U	4 U	6.9	METAL
B128	4/18/2011	16000	69	0.11 J	0.91 J	10	730	93000	0.4 J	1.7 U	0.11 J	1.5 UJ	9 U	DMETAL
B128	10/4/2011	22000	170	0.052 UJ	0.36 UJ	7.1	1300	130000	1 U	0.095 J	1 U	2.5	21	DMETAL
B128	4/2/2012	17000	15	0.089 J	1 U	7.2	170 U	83000	0.58 UJ	0.6 J	1 U	1.9	9 U	DMETAL
B128	4/5/2013	17000	86	0.025 J	0.6 UJ	5.8	510	110000	1 U	1 U	1 U	1.2	20 U	DMETAL
B150	9/8/2010	19000	30	0.03 U	0.36 J	5.3	1300 J	36000	3.2	0.5 U	2 U	4 U	3.1 J	METAL
B150	4/13/2011	14000	2.2	0.2 U	1 U	2.7	560	26000	37	1 U	1 U	1.4	18	DMETAL
B150	10/5/2011	16000 UJ	5 U	0.2 U	1 U	1 U	580	29000	14	1 U	1 U	6	5 U	DMETAL
B150	10/5/2011	16000 J	5 U	0.2 U	1 U	1 U	590	29000	10	1 U	1 U	2.8	5 U	DMETAL
B150	4/4/2012	13000	1 U	0.2 U	0.22 J	0.58 J	170 U	30000	67	1 U	1 U	2.3	4.6 J	DMETAL
B150	4/4/2012	14000	0.9 J	0.2 U	0.53 J	0.71 J	170 U	30000	66	1 U	1 U	3.1	9 U	DMETAL
B150	4/2/2013	14000	0.76 UJ	0.2 U	1 U	3.4	50 U	26000	29	1 U	1 U	1.2	17 J	DMETAL
B158	9/8/2010	2600	13	0.03 U	0.87	1.8	1100 J	52000	2 U	0.5 U	2 U	6.4	3 J	METAL
B158	4/15/2011	1900	1.8	0.2 U	1.9 U	1 U	380	36000	0.3 J	1.7 U	0.068 J	5.9	9 U	DMETAL
B158	10/5/2011	2500	2.3 J	0.2 U	1 U	1 U	350 J	50000	1 U	1 U	1 U	8	5 U	DMETAL
B158	4/6/2012	2900	1.3	0.2 U	0.52 J	1 U	170 U	53000	1 U	0.18 J	1 U	7.3	35	DMETAL
B158	4/8/2013	2200	5.5	0.2 U	0.38 UJ	1 U	340	50000	0.31 J	1 U	1 U	7.3	20 U	DMETAL
B163	9/2/2010	200000	17000	0.083	0.95	170	2800	230000	2 U	0.5 U	2 U	4 U	9.2	METAL
B163	4/12/2011	180000	15000	0.2 UJ	0.23 J	180	1500	190000	1 UJ	1 U	0.08 J	1.9	27	DMETAL
B163	4/12/2011	190000	19000	0.19 J	1 UJ	200	1600	190000	0.39 J	1 U	0.063 J	2.2	27	METAL
B163	10/3/2011	330000	20000	0.17 UJ	0.71 UJ	200	1800	240000	0.65 J	1 U	1 U	0.68 J	15	DMETAL
B163	10/3/2011	240000	20000	0.18 J	0.35 UJ	200	2200 J	250000	0.36 UJ	1 U	1 U	2.2	4.1 J	METAL
B163	4/2/2012	200000	16000	0.23	2.4	180	1800	210000	1.2 UJ	1 U	1 U	3.3	9.1	DMETAL
B163	4/2/2012	200000 J	17000	0.22	1.2 UJ	200	990	220000	1.3 J	1 U	1 U	2.7	7.9 J	METAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
B163	4/3/2013	230000 J	19000	0.095 J	1.7 UJ	200 J	1800 J	190000	1 U	1 U	1 U	1.9	30	DMETAL
B175S	9/3/2010	43000	250	0.072	1.3	3.3	2100	91000	2 U	0.5 U	2 U	4 U	2.5 J	METAL
B175S	4/13/2011	30000	12	0.2 U	0.23 J	2.3	740	67000	0.86 J	1 U	0.062 J	2.3	14	DMETAL
B175S	10/4/2011	38000	39	0.054 UJ	0.27 UJ	1 U	630	67000	0.26 J	1 U	1 U	2.7	7.1 J	DMETAL
B175S	4/4/2012	35000	4.6	0.2 U	1 U	1 U	110 J	74000	0.76 UJ	1 U	1 U	2.3	9 U	DMETAL
B175S	4/2/2013	45000	8.2	0.06 J	0.52 UJ	0.59 UJ	450	84000	0.28 J	1 U	1 U	2.9	14 J	DMETAL
B175W	9/8/2010	12000	17	0.03 U	0.54	2.5	2700	56000	2 U	0.5 U	2 U	4 U	3.8 J	METAL
B175W	4/13/2011	9700	3.2	0.2 U	0.78 J	0.96 J	1600	45000	1 UJ	1 U	1 U	2.4	15	DMETAL
B175W	10/4/2011	13000	39	0.065 UJ	0.93 UJ	1 U	890	45000	1 U	1 U	1 U	4.7	18	DMETAL
B175W	4/4/2012	11000	4	0.2 U	3	1 U	280	45000	1.1 UJ	1 U	1 U	2	9 U	DMETAL
B177	9/23/2010	9900	3.9	0.03 U	0.27 J	1.8	2000 U	32000	1.1 J	0.5 U	2 U	4 U	4 J	METAL
B177	4/18/2011	14000	0.95 J	0.038 J	0.52 J	1 U	280	34000	1.8	1.7 U	1 U	1.7 UJ	5 U	DMETAL
B177	10/5/2011	11000 J	9.8	0.2 U	1 U	1 U	250 J	29000	1 U	1 U	0.28 J	3	5.8	DMETAL
B177	4/4/2012	21000	0.44 J	0.2 U	0.23 J	7.1	170 U	45000	2.6	1 U	1 U	2	9.3	DMETAL
B178	9/2/2010	140000	570	0.03 U	2.4	7.5	2800	150000	2 U	0.5 U	2 U	2.9 J	4.7 J	METAL
B178	4/15/2011	140000	430	0.2 U	2.4 UJ	1 U	1400	160000	2.5 U	1.7 U	1 U	4.7	3.4 J	DMETAL
B178	10/4/2011	150000	810	0.2 U	2.3 UJ	12	1400	130000	1.5	0.16 J	0.37 J	6.5	6 J	DMETAL
B178	4/3/2012	150000	1100	0.2 U	1.7	12 J	1500	250000	0.41 UJ	1 U	1 U	3.6	3.7 J	DMETAL
B178	4/2/2013	160000	1800	0.2 U	2.9 UJ	7.7	1200	160000	0.51 J	1 U	1 U	2.1	20 U	DMETAL
B180	9/15/2010	5200	20	0.03 U	1.2	2.2	2000 U	92000	2 U	0.5 U	2 U	9.6	4.2 J	METAL
B180	4/13/2011	4200	2.7	0.2 U	0.91 J	0.53 J	640	83000	1 UJ	1 U	1 U	6.2	54	DMETAL
B180	10/6/2011	5500 J	0.5 J	0.2 U	1.1 UJ	1 U	340	76000	0.66 J	1 U	1 U	9.6	9.6	DMETAL
B180	10/6/2011	5600 J	0.29 J	0.2 U	1 UJ	1 U	320	76000	0.34 J	1 U	1 U	8.5	28	DMETAL
B180	4/4/2012	4700	0.8 J	0.2 U	1.7	1 U	98 J	78000	0.55 UJ	1 U	1 U	6.7	9 U	DMETAL
B185	9/2/2010	130000	330	0.03 U	1	7.1	2400	130000	2 U	0.5 U	2 U	4 U	3.6 J	METAL
B185	4/15/2011	120000	130	0.2 U	1.9 U	1 U	990	92000	2.5 U	1.7 U	1 U	3.4	8.3	DMETAL
B185	4/15/2011	130000	120	0.2 U	1.9 U	1 U	1000	97000	2.5 U	1.7 U	1 U	3.6	5.8 J	DMETAL
B185	10/3/2011	140000	170	0.088 UJ	0.69 UJ	8.4	1200	120000	0.28 J	1 U	1 U	5.7	47	DMETAL
B185	10/3/2011	220000	170	0.088 UJ	1 U	1 U	1300	130000	1 U	1 U	1 U	5.2	29	DMETAL
B185	4/2/2012	140000	440	0.041 J	0.77 J	5.2	780	120000	0.89 UJ	1 U	1 U	4.8	9 U	DMETAL
B194	9/9/2010	39000	180	0.03 U	2.3	1.8	4400	120000	2 U	0.5 U	2 U	2.4 J	5 U	METAL
B194	4/13/2011	35000	1.8	0.2 U	0.74 J	0.79 J	1100	99000	1 UJ	1 U	1 U	3.9	27	DMETAL
B194	10/4/2011	36000	8.7	0.2 U	1 U	1 U	1000	110000	0.51 J	1 U	0.24 J	4.7	9 U	DMETAL
B194	4/4/2012	35000	0.36 J	0.2 U	1 U	1 U	350 U	110000	1 U	1 U	1 U	4.4	5.4 J	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
B195	9/9/2010	110000	63	10	1.1	3.1	2900	130000	2 U	0.5 U	2 U	4 U	4.3 J	METAL
B195	4/13/2011	36000	5	1.2	0.36 J	1.1	570	57000	1 UJ	1 U	1 U	4	57	DMETAL
B195	4/13/2011	39000	11	2.4	1 UJ	1.1	660	59000	0.43 J	1 U	1 U	4.1	5 UJ	METAL
B195	4/13/2011	35000	5.1	1.1	0.39 J	1	560	56000	0.44 J	1 U	1 U	3.6	27	DMETAL
B195	4/13/2011	40000	8.1	2.2	1 UJ	2.9 U	690	60000	0.41 J	1 U	1 U	3.9	8 UJ	METAL
B195	10/4/2011	120000	15	10	1.2 UJ	3.3	820	110000	1 U	1 U	1.6	5	9 J	DMETAL
B195	10/4/2011	150000	16	15	2.5	1.5	870	140000	1 U	1 U	0.45 J	4	9 U	METAL
B195	4/3/2012	50000	8.3	2	0.71 J	1 U	390	69000	1.1 UJ	1 U	1 U	6.2	9 U	DMETAL
B195	4/3/2012	43000	7 J	2.7	1 U	0.41 J	740	65000	1.3	1 U	1 U	1.9	9 U	METAL
B195	4/2/2013	78000	1.3 UJ	9.9	1.8 UJ	0.96 UJ	740	99000	0.37 J	0.91 J	1 U	3.9	20 U	DMETAL
B195	4/2/2013	76000	1.2 UJ	11	0.33 UJ	0.89 UJ	650	100000	0.4 J	0.51 J	1 U	3.8	20 U	DMETAL
B197	9/9/2010	120000	36	0.03 U	1.5	2.8	2000	130000	2 U	0.5 U	2 U	2.7 J	5.8	METAL
B197	9/9/2010	120000	34	0.03 U	1.4	2.6	1800 J	130000	2 U	0.5 U	2 U	2.8 J	3.8 J	METAL
B197	4/13/2011	150000	1300	0.2 U	1.3	8.4	1300	140000	1 U	1 U	1 U	2.4	10	DMETAL
B197	10/4/2011	120000	530	0.2 U	0.73 UJ	8	1300	110000	0.68 J	0.21 J	1 U	6.7	14	DMETAL
B197	4/3/2012	170000	2500	0.049 J	1 U	3.3	1700 U	170000	0.44 UJ	1 U	1 U	1 U	9 U	DMETAL
B197	4/3/2012	160000	2400	0.062 J	1 U	2.2	1700 U	170000	0.47 UJ	1 U	1 U	1 U	9 U	DMETAL
B197R	4/8/2013	160000	16	0.2 U	2.3 UJ	1 U	6300	180000	0.66 J	1 U	1 U	3.4	9.5 J	DMETAL
B277	9/15/2010	23000	9.9	0.03 U	1	1 U	2000	58000	2 U	0.5 U	2 U	2.5 J	5 U	METAL
B277	4/18/2011	22000	37	0.07 J	1.4	1 U	1200	45000	0.53 J	1.7 U	1 U	4.5	7.8 J	DMETAL
B277	10/5/2011	23000 J	35	0.2 U	0.3 J	1 U	1100	55000	1 U	1 U	1 U	6.6	25	DMETAL
B277	4/3/2012	24000	4.8	0.2 U	1.1	1 U	1000	47000	0.56 UJ	1 U	1 U	6.2	12	DMETAL
B278	9/16/2010	150000	150	0.015 J	0.62	2.7	3900	190000	2 U	0.5 U	2 U	4 U	6.4	METAL
B278	4/19/2011	130000	35	0.15 J	1.9 UJ	2.3 J	2100	170000	2.5 U	1.7 U	1 U	3	38 J	DMETAL
B278	10/5/2011	150000	46	0.2 U	1 U	1 U	2500	170000	1 U	1 U	1 U	5.1	29	DMETAL
B278	4/5/2012	150000	19	0.036 UJ	0.79 UJ	2.7	1700 U	200000	1 U	1 U	1 U	4.1	20 U	DMETAL
B280A	9/16/2010	29000	15	0.03 U	1.6	0.77 J	1200 J	66000	2 U	0.5 U	2 U	2.4 J	5 U	METAL
B280A	4/14/2011	22000	8.3	0.2 U	1.9 UJ	1 U	570	48000	2.5 U	1.7 U	1 U	3.7	9 U	DMETAL
B280A	10/6/2011	25000 J	14	0.2 U	1.6 UJ	0.37 J	840	54000	0.31 J	1 U	1 U	4.8	8.9	DMETAL
B280A	4/3/2012	27000	6.6	0.2 U	1 U	1 U	730	62000	1 U	1 U	1 U	6.3	9 U	DMETAL
B280B	10/1/2010	25000	7.2	0.03 U	3.8	0.62 J	8900	130000	2 U	0.5 U	2 U	4 U	3.2 J	METAL
B280B	4/14/2011	20000	0.86 J	0.2 U	1.9 UJ	1 U	3900	87000	2.5 U	1.7 U	1 U	2.7	6.5 J	DMETAL
B280B	10/6/2011	21000 J	22	0.2 U	2.8	1 U	3000	72000	1 U	1 U	1 U	2.3	7.3	DMETAL
B280B	4/3/2012	20000	3.8	0.066 J	1 U	1 U	2900	78000	1 U	1 U	1 U	5.1	9 U	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
B300	9/9/2010	82000	110	0.03 U	1	2.8	4100	110000	2 U	0.5 U	2 U	4 U	5 U	METAL
B300	4/15/2011	160000	12000	0.2 U	1.9 UJ	0.8 J	9100 J	190000	0.4 J	1.7 U	1 U	0.73 J	9 U	DMETAL
B300	10/6/2011	5300 J	1400	0.11 UJ	20 U	23 U	13000	6500	20 U	20 U	10 U	12 J	1000	DMETAL
B300	4/9/2012	130000	9200	0.06 UJ	1 U	7.6	3800	140000	1 U	1 U	1 U	0.51 J	53	DMETAL
B38	9/15/2010	23000	37	0.03 U	0.58	3.9	1600 J	57000	2 U	0.5 U	2 U	4 U	3.6 J	METAL
B38	4/19/2011	18000	4.3	0.2 U	1 UJ	2.2 J	520	47000	2.5 U	1.7 U	1 U	2.6	11	DMETAL
B38	4/19/2011	18000	4	0.089 J	1 UJ	2.6 J	590	51000	2.5 U	1.7 U	1 U	2.7	40	DMETAL
B38	10/6/2011	15000 J	31	0.2 U	0.36 UJ	3.1	480	37000	1 U	1 U	1 U	3.1	8.6	DMETAL
B38	4/4/2012	17000	11	0.2 U	0.32 J	0.67 J	170 U	42000	0.46 UJ	1 U	1 U	3.5	6.5 J	DMETAL
B450	4/19/2011	43000	5.1	0.055 J	1.4 UJ	2.9 U	1800	73000	2.5 U	1.7 U	0.36 J	3.2	3.3 J	DMETAL
B450	4/19/2011	51000	22	0.099 J	1.4 J	1 U	2200	84000	2.5 U	1.7 U	0.48 J	3.5	9 U	METAL
B450	10/10/2011	35000	73	0.2 U	0.69 J	1.5	1400	52000	0.32 J	1 U	0.16 J	3.6	38	DMETAL
B450	4/6/2012	61000	1.4	0.2 U	1.4	1 U	2100	79000	1.7	1 U	1 U	2.6	17 J	DMETAL
B450	4/3/2013	40000	5.8	0.2 U	0.27 UJ	1 U	1400	47000	1 U	1 U	1 U	2.5	39	DMETAL
B460	9/15/2010	17000	500	0.03 U	0.65	2.8	3300	44000	2 U	0.5 U	2 U	4 U	8.2	METAL
B460	4/20/2011	18000 J	7.2	0.08 J	1.9 UJ	1.3 J	2900	45000	2.5 U	1.7 U	1 U	1.7 J	23	DMETAL
B460	10/7/2011	18000	270	0.2 U	1.5 UJ	0.75 J	1800	37000	1 U	1 U	1 U	1.4	7.1	DMETAL
B460	4/6/2012	15000	35	0.2 U	0.64 J	1 U	1000	36000	1 U	1 U	1 U	2.1	17 J	DMETAL
B473	9/24/2010	26000	42	0.03 U	0.95	2	1900 J	100000	2 U	0.5 U	2 U	4.1	23	METAL
B473	4/20/2011	44000 J	1.2 J	0.067 J	1.9 UJ	1.2 J	4000	99000	2.5 U	1.7 U	1 U	3.7	14	DMETAL
B473	10/7/2011	22000	0.55 UJ	0.2 U	0.38 UJ	1 U	1400	67000	1 U	1 U	1 U	3.7	8.4	DMETAL
B473	4/6/2012	18000	2.8	0.2 U	0.89 J	1 U	1000	59000	1 U	1 U	1 U	3.1	12 J	DMETAL
B474	9/23/2010	24000	540	0.024 J	2.1	5.3	3500	120000	2 U	0.5 U	2 U	2.4 J	6.4	METAL
B474	4/20/2011	27000 J	42	0.066 J	2.5 UJ	1.5 J	3000	81000	2.5 U	1.7 U	1 U	4.2	36	DMETAL
B474	4/20/2011	26000	55	0.2 UJ	3.1	1.7 J	2900	78000	2.5 U	1.7 U	0.057 J	3.7	9 U	METAL
B474	10/7/2011	10000	4 UJ	0.11 UJ	18	3.5	1500	20000	1 U	1 U	1 U	3.5	98	DMETAL
B474	10/7/2011	14000	66	0.22	21	6	2000	17000	0.31 J	1 U	1 U	4.6	17	METAL
B474	4/9/2012	16000	140	0.07 UJ	8.7	6.7	2300	16000	1 U	1 U	1 U	4.7	11 J	DMETAL
B474	4/9/2012	14000	140	0.038 J	9.5	6	2200	20000	0.45 J	1 U	1 U	1.7	16 J	METAL
B474	4/3/2013	12000	82	0.027 J	7.8	5.3	1600	14000	1 U	1 U	1 U	2.5	8.4 J	DMETAL
B480	9/24/2010	46000	480	0.03 U	1.5	2	3900	110000	2 U	0.5 U	2 U	2 J	3.3 J	METAL
B480	4/19/2011	39000	37	0.1 J	1.9 UJ	1.3 J	2200	86000	2.5 U	1.7 U	0.082 J	4.1	11	DMETAL
B480	10/7/2011	32000	42 UJ	0.2 U	1.3 UJ	2	1500	61000	0.37 J	1 U	1 U	3.8	30	DMETAL
B480	4/9/2012	50000	3.8	0.06 UJ	1 U	3.3	1700	92000	1 U	1 U	1 U	6.8	21	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
B480	4/3/2013	49000	11	0.2 U	0.38 UJ	1 U	1100	83000	1 U	1 U	1 U	4.7	9.1 J	DMETAL
B490	9/16/2010	54000	86	0.03 U	0.66	2.1	1600 J	55000	2 U	0.5 U	2 U	3.2 J	5 U	METAL
B490	4/20/2011	52000	1.4 J	0.2 U	1.9 UJ	1.1 J	860	56000	2.5 U	1.7 U	1 U	5.2	16	DMETAL
B490	10/10/2011	42000	11	0.2 U	1.2 UJ	0.37 J	500 U	50000	1 U	0.076 J	0.42 J	5.3	18	DMETAL
B490	4/9/2012	50000	4.9	0.049 UJ	0.33 J	2.5	510	53000	1 U	1 U	1 U	6.7	9.8 J	DMETAL
BULB1	10/19/2010	850000	5600	0.09	33	46	150000	7700000	8.6	5 U	20 U	10 U	20	METAL
BULB1	4/12/2011	670000	1300	0.2 UJ	5.5	4	190000	5700000	1 UJ	1 U	0.1 J	0.9 J	18	DMETAL
BULB1	4/12/2011	710000	2000	0.15 J	7.7	7.5	150000	6400000	0.6 J	1 U	0.39 J	1.3	38	METAL
BULB1	9/30/2011	1400000	950	0.2 U	6.5	5	230000	8200000	1 J	0.19 J	1 U	10	19	DMETAL
BULB1	9/30/2011	980000	750	0.09 J	4.7	1 U	300000	9700000	0.73 UJ	1 U	1 U	1.3	9 U	METAL
BULB1	4/5/2012	970000	640	0.2 U	6.5	2.7	270000	8000000	0.87 J	1 U	1 U	0.64 J	20 U	DMETAL
BULB1	4/5/2012	860000	510	0.043 J	6.2	1.4	260000	7300000	1.1 UJ	1 U	1 U	4.5	20 U	METAL
BULB1	4/5/2013	810000	450	0.039 J	3.5 UJ	1 U	230000	7000000	1 U	1 U	1 U	1.2	6.5 J	DMETAL
BULB2	10/19/2010	190000	5600	2.5	7.9	25	40000	1900000	3	0.5 U	2 U	2.8 J	22	METAL
BULB2	4/12/2011	21000	460	0.2 U	6.6	3.2	10000	400000	1 UJ	1 U	0.22 J	2.1	48	DMETAL
BULB2	4/12/2011	85000	2800	0.2 J	8.1	16	17000	740000	0.36 J	1 U	0.18 J	3.2	61	METAL
BULB2	9/30/2011	42000	760	0.2 U	7.3	2.5	7900	220000	1 U	1 U	1 U	4.9	15	DMETAL
BULB2	9/30/2011	44000	770	0.31	5.6	0.12 J	9100	240000	1 U	1 U	1 U	3.9	9 U	METAL
BULB2	4/5/2012	190000	1600	0.047 UJ	4.2	13	37000	1500000	1.3	1 U	1 U	2.8	8.8 J	DMETAL
BULB2	4/5/2012	200000 J	1400 J	0.099 J	5.9	5.3	30000	1500000 J	0.46 UJ	1 U	1 U	2.5	15 J	METAL
BULB2	4/5/2013	43000	770	0.026 J	6.4	1 U	10000	220000	1 U	1 U	1 U	1.1	20 U	DMETAL
CCC1	9/8/2010	17000	4.1	0.03 U	2.2	1.2	2500	98000	2 U	0.5 U	2 U	3.3 J	3.5 J	METAL
CCC1	4/14/2011	20000	18	0.047 J	2.4 UJ	1.4 J	1400	91000	2.5 U	1.7 U	0.11 J	3.6	9 UJ	DMETAL
CCC1	10/5/2011	23000 J	24	0.2 U	0.9 J	1 U	1300	89000	1 U	1 U	1 U	6.3	2.1 J	DMETAL
CCC1	4/10/2012	28000	7.7	0.043 UJ	0.24 J	3	1500	120000	0.28 J	1 U	1 U	3.9	17 J	DMETAL
CCC2	9/8/2010	32000	42	0.03 U	2.4	1.6	3600	120000	6.6	0.5 U	2 U	2 J	3.4 J	METAL
CCC2	4/14/2011	160000	69	0.2 U	1.9 U	38	2000	140000	5.4	1.7 U	0.62 J	0.82 J	55	DMETAL
CCC2	4/14/2011	180000	100	0.2 U	1 U	40	2100	160000	6.1	1 U	1 U	1.2	5.7 UJ	METAL
CCC2	10/4/2011	47000	110	0.05 UJ	0.85 UJ	1 U	1700	110000	6.8	1 U	1 U	2.4	13	DMETAL
CCC2	10/4/2011	46000	120	0.2 U	1.3 UJ	4	1700	99000	6.6	1 U	0.63 J	3	9 U	METAL
CCC2	4/10/2012	84000	200	0.059 UJ	1 U	11	1800	110000	3.5	1 U	1 U	2.3	49	DMETAL
CCC2	4/10/2012	72000	140	0.043 J	0.75 J	9	2000	89000	4.8	1 U	1 U	1.6	7 J	METAL
CCC2	4/2/2013	51000	5.7	0.2 U	0.34 UJ	4.2	1200	100000	9.6	0.16 J	1 U	2.2	8.7 J	DMETAL
CCC2	4/2/2013	50000	5.7	0.2 U	0.31 UJ	3	910	100000	8.5	1 U	1 U	2.3	11 J	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
CCC3	9/3/2010	47000	940	0.019 J	4	6.5	4200	110000	2 U	0.5 U	2 U	3.5 J	3.9 J	METAL
CCC3	9/3/2010	46000	1200	0.03 U	3.3	5.8	2800	99000	2 U	0.5 U	2 U	4 U	5 U	METAL
CCC3	4/12/2011	35000	31	0.2 U	1.1	1	2000	86000	1 U	1 U	1 U	3.1	13	DMETAL
CCC3	10/4/2011	45000	510	0.2 U	1.6 UJ	1 U	2000	91000	1 U	1 U	1 U	3.5	9 U	DMETAL
CCC3	10/4/2011	44000	520	0.058 UJ	2.3 UJ	1 U	1900	85000	1 U	1 U	1 U	3	9 U	DMETAL
CCC3	4/10/2012	46000	350	0.053 UJ	0.51 J	4.9	2500	95000	1 U	1 U	1 U	2.6	10 J	DMETAL
CCC3	4/2/2013	35000	24	0.024 J	1.6 UJ	1 U	1600	94000	0.31 J	0.4 J	1 U	3.4	20 U	DMETAL
CCCT	9/3/2010	81000	1400	0.015 J	2.5	6.6	5000	150000	2 U	0.5 U	2 U	4 U	3.3 J	METAL
CCCT	4/18/2011	68000	86	0.12 J	1.7	1 U	2300	120000	0.47 J	1.7 U	0.072 J	3.2 UJ	2.7 J	DMETAL
CCCT	10/3/2011	84000	210	0.091 UJ	1.6 UJ	1 U	1900	140000	0.26 J	1 U	1 U	1 U	53	DMETAL
CCCT	4/4/2012	91000	210	0.2 U	2.9	1.6	1500	140000	0.5 UJ	1 U	1 U	2.9	7.5 J	DMETAL
CTP	9/30/2010	27000	400	0.03 U	1.2	2.1	2000	76000	2 U	0.5 U	2 U	4 U	5 U	METAL
CTP	9/30/2010	28000	400	0.03 U	1.2	2.1	1700 J	76000	2 U	0.5 U	2 U	4 U	5 U	METAL
CTP	4/14/2011	28000	280	0.2 U	1.9 UJ	1 U	1500	52000	2.5 U	1.7 U	1 U	2.9	230	DMETAL
CTP	10/6/2011	26000 J	230	0.2 U	0.74 UJ	0.9 J	890	56000	0.17 J	1 U	1 U	2.9	63	DMETAL
CTP	4/3/2012	30000	110	0.2 U	1 U	1 U	1000	63000	0.67 UJ	1 U	1 U	1.9	57	DMETAL
CTP	4/4/2013	33000	37	0.2 U	0.78 UJ	2.3	760	67000	0.23 UJ	1 U	1 U	2.5	59	DMETAL
CTPS	9/30/2010	69000	1000	0.03 U	1.3	4.4	7500	150000	2 U	0.5 U	2 U	4 U	2.7 J	METAL
CTPS	4/19/2011	25000	6.8	0.2 U	1 UJ	1.7 J	1300	65000	2.5 U	1.7 U	1 U	0.94 J	11	DMETAL
CTPS	10/7/2011	30000	37 UJ	0.2 U	0.51 UJ	2.4	2000	78000	0.3 J	1 U	0.27 J	1.5	11	DMETAL
CTPS	4/5/2012	24000	1.7	0.023 UJ	0.57 UJ	3.1	430	62000	1 U	0.37 J	1 U	2.1	20 U	DMETAL
DH	9/30/2010	340000	1300	0.03 U	2.2	37	6700	520000	2 U	0.5 U	2 U	4 U	5	METAL
DH	4/14/2011	420000	980	0.2 U	1.9 UJ	39	5100	480000	2.5 U	1.7 U	1 U	2.8	17	DMETAL
DH	10/5/2011	560000 J	4500	0.2 U	0.21 J	14	4200	570000	1 U	1 U	1 U	2.4	41	DMETAL
DH	4/6/2012	390000	19000	0.066 J	1.6	56	7900	560000	1 U	1 U	1 U	2.2	25	DMETAL
DHR	4/4/2013	480000	970	0.025 J	0.95 UJ	7	25000	590000	0.46 UJ	1 U	1 U	1.1	29	DMETAL
EERC	10/1/2010	350000	5500	0.015 J	2.9	18	9800	480000	2 U	0.5 U	2 U	4 U	7.5	METAL
EERC	4/20/2011	330000 J	320	0.044 J	1.9 UJ	9.5 J	5000	520000	2.5 U	1.7 U	1 U	3.1	11	DMETAL
EERC	4/20/2011	330000	190	0.2 UJ	1.8 J	9.7	4300	570000	2.5 U	1.7 U	0.07 J	3.3	9 U	METAL
EERC	10/7/2011	270000	2900	0.2 U	1.7 UJ	9.9	2900	400000	0.71 J	1 U	1 U	1.2	5.4	DMETAL
EERC	10/7/2011	270000	3500	0.2 U	2.4	13	2800	430000	0.56 J	1 U	1 U	2.9	11	METAL
EERC	4/6/2012	270000	23	0.2 U	1.5	1 U	3300	440000	0.35 J	1 U	1 U	3.6	7.6 J	DMETAL
EERC	4/6/2012	260000	45	0.2 U	2.9	2.7	3500	430000	0.78 J	1 U	1 U	3.1	20 U	METAL
EERC	4/8/2013	330000	3100	0.2 U	1.4 UJ	1 U	1900	420000	1 U	1 U	1 U	0.45 J	20 U	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
EPA	9/16/2010	39000	700	0.017 J	2.5	2.1	5100	130000	2 U	0.5 U	2 U	4 U	6.2	METAL
EPA	4/19/2011	39000	130	0.2 U	2 UJ	1.3 J	2700	150000	2.5 U	1.7 U	1 U	1.8	4.5 J	DMETAL
EPA	10/6/2011	37000 J	390	0.2 U	1.8 UJ	1 U	2200	120000	0.24 J	1 U	1 U	2.5	11	DMETAL
EPA	4/6/2012	48000	520	0.2 U	1.4	1 U	1700	150000	1 U	1 U	1 U	1	15 J	DMETAL
EPA	4/6/2012	45000	410	0.2 U	1.4	1 U	1300	160000	1 U	1 U	1 U	1.3	8.1 J	DMETAL
ETA	9/24/2010	86000	4600	2.3	2.7	10	1900 J	150000	2 U	0.5 U	2 U	5.4	110	METAL
ETA	9/24/2010	86000	4600	1.3	2.9	4.9	1600 J	150000	2 U	0.5 U	2 U	4 U	50	METAL
ETA	4/12/2011	81000	4000	0.2 U	4.3	2.8	1300	130000	1 U	1 U	0.3 J	0.55 J	47	DMETAL
ETA	4/12/2011	89000	4300	1.6	4.9	6.3	1800	130000	0.15 J	1 U	1 U	3.9	95	METAL
ETA	9/30/2011	81000	5000	0.2 U	2.1 UJ	3.6	900	150000	0.8 J	0.06 J	1 U	13	47	DMETAL
ETA	9/30/2011	84000	4800	1.6	1.8	4.3 J	980	160000	1 U	1 U	1 U	2.2	61	METAL
ETA	4/10/2012	130000	5100	0.083 UJ	1.8	3.8	1300	190000	1 U	1 U	1 U	0.99 J	57	DMETAL
ETA	4/10/2012	90000	4900	0.78	3	4	780	110000	1 U	0.74 J	0.28 J	1.1	54	METAL
ETA	4/10/2012	110000	4800	0.095 UJ	2	3.6	1200	170000	1 U	1 U	1 U	1.1	55	DMETAL
ETA	4/10/2012	87000	4900	0.64	3	3.9	1200	110000	1 U	1 U	1 U	0.96 J	49	METAL
ETA	4/5/2013	92000	5400	0.2 U	3.2 UJ	1 U	770	140000	1 U	1 U	1 U	0.52 J	40	DMETAL
FG	9/23/2010	130000	4200	0.015 J	0.93	130	2700	130000	8 U	0.5 U	2 U	91	170	METAL
FG	4/19/2011	33000	28	0.063 J	1 UJ	2.7 J	800	83000	2.5 U	1.7 U	1 U	1.9	29	DMETAL
FG	4/19/2011	35000	70	0.14 J	1.1 J	7.3	1200	91000	2.5 U	1.7 U	0.21 J	5.8	9 U	METAL
FG	4/19/2011	31000	31	0.057 J	1 UJ	0.26 J	810	79000	2.5 U	1.7 U	1 U	1.8	29	DMETAL
FG	4/19/2011	35000	84	0.1 J	1.9 U	6.7	1000	87000	2.5 U	1.7 U	0.15 J	4.2	9 U	METAL
FG	10/10/2011	50000	93	0.2 U	0.73 UJ	3.8	2100	94000	0.19 J	1 U	1 U	2	31	DMETAL
FG	10/10/2011	54000	160	0.2 U	0.66 J	4.9	1200	100000	0.21 J	1 U	1 U	1.8	10	METAL
FG	4/9/2012	29000	1.8	0.032 UJ	1 U	1 U	420	75000	0.28 J	1 U	1 U	4.2	20 U	DMETAL
FG	4/9/2012	27000	13	0.2 U	0.8 UJ	2.1	810	73000	1 U	1 U	1 U	1.9	20 U	METAL
FG	4/3/2013	33000	4.8	0.2 U	2.4	2.8	1100	83000	0.73 UJ	1 U	1 U	1.7	13 J	DMETAL
GEO	9/3/2010	30000	43	0.03 U	2.6	1.5	2800	85000	2 U	0.5 U	2 U	2.5 J	5 U	METAL
GEO	4/20/2011	31000 J	440	0.071 J	4.5 UJ	6.2 J	3700	69000	2.5 U	1.7 U	0.17 J	3.2	58	DMETAL
GEO	10/6/2011	25000 J	230	0.2 U	3.4	1.5	1900	54000	0.32 J	1 U	1 U	4	26	DMETAL
GEO	4/6/2012	33000	27	0.2 U	1.6	1 U	810	71000	1 U	1 U	1 U	4.6	36	DMETAL
MFA	9/24/2010	61000	580	0.18	5.2	7.9	1400 J	150000	2 U	0.5 U	2 U	3.9 J	4.4 J	METAL
MFA	4/12/2011	37000	230	0.2 UJ	4.2	7.1	510	99000	1 UJ	1 U	1 U	4.6	39	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
MFA	10/3/2011	60000	410	0.82	4.1 J	16	450	120000	0.23 J	1 U	1 U	3.3	8.2 J	DMETAL
MFA	4/5/2012	43000	270	0.52	5.4	9.4	200	130000	1 U	1 U	0.21 J	6.4	20 U	DMETAL
NRLF	9/16/2010	26000	440	0.03 U	1.1	1.9	2400	57000	2 U	0.5 U	2 U	4 U	5 U	METAL
NRLF	4/20/2011	30000 J	640	0.2 U	1.9 UJ	2.9 UJ	2700	81000	2.5 U	1.7 U	1 U	0.92 J	83	DMETAL
NRLF	10/6/2011	22000 J	110	0.2 U	1 UJ	0.31 J	920	42000	1 U	1 U	1 U	2.8	22	DMETAL
NRLF	4/9/2012	25000	210	0.053 UJ	1 U	4.9	1300	54000	1 U	1 U	1 U	0.89 J	11 J	DMETAL
NRLF	4/3/2013	27000	920	0.2 U	1 U	1.1	1200	58000	1 U	1 U	1 U	1 U	13 J	DMETAL
PZ11	10/1/2010	210000	1700	0.03 U	3.8	140	1100 J	170000	2 U	0.5 U	2 U	3.8 J	430	METAL
PZ11	4/20/2011	290000 J	11000	0.08 J	1.9 UJ	1700 J	350	180000	2.5 U	1.7 U	1 U	1.7 U	10000	DMETAL
PZ11	4/20/2011	290000	13000	0.23 UJ	1.9 U	2400	430	200000	2.5 U	1.7 U	0.1 J	1.7 U	13000	METAL
PZ11	10/10/2011	250000	3200	0.2 U	3.4	300	730	150000	0.22 J	1 U	1 U	4.4	740	DMETAL
PZ11	10/10/2011	270000	3700	0.2 U	3.6	340	490	160000	1 U	1 U	1 U	3.8	810	METAL
PZ11	4/5/2012	200000	6600	0.049 UJ	1 U	1400	170 U	170000	0.35 J	1 U	1 U	1	7600	DMETAL
PZ11	4/5/2012	180000	5400	0.03 J	0.41 UJ	1200	170 U	160000	0.48 UJ	1 U	1 U	0.4 J	6600	METAL
PZ11	4/5/2013	290000	4900	0.2 U	3.8 UJ	580	730	180000	0.78 J	1 U	1 U	2.1	1700	DMETAL
PZ11	4/5/2013	310000	5200	0.2 U	2 UJ	640	710	180000	1 U	1 U	1 U	2.5	1700	DMETAL
PZ8	10/15/2010	40000	27	0.03 UJ	0.49 J	2.5	2000 U	66000	2 U	0.5 U	2 U	3.5 J	3.4 J	METAL
PZ8	4/18/2011	31000	2.9	0.04 J	0.56 J	1 U	800	53000	0.26 J	1.7 U	1 U	4.1	5 U	DMETAL
PZ8	10/4/2011	40000	0.73 J	0.07 UJ	0.56 UJ	0.87 J	490	62000	0.26 J	0.099 J	1 U	4.2	9 U	DMETAL
PZ8	4/3/2012	42000	4.5	0.2 U	1 U	1 U	130 J	56000	0.44 J	1 U	1 U	3.1	9 U	DMETAL
PZ8	4/8/2013	41000	2.3	0.2 U	1 U	1 U	700	59000	0.29 J	1 U	1 U	3.8	7.7 J	DMETAL
PZ9	9/24/2010	36000	260	0.17	0.95	3.5	2000 U	54000	2 U	0.5 U	2 U	2.3 J	4.9 J	METAL
PZ9	4/20/2011	34000 J	1900	0.2 U	1.9 UJ	5.3 J	330	45000	2.5 U	1.7 U	1 U	2.1	10	DMETAL
PZ9	10/7/2011	31000	190	0.022 UJ	0.54 UJ	2.7	560	42000	1 U	1 U	1 U	3.8	69	DMETAL
PZ9	10/7/2011	32000	200	0.2 U	0.64 UJ	1 U	570	43000	1 U	1 U	1 U	3.6	60	DMETAL
PZ9	4/6/2012	44000	2900 J	0.026 J	1.7	1 U	170 U	53000	1 U	1 U	1 U	0.47 J	8.3 J	DMETAL
RWF	9/15/2010	60000	88	0.03 U	0.71	2.8	2000	77000	2 U	0.5 U	2 U	2.1 J	3.8 J	METAL
RWF	4/18/2011	55000	3.1	0.2 U	1	1 U	1100	75000	0.21 J	1.7 U	1 U	2.6 UJ	9 U	DMETAL
RWF	10/6/2011	53000 J	19	0.2 U	0.52 UJ	0.78 J	1000	61000	0.54 J	1 U	1 U	3.7	29	DMETAL
RWF	4/4/2012	57000	290	0.029 J	0.86 J	2.9	2300	70000	1 U	1 U	1 U	3.9	120	DMETAL
TP1	9/29/2010	60000	260	0.33	1.3	5.8	2000	92000	2 U	0.5 U	2 U	2.3 J	7.2	METAL
TP1	4/18/2011	94000	980	0.17 J	1.9	1 U	3900	210000	0.21 J	1.7 U	1 U	1.7 UJ	5.5 J	DMETAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

