

6. Integrated Monitoring Compliance Report

Include the following information for an Integrated Monitoring Compliance Report as required in Section XVIII.A.5 of the MRP.

6.1 Review of Reporting Year and Monitoring Events

This section will be utilized to summarize information regarding data collection, including summarizing monitoring events conducted as part of the Coordinated Integrated Monitoring Program (CIMP) or Integrated Monitoring Program (IMP)¹, data collected outside of the CIMP but used to meet monitoring specified within the CIMP, climatic and flow conditions, and regional and special studies.

- (a) **Conditions During Reporting Year:** Summarize the climatic and flow conditions observed during the Reporting Year and include:
- Rainfall summary for the reporting year: Summarize the number of storm events, highest volume event (inches/24 hours), highest number of consecutive days with measureable rainfall, total rainfall during the reporting year compared to average annual rainfall for the subwatershed. Precipitation data may be obtained from Los Angeles County Department of Public Works rain gauge stations available at <http://www.ladpw.org/wrd/precip/>.
 - Descriptive statistics of the measured flows at the nearest stream gage and/or monitoring station during storm events and, where applicable, a comparison of these statistics to the corresponding statistics used in a Reasonable Assurance Analysis:
 - Maximum daily flow
 - 90th percentile daily flow
 - 10th percentile daily flow
 - Median daily flow
 - Average daily flow

Two rain gages specified in the CIMP for storm event predictions are Point Vicente Lighthouse (i.e. Station ID 44A) and Fire Station 56 Rolling Hills (i.e. Station ID 1011B). Precipitation data for the reporting year was obtained from the Los Angeles County Department of Public Works (LACDPW) Water Resources Website (<http://www.ladpw.org/wrd/precip/>). Data obtained from the Storm Summary Reports from the LACDPW website are presented in Table 6a.

Based on the data available from the LACDPW website, the total number of events summarized consists of 29 separate days, though no data was reported during the October 4, 2015–October 5, 2015 storm event and no precipitation was measured (i.e. 0.00 inch) during the May 6, 2016–May 9, 2016 storm event at Point Vicente Lighthouse. The highest volume event occurred on September 15, 2015 where 0.51 inch and 0.87 inch were recorded at Point San Vicente and Fire Station 56 Rolling Hills, respectively, during a 24 hour period. The highest number of consecutive days with measurable rainfall was five, which occurred during the April 7, 2016–April 11, 2016 storm event. A total of 4.39 inches and 5.99 inches were recorded at Point Vicente Lighthouse and Fire Station 56 Rolling Hills, respectively during the reporting year. According to the LACDPW Annual Hydrologic Report for 2014-15, the seasonal normal precipitation (i.e. average annual rainfall) for the Coastal Plains of Los Angeles, which includes the Peninsula, is 13.22 inches, which is higher than the observed total rainfall recorded at Point Vicente Lighthouse and Fire Station 56.

For this reporting year, the watershed group does not have data on measured flows from stream gages and/or monitoring stations. Flow meters were installed at two Machado Lake TMDL outfall monitoring locations after the reporting year. It is anticipated that descriptive statistics and comparisons to the RAA will be made in subsequent annual reports.

¹ Use of the abbreviation "CIMP" will refer to both CIMPs and IMPs for the remainder of this form.

Table 6a: Precipitation Data from LACDPW Storm Summary Reports

Event	Point Vicente Lighthouse (Rain Gage Station 44A)	Fire Station 56, Rolling Hills (Rain Gage Station 1011B)
	Total Rainfall (in.)	Total Rainfall (in.)
Begin: 07/18/15 00:00 End: 07/20/15 07:00	0.51	0.63
Begin: 09/15/15 00:00 End: 09/15/15 15:30	0.51	0.87
Begin: 10/04/15 00:00 End: 10/05/15 07:00	No Data	0.02
Begin: 12/13/15 12:00 End: 12/14/15 07:00	0.08	0.13
Begin: 01/05/16 00:00 End: 01/07/16 12:00	1.21	1.67
Begin: 01/31/16 07:00 End: 02/01/16 07:00	0.12	0.15
Begin: 02/17/16 06:00 End: 02/18/16 07:00	0.54	0.76
Begin: 03/05/16 00:00 End: 03/07/16 16:00	0.86	0.92
Begin: 03/11/16 08:00 End: 03/12/16 08:00	0.39	0.47
Begin: 04/07/16 12:00 End: 04/11/16 09:00	0.17	0.23
Begin: 05/06/16 00:00 End: 05/09/16 07:00	0.00	0.14
Total Rainfall in Reporting Year (in.)	4.39	5.99

- (b) **Summary of Events Conducted During Reporting Year:** Summarize the required monitoring for the year and the monitoring events conducted during the year. Also include the following summary table describing rainfall during stormwater outfall and wet-weather receiving water monitoring events:

Additionally, discuss any problems with samples not being collected and their resolution.

Summary of Monitoring Programs

The Peninsula WMG continued with existing TMDL monitoring programs while the CIMP approval process was taking place during this reporting year. The existing monitoring programs include the Santa Monica Bay Beaches Bacteria (SMBBB) TMDL (weekly shoreline monitoring conducted by Los Angeles County Sanitation District) and Machado Lake Nutrient, Pesticides and PCBs TMDLs (monthly outfall monitoring) programs.

Since the CIMP was approved in February of this reporting year, the Peninsula WMG prioritized the additional monitoring requirements and moved forward with receiving water sampling during the critical dry weather month (June) for the remainder of the reporting year. All wet-weather monitoring that was conducted during the reporting year occurred during the existing SMBBB TMDL and Machado Lake Nutrient, Pesticides and PCBs TMDLs monitoring events. Stormwater outfall (i.e. additional non-TMDL monitoring locations separate from the Machado Lake Nutrient, Pesticides and PCBs TMDLs monitoring locations) and wet-weather receiving water monitoring (i.e. non-TMDL monitoring locations separate from SMBBB TMDL monitoring locations) as outlined in the CIMP commenced after this reporting year and will be assessed in the next annual report.

Permittees in the Peninsula WMG participate as members of the Regional Monitoring Coalition (RMC) for the Greater Harbor Waters, which is responsible for monitoring receiving waters under the Greater Los Angeles and Long Beach Harbor Toxics and Metals TMDL. Receiving water monitoring began in summer of 2013 as part of the Southern California Regional Bight Monitoring Program; however, the first annual report under the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting program was for the 2014-2015 reporting year. The 2015-2016 annual monitoring report for the Harbors Toxics TMDL will be submitted by the City of Long Beach on behalf of all participating agencies by December 15, 2016.

Additional information pertaining to the monitoring events conducted for the Machado Lake Nutrient, Pesticides and PCBs TMDLs is provided later in this sub-section.

For information on regional and special studies, please see part (d) of this subsection.

For information on issues with samples not being collected and their resolution, please see Section 6.2.

For a summary of activities pertaining to applicable Trash TMDLs, please see Section 6.5.

See Table 6b for a summary of rainfall events that occurred during TMDL stormwater outfall and wet-weather receiving water monitoring events for the reporting year.

See **Figure 1** for an overview of all monitoring locations that pertain to the Peninsula WMG.

Table 6b*: Rainfall Summary - Stormwater Outfall and Wet-Weather Receiving Water Monitoring Events

Event	Date	Storm start time (AM/PM)	Storm Duration (hrs)	Highest storm intensity - 15min (in/hr)	Total Storm Volume (in)	Span between sample event & previous storm event (days or hours)
WW-1 Machado Lake TMDL	1/5/2016	1/5/2016, 6:30 AM	7.75	0.09	0.70	14 days
WW-2 Machado Lake TMDL	3/7/2016	3/7/2016, 6:30 AM	3.00	0.08	0.24	24 hours
SMBBB TMDL	7/20/2015	7/19/15, 4:45 PM	3.25	0.02	0.19	24 hours
SMBBB TMDL	11/30/2015	11/27/2015, 2:30 AM	1.00	0.03	0.08	72 hours
SMBBB TMDL	1/11/2016	1/9/2016, 3:30 PM	12.50	0.02	0.08	48 hours
SMBBB TMDL	2/1/2016	1/31/2016, 7:00 AM	1.50	0.04	0.17	24 hours

* Data in this table is gathered from Station 43D located at the Fire Station in Palos Verdes Estates. The sub-consultant contracted to conduct monitoring for the Machado Lake Nutrient, Pesticides and PCBs TMDLs (prior to CIMP approval) had elected to go with this station. Additionally, precipitation data for the LACSD rain gage used for SMBBB monitoring is not readily available, therefore data from Station 43D is also utilized. See Section 6.1(c) for more information.

Summary of Events Conducted for Machado Lake Nutrient, Pesticides and PCBs TMDLs

Sampling Events

A total of 12 months of sampling was conducted from July 1, 2015 through June 30, 2016. A total of 14 discrete sampling events were completed during that period: 12 monthly dry weather sampling events and two qualified wet weather sampling events performed on January 5, 2016, and March 7, 2016 (see Table 6c).

Four monitoring sites were visited during each sampling event. These stations are identified as RHE City Hall, Valmonte, Solano, and Lariat. Two of the sites (Solano and Lariat) were routinely found to be dry during the monthly dry weather sampling events, and one additional site (Valmonte) was found to contain standing water in the stream channel but very minimal or non-existent flow. Only the RHE City Hall station routinely contained sufficient flow to permit sample collection.

Dry Weather Sampling Events (Non-Stormwater)

Dry weather sampling was conducted on a monthly basis, with a total of 12 dry weather sampling events completed in the 2015–2016 reporting period. Dry weather sampling events were assigned an event name composed of the code “DW”, followed by a number (i.e. DW-1). Dry weather sampling was performed in 2015 on July 14, August 3, September 3, October 8, November 11, and December 8; and in 2016 on January 13, February 9, March 3, April 6, May 10, and June 1. No resampling events were performed in the 2015–2016 reporting period.

Dry weather sampling is scheduled to occur during the first full week of the month, and an attempt is made to vary the day of the week that the dry weather sampling events are conducted in order to provide more representative characterization of dry weather water quality to the extent that the water quality may be influenced by anthropogenic activity.

Dry weather sampling events consisted of visits to four monitoring sites and routinely resulted in sample collection at only one of the sites (RHE City Hall). The Valmonte station normally contained ponded water in the stream channel, but very minimal or no discharge was present. The Lariat and Solano monitoring sites were normally dry. Very minor flows were noted on occasion at the Solano, and Lariat sites during dry weather events, usually indicated by a small wetted area at the center of the conveyance with depth less than 1/16 of an inch. In those cases the volume and depth of water was insufficient to permit flow measurement or sample collection.