METALS (µg/L)

Location ID	Sample Date	MAGNESIUM	MANGANSES	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SODIUM	SELENIUM	SILVER	THALLIUM	VANADIUM	ZINC	ANLYGRP
TP1	10/7/2011	60000	420	0.056 UJ	0.65 UJ	11	980	71000	1 U	1 U	1 U	1.8	12	DMETAL
TP1	4/5/2012	120000	3400	0.2 UJ	2.7	20	1300	290000	1 U	1 U	1 U	1.1	20 U	DMETAL
TP1	4/4/2013	94000	3300	0.028 J	0.8 UJ	1 U	700	110000	1 U	1 U	1 U	1 U	12 J	DMETAL
TP2	9/29/2010	72000	120	0.03 U	1.1	8.6	1600 J	88000	2 U	0.5 U	2 U	2.9 J	5 U	METAL
TP2	4/18/2011	56000	3.3	0.2 U	0.82 J	1 U	2300	75000	0.78 J	1.7 U	1 U	3.9	4.2 J	DMETAL
TP2	10/7/2011	67000	5.1 UJ	0.2 U	0.68 UJ	1 U	1300	73000	0.17 J	1 U	0.11 J	3.4	42	DMETAL
TP2	4/9/2012	66000	5.4	0.054 UJ	1 U	4.1	1800	75000	1 U	1 U	1 U	5.7	8.5 J	DMETAL
TP2	4/9/2012	67000	6.1	0.058 UJ	1 U	3.4	1500	79000	0.28 J	1 U	1 U	6.8	8.7 J	DMETAL
WTA	9/30/2010	66000	48	0.03 U	1.4	1.5	2100	150000	2 U	0.5 U	2 U	3 J	5 U	METAL
WTA	4/14/2011	61000	21	0.2 U	1.9 UJ	0.97 J	1100	120000	2.5 U	1.7 U	0.093 J	3.8	4.3 J	DMETAL
WTA	4/14/2011	63000	31	0.041 J	1 UJ	2.9 U	1200	130000	1 U	1 U	1 U	4.1	5 UJ	METAL
WTA	4/14/2011	61000	20	0.2 U	1.9 UJ	1 J	1100	120000	2.5 U	1.7 U	0.1 J	4.1	9 U	DMETAL
WTA	4/14/2011	64000	29	0.042 J	1 UJ	2.9 U	1200	130000	1 U	1 U	1 U	4.1	9 U	METAL
WTA	10/5/2011	64000 J	93	0.2 U	0.25 J	1 U	1300	140000	1 U	1 U	1 U	4.1	5 U	DMETAL
WTA	10/5/2011	67000 J	120 J	0.2 U	1.2	2.7 UJ	1100	130000	0.66 J	1 U	0.15 J	5.2	5.6	METAL
WTA	4/5/2012	60000	26	0.03 UJ	1.3 UJ	1.1	990	150000	1 U	1 U	1 U	5.1	20 U	DMETAL
WTA	4/5/2012	55000	46	0.2 U	1.5 UJ	1 U	500	140000	0.97 UJ	1 U	1 U	3.9	6.7 J	METAL

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B120	9/9/2010	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
B120	4/15/2011	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
B120	10/4/2011	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
B120	4/3/2012	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
B120	4/2/2013	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
B121	9/8/2010	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
B121	4/13/2011	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
B121	10/4/2011	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
B121	4/4/2012	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
B128	9/23/2010	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
B128	9/23/2010	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
B128	4/18/2011	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
B128	10/4/2011	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
B128	4/2/2012	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
B150	9/8/2010	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
B150	4/13/2011	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
B150	10/5/2011	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
B150	10/5/2011	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
B150	4/4/2012	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
B150	4/4/2012	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
B158	9/8/2010	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
B158	4/15/2011	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
B158	10/5/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B158	4/6/2012	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
B163	9/2/2010	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
B163	4/12/2011	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
B163	10/3/2011	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
B163	4/2/2012	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
B163	4/3/2013	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
B175S	9/3/2010	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
B175S	4/13/2011	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
B175S	10/4/2011	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
B175S	4/4/2012	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
B175S	4/2/2013	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
B175W	9/8/2010	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
B175W	4/13/2011	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
B175W	10/4/2011	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
B175W	4/4/2012	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
B175W	4/2/2013	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
B177	9/23/2010	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
B177	4/18/2011	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
B177	10/5/2011	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
B177	4/4/2012	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
B178	9/2/2010	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
B178	4/15/2011	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
B178	10/4/2011	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
B178	4/3/2012	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

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
B178	4/2/2013	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
B180	9/15/2010	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
B180	4/13/2011	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
B180	10/6/2011	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
B180	10/6/2011	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
B180	4/4/2012	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
B185	9/2/2010	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
B185	4/15/2011	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
B185	4/15/2011	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
B185	10/3/2011	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
B185	10/3/2011	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
B185	4/2/2012	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
B185	4/2/2013	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
B194	9/9/2010	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
B194	4/13/2011	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
B194	10/4/2011	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
B194	4/4/2012	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
B195	9/9/2010	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
B195	4/13/2011	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
B195	4/13/2011	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
B195	10/4/2011	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
B195	4/3/2012	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
B195	4/2/2013	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
B195	4/2/2013	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B197	9/9/2010	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
B197	9/9/2010	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
B197	4/13/2011	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
B197	10/4/2011	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
B197	4/3/2012	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
B197	4/3/2012	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
B197R	4/8/2013	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
B277	9/15/2010	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
B277	4/18/2011	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
B277	10/5/2011	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
B277	4/3/2012	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
B277	4/4/2013	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
B278	9/16/2010	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
B278	4/19/2011	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
B278	10/5/2011	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
B278	4/5/2012	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
B278	4/4/2013	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
B280A	9/16/2010	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
B280A	4/14/2011	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
B280A	10/6/2011	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
B280A	4/3/2012	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
B280A	4/4/2013	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
B280B	10/1/2010	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
B280B	4/14/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		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
B280B	10/6/2011	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
B280B	4/3/2012	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
B300	9/9/2010	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
B300	4/15/2011	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
B300	10/6/2011	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
B300	4/9/2012	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
B38	9/15/2010	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
B38	4/19/2011	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
B38	4/19/2011	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
B38	10/6/2011	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
B38	4/4/2012	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
B450	4/19/2011	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
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
B450	4/6/2012	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
B450	4/3/2013	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
B460	9/15/2010	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
B460	4/20/2011	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
B460	10/7/2011	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
B460	4/6/2012	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
B473	9/24/2010	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
B473	4/20/2011	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
B473	10/7/2011	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
B473	4/6/2012	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
B473	4/3/2013	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

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
B474	9/23/2010	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
B474	4/20/2011	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
B474	10/7/2011	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
B474	4/9/2012	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
B480	9/24/2010	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
B480	4/19/2011	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
B480	10/7/2011	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
B480	4/9/2012	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
B480	4/3/2013	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
B490	9/16/2010	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
B490	4/20/2011	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
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
B490	4/9/2012	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
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
BULB1	4/12/2011	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
BULB1	9/30/2011	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
BULB1	4/5/2012	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
BULB1	4/5/2013	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
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
BULB2	4/12/2011	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
BULB2	9/30/2011	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
BULB2	4/5/2012	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
BULB2	4/5/2013	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
CCC1	9/8/2010	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
CCC1	4/14/2011	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
CCC1	10/5/2011	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
CCC1	4/10/2012	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
CCC2	9/8/2010	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
CCC2	4/14/2011	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
CCC2	10/4/2011	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
CCC2	4/10/2012	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
CCC2	4/2/2013	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
CCC2	4/2/2013	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
CCC3	9/3/2010	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
CCC3	9/3/2010	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
CCC3	4/12/2011	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
CCC3	10/4/2011	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
CCC3	10/4/2011	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
CCC3	4/10/2012	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
CCC3	4/2/2013	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
CCCT	9/3/2010	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
CCCT	4/18/2011	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
CCCT	10/3/2011	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
CCCT	4/4/2012	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
CCCT	4/2/2013	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
CTP	9/30/2010	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
CTP	9/30/2010	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
CTP	4/14/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
CTP	10/6/2011	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
CTP	4/3/2012	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
CTP	4/4/2013	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
CTPS	9/30/2010	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
CTPS	4/19/2011	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
CTPS	10/7/2011	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
CTPS	4/5/2012	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
DH	9/30/2010	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
DH	4/14/2011	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
DH	10/5/2011	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
DH	4/5/2012	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
EERC	10/1/2010	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
EERC	4/20/2011	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
EERC	10/7/2011	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
EERC	4/6/2012	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
EERC	4/8/2013	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
EPA	9/16/2010	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
EPA	4/19/2011	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
EPA	10/6/2011	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
EPA	4/6/2012	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
EPA	4/6/2012	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
EPA	4/4/2013	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
ETA	9/24/2010	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
ETA	9/24/2010	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
ETA	4/12/2011	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
ETA	9/30/2011	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
ETA	4/10/2012	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
ETA	4/10/2012	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
ETA	4/5/2013	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
FG	9/23/2010	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
FG	4/19/2011	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
FG	4/19/2011	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
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
FG	4/9/2012	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
GEO	9/3/2010	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
GEO	4/20/2011	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
GEO	10/6/2011	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
GEO	4/6/2012	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
GEO	4/4/2013	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
MFA	9/24/2010	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
MFA	4/12/2011	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
MFA	10/3/2011	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
MFA	4/5/2012	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
MFA	4/5/2013	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
NRLF	9/16/2010	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
NRLF	4/20/2011	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
NRLF	10/6/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
NRLF	4/9/2012	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
PZ11	10/1/2010	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
PZ11	4/20/2011	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
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
PZ11	4/5/2012	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
PZ11	4/5/2013	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
PZ11	4/5/2013	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
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
PZ8	4/18/2011	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
PZ8	10/4/2011	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
PZ8	4/3/2012	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
PZ9	9/24/2010	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
PZ9	4/20/2011	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
PZ9	10/7/2011	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
PZ9	10/7/2011	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
PZ9	4/6/2012	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
PZ9	4/3/2013	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
RWF	9/15/2010	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
RWF	4/18/2011	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
RWF	10/6/2011	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
RWF	4/4/2012	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
RWF	4/8/2013	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
TP1	9/29/2010	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
TP1	4/18/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
TP1	10/7/2011	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
TP1	4/5/2012	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
TP1	4/4/2013	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
TP2	9/29/2010	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
TP2	4/18/2011	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
TP2	10/7/2011	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
TP2	4/9/2012	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
TP2	4/9/2012	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
TP2	4/4/2013	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
WTA	9/30/2010	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
WTA	4/14/2011	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
WTA	4/14/2011	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
WTA	10/5/2011	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
WTA	4/5/2012	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
WTA	4/5/2013	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)												
Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B120	9/9/2010	0.6	0.5 U	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
B120	4/15/2011	0.5 J	1.3 U	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
B120	10/4/2011	0.6 J	2 U	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U
B120	4/3/2012	0.6 J	1.3 U	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
B120	4/2/2013	2 U	2 U	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U
B121	9/8/2010	0.5 U	0.5 U	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
B121	4/13/2011	0.5 U	0.5 U	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
B121	10/4/2011	0.5 U	0.5 U	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
B121	4/4/2012	0.5 U	0.5 U	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
B128	9/23/2010	0.5 U	0.5 U	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
B128	9/23/2010	0.5 U	0.5 U	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
B128	4/18/2011	0.5 U	0.5 U	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
B128	10/4/2011	0.5 U	0.5 U	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
B128	4/2/2012	0.5 U	0.5 U	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
B150	9/8/2010	0.5 U	0.5 U	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
B150	4/13/2011	0.5 U	0.5 U	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
B150	10/5/2011	0.5 U	0.5 U	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
B150	10/5/2011	0.5 U	0.5 U	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
B150	4/4/2012	0.5 U	0.5 U	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
B150	4/4/2012	0.5 U	0.5 U	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
B158	9/8/2010	0.5 U	0.5 U	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
B158	4/15/2011	0.5 U	0.5 U	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
B158	10/5/2011	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B158	4/6/2012	0.5 U	0.5 U	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
B163	9/2/2010	8.5	0.5 U	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
B163	4/12/2011	9	0.5 U	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
B163	10/3/2011	7.1	0.5 U	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
B163	4/2/2012	8.2	0.5 U	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
B163	4/3/2013	8	0.5 U	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
B175S	9/3/2010	0.5 U	0.5 U	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
B175S	4/13/2011	0.5 U	0.5 U	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
B175S	10/4/2011	0.5 U	0.5 U	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
B175S	4/4/2012	0.5 U	0.5 U	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
B175S	4/2/2013	0.5 U	0.5 U	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
B175W	9/8/2010	0.5 U	0.5 U	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
B175W	4/13/2011	0.5 U	0.5 U	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
B175W	10/4/2011	0.5 U	0.5 U	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
B175W	4/4/2012	0.5 U	0.5 U	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
B175W	4/2/2013	0.5 U	0.5 U	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
B177	9/23/2010	0.5 U	0.5 U	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
B177	4/18/2011	0.5 U	0.5 U	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
B177	10/5/2011	0.5 U	0.5 U	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
B177	4/4/2012	0.5 U	0.5 U	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
B178	9/2/2010	0.5	0.5 U	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
B178	4/15/2011	0.4 J	1.3 U	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
B178	10/4/2011	0.5 J	1.3 U	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
B178	4/3/2012	0.5 J	1.7 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B178	4/2/2013	0.6 J	1.3 U	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
B180	9/15/2010	0.5 U	0.5 U	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
B180	4/13/2011	0.5 U	0.5 U	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
B180	10/6/2011	0.5 U	0.5 U	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
B180	10/6/2011	0.5 U	0.5 U	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
B180	4/4/2012	0.5 U	0.5 U	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
B185	9/2/2010	1.4	0.5 U	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
B185	4/15/2011	1	0.7 U	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
B185	4/15/2011	1.3	0.5 U	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
B185	10/3/2011	1.6	0.5 U	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
B185	10/3/2011	1.1	0.7 U	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
B185	4/2/2012	1.1	0.5 U	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
B185	4/2/2013	1.8	0.5 U	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
B194	9/9/2010	0.5 U	0.5 U	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
B194	4/13/2011	0.5 U	0.5 U	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
B194	10/4/2011	0.5 U	0.5 U	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
B194	4/4/2012	0.5 U	0.5 U	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
B195	9/9/2010	1	0.5 U	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
B195	4/13/2011	0.3 J	0.5 U	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
B195	4/13/2011	0.2 J	0.7 U	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
B195	10/4/2011	0.7 J	1.3 U	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
B195	4/3/2012	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 UJ
B195	4/2/2013	0.6	0.5 U	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
B195	4/2/2013	0.6	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B197	9/9/2010	0.5	0.5 U	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
B197	9/9/2010	0.5	0.5 U	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
B197	4/13/2011	1.7 U	1.7 U	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
B197	10/4/2011	0.4 J	1.7 U	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
B197	4/3/2012	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 UJ
B197	4/3/2012	0.7 J	1 U	1 U	1 U	1 U	1 U	1 U	20 U	1 U	20 U	1 U	20 U	20 U
B197R	4/8/2013	0.7	0.5 U	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
B277	9/15/2010	0.5 U	0.5 U	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
B277	4/18/2011	0.5 U	0.5 U	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
B277	10/5/2011	0.5 U	0.5 U	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
B277	4/3/2012	0.5 U	0.5 U	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
B277	4/4/2013	0.5 U	0.5 U	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
B278	9/16/2010	0.5 U	0.5 U	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
B278	4/19/2011	0.5 U	0.5 U	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
B278	10/5/2011	0.5 U	0.5 U	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
B278	4/5/2012	0.5 U	0.5 U	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
B278	4/4/2013	0.5 U	0.5 U	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
B280A	9/16/2010	0.5 U	0.5 U	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
B280A	4/14/2011	0.5 U	0.5 U	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
B280A	10/6/2011	0.5 U	0.5 U	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
B280A	4/3/2012	0.5 U	0.5 U	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
B280A	4/4/2013	0.5 U	0.5 U	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
B280B	10/1/2010	0.5 U	0.5 U	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
B280B	4/14/2011	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B280B	10/6/2011	0.5 U	0.5 U	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
B280B	4/3/2012	0.5 U	0.5 U	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
B300	9/9/2010	0.5 U	0.5 U	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
B300	4/15/2011	0.5 U	0.5 U	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
B300	10/6/2011	0.5 U	0.5 U	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
B300	4/9/2012	0.5 U	0.5 U	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
B38	9/15/2010	0.5 U	0.5 U	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
B38	4/19/2011	0.5 U	0.5 U	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
B38	4/19/2011	0.5 U	0.5 U	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
B38	10/6/2011	0.5 U	0.5 U	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
B38	4/4/2012	0.5 U	0.5 U	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
B450	4/19/2011	0.5 U	0.5 U	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
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	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ
B450	4/6/2012	0.5 U	0.5 U	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
B450	4/3/2013	0.5 U	0.5 U	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
B460	9/15/2010	0.5 U	0.5 U	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
B460	4/20/2011	0.5 U	0.5 U	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
B460	10/7/2011	0.5 U	0.5 U	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
B460	4/6/2012	0.5 U	0.5 U	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
B473	9/24/2010	0.5 U	0.5 U	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
B473	4/20/2011	0.5 U	0.5 U	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
B473	10/7/2011	0.5 U	0.5 U	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
B473	4/6/2012	0.5 U	0.5 U	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
B473	4/3/2013	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)												
Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
B474	9/23/2010	0.5 U	0.5 U	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
B474	4/20/2011	0.5 U	0.5 U	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
B474	10/7/2011	0.5 U	0.5 U	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
B474	4/9/2012	0.5 U	0.5 U	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
B480	9/24/2010	0.5 U	0.5 U	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
B480	4/19/2011	0.5 U	0.5 U	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
B480	10/7/2011	0.5 U	0.5 U	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
B480	4/9/2012	0.5 U	0.5 U	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
B480	4/3/2013	0.5 U	0.5 U	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
B490	9/16/2010	0.5 U	0.5 U	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
B490	4/20/2011	0.5 U	0.5 U	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
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	10 U	0.5 U	10 U	0.5 U	10 U	10 UJ
B490	4/9/2012	0.5 U	0.5 U	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
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	4 U	0.5 U	NA	0.5 U	NA	2.3 J
BULB1	4/12/2011	0.5 U	0.5 U	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
BULB1	9/30/2011	0.5 U	0.5 U	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
BULB1	4/5/2012	0.5 U	0.5 U	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
BULB1	4/5/2013	0.5 U	0.5 U	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
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	4 U	0.5 U	NA	0.5 U	NA	3.3 J
BULB2	4/12/2011	0.5 U	0.5 U	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
BULB2	9/30/2011	0.5 U	0.5 U	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
BULB2	4/5/2012	0.5 U	0.5 U	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
BULB2	4/5/2013	0.5 U	0.5 U	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
CCC1	9/8/2010	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
CCC1	4/14/2011	0.5 U	0.5 U	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
CCC1	10/5/2011	0.5 U	0.5 U	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
CCC1	4/10/2012	0.5 U	0.5 U	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
CCC2	9/8/2010	0.5 U	0.5 U	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
CCC2	4/14/2011	0.5 U	0.5 U	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
CCC2	10/4/2011	0.5 U	0.5 U	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
CCC2	4/10/2012	0.5 U	0.5 U	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
CCC2	4/2/2013	0.5 U	0.5 U	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
CCC2	4/2/2013	0.5 U	0.5 U	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
CCC3	9/3/2010	0.5 U	0.5 U	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
CCC3	9/3/2010	0.5 U	0.5 U	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
CCC3	4/12/2011	0.5 U	0.5 U	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
CCC3	10/4/2011	0.5 U	0.5 U	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
CCC3	10/4/2011	0.5 U	0.5 U	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
CCC3	4/10/2012	0.5 U	0.5 U	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
CCC3	4/2/2013	0.5 U	0.5 U	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
CCCT	9/3/2010	0.2 J	0.5 U	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
CCCT	4/18/2011	0.2 J	0.5 U	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
CCCT	10/3/2011	0.2 J	0.5 U	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
CCCT	4/4/2012	0.2 J	0.5 U	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
CCCT	4/2/2013	0.2 J	0.5 U	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
CTP	9/30/2010	0.5 U	0.5 U	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
CTP	9/30/2010	0.5 U	0.5 U	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
CTP	4/14/2011	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
CTP	10/6/2011	0.5 U	0.5 U	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
CTP	4/3/2012	0.5 U	0.5 U	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
CTP	4/4/2013	0.5 U	0.5 U	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
CTPS	9/30/2010	0.5 U	0.5 U	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
CTPS	4/19/2011	0.5 U	0.5 U	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
CTPS	10/7/2011	0.5 U	0.5 U	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
CTPS	4/5/2012	0.5 U	0.5 U	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
DH	9/30/2010	0.5 U	0.5 U	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
DH	4/14/2011	0.5 U	0.5 U	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
DH	10/5/2011	0.5 U	0.5 U	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
DH	4/5/2012	0.5 U	0.5 U	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
EERC	10/1/2010	0.5 U	0.5 U	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
EERC	4/20/2011	0.5 U	0.5 U	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
EERC	10/7/2011	0.5 U	0.5 U	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
EERC	4/6/2012	0.5 U	0.5 U	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
EERC	4/8/2013	0.5 U	0.5 U	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
EPA	9/16/2010	0.5 U	0.5 U	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
EPA	4/19/2011	0.5 U	0.5 U	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
EPA	10/6/2011	0.5 U	0.5 U	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
EPA	4/6/2012	0.5 U	0.5 U	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
EPA	4/6/2012	0.5 U	0.5 U	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
EPA	4/4/2013	0.5 U	0.5 U	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
ETA	9/24/2010	0.5 U	0.5 U	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
ETA	9/24/2010	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
ETA	4/12/2011	0.5 U	0.5 U	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
ETA	9/30/2011	0.2 J	0.5 U	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
ETA	4/10/2012	0.5 U	0.5 U	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
ETA	4/10/2012	0.5 U	0.5 U	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
ETA	4/5/2013	0.2 J	0.5 U	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
FG	9/23/2010	0.5 U	0.5 U	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
FG	4/19/2011	0.5 U	0.5 U	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
FG	4/19/2011	0.5 U	0.5 U	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
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	10 U	0.5 U	10 U	0.5 U	10 U	10 U
FG	4/9/2012	0.5 U	0.5 U	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
GEO	9/3/2010	0.5 U	0.5 U	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
GEO	4/20/2011	0.5 U	0.5 U	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
GEO	10/6/2011	0.5 U	0.5 U	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
GEO	4/6/2012	0.5 U	0.5 U	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
GEO	4/4/2013	0.5 U	0.5 U	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
MFA	9/24/2010	0.5 U	0.5 U	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
MFA	4/12/2011	0.5 U	0.5 U	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
MFA	10/3/2011	0.5 U	0.5 U	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
MFA	4/5/2012	0.5 U	0.5 U	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
MFA	4/5/2013	0.5 U	0.5 U	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
NRLF	9/16/2010	0.5 U	0.5 U	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
NRLF	4/20/2011	0.5 U	0.5 U	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
NRLF	10/6/2011	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
NRLF	4/9/2012	0.5 U	0.5 U	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
PZ11	10/1/2010	0.5 U	0.5 U	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
PZ11	4/20/2011	0.5 U	0.5 U	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
PZ11	10/10/2011	3.1 U	3.1 U	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
PZ11	4/5/2012	0.5 U	0.5 U	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
PZ11	4/5/2013	1.3 U	1.3 U	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
PZ11	4/5/2013	2 U	2 U	2 U	2 U	2 U	2 U	2 U	40 U	2 U	40 U	2 U	40 U	40 U
PZ8	10/15/2010	0.5 U	0.5 U	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
PZ8	4/18/2011	0.5 U	0.5 U	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
PZ8	10/4/2011	0.5 U	0.5 U	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
PZ8	4/3/2012	0.5 U	0.5 U	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
PZ9	9/24/2010	0.5 U	0.5 U	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
PZ9	4/20/2011	0.5 U	0.5 U	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
PZ9	10/7/2011	0.5 U	0.5 U	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
PZ9	10/7/2011	0.5 U	0.5 U	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
PZ9	4/6/2012	0.5 U	0.5 U	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
PZ9	4/3/2013	0.5 U	0.5 U	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
RWF	9/15/2010	0.5 U	0.5 U	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
RWF	4/18/2011	0.5 U	0.5 U	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
RWF	10/6/2011	0.5 U	0.5 U	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
RWF	4/4/2012	0.5 U	0.5 U	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
RWF	4/8/2013	0.5 U	0.5 U	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
TP1	9/29/2010	0.5 U	0.5 U	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
TP1	4/18/2011	0.5 U	0.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	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
TP1	10/7/2011	0.5 U	0.5 U	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
TP1	4/5/2012	0.5 U	0.5 U	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
TP1	4/4/2013	0.5 U	0.5 U	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
TP2	9/29/2010	0.5 U	0.5 U	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
TP2	4/18/2011	0.5 U	0.5 U	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
TP2	10/7/2011	0.5 U	0.5 U	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
TP2	4/9/2012	0.5 U	0.5 U	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
TP2	4/9/2012	0.5 U	0.5 U	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
TP2	4/4/2013	0.5 U	0.5 U	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
WTA	9/30/2010	0.5 U	0.5	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
WTA	4/14/2011	0.5 U	0.4 J	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
WTA	4/14/2011	0.5 U	0.4 J	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
WTA	10/5/2011	0.5 U	0.5 J	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
WTA	4/5/2012	0.5 U	0.5 U	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
WTA	4/5/2013	0.5 U	0.1 J	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B120	9/9/2010	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	0.5 U	0.5 U	0.5 U	3.1
B120	4/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	0.3 J	2.5 U	3.6
B120	10/4/2011	2 U	2 U	2 U	2 U	4 U	4 U	2 U	2 U	2 U	4 U	2 U	4 U	3.5
B120	4/3/2012	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3
B120	4/2/2013	2 U	2 U	2 U	2 U	4 U	4 U	2 U	2 U	2 U	4 U	2 U	4 U	3.4
B121	9/8/2010	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	0.5 UJ	0.5 U	0.5 UJ	0.5 U
B121	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B121	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B121	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
B128	9/23/2010	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	0.5 U	0.3 J	0.5 U	0.5 U
B128	9/23/2010	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	0.5 U	0.5	0.5 U	0.5 U
B128	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B128	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B128	4/2/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B150	9/8/2010	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	0.5 UJ	1.4	0.5 UJ	0.5 U
B150	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B150	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.6	1 U	0.5 U
B150	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 J	1 U	0.5 U
B150	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B150	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B158	9/8/2010	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	0.5 UJ	4	0.5 UJ	0.5 U
B158	4/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	1.6	1 U	0.5 U
B158	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	2	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B158	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	1.6 UJ	1 U	0.5 U
B163	9/2/2010	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	6.5	0.5 U	2.1	0.5 U	3
B163	4/12/2011	0.3 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	8.4	1 U	2.3	1 U	3.2
B163	10/3/2011	0.3 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	7.6	1 U	2.4	1 U	3.6
B163	4/2/2012	0.4 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	7.5	1 U	2.3	1 U	3
B163	4/3/2013	0.3 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	6.9	1 U	2.2	1 U	3.6
B175S	9/3/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B175S	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B175S	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J
B175S	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B175S	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.2 J
B175W	9/8/2010	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	0.5 UJ	0.4 J	0.5 UJ	0.5 U
B175W	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 UJ	0.5 U
B175W	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
B175W	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 U	0.5 U
B175W	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B177	9/23/2010	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	0.5 U	9.5	0.5 U	0.5 U
B177	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	2.7	1 U	0.5 U
B177	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	6.5	1 U	0.5 U
B177	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 U	0.5 U
B178	9/2/2010	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	0.5 U	0.2 J	0.5 U	2.5
B178	4/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	0.4 J	2.5 U	2.7
B178	10/4/2011	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3.2
B178	4/3/2012	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	2.3

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B178	4/2/2013	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	3.4
B180	9/15/2010	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	0.5 U	1.8	0.5 U	0.5 U
B180	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 UJ	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U
B180	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
B185	9/2/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	4.3	1.2	0.5 U	1.3	0.5 U	1
B185	4/15/2011	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U	1.4 U	0.7 U	3.5	1	1.4 U	0.8	1.4 U	1
B185	4/15/2011	0.1 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	4.7	1.1	1 U	1.2	1 U	1.5
B185	10/3/2011	0.1 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	5.6	1.6	1 U	1.4	1 U	1.4
B185	10/3/2011	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U	1.4 U	0.7 U	4.1	1.1	1.4 U	1	1.4 U	1.3
B185	4/2/2012	0.1 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	4.8	1.2	1 U	0.9	1 U	1.1
B185	4/2/2013	0.2 J	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	8.1	1.7	1 U	1.8	1 U	1.8
B194	9/9/2010	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	0.5 UJ	0.5 U	0.5 UJ	0.5 U
B194	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B194	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B194	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B195	9/9/2010	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	0.5 UJ	0.5 U	0.5 UJ	3.7
B195	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.4
B195	4/13/2011	0.7 U	0.7 U	0.7 U	0.7 U	1.4 U	1.4 U	0.7 U	0.7 U	0.7 U	1.4 U	0.7 U	1.4 UJ	1
B195	10/4/2011	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 UJ	1.3 U	0.9 J	2.5 U	1.3 U	2.5 UJ	4.1
B195	4/3/2012	1 U	1 U	1 U	1 U	2 U	2 U	1 U	1 U	0.9 J	2 U	1 U	2 U	1.7
B195	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	3.1
B195	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	3

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B197	9/9/2010	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	0.5 U	0.5 U	0.5 U	2.8
B197	9/9/2010	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	0.5 U	0.5 U	0.5 U	2.9
B197	4/13/2011	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 UJ	2.2
B197	10/4/2011	1.7 U	1.7 U	1.7 U	1.7 U	3.3 U	3.3 U	1.7 U	1.7 U	1.7 U	3.3 U	1.7 U	3.3 U	3.6
B197	4/3/2012	1 U	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	2 U	1 U	2 U	2.3
B197	4/3/2012	1 U	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	2 U	1 U	2 U	2.5
B197R	4/8/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.2 J	1 U	0.1 J	1 U	3.3
B277	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
B277	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1	0.5 U	1 U	0.3 J	1 U	0.5 U
B277	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.8	0.5 U	1 U	0.3 J	1 U	0.5 U
B277	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B277	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5	0.5 U	1 U	0.3 J	1 U	0.5 U
B278	9/16/2010	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	0.5 U	1.7	0.5 UJ	0.5 U
B278	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.3 J	0.5 U	1 U	2.1	1 U	0.5 U
B278	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.1 J	0.5 U	1 U	0.9	1 U	0.5 U
B278	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.2 J	0.5 U	1 U	1	1 U	0.5 U
B278	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U
B280A	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.9	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
B280A	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1.1	0.5 U	1 U	0.2 J	1 U	0.5 U
B280A	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1.4	0.5 U	1 U	0.1 J	1 U	0.5 U
B280A	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.9	0.5 U	1 U	0.5 U	1 U	0.5 U
B280A	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1.3	0.5 U	1 U	0.3 J	1 U	0.5 U
B280B	10/1/2010	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	0.5 U	0.5	0.5 U	0.5 U
B280B	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B280B	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B280B	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B300	9/9/2010	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	0.5 UJ	0.5 U	0.5 UJ	0.5 U
B300	4/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B300	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5.1	0.5 U
B300	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B38	9/15/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
B38	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	3.1	0.5 U
B38	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B450	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
B450	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
B450	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 UJ	1 U	0.3 J
B450	4/3/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B460	9/15/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B460	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B460	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B460	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B473	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B473	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B473	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B473	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B473	4/3/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (μg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
B474	9/23/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B474	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B474	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
B474	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B480	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
B480	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B480	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 UJ	0.5 U
B480	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B480	4/3/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B490	9/16/2010	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	0.5 U	0.5 U	0.5 UJ	0.5 U
B490	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B490	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
B490	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB1	10/19/2010	2.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB1	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB1	9/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.6	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB1	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.4 J	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB1	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	2.9	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB2	10/19/2010	4.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BULB2	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
BULB2	9/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J
BULB2	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.3 J	1 U	0.5 U	1 U	0.3 J
BULB2	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.4 J
CCC1	9/8/2010	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	0.5 UJ	1.2	0.5 UJ	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
CCC1	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U
CCC1	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
CCC1	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
CCC2	9/8/2010	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	0.5 UJ	0.5 U	0.5 UJ	0.5 U
CCC2	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC2	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
CCC2	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC2	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
CCC2	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	1 U	0.5 U
CCC3	9/3/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	9/3/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
CCC3	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC3	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 J	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCC3	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CCCT	9/3/2010	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	0.5 U	0.5 U	0.5 U	1
CCCT	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.1
CCCT	10/3/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.3
CCCT	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.4
CCCT	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	19	0.5 U	0.5 U	8.6	0.5 U	0.5 U
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	20	0.5 U	0.5 U	8.7	0.5 U	0.5 U
CTP	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	16	0.5 U	1 U	5.5	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
CTP	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	25	0.5 U	1 U	7.6	1 U	0.5 U
CTP	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	14	0.5 U	1 U	6.6	1 U	0.5 U
CTP	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	18	0.5 U	1 U	8.4	1 U	0.5 U
CTPS	9/30/2010	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	0.5 U	6.1	0.5 U	0.5 U
CTPS	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
CTPS	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
CTPS	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
DH	9/30/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
DH	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
DH	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
DH	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	24	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EERC	10/1/2010	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	0.5 U	0.5 U	0.5 UJ	0.5 U
EERC	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EERC	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.5 U
EERC	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EERC	4/8/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EPA	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	1.8	0.5 U	0.5 U	2.3	0.5 UJ	0.5 U
EPA	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.2 J	1 U	0.5 U
EPA	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.1 J	1 U	0.5 U	1 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
EPA	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.2 J	1 U	0.5 U	1 U	0.5 U
ETA	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.9
ETA	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.9

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
ETA	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.7
ETA	9/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7
ETA	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.1
ETA	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2
ETA	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.4
FG	9/23/2010	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	0.5 U	0.5	0.5 U	0.5 U
FG	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
FG	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
FG	10/10/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
FG	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
GEO	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	1.1	0.5 U	0.5 U	1	0.5 U	0.5 U
GEO	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1.2	0.5 U	1 U	0.7	1 U	0.5 U
GEO	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1	0.5 U	1 U	0.5	1 U	0.5 U
GEO	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.9	0.5 U	1 U	0.8 UJ	1 U	0.5 U
GEO	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	1	0.5 U	1 U	0.7	1 U	0.5 U
MFA	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.9
MFA	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5
MFA	10/3/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.7
MFA	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1
MFA	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	2.2
NRLF	9/16/2010	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	0.5 U	0.5 U	0.5 UJ	0.5 U
NRLF	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
NRLF	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
NRLF	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
PZ11	10/1/2010	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	0.5 U	0.5 U	0.5 U	20
PZ11	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
PZ11	10/10/2011	3.1 U	3.1 U	3.1 U	3.1 U	6.3 U	6.3 U	3.1 U	3.1 U	3.1 U	6.3 U	3.1 U	6.3 U	87
PZ11	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.3 J	1 U	0.3 J
PZ11	4/5/2013	1.3 U	1.3 U	1.3 U	1.3 U	2.5 U	2.5 U	1.3 U	1.3 U	1.3 U	2.5 U	1.3 U	2.5 U	200
PZ11	4/5/2013	2 U	2 U	2 U	2 U	4 U	4 U	2 U	2 U	2 U	4 U	2 U	4 U	200
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	0.5 U	0.5 U	0.5	0.5 U	0.5 U
PZ8	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.1 J	0.5 U	0.5 U	0.5 U	1 U	0.4 J	1 U	0.5 U
PZ8	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.9	1 U	0.5 U
PZ8	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	1.4	1 U	0.5 U
PZ9	9/24/2010	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	0.5 U	0.5 U	0.5 U	0.4 J
PZ9	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.3 J
PZ9	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.6
PZ9	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.7
PZ9	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1.2
PZ9	4/3/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	1
RWF	9/15/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
RWF	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
RWF	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
RWF	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
RWF	4/8/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
TP1	9/29/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
TP1	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	BENZENE	BROMOBENZENE	BROMOCHLOROMETHANE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON DISULFIDE	CARBON TETRACHLORIDE	CHLOROBENZENE	CHLOROETHANE	CHLOROFORM	CHLOROMETHANE	CIS-1,2-DICHLOROETHENE
TP1	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.2 J
TP1	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
TP1	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1.3	0.5 U	0.5 U	1 U	0.5 U	1 U	0.3 J
TP2	9/29/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
TP2	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
TP2	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 UJ	0.2 J
TP2	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
TP2	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
TP2	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.2 J
WTA	9/30/2010	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	0.5 U	0.5 U	0.5 U	0.5 U
WTA	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
WTA	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
WTA	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 UJ	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
WTA	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U
WTA	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B120	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B120	4/15/2011	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
B120	10/4/2011	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U	8 U	2 U	2 U	2 U
B120	4/3/2012	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
B120	4/2/2013	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U	8 U	2 U	2 U	2 U
B121	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B121	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B121	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B121	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B128	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B128	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B128	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B128	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B128	4/2/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B150	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B150	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B150	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B150	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B150	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B150	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B158	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B158	4/15/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B158	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (μg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B158	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B163	9/2/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B163	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B163	10/3/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B163	4/2/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B163	4/3/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175S	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B175S	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175S	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175S	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175S	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175W	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B175W	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175W	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175W	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B175W	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B177	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 UJ	NA	0.5 U	NA	0.5 U	1 U
B177	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B177	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B177	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B178	9/2/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B178	4/15/2011	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
B178	10/4/2011	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
B178	4/3/2012	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U	6.7 U	1.7 U	1.7 U	1.7 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B178	4/2/2013	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
B180	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B180	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B180	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B185	9/2/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B185	4/15/2011	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U	2.9 U	0.7 U	0.7 U	0.7 U
B185	4/15/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B185	10/3/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B185	10/3/2011	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U	2.9 U	0.7 U	0.7 U	0.7 U
B185	4/2/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B185	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B194	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B194	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B194	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B194	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B195	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B195	4/13/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 UJ	0.5 U	0.5 U	0.5 U
B195	4/13/2011	0.7 U	0.7 U	0.7 U	NA	0.7 U	0.7 U	2.9 U	1.4 U	2.9 U	0.7 U	0.7 U	0.7 U
B195	10/4/2011	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	0.4 J
B195	4/3/2012	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U	4 U	1 U	1 U	1 U
B195	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B195	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B197	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B197	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B197	4/13/2011	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U	6.7 U	1.7 U	1.7 U	1.7 U
B197	10/4/2011	1.7 U	1.7 U	1.7 U	NA	1.7 U	1.7 U	6.7 U	3.3 U	6.7 U	1.7 U	1.7 U	1.7 U
B197	4/3/2012	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U	4 U	1 U	1 U	1 U
B197	4/3/2012	1 U	1 U	1 U	NA	1 U	1 U	4 U	2 U	4 U	1 U	1 U	1 U
B197R	4/8/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B277	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B277	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B277	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B277	4/3/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B277	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B278	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B278	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B278	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B278	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B278	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280A	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B280A	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280A	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280A	4/3/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280A	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280B	10/1/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B280B	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B280B	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B280B	4/3/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B300	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B300	4/15/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B300	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B300	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B38	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B38	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B38	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B450	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B450	10/10/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B450	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B450	4/3/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B460	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B460	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B460	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B460	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B473	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B473	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B473	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B473	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
B473	4/3/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
B474	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B474	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B474	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B474	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B480	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B480	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B480	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B480	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B480	4/3/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B490	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
B490	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B490	10/10/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
B490	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 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	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
BULB1	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB1	9/30/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB1	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB1	4/5/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB2	10/19/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
BULB2	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB2	9/30/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
BULB2	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.1 J	2 U	1 U	2 U	0.5 U	0.3 J	0.2 J
BULB2	4/5/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC1	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
CCC1	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC1	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
CCC1	4/10/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC2	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CCC2	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC2	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC2	4/10/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC2	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC2	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC3	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CCC3	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CCC3	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC3	4/10/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCC3	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCCT	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CCCT	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCCT	10/3/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCCT	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CCCT	4/2/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CTP	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
CTP	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTP	4/3/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTP	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTPS	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
CTPS	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTPS	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
CTPS	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
DH	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
DH	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
DH	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
DH	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EERC	10/1/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
EERC	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EERC	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EERC	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
EERC	4/8/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EPA	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
EPA	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EPA	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
EPA	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
ETA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
ETA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
ETA	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
ETA	9/30/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
ETA	4/10/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
ETA	4/10/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
ETA	4/5/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
FG	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
FG	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
FG	4/19/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
FG	10/10/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
FG	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
GEO	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
GEO	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
GEO	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
GEO	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
GEO	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
MFA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
MFA	4/12/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
MFA	10/3/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
MFA	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
MFA	4/5/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
NRLF	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
NRLF	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
NRLF	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
NRLF	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ11	10/1/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
PZ11	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ11	10/10/2011	3.1 U	3.1 U	3.1 U	NA	3.1 U	3.1 U	13 U	6.3 U	13 U	3.1 U	3.1 U	3.1 U
PZ11	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ11	4/5/2013	1.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	5 U	2.5 U	5 U	1.3 U	1.3 U	1.3 U
PZ11	4/5/2013	2 U	2 U	2 U	NA	2 U	2 U	8 U	4 U	8 U	2 U	2 U	2 U
PZ8	10/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
PZ8	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ8	10/4/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ8	4/3/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ9	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
PZ9	4/20/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ9	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ9	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
PZ9	4/6/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
PZ9	4/3/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
RWF	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
RWF	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
RWF	10/6/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
RWF	4/4/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
RWF	4/8/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP1	9/29/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
TP1	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	DIBROMOMETHANE	DICHLORODIFLOROETHANE	ETHYL TERT-BUTYL ETHER (ETBE)	ETHYLBENZENE	FREON 113	FREON 12	HEXACHLOROBUTADIENE	ISOPROPYL ETHER (DIPE)	ISOPROPYLBENZENE	M,P-XYLENES
TP1	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP1	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP1	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP2	9/29/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
TP2	4/18/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP2	10/7/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP2	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP2	4/9/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
TP2	4/4/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
WTA	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	1 U
WTA	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
WTA	4/14/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
WTA	10/5/2011	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 UJ	2 U	0.5 U	0.5 U	0.5 U
WTA	4/5/2012	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U
WTA	4/5/2013	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U	2 U	1 U	2 U	0.5 U	0.5 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B120	9/9/2010	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	4/15/2011	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	10/4/2011	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	4/3/2012	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	4/2/2013	2 U	40 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U
B121	9/8/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	9/23/2010	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	9/23/2010	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	4/18/2011	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	10/4/2011	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	4/2/2012	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	9/8/2010	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	4/13/2011	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	10/5/2011	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	10/5/2011	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	4/4/2012	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	4/4/2012	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	9/8/2010	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	4/15/2011	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	10/5/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B158	4/6/2012	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	9/2/2010	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	4/12/2011	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	10/3/2011	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	4/2/2012	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	4/3/2013	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
B175S	9/3/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	4/2/2013	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	9/8/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	4/2/2013	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	9/23/2010	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	4/18/2011	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	10/5/2011	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	4/4/2012	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
B178	9/2/2010	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	4/15/2011	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	10/4/2011	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	4/3/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B178	4/2/2013	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
B180	9/15/2010	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	4/13/2011	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	10/6/2011	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	10/6/2011	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	4/4/2012	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
B185	9/2/2010	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	4/15/2011	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	4/15/2011	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	10/3/2011	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	10/3/2011	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	4/2/2012	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	4/2/2013	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
B194	9/9/2010	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	4/13/2011	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	10/4/2011	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	4/4/2012	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	9/9/2010	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	4/13/2011	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	4/13/2011	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	10/4/2011	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	4/3/2012	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	4/2/2013	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	4/2/2013	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B197	9/9/2010	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	9/9/2010	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	4/13/2011	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	10/4/2011	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	4/3/2012	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	4/3/2012	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	4/8/2013	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	9/15/2010	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	4/18/2011	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	10/5/2011	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	4/3/2012	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	4/4/2013	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	9/16/2010	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	4/19/2011	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	10/5/2011	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	4/5/2012	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	4/4/2013	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	9/16/2010	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	4/14/2011	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	10/6/2011	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	4/3/2012	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	4/4/2013	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	10/1/2010	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	4/14/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B280B	10/6/2011	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	4/3/2012	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
B300	9/9/2010	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	4/15/2011	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	10/6/2011	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	4/9/2012	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	9/15/2010	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	4/19/2011	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	4/19/2011	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	10/6/2011	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	4/4/2012	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	4/19/2011	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	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	4/6/2012	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	4/3/2013	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	9/15/2010	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	4/20/2011	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	10/7/2011	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	4/6/2012	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	9/24/2010	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	4/20/2011	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	10/7/2011	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	4/6/2012	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	4/3/2013	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
B474	9/23/2010	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	4/20/2011	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	10/7/2011	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	4/9/2012	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	9/24/2010	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	4/19/2011	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	10/7/2011	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	4/9/2012	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	4/3/2013	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	9/16/2010	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	4/20/2011	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	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	4/9/2012	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	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	4/12/2011	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	9/30/2011	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	4/5/2012	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	4/5/2013	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
BULB2	10/19/2010	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	4/12/2011	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	9/30/2011	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	4/5/2012	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	4/5/2013	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
CCC1	9/8/2010	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
CCC1	4/14/2011	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	10/5/2011	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	4/10/2012	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	9/8/2010	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	4/14/2011	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	10/4/2011	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	4/10/2012	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	4/2/2013	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	4/2/2013	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	9/3/2010	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	9/3/2010	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	4/12/2011	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	10/4/2011	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	10/4/2011	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	4/10/2012	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	4/2/2013	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	9/3/2010	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	4/18/2011	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	10/3/2011	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	4/4/2012	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	4/2/2013	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	9/30/2010	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	9/30/2010	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	4/14/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
CTP	10/6/2011	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	4/3/2012	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	4/4/2013	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	9/30/2010	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	4/19/2011	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	10/7/2011	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	4/5/2012	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	9/30/2010	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	4/14/2011	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	10/5/2011	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	4/5/2012	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	10/1/2010	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	4/20/2011	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	10/7/2011	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	4/6/2012	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	4/8/2013	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	9/16/2010	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	4/19/2011	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	10/6/2011	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	4/6/2012	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	4/6/2012	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	4/4/2013	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	9/24/2010	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	9/24/2010	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		VOCs (µg/L)											
Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
ETA	4/12/2011	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	9/30/2011	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	4/10/2012	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	4/10/2012	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	4/5/2013	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
FG	9/23/2010	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	4/19/2011	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	4/19/2011	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	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	4/9/2012	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	9/3/2010	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	4/20/2011	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	10/6/2011	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	4/6/2012	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	4/4/2013	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	9/24/2010	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	4/12/2011	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	10/3/2011	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	4/5/2012	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	4/5/2013	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	9/16/2010	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	4/20/2011	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	10/6/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
NRLF	4/9/2012	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	10/1/2010	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	4/20/2011	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	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	4/5/2012	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	4/5/2013	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	4/5/2013	2 U	40 U	2 U	2 U	8 U	2 U	2 U	2 U	2 U	40 U	2 U	2 U
PZ8	10/15/2010	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	4/18/2011	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	10/4/2011	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	4/3/2012	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	9/24/2010	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	4/20/2011	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	10/7/2011	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	10/7/2011	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	4/6/2012	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	4/3/2013	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	9/15/2010	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	4/18/2011	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	10/6/2011	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	4/4/2012	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	4/8/2013	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	9/29/2010	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	4/18/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	MTBE	METHYLENE CHLORIDE	N-BUTYLBENZENE	PROPYLBENZENE	NAPHTHALENE	O-XYLENE	PARA-ISOPROPYL TOLUENE	SEC-BUTYLBENZENE	STYRENE	TERT-BUTYL ALCOHOL (TBA)	METHYL TERT-AMYL ETHER (TAME)	TERT-BUTYLBENZENE
TP1	10/7/2011	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	4/5/2012	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	4/4/2013	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	9/29/2010	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	4/18/2011	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	10/7/2011	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	4/9/2012	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	4/9/2012	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	4/4/2013	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	9/30/2010	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	4/14/2011	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	4/14/2011	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	10/5/2011	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	4/5/2012	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	4/5/2013	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B120	9/9/2010	0.4 J	0.5 U	0.5 U	0.5 U	210	0.5 U	NA	0.5 U
B120	4/15/2011	1.3 U	1.3 U	1.3 U	1.3 U	170	2.5 U	25 U	1.3 U
B120	10/4/2011	0.4 J	2 U	0.4 J	2 U	180	4 U	40 U	2 U
B120	4/3/2012	0.7 J	1.3 U	1.3 U	1.3 U	190	2.5 U	25 U	1.3 U
B120	4/2/2013	2 U	2 U	2 U	2 U	190	4 U	40 U	2 U
B121	9/8/2010	0.3 J	0.5 U	0.5 U	0.5 U	0.8	0.5 U	NA	0.5 UJ
B121	4/13/2011	0.4 J	0.5 U	0.5 U	0.5 U	1.1	1 U	10 U	0.5 U
B121	10/4/2011	0.3 J	0.5 U	0.5 U	0.5 U	1.8	1 U	10 U	0.5 U
B121	4/4/2012	0.3 J	0.5 U	0.5 U	0.5 U	2	1 U	10 U	0.5 U
B128	9/23/2010	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B128	9/23/2010	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B128	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B128	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B128	4/2/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B150	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B150	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B150	10/5/2011	0.1 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B150	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B150	4/4/2012	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B150	4/4/2012	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B158	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B158	4/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B158	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B158	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B163	9/2/2010	8.4	0.5 U	0.3 J	0.5 U	100	0.5 U	NA	0.7
B163	4/12/2011	9.5	0.5 U	0.4 J	0.5 U	77 J	1 U	10 UJ	1.2
B163	10/3/2011	12	0.5 U	0.4 J	0.5 U	70	1 U	10 U	0.8
B163	4/2/2012	11	0.5 U	0.4 J	0.5 U	78	1 U	10 UJ	0.9
B163	4/3/2013	11	0.5 U	0.5 J	0.5 U	78 J	1 U	10 U	0.9
B175S	9/3/2010	0.2 J	0.5 U	0.5 U	0.5 U	7.9	0.5 U	NA	0.5 U
B175S	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	5.3	1 U	10 U	0.5 U
B175S	10/4/2011	0.1 J	0.5 U	0.5 U	0.5 U	8.6	1 U	10 U	0.5 U
B175S	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	2.6	1 U	10 U	0.5 U
B175S	4/2/2013	0.2 J	0.5 U	0.5 U	0.5 U	10	1 U	10 U	0.5 U
B175W	9/8/2010	1.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
B175W	4/13/2011	1.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B175W	10/4/2011	1.6	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
B175W	4/4/2012	2.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B175W	4/2/2013	2	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B177	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B177	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B177	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B177	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B178	9/2/2010	0.2 J	0.5 U	0.4 J	0.5 U	360	0.5 U	NA	0.5 U
B178	4/15/2011	0.3 J	1.3 U	1.3 U	1.3 U	160	2.5 U	25 U	1.3 U
B178	10/4/2011	0.3 J	1.3 U	0.5 J	1.3 U	170	2.5 U	25 U	1.3 U
B178	4/3/2012	1.7 U	1.7 U	1.7 U	1.7 U	170	3.3 U	33 U	1.7 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B178	4/2/2013	0.5 J	1.3 U	0.5 J	1.3 U	160	2.5 U	25 U	1.3 U
B180	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B180	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B180	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B185	9/2/2010	0.4 J	0.5 U	0.5 U	0.5 U	150	0.5 U	NA	0.2 J
B185	4/15/2011	0.3 J	0.7 U	0.7 U	0.7 U	77	1.4 U	14 UJ	0.2 J
B185	4/15/2011	0.3 J	0.5 U	0.2 J	0.5 U	93	1 U	10 U	0.1 J
B185	10/3/2011	0.4 J	0.5 U	0.2 J	0.5 U	94	1 U	10 U	0.3 J
B185	10/3/2011	0.4 J	0.7 U	0.2 J	0.7 U	77	1.4 U	14 U	0.7 U
B185	4/2/2012	0.4 J	0.5 U	0.5 U	0.5 U	95	1 U	10 UJ	0.2 J
B185	4/2/2013	0.4 J	0.5 U	0.2 J	0.5 U	99	1 U	10 U	0.3 J
B194	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 U	2	0.5 U	NA	0.5 UJ
B194	4/13/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B194	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B194	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B195	9/9/2010	3.1	0.5 U	0.4 J	0.5 U	140	0.5 U	NA	0.5 UJ
B195	4/13/2011	2.2	0.5 U	0.2 J	0.5 U	68	1 U	10 UJ	0.5 U
B195	4/13/2011	1.7	0.7 U	0.7 U	0.7 U	65	1.4 U	14 U	0.7 U
B195	10/4/2011	3	1.1 J	0.5 J	1.3 U	170 J	2.5 U	25 U	1.3 U
B195	4/3/2012	2.8	1 U	0.3 J	1 U	120	2 U	20 U	1 U
B195	4/2/2013	3.2	0.5 U	0.4 J	0.5 U	89	1 U	10 U	0.5 U
B195	4/2/2013	3.1	0.5 U	0.4 J	0.5 U	98	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B197	9/9/2010	1	0.5 U	0.4 J	0.5 U	200	0.5 U	NA	0.5 U
B197	9/9/2010	1	0.5 U	0.4 J	0.5 U	170	0.5 U	NA	0.5 U
B197	4/13/2011	1.7 U	1.7 U	1.7 U	1.7 U	150	3.3 U	33 U	1.7 U
B197	10/4/2011	1.1 J	1.7 U	0.4 J	1.7 U	170	3.3 U	33 U	1.7 U
B197	4/3/2012	1.1	1 U	0.3 J	1 U	160	2 U	20 U	1 U
B197	4/3/2012	0.9 J	1 U	0.3 J	1 U	170	2 U	20 U	1 U
B197R	4/8/2013	1.5	0.5 U	0.4 J	0.5 U	150	1 U	10 U	0.5 U
B277	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B277	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B277	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B277	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B278	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	13 J	0.5 U	NA	0.5 U
B278	4/19/2011	0.1 J	0.5 U	0.5 U	0.5 U	15	1 U	10 UJ	0.5 U
B278	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	11	1 U	10 UJ	0.5 U
B278	4/5/2012	0.1 J	0.5 U	0.5 U	0.5 U	11	1 U	10 U	0.5 U
B278	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	8.9	1 U	10 U	0.5 U
B280A	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B280A	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280A	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280B	10/1/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	1.8	0.5 U	NA	0.5 U
B280B	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B280B	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B280B	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B300	9/9/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.7	0.5 U	NA	0.5 UJ
B300	4/15/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B300	10/6/2011	0.5 U	0.4 J	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B300	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B38	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B38	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B38	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B38	4/4/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B450	4/19/2011	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	4/6/2012	0.4 J	0.5 U	0.5 U	0.5 U	26	1 U	10 U	0.5 U
B450	4/3/2013	0.3 J	0.5 U	0.5 U	0.5 U	11	1 U	10 U	0.5 U
B460	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B460	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
B460	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B460	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B473	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	NA	0.5 U
B473	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	3.4	1 U	10 UJ	0.5 U
B473	10/7/2011	0.1 J	0.5 U	0.5 U	0.5 U	6.1	1 U	10 U	0.5 U
B473	4/6/2012	0.2 J	0.5 U	0.5 U	0.5 U	6	1 U	10 U	0.5 U
B473	4/3/2013	0.3 J	0.5 U	0.5 U	0.5 U	8.8	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
B474	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B474	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 UJ	0.5 U
B474	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B474	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
B480	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	10	0.5 U	NA	0.5 U
B480	4/19/2011	0.1 J	0.5 U	0.5 U	0.5 U	9.1	1 U	10 UJ	0.5 U
B480	10/7/2011	0.2 J	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.5 U
B480	4/9/2012	0.2 J	0.5 U	0.5 U	0.5 U	14	1 U	10 U	0.5 U
B480	4/3/2013	0.5 J	0.5 U	0.5 U	0.5 U	23	1 U	10 U	0.5 U
B490	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
B490	4/20/2011	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	4/9/2012	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	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
BULB1	9/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
BULB1	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
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	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 UJ	0.5 U
BULB2	9/30/2011	0.5 U	0.5 U	0.5 U	0.5 U	1	1 U	10 U	0.5 U
BULB2	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
BULB2	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	1.5	1 U	10 U	0.5 U
CCC1	9/8/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
CCC1	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC1	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
CCC1	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	9/8/2010	2.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 UJ
CCC2	4/14/2011	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	10/4/2011	2.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	4/10/2012	1.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	4/2/2013	1.7	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC2	4/2/2013	2.1	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CCC3	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	6	0.5 U	NA	0.5 U
CCC3	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	6.2	0.5 U	NA	0.5 U
CCC3	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.7	1 U	10 UJ	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.9	1 U	10 U	0.5 U
CCC3	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.9	1 U	10 U	0.5 U
CCC3	4/10/2012	0.5 U	0.5 U	0.5 U	0.5 U	1.3	1 U	10 U	0.5 U
CCC3	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
CCCT	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	120	0.5 U	NA	0.5 U
CCCT	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	84	1 U	10 U	0.5 U
CCCT	10/3/2011	0.5 U	0.5 U	0.1 J	0.5 U	79	1 U	10 U	0.5 U
CCCT	4/4/2012	0.5 U	0.5 U	0.1 J	0.5 U	85	1 U	10 U	0.5 U
CCCT	4/2/2013	0.5 U	0.5 U	0.5 U	0.5 U	90	1 U	10 U	0.5 U
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTP	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTP	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
CTP	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTP	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTP	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	1 U	10 U	0.5 U
CTPS	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
CTPS	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
CTPS	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
CTPS	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
DH	9/30/2010	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	NA	0.5 U
DH	4/14/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
DH	10/5/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
DH	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	10/1/2010	0.3 J	0.5 U	0.5 U	0.5 U	6.8	0.5 U	NA	0.5 UJ
EERC	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
EERC	10/7/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EERC	4/8/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.6	0.5 U	NA	0.5 U
EPA	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
EPA	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
EPA	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
ETA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	12	0.5 U	NA	0.5 U
ETA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	14	0.5 U	NA	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
ETA	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	7.3	1 U	10 UJ	0.5 U
ETA	9/30/2011	0.3 J	0.5 U	0.3 J	0.5 U	17	1 U	10 U	0.5 U
ETA	4/10/2012	0.5 U	0.5 U	1	0.5 U	9.2	1 U	10 U	0.5 U
ETA	4/10/2012	0.5 U	0.5 U	0.9	0.5 U	9.3	1 U	10 U	0.5 U
ETA	4/5/2013	0.2 J	0.5 U	0.9	0.5 U	16	1 U	10 U	0.5 U
FG	9/23/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
FG	4/19/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
FG	4/19/2011	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	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	9/3/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.4 J	0.5 U	NA	0.5 U
GEO	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
GEO	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	4/6/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
GEO	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
MFA	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	5.7	0.5 U	NA	0.5 U
MFA	4/12/2011	0.5 U	0.5 U	0.5 U	0.5 U	3.1	1 U	10 UJ	0.5 U
MFA	10/3/2011	0.5 U	0.5 U	0.5 U	0.5 U	8.2	1 U	10 U	0.2 J
MFA	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	5.4	1 U	10 U	0.5 U
MFA	4/5/2013	0.5 U	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.2 J
NRLF	9/16/2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
NRLF	4/20/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 UJ	0.5 U
NRLF	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
NRLF	4/9/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
PZ11	10/1/2010	67	0.5 U	2.4	0.5 UJ	690	0.5 U	NA	0.6
PZ11	4/20/2011	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	4/5/2012	0.9	0.5 U	0.5 U	0.5 U	9.7	1 U	10 U	0.5 U
PZ11	4/5/2013	12	1.3 U	56	1.3 U	240	2.5 U	25 U	0.9 J
PZ11	4/5/2013	12	2 U	57	2 U	240	4 U	40 U	0.8 J
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	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
PZ8	10/4/2011	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	10 U	0.5 U
PZ8	4/3/2012	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	1 U	10 U	0.5 U
PZ9	9/24/2010	0.5 U	0.5 U	0.5 U	0.5 U	16	0.5 U	NA	0.5 U
PZ9	4/20/2011	0.2 J	0.5 U	0.5 U	0.5 U	11	1 U	10 UJ	0.5 U
PZ9	10/7/2011	0.3 J	0.5 U	0.5 U	0.5 U	28	1 U	10 U	0.5 U
PZ9	10/7/2011	0.4 J	0.5 U	0.5 U	0.5 U	27	1 U	10 U	0.5 U
PZ9	4/6/2012	0.6	0.5 U	0.5 U	0.5 U	65 J	1 U	10 UJ	0.5 U
PZ9	4/3/2013	1.2	0.5 U	0.5 U	0.5 U	64	1 U	10 U	0.5 U
RWF	9/15/2010	0.5 U	0.5 U	0.5 U	0.5 U	4.4	0.5 U	NA	0.5 U
RWF	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	2.8	1 U	10 U	0.5 U
RWF	10/6/2011	0.5 U	0.5 U	0.5 U	0.5 U	5	1 U	10 U	0.5 U
RWF	4/4/2012	0.1 J	0.5 U	0.5 U	0.5 U	2.8	1 U	10 U	0.5 U
RWF	4/8/2013	0.1 J	0.5 U	0.5 U	0.5 U	4.9	1 U	10 U	0.5 U
TP1	9/29/2010	0.5 U	0.5 U	0.5 UJ	0.5 U	13	0.5 U	NA	0.5 U
TP1	4/18/2011	0.5 U	0.5 U	0.5 U	0.5 U	1.8	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