Wet Weather Sampling Events (Stormwater)

Two wet weather sampling events were completed in the monitoring period (see Table 6c below). Wet weather sampling events were assigned an event name composed of the code “WW”, followed by a number (i.e. WW-1). The January 5, 2016 (WW-1), and March 7, 2016 (WW-2) sampling events resulted in valid nutrient, pesticide and PCB sample collection, but the March 7, 2016 sampling event did not result in sample collection at the Lariat station due to low rainfall amounts. Precipitation amounts recorded at the Palos Verdes Estates Fire Station (Station 43D), were 0.70 inches on January 5, 2016; and 0.24 inches of precipitation on March 7, 2016.

During each event, four sampling stations were visited (RHE City Hall, Valmonte, Solano, and Lariat). The events were conducted during qualifying wet weather events, but on March 7, 2016 rainfall had ceased before the sampling team arrived, and flows were observed to be low in all conveyances indicating that storm discharge was minimal.

During the March 2016 wet weather event, three of the monitoring sites (RHE City Hall, Valmonte, and Solano) had runoff that contained enough sediment to separate and perform pesticides and PCBs analysis; but no sample was collected at the Lariat station due to insufficient flow.

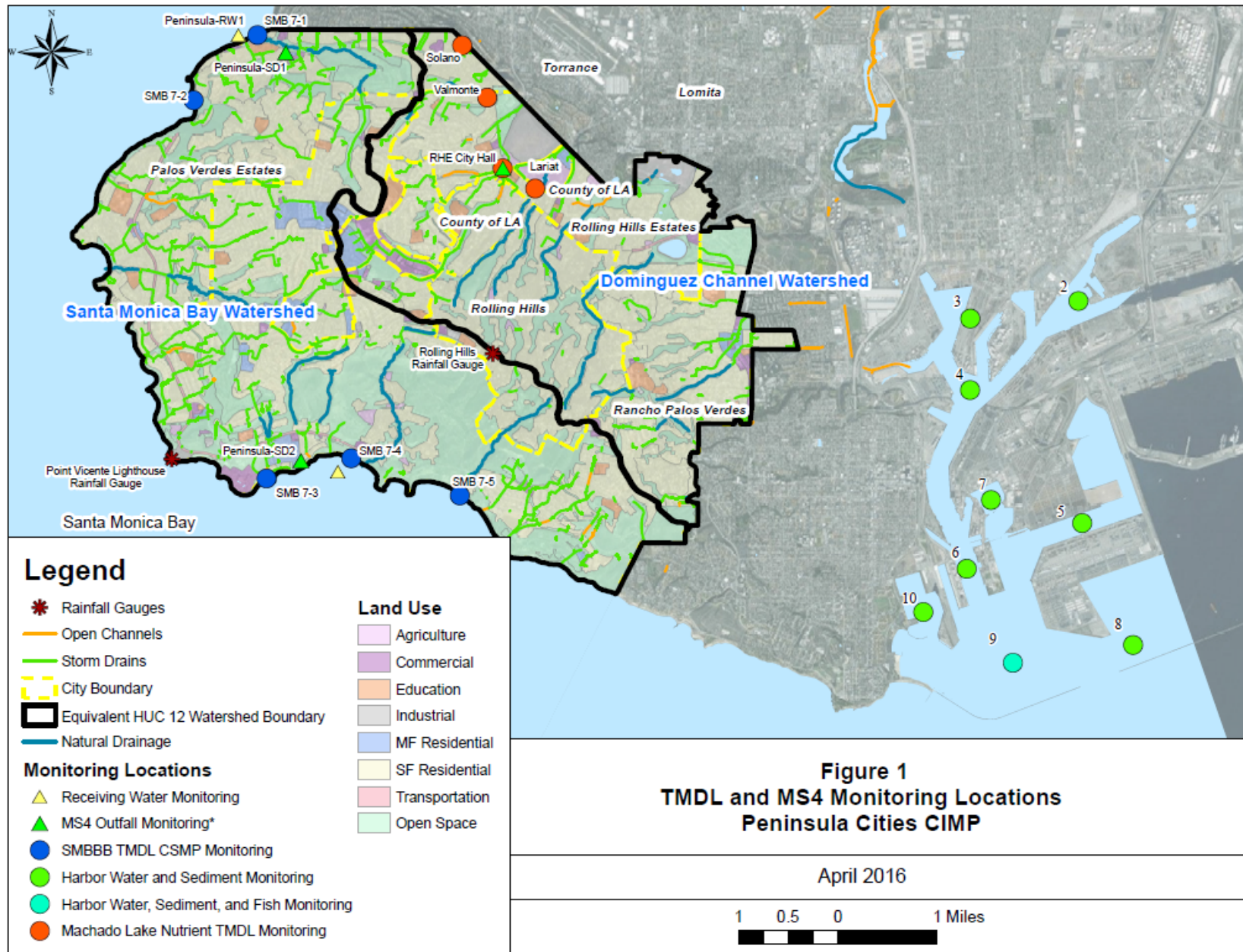
Table 6c: Stormwater Outfall Monitoring Events

Event Name	Sampling Event Date	Storm Date	Storm Start Time (AM/PM)	Storm Duration (hrs)	Storm End Time (AM/PM)	Highest Storm Intensity - 15min (in/hr)	Total Storm Volume (in)	Span between sample event & previous storm event (days)
DW-1	7/14/15	5/15/2015 ¹	6:00 AM	35.00	5:00 PM	---	0.99	60
DW-2	8/3/15	7/19/2015	4:45 PM	3.25	8:00 PM	0.02	0.19	16
DW-3	9/3/15	7/19/2015	4:45 PM	3.25	8:00 PM	0.02	0.19	46
DW-4	10/8/15	9/15/2015	2:00 AM	6.00	9:00 AM	0.11	0.88	23
DW-5	11/11/15	11/3/2015	6:30 PM	0.50	7:00 PM	0.06	0.11	8
DW-6	12/8/15	11/3/2015	6:30 PM	0.50	7:00 PM	0.06	0.11	24
WW-1	1/5/16	1/5/2016	6:30 AM	7.75	2:15 PM	0.09	0.70	14
DW-7	1/13/16	1/9/2016	3:30 PM	12.50	3:45 AM	0.02	0.08	4
DW-8	2/9/16	1/31/2016	7:00 AM	1.50	8:30 AM	0.04	0.17	9
DW-9	3/3/16	2/17/2016	4:15 PM	5.00	9:15 PM	0.06	0.74	15
WW-2	3/7/16	3/7/2016	6:30 AM	3.00	9:30 AM	0.08	0.24	1
DW-10	4/6/16	3/14/2016	6:45 AM	3.75	10:30 AM	0.02	0.10	23
DW-11	5/10/16	5/6/2016	7:30 AM	0.25	7:45 AM	0.08	0.13	4
DW-12	6/1/16	5/6/2016	7:30 AM	0.25	7:45 AM	0.08	0.13	26

Notes:

- Shaded cells denote wet-weather sampling events.
- ¹ Previous storm used to calculate span between events occurred prior to the reporting year.
- DW = Dry weather receiving water monitoring event
- WW = Wet weather receiving water monitoring event.
- Data in this table is gathered from Station 43D located at the Fire Station in Palos Verdes Estates because the sub-consultant contracted to conduct monitoring for the Machado Lake Nutrient, Pesticides and PCBs TMDLs (prior to CIMP approval) had elected to go with this station. See Section 6.1(c) for more information.

Figure 1



- (c) **Identification of Non-Direct Measurements Utilized:** Identify the measurements utilized within the report that were not directly taken as part of the CIMP (e.g., wet weather flow data, precipitation data, etc.). Additionally, discuss any problems with obtaining non-direct measurements and their resolution.

Measurements utilized within the report that were not directly taken as part of the CIMP include precipitation data. As described in Section 6.1(a), precipitation data for the reporting year was obtained from the Los Angeles County Department of Public Works (LACDPW) Water Resources Website (<http://www.ladpw.org/wrd/precip/>). Data obtained from the Storm Summary Reports from the LACDPW website are presented in Table 6a for the rain gages identified in the CIMP (i.e. Point Vicente Lighthouse and Fire Station 56 Rolling Hills).

Section 6.1(b) requests a summary table describing rainfall during stormwater outfall and wet-weather receiving water monitoring events. Since the data requested in Table 6b is not readily available on the LACDPW website, precipitation information listed in Table 6b and Table 6c, are from Station 43D, located at the Fire Station in Palos Verdes Estates because the sub-consultant contracted to conduct monitoring for the Machado Lake Nutrient, Pesticides and PCBs TMDLs (prior to the approval of the CIMP) had elected to use this station and obtained data from LACDPW personnel. See Table 6m in Appendix A for rainfall summary from Station 43D of the reporting year.

Per the SMBBB TMDL Coordinated Shoreline Monitoring Plan, LACSD utilizes their own rain gage located inside the Paseo del Mar pump station in order to determine wet weather for the monitoring locations within the Peninsula. Data from this rain gauge is not readily available to the public.

In addition, some CIMP data for the Peninsula WMG was collected by other agencies, including SMBBB TMDL monitoring data collected by the Los Angeles County Sanitation Districts (LACSD), and LA Harbor Toxics TMDL monitoring data collected by the RMC for the Greater Harbor Waters.

- (d) **Regional and Special Studies:** Summarize any regional and/or special studies conducted as part of meeting the CIMP requirements. Include and/or attach to this report any data not previously submitted to the Regional Water Board.

The Los Angeles County Flood Control District (LACFCD) has participated in the Stormwater Monitoring Coalition Regional Watershed Monitoring Program on behalf of the Permittees. The annual bioassessment report is submitted to the Regional Water Board as part of the LACFCD's annual report. The goals of the program are to assess biological integrity and to detect possible biological trends and responses to pollution in receiving waters throughout the County. One stream evaluated in the January 2016 Bioassessment Monitoring Program report in Los Angeles County² that had not been evaluated in the first five year SMC Report³ was located within the Peninsula WMG, Malaga Canyon. This site was chosen at random for one-time monitoring in 2015 in order to diversify the geographic coverage of the program.

Additionally, LACFCD and the City of Torrance are collaborating on the Waleria Basin Special Study. This Special Study consists of monitoring over a two years period to determine whether Waleria Basin is contributing or reducing pollutants from the stormwater and dry weather runoff it receives. Two years of monitoring was concluded in October 2016, and analysis is expected to be completed in early 2017.

- 6.2 **Quality Assurance/Quality Control:** Summarize Quality Assurance/Quality Control (QA/QC) results and actions to address any QA/QC issues that arose during the year. Potential issues include:

- Holding Time
- Contamination
- Precision
- Summary of Qualified Data (if necessary)

Machado Lake Nutrient, Pesticides and PCBs TMDLs

Introduction

Quality Assurance/Quality Control (QA/QC) sampling including temperature blanks, equipment blanks, duplicate samples, and laboratory QA/QC control samples (matrix spike/matrix spike duplicate samples) were collected with a

² Weston 2016. 2015 Bioassessment Monitoring Program in Los Angeles County, Final Report, January 2016.

³ SCCWRP #844. Bioassessment of Perennial Streams in Southern California: A Report on the First Five Years of the Stormwater Monitoring Coalition's Regional Stream Survey.

frequency of at least one QA/QC sample per sampling event. The project QA Manager reviewed the laboratory data reports, field data sheets and chain-of-custody forms to ensure compliance with the requirements and data quality objectives of the CMP⁴.

Temperature Blanks

Temperature blanks containing deionized water are provided by the laboratory with each batch of sample bottles. The temperature blank is kept on ice with the sample bottles as a check on proper temperature of preservation. Upon receipt of samples, the laboratory checked the temperature of the blank to confirm that samples had been properly held on ice at a temperature of 4 degrees Celsius or lower, and noted the temperature reading on the chain-of-custody form. Temperature blanks were included at a frequency of one per sample cooler.

Equipment Blanks

Equipment blanks were collected from non-dedicated sampling equipment to evaluate the potential for cross-contamination associated with decontamination procedures. During project performance, samples were collected using a polyethylene (PE) bucket. Non-dedicated equipment was decontaminated prior to use with a three step process in accordance with the Sampling and Analysis Plan (SAP), (Northgate, 2011)⁵. Equipment blanks were collected by pouring laboratory grade deionized water into the pre-cleaned sampling equipment and then transferring the water to sample containers. Equipment blanks were collected at a frequency of one per method, 10 percent of primary samples, or change in field personnel, decontamination method, or change in sampling device. Equipment blank samples were given fictitious sample names ("Harwick"), and submitted to the laboratory as blind samples. Equipment blanks were analyzed for the same constituents as the primary samples (Nitrate/Nitrite, TKN, and TP).

Duplicate Samples

Duplicate samples are two samples collected at the same time and place. Analysis of duplicate samples evaluates field sampling precision and sample homogeneity. Duplicate samples were composited together and then split into duplicates for analysis. Duplicate samples were collected at a frequency of 10 percent or one per field day, whichever was greater, and the location of duplicate sample collection was rotated between sampling stations from one monitoring event to the next. Duplicate samples were collected by filling a one-liter laboratory supplied container with the unfiltered stormwater sample. After shaking the container to mix the sample, the contents of the container were divided equally between two separate laboratory supplied sample containers. This process ensures more uniform and homogenized primary and duplicate samples, and provides better accuracy in duplicate sample analysis. Duplicate samples were given fictitious sample names ("Tahquitz"), and submitted to the laboratory as blind samples. The time of the duplicate sample was listed on the chain-of-custody as one hour prior to the time of primary sample collection with which it was associated in order to ensure that its duplicate status was blind to the laboratory staff. Duplicate samples were analyzed for the same constituents as the primary.

QA/QC Data Summary

The QA/QC samples were collected to characterize contamination and precision resulting from sampling equipment or ambient field conditions. Primary sample QA/QC data evaluation results are presented in Table 6n (Appendix A). Duplicate and Equipment Blank sample QA/QC data evaluation results are presented in Table 6o (Appendix A). TOC and TSS duplicate sample results are presented in Table 6p (Appendix A). OCP and PCB duplicate sample results are presented in Table 6q (Appendix A). The following sections discuss results of QA/QC sample evaluation and any corrective actions taken in response to the observed conditions.

Duplicate Samples

Duplicate samples were used to evaluate reproducibility (precision). Field duplicates were collected and analyzed to evaluate sampling technique precision and homogeneity of the Machado Lake sample matrix during both dry and wet weather events. Duplicate data were evaluated to determine the Relative Percent Difference (RPD) between the primary and duplicate sample results, with a precision goal of ± 20 percent RPD for sample concentrations greater than; 2X the reporting limit for organic methods, and 5X the reporting limit for inorganic methods, in accordance with the United States Environmental Protection Agency (USEPA) National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (USEPA, 2014a)⁶, and the USEPA NFG for Inorganic Superfund Data Review, (USEPA, 2014b)⁷.

All field duplicate RPDs were acceptable, with the exceptions listed below, where the 20% RPD goal was exceeded and primary and field duplicate concentrations were considered;

⁴ Peninsula Cities, 2011. *Palos Verdes Peninsula Coordinated Monitoring Plan (CMP) in Compliance with the Machado Lake Nutrient Total Maximum Daily Load*. February 1, 2011. Prepared by the Cities of Rolling Hills Estates, Rolling Hills, Rancho Palos Verdes, and Palos Verdes Estates.

⁵ Northgate Environmental Management, Inc., 2011. *Sampling and Analysis Plan, Palos Verdes Peninsula Coordinated Monitoring Plan, Rolling Hills Estates, California*. June 27, 2011.

⁶ USEPA, 2014a. *National Functional Guidelines for Superfund Organic Methods Data Review*, August 2014.

⁷ USEPA, 2014b. *National Functional Guidelines for Superfund Inorganic Data Review*, August 2014.

Total Kjeldahl Nitrogen

- Valmonte collected August 3, 2015 - TKN (78% RPD)
- RHE City Hall collected September 3, 2015 – TKN (27% RPD)
- Valmonte collected October 8, 2015 - TKN (24% RPD)
- Valmonte collected December 8, 2015 - TKN (70% RPD)
- Solano collected January 5, 2016 – TKN (35% RPD)
- RHE City Hall collected March 3, 2016 – TKN (37% RPD)
- Solano collected March 7, 2016 – TKN (122% RPD)
- Valmonte collected April 6, 2016 – TKN (62% RPD)
- RHE City Hall collected May 10, 2016 – TKN (174% RPD)
- Valmonte collected June 1, 2016 – TKN (33% RPD)

Total Phosphorous

- Valmonte collected December 8, 2015 – TP (113% RPD)
- Solano collected January 5, 2016 - TP (46% RPD)
- Valmonte collected February 9, 2016 - TP (180% RPD)

Total Suspended Solids

- Valmonte collected January 5, 2016 – laboratory duplicate (18% RPD), control limit 5 RPD
- Valmonte collected March 7, 2016 – laboratory duplicate (10% RPD), control limit 5 RPD

Challenges with field duplicate reproducibility is attributed to unknown variables during collection from a natural stream. Natural stream samples contain both suspended and dissolved particulates, in addition to visible and non-visible organic matter. Visible clumps of organic matter were noted, during sample collection.

TKN (Method 351.2) is a colorimetric analysis used to determine TKN (Method 351.2) is influenced by organic matter and particulates which may be diluted to reduce false positives, resulting in elevated reporting limits. In addition, high concentrations of nitrate interfere with TKN analysis, which may attribute to the non-reproducibility.

Total Phosphorous (Method 6010B) analyses is also influenced by organic matter and particulates, where total phosphorous binds to organic matter and particulates resulting in higher data values.

Total Suspended Solids (Method 160.2) duplicate analysis were performed by the laboratory, where the primary sample was split at the laboratory bench for laboratory duplicate analysis. Challenges with laboratory duplicate reproducibility may also be attributed to unknown variables of natural stream samples containing both suspended and dissolved particulates, in addition to visible and non-visible organic matter. It should be noted that the laboratory RPD control limit of 5%, is narrower than that of the field duplicate control limit of 20% RPD.

Matrix Spike Results

Matrix spike (MS) and matrix spike duplicate (MSD) samples consist of aliquots of environmental samples spiked with a subset of target compounds. MS/MSD samples monitor potential interference from the site-specific sample matrix and its effect on target compounds. Additional field sample aliquots were provided during the Machado Lake TMDL sampling to evaluate site-specific matrix interference. MS/MSD analysis was evaluated by the laboratory for precision (RPD) and accuracy (percent recovery) using the laboratory specific control limits for each target compound. All MS/MSD deficiencies were laboratory qualified and are noted below and in [Table 6n](#) and [Table 6o](#) (Appendix A) with an explanation of qualifiers. In each case where the MS/MSD was outside of the laboratory control limit due to matrix interference, method performance was laboratory validated by the analysis of a Laboratory Control Sample (LCS), where laboratory pure water is spiked with target analytes and extracted and analyzed with the field samples.

RHE City Hall

- Collected August 3, 2015 –TKN MS recovery outside the upper laboratory control limit (ULCL) due to possible matrix interference.
- Collected October 8, 2015 – NO3 MS/MSD outside the ULCL.
- Collected December 8, 2015 – TKN MSD outside the lower laboratory control limit (LLCL), RPD outside limits.
- Collected January 5, 2016 –TKN MS/MSD not recoverable.
- Collected February 9, 2016 – TKN MS outside the ULCL; RPD outside limits.

Valmonte

- Collected January 5, 2016 – TSS Laboratory duplicate RPD outside limits.
- Collected March 7, 2016 – TSS Laboratory duplicate RPD outside limits.

Tahquitz

- Collected July 14, 2015 – TKN –MS outside the ULCL; RPD outside limits.
- Collected September 9, 2015– TP –MSD outside the ULCL; RPD outside limits.
- Collected November 11, 2015– TKN – lab reported the recoveries were outside the LLCL.

- Collected November 11, 2015 – TKN – MS outside the LLCL; RPD outside limits.
- Collected January 13, 2016– TKN –MS outside the LLCL and MSD outside the ULCL.
- Collected March 7, 2016– NO3 – MS/MSD not recoverable.

As noted previously, TKN reproducibility is challenged by organic matter, particulates and high nitrate concentrations.

Equipment Blanks

The Machado Lake TMDL samples were assessed using blind equipment blanks, submitted under the field location name "Harwick" to the analytical laboratory for analysis. Equipment blank results were evaluated to assess cross contamination during field sampling events and the potential impact on Machado Lake results.