VOCs (µg/L)

Location ID	Sample Date	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	TRICHLOROFLUOROMETHANE	VINYL ACETATE	VINYL CHLORIDE
TP1	10/7/2011	0.1 J	0.5 U	0.5 U	0.5 U	8.5	1 U	10 U	0.5 U
TP1	4/5/2012	0.5 U	0.5 U	0.5 U	0.5 U	3.8	1 U	10 U	0.5 U
TP1	4/4/2013	0.5 U	0.5 U	0.5 U	0.5 U	6.3	1 U	10 U	0.5 U
TP2	9/29/2010	0.2 J	0.5 U	0.5 U	0.5 U	15	0.5 U	NA	0.5 U
TP2	4/18/2011	0.3 J	0.5 U	0.5 U	0.5 U	12	1 U	10 U	0.5 U
TP2	10/7/2011	0.3 J	0.5 U	0.5 U	0.5 U	14	1 U	10 U	0.5 U
TP2	4/9/2012	0.3 J	0.5 U	0.5 U	0.5 U	13	1 U	10 U	0.5 U
TP2	4/9/2012	0.2 J	0.5 U	0.5 U	0.5 U	12	1 U	10 U	0.5 U
TP2	4/4/2013	0.3 J	0.5 U	0.5 U	0.5 U	18	1 U	10 U	0.5 U
WTA	9/30/2010	3.2	0.5 U	0.5 U	0.5 UJ	0.4 J	0.5 U	NA	0.5 U
WTA	4/14/2011	3.8	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
WTA	4/14/2011	4.1	0.5 U	0.5 U	0.5 U	0.4 J	1 U	10 U	0.5 U
WTA	10/5/2011	3.2	0.5 U	0.5 U	0.5 U	0.5 J	1 U	10 UJ	0.5 U
WTA	4/5/2012	1.3	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U
WTA	4/5/2013	1.5	0.5 U	0.5 U	0.5 U	0.2 J	1 U	10 U	0.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
B120	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B120	9/9/2010	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
B120	4/15/2011	NA	NA	NA	NA	0.03 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B120	4/15/2011	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
B120	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B120	10/4/2011	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
B120	4/3/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B120	4/3/2012	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
B121	9/8/2010	NA	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA
B121	9/8/2010	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
B121	4/13/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B121	4/13/2011	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
B121	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B121	10/4/2011	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
B121	4/4/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B121	4/4/2012	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
B128	9/23/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B128	9/23/2010	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
B128	9/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B128	9/23/2010	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
B128	4/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B128	4/18/2011	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
B128	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B128	10/4/2011	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
B128	4/2/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B128	4/2/2012	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
B128	4/5/2013	9.4 U	9.4 U	9.4 U	9.4 U	0.2 J	0.1 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	19 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
B150	9/8/2010	NA	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	9/8/2010	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
B150	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/13/2011	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
B150	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/5/2011	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
B150	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/5/2011	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
B150	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/4/2012	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
B150	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/4/2012	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
B158	9/8/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B158	9/8/2010	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
B158	4/15/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B158	4/15/2011	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
B158	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B158	10/5/2011	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
B158	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B158	4/6/2012	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
B163	9/2/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B163	9/2/2010	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
B163	4/12/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B163	4/12/2011	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
B163	10/3/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B163	10/3/2011	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
B163	4/2/2012	NA	NA	NA	NA	0.09 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B163	4/2/2012	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
B163	4/3/2013	11 U	11 U	11 U	11 U	0.9 U	0.09 U	11 U	11 U	11 U	11 U	11 U	11 U	21 U	11 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B175S	9/3/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B175S	9/3/2010	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
B175S	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175S	4/13/2011	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
B175S	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175S	10/4/2011	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
B175S	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175S	4/4/2012	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
B175W	9/8/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B175W	9/8/2010	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
B175W	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175W	4/13/2011	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
B175W	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175W	10/4/2011	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
B175W	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B175W	4/4/2012	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
B177	9/23/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B177	9/23/2010	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
B177	4/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B177	4/18/2011	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
B177	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/5/2011	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
B177	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B177	4/4/2012	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
B178	9/2/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B178	9/2/2010	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
B178	4/15/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B178	4/15/2011	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
B178	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B178	10/4/2011	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
B178	4/3/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B178	4/3/2012	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
B180	9/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B180	9/15/2010	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
B180	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B180	4/13/2011	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
B180	10/6/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/6/2011	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
B180	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/6/2011	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
B180	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B180	4/4/2012	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
B180	4/8/2013	9.3 U	9.3 U	9.3 U	9.3 U	0.2 J	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U
B185	9/2/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	9/2/2010	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
B185	4/15/2011	NA	NA	NA	NA	6	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/15/2011	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
B185	4/15/2011	NA	NA	NA	NA	6.8	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/15/2011	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
B185	10/3/2011	NA	NA	NA	NA	6.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/3/2011	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
B185	10/3/2011	NA	NA	NA	NA	6.3	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/3/2011	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
B185	4/2/2012	NA	NA	NA	NA	4.4	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/2/2012	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
B194	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B194	9/9/2010	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
B194	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
B194	4/13/2011	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
B194	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B194	10/4/2011	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
B194	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B194	4/4/2012	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
B195	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B195	9/9/2010	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
B195	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/13/2011	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
B195	4/13/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/13/2011	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
B195	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B195	10/4/2011	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
B195	4/3/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/3/2012	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
B197	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	9/9/2010	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
B197	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	9/9/2010	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
B197	4/13/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/13/2011	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
B197	10/4/2011	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
B197	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	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
B197	4/3/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B277	9/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B277	9/15/2010	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
B277	4/18/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B277	4/18/2011	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
B277	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B277	10/5/2011	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
B277	4/3/2012	NA	NA	NA	NA	0.1 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B277	4/3/2012	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
B278	9/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B278	9/16/2010	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
B278	4/19/2011	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B278	4/19/2011	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
B278	10/5/2011	NA	NA	NA	NA	0.9 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B278	10/5/2011	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
B278	4/5/2012	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B278	4/5/2012	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
B280A	9/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B280A	9/16/2010	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
B280A	4/14/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B280A	4/14/2011	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
B280A	10/6/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/6/2011	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
B280A	4/3/2012	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B280A	4/3/2012	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
B280A	4/4/2013	10 U	10 U	10 U	10 U	1 J	0.1 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U
B280B	10/1/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/1/2010	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
B280B	4/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B280B	4/14/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
B280B	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/6/2011	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
B280B	4/3/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B280B	4/3/2012	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
B300	9/9/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
B300	9/9/2010	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
B300	4/15/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B300	4/15/2011	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
B300	10/6/2011	NA	NA	NA	NA	5.9	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA
B300	10/6/2011	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
B300	4/9/2012	NA	NA	NA	NA	0.8 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B300	4/9/2012	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
B38	9/15/2010	NA	NA	NA	NA	NA	0.05 UJ	NA	NA	NA	NA	NA	NA	NA	NA
B38	9/15/2010	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
B38	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/19/2011	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
B38	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/19/2011	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
B38	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B38	10/6/2011	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
B38	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/4/2012	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
B450	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B450	4/19/2011	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
B450	10/10/2011	NA	NA	NA	NA	0.3 J	0.09 U	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
B450	4/6/2012	NA	NA	NA	NA	0.5 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B450	4/6/2012	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
B460	9/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
B460	9/15/2010	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
B460	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B460	4/20/2011	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
B460	10/7/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B460	10/7/2011	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
B460	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B460	4/6/2012	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
B473	9/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B473	9/24/2010	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
B473	4/20/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B473	4/20/2011	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
B473	10/7/2011	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B473	10/7/2011	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
B473	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B473	4/6/2012	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
B474	9/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B474	9/23/2010	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
B474	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B474	4/20/2011	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
B474	10/7/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B474	10/7/2011	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
B474	4/9/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B474	4/9/2012	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
B480	9/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B480	9/24/2010	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
B480	4/19/2011	NA	NA	NA	NA	0.2 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B480	4/19/2011	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
B480	10/7/2011	NA	NA	NA	NA	0.3 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
B480	10/7/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
B480	4/9/2012	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B480	4/9/2012	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
B490	9/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
B490	9/16/2010	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
B490	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B490	4/20/2011	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
B490	10/10/2011	NA	NA	NA	NA	0.9 U	0.09 U	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
B490	4/9/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
B490	4/9/2012	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
BULB1	10/19/2010	NA	NA	NA	NA	NA	0.047 U	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
BULB1	4/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	4/12/2011	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
BULB1	9/30/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	9/30/2011	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
BULB1	4/5/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	4/5/2012	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
BULB2	10/19/2010	NA	NA	NA	NA	NA	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA
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
BULB2	4/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	4/12/2011	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
BULB2	9/30/2011	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	9/30/2011	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
BULB2	4/5/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	4/5/2012	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
BULB2	4/5/2013	10 U	10 U	10 U	10 U	0.9 U	0.09 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
CCC1	9/8/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	9/8/2010	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
CCC1	4/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	4/14/2011	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
CCC1	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/5/2011	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
CCC1	4/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	4/10/2012	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
CCC2	9/8/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	9/8/2010	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
CCC2	4/14/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	4/14/2011	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
CCC2	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	10/4/2011	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
CCC2	4/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	4/10/2012	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
CCC2	4/2/2013	9.5 U	9.5 U	9.5 U	9.5 U	0.9 U	0.09 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	19 U	9.5 U
CCC2	4/2/2013	9.3 U	9.3 U	9.3 U	9.3 U	1 U	0.1 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U
CCC3	9/3/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	9/3/2010	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
CCC3	9/3/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	9/3/2010	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
CCC3	4/12/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	4/12/2011	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
CCC3	10/4/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/4/2011	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
CCC3	10/4/2011	NA	NA	NA	NA	0.1 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/4/2011	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
CCC3	4/10/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	4/10/2012	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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'-Oxybls(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
CCCT	9/3/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	9/3/2010	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
CCCT	4/18/2011	NA	NA	NA	NA	0.1 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	4/18/2011	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
CCCT	10/3/2011	NA	NA	NA	NA	0.08 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	10/3/2011	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
CCCT	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	4/4/2012	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
CTP	9/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
CTP	9/30/2010	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
CTP	9/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
CTP	9/30/2010	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
CTP	4/14/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CTP	4/14/2011	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
CTP	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CTP	10/6/2011	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
CTP	4/3/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CTP	4/3/2012	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
CTP	4/4/2013	10 U	10 U	10 U	10 U	0.9 U	0.09 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U
CTPS	10/1/2010	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
CTPS	10/18/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/19/2011	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
CTPS	10/7/2011	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
CTPS	10/10/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/5/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/5/2012	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
DH	9/30/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
DH	9/30/2010	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
DH	4/14/2011	NA	NA	NA	NA	0.04 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
DH	4/14/2011	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
DH	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
DH	10/5/2011	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
DH	4/5/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
DH	4/6/2012	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
EERC	10/1/2010	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
EERC	10/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/20/2011	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
EERC	10/7/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/7/2011	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
EERC	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/6/2012	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
EPA	9/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
EPA	9/16/2010	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
EPA	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/19/2011	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
EPA	10/6/2011	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
EPA	10/6/2011	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
EPA	4/6/2012	NA	NA	NA	NA	0.5 J	0.05 J	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/6/2012	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
EPA	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/6/2012	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
EPA	4/4/2013	9.3 U	9.3 U	9.3 U	9.3 U	1.9	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	19 U	9.3 U
ETA	9/24/2010	NA	NA	NA	NA	NA	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/24/2010	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
ETA	9/24/2010	NA	NA	NA	NA	NA	0.032 J	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/24/2010	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
ETA	4/12/2011	NA	NA	NA	NA	8.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/12/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
ETA	9/30/2011	NA	NA	NA	NA	6.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/30/2011	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
ETA	4/10/2012	NA	NA	NA	NA	12	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/10/2012	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
ETA	4/10/2012	NA	NA	NA	NA	12	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/10/2012	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
FG	9/23/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
FG	9/23/2010	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
FG	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/19/2011	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
FG	4/19/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/19/2011	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
FG	10/10/2011	NA	NA	NA	NA	0.9 U	0.09 U	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
FG	4/9/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/9/2012	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
GEO	9/3/2010	NA	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA
GEO	9/3/2010	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
GEO	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
GEO	4/20/2011	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
GEO	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
GEO	10/6/2011	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
GEO	4/6/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
GEO	4/6/2012	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
MFA	9/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
MFA	9/24/2010	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
MFA	4/12/2011	NA	NA	NA	NA	1.1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
MFA	4/12/2011	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
MFA	10/3/2011	NA	NA	NA	NA	1.7	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/3/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
MFA	4/5/2012	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
MFA	4/5/2012	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
MFA	4/5/2013	10 U	10 U	10 U	10 U	0.04 J	0.09 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	10 U
NRLF	9/16/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	9/16/2010	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
NRLF	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	4/20/2011	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
NRLF	10/6/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/6/2011	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
NRLF	4/9/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	4/9/2012	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
PZ11	10/1/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/1/2010	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
PZ11	4/20/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	4/20/2011	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
PZ11	10/10/2011	NA	NA	NA	NA	0.3 J	0.09 U	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
PZ11	4/5/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	4/5/2012	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
PZ8	10/15/2010	NA	NA	NA	NA	NA	0.05 U	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
PZ8	4/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	4/18/2011	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
PZ8	10/4/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/4/2011	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
PZ8	4/3/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	4/3/2012	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
PZ9	9/24/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	9/24/2010	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
PZ9	4/20/2011	NA	NA	NA	NA	0.9 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
PZ9	4/20/2011	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
PZ9	10/7/2011	NA	NA	NA	NA	1.2	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/7/2011	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
PZ9	10/7/2011	NA	NA	NA	NA	1.2	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/7/2011	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
PZ9	4/6/2012	NA	NA	NA	NA	1	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	4/6/2012	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
RWF	9/15/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
RWF	9/15/2010	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
RWF	4/18/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
RWF	4/18/2011	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
RWF	10/6/2011	NA	NA	NA	NA	0.6 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
RWF	10/6/2011	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
RWF	4/4/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
RWF	4/4/2012	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
TP1	9/29/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
TP1	9/29/2010	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
TP1	4/18/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
TP1	4/18/2011	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
TP1	10/7/2011	NA	NA	NA	NA	0.05 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
TP1	10/7/2011	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
TP1	4/5/2012	NA	NA	NA	NA	1 U	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
TP1	4/5/2012	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
TP2	9/29/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
TP2	9/29/2010	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
TP2	4/18/2011	NA	NA	NA	NA	0.7 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/18/2011	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