Equipment blank data was acceptable. TKN was detected at 0.022 mg/L in equipment blank Harwick collected January 5, 2016 (Event 7). The TKN reporting limit is 0.020 mg/L. The associated Machado Lake field samples Solano and Tahquitz resulted in TKN concentrations greater than 10X the blank concentration, in addition to being a primary and field duplicate pair. No sample qualification was necessary. The results were as follows:

- Solano (primary sample) collected January 5, 2016 – TKN (1.190 mg/L)
- Tahquitz (field duplicate) collected January 5, 2016 – TKN (0.830 mg/L)

A summary of the equipment blank results is presented in Table 60 (Appendix A).

Additional QA/QC Data Comments:

Reporting

Wet weather pesticide and PCB parameters were collected during Event 7 and Event 11. Soil samples were analyzed for OCPs and PCBs. Unfiltered storm water samples were analyzed for TOC and TSS.

Non-detected data were reported to the reporting limit (RL) for all methods of analysis, but due to inadequate volumes of sediment in some of the samples RL's were elevated. The Solano sample collected during Event 7; and all four samples submitted from Event 11 were affected by inadequate sample volume causing elevated RL's. No other QA/QC deficiencies were detected in the July 1, 2015 through June 30, 2016 dataset.

Wet Weather Sampling

Because of the requirement to collect 20 grams of sediment to perform analysis for both OCPs and PCBs; wet weather sampling did not always result in the collection of adequate amounts of sediment to facilitate the analysis. For example: in order to separate 20 grams of sediment from water that contains 14 mg/L of TSS, a minimum volume of 1,425 gallons of water would need to be filtered and all the suspended solids recovered on the filter membrane. Since some of the suspended solids are clay size particles that would pass through a 0.45-micron filter membrane, it is likely that in excess of 1,750 gallons of water would need to be filtered to obtain the required 20 grams of sediment for pesticides and PCBs analysis. Due to time constraints and to allow all stations to be visited during the event; the sampling team was forced to stop after filtering approximately 75 gallons of water at each sampling station. This did not always result in enough sediment collection to facilitate pesticides and PCBs analysis.

The wet weather event of January 5, 2016 mobilized enough suspended solids in the water samples to separate an adequate amount of sediment for analysis of OCPs or PCBs. Due to low flows during the March 7, 2016 wet weather event, insufficient amounts of sediment were recovered from samples collected at the RHE City Hall, Valmonte, and Solano stations to analyze for OCPs or PCBs at the normal detection limits. No sample was collected from the Lariat station due to insufficient flow. A minimum of 75 gallons of water was filtered at the sampling locations in an attempt to collect sediment during those events, but the amount of sediment recovered was less than the minimum amount (10 grams) necessary to conduct either OCP or PCB analysis without elevated method detection limits.

Corrective Action

No corrective actions were required during this monitoring period.

The Santa Monica Bay Beaches Bacteria (SMBBB) TMDL

Los Angeles County Sanitation District leads the monitoring efforts for this TMDL on behalf of the Peninsula WMG in which samples are analyzed for fecal indicator bacteria. Effective February 17, 2015, the fecal coliform results were generated by the Multiple Tube Fermentation method in response to the laboratory's failure of at least one QC split samples and subsequent failure of the follow-up commercial standard using the Membrane Filter method. As of September 17, 2015, the Microbiology Laboratory resumed use of the membrane filtration test to generate fecal coliform results. See Appendix D for full data set. Note, QA/QC protocols for this data are based on the SMBBB TMDL Coordinated Shoreline Monitoring Program.

Non-TMDL Receiving Water

Organophosphate pesticides and dissolved hexavalent chromium were not analyzed during the June receiving water monitoring event due to laboratory errors that resulted in exceedances of holding times. In an effort to analyze samples within standard laboratory compliance schedules, the Peninsula WMG made the decision to have the lab discard the samples that were beyond the holding times and resampled for the pending constituents on August 25, 2016. See Appendix C for full data set.

- 6.3 **Assessment of Monitoring Data:** Assess the results of receiving water and stormwater outfall data and summarize the implementation of the non-stormwater program and assess non-stormwater monitoring data. Include and/or attach to this report any data not previously submitted to the Regional Water Board.

All monitoring data and associated metadata must be summarized in an Excel spreadsheet and sorted by watershed, subwatershed, monitoring station/outfall identifier linked to a watershed map, and monitoring condition (wet weather receiving water, dry weather receiving water, storm water outfall, and non-stormwater outfall). The data summary must include the date, sample type, (flow-weighted composite, grab, field measurement), sample start and stop times, parameters, analytical method, value, and units.

See responses below, **Figure 1** for map of all monitoring locations, appendices for data, and the CEDEN formatted Excel spreadsheets provided separately with the semi-annual data submittals.

- (a) **Assessment of Receiving Water Monitoring Data:** Provide an assessment as to whether wet-weather receiving water quality within the watershed is improving, staying the same, or declining, when normalized for variations in rainfall patterns. The assessment may compare water quality data from the reporting year to previous years with similar rainfall patterns, trends analysis, draw from regional bioassessment studies, or use other means to develop and support conclusions. Also provide an assessment as to whether receiving water quality within the watershed management group is impaired, improving, staying the same, or declining during dry-weather conditions.

Data from all receiving water sites would be assessed in this section. Water quality improvements or degradation would be identified. If aquatic toxicity was confirmed and a TIE was conducted, the toxic chemicals as determined by the TIE, will be identified. All relevant data will be included in an appendix to allow the Regional Water Board to review the adequacy and findings of the TIE, including, but not be limited to, the sample(s) date, sample(s) start and end time, sample type(s) (flow-weighted composite, grab, or field measurement), sample location(s) as depicted on the map, the parameters, the analytical results, and the applicable limitation.

For WMPs/EWMPs, this assessment should focus on Category 1, 2, and 3 Water Body-Pollutant Combinations.

The Santa Monica Bay Beaches Bacteria (SMBBB) TMDL

Los Angeles County Sanitation District (LACSD) has been conducting the monitoring efforts for the SMBBB TMDL in accordance with the SMBBB TMDL Coordinated Shoreline Monitoring Plan (CSMP) along the Palos Verdes Peninsula. Since 2003, five CSMP sites have been sampled for indicator bacteria along the Palos Verdes Peninsula shoreline, which include sites SMB 7-1 through 7-5 (see **Figure 1**). Monitoring during this reporting year yielded no exceedances of the Rec-1 water quality objectives for enterococcus (104 MPN/100mL), fecal coliform (400 MPN/100mL), and total coliform (10,000 MPN/100mL) at any of the Peninsula WMG SMBBB TMDL shoreline monitoring sites, which in turn yielded no exceedances of the Receiving Water Limitations expressed as Annual Allowable Exceedance Days. See **Appendix D** for SMBBB TMDL data. Based on the monitoring data, it appears bacteria levels in the Santa Monica Bay have generally improved or remained the same since the inception of the program, with very few anomalies having occurred early in the program.

Table 6d summarizes the number of Annual Allowable Exceedance Days and number of exceedances that occurred at each monitoring location by season per calendar year.

In the 13.5 years that the monitoring program has been in effect, very few exceedances of the Annual Allowable Exceedance Days has occurred. At SMB 7-1, one exceedance of the Annual Allowable Exceedance Day occurred during wet weather in 2005, three total occurred during dry summer in 2003, 2004, and 2011, and none occurred during dry winter. At SMB 7-2, two exceedances of the Annual Allowable Exceedance Day occurred during wet weather in 2004 and 2005, two total occurred during dry summer in 2004 and 2013, and none occurred during dry winter. At SMB 7-3, a total of four exceedances of the Annual Allowable Exceedance Day occurred during wet weather in 2004-2006 and 2015, four occurred during dry summer in 2003, 2010, 2012, and 2013, and two occurred during dry winter in 2012 and 2013. At SMB 7-4, a total of three exceedances of the Annual Allowable Exceedance Day occurred during wet weather in 2004, 2005, and 2010, one occurred during dry summer in 2005, and one occurred during dry winter in 2009. At SMB 7-5, a total of three exceedances of the Annual Allowable Exceedance Day occurred during wet weather in 2004, 2005, and 2010, three occurred during dry summer in 2004, 2009, and 2011, and one occurred during dry winter in 2005.

Since 2013 (with the exception of an exceedance of the Annual Allowable Exceedance Days at SMB 7-3 for wet weather in 2015 during the previous reporting year) there have been no exceedances of the Annual Allowable Exceedance Days at all five stations.

Table 6d: SMBBB TMDL Number of Exceedances of the Final Annual Allowable Exceedance Days per Calendar Year

Station ID	SMB 7-1			SMB 7-2			SMB 7-3			SMB 7-4			SMB 7-5		
Season ¹	Wet	Dry Summer	Dry Winter	Wet	Dry Summer	Dry Winter	Wet	Dry Summer	Dry Winter	Wet	Dry Summer	Dry Winter	Wet	Dry Summer	Dry Winter
Annual Allowable Exceedance Days	2	0	1	0	0	1	1	0	1	1	0	0	1	0	1
Calendar Year	No. of Exceedances of Rec-1 Water Quality Objective that Occurred			No. of Exceedances of Rec-1 Water Quality Objective that Occurred			No. of Exceedances of Rec-1 Water Quality Objective that Occurred			No. of Exceedances of Rec-1 Water Quality Objective that Occurred			No. of Exceedances of Rec-1 Water Quality Objective that Occurred		
2003	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0
2004	1	2	1	2	1	1	3	0	0	2	0	0	2	2	0
2005	3	0	0	1	0	0	8	0	0	4	1	0	3	0	3
2006	1	0	1	0	0	0	2	0	0	0	0	0	1	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2009	1	0	0	0	0	0	1	0	0	0	0	1	1	1	0
2010	1	0	0	0	0	0	0	1	0	3	0	0	3	0	0
2011	0	2	0	0	0	0	0	0	1	0	0	0	0	2	0
2012	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
2013	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	2*	0	0	0	0	0	0	0	0
2016 ²	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Exceedances of Allowable Exceedance Days	1	3	0	2	2	0	4	4	2	3	1	1	3	3	1

¹ Wet Weather (Year Round)

Dry Summer (April 1 – October 31)

Dry Winter (November 1 – March 31)

² 2016 includes data through June 30, 2016.

* Occurred prior to the reporting year (i.e. before July 2015).

Machado Lake Nutrient, Pesticides and PCBs TMDLs

There is no available receiving water monitoring data for Machado Lake for the reporting year. City of Los Angeles will conduct receiving water monitoring in Machado Lake after the Machado Lake Ecosystem Rehabilitation Project is complete.

Greater Los Angeles Harbor Toxics TMDL

The Peninsula agencies are participating in the Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting Program being conducted by the Greater Harbor Waters Regional Monitoring Coalition. This program includes sampling for both water quality and sediment quality as well as fish tissue sampling. Refer to the 2014-2015 and 2015-2016 Harbor Toxics Annual Report submitted by the City of Long Beach on behalf of the Peninsula for additional information.

Non-TMDL Receiving Water Monitoring Sites

As outlined in the CIMP, two offshore monitoring locations were chosen to assess the effects of MS4 discharges on receiving waters (i.e. Santa Monica Bay) within the Peninsula WMG area (see [Figure 1](#)).

Since the CIMP was approved in February of this reporting year, only one event (dry weather) was conducted to capture the critical dry month (June). Thus far, it is too early in the CIMP implementation phase to analyze the data for any trends, though the data from the first dry weather monitoring event provides a baseline for the receiving water quality conditions. Samples were analyzed for 200 constituents; however, exceedances occurred for only three. Additionally, all toxicity tests passed and no TIES were triggered.

See Section 6.4 for more details on the exceedances and [Appendix C](#) for full list of chemistry and toxicity results.

- (b) **Assessment of Stormwater Outfall-based Monitoring Data**: Provide an assessment as to whether the quality of stormwater discharges as measured at designated outfalls is improving, staying the same, or declining. The assessment may compare water quality data from the reporting year to previous years with similar rainfall patterns, conduct trends analysis, or use other means to develop and support its conclusions (e.g., use of municipal action levels as provided in Attachment G of the Permit).

Data from all stormwater outfalls sites shall be assessed in this section. If aquatic toxicity was confirmed and a TIE was conducted, the toxic chemicals as determined by the TIE, will be identified. All relevant data will be included in an appendix to allow the Regional Water Board to review the adequacy and findings of the TIE, including, but not be limited to, the sample(s) date, sample(s) start and end time, sample type(s) (flow-weighted composite, grab, or field measurement), sample location(s) as depicted on the map, the parameters, the analytical results, and the applicable limitation.

For WMPs/EWMPs, this assessment should focus on Category 1, 2, and 3 Water Body-Pollutant Combinations.

Machado Lake Nutrient, Pesticides and PCBs TMDLs

The Peninsula Cities are assessing Nutrient TMDL attainment and the effectiveness of implementation activities through concentration-based monitoring at the termini of the shared Peninsula drainage system. Attainment is based upon monthly samples, or in the case of multiple samples being collected during one month, the monthly average. Data from the monthly sampling was used to calculate the concentration of TN and TP originating from the Peninsula Cities watersheds. The results from the four sampling locations are averaged for each month, ascribing concentrations of 0.0 mg/L for locations with no flow during the sampling event. The monthly average was then compared to the interim WLAs, which are numerical targets for nutrient TMDL attainment.

The interim concentration-based WLA currently in effect for TN is 2.45 mg/L and 1.25 mg/L for TP (RWQCB, 2008)⁸. These interim WLAs became effective on March 11, 2014 and are in effect until September 10, 2018. On September 11, 2018; WLAs for TN and TP will be reduced to 1.00 mg/L and 0.10 mg/L, respectively.

Stormwater monitoring data indicates the quality of stormwater discharges from the Peninsula Cities has remained relatively consistent. There were no exceedances of the interim WLAs for nutrients or toxics during the 2013-14, 2014-15, and 2015-16 reporting periods. [Table 6r](#) (Appendix A) contains a summary of historic the TMDL attainment status in the previous reporting years.

⁸ The State of California, California Regional Water Quality Control Board, Los Angeles Region, 2008. Resolution No. R08-006, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Daily Maximum Load for Eutrophic, Algae, Ammonia, and Odors (Nutrients) for Machado Lake: Dated May 1, 2008.

2015-2016 Reporting Year

The following sections give a detailed discussion of analytical results for samples collected during the 2015 – 2016 Reporting Year.

➤ **Nutrient TMDL Sampling Results:**

A brief discussion of nutrient, TOC, TSS, pesticides, and PCBs TMDL sampling results for the current reporting period by analytical method is provided in the following sections. A summary of nutrient TMDL sampling results in the Reporting Year is included in Table 6n (Appendix A), TOC and TSS sampling results are included in Table 6s (Appendix A), and pesticides and PCB sampling results are included in Table 6t (Appendix A).

• **Nutrient TMDL Sampling - Nitrogen**

Three forms of nitrogen were analyzed for the project: nitrate, nitrite, and TKN. The following sections summarize the results of nitrogen analysis in the collected samples.

○ **Nitrate**

Nitrate was detected above the practical quantitation limit (PQL) in 11 of 21 unfiltered stormwater samples (52 percent). The range of detected nitrate concentrations was from 0.120 mg/L at the RHE City Hall station on July 14, 2015; to 1.34 mg/L at the RHE City Hall station during a wet weather event on January 5, 2016.

○ **Nitrite**

Nitrite was not detected above the PQL in any of the 21 unfiltered stormwater samples collected during the reporting year.

○ **Total Kjeldahl Nitrogen**

TKN was detected above the PQL in 20 of 21 unfiltered stormwater samples (95 percent). The range of detected TKN concentrations was from 0.138 mg/L at the RHE City Hall monitoring site on February 9, 2016; to 2.99 mg/L at the RHE City Hall monitoring site during the wet weather event on January 5, 2016.

• **Nutrient TMDL Sampling -Phosphorous**

Phosphorous was detected above the PQL in 16 of 21 unfiltered stormwater samples (76 percent). The range of detected concentrations was from 0.055 mg/L at the RHE City Hall monitoring site during a dry weather event on December 8, 2015; to 5.2 mg/L at the Valmonte monitoring site during a wet weather event on January 5, 2016.

➤ **TOC and TSS Sampling Results**

TOC and TSS analysis were performed on unfiltered wet weather storm water samples collected during wet weather pesticide and PCBs TMDL sampling events. Analytical results for TOC and TSS in unfiltered wet weather stormwater samples are summarized in Table 6s in Appendix A.

Two pesticide and PCBs TMDL sampling events were attempted during qualifying wet weather events on January 5, 2016 (Event 7), and March 7, 2016 (Event 11). The sampling events resulted in the collection of seven separate water samples from the two storms. TOC was detected above the PQL in all seven of the unfiltered stormwater samples. The range of detected concentrations was from 7.1 mg/L to 41 mg/L. TSS was detected above the PQL in all seven unfiltered stormwater samples. The range of detected TSS concentrations was from 17 mg/L to 3,400 mg/L.

• **Total Organic Carbon**

TOC was detected above the PQL in all seven unfiltered stormwater samples. The range of detected concentrations was from 7.1 mg/L at the Valmonte monitoring site on January 5, 2016; to 41 mg/L at the RHE City Hall monitoring site on January 5, 2016.

• **Total Suspended Solids**

TSS was detected above the PQL in all seven unfiltered storm water samples. The range of detected concentrations was from 17 mg/L at the Solano monitoring site on March 7, 2016; to 3,400 mg/L at the Valmonte monitoring site on January 5, 2016.

➤ **Pesticides and PCBs Sampling Results**

Analytical results for pesticides and PCBs in the sediment fraction of wet weather stormwater samples are summarized in Table 6t (Appendix A). The January 5, 2016 wet weather event mobilized enough sediment in all four of the water samples to analyze for pesticides and PCBs. Due to low sediment recovery rates, PQLs were

raised in the Valmonte sample. For the same reason the PQLs were elevated in the three samples collected during the wet weather event on March 7, 2016.

A minimum of 75 gallons of water was filtered at each sampling location in an attempt to collect sediment during those events, but when the amount of sediment recovered was less than the minimum amount (10 grams) necessary to conduct pesticides or PCB analysis at the standard PQLs, the reported PQLs were elevated. In three samples collected on January 5, 2016 where adequate amounts of sediment were collected and the PQL was not elevated, none of the OCP pesticide congeners including gamma-chlordane, alpha-chlordane, 4,4'-DDE, and 4,4'-DDT were detected above the PQL; and none of the PCB congeners were detected above the PQL. In samples with elevated PQLs none of the OCP or PCB congeners were detected above the elevated PQL's. A brief discussion of pesticides and PCB analytical results is provided in the following sections

- **Organochlorine Pesticides**

OCPs were not detected above the PQL in the sediment fraction of the seven wet weather event stormwater samples. Due to inadequate sediment volume recovered from the samples, PQLs were elevated in four of the seven wet weather samples.

- **Polychlorinated Biphenyls**

PCBs were not detected above the PQL in the sediment fraction of the seven wet weather event stormwater samples. Due to inadequate sediment volume recovered from the samples, PQLs were elevated in four of the seven wet weather samples.

- (c) **Non-stormwater Outfall Screening and Monitoring Program Implementation and Assessment of Monitoring Data:** Summarize the implementation of the non-stormwater outfall screening and monitoring program and assess monitoring data collected as part of the program. The summary of program implementation shall include:

- The number and percentage of source identifications completed and their outcome.
- The number of outfalls where significant non-stormwater discharge was attributed to other NPDES permitted discharges; other authorized non-stormwater discharges; or conditionally exempt discharges pursuant to Part III.A of the Permit.
- An assessment of the effectiveness of the Permittee(s) control measures in effectively prohibiting non-stormwater discharges through the MS4 to the receiving water.
- The status of multi-year efforts related to the non-stormwater outfall screening and monitoring program that were not completed within the current year and will continue. Further details may be included in individual forms submitted by Permittees.

Data from all non-stormwater outfalls sites shall be assessed in this section. If aquatic toxicity was confirmed and a TIE was conducted, the toxic chemicals as determined by the TIE, will be identified. All relevant data will be included to allow the Regional Board to review the adequacy and findings of the TIE, including, but not be limited to, the sample(s) date, sample(s) start and end time, sample type(s) (flow-weighted composite, grab, or field measurement), sample location(s) as depicted on the map, the parameters, the analytical results, and the applicable limitation.

Non-Stormwater (NSW) outfall screenings were performed September 2014 through December 2014, during which three outfall screening events were conducted. The screening program exceeded the Permit specifications by screening all outfalls 12 inches or larger in diameter regardless of tributary land uses. As a result, 39 outfalls were screened for potentially significant NSW flows. Seven (7) of the 39 were identified as having significant NSW discharge. Per the Permit, 25% of the significant outfalls must be investigated by December 2015 to determine the sources of the NSW discharges, with the remaining 75% to be investigated by December 2017. The PVP WMG has complied by investigating three (3) of the seven (7) (i.e. 43%) significant outfalls in August 2015. The source of all three outfalls were determined to be naturally occurring due to known rising groundwater. The remaining four (4) outfalls will be investigated during the 2016-2017 reporting year.