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
TP2	10/7/2011	NA	NA	NA	NA	0.9 J	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA
TP2	10/7/2011	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
TP2	4/9/2012	NA	NA	NA	NA	0.3 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/9/2012	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
TP2	4/9/2012	NA	NA	NA	NA	0.4 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/9/2012	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
WTA	9/30/2010	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA
WTA	9/30/2010	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
WTA	4/14/2011	NA	NA	NA	NA	0.06 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/14/2011	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
WTA	4/14/2011	NA	NA	NA	NA	0.07 J	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/14/2011	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
WTA	10/5/2011	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
WTA	10/5/2011	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
WTA	4/5/2012	NA	NA	NA	NA	0.9 U	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/5/2012	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
WTA	4/5/2013	9.8 U	9.8 U	9.8 U	9.8 U	0.9 U	0.09 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	20 U	9.8 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B120	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	9/9/2010	0.9 U	0.9 U	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
B120	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	4/15/2011	9.4 U	9.4 U	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
B120	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	10/4/2011	9.4 U	9.4 U	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
B120	4/3/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B120	4/3/2012	9.6 U	9.6 U	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
B121	9/8/2010	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	9/8/2010	0.9 U	0.9 U	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
B121	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	4/13/2011	9.4 U	9.4 U	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
B121	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	10/4/2011	9.4 U	9.4 U	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
B121	4/4/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B121	4/4/2012	9.4 U	9.4 U	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
B128	9/23/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	9/23/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B128	9/23/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	9/23/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B128	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	4/18/2011	9.4 U	9.4 U	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
B128	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	10/4/2011	9.4 U	9.4 U	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
B128	4/2/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B128	4/2/2012	9.6 U	9.6 U	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
B128	4/5/2013	9.4 U	9.4 U	9.4 U	0.1 U	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B150	9/8/2010	NA	NA	NA	0.048 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	9/8/2010	1 U	1 U	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
B150	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/13/2011	9.4 U	9.4 U	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
B150	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/5/2011	9.4 U	9.4 U	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
B150	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	10/5/2011	9.4 U	9.4 U	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
B150	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/4/2012	9.4 U	9.4 U	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
B150	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B150	4/4/2012	9.4 U	9.4 U	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
B158	9/8/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	9/8/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	1 U	5 U	5 U
B158	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	4/15/2011	9.4 U	9.4 U	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
B158	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	10/5/2011	9.4 U	9.4 U	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
B158	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B158	4/6/2012	9.4 U	9.4 U	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
B163	9/2/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	9/2/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 UJ	1 U	5 U	5 U
B163	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	4/12/2011	9.4 U	9.4 U	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
B163	10/3/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	10/3/2011	9.4 U	9.4 U	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
B163	4/2/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B163	4/2/2012	9.6 U	9.6 U	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
B163	4/3/2013	11 U	11 U	11 U	0.09 U	11 U	21 U	21 U	21 U	21 U	NA	21 U	11 U	11 U	11 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B175S	9/3/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	9/3/2010	0.9 U	0.9 U	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
B175S	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	4/13/2011	9.4 U	9.4 U	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
B175S	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	10/4/2011	9.4 U	9.4 U	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
B175S	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175S	4/4/2012	9.4 U	9.4 U	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
B175W	9/8/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	9/8/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	1 U	5 U	5 U
B175W	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	4/13/2011	9.4 U	9.4 U	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
B175W	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	10/4/2011	9.4 U	9.4 U	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
B175W	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B175W	4/4/2012	9.4 U	9.4 U	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
B177	9/23/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	9/23/2010	0.9 U	0.9 U	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
B177	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	4/18/2011	9.4 U	9.4 U	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
B177	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	10/5/2011	9.4 U	9.4 U	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
B177	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B177	4/4/2012	9.4 U	9.4 U	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
B178	9/2/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	9/2/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	NA	5 UJ	1 U	5 U	5 U
B178	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	4/15/2011	9.4 U	9.4 U	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
B178	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B178	10/4/2011	9.4 U	9.4 U	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
B178	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B178	4/3/2012	9.4 U	9.4 U	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
B180	9/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	9/15/2010	1 U	1 U	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
B180	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	4/13/2011	9.4 U	9.4 U	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
B180	10/6/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/6/2011	9.4 U	9.4 U	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
B180	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	10/6/2011	9.4 U	9.4 U	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
B180	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B180	4/4/2012	9.7 U	9.7 U	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
B180	4/8/2013	9.3 U	9.3 U	9.3 U	0.09 U	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U
B185	9/2/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	9/2/2010	0.9 U	0.9 U	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
B185	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/15/2011	9.4 U	9.4 U	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
B185	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/15/2011	9.4 U	9.4 U	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
B185	10/3/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/3/2011	9.4 U	9.4 U	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
B185	10/3/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	10/3/2011	9.4 U	9.4 U	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
B185	4/2/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B185	4/2/2012	9.6 U	9.6 U	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
B194	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	9/9/2010	0.9 U	0.9 U	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
B194	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B194	4/13/2011	9.4 U	9.4 U	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
B194	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	10/4/2011	9.4 U	9.4 U	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
B194	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B194	4/4/2012	9.4 U	9.4 U	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
B195	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	9/9/2010	0.9 U	0.9 U	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
B195	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/13/2011	9.4 U	9.4 U	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
B195	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/13/2011	9.4 U	9.4 U	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
B195	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	10/4/2011	9.4 U	9.4 U	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
B195	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B195	4/3/2012	9.5 U	9.5 U	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
B197	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	9/9/2010	0.9 U	0.9 U	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
B197	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	9/9/2010	1 U	1 U	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
B197	4/13/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/13/2011	9.4 U	9.4 U	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
B197	10/4/2011	9.4 U	9.4 U	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
B197	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	9.4 U	9.4 U	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
B197	4/3/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B197	4/3/2012	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B277	9/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	9/15/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B277	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	4/18/2011	9.4 U	9.4 U	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
B277	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	10/5/2011	9.4 U	9.4 U	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
B277	4/3/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B277	4/3/2012	9.5 U	9.5 U	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
B278	9/16/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	9/16/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B278	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	4/19/2011	9.4 U	9.4 U	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
B278	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	10/5/2011	9.4 U	9.4 U	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
B278	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B278	4/5/2012	9.4 U	9.4 U	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
B280A	9/16/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	9/16/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B280A	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	4/14/2011	9.4 U	9.4 U	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
B280A	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	10/6/2011	9.4 U	9.4 U	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
B280A	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280A	4/3/2012	9.4 U	9.4 U	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
B280A	4/4/2013	10 U	10 U	10 U	0.1 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U
B280B	10/1/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/1/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B280B	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	4/14/2011	10 U	10 U	10 U	10 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B280B	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	10/6/2011	9.4 U	9.4 U	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
B280B	4/3/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B280B	4/3/2012	9.5 U	9.5 U	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
B300	9/9/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	9/9/2010	0.9 U	0.9 U	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
B300	4/15/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	4/15/2011	9.4 U	9.4 U	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
B300	10/6/2011	NA	NA	NA	0.5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	10/6/2011	97 U	97 U	97 U	NA	97 U	190 U	190 U	190 U	190 U	NA	190 U	97 U	97 U	97 U
B300	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B300	4/9/2012	9.4 U	9.4 U	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
B38	9/15/2010	NA	NA	NA	0.05 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	9/15/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B38	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/19/2011	9.4 U	9.4 U	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
B38	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/19/2011	9.4 U	9.4 U	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
B38	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	10/6/2011	9.4 U	9.4 U	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
B38	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B38	4/4/2012	9.4 U	9.4 U	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
B450	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	4/19/2011	9.4 U	9.4 U	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
B450	10/10/2011	NA	NA	NA	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	NA	9.6 UJ	19 UJ	19 UJ	19 UJ	19 UJ	NA	19 UJ	9.6 UJ	9.6 UJ	9.6 UJ
B450	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B450	4/6/2012	9.4 U	9.4 U	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
B460	9/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B460	9/15/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B460	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	4/20/2011	9.4 U	9.4 U	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
B460	10/7/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	10/7/2011	9.6 U	9.6 U	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
B460	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B460	4/6/2012	9.4 U	9.4 U	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
B473	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	9/24/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B473	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	4/20/2011	9.4 U	9.4 U	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
B473	10/7/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	10/7/2011	9.4 U	9.4 U	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
B473	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B473	4/6/2012	9.4 U	9.4 U	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
B474	9/23/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	9/23/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B474	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	4/20/2011	9.4 U	9.4 U	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
B474	10/7/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	10/7/2011	9.4 U	9.4 U	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
B474	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B474	4/9/2012	9.4 U	9.4 U	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
B480	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	9/24/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B480	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	4/19/2011	9.4 U	9.4 U	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
B480	10/7/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	10/7/2011	9.5 U	9.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
B480	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B480	4/9/2012	9.4 U	9.4 U	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
B490	9/16/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	9/16/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
B490	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	4/20/2011	9.4 U	9.4 U	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
B490	10/10/2011	NA	NA	NA	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	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U
B490	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B490	4/9/2012	9.4 U	9.4 U	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
BULB1	10/19/2010	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	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
BULB1	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	4/12/2011	9.4 U	9.4 U	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
BULB1	9/30/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	9/30/2011	9.5 U	9.5 U	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
BULB1	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB1	4/5/2012	9.4 U	9.4 U	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
BULB2	10/19/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	10/19/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
BULB2	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	4/12/2011	9.4 U	9.4 U	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
BULB2	9/30/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	9/30/2011	9.4 U	9.4 U	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
BULB2	4/5/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BULB2	4/5/2012	9.4 U	9.4 U	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
BULB2	4/5/2013	10 U	10 U	10 U	0.09 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
CCC1	9/8/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	9/8/2010	0.9 U	0.9 U	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
CCC1	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	4/14/2011	9.4 U	9.4 U	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
CCC1	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	10/5/2011	9.4 U	9.4 U	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
CCC1	4/10/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC1	4/10/2012	9.4 U	9.4 U	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
CCC2	9/8/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	9/8/2010	1 U	1 U	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
CCC2	4/14/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	4/14/2011	9.4 U	9.4 U	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
CCC2	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	10/4/2011	9.4 U	9.4 U	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
CCC2	4/10/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC2	4/10/2012	9.4 U	9.4 U	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
CCC2	4/2/2013	9.5 U	9.5 U	9.5 U	0.09 U	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U
CCC2	4/2/2013	9.3 U	9.3 U	9.3 U	0.1 U	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U
CCC3	9/3/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	9/3/2010	0.9 U	0.9 U	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
CCC3	9/3/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	9/3/2010	0.9 U	0.9 U	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
CCC3	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	4/12/2011	9.4 U	9.4 U	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
CCC3	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/4/2011	9.4 U	9.4 U	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
CCC3	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	10/4/2011	9.4 U	9.4 U	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
CCC3	4/10/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCC3	4/10/2012	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
CCCT	9/3/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	9/3/2010	0.9 U	0.9 U	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
CCCT	4/18/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	4/18/2011	9.5 U	9.5 U	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
CCCT	10/3/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	10/3/2011	9.4 U	9.4 U	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
CCCT	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCCT	4/4/2012	9.4 U	9.4 U	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
CTP	9/30/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	9/30/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	13	5 UJ	1 U	5 U	5 UJ
CTP	9/30/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	9/30/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	9	5 UJ	1 U	5 U	5 UJ
CTP	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	4/14/2011	9.4 U	9.4 U	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
CTP	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	10/6/2011	9.4 U	9.4 U	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
CTP	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTP	4/3/2012	9.5 U	9.5 U	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
CTP	4/4/2013	10 U	10 U	10 U	0.09 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U
CTPS	10/1/2010	1.2 U	1.2 U	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
CTPS	10/18/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/19/2011	9.4 U	9.4 U	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
CTPS	10/7/2011	9.4 U	9.4 U	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
CTPS	10/10/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CTPS	4/5/2012	9.5 U	9.5 U	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
DH	9/30/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	9/30/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ
DH	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
DH	4/14/2011	9.4 U	9.4 U	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
DH	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	10/5/2011	9.4 U	9.4 U	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
DH	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	4/6/2012	9.4 U	9.4 U	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
EERC	10/1/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
EERC	10/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/20/2011	9.4 U	9.4 U	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
EERC	10/7/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	10/7/2011	9.4 U	9.4 U	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
EERC	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EERC	4/6/2012	9.5 U	9.5 U	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
EPA	9/16/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	9/16/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
EPA	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/19/2011	9.4 U	9.4 U	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
EPA	10/6/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	10/6/2011	9.8 U	9.8 U	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
EPA	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/6/2012	9.4 U	9.4 U	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
EPA	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EPA	4/6/2012	9.4 U	9.4 U	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
EPA	4/4/2013	9.3 U	9.3 U	9.3 U	0.09 U	9.3 U	19 U	19 U	19 U	19 U	NA	19 U	9.3 U	9.3 U	9.3 U
ETA	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/24/2010	0.9 U	0.9 U	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
ETA	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/24/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
ETA	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/12/2011	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
ETA	9/30/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	9/30/2011	9.4 U	9.4 U	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
ETA	4/10/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/10/2012	9.4 U	9.4 U	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
ETA	4/10/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ETA	4/10/2012	9.4 U	9.4 U	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
FG	9/23/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	9/23/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
FG	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/19/2011	9.4 U	9.4 U	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
FG	4/19/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/19/2011	9.4 U	9.4 U	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
FG	10/10/2011	NA	NA	NA	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	NA	9.5 U	19 U	19 U	19 U	19 U	NA	19 U	9.5 U	9.5 U	9.5 U
FG	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FG	4/9/2012	9.4 U	9.4 U	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
GEO	9/3/2010	NA	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	9/3/2010	0.9 U	0.9 U	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
GEO	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	4/20/2011	9.4 U	9.4 U	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
GEO	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	10/6/2011	9.4 U	9.4 U	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
GEO	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GEO	4/6/2012	9.4 U	9.4 U	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
MFA	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	9/24/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
MFA	4/12/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	4/12/2011	9.4 U	9.4 U	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
MFA	10/3/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	10/3/2011	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
MFA	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MFA	4/5/2012	9.4 U	9.4 U	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
MFA	4/5/2013	10 U	10 U	10 U	0.09 U	10 U	20 U	20 U	20 U	20 U	NA	20 U	10 U	10 U	10 U
NRLF	9/16/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	9/16/2010	1 U	1 U	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
NRLF	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	4/20/2011	9.4 U	9.4 U	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
NRLF	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	10/6/2011	9.5 U	9.5 U	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
NRLF	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NRLF	4/9/2012	9.4 U	9.4 U	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
PZ11	10/1/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	10/1/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
PZ11	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	4/20/2011	9.4 U	9.4 U	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
PZ11	10/10/2011	NA	NA	NA	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	NA	9.4 U	19 U	19 U	19 U	19 U	NA	19 U	9.4 U	9.4 U	9.4 U
PZ11	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ11	4/5/2012	9.4 U	9.4 U	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
PZ8	10/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/15/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
PZ8	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	4/18/2011	9.4 U	9.4 U	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
PZ8	10/4/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	10/4/2011	9.4 U	9.4 U	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
PZ8	4/3/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ8	4/3/2012	9.7 UJ	9.7 UJ	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
PZ9	9/24/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	9/24/2010	1 U	1 U	5 U	1 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
PZ9	4/20/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
PZ9	4/20/2011	9.4 U	9.4 U	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
PZ9	10/7/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/7/2011	9.4 U	9.4 U	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
PZ9	10/7/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	10/7/2011	9.4 U	9.4 U	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
PZ9	4/6/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PZ9	4/6/2012	9.4 U	9.4 U	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
RWF	9/15/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	9/15/2010	1 U	1 U	5 U	1 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	1 U	5 U	5 U
RWF	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	4/18/2011	9.4 U	9.4 U	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
RWF	10/6/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	10/6/2011	9.4 U	9.4 U	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
RWF	4/4/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RWF	4/4/2012	9.4 U	9.4 U	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
TP1	9/29/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	9/29/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ
TP1	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	4/18/2011	9.4 U	9.4 U	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
TP1	10/7/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	10/7/2011	9.4 U	9.4 U	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
TP1	4/5/2012	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP1	4/5/2012	9.5 U	9.5 U	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
TP2	9/29/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	9/29/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ
TP2	4/18/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/18/2011	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	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 phenyl ether	4-Chloro-3-methylphenol	4-Chloroaniline
TP2	10/7/2011	NA	NA	NA	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	10/7/2011	9.4 U	9.4 U	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
TP2	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/9/2012	9.4 U	9.4 U	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
TP2	4/9/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TP2	4/9/2012	9.4 U	9.4 U	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
WTA	9/30/2010	NA	NA	NA	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	9/30/2010	1 U	1 U	5 U	1 UJ	5 UJ	5 U	5 U	5 UJ	5 UJ	5 U	5 UJ	1 U	5 U	5 UJ
WTA	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/14/2011	9.4 U	9.4 U	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
WTA	4/14/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/14/2011	9.4 U	9.4 U	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
WTA	10/5/2011	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	10/5/2011	9.4 U	9.4 U	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
WTA	4/5/2012	NA	NA	NA	0.09 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WTA	4/5/2012	9.4 U	9.4 U	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
WTA	4/5/2013	9.8 U	9.8 U	9.8 U	0.09 U	9.8 U	20 U	20 U	20 U	20 U	NA	20 U	9.8 U	9.8 U	9.8 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B120	9/9/2010	NA	NA	NA	NA	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
B120	9/9/2010	0.9 U	NA	4.7 U	4.7 UJ	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
B120	4/15/2011	NA	NA	NA	NA	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
B120	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B120	10/4/2011	NA	NA	NA	NA	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
B120	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B120	4/3/2012	NA	NA	NA	NA	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
B120	4/3/2012	9.6 U	9.6 U	19 U	19 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U
B121	9/8/2010	NA	NA	NA	NA	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
B121	9/8/2010	0.9 U	NA	4.7 U	4.7 U	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
B121	4/13/2011	NA	NA	NA	NA	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
B121	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B121	10/4/2011	NA	NA	NA	NA	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
B121	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B121	4/4/2012	NA	NA	NA	NA	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
B121	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B128	9/23/2010	NA	NA	NA	NA	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
B128	9/23/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B128	9/23/2010	NA	NA	NA	NA	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
B128	9/23/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B128	4/18/2011	NA	NA	NA	NA	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
B128	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B128	10/4/2011	NA	NA	NA	NA	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
B128	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B128	4/2/2012	NA	NA	NA	NA	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
B128	4/2/2012	9.6 U	9.6 U	19 U	19 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U
B128	4/5/2013	9.4 U	9.4 U	19 U	19 U	0.1 U	0.1 U	0.1 U	9.4 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B150	9/8/2010	NA	NA	NA	NA	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
B150	9/8/2010	1 U	NA	4.8 U	4.8 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
B150	4/13/2011	NA	NA	NA	NA	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
B150	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B150	10/5/2011	NA	NA	NA	NA	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
B150	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B150	10/5/2011	NA	NA	NA	NA	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
B150	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B150	4/4/2012	NA	NA	NA	NA	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
B150	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B150	4/4/2012	NA	NA	NA	NA	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
B150	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B158	9/8/2010	NA	NA	NA	NA	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
B158	9/8/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
B158	4/15/2011	NA	NA	NA	NA	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
B158	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B158	10/5/2011	NA	NA	NA	NA	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
B158	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B158	4/6/2012	NA	NA	NA	NA	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
B158	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B163	9/2/2010	NA	NA	NA	NA	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
B163	9/2/2010	1 U	5 U	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
B163	4/12/2011	NA	NA	NA	NA	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
B163	4/12/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B163	10/3/2011	NA	NA	NA	NA	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
B163	10/3/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B163	4/2/2012	NA	NA	NA	NA	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
B163	4/2/2012	9.6 U	9.6 U	19 U	19 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U
B163	4/3/2013	11 U	11 U	21 U	21 U	0.09 U	0.09 U	0.09 U	11 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	53 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B175S	9/3/2010	NA	NA	NA	NA	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
B175S	9/3/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
B175S	4/13/2011	NA	NA	NA	NA	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
B175S	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B175S	10/4/2011	NA	NA	NA	NA	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
B175S	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B175S	4/4/2012	NA	NA	NA	NA	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
B175S	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B175W	9/8/2010	NA	NA	NA	NA	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
B175W	9/8/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
B175W	4/13/2011	NA	NA	NA	NA	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
B175W	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B175W	10/4/2011	NA	NA	NA	NA	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
B175W	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B175W	4/4/2012	NA	NA	NA	NA	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
B175W	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B177	9/23/2010	NA	NA	NA	NA	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
B177	9/23/2010	0.9 U	NA	4.7 U	4.7 U	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
B177	4/18/2011	NA	NA	NA	NA	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
B177	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B177	10/5/2011	NA	NA	NA	NA	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
B177	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B177	4/4/2012	NA	NA	NA	NA	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
B177	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B178	9/2/2010	NA	NA	NA	NA	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
B178	9/2/2010	1 U	5 U	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
B178	4/15/2011	NA	NA	NA	NA	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
B178	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B178	10/4/2011	NA	NA	NA	NA	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B178	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B178	4/3/2012	NA	NA	NA	NA	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
B178	4/3/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B180	9/15/2010	NA	NA	NA	NA	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
B180	9/15/2010	1 U	NA	4.8 U	4.8 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B180	4/13/2011	NA	NA	NA	NA	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
B180	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B180	10/6/2011	NA	NA	NA	NA	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
B180	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B180	10/6/2011	NA	NA	NA	NA	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
B180	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B180	4/4/2012	NA	NA	NA	NA	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
B180	4/4/2012	9.7 U	9.7 U	19 U	19 U	NA	NA	NA	9.7 U	NA	NA	NA	NA	NA	49 U
B180	4/8/2013	9.3 U	9.3 U	19 U	19 U	0.09 U	0.09 U	0.09 U	9.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	47 U
B185	9/2/2010	NA	NA	NA	NA	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
B185	9/2/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
B185	4/15/2011	NA	NA	NA	NA	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
B185	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B185	4/15/2011	NA	NA	NA	NA	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
B185	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B185	10/3/2011	NA	NA	NA	NA	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
B185	10/3/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B185	10/3/2011	NA	NA	NA	NA	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
B185	10/3/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B185	4/2/2012	NA	NA	NA	NA	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
B185	4/2/2012	9.6 U	9.6 U	19 U	19 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U
B194	9/9/2010	NA	NA	NA	NA	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
B194	9/9/2010	0.9 U	NA	4.7 U	4.7 UJ	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
B194	4/13/2011	NA	NA	NA	NA	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B194	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B194	10/4/2011	NA	NA	NA	NA	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
B194	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B194	4/4/2012	NA	NA	NA	NA	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
B194	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B195	9/9/2010	NA	NA	NA	NA	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
B195	9/9/2010	0.9 U	NA	4.7 U	4.7 UJ	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
B195	4/13/2011	NA	NA	NA	NA	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
B195	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B195	4/13/2011	NA	NA	NA	NA	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
B195	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B195	10/4/2011	NA	NA	NA	NA	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
B195	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B195	4/3/2012	NA	NA	NA	NA	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
B195	4/3/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
B197	9/9/2010	NA	NA	NA	NA	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
B197	9/9/2010	0.9 U	NA	4.7 U	4.7 UJ	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
B197	9/9/2010	NA	NA	NA	NA	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
B197	9/9/2010	1 U	NA	4.8 U	4.8 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B197	4/13/2011	NA	NA	NA	NA	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
B197	4/13/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B197	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B197	10/4/2011	NA	NA	NA	NA	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
B197	4/3/2012	NA	NA	NA	NA	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
B197	4/3/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B197	4/3/2012	NA	NA	NA	NA	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
B197	4/3/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B277	9/15/2010	NA	NA	NA	NA	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
B277	9/15/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B277	4/18/2011	NA	NA	NA	NA	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
B277	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B277	10/5/2011	NA	NA	NA	NA	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
B277	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B277	4/3/2012	NA	NA	NA	NA	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
B277	4/3/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
B278	9/16/2010	NA	NA	NA	NA	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
B278	9/16/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B278	4/19/2011	NA	NA	NA	NA	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
B278	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B278	10/5/2011	NA	NA	NA	NA	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
B278	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B278	4/5/2012	NA	NA	NA	NA	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
B278	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B280A	9/16/2010	NA	NA	NA	NA	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
B280A	9/16/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B280A	4/14/2011	NA	NA	NA	NA	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
B280A	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B280A	10/6/2011	NA	NA	NA	NA	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
B280A	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B280A	4/3/2012	NA	NA	NA	NA	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
B280A	4/3/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B280A	4/4/2013	10 U	10 U	20 U	20 U	0.1 U	0.1 U	0.1 U	10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	50 U
B280B	10/1/2010	NA	NA	NA	NA	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
B280B	10/1/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B280B	4/14/2011	NA	NA	NA	NA	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
B280B	4/14/2011	10 U	10 U	20 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B280B	10/6/2011	NA	NA	NA	NA	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
B280B	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B280B	4/3/2012	NA	NA	NA	NA	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
B280B	4/3/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
B300	9/9/2010	NA	NA	NA	NA	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
B300	9/9/2010	0.9 U	NA	4.7 U	4.7 UJ	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
B300	4/15/2011	NA	NA	NA	NA	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
B300	4/15/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B300	10/6/2011	NA	NA	NA	NA	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
B300	10/6/2011	97 U	97 U	190 U	190 U	NA	NA	NA	97 U	NA	NA	NA	NA	NA	180 J
B300	4/9/2012	NA	NA	NA	NA	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
B300	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B38	9/15/2010	NA	NA	NA	NA	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
B38	9/15/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B38	4/19/2011	NA	NA	NA	NA	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
B38	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B38	4/19/2011	NA	NA	NA	NA	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
B38	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B38	10/6/2011	NA	NA	NA	NA	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
B38	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B38	4/4/2012	NA	NA	NA	NA	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
B38	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B450	4/19/2011	NA	NA	NA	NA	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
B450	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B450	10/10/2011	NA	NA	NA	NA	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
B450	10/10/2011	9.6 UJ	9.6 UJ	19 UJ	19 UJ	NA	NA	NA	9.6 UJ	NA	NA	NA	NA	NA	48 UJ
B450	4/6/2012	NA	NA	NA	NA	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
B450	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B460	9/15/2010	NA	NA	NA	NA	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B460	9/15/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B460	4/20/2011	NA	NA	NA	NA	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
B460	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B460	10/7/2011	NA	NA	NA	NA	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
B460	10/7/2011	9.6 U	9.6 U	19 U	19 U	NA	NA	NA	9.6 U	NA	NA	NA	NA	NA	48 U
B460	4/6/2012	NA	NA	NA	NA	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
B460	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B473	9/24/2010	NA	NA	NA	NA	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
B473	9/24/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B473	4/20/2011	NA	NA	NA	NA	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
B473	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B473	10/7/2011	NA	NA	NA	NA	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
B473	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B473	4/6/2012	NA	NA	NA	NA	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
B473	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B474	9/23/2010	NA	NA	NA	NA	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
B474	9/23/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B474	4/20/2011	NA	NA	NA	NA	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
B474	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B474	10/7/2011	NA	NA	NA	NA	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
B474	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B474	4/9/2012	NA	NA	NA	NA	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
B474	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B480	9/24/2010	NA	NA	NA	NA	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
B480	9/24/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B480	4/19/2011	NA	NA	NA	NA	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
B480	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B480	10/7/2011	NA	NA	NA	NA	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
B480	10/7/2011	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
B480	4/9/2012	NA	NA	NA	NA	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
B480	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B490	9/16/2010	NA	NA	NA	NA	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
B490	9/16/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
B490	4/20/2011	NA	NA	NA	NA	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
B490	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
B490	10/10/2011	NA	NA	NA	NA	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
B490	10/10/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
B490	4/9/2012	NA	NA	NA	NA	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
B490	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
BULB1	10/19/2010	NA	NA	NA	NA	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
BULB1	10/19/2010	0.9 U	NA	4.7 U	4.7 U	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
BULB1	4/12/2011	NA	NA	NA	NA	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
BULB1	4/12/2011	9.4 U	9.4 U	19 UJ	19 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	9.4 U	47 U
BULB1	9/30/2011	NA	NA	NA	NA	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
BULB1	9/30/2011	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
BULB1	4/5/2012	NA	NA	NA	NA	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
BULB1	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
BULB2	10/19/2010	NA	NA	NA	NA	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
BULB2	10/19/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
BULB2	4/12/2011	NA	NA	NA	NA	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
BULB2	4/12/2011	9.4 U	9.4 U	19 UJ	19 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	9.4 U	47 U
BULB2	9/30/2011	NA	NA	NA	NA	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
BULB2	9/30/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
BULB2	4/5/2012	NA	NA	NA	NA	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
BULB2	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
BULB2	4/5/2013	10 U	10 U	20 U	20 U	0.09 U	0.09 U	0.09 U	10 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	50 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
CCC1	9/8/2010	NA	NA	NA	NA	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
CCC1	9/8/2010	0.9 U	NA	4.7 U	4.7 U	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
CCC1	4/14/2011	NA	NA	NA	NA	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
CCC1	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
CCC1	10/5/2011	NA	NA	NA	NA	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
CCC1	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC1	4/10/2012	NA	NA	NA	NA	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
CCC1	4/10/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC2	9/8/2010	NA	NA	NA	NA	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
CCC2	9/8/2010	1 U	NA	4.8 U	4.8 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 UJ	NA
CCC2	4/14/2011	NA	NA	NA	NA	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
CCC2	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
CCC2	10/4/2011	NA	NA	NA	NA	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
CCC2	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC2	4/10/2012	NA	NA	NA	NA	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
CCC2	4/10/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC2	4/2/2013	9.5 U	9.5 U	19 U	19 U	0.09 U	0.09 U	0.09 U	9.5 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	48 U
CCC2	4/2/2013	9.3 U	9.3 U	19 U	19 U	0.1 U	0.1 U	0.1 U	9.3 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	47 U
CCC3	9/3/2010	NA	NA	NA	NA	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
CCC3	9/3/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
CCC3	9/3/2010	NA	NA	NA	NA	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
CCC3	9/3/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
CCC3	4/12/2011	NA	NA	NA	NA	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
CCC3	4/12/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
CCC3	10/4/2011	NA	NA	NA	NA	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
CCC3	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC3	10/4/2011	NA	NA	NA	NA	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
CCC3	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCC3	4/10/2012	NA	NA	NA	NA	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
CCC3	4/10/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
CCCT	9/3/2010	NA	NA	NA	NA	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
CCCT	9/3/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
CCCT	4/18/2011	NA	NA	NA	NA	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
CCCT	4/18/2011	9.5 U	9.5 U	19 U	19 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	9.5 U	48 U
CCCT	10/3/2011	NA	NA	NA	NA	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
CCCT	10/3/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CCCT	4/4/2012	NA	NA	NA	NA	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
CCCT	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CTP	9/30/2010	NA	NA	NA	NA	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
CTP	9/30/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
CTP	9/30/2010	NA	NA	NA	NA	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
CTP	9/30/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
CTP	4/14/2011	NA	NA	NA	NA	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
CTP	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
CTP	10/6/2011	NA	NA	NA	NA	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
CTP	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CTP	4/3/2012	NA	NA	NA	NA	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
CTP	4/3/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
CTP	4/4/2013	10 U	10 U	20 U	20 U	0.09 U	0.09 U	0.09 U	10 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	50 U
CTPS	10/1/2010	1.2 U	NA	6 U	6 U	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
CTPS	10/18/2010	NA	NA	NA	NA	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
CTPS	4/19/2011	NA	NA	NA	NA	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
CTPS	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
CTPS	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
CTPS	10/10/2011	NA	NA	NA	NA	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
CTPS	4/5/2012	NA	NA	NA	NA	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
CTPS	4/5/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
DH	9/30/2010	NA	NA	NA	NA	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
DH	9/30/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
DH	4/14/2011	NA	NA	NA	NA	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
DH	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
DH	10/5/2011	NA	NA	NA	NA	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
DH	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
DH	4/5/2012	NA	NA	NA	NA	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
DH	4/6/2012	9.4 U	3.2 J	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
EERC	10/1/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
EERC	10/15/2010	NA	NA	NA	NA	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
EERC	4/20/2011	NA	NA	NA	NA	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
EERC	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
EERC	10/7/2011	NA	NA	NA	NA	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
EERC	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
EERC	4/6/2012	NA	NA	NA	NA	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
EERC	4/6/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
EPA	9/16/2010	NA	NA	NA	NA	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
EPA	9/16/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
EPA	4/19/2011	NA	NA	NA	NA	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
EPA	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
EPA	10/6/2011	NA	NA	NA	NA	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
EPA	10/6/2011	9.8 U	9.8 U	20 U	20 U	NA	NA	NA	9.8 U	NA	NA	NA	NA	NA	49 U
EPA	4/6/2012	NA	NA	NA	NA	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
EPA	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
EPA	4/6/2012	NA	NA	NA	NA	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
EPA	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
EPA	4/4/2013	9.3 U	9.3 U	19 U	19 U	0.09 U	0.09 U	0.09 U	9.3 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	47 U
ETA	9/24/2010	NA	NA	NA	NA	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
ETA	9/24/2010	0.9 U	NA	4.7 U	4.7 U	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
ETA	9/24/2010	NA	NA	NA	NA	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
ETA	9/24/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
ETA	4/12/2011	NA	NA	NA	NA	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
ETA	4/12/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
ETA	9/30/2011	NA	NA	NA	NA	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
ETA	9/30/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
ETA	4/10/2012	NA	NA	NA	NA	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
ETA	4/10/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
ETA	4/10/2012	NA	NA	NA	NA	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
ETA	4/10/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
FG	9/23/2010	NA	NA	NA	NA	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
FG	9/23/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
FG	4/19/2011	NA	NA	NA	NA	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
FG	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
FG	4/19/2011	NA	NA	NA	NA	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
FG	4/19/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
FG	10/10/2011	NA	NA	NA	NA	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
FG	10/10/2011	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
FG	4/9/2012	NA	NA	NA	NA	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
FG	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
GEO	9/3/2010	NA	NA	NA	NA	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
GEO	9/3/2010	0.9 U	4.7 U	4.7 U	4.7 U	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
GEO	4/20/2011	NA	NA	NA	NA	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
GEO	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
GEO	10/6/2011	NA	NA	NA	NA	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
GEO	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
GEO	4/6/2012	NA	NA	NA	NA	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
GEO	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
MFA	9/24/2010	NA	NA	NA	NA	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
MFA	9/24/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
MFA	4/12/2011	NA	NA	NA	NA	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
MFA	4/12/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
MFA	10/3/2011	NA	NA	NA	NA	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
MFA	10/3/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
MFA	4/5/2012	NA	NA	NA	NA	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
MFA	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
MFA	4/5/2013	10 U	10 U	20 U	20 U	0.09 U	0.09 U	0.09 U	10 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	50 U
NRLF	9/16/2010	NA	NA	NA	NA	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
NRLF	9/16/2010	1 U	NA	4.8 U	4.8 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
NRLF	4/20/2011	NA	NA	NA	NA	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
NRLF	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
NRLF	10/6/2011	NA	NA	NA	NA	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
NRLF	10/6/2011	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
NRLF	4/9/2012	NA	NA	NA	NA	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
NRLF	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ11	10/1/2010	NA	NA	NA	NA	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
PZ11	10/1/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
PZ11	4/20/2011	NA	NA	NA	NA	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
PZ11	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
PZ11	10/10/2011	NA	NA	NA	NA	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
PZ11	10/10/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ11	4/5/2012	NA	NA	NA	NA	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
PZ11	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ8	10/15/2010	NA	NA	NA	NA	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
PZ8	10/15/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
PZ8	4/18/2011	NA	NA	NA	NA	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
PZ8	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
PZ8	10/4/2011	NA	NA	NA	NA	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
PZ8	10/4/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ8	4/3/2012	NA	NA	NA	NA	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
PZ8	4/3/2012	9.7 UJ	9.7 UJ	19 UJ	19 UJ	NA	NA	NA	9.7 UJ	NA	NA	NA	NA	NA	49 UJ
PZ9	9/24/2010	NA	NA	NA	NA	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
PZ9	9/24/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
PZ9	4/20/2011	NA	NA	NA	NA	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

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
PZ9	4/20/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
PZ9	10/7/2011	NA	NA	NA	NA	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
PZ9	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ9	10/7/2011	NA	NA	NA	NA	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
PZ9	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
PZ9	4/6/2012	NA	NA	NA	NA	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
PZ9	4/6/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
RWF	9/15/2010	NA	NA	NA	NA	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
RWF	9/15/2010	1 U	NA	5 U	5 UJ	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
RWF	4/18/2011	NA	NA	NA	NA	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
RWF	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
RWF	10/6/2011	NA	NA	NA	NA	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
RWF	10/6/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
RWF	4/4/2012	NA	NA	NA	NA	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
RWF	4/4/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
TP1	9/29/2010	NA	NA	NA	NA	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
TP1	9/29/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
TP1	4/18/2011	NA	NA	NA	NA	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
TP1	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
TP1	10/7/2011	NA	NA	NA	NA	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
TP1	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
TP1	4/5/2012	NA	NA	NA	NA	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
TP1	4/5/2012	9.5 U	9.5 U	19 U	19 U	NA	NA	NA	9.5 U	NA	NA	NA	NA	NA	48 U
TP2	9/29/2010	NA	NA	NA	NA	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
TP2	9/29/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
TP2	4/18/2011	NA	NA	NA	NA	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
TP2	4/18/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	4-Chlorophenyl phenyl ether	4-Methylnaphthalene	4-Nitroaniline	4-Nitrophenol	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid
TP2	10/7/2011	NA	NA	NA	NA	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
TP2	10/7/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
TP2	4/9/2012	NA	NA	NA	NA	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
TP2	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
TP2	4/9/2012	NA	NA	NA	NA	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
TP2	4/9/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
WTA	9/30/2010	NA	NA	NA	NA	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
WTA	9/30/2010	1 U	NA	5 U	5 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	NA
WTA	4/14/2011	NA	NA	NA	NA	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
WTA	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
WTA	4/14/2011	NA	NA	NA	NA	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
WTA	4/14/2011	9.4 U	9.4 U	19 U	19 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	9.4 U	47 U
WTA	10/5/2011	NA	NA	NA	NA	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
WTA	10/5/2011	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
WTA	4/5/2012	NA	NA	NA	NA	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
WTA	4/5/2012	9.4 U	9.4 U	19 U	19 U	NA	NA	NA	9.4 U	NA	NA	NA	NA	NA	47 U
WTA	4/5/2013	9.8 U	9.8 U	20 U	20 U	0.09 U	0.09 U	0.09 U	9.8 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	49 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B120	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B120	9/9/2010	4.7 U	0.9 U	0.9 U	0.9 UJ	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 UJ
B120	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B120	4/15/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B120	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B120	10/4/2011	9.4 U	9.4 U	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
B120	4/3/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B120	4/3/2012	9.6 U	9.6 U	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
B121	9/8/2010	NA	NA	NA	NA	NA	NA	0.048 U	0.048 U	NA	NA	NA	NA	NA
B121	9/8/2010	4.7 U	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 UJ
B121	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B121	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B121	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B121	10/4/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B121	4/4/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B121	4/4/2012	9.4 U	9.4 U	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
B128	9/23/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B128	9/23/2010	5 U	1 U	1 U	6.2	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B128	9/23/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B128	9/23/2010	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B128	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B128	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B128	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B128	10/4/2011	9.4 U	9.4 U	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
B128	4/2/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B128	4/2/2012	9.6 U	9.6 U	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
B128	4/5/2013	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	0.1 U	0.1 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B150	9/8/2010	NA	NA	NA	NA	NA	NA	0.048 U	0.048 U	NA	NA	NA	NA	NA
B150	9/8/2010	4.8 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B150	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B150	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B150	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B150	10/5/2011	9.4 U	9.4 U	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
B150	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B150	10/5/2011	9.4 U	9.4 U	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
B150	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B150	4/4/2012	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B150	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B150	4/4/2012	9.4 U	9.4 U	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
B158	9/8/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B158	9/8/2010	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B158	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B158	4/15/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B158	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B158	10/5/2011	9.4 U	9.4 U	9.4 U	2.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B158	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B158	4/6/2012	9.4 U	9.4 U	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
B163	9/2/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B163	9/2/2010	5 U	1 U	1 U	5.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B163	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B163	4/12/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
B163	10/3/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B163	10/3/2011	9.4 U	9.4 U	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
B163	4/2/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B163	4/2/2012	9.6 U	9.6 U	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
B163	4/3/2013	11 U	11 U	11 U	8.9 UJ	11 U	11 U	0.09 U	0.09 U	11 U	11 U	11 U	11 U	11 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B175S	9/3/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B175S	9/3/2010	4.7 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	0.9 U	0.9 U	0.9 U	0.9 UJ
B175S	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175S	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B175S	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175S	10/4/2011	9.4 U	9.4 U	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
B175S	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175S	4/4/2012	9.4 U	9.4 U	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
B175W	9/8/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B175W	9/8/2010	5 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B175W	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175W	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B175W	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175W	10/4/2011	9.4 U	9.4 U	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
B175W	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B175W	4/4/2012	9.4 U	9.4 U	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
B177	9/23/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B177	9/23/2010	4.7 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	0.9 U	0.9 U	0.9 U	0.9 UJ
B177	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B177	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B177	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B177	10/5/2011	9.4 U	9.4 U	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
B177	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B177	4/4/2012	9.4 U	9.4 U	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
B178	9/2/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B178	9/2/2010	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B178	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B178	4/15/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B178	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B178	10/4/2011	9.4 U	9.4 U	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
B178	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B178	4/3/2012	9.4 U	9.4 U	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
B180	9/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B180	9/15/2010	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B180	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B180	4/13/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
B180	10/6/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B180	10/6/2011	9.4 U	9.4 U	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
B180	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B180	10/6/2011	9.4 U	9.4 U	9.4 U	20 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B180	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B180	4/4/2012	9.7 U	9.7 U	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
B180	4/8/2013	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	0.09 U	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
B185	9/2/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B185	9/2/2010	4.7 U	0.9 U	0.9 U	0.5 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 UJ
B185	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B185	4/15/2011	9.4 U	9.4 U	9.4 U	20 UJ	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
B185	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B185	4/15/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B185	10/3/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B185	10/3/2011	9.4 U	9.4 U	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
B185	10/3/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B185	10/3/2011	9.4 U	9.4 U	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
B185	4/2/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B185	4/2/2012	9.6 U	9.6 U	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
B194	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B194	9/9/2010	4.7 U	0.9 U	0.9 U	0.9 UJ	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 UJ
B194	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B194	4/13/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
B194	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B194	10/4/2011	9.4 U	9.4 U	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
B194	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B194	4/4/2012	9.4 U	9.4 U	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
B195	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B195	9/9/2010	4.7 U	0.9 U	0.9 U	0.9 UJ	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 UJ
B195	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B195	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B195	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B195	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B195	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B195	10/4/2011	9.4 U	9.4 U	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
B195	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B195	4/3/2012	9.5 U	9.5 U	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
B197	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B197	9/9/2010	4.7 U	0.9 U	0.9 U	0.9 UJ	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 UJ
B197	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B197	9/9/2010	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B197	4/13/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B197	4/13/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B197	10/4/2011	9.4 U	9.4 U	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
B197	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B197	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B197	4/3/2012	9.4 U	9.4 U	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
B197	4/3/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B197	4/3/2012	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B277	9/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B277	9/15/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B277	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B277	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B277	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B277	10/5/2011	9.4 U	9.4 U	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
B277	4/3/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B277	4/3/2012	9.5 U	9.5 U	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
B278	9/16/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B278	9/16/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B278	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B278	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B278	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B278	10/5/2011	9.4 U	9.4 U	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
B278	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B278	4/5/2012	9.4 U	9.4 U	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
B280A	9/16/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B280A	9/16/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B280A	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B280A	4/14/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B280A	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B280A	10/6/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B280A	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B280A	4/3/2012	9.4 U	9.4 U	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
B280A	4/4/2013	10 U	10 U	10 U	10 U	10 U	10 U	0.1 U	0.1 U	10 U	10 U	10 U	10 U	10 U
B280B	10/1/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B280B	10/1/2010	5 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	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B280B	4/14/2011	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B280B	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B280B	10/6/2011	9.4 U	9.4 U	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
B280B	4/3/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B280B	4/3/2012	9.5 U	9.5 U	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
B300	9/9/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
B300	9/9/2010	4.7 U	0.9 U	0.9 U	0.9 UJ	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 UJ
B300	4/15/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B300	4/15/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B300	10/6/2011	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	NA	NA	NA	NA	NA
B300	10/6/2011	73 J	97 U	97 U	97 U	97 U	97 U	NA	NA	97 U	97 U	97 U	97 U	97 U
B300	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B300	4/9/2012	9.4 U	9.4 U	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
B38	9/15/2010	NA	NA	NA	NA	NA	NA	0.05 UJ	0.05 UJ	NA	NA	NA	NA	NA
B38	9/15/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B38	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B38	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B38	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B38	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B38	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B38	10/6/2011	9.4 U	9.4 U	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
B38	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B38	4/4/2012	9.4 U	9.4 U	9.4 U	13 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B450	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B450	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B450	10/10/2011	9.6 UJ	9.6 UJ	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
B450	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B450	4/6/2012	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B460	9/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B460	9/15/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B460	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B460	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B460	10/7/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B460	10/7/2011	9.6 U	9.6 U	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
B460	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B460	4/6/2012	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
B473	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B473	9/24/2010	5 U	1 U	1 U	0.5 J	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B473	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B473	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B473	10/7/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B473	10/7/2011	9.4 U	9.4 U	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
B473	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B473	4/6/2012	9.4 U	9.4 U	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
B474	9/23/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B474	9/23/2010	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B474	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B474	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B474	10/7/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B474	10/7/2011	9.4 U	9.4 U	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
B474	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B474	4/9/2012	9.4 U	9.4 U	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
B480	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B480	9/24/2010	5 U	1 U	1 U	0.8 J	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B480	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B480	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B480	10/7/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
B480	10/7/2011	9.5 U	9.5 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
B480	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B480	4/9/2012	9.4 U	9.4 U	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
B490	9/16/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
B490	9/16/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
B490	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B490	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B490	10/10/2011	9.4 U	9.4 U	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
B490	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
B490	4/9/2012	9.4 U	9.4 U	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
BULB1	10/19/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
BULB1	10/19/2010	4.7 U	0.9 U	0.9 U	0.6 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 UJ
BULB1	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
BULB1	4/12/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
BULB1	9/30/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
BULB1	9/30/2011	9.5 U	9.5 U	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
BULB1	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
BULB1	4/5/2012	9.4 U	9.4 U	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
BULB2	10/19/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
BULB2	10/19/2010	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
BULB2	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
BULB2	4/12/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
BULB2	9/30/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
BULB2	9/30/2011	9.4 U	9.4 U	9.4 U	19 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
BULB2	4/5/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
BULB2	4/5/2012	9.4 U	9.4 U	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
BULB2	4/5/2013	10 U	10 U	10 U	10 U	10 U	10 U	0.09 U	0.09 U	10 U	10 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
CCC1	9/8/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
CCC1	9/8/2010	4.7 U	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 UJ
CCC1	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC1	4/14/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
CCC1	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC1	10/5/2011	9.4 U	9.4 U	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
CCC1	4/10/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC1	4/10/2012	9.4 U	9.4 U	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
CCC2	9/8/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
CCC2	9/8/2010	4.8 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 UJ
CCC2	4/14/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
CCC2	4/14/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
CCC2	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC2	10/4/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CCC2	4/10/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC2	4/10/2012	9.4 U	9.4 U	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
CCC2	4/2/2013	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	0.09 U	0.09 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
CCC2	4/2/2013	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	0.1 U	0.1 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
CCC3	9/3/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
CCC3	9/3/2010	4.7 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	0.9 U	0.9 U	0.9 U	0.9 UJ
CCC3	9/3/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
CCC3	9/3/2010	4.7 U	0.9 U	0.9 U	1 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 UJ
CCC3	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC3	4/12/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
CCC3	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC3	10/4/2011	9.4 U	9.4 U	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
CCC3	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC3	10/4/2011	9.4 U	9.4 U	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
CCC3	4/10/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCC3	4/10/2012	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
CCCT	9/3/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
CCCT	9/3/2010	4.7 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	0.9 U	0.9 U	0.9 U	0.9 UJ
CCCT	4/18/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
CCCT	4/18/2011	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	9.5 U	9.5 U	9.5 U	9.5 U
CCCT	10/3/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCCT	10/3/2011	9.4 U	9.4 U	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
CCCT	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CCCT	4/4/2012	9.4 U	9.4 U	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
CTP	9/30/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
CTP	9/30/2010	5 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	9/30/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
CTP	9/30/2010	5 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	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CTP	4/14/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
CTP	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CTP	10/6/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
CTP	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CTP	4/3/2012	9.5 U	9.5 U	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
CTP	4/4/2013	10 U	10 U	10 U	10 U	10 U	10 U	0.09 U	0.09 U	10 U	10 U	10 U	10 U	10 U
CTPS	10/1/2010	6 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	1.2 U
CTPS	10/18/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
CTPS	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CTPS	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
CTPS	10/7/2011	9.4 U	9.4 U	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
CTPS	10/10/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
CTPS	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
CTPS	4/5/2012	9.5 U	9.5 U	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
DH	9/30/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
DH	9/30/2010	5 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
DH	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
DH	4/14/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
DH	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
DH	10/5/2011	9.4 U	9.4 U	9.4 U	2.2 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
DH	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
DH	4/6/2012	9.4 U	9.4 U	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
EERC	10/1/2010	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U
EERC	10/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
EERC	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
EERC	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
EERC	10/7/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
EERC	10/7/2011	9.4 U	9.4 U	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
EERC	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
EERC	4/6/2012	9.5 U	9.5 U	9.5 U	9.5 UJ	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
EPA	9/16/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
EPA	9/16/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
EPA	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
EPA	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
EPA	10/6/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
EPA	10/6/2011	9.8 U	9.8 U	9.8 U	9.8 UJ	9.8 U	9.8 U	NA	NA	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U
EPA	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
EPA	4/6/2012	9.4 U	9.4 U	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
EPA	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
EPA	4/6/2012	9.4 U	9.4 U	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
EPA	4/4/2013	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	0.09 U	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U
ETA	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
ETA	9/24/2010	4.7 U	0.9 U	0.9 U	1.1	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 UJ
ETA	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
ETA	9/24/2010	5 U	1 U	1 U	0.5 J	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
ETA	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
ETA	4/12/2011	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	9.4 U	9.4 U	9.4 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
ETA	9/30/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
ETA	9/30/2011	9.4 U	9.4 U	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
ETA	4/10/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
ETA	4/10/2012	9.4 U	9.4 U	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
ETA	4/10/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
ETA	4/10/2012	9.4 U	9.4 U	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
FG	9/23/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
FG	9/23/2010	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
FG	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
FG	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
FG	4/19/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
FG	4/19/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
FG	10/10/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
FG	10/10/2011	9.5 U	9.5 U	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
FG	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
FG	4/9/2012	9.4 U	9.4 U	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
GEO	9/3/2010	NA	NA	NA	NA	NA	NA	0.047 U	0.047 U	NA	NA	NA	NA	NA
GEO	9/3/2010	4.7 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	0.9 U	0.9 U	0.9 U	0.9 UJ
GEO	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
GEO	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
GEO	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
GEO	10/6/2011	9.4 U	9.4 U	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
GEO	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
GEO	4/6/2012	9.4 U	9.4 U	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
MFA	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
MFA	9/24/2010	5 U	1 U	1 U	27	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
MFA	4/12/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
MFA	4/12/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
MFA	10/3/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
MFA	10/3/2011	9.4 U	9.4 U	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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
MFA	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
MFA	4/5/2012	9.4 U	9.4 U	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
MFA	4/5/2013	10 U	10 U	10 U	9.4 U	10 U	10 U	0.09 U	0.09 U	10 U	10 U	10 U	10 U	10 U
NRLF	9/16/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
NRLF	9/16/2010	4.8 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
NRLF	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
NRLF	4/20/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
NRLF	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
NRLF	10/6/2011	9.5 U	9.5 U	9.5 U	9.5 UJ	9.5 U	9.5 U	NA	NA	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
NRLF	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
NRLF	4/9/2012	9.4 U	9.4 U	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
PZ11	10/1/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
PZ11	10/1/2010	5 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	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ11	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
PZ11	10/10/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ11	10/10/2011	9.4 U	9.4 U	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
PZ11	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ11	4/5/2012	9.4 U	9.4 U	9.4 U	9.4 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
PZ8	10/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
PZ8	10/15/2010	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
PZ8	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ8	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
PZ8	10/4/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ8	10/4/2011	9.4 U	9.4 U	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
PZ8	4/3/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ8	4/3/2012	9.7 UJ	9.7 UJ	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
PZ9	9/24/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
PZ9	9/24/2010	5 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
PZ9	4/20/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
PZ9	4/20/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
PZ9	10/7/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
PZ9	10/7/2011	9.4 U	9.4 U	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
PZ9	10/7/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ9	10/7/2011	9.4 U	9.4 U	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
PZ9	4/6/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
PZ9	4/6/2012	9.4 U	9.4 U	9.4 UJ	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
RWF	9/15/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
RWF	9/15/2010	5 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
RWF	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
RWF	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
RWF	10/6/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
RWF	10/6/2011	9.4 U	9.4 U	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
RWF	4/4/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
RWF	4/4/2012	9.4 U	9.4 U	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
TP1	9/29/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
TP1	9/29/2010	5 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	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
TP1	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
TP1	10/7/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
TP1	10/7/2011	9.4 U	9.4 U	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
TP1	4/5/2012	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
TP1	4/5/2012	9.5 U	9.5 U	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
TP2	9/29/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
TP2	9/29/2010	5 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	4/18/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
TP2	4/18/2011	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	9.4 U	9.4 U	9.4 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Benzyl alcohol	Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether	Bis(2-ethylhexyl) phthalate	Butyl benzyl phthalate	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate
TP2	10/7/2011	NA	NA	NA	NA	NA	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA
TP2	10/7/2011	9.4 U	9.4 U	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
TP2	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
TP2	4/9/2012	9.4 U	9.4 U	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
TP2	4/9/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
TP2	4/9/2012	9.4 U	9.4 U	9.4 U	23 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	9/30/2010	NA	NA	NA	NA	NA	NA	0.05 U	0.05 U	NA	NA	NA	NA	NA
WTA	9/30/2010	5 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
WTA	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
WTA	4/14/2011	9.4 U	9.4 U	9.4 U	9.4 UJ	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
WTA	4/14/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
WTA	4/14/2011	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	9.4 U	9.4 U	9.4 U	9.4 U
WTA	10/5/2011	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
WTA	10/5/2011	9.4 U	9.4 U	9.4 U	3.3 UJ	9.4 U	9.4 U	NA	NA	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
WTA	4/5/2012	NA	NA	NA	NA	NA	NA	0.09 U	0.09 U	NA	NA	NA	NA	NA
WTA	4/5/2012	9.4 U	9.4 U	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
WTA	4/5/2013	9.8 U	9.8 U	9.8 U	9.2 UJ	9.8 U	9.8 U	0.09 U	0.09 U	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B120	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B120	9/9/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B120	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B120	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B120	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B120	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B120	4/3/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B120	4/3/2012	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U
B121	9/8/2010	NA	0.048 U	0.048 U	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	0.048 U	NA
B121	9/8/2010	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	0.9 U	NA	NA	0.9 U	0.9 UJ
B121	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B121	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B121	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B121	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B121	4/4/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B121	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B128	9/23/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B128	9/23/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B128	9/23/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B128	9/23/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B128	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B128	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B128	4/2/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B128	4/2/2012	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U
B128	4/5/2013	NA	0.1 U	0.1 U	9.4 U	9.4 U	19 U	9.4 U	0.1 U	9.4 U	9.4 U	9.4 U	9.4 U	0.1 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B150	9/8/2010	NA	0.048 U	0.048 U	NA	NA	NA	NA	0.048 U	NA	NA	NA	NA	0.048 U	NA
B150	9/8/2010	1 U	1 U	1 U	1 U	1 U	4.8 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B150	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B150	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B150	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B150	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B150	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B150	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B158	9/8/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B158	9/8/2010	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B158	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B158	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B158	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B158	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B163	9/2/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B163	9/2/2010	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 UJ	NA	NA	1 U	1 U
B163	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B163	10/3/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	10/3/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B163	4/2/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B163	4/2/2012	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U
B163	4/3/2013	NA	0.09 U	0.09 U	11 U	11 U	21 U	11 U	0.09 U	11 U	11 U	11 U	11 U	0.09 U	11 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B175S	9/3/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B175S	9/3/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
B175S	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B175S	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B175S	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175S	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B175W	9/8/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B175W	9/8/2010	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B175W	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B175W	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B175W	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B175W	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B177	9/23/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B177	9/23/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B177	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B177	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B177	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B177	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B178	9/2/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B178	9/2/2010	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 UJ	NA	NA	1 U	1 U
B178	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B178	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B178	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (μg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B178	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B178	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B178	4/3/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B180	9/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B180	9/15/2010	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B180	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B180	10/6/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B180	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B180	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B180	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B180	4/4/2012	NA	NA	NA	9.7 U	9.7 U	19 U	9.7 U	NA	9.7 U	9.7 U	9.7 U	9.7 U	NA	9.7 U
B180	4/8/2013	NA	0.09 U	0.09 U	9.3 U	9.3 U	19 U	9.3 U	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	0.09 U	9.3 U
B185	9/2/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B185	9/2/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
B185	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B185	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B185	10/3/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	10/3/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B185	10/3/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	10/3/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B185	4/2/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B185	4/2/2012	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U
B194	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B194	9/9/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B194	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B194	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B194	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B194	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B194	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B194	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B195	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B195	9/9/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B195	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B195	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B195	10/4/2011	NA	0.09 UJ	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B195	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B195	4/3/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
B197	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B197	9/9/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B197	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B197	9/9/2010	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B197	4/13/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	4/13/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B197	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B197	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B197	4/3/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B197	4/3/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B197	4/3/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B277	9/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B277	9/15/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B277	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B277	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B277	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B277	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B277	4/3/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B277	4/3/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
B278	9/16/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B278	9/16/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 UJ
B278	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B278	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B278	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B278	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B278	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B278	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B280A	9/16/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.035 J	NA
B280A	9/16/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B280A	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B280A	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B280A	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280A	4/3/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B280A	4/4/2013	NA	0.1 U	0.1 U	10 U	10 U	20 UJ	10 U	0.1 U	10 U	10 U	10 U	10 U	0.1 U	10 U
B280B	10/1/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B280B	10/1/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B280B	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280B	4/14/2011	NA	10 U	10 U	10 U	10 U	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B280B	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B280B	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B280B	4/3/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B280B	4/3/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
B300	9/9/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
B300	9/9/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
B300	4/15/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B300	4/15/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B300	10/6/2011	NA	0.5 U	0.5 U	NA	NA	NA	NA	0.5 U	NA	NA	NA	NA	0.5 U	NA
B300	10/6/2011	NA	NA	NA	97 U	97 U	190 U	97 U	NA	97 U	97 U	97 U	97 U	NA	97 U
B300	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.02 J	NA
B300	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B38	9/15/2010	NA	0.05 UJ	0.05 UJ	NA	NA	NA	NA	0.05 UJ	NA	NA	NA	NA	0.05 UJ	NA
B38	9/15/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B38	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B38	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B38	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B38	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B38	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B450	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B450	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B450	10/10/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.02 J	NA
B450	10/10/2011	NA	NA	NA	9.6 UJ	9.6 UJ	19 UJ	9.6 UJ	NA	9.6 UJ	9.6 UJ	9.6 UJ	9.6 UJ	NA	9.6 UJ
B450	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B450	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B460	9/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B460	9/15/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B460	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B460	10/7/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	10/7/2011	NA	NA	NA	9.6 U	9.6 U	19 U	9.6 U	NA	9.6 U	9.6 U	9.6 U	9.6 U	NA	9.6 U
B460	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B460	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B473	9/24/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B473	9/24/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B473	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B473	10/7/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B473	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B473	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B474	9/23/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B474	9/23/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B474	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B474	10/7/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B474	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B474	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B480	9/24/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B480	9/24/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B480	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B480	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B480	10/7/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
B480	10/7/2011	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
B480	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B480	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B490	9/16/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
B490	9/16/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
B490	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
B490	10/10/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	10/10/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
B490	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
B490	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
BULB1	10/19/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
BULB1	10/19/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
BULB1	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
BULB1	9/30/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	9/30/2011	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
BULB1	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB1	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
BULB2	10/19/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.19	NA
BULB2	10/19/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
BULB2	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB2	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
BULB2	9/30/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
BULB2	9/30/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
BULB2	4/5/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
BULB2	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
BULB2	4/5/2013	NA	0.09 U	0.09 U	10 U	10 U	20 U	10 U	0.09 U	10 U	10 U	10 U	10 U	0.09 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
CCC1	9/8/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC1	9/8/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
CCC1	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
CCC1	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC1	4/10/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC1	4/10/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC2	9/8/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC2	9/8/2010	1 U	1 U	1 U	1 U	1 U	4.8 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
CCC2	4/14/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCC2	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
CCC2	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC2	4/10/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC2	4/10/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC2	4/2/2013	NA	0.09 U	0.09 U	9.5 U	9.5 U	19 U	9.5 U	0.09 U	9.5 U	9.5 U	9.5 U	9.5 U	0.09 U	9.5 U
CCC2	4/2/2013	NA	0.1 U	0.1 U	9.3 U	9.3 U	19 U	9.3 U	0.1 U	9.3 U	9.3 U	9.3 U	9.3 U	0.1 U	9.3 U
CCC3	9/3/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC3	9/3/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
CCC3	9/3/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCC3	9/3/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
CCC3	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
CCC3	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC3	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCC3	4/10/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCC3	4/10/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
CCCT	9/3/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
CCCT	9/3/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
CCCT	4/18/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
CCCT	4/18/2011	NA	9.5 U	9.5 U	9.5 U	9.5 U	19 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
CCCT	10/3/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCCT	10/3/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CCCT	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CCCT	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CTP	9/30/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTP	9/30/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
CTP	9/30/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTP	9/30/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
CTP	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
CTP	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CTP	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTP	4/3/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
CTP	4/4/2013	NA	0.09 U	0.09 U	10 U	10 U	20 UJ	10 U	0.09 U	10 U	10 U	10 U	10 U	0.09 U	10 U
CTPS	10/1/2010	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	1.2 U	NA	NA	1.2 U	1.2 U
CTPS	10/18/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
CTPS	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTPS	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
CTPS	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
CTPS	10/10/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.02 J	NA
CTPS	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
CTPS	4/5/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
DH	9/30/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
DH	9/30/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
DH	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
DH	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
DH	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
DH	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
DH	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.03 J	NA
DH	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
EERC	10/1/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
EERC	10/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
EERC	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
EERC	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
EERC	10/7/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
EERC	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
EERC	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
EERC	4/6/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
EPA	9/16/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.042 J	NA
EPA	9/16/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
EPA	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
EPA	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
EPA	10/6/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.02 J	NA
EPA	10/6/2011	NA	NA	NA	9.8 U	9.8 U	20 U	9.8 U	NA	9.8 U	9.8 U	9.8 U	9.8 U	NA	9.8 U
EPA	4/6/2012	NA	0.04 J	0.03 J	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.4	NA
EPA	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
EPA	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
EPA	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
EPA	4/4/2013	NA	0.09 U	0.09 U	9.3 U	9.3 U	19 UJ	9.3 U	0.09 U	9.3 U	9.3 U	9.3 U	9.3 U	0.09 U	9.3 U
ETA	9/24/2010	NA	0.041 J	0.17	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
ETA	9/24/2010	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	0.9 U	NA	NA	0.9 U	0.9 U
ETA	9/24/2010	NA	0.035 J	0.16	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
ETA	9/24/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
ETA	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
ETA	9/30/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	9/30/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
ETA	4/10/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	4/10/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
ETA	4/10/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
ETA	4/10/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
FG	9/23/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
FG	9/23/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
FG	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
FG	4/19/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	4/19/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
FG	10/10/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	10/10/2011	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
FG	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
FG	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
GEO	9/3/2010	NA	0.047 U	0.047 U	NA	NA	NA	NA	0.047 U	NA	NA	NA	NA	0.047 U	NA
GEO	9/3/2010	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	0.9 UJ	NA	NA	0.9 U	0.9 U
GEO	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
GEO	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
GEO	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
GEO	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
MFA	9/24/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
MFA	9/24/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
MFA	4/12/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	4/12/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
MFA	10/3/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	10/3/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
MFA	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
MFA	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
MFA	4/5/2013	NA	0.09 U	0.09 U	10 U	10 U	20 U	10 U	0.09 U	10 U	10 U	10 U	10 U	0.09 U	10 U
NRLF	9/16/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.029 J	NA
NRLF	9/16/2010	1 U	1 U	1 U	1 U	1 U	4.8 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
NRLF	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
NRLF	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
NRLF	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
NRLF	10/6/2011	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
NRLF	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
NRLF	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ11	10/1/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ11	10/1/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
PZ11	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
PZ11	10/10/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	10/10/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ11	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ11	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ8	10/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ8	10/15/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
PZ8	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
PZ8	10/4/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	10/4/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ8	4/3/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ8	4/3/2012	NA	NA	NA	9.7 UJ	9.7 UJ	19 UJ	9.7 UJ	NA	9.7 UJ	9.7 UJ	9.7 UJ	9.7 UJ	NA	9.7 UJ
PZ9	9/24/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
PZ9	9/24/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
PZ9	4/20/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
PZ9	4/20/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
PZ9	10/7/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
PZ9	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ9	10/7/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ9	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
PZ9	4/6/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
PZ9	4/6/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 UJ
RWF	9/15/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
RWF	9/15/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
RWF	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
RWF	10/6/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	10/6/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
RWF	4/4/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
RWF	4/4/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
TP1	9/29/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
TP1	9/29/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
TP1	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP1	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
TP1	10/7/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP1	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
TP1	4/5/2012	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
TP1	4/5/2012	NA	NA	NA	9.5 U	9.5 U	19 U	9.5 U	NA	9.5 U	9.5 U	9.5 U	9.5 U	NA	9.5 U
TP2	9/29/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
TP2	9/29/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
TP2	4/18/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP2	4/18/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Diphenyl amine	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	N-Niroso-Di-N-Propylamine	N-Nitrosodipropylamine	N-Nitrosodipropylamine (1)	Naphthalene	Nitrobenzene
TP2	10/7/2011	NA	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U	NA	NA	NA	NA	0.1 U	NA
TP2	10/7/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
TP2	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP2	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
TP2	4/9/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
TP2	4/9/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
WTA	9/30/2010	NA	0.05 U	0.05 U	NA	NA	NA	NA	0.05 U	NA	NA	NA	NA	0.05 U	NA
WTA	9/30/2010	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	1 U	1 U	NA	NA	1 U	1 UJ
WTA	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
WTA	4/14/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	4/14/2011	NA	9.4 U	9.4 U	9.4 U	9.4 U	19 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
WTA	10/5/2011	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	10/5/2011	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
WTA	4/5/2012	NA	0.09 U	0.09 U	NA	NA	NA	NA	0.09 U	NA	NA	NA	NA	0.09 U	NA
WTA	4/5/2012	NA	NA	NA	9.4 U	9.4 U	19 U	9.4 U	NA	9.4 U	9.4 U	9.4 U	9.4 U	NA	9.4 U
WTA	4/5/2013	NA	0.09 U	0.09 U	9.8 U	9.8 U	20 U	9.8 U	0.09 U	9.8 U	9.8 U	9.8 U	9.8 U	0.09 U	9.8 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B120	9/9/2010	NA	0.047 U	NA	0.047 U
B120	9/9/2010	4.7 U	0.9 U	4.7 U	0.9 U
B120	4/15/2011	NA	0.09 U	NA	0.09 U
B120	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B120	10/4/2011	NA	0.09 U	NA	0.09 U
B120	10/4/2011	19 U	NA	9.4 U	NA
B120	4/3/2012	NA	0.1 U	NA	0.1 U
B120	4/3/2012	19 U	NA	9.6 U	NA
B121	9/8/2010	NA	0.048 U	NA	0.048 U
B121	9/8/2010	4.7 U	0.9 U	4.7 U	0.9 U
B121	4/13/2011	NA	0.09 U	NA	0.09 U
B121	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B121	10/4/2011	NA	0.09 U	NA	0.09 U
B121	10/4/2011	19 U	NA	9.4 U	NA
B121	4/4/2012	NA	0.1 U	NA	0.1 U
B121	4/4/2012	19 U	NA	9.4 U	NA
B128	9/23/2010	NA	0.047 U	NA	0.047 U
B128	9/23/2010	5 U	1 U	5 U	1 U
B128	9/23/2010	NA	0.05 U	NA	0.05 U
B128	9/23/2010	5 U	1 U	5 U	1 U
B128	4/18/2011	NA	0.09 U	NA	0.09 U
B128	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
B128	10/4/2011	NA	0.09 U	NA	0.09 U
B128	10/4/2011	19 U	NA	9.4 U	NA
B128	4/2/2012	NA	0.09 U	NA	0.09 U
B128	4/2/2012	19 U	NA	9.6 U	NA
B128	4/5/2013	19 U	0.1 U	9.4 U	0.1 U