Per the Permit, monitoring of NSW outfalls will commence where investigation efforts fail to identify the sources of discharge. The monitoring objectives and procedures for NSW outfall monitoring are included in the CIMP. In this way, the WMG has collectively taken efforts to mitigate and address non-stormwater discharges. It is expected that future annual reports will include a detailed description of actions and projects to address non-stormwater discharges after source investigation has been completed. It is anticipated that exceedances found and attributed to non-stormwater discharges will be addressed through the EWMP adaptive management process or the Illicit Connections/Illicit Discharges Program.

No changes to the NSW outfall based screening and monitoring program have been made during this reporting year.

No non-TMDL NSW monitoring data is available for this reporting year as monitoring has not been triggered during this phase of the NSW program.

For information on TMDL NSW monitoring, see Section 6.1(b) for dry weather monitoring conducted for the Machado Lake Nutrient TMDL.

- 6.4 **Identification of Exceedances:** Summarize all identified exceedances of (1) outfall-based stormwater monitoring data, (2) wet weather receiving water monitoring data, (3) dry weather receiving water data, and (4) non-stormwater outfall monitoring data against all applicable receiving water limitations, water quality-based effluent limitations, non-stormwater action levels, and aquatic toxicity thresholds (as defined in Sections XII.F and G of the MRP).

Cause or Contribute

Where Receiving Water Limitations were exceeded, a description of efforts that were taken to determine whether discharges from the MS4 caused or contributed to the exceedances shall be provided. The Group shall summarize all receiving water exceedances (as shown in Example Table 3); the Group shall also summarize monitoring results for all outfalls upstream of the receiving water monitoring site with an exceedance (Example Table 4). Any of the conditionally exempt non-stormwater discharges identified in Section 4.3 that are a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations shall be identified in this section.

Outfall Data

Additionally, outfall-based stormwater monitoring data will be compared to municipal action levels (MALs), and those sub watersheds with a running average of twenty percent or greater of exceedances of the MALs listed in Attachment G of the Permit in discharges of stormwater from the MS4 will be identified. All sample results that exceeded one or more applicable thresholds shall be identified (e.g. all outfalls exceeding receiving water limitations shall be summarized whether or not there is a downstream receiving water exceedance, as shown in Example Table 5).

- (1) **Outfall Based Stormwater Monitoring Data:** Stormwater outfall monitoring data was compared to municipal action levels (MALs) listed in Attachment G of the permit for municipal separate storm sewer system (MS4) discharges within the coastal watersheds of Los Angeles County (CRWQCB, 2015) . Section VIII, Municipal Action Levels was used to compare the nutrient, pesticides, and PCBs TMDL data results to the MALs for pH, TSS, TKN, TN, and TP. A total of eight MAL exceedances were found within data collected in the 2015 – 2016 reporting period, four exceedances for TSS and four exceedances for total phosphorus. The following sections summarize the exceedance data comparison.

pH Data

The MAL for pH values shall be between 6.0 to 9.0 standard pH units at all times. In the 2015 – 2016 reporting period no pH exceedances were found in stormwater monitoring samples collected during the two separate wet weather monitoring events. The range of measured pH values was from 6.92 at the Valmonte station on January 5, 2016, to 7.56 at the Solano station on the same date.

TSS Data

The MAL for TSS values is 264.1 mg/L. In the 2015 – 2016 reporting period there were four TSS exceedances in stormwater monitoring samples collected during the two separate wet weather monitoring events. On January 5, 2016 TSS was measured at 790 mg/L at the RHE City Hall station, 3,400 mg/L at the Valmonte station, and 1,700 at the Lariat station. On March 7, 2016 TSS was measured at 670 mg/L at the Valmonte station. See [Table 6E](#).

Total Kjeldahl Nitrogen (TKN) Data

The MAL for TKN values is 4.59 mg/L. In the 2015 – 2016 reporting period there were no TKN exceedances in stormwater monitoring samples collected during the 14 separate monitoring events. The range of measured TKN values was from 0.138 mg/L at the RHE City Hall station on February 9, 2016, to 2.99 mg/l at the RHE City Hall station on January 5, 2016.

Nitrate Plus Nitrite Data

The MAL for the sum of nitrate and nitrite values is 1.85 mg/L. In the 2015 – 2016 reporting period there were no sum of nitrate and nitrite exceedances in stormwater monitoring samples collected during the 14 separate monitoring events. The range of measured nitrate plus nitrite values was from 0.120 mg/L at the RHE City Hall station on July 14, 2015, to 1.34 mg/l at the RHE City Hall station on January 5, 2016.

Total Phosphorus Data

The MAL for total phosphorus values is 0.80 mg/L. In the 2015 – 2016 reporting period there were four exceedances in monitoring samples collected during the 14 separate monitoring events. On January 5, 2016 total phosphorus was measured at 5.2 mg/L at the Valmonte station, 2.3 mg/L at the Lariat station, and 1.3 mg/L at the Solano station. On March 3, 2016 total phosphorus was measured at 1.1 mg/L at the RHE City Hall station. See [Table 6e](#).

- (2) **Wet-Weather Receiving Water Monitoring Data:** Weekly shoreline monitoring samples collected by the Los Angeles County Sanitation District for bacterial characterization were evaluated against requirements of the Santa Monica Bay Beaches Bacterial TMDL (CRWQCB, 2002) for potential exceedances. The evaluation included total coliform, fecal coliform, and Enterococcus density against rolling 30-day geometric mean limits and single sample limits (see [Appendix D](#)). No single sample or geometric mean limit exceedances were present in the shoreline monitoring data set for wet weather. Additionally, no offshore wet-weather monitoring for receiving waters (non-TMDL), as outlined in the CIMP, was performed during this reporting year; therefore, there are no exceedances to report.
- (3) **Dry-Weather Receiving Water Monitoring Data:** Weekly shoreline monitoring samples collected by the Los Angeles County Sanitation District for bacterial characterization were evaluated against requirements of the Santa Monica Bay Beaches Bacterial TMDL (CRWQCB, 2002) for potential exceedances. The evaluation included total coliform, fecal coliform, and Enterococcus density against rolling 30-day geometric mean limits and single sample limits (see [Appendix D](#)). No single sample or geometric mean limit exceedances were present in the shoreline monitoring data set for dry weather. For exceedances of Harbor Toxics TMDL sampling refer to the 2014-2015 and 2015-2016 Harbor Toxics Annual Report submitted by the City of Long Beach on behalf of the Peninsula for additional information. For exceedances of non-TMDL receiving water sampling, see [Table 6f](#).

To date, none of the categories of conditionally exempt non-stormwater discharges in Part III.A.2.b of the Permit were determined to be sources of pollutants that caused or contributed to an exceedance of receiving water limitations or WQBELs. Since the group has conducted only one monitoring event thus far, data from future monitoring events will be assessed to determine whether exceedances of these constituents persist and if potential sources from Peninsula jurisdiction MS4s need to be investigated.

- (4) **Non-Stormwater Outfall Monitoring Data:** No NSW monitoring data is available for this reporting year, other than Machado Lake TMDL outfall monitoring data, as monitoring has not been triggered during this phase of the NSW outfall monitoring program.

Table 6e: Summary of All Outfalls with Result(s) Above Applicable Municipal Action Level (MAL)

Date	Monitoring Event (if available)	Condition	Outfall Location	Parameter	MAL	Result	Units	Receiving Water
1/5/2016	WW1	Wet	RHE City Hall	TSS	264.1	790	mg/L	Machado Lake
1/5/2016	WW1	Wet	Valmonte	TSS	264.1	3400	mg/L	Machado Lake
1/5/2016	WW1	Wet	Lariat	TSS	264.1	1700	mg/L	Machado Lake
1/5/2016	WW1	Wet	Valmonte	Total Phosphorus	0.8	5.2	mg/L	Machado Lake
1/5/2016	WW1	Wet	Lariat	Total Phosphorus	0.8	2.3	mg/L	Machado Lake
1/5/2016	WW1	Wet	Solano	Total Phosphorus	0.8	1.3	mg/L	Machado Lake
3/3/2016	DW-9	Dry	RHE City Hall	Total Phosphorus	0.8	1.1	mg/L	Machado Lake

Table 6f: Summary of Receiving Water Exceedances

Date	Monitoring Event (if available)	Condition	Receiving Water Location	Parameter	Limitation	Result	Units	Receiving Water
6/23/2016	PVPRW-2016Dry1	Dry	Peninsula-RW1	Enterococci	TMDL: 104	130	MPN/100mL	Santa Monica Bay
6/23/2016	PVPRW-2016Dry1	Dry	Peninsula-RW1	Beryllium, Total	2012 Ocean Plan: 0.033	0.0635	µg/L	Santa Monica Bay
6/23/2016	PVPRW-2016Dry1	Dry	Peninsula-RW2	Beryllium, Total	2012 Ocean Plan: 0.033	0.0881	µg/L	Santa Monica Bay
6/23/2016	PVPRW-2016Dry1	Dry	Peninsula-RW1	Total PCB Congener	2012 Ocean Plan: 0.00019	0.00049	µg/L	Santa Monica Bay
6/23/2016	PVPRW-2016Dry1	Dry	Peninsula-RW2	Total PCB Congener	2012 Ocean Plan: 0.00019	0.0011	µg/L	Santa Monica Bay

- 6.5 **TMDL Provisions and WMP/EWMP Milestones:** Report on progress towards achieving interim or final milestones, water quality-based effluent limitations, and receiving water limitations based on applicable compliance schedules in Attachments L-R of the LA County MS4 Permit and any additional milestones and corresponding deadlines in an approved WMP/EWMP.

TMDL reporting items required per the applicable schedules outlined in Attachment E, Section XIX.A through XIX.G of the Permit may be provided here or as an attachment to this report.

(1) Attachment M of Order No R4-2012-0175

Attachment M contains interim and final milestones, water quality-based effluent limitations (WQBELs), and Waste Load Allocations (WLAs) for total maximum daily loads (TMDLs) in the Peninsula WMG Area. The TMDLs listed in Attachment M and applicable to the members of the Peninsula WMG include:

(a) Santa Monica Bay Beaches Bacteria TMDL

The tables below list the daily maximum final WQBELs for discharges during dry weather and wet weather and the Annual Allowable Exceedances. There were no exceedances of the TMDL Effluent Limitations this reporting year, which also indicates full compliance with allowable exceedance days shown in the tables below. See [Appendix D](#) for the full data set of the reporting year.

Table 6g: SMBBB TMDL Effluent Limitations

Constituent	Effluent Limitations (MPN or cfu)		No. of Exceedances (All Sites SMB 7-1 through SMB 7-5)		Compliance Status
	Final Compliance Deadline: 7/15/21				
	Daily Maximum	Geometric Mean	Daily Maximum	Geometric Mean	
Total Coliform	10,000/100mL	1,000/100mL	0	0	In compliance
Fecal coliform	400/100mL	200/100mL	0	0	In compliance
Enterococcus	104/100mL	35/100nL	0	0	In compliance

Table 6h: SMBBB TMDL Annual Allowable Exceedance Days and Compliance Status

Station ID	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)			No. of Exceedance Days During Reporting Year			Compliance Status
		Weekly Sampling			Weekly Sampling			
		Summer Dry Weather (April 1 – Oct 31)	Winter Dry Weather (Nov 1 – March 31)	Wet Weather (Year Round)	Summer Dry Weather (April 1- Oct 31)	Winter Dry Weather (Nov 1 – March 31)	Wet Weather (Year Round)	
SMB 7-1	Malaga Cove	0	1	2	0	0	0	In compliance
SMB 7-2	Bluff Cove	0	1	0	0	0	0	In compliance
SMB 7-3	Long Point	0	1	1	0	0	0	In compliance
SMB 7-4	Abalone Cove	0	0	1	0	0	0	In compliance
SMB 7-5	Portuguese Bend Cove	0	1	1	0	0	0	In compliance

(b) Santa Monica Bay Nearshore and Offshore Debris TMDL

Members of the WMG applied for a Proposition 84 grant to fund the installation of 1,368 Connector Pipe Screen (CPS) units in existing catch basins draining to the Santa Monica Bay. On October 20, 2016, the Governing Board of the Santa Monica Bay Restoration Commission (SMBRC) approved the Peninsula WMG's proposal to the State Board for funding. It is anticipated that funding from this grant will assist the Peninsula WMG achieve compliance of the Santa Monica Bay Nearshore and Offshore Debris TMDL a year or two before the 2020 final compliance deadline (see Table 6i below for the interim compliance milestones and final compliance schedule). Although the SMB Trash TMDL does not require receiving water monitoring, the Prop 84 grant requires a Trash Monitoring and Reporting Plan (TMRP). If the Peninsula is awarded the grant, a TMRP will be submitted to the SMBRC.

Table 6i: SMB Near and Offshore Debris TMDL Compliance Schedule and Status

Permittees	Baseline	3/20/16 (80%)	3/20/17 (60%)	3/20/18 (40%)	3/20/19 (20%)	3/20/20 (0%)	Compliance Status
		Annual Trash Discharge (gals/yr)					
County of Los Angeles	5,138	4,110	3,083	2,055	1,028	0	Expected to be in full compliance by 2019 after receiving Prop 84 grant.
Palos Verdes Estates	3,346	2,677	2,007	1,338	669	0	
Rancho Palos Verdes	7,254	5,803	4,353	2,902	1,451	0	
Rolling Hills Estates	365	292	219	146	73	0	

(c) Santa Monica Bay TMDL for DDTs and PCBs

Monitoring for this TMDL commenced after this reporting year at two MS4 outfall monitoring locations specified in the CIMP. Assessment of the data and progress towards compliance will be discussed in later annual reports. Table 6j below lists the WLAs and compliance determination per the TMDL.

Table 6j: SMB Toxics TMDL WLAs

Constituent	Annual Mass-Based WLA (g/yr)*
DDT	27.08
PCBs	140.25

* Compliance shall be determined based on a three-year averaging period

(2) Attachment N of Order No R4-2012-0175

Attachment N contains interim and final milestones, water quality-based effluent limitations (WQBELs), and receiving water limitations (RWLs) for total maximum daily loads (TMDLs) in the Peninsula WMG Area. The TMDLs listed in Attachment N and applicable to the members of the Peninsula WMG include:

(a) Machado Lake Trash TMDL

Each City in the WMG and the County of Los Angeles submitted a Trash Monitoring and Reporting Plan (TMRP) to the Regional Board proposing compliance via progressive installation of full capture devices throughout the Machado Lake Subwatershed in order to achieve compliance with the Machado Lake Trash TMDL. In early 2014, each City in the WMG, along with three other partner cities, were awarded a grant from the Proposition 84 Stormwater Grant Program to fund the installation of full capture trash devices. With the financial assistance of the grant, the cities were able to complete the installations of over 2,000 inserts in the Machado Lake Watershed by December 2015. Compliance is reported individually by each Peninsula WMG.

Table 6k: Machado Lake Trash TMDL Water Quality Based Effluent Limitations (WQBEL)**Compliance Schedule and Status**

Permittees	Baseline WQBEL	3/6/2012 (80% of Basline WQBEL)	3/6/2013 (60% of Basline WQBEL)	3/6/2014 (40% of Basline WQBEL)	3/6/2015 (20% of Basline WQBEL)	3/6/2016 (0% of Basline WQBEL)	Compliance Status
		Annual Trash Discharge (gals/yr)					
County of Los Angeles	8,304	6,643	4,982	3,322	1,661	0	See individual annual reports
Palos Verdes Estates	1,976	1,581	1,186	791	395	0	
Rancho Palos Verdes	5,227	4,181	3,136	2,091	1,045	0	
Rolling Hills Estates	14,722	11,777	8,833	5,889	2,944	0	

(b) Machado Lake Nutrient TMDL

No exceedances occurred during this reporting year. See Section 6.3 for additional information.

Table 6l: Machado Lake Nutrient TMDL Effluent Limitations and Compliance Status

Deadline	Interim and Final Effluent Limitations		Compliance Status
	Monthly Average Total Phosphorus (mg/L)	Monthly Average Total Nitrogen (mg/L)	
March 11, 2014 (Interim)	1.25	2.45	Total Nitrogen: in compliance Total Phosphorus: in compliance
September 11, 2018 (Final)	0.10	1.0	TBD in later reporting years

(c) Machado Lake Pesticides and PCBs TMDL

The TMDL requires Permittees to comply with specified WQBELs for discharges of suspended sediments to Machado Lake, applied as a 3-year average no later than September 30, 2019. The Peninsula watershed group has been conducting wet weather sampling and analysis for pesticides and PCBs at the four Machado Lake TMDL outfall sites twice per reporting year since 2014. In 2015, the monitoring team was unable to sample enough sediment to analyze for pesticides and PCBs. During 2016 of this reporting year, two sampling events were conducted during qualifying wet weather events on January 5, 2016 and March 7, 2016. However, due to low sediment recovery rates, the laboratory Method Detection Limits (MDLs) were raised (see Section 6.3(b)). Though none of the samples exceeded the MDLs, the data is not sufficient to assess and compare to the Effluent Limitations, and as a result the group does not yet have three years of data to apply to the WQBEL. See Appendix A for pesticide and PCB results for the reporting year.

Additionally, receiving water monitoring within Machado Lake is conducted by the City of Los Angeles; however, the lake is currently undergoing renovations as part of the Machado Lake Ecosystem Rehabilitation Project. The water quality conditions of the lake will be assessed upon completion of the entire project. The WMG anticipates working with other agencies in determining methods to move forward with addressing the TMDL after this project is complete.

(d) Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

The Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL (Harbor Toxics TMDL) contains interim and final WQBELs, with a final WQBELs compliance deadline of March 23, 2032. As part of the Coordinated Compliance Monitoring and Reporting Plan, the program including sampling for both water quality and sediment quality at 22 different monitoring locations, as well as fish tissue sampling at four different locations.

Per the TDML, interim compliance is determined by meeting any one of the following methods: (1) demonstrate that the sediment quality condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Objectives (SQO) Part 1, is met, (2) meet the interim WQBELs in bed sediment (concentration) over a three-year averaging period, or (3) meet the interim WQBELs in the sediment discharged over a three-year averaging period. The group does not have three years of data yet; therefore, an assessment of compliance to the interim WQBELs will be made in later reporting years. This assessment will be made in the Annual Monitoring Report submitted by the Greater Harbors Regional Monitoring Coalition.

6.6 **Efforts to Address Exceedances:** The previous sections summarized all activities completed during the Reporting Year. This section shall be used to link the aforementioned activities to specific exceedances identified within the Reporting Year. The section may reference activities discussed within Section 7 and would also include the following:

- A description of efforts that were taken to address stormwater discharges that exceeded one or more applicable water quality based effluent limitations, or caused or contributed to Aquatic Toxicity.
- Where Receiving Water Limitations were exceeded, a description of all efforts that were taken to control the discharge of pollutants from the MS4 to those receiving waters in response to the exceedances.
- For sub watersheds not part of a WMP or EWMP, and/or not subject to any TMDLs, where a running average of twenty percent or greater of exceedances of the MALs in any discharge of stormwater from the MS4 is present, a MAL Action Plan must be submitted with the Annual Report. Where applicable, the Action Plan should be included here.

The WMG has implemented and continues to implement the MCMs identified in the Permit, as well as enhanced MCMs described in the Peninsula EWMP, and will monitor any non-stormwater discharges through the Illicit Connection and Illicit Discharge Elimination Program. See Section 4 for a discussion of non-stormwater control measures and Section 5 for a discussions of the effectiveness of these measures. Since the implementation of the CIMP is still in its early stages, the WMG will continue to observe data trends and intends to implement control measures as necessary to address exceedances.

Additionally, per the schedule identified in the TMDL, the Peninsula WMG, along with partner agencies, requested a reconsideration of the Machado Lake Nutrient TMDL on September 7, 2016.

6.7 **CIMP Adaptive Management:** This section shall be utilized to describe adaptive management of the CIMP and include:

- Identification of changes to any aspect of the CIMP (including changes to the non-stormwater outfall-based screening and monitoring program if changes are determined to be necessary during the one re-assessment required during the Permit term);
- Reason(s) for the change(s);
- Timeframe for implementing the changes; and
- Identification of those changes that require Regional Board Executive Officer approval

The Peninsula WMG will discontinue monitoring for Table E-2 constituents that are not identified as a water quality priority and are not detected at levels above applicable water quality objectives in the first year of monitoring, as stated in the MRP. The WMG expects to implement these changes during the 2016-2017 reporting year.

- 6.8 **Information to Meet Additional Reporting Requirements Related to Monitoring:** Results for monitoring of any pollutant more frequently than required by the Permit using approved test procedures, or another method specified in the Permit shall be reported here.