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B150	9/8/2010	NA	0.048 U	NA	0.048 U
B150	9/8/2010	4.8 U	1 U	4.8 U	1 U
B150	4/13/2011	NA	0.09 U	NA	0.09 U
B150	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B150	10/5/2011	NA	0.09 U	NA	0.09 U
B150	10/5/2011	19 U	NA	9.4 U	NA
B150	10/5/2011	NA	0.09 U	NA	0.09 U
B150	10/5/2011	19 U	NA	9.4 U	NA
B150	4/4/2012	NA	0.09 U	NA	0.09 U
B150	4/4/2012	19 U	NA	9.4 U	NA
B150	4/4/2012	NA	0.09 U	NA	0.09 U
B150	4/4/2012	19 U	NA	9.4 U	NA
B158	9/8/2010	NA	0.047 U	NA	0.047 U
B158	9/8/2010	5 U	1 U	5 U	1 U
B158	4/15/2011	NA	0.09 U	NA	0.09 U
B158	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B158	10/5/2011	NA	0.09 U	NA	0.09 U
B158	10/5/2011	19 U	NA	9.4 U	NA
B158	4/6/2012	NA	0.09 U	NA	0.09 U
B158	4/6/2012	19 U	NA	9.4 U	NA
B163	9/2/2010	NA	0.047 U	NA	0.047 U
B163	9/2/2010	5 U	1 U	5 U	1 U
B163	4/12/2011	NA	0.09 U	NA	0.09 U
B163	4/12/2011	19 U	9.4 U	9.4 U	9.4 U
B163	10/3/2011	NA	0.09 U	NA	0.09 U
B163	10/3/2011	19 U	NA	9.4 U	NA
B163	4/2/2012	NA	0.09 U	NA	0.09 U
B163	4/2/2012	19 U	NA	9.6 U	NA
B163	4/3/2013	21 U	0.09 U	11 U	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B175S	9/3/2010	NA	0.047 U	NA	0.047 U
B175S	9/3/2010	4.7 U	0.9 U	4.7 U	0.9 U
B175S	4/13/2011	NA	0.09 U	NA	0.09 U
B175S	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B175S	10/4/2011	NA	0.09 U	NA	0.09 U
B175S	10/4/2011	19 U	NA	9.4 U	NA
B175S	4/4/2012	NA	0.09 U	NA	0.09 U
B175S	4/4/2012	19 U	NA	9.4 U	NA
B175W	9/8/2010	NA	0.05 U	NA	0.05 U
B175W	9/8/2010	5 U	1 U	5 U	1 U
B175W	4/13/2011	NA	0.09 U	NA	0.09 U
B175W	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B175W	10/4/2011	NA	0.09 U	NA	0.09 U
B175W	10/4/2011	19 U	NA	9.4 U	NA
B175W	4/4/2012	NA	0.09 U	NA	0.09 U
B175W	4/4/2012	19 U	NA	9.4 U	NA
B177	9/23/2010	NA	0.047 U	NA	0.047 U
B177	9/23/2010	4.7 U	0.9 U	4.7 U	0.9 U
B177	4/18/2011	NA	0.09 U	NA	0.09 U
B177	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
B177	10/5/2011	NA	0.09 U	NA	0.09 U
B177	10/5/2011	19 U	NA	9.4 U	NA
B177	4/4/2012	NA	0.09 U	NA	0.09 U
B177	4/4/2012	19 U	NA	9.4 U	NA
B178	9/2/2010	NA	0.05 U	NA	0.05 U
B178	9/2/2010	5 U	1 U	5 U	1 U
B178	4/15/2011	NA	0.09 U	NA	0.09 U
B178	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B178	10/4/2011	NA	0.09 U	NA	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B178	10/4/2011	19 U	NA	9.4 U	NA
B178	4/3/2012	NA	0.09 U	NA	0.09 U
B178	4/3/2012	19 U	NA	9.4 U	NA
B180	9/15/2010	NA	0.05 U	NA	0.05 U
B180	9/15/2010	4.8 U	1 U	4.8 U	1 U
B180	4/13/2011	NA	0.09 U	NA	0.09 U
B180	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B180	10/6/2011	NA	0.1 U	NA	0.1 U
B180	10/6/2011	19 U	NA	9.4 U	NA
B180	10/6/2011	NA	0.09 U	NA	0.09 U
B180	10/6/2011	19 U	NA	9.4 U	NA
B180	4/4/2012	NA	0.09 U	NA	0.09 U
B180	4/4/2012	19 U	NA	9.7 U	NA
B180	4/8/2013	19 U	0.09 U	9.3 U	0.09 U
B185	9/2/2010	NA	0.05 U	NA	0.05 U
B185	9/2/2010	4.7 U	0.9 U	4.7 U	0.9 U
B185	4/15/2011	NA	0.09 U	NA	0.02 J
B185	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B185	4/15/2011	NA	0.09 U	NA	0.09 U
B185	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B185	10/3/2011	NA	0.09 U	NA	0.09 U
B185	10/3/2011	19 U	NA	9.4 U	NA
B185	10/3/2011	NA	0.09 U	NA	0.09 U
B185	10/3/2011	19 U	NA	9.4 U	NA
B185	4/2/2012	NA	0.09 U	NA	0.09 U
B185	4/2/2012	19 U	NA	9.6 U	NA
B194	9/9/2010	NA	0.047 U	NA	0.047 U
B194	9/9/2010	4.7 U	0.9 U	4.7 U	0.9 U
B194	4/13/2011	NA	0.09 U	NA	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B194	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B194	10/4/2011	NA	0.09 U	NA	0.09 U
B194	10/4/2011	19 U	NA	9.4 U	NA
B194	4/4/2012	NA	0.09 U	NA	0.09 U
B194	4/4/2012	19 U	NA	9.4 U	NA
B195	9/9/2010	NA	0.047 U	NA	0.047 U
B195	9/9/2010	4.7 U	0.9 U	4.7 U	0.9 U
B195	4/13/2011	NA	0.09 U	NA	0.09 U
B195	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B195	4/13/2011	NA	0.09 U	NA	0.09 U
B195	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B195	10/4/2011	NA	0.09 U	NA	0.09 U
B195	10/4/2011	19 U	NA	9.4 U	NA
B195	4/3/2012	NA	0.09 U	NA	0.09 U
B195	4/3/2012	19 U	NA	9.5 U	NA
B197	9/9/2010	NA	0.047 U	NA	0.047 U
B197	9/9/2010	4.7 U	0.9 U	4.7 U	0.9 U
B197	9/9/2010	NA	0.047 U	NA	0.047 U
B197	9/9/2010	4.8 U	1 U	4.8 U	1 U
B197	4/13/2011	NA	0.09 U	NA	0.09 U
B197	4/13/2011	19 U	9.4 U	9.4 U	9.4 U
B197	10/4/2011	19 U	NA	9.4 U	NA
B197	10/4/2011	NA	0.09 U	NA	0.09 U
B197	4/3/2012	NA	0.09 U	NA	0.09 U
B197	4/3/2012	19 U	NA	9.4 U	NA
B197	4/3/2012	NA	0.1 U	NA	0.1 U
B197	4/3/2012	19 U	NA	9.4 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B277	9/15/2010	NA	0.05 U	NA	0.05 U
B277	9/15/2010	5 U	1 U	5 U	1 U
B277	4/18/2011	NA	0.09 U	NA	0.09 U
B277	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
B277	10/5/2011	NA	0.09 U	NA	0.09 U
B277	10/5/2011	19 U	NA	9.4 U	NA
B277	4/3/2012	NA	0.1 U	NA	0.1 U
B277	4/3/2012	19 U	NA	9.5 U	NA
B278	9/16/2010	NA	0.05 U	NA	0.05 U
B278	9/16/2010	5 U	1 U	5 U	1 U
B278	4/19/2011	NA	0.09 U	NA	0.09 U
B278	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
B278	10/5/2011	NA	0.09 U	NA	0.09 U
B278	10/5/2011	19 U	NA	9.4 U	NA
B278	4/5/2012	NA	0.09 U	NA	0.09 U
B278	4/5/2012	19 U	NA	9.4 U	NA
B280A	9/16/2010	NA	0.05 U	NA	0.05 U
B280A	9/16/2010	5 U	1 U	5 U	1 U
B280A	4/14/2011	NA	0.09 U	NA	0.09 U
B280A	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
B280A	10/6/2011	NA	0.09 U	NA	0.09 U
B280A	10/6/2011	19 U	NA	9.4 U	NA
B280A	4/3/2012	NA	0.09 U	NA	0.09 U
B280A	4/3/2012	19 U	NA	9.4 U	NA
B280A	4/4/2013	20 U	0.1 U	10 U	0.1 U
B280B	10/1/2010	NA	0.05 U	NA	0.05 U
B280B	10/1/2010	5 U	1 U	5 U	1 U
B280B	4/14/2011	NA	0.09 U	NA	0.09 U
B280B	4/14/2011	20 U	10 U	10 U	10 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B280B	10/6/2011	NA	0.09 U	NA	0.09 U
B280B	10/6/2011	19 U	NA	9.4 U	NA
B280B	4/3/2012	NA	0.1 U	NA	0.1 U
B280B	4/3/2012	19 U	NA	9.5 U	NA
B300	9/9/2010	NA	0.047 U	NA	0.047 U
B300	9/9/2010	4.7 U	0.9 U	4.7 U	0.9 U
B300	4/15/2011	NA	0.09 U	NA	0.09 U
B300	4/15/2011	19 U	9.4 U	9.4 U	9.4 U
B300	10/6/2011	NA	0.5 U	NA	0.5 U
B300	10/6/2011	190 U	NA	97 U	NA
B300	4/9/2012	NA	0.09 U	NA	0.09 U
B300	4/9/2012	19 U	NA	9.4 U	NA
B38	9/15/2010	NA	0.05 UJ	NA	0.05 UJ
B38	9/15/2010	5 U	1 U	5 U	1 U
B38	4/19/2011	NA	0.09 U	NA	0.09 U
B38	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
B38	4/19/2011	NA	0.09 U	NA	0.09 U
B38	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
B38	10/6/2011	NA	0.09 U	NA	0.09 U
B38	10/6/2011	19 U	NA	9.4 U	NA
B38	4/4/2012	NA	0.09 U	NA	0.09 U
B38	4/4/2012	19 U	NA	9.4 U	NA
B450	4/19/2011	NA	0.09 U	NA	0.09 U
B450	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
B450	10/10/2011	NA	0.09 U	NA	0.09 U
B450	10/10/2011	19 UJ	NA	9.6 UJ	NA
B450	4/6/2012	NA	0.09 U	NA	0.09 U
B450	4/6/2012	19 U	NA	9.4 U	NA
B460	9/15/2010	NA	0.05 U	NA	0.05 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B460	9/15/2010	5 U	1 U	5 U	1 U
B460	4/20/2011	NA	0.09 U	NA	0.09 UJ
B460	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
B460	10/7/2011	NA	0.09 U	NA	0.09 U
B460	10/7/2011	19 U	NA	9.6 U	NA
B460	4/6/2012	NA	0.09 U	NA	0.09 U
B460	4/6/2012	19 U	NA	9.4 U	NA
B473	9/24/2010	NA	0.05 U	NA	0.05 U
B473	9/24/2010	5 U	1 U	5 U	1 U
B473	4/20/2011	NA	0.09 U	NA	0.09 U
B473	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
B473	10/7/2011	NA	0.09 U	NA	0.09 U
B473	10/7/2011	19 U	NA	9.4 U	NA
B473	4/6/2012	NA	0.09 U	NA	0.09 U
B473	4/6/2012	19 U	NA	9.4 U	NA
B474	9/23/2010	NA	0.05 U	NA	0.05 U
B474	9/23/2010	5 U	1 U	5 U	1 U
B474	4/20/2011	NA	0.09 U	NA	0.09 U
B474	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
B474	10/7/2011	NA	0.09 U	NA	0.09 U
B474	10/7/2011	19 U	NA	9.4 U	NA
B474	4/9/2012	NA	0.09 U	NA	0.09 U
B474	4/9/2012	19 U	NA	9.4 U	NA
B480	9/24/2010	NA	0.05 U	NA	0.05 U
B480	9/24/2010	5 U	1 U	5 U	1 U
B480	4/19/2011	NA	0.09 U	NA	0.09 U
B480	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
B480	10/7/2011	NA	0.1 U	NA	0.1 U
B480	10/7/2011	19 U	NA	9.5 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
B480	4/9/2012	NA	0.09 U	NA	0.09 U
B480	4/9/2012	19 U	NA	9.4 U	NA
B490	9/16/2010	NA	0.05 U	NA	0.05 U
B490	9/16/2010	5 U	1 U	5 U	1 U
B490	4/20/2011	NA	0.09 U	NA	0.09 U
B490	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
B490	10/10/2011	NA	0.09 U	NA	0.09 U
B490	10/10/2011	19 U	NA	9.4 U	NA
B490	4/9/2012	NA	0.09 U	NA	0.09 U
B490	4/9/2012	19 U	NA	9.4 U	NA
BULB1	10/19/2010	NA	0.047 U	NA	0.047 U
BULB1	10/19/2010	4.7 U	0.9 U	4.7 U	0.9 U
BULB1	4/12/2011	NA	0.09 U	NA	0.09 U
BULB1	4/12/2011	19 U	9.4 U	9.4 U	9.4 U
BULB1	9/30/2011	NA	0.09 U	NA	0.09 U
BULB1	9/30/2011	19 U	NA	9.5 U	NA
BULB1	4/5/2012	NA	0.09 U	NA	0.09 U
BULB1	4/5/2012	19 U	NA	9.4 U	NA
BULB2	10/19/2010	NA	0.05 U	NA	0.05 U
BULB2	10/19/2010	5 U	1 U	5 U	1 U
BULB2	4/12/2011	NA	0.09 U	NA	0.09 U
BULB2	4/12/2011	19 U	9.4 U	9.4 U	9.4 U
BULB2	9/30/2011	NA	0.09 U	NA	0.09 U
BULB2	9/30/2011	19 U	NA	9.4 U	NA
BULB2	4/5/2012	NA	0.1 U	NA	0.1 U
BULB2	4/5/2012	19 U	NA	9.4 U	NA
BULB2	4/5/2013	20 U	0.09 U	10 U	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
CCC1	9/8/2010	NA	0.047 U	NA	0.047 U
CCC1	9/8/2010	4.7 U	0.9 U	4.7 U	0.9 U
CCC1	4/14/2011	NA	0.09 U	NA	0.09 U
CCC1	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
CCC1	10/5/2011	NA	0.09 U	NA	0.09 U
CCC1	10/5/2011	19 U	NA	9.4 U	NA
CCC1	4/10/2012	NA	0.09 U	NA	0.09 U
CCC1	4/10/2012	19 U	NA	9.4 U	NA
CCC2	9/8/2010	NA	0.047 U	NA	0.047 U
CCC2	9/8/2010	4.8 U	1 U	4.8 U	1 U
CCC2	4/14/2011	NA	0.1 U	NA	0.1 U
CCC2	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
CCC2	10/4/2011	NA	0.09 U	NA	0.09 U
CCC2	10/4/2011	19 U	NA	9.4 U	NA
CCC2	4/10/2012	NA	0.09 U	NA	0.09 U
CCC2	4/10/2012	19 U	NA	9.4 U	NA
CCC2	4/2/2013	19 U	0.09 U	9.5 U	0.09 U
CCC2	4/2/2013	19 U	0.1 U	9.3 U	0.1 U
CCC3	9/3/2010	NA	0.047 U	NA	0.047 U
CCC3	9/3/2010	4.7 U	0.9 U	4.7 U	0.9 U
CCC3	9/3/2010	NA	0.047 U	NA	0.047 U
CCC3	9/3/2010	4.7 U	0.9 U	4.7 U	0.9 U
CCC3	4/12/2011	NA	0.09 U	NA	0.09 U
CCC3	4/12/2011	19 U	9.4 U	9.4 U	9.4 U
CCC3	10/4/2011	NA	0.09 U	NA	0.09 U
CCC3	10/4/2011	19 U	NA	9.4 U	NA
CCC3	10/4/2011	NA	0.09 U	NA	0.09 U
CCC3	10/4/2011	19 U	NA	9.4 U	NA
CCC3	4/10/2012	NA	0.09 U	NA	0.09 U
CCC3	4/10/2012	19 U	NA	9.4 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
CCCT	9/3/2010	NA	0.047 U	NA	0.047 U
CCCT	9/3/2010	4.7 U	0.9 U	4.7 U	0.9 U
CCCT	4/18/2011	NA	0.1 U	NA	0.1 U
CCCT	4/18/2011	19 U	9.5 U	9.5 U	9.5 U
CCCT	10/3/2011	NA	0.09 U	NA	0.09 U
CCCT	10/3/2011	19 U	NA	9.4 U	NA
CCCT	4/4/2012	NA	0.09 U	NA	0.09 U
CCCT	4/4/2012	19 U	NA	9.4 U	NA
CTP	9/30/2010	NA	0.05 U	NA	0.05 U
CTP	9/30/2010	5 U	1 U	5 U	1 U
CTP	9/30/2010	NA	0.05 U	NA	0.05 U
CTP	9/30/2010	5 U	1 U	5 U	1 U
CTP	4/14/2011	NA	0.09 U	NA	0.09 U
CTP	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
CTP	10/6/2011	NA	0.09 U	NA	0.09 U
CTP	10/6/2011	19 U	NA	9.4 U	NA
CTP	4/3/2012	NA	0.09 U	NA	0.09 U
CTP	4/3/2012	19 U	NA	9.5 U	NA
CTP	4/4/2013	20 U	0.09 U	10 U	0.09 U
CTPS	10/1/2010	6 U	1.2 U	6 U	1.2 U
CTPS	10/18/2010	NA	0.05 U	NA	0.05 U
CTPS	4/19/2011	NA	0.09 U	NA	0.09 U
CTPS	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
CTPS	10/7/2011	19 U	NA	9.4 U	NA
CTPS	10/10/2011	NA	0.1 U	NA	0.1 U
CTPS	4/5/2012	NA	0.09 U	NA	0.09 U
CTPS	4/5/2012	19 U	NA	9.5 U	NA
DH	9/30/2010	NA	0.047 U	NA	0.047 U
DH	9/30/2010	5 U	1 U	5 U	1 U
DH	4/14/2011	NA	0.09 U	NA	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
DH	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
DH	10/5/2011	NA	0.09 U	NA	0.09 U
DH	10/5/2011	19 U	NA	9.4 U	NA
DH	4/5/2012	NA	0.09 U	NA	0.09 U
DH	4/6/2012	19 U	NA	9.4 U	NA
EERC	10/1/2010	5 U	1 U	5 U	1 U
EERC	10/15/2010	NA	0.05 U	NA	0.05 U
EERC	4/20/2011	NA	0.09 U	NA	0.09 U
EERC	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
EERC	10/7/2011	NA	0.1 U	NA	0.1 U
EERC	10/7/2011	19 U	NA	9.4 U	NA
EERC	4/6/2012	NA	0.09 U	NA	0.09 U
EERC	4/6/2012	19 U	NA	9.5 U	NA
EPA	9/16/2010	NA	0.05 U	NA	0.05 U
EPA	9/16/2010	5 U	1 U	5 U	1 U
EPA	4/19/2011	NA	0.09 U	NA	0.09 U
EPA	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
EPA	10/6/2011	NA	0.1 U	NA	0.1 U
EPA	10/6/2011	20 U	NA	9.8 U	NA
EPA	4/6/2012	NA	0.02 J	NA	0.02 J
EPA	4/6/2012	19 U	NA	9.4 U	NA
EPA	4/6/2012	NA	0.09 U	NA	0.09 U
EPA	4/6/2012	19 U	NA	9.4 U	NA
EPA	4/4/2013	19 U	0.09 U	9.3 U	0.09 U
ETA	9/24/2010	NA	0.05 U	NA	0.088
ETA	9/24/2010	4.7 U	0.9 U	4.7 U	0.9 U
ETA	9/24/2010	NA	0.05 U	NA	0.074
ETA	9/24/2010	5 U	1 U	5 U	1 U
ETA	4/12/2011	NA	0.09 U	NA	0.09 U
ETA	4/12/2011	19 U	9.4 U	9.4 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ETA	9/30/2011	NA	0.09 U	NA	0.04 J
ETA	9/30/2011	19 U	NA	9.4 U	NA
ETA	4/10/2012	NA	0.09 U	NA	0.03 J
ETA	4/10/2012	19 U	NA	9.4 U	NA
ETA	4/10/2012	NA	0.09 U	NA	0.03 J
ETA	4/10/2012	19 U	NA	9.4 U	NA
FG	9/23/2010	NA	0.05 U	NA	0.05 U
FG	9/23/2010	5 U	1 U	5 U	1 U
FG	4/19/2011	NA	0.09 U	NA	0.09 U
FG	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
FG	4/19/2011	NA	0.09 U	NA	0.09 U
FG	4/19/2011	19 U	9.4 U	9.4 U	9.4 U
FG	10/10/2011	NA	0.09 U	NA	0.09 U
FG	10/10/2011	19 U	NA	9.5 U	NA
FG	4/9/2012	NA	0.09 U	NA	0.09 U
FG	4/9/2012	19 U	NA	9.4 U	NA
GEO	9/3/2010	NA	0.047 U	NA	0.047 U
GEO	9/3/2010	4.7 U	0.9 U	4.7 U	0.9 U
GEO	4/20/2011	NA	0.09 U	NA	0.09 UJ
GEO	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
GEO	10/6/2011	NA	0.09 U	NA	0.09 U
GEO	10/6/2011	19 U	NA	9.4 U	NA
GEO	4/6/2012	NA	0.09 U	NA	0.09 U
GEO	4/6/2012	19 U	NA	9.4 U	NA
MFA	9/24/2010	NA	0.05 U	NA	0.05 U
MFA	9/24/2010	5 U	1 U	5 U	1 U
MFA	4/12/2011	NA	0.09 U	NA	0.09 U
MFA	4/12/2011	19 U	9.4 U	9.4 U	9.4 U
MFA	10/3/2011	NA	0.09 U	NA	0.09 U
MFA	10/3/2011	19 U	NA	9.4 U	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
MFA	4/5/2012	NA	0.09 U	NA	0.09 U
MFA	4/5/2012	19 U	NA	9.4 U	NA
MFA	4/5/2013	20 U	0.09 U	10 U	0.09 U
NRLF	9/16/2010	NA	0.05 U	NA	0.05 U
NRLF	9/16/2010	4.8 U	1 U	4.8 U	1 U
NRLF	4/20/2011	NA	0.09 U	NA	0.09 UJ
NRLF	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
NRLF	10/6/2011	NA	0.09 U	NA	0.09 U
NRLF	10/6/2011	19 U	NA	9.5 U	NA
NRLF	4/9/2012	NA	0.09 U	NA	0.09 U
NRLF	4/9/2012	19 U	NA	9.4 U	NA
PZ11	10/1/2010	NA	0.05 U	NA	0.05 U
PZ11	10/1/2010	5 U	1 U	5 U	1 U
PZ11	4/20/2011	NA	0.09 U	NA	0.09 U
PZ11	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
PZ11	10/10/2011	NA	0.09 U	NA	0.09 U
PZ11	10/10/2011	19 U	NA	9.4 U	NA
PZ11	4/5/2012	NA	0.09 U	NA	0.09 U
PZ11	4/5/2012	19 U	NA	9.4 U	NA
PZ8	10/15/2010	NA	0.05 U	NA	0.05 U
PZ8	10/15/2010	5 U	1 U	5 U	1 U
PZ8	4/18/2011	NA	0.09 U	NA	0.09 U
PZ8	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
PZ8	10/4/2011	NA	0.09 U	NA	0.09 U
PZ8	10/4/2011	19 U	NA	9.4 U	NA
PZ8	4/3/2012	NA	0.09 U	NA	0.09 U
PZ8	4/3/2012	19 UJ	NA	9.7 UJ	NA
PZ9	9/24/2010	NA	0.05 U	NA	0.05 U
PZ9	9/24/2010	5 U	1 U	5 U	1 U
PZ9	4/20/2011	NA	0.09 U	NA	0.09 UJ

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
PZ9	4/20/2011	19 U	9.4 U	9.4 U	9.4 U
PZ9	10/7/2011	NA	0.1 U	NA	0.1 U
PZ9	10/7/2011	19 U	NA	9.4 U	NA
PZ9	10/7/2011	NA	0.09 U	NA	0.09 U
PZ9	10/7/2011	19 U	NA	9.4 U	NA
PZ9	4/6/2012	NA	0.09 U	NA	0.09 U
PZ9	4/6/2012	19 U	NA	9.4 U	NA
RWF	9/15/2010	NA	0.05 U	NA	0.05 U
RWF	9/15/2010	5 U	1 U	5 U	1 U
RWF	4/18/2011	NA	0.09 U	NA	0.09 U
RWF	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
RWF	10/6/2011	NA	0.09 U	NA	0.09 U
RWF	10/6/2011	19 U	NA	9.4 U	NA
RWF	4/4/2012	NA	0.09 U	NA	0.09 U
RWF	4/4/2012	19 U	NA	9.4 U	NA
TP1	9/29/2010	NA	0.05 U	NA	0.036 UJ
TP1	9/29/2010	5 U	1 U	5 U	1 U
TP1	4/18/2011	NA	0.09 U	NA	0.09 U
TP1	4/18/2011	19 U	9.4 U	9.4 U	9.4 U
TP1	10/7/2011	NA	0.09 U	NA	0.09 U
TP1	10/7/2011	19 U	NA	9.4 U	NA
TP1	4/5/2012	NA	0.1 U	NA	0.1 U
TP1	4/5/2012	19 U	NA	9.5 U	NA
TP2	9/29/2010	NA	0.05 U	NA	0.05 U
TP2	9/29/2010	5 U	1 U	5 U	1 U
TP2	4/18/2011	NA	0.09 U	NA	0.09 U
TP2	4/18/2011	19 U	9.4 U	9.4 U	9.4 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

SVOC AND PAH (µg/L)

Location ID	Sample Date	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
TP2	10/7/2011	NA	0.1 U	NA	0.1 U
TP2	10/7/2011	19 U	NA	9.4 U	NA
TP2	4/9/2012	NA	0.09 U	NA	0.09 U
TP2	4/9/2012	19 U	NA	9.4 U	NA
TP2	4/9/2012	NA	0.09 U	NA	0.09 U
TP2	4/9/2012	19 U	NA	9.4 U	NA
WTA	9/30/2010	NA	0.05 U	NA	0.05 U
WTA	9/30/2010	5 U	1 U	5 U	1 U
WTA	4/14/2011	NA	0.09 U	NA	0.09 U
WTA	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
WTA	4/14/2011	NA	0.09 U	NA	0.09 U
WTA	4/14/2011	19 U	9.4 U	9.4 U	9.4 U
WTA	10/5/2011	NA	0.09 U	NA	0.09 U
WTA	10/5/2011	19 U	NA	9.4 U	NA
WTA	4/5/2012	NA	0.09 U	NA	0.09 U
WTA	4/5/2012	19 U	NA	9.4 U	NA
WTA	4/5/2013	20 U	0.09 U	9.8 U	0.09 U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		PCB (µg/L)								MISC (µg/L)	
Location ID	Sample Date	AROCLOR_1016	AROCLOR_1221	AROCLOR_1232	AROCLOR_1242	AROCLOR_1248	AROCLOR_1254	AROCLOR_1260	AROCLOR_1262	PERCHLORATE	HARDNESS
B120	09/09/2010	.19U	.38U	.19U	.19U	.09J	.19U	.19U	.19U	2U	1000
B121	09/08/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	280
B128	09/23/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	360
B128	09/23/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	320
B150	09/08/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	150
B158	09/08/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	21
B163	09/02/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	1500
B175S	09/03/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	310
B175W	09/08/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	92
B177	09/23/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	71
B178	09/02/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	1.9J	990
B180	09/15/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	35
B185	09/02/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	3.1	920
B194	09/09/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	300
B195	09/09/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	830
B197	09/09/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	830
B197	09/09/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	830
B277	09/15/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	230
B278	09/16/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	1300
B280	09/16/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	290
B280B	10/01/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	230
B300	09/09/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	720
B38	09/15/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	170
B460	09/15/2010	.2UJ	.4UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	2U	150
B473	09/24/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	170
B474	09/23/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	160

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		PCB (µg/L)								MISC (µg/L)	
Location ID	Sample Date	AROCLOR_1016	AROCLOR_1221	AROCLOR_1232	AROCLOR_1242	AROCLOR_1248	AROCLOR_1254	AROCLOR_1260	AROCLOR_1262	PERCHLORATE	HARDNESS
B480	09/24/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	320
B490	09/16/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	350
BULB1	10/19/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	40U	4400
BULB2	10/19/2010	.19UJ	.38UJ	.19UJ	.19UJ	.19UJ	.19UJ	.19UJ	.19UJ	10U	1100
CCC1	09/08/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	140
CCC2	09/08/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	250
CCC3	09/03/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	360
CCC3	09/03/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	350
CCCT	09/03/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	1.6J	590
CTP	09/30/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	240
CTP	09/30/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	240
CTPS	10/18/2010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DH	09/30/2010	.2UJ	.4UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	4U	2700
EERC	10/15/2010	NA	NA	NA	NA	NA	NA	NA	NA	4U	NA
EPA	09/16/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	380
ETA	09/24/2010	.2UJ	.4UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	2U	630
ETA	09/24/2010	.2UJ	.4UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	2U	620
FG	09/23/2010	.2UJ	.4UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	.2UJ	2U	820
GEO	09/03/2010	.19U	.38U	.19U	.19U	.19U	.19U	.19U	.19U	2U	270
MFA	09/24/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	440
NRLF	09/16/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	230
PZ11	10/01/2010	.19UJ	.38UJ	.19UJ	.19UJ	.19UJ	.19UJ	.19UJ	.19UJ	2U	1400
PZ8	10/15/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2UJ	270
PZ9	09/24/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	240
RWF	09/15/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	430
TP1	09/29/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	410
TP2	09/29/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	510
WTA	09/30/2010	.2U	.4U	.2U	.2U	.2U	.2U	.2U	.2U	2U	550

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

PESTICIDES (µg/L)

Location ID	Sample Date	4,4'-DDE	GAMMA-BHC (Lindane)	4,4'-DDT	ALDRIN	ALPHA-BHC	ALPHA-CHLORDANE	BETA-BHC	CLORDANE	DELTA-BHC	DIELDRIN	ENDOSULFAN SULFATE	ENDRIN	ENDOSULFAN I	ENDRIN ALDEHYDE
B120	09/09/2010	.09U	.05U	.09U	.05UJ	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
B121	09/08/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
B128	09/23/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B128	09/23/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B150	09/08/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
B158	09/08/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
B163	09/02/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B175S	09/03/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
B175W	09/08/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
B177	09/23/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
B178	09/02/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B180	09/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B185	09/02/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B194	09/09/2010	.09U	.05U	.09U	.05UJ	.05U	.05U	.05U	NA	.05U	.09U	.09U	.09U	.05U	.09U
B195	09/09/2010	.1U	.05U	.1U	.05UJ	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B197	09/09/2010	.1U	.05U	.1U	.05UJ	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
B197	09/09/2010	.09U	.05U	.09U	.05UJ	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
B277	09/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B278	09/16/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B280	09/16/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B280B	10/01/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B300	09/09/2010	.1U	.05U	.1U	.05UJ	.05U	.05U	.05U	NA	.05U	.1U	.1U	.1U	.05U	.1U
B38	09/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B460	09/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B473	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B474	09/23/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U

PESTICIDES (µg/L)

Location ID	Sample Date	4,4'-DDE	GAMMA-BHC (Lindane)	4,4'-DDT	ALDRIN	ALPHA-BHC	ALPHA-CHLORDANE	BETA-BHC	CLORDANE	DELTA-BHC	DIELDRIN	ENDOSULFAN SULFATE	ENDRIN	ENDOSULFAN I	ENDRIN ALDEHYDE
B480	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
B490	09/16/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
BULB1	10/19/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
BULB2	10/19/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
CCC1	09/08/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
CCC2	09/08/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
CCC3	09/03/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
CCC3	09/03/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
CCCT	09/03/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
CTP	09/30/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
CTP	09/30/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
CTPS	10/18/2010	.11U	.05U	.11U	.05U	.05U	.05U	.05U	5.5U	.05U	.11U	.11U	.11U	.05U	.11U
DH	09/30/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	4.8U	.05U	.1U	.1U	.1U	.05U	.1U
EERC	10/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
EPA	09/16/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
ETA	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
ETA	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
FG	09/23/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
GEO	09/03/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
MFA	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
NRLF	09/16/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
PZ11	10/01/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
PZ8	10/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
PZ9	09/24/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
RWF	09/15/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
TP1	09/29/2010	.09U	.05U	.09U	.05U	.05U	.05U	.05U	4.7U	.05U	.09U	.09U	.09U	.05U	.09U
TP2	09/29/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U
WTA	09/30/2010	.1U	.05U	.1U	.05U	.05U	.05U	.05U	5U	.05U	.1U	.1U	.1U	.05U	.1U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

PESTICIDES (µg/L)

Location ID	Sample Date	ENDOSULFAN II	ENDRIN KAYTONE	GAMMA-CHLORDANE	4,4'-DDD	HEPTACHLOR	HEPTACHLOR EXPODIXE	METHOXYCHLOR	TOXAPHENE
B120	09/09/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
B121	09/08/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
B128	09/23/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B128	09/23/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B150	09/08/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
B158	09/08/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
B163	09/02/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B175S	09/03/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
B175W	09/08/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
B177	09/23/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
B178	09/02/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B180	09/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B185	09/02/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B194	09/09/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	NA
B195	09/09/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B197	09/09/2010	.1U	.1U	.05U	.1U	.05U	.05U	.47U	4.7U
B197	09/09/2010	.09U	.09U	.05U	.09U	.05U	.05U	.48U	4.8U
B277	09/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B278	09/16/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B280	09/16/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B280B	10/01/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B300	09/09/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	NA
B38	09/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B460	09/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B473	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B474	09/23/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

PESTICIDES (µg/L)

Location ID	Sample Date	ENDOSULFAN II	ENDRIN KAYTONE	GAMMA-CHLORDANE	4,4'-DDD	HEPTACHLOR	HEPTACHLOR EXPODIXI	METHOXYCHLOR	TOXAPHENE
B480	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
B490	09/16/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
BULB1	10/19/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
BULB2	10/19/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
CCC1	09/08/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
CCC2	09/08/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
CCC3	09/03/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
CCC3	09/03/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
CCCT	09/03/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
CTP	09/30/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
CTP	09/30/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
CTPS	10/18/2010	.11U	.11U	.05U	.11U	.05U	.05U	.55U	5.5U
DH	09/30/2010	.1U	.1U	.05U	.1U	.05U	.05U	.48U	4.8U
EERC	10/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
EPA	09/16/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
ETA	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
ETA	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
FG	09/23/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
GEO	09/03/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
MFA	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
NRLF	09/16/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
PZ11	10/01/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
PZ8	10/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
PZ9	09/24/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
RWF	09/15/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
TP1	09/29/2010	.09U	.09U	.05U	.09U	.05U	.05U	.47U	4.7U
TP2	09/29/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U
WTA	09/30/2010	.1U	.1U	.05U	.1U	.05U	.05U	.5U	5U

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
B120	9/9/2010	0.24 U	0.95 U	0.07 Z	1900
B120	4/15/2011	0.05 U	0.3 U	0.086	2510
B120	10/4/2011	0.013 J	0.3 U	0.1 YZ	2230
B120	4/3/2012	0.05 U	0.3 U	0.097 UJ	2190
B121	9/8/2010	0.25 U	1 U	0.05 U	520
B121	4/13/2011	0.05 UJ	0.3 U	0.05 UJ	520
B121	10/4/2011	0.05 U	0.3 U	0.05 UJ	530
B121	4/4/2012	0.05 U	0.3 U	0.05 UJ	510
B128	9/23/2010	0.25 U	1 U	0.05 U	800
B128	9/23/2010	0.25 U	1 U	0.05 U	970
B128	4/18/2011	0.05 U	0.3 U	0.05 UJ	500
B128	10/4/2011	0.028 J	0.3 U	0.05 UJ	560
B128	4/2/2012	0.05 UJ	0.3 U	0.05 UJ	440
B128DEEP	10/15/2010	NA	NA	NA	440
B150	9/8/2010	0.24 U	0.95 U	0.05 U	290
B150	4/13/2011	0.05 UJ	0.3 U	0.05 UJ	220
B150	10/5/2011	0.05 U	0.3 U	0.05 UJ	290
B150	10/5/2011	0.05 U	0.3 U	0.05 UJ	280
B150	4/4/2012	0.05 U	0.3 U	0.05 UJ	150
B150	4/4/2012	0.05 U	0.3 U	0.05 UJ	190
B158	9/8/2010	0.24 U	0.95 U	0.05 U	200
B158	4/15/2011	0.05 U	0.3 U	0.05 U	180
B158	10/5/2011	0.05 U	0.3 U	0.05 UJ	310
B158	4/6/2012	0.05 U	0.3 U	0.05 UJ	200
B163	9/2/2010	0.2 ZJ	1 U	0.046 ZJ	2900

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
B163	4/12/2011	0.05 U	0.3 U	0.064 Y	2820
B163	10/3/2011	0.011 J	0.3 U	0.062 Z	2860
B163	4/2/2012	0.05 UJ	0.3 U	0.05 UJ	2700
B175S	9/3/2010	0.24 U	0.95 U	0.05 U	590
B175S	4/13/2011	0.053 UJ	0.3 U	0.05 UJ	580
B175S	10/4/2011	0.017 J	0.3 U	0.05 UJ	540
B175S	4/4/2012	0.05 U	0.3 U	0.05 UJ	550
B175W	9/8/2010	0.25 U	1 U	0.05 U	270
B175W	4/13/2011	0.052 UJ	0.3 U	0.012 UJ	270
B175W	10/4/2011	0.051 Y	0.091 J	0.05 UJ	290
B175W	4/4/2012	0.05 U	0.3 U	0.05 UJ	210
B177	9/23/2010	0.24 U	0.95 U	0.05 U	190
B177	4/18/2011	0.05 U	0.3 U	0.05 UJ	250
B177	10/5/2011	0.05 U	0.3 U	0.05 UJ	200
B177	4/4/2012	0.05 U	0.3 U	0.05 UJ	270
B178	9/2/2010	0.25 U	1 U	0.063 Z	1800
B178	4/15/2011	0.05 U	0.3 U	0.073 UJ	2050
B178	10/4/2011	0.05 U	0.3 U	0.12 YZ	1810
B178	4/3/2012	0.011 J	0.3 U	0.094 UJ	2190
B180	9/15/2010	0.25 U	1 U	0.05 U	360
B180	4/13/2011	0.05 UJ	0.3 U	0.05 UJ	330
B180	10/6/2011	0.05 U	0.3 U	0.05 UJ	350
B180	10/6/2011	0.05 U	0.3 U	0.05 UJ	350
B180	4/4/2012	0.05 U	0.3 U	0.05 UJ	260
B185	9/2/2010	0.12 ZJ	0.95 U	0.036 ZJ	1700
B185	4/15/2011	0.05 U	0.3 U	0.05 UJ	1630

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
B185	4/15/2011	0.05 U	0.3 U	0.062 UJ	1610
B185	10/3/2011	0.05 U	0.3 U	0.055 YZ	1670
B185	10/3/2011	0.05 U	0.3 U	0.048 J	1630
B185	4/2/2012	0.05 U	0.3 U	0.05 UJ	1670
B194	9/9/2010	0.24 U	0.95 U	0.05 U	670
B194	4/13/2011	0.05 UJ	0.3 U	0.05 UJ	660
B194	10/4/2011	0.05 U	0.3 U	0.05 UJ	630
B194	4/4/2012	0.05 U	0.3 U	0.05 UJ	570
B195	9/9/2010	0.24 U	0.95 U	0.059 ZJ	1600
B195	4/13/2011	0.05 UJ	0.3 U	0.05 UJ	570
B195	4/13/2011	0.05 UJ	0.3 U	0.051 Z	550
B195	10/4/2011	0.05 U	0.3 U	0.15 YZ	1610
B195	4/3/2012	0.05 U	0.3 U	0.088 UJ	790
B197	9/9/2010	0.25 U	1 U	0.073 Z	1500
B197	9/9/2010	0.24 U	0.95 U	0.074 Z	1500
B197	4/13/2011	0.05 UJ	0.3 U	0.1 YZ	2170
B197	10/4/2011	0.05 U	0.3 U	0.11 YZ	1560
B197	4/3/2012	0.05 U	0.3 U	0.092 UJ	2290
B197	4/3/2012	0.05 U	0.3 U	0.095 UJ	2240
B277	9/15/2010	0.25 U	1 U	0.05 U	400
B277	4/18/2011	0.05 U	0.3 U	0.05 UJ	450
B277	10/5/2011	0.05 U	0.3 U	0.05 UJ	400
B277	4/3/2012	0.05 U	0.3 U	0.05 UJ	420
B278	9/16/2010	0.25 U	1 U	0.05 U	2300
B278	4/19/2011	0.05 U	0.3 U	0.019 J	2050 J
B278	10/5/2011	0.05 U	0.3 U	0.05 UJ	2250
B278	4/5/2012	0.01 J	0.3 U	0.05 UJ	NA

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
B280A	9/16/2010	0.25 U	1 U	0.05 U	510
B280A	4/14/2011	0.05 U	0.3 U	0.05 UJ	430
B280A	10/6/2011	0.05 U	0.3 U	0.05 UJ	510
B280A	4/3/2012	0.05 U	0.3 U	0.05 UJ	540
B280B	10/1/2010	0.25 U	1 U	0.05 U	650
B280B	4/14/2011	0.05 U	0.3 U	0.05 U	580
B280B	10/6/2011	0.05 U	0.3 U	0.05 UJ	530
B280B	4/3/2012	0.05 U	0.3 U	0.05 UJ	490
B300	9/9/2010	0.24 U	0.95 U	0.05 U	1100
B300	4/15/2011	0.05 U	0.3 U	0.05 U	2480
B300	10/6/2011	0.33 Y	0.3 U	0.21 YZ	580
B300	4/9/2012	0.0086 J	0.3 U	0.05 UJ	1680
B38	9/15/2010	0.25 U	1 U	0.05 U	310
B38	4/19/2011	0.05 U	0.3 U	0.05 U	350
B38	4/19/2011	0.05 U	0.3 U	0.05 U	350
B38	10/6/2011	0.05 U	0.3 U	0.05 UJ	290
B38	4/4/2012	0.05 U	0.3 U	0.05 UJ	240
B38DEEP	10/18/2010	NA	NA	NA	350
B450	4/19/2011	0.013 J	0.3 U	0.018 J	610
B450	10/10/2011	0.05 U	0.3 U	0.05 UJ	120
B450	4/6/2012	0.05 U	0.3 U	0.05 UJ	770
B460	9/15/2010	0.25 U	1 U	0.05 U	290
B460	4/20/2011	0.05 U	0.3 U	0.05 UJ	320
B460	10/7/2011	0.05 U	0.3 U	0.05 UJ	320
B460	4/6/2012	0.05 U	0.3 U	0.05 UJ	270
B473	9/24/2010	0.25 U	1 U	0.05 U	460
B473	4/20/2011	0.05 U	0.3 U	0.05 UJ	590

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
B473	10/7/2011	0.05 U	0.3 U	0.05 UJ	350
B473	4/6/2012	0.05 U	0.3 U	0.05 UJ	300
B474	9/23/2010	0.37 ZJ	1 U	0.049 ZJ	430
B474	4/20/2011	0.05 U	0.3 U	0.05 U	420
B474	10/7/2011	0.05 U	0.3 U	0.05 UJ	130
B474	4/9/2012	0.05 U	0.3 U	0.05 UJ	250
B480	9/24/2010	0.25 U	1 U	0.05 U	670
B480	4/19/2011	0.014 J	0.3 U	0.019 J	620
B480	10/7/2011	0.05 U	0.3 U	0.05 UJ	490
B480	4/9/2012	0.05 U	0.3 U	0.05 UJ	640
B480DEEP	10/15/2010	NA	NA	NA	360
B490	9/16/2010	0.25 U	1 U	0.05 U	540
B490	4/20/2011	0.05 U	0.3 U	0.05 U	560
B490	10/10/2011	0.05 U	0.3 U	0.05 UJ	270
B490	4/9/2012	0.008 J	0.3 U	0.05 UJ	550
BULB1	10/19/2010	0.24 U	0.94 U	0.038 J	25000
BULB1	4/12/2011	0.05 U	0.3 U	0.05 UJ	22800
BULB1	9/30/2011	0.05 U	0.3 U	0.05 UJ	27600
BULB1	4/5/2012	0.05 U	0.3 U	0.05 UJ	NA
BULB2	10/19/2010	0.17 ZJ	1 U	0.077	5900
BULB2	4/12/2011	0.0078 J	0.3 U	0.05 UJ	1530
BULB2	9/30/2011	0.05 U	0.3 U	0.05 UJ	930
BULB2	4/5/2012	0.013 J	0.3 U	0.05 UJ	NA
CCC1	9/8/2010	0.24 U	0.95 U	0.05 U	440
CCC1	4/14/2011	0.05 UJ	0.3 U	0.05 U	520
CCC1	10/5/2011	0.012 J	0.3 U	0.05 UJ	510
CCC1	4/10/2012	0.049 U	0.29 U	0.05 UJ	640

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
CCC2	9/8/2010	0.25 U	1 U	0.05 U	630
CCC2	4/14/2011	0.05 UJ	0.3 U	0.05 U	1990
CCC2	10/4/2011	0.014 J	0.3 U	0.05 UJ	770
CCC2	4/10/2012	0.049 U	0.29 U	0.05 UJ	1140
CCC3	9/3/2010	0.24 U	0.95 U	0.05 U	730
CCC3	9/3/2010	0.25 U	1 U	0.05 U	710
CCC3	4/12/2011	0.05 U	0.3 U	0.05 UJ	720
CCC3	10/4/2011	0.018 J	0.3 U	0.05 UJ	700
CCC3	10/4/2011	0.05 U	0.3 U	0.05 UJ	710
CCC3	4/10/2012	0.049 U	0.29 U	0.05 UJ	740
CCCT	9/3/2010	0.24 U	0.94 U	0.038 ZJ	1100
CCCT	4/18/2011	0.05 U	0.3 U	0.055 UJ	1110
CCCT	10/3/2011	0.05 U	0.3 U	0.046 JYZ	1120
CCCT	4/4/2012	0.05 U	0.3 U	0.054 UJ	1240
CTP	9/30/2010	0.25 U	1 U	0.05 U	490
CTP	9/30/2010	0.25 U	1 U	0.05 U	500
CTP	4/14/2011	0.05 U	0.3 U	0.05 UJ	480
CTP	10/6/2011	0.05 U	0.3 U	0.05 UJ	480
CTP	4/3/2012	0.05 U	0.3 U	0.05 UJ	540
CTPDEEP	10/15/2010	NA	NA	NA	370
CTPS	9/30/2010	NA	NA	0.05 U	NA
CTPS	4/19/2011	0.05 U	0.3 U	0.013 J	520
CTPS	10/7/2011	0.05 U	0.3 U	0.05 UJ	500
CTPS	4/5/2012	0.013 J	0.3 U	0.05 UJ	NA
DH	9/30/2010	0.25 U	1 U	0.05 U	5500
DH	4/14/2011	0.05 UJ	0.3 U	0.05 UJ	5350
DH	10/5/2011	0.05 U	0.3 U	0.05 UJ	7480

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
DH	4/5/2012	NA	NA	0.05 UJ	NA
DH	4/6/2012	0.0085 J	0.3 U	NA	4580
EERC	10/1/2010	0.16 J	1 U	0.05 U	NA
EERC	10/15/2010	NA	NA	NA	4800
EERC	4/20/2011	0.05 U	0.3 U	0.05 UJ	4260
EERC	10/7/2011	0.05 U	0.3 U	0.05 UJ	3530
EERC	4/6/2012	0.05 U	0.3 U	0.05 UJ	4190
EPA	9/16/2010	0.25 U	1 U	0.05 U	710
EPA	4/19/2011	0.05 U	0.3 U	0.013 J	950
EPA	10/6/2011	0.012 UJ	0.3 U	0.05 UJ	950
EPA	4/6/2012	0.05 U	0.3 U	0.05 UJ	1050
EPA	4/6/2012	0.05 U	0.3 U	0.05 UJ	1100
ETA	9/24/2010	0.12 J	1 U	0.05 U	1300
ETA	9/24/2010	0.12 J	1 U	0.05 U	1300
ETA	4/12/2011	0.014 J	0.3 U	0.05 UJ	1410
ETA	9/30/2011	0.014 J	0.3 U	0.05 UJ	1290
ETA	4/10/2012	0.049 U	0.29 U	0.05 UJ	1510
ETA	4/10/2012	0.049 U	0.29 U	0.05 UJ	1510
FG	9/23/2010	0.25 U	1 U	0.05 U	1300
FG	4/19/2011	0.05 U	0.3 U	0.021 J	590
FG	4/19/2011	0.05 U	0.3 U	0.016 J	580
FG	10/10/2011	0.05 UJ	0.3 UJ	0.05 UJ	800
FG	4/9/2012	0.05 U	0.3 U	0.05 UJ	500
GEO	9/3/2010	0.24 U	0.95 U	0.05 U	510
GEO	4/20/2011	0.05 U	0.3 U	0.05 UJ	560
GEO	10/6/2011	0.05 U	0.3 U	0.05 UJ	520
GEO	4/6/2012	0.05 U	0.3 U	0.05 UJ	570

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum

University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
MFA	9/24/2010	0.25 U	1 U	0.05 U	900
MFA	4/12/2011	0.05 U	0.3 U	0.05 UJ	640
MFA	10/3/2011	0.036 J	0.3 U	0.05 UJ	930
MFA	4/5/2012	0.05 U	0.3 U	0.05 UJ	NA
NRLF	9/16/2010	0.12 ZJ	1 U	0.041 ZJ	400
NRLF	4/20/2011	0.05 U	0.3 U	0.05 UJ	560
NRLF	10/6/2011	0.05 U	0.3 U	0.05 UJ	420
NRLF	4/9/2012	0.05 U	0.3 U	0.05 UJ	430
PZ11	10/1/2010	0.25 U	1 U	0.31 ZJ	2500
PZ11	4/20/2011	0.05 U	0.3 U	0.05 UJ	2930
PZ11	10/10/2011	0.05 U	0.3 U	0.21 YZJ	3090
PZ11	4/5/2012	0.05 U	0.3 U	0.05 UJ	NA
PZ8	10/15/2010	0.25 U	1 U	0.05 U	510
PZ8	4/18/2011	0.05 U	0.3 U	0.05 UJ	480
PZ8	10/4/2011	0.05 U	0.3 U	0.05 UJ	540
PZ8	4/3/2012	0.05 U	0.3 U	0.05 UJ	560
PZ9	9/24/2010	0.25 U	1 U	0.05 U	400
PZ9	4/20/2011	0.05 U	0.3 U	0.05 UJ	370
PZ9	10/7/2011	0.05 U	0.13 J	0.05 UJ	340
PZ9	10/7/2011	0.05 U	0.3 U	0.05 UJ	330
PZ9	4/6/2012	0.05 U	0.3 U	0.05 UJ	450
RWF	9/15/2010	0.24 U	0.95 U	0.05 U	720
RWF	4/18/2011	0.05 U	0.3 U	0.05 UJ	780
RWF	10/6/2011	0.05 U	0.3 U	0.05 UJ	760
RWF	4/4/2012	0.05 U	0.3 U	0.05 UJ	720

ATTACHMENT 3: COMPLETE ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES

2013 Groundwater Sampling Results, Technical Memorandum
University of California, Berkeley, Richmond Field Station, Richmond, California

		TPH (mg/L)			TDS (mg/L)
Location ID	Sample Date	DIESEL RANGE ORGANIC	MOTOR OIL	GASOLINE RANGE ORGANIC	TOTAL DISSOLVED SOILDS
TP1	9/29/2010	0.24 U	0.95 U	0.05 U	720
TP1	4/18/2011	0.05 U	0.3 U	0.05 UJ	1770
TP1	10/7/2011	0.05 U	0.3 U	0.05 UJ	750
TP1	4/5/2012	0.013 J	0.3 U	0.05 UJ	NA
TP2	9/29/2010	0.25 U	1 U	0.05 U	830
TP2	4/18/2011	0.05 U	0.3 U	0.05 UJ	810
TP2	10/7/2011	0.031 J	0.3 U	0.05 UJ	800
TP2	4/9/2012	0.05 U	0.3 U	0.05 UJ	820
TP2	4/9/2012	0.05 U	0.3 U	0.05 UJ	790
WTA	9/30/2010	0.25 U	1 U	0.05 U	1000
WTA	4/14/2011	0.05 UJ	0.3 U	0.05 U	1020
WTA	4/14/2011	0.05 UJ	0.3 U	0.05 UJ	1010
WTA	10/5/2011	0.05 U	0.3 U	0.05 UJ	1050
WTA	4/5/2012	0.0099 J	0.3 U	0.05 UJ	NA

Notes:

µg/L	Micrograms per liter	NA	Not analyzed
BHC	Hexachlorocyclohexane	PAH	Polycyclic aromatic hydrocarbon
DDD	Dichlorodiphenyldichloroethane	PCB	Polychlorinated biphenyl
DDE	Dichlorodiphenyldichloroethene	SVOC	Semivolatile organic compound
DDT	Dichlorodiphenyltrichloroethane	TPH	Total Petroleum Hydrocarbon
DMETAL	Dissolved (filtered) metal	U	Nondetect
J	Estimated value	VOC	Volatile organic compound
METAL	Total (unfiltered) metal	Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks)
mg/L	Milligrams per liter		

ATTACHMENT 3
Curtis & Tompkins, Ltd. Analytical Data Reports

(Provided on CD only)