This section will also include:

- a. A full laboratory report for each chronic toxicity test prepared according to the appropriate test methods manual chapter on Report Preparation, including:
 - i. The chronic toxicity test results for the t-test, reported as "Pass" or "Fail", and the "Percent Effect".
 - ii. The dates of sample collection and initiation of each toxicity test.
 - iii. Test species with biological endpoint values for each concentration tested.
 - iv. Reference toxicant test results.
 - v. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
 - vi. TRE/TIE testing results.
 - vii. A printout of CETIS (Comprehensive Environmental Toxicity Information System) program results.
- b. A map of all sample location(s), including separate TIE sample locations (if any).

As noted previously, all monitoring data and associated meta data used to prepare the Annual Report must be summarized in an Excel spreadsheet and sorted by watershed, subwatershed and monitoring station/outfall identifier linked to the subwatershed map. The data summary must include the date, sample type, (flow-weighted composite, grab, field measurement), sample start and stop times, parameters, analytical method, value, and units.

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Table 6t: 2015-2016 Reporting Year Machado Lake Pesticides and PCBs TMDL Results

TABLE 6m: RAINFALL SUMMARY FOR THE REPORTING YEAR, GAUGE 43D, PALOS VERDES FIRE STATION

Event Number	Date	Event Start Time (AM/PM)	Event Duration (hrs)	Event End Time (AM/PM)	Highest Event Intensity - 15min (in/hr)	Total Event Volume (in)
Event 1	7/18/2015	13.15.00	3.75	5:00 PM	0.11	0.44
Event 2	7/19/2015	4:45 PM	3.25	8:00 PM	0.02	0.19
Event 3	7/21/2015	4:15 AM	5.00	9:15 AM	0.01	0.02
Event 4	7/22/2015	2:00 AM	0.25	2:15 AM	0.01	0.01
Event 5	9/9/2015	6:15 PM	0.25	6:30 PM	0.1	0.12
Event 6	9/15/2015	2:00 AM	6.00	9:00 AM	0.11	0.88
Event 7	10/4/2015	5:00 AM	0.25	5:15 AM	0.01	0.02
Event 8	10/5/2015	7:15 PM	0.25	9:30 AM	0.01	0.01
Event 9	10/16/2015	7:15 AM	2.25	9:30 AM	0.01	0.05
Event 10	11/3/2015	6:30 PM	0.50	7:00 PM	0.06	0.11
Event 11	11/9/2015	11:00 AM	0.25	11:15 AM	0.01	0.01
Event 12	11/25/2015	12:15 AM	0.25	12:30 AM	0.01	0.01
Event 13	11/27/2015	12:30 AM	1.00	1:30 AM	0.03	0.08
Event 14	12/10/2015	5:30 PM	2.25	7:45 PM	0.04	0.17
Event 15	12/11/2015	9:15 AM	0.25	9:30 AM	0.01	0.01
Event 16	12/13/2015	5:30 PM	2.25	7:45 PM	0.05	0.13
Event 17	12/19/2015	4:15 PM	1.25	5:30 PM	0.05	0.19
Event 18	12/21/2015	4:00 PM	7.00	11:00 PM	0.03	0.26
Event 19	12/22/2015	1:15 AM	6.25	7:30 AM	0.03	0.13
Event 20	1/3/2016	11:45 PM	0.25	12:00 AM	0.01	0.01
Event 21	1/5/2016	6:30 AM	7.75	2:15 PM	0.09	0.70
Event 22	1/6/2016	10:30 AM	13.50	12:45 AM	0.17	0.45
Event 23	1/7/2016	5:30 AM	2.50	8:00 AM	0.14	0.47
Event 24	1/9/2016	3:30 PM	12.50	3:45 AM	0.02	0.08
Event 25	1/14/2016	7:15 AM	0.25	7:30 AM	0.01	0.03
Event 26	1/17/2016	5:45 AM	0.25	6:00 AM	0.01	0.01
Event 27	1/18/2016	11:45 PM	0.25	12:00 AM	0.01	0.01
Event 28	1/19/2016	7:15 PM	4.75	12:00 AM	0.01	0.11

TABLE 6m: RAINFALL SUMMARY FOR THE REPORTING YEAR, GAUGE 43D, PALOS VERDES FIRE STATION

Event Number	Date	Event Start Time (AM/PM)	Event Duration (hrs)	Event End Time (AM/PM)	Highest Event Intensity - 15min (in/hr)	Total Event Volume (in)
Event 29	1/20/2016	5:45 AM	3.75	9:30 AM	0.01	0.07
Event 30	1/31/2016	7:00 AM	1.50	8:30 AM	0.04	0.17
Event 31	2/17/2016	4:15 PM	5.00	9:15 PM	0.06	0.74
Event 32	2/18/2016	6:45 AM	0.25	7:00 AM	0.01	0.02
Event 33	3/4/2016	11:45 PM	0.25	12:00 AM	0.01	0.02
Event 34	3/5/2016	12:00 AM	6.75	6:45 AM	0.02	0.13
Event 35	3/6/2016	12:15 AM	5.50	5:45 AM	0.07	0.55
Event 36	3/7/2016	6:30 AM	3.00	9:30 AM	0.08	0.24
Event 37	3/11/2016	1:30 PM	3.25	4:45 PM	0.15	0.47
Event 38	3/14/2016	6:45 AM	3.75	10:30 AM	0.02	0.10
Event 39	3/28/2016	10:15 AM	0.25	10:30 AM	0.01	0.01
Event 40	4/7/2016	1:30 PM	3.75	5:15 PM	0.01	0.04
Event 41	4/8/2016	9:30 AM	0.25	4:00 PM	0.02	0.11
Event 42	4/9/2016	8:30 AM	3.25	11:45 AM	0.01	0.02
Event 43	4/10/2016	1:00 AM	2.50	2:30 AM	0.03	0.06
Event 44	5/5/2016	10:15 PM	0.75	22:45	0.01	0.02
Event 45	5/6/2016	7:30 AM	0.25	7:45 AM	0.08	0.13
Event 46	5/7/2016	8:15 AM	0.25	8:30 AM	0.01	0.01
Event 47	6/11/2016	7:00 AM	2.25	9:15 AM	0.01	0.06

Total for Year (in)	7.68
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Notes:

hr: Hours

in: Inches

in/hr: Inches of precipitation per hour

15min: 15 minutes

TABLE 6n: 2015-16 Reporting Year Machado Lake Nutrient TMDL Monitoring and QA/QC RESULTS

Event Name	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)	
DW-1	RHE City Hall	7/14/2015	0.120	<0.100	0.120	0.363	0.483	0.27	0.081	0.05	
	Valmonte		<0.113	<0.152	<0.152	0.600	0.600		0.100		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
DW-2	RHE City Hall	8/3/2015	<0.100	<0.100	<0.100	0.346	0.346	0.35	<0.050	0.14	
	Valmonte		<0.100	<0.100	<0.100	1.070	1.070		0.540		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
DW-3	RHE City Hall	9/3/2015	<0.113	<0.152	<0.152	0.558 ⁽¹⁾	0.558	0.14	0.081	0.02	
	Valmonte		No Flow						No Flow		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
DW-4	RHE City Hall	10/8/2015	<0.113 QM-05	<0.152	<0.152	0.185	0.185	0.05	<0.050	<0.01	
	Valmonte		No Flow						No Flow		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
DW-5	RHE City Hall	11/11/2015	0.448	<0.152	0.448	0.259	0.707	0.18	0.210	0.05	
	Valmonte		No Flow						No Flow		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
DW-6	RHE City Hall	12/8/2015	<0.113 QM-05	<0.152	<0.152	0.242 QR-04	0.242	0.06	0.055	0.01	
	Valmonte		No Flow						No Flow		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		
WW-1	RHE City Hall	1/5/2016	1.34 QM-4X	<0.152	1.340	2.99 QM-05	4.330	1.51	0.630	1.18	
	Valmonte		<0.113	<0.152	<0.152	2.280	2.280		5.200		
	Solano		0.570	<0.152	0.570	1.190 ⁽¹⁾	1.760		1.300 ⁽¹⁾		
	Lariat		0.860	<0.152	0.860	1.680	2.540		2.300		
DW-7	RHE City Hall	1/13/2016	0.220	<0.152	0.220	0.920	1.140		<0.050		
	Valmonte		No Flow						No Flow		
	Solano		No Flow						No Flow		
	Lariat		No Flow						No Flow		

TABLE 6n: 2015-16 Reporting Year Machado Lake Nutrient TMDL Monitoring and QA/QC RESULTS

Event Name	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
DW-8	RHE City Hall	2/9/2016	0.340	<0.152	0.340	0.138 QM-05	0.478	0.12	0.170	0.04
	Valmonte		No Flow				No Flow			
	Solano		No Flow				No Flow			
	Lariat		No Flow				No Flow			
DW-9	RHE City Hall	3/3/2016	0.560	<0.152	0.560	1.980 ⁽¹⁾	2.540	0.86	1.100	0.37
	Valmonte		No Flow				No Flow			
	Solano		No Flow				No Flow			
	Lariat		No Flow				No Flow			
WW-2	RHE City Hall	3/7/2016	0.500	<0.152	0.500	1.800	2.300		0.510	
	Valmonte		0.700	<0.152	0.700	0.210	0.910		0.770	
	Solano		0.190	<0.152	0.190	0.950 ⁽¹⁾	1.140		0.560	
	Lariat		No Flow				No Flow			
DW-10	RHE City Hall	4/6/2016	<0.113	<0.152	<0.152	0.324	0.324	0.08	<0.050	<0.01
	Valmonte		No Flow				No Flow			
	Solano		No Flow				No Flow			
	Lariat		No Flow				No Flow			
DW-11	RHE City Hall	5/10/2016	<0.113	<0.152	<0.152	<0.0200 ⁽¹⁾	<0.152	<0.04	<0.050	<0.01
	Valmonte		No Flow				No Flow			
	Solano		No Flow				No Flow			
	Lariat		No Flow				No Flow			
DW-12	RHE City Hall	6/1/2016	<0.113	<0.152	<0.152	0.324	0.324	0.08	0.075	0.02
	Valmonte		No Flow				No Flow			
	Solano		No Flow				No Flow			
	Lariat		No Flow				No Flow			
						Interim WLA (3/11/2014)		2.45		1.25
						Final WLA (9/11/2018)		1.00		0.10

Notes:

TMDL: Total maximum daily load

WLA: Waste load allocation

mg/l: milligrams per liter

1: Field duplicate >20% RPD when results were > 5X the Reporting Limit

TABLE 6n: 2015-16 Reporting Year Machado Lake Nutrient TMDL Monitoring and QA/QC RESULTS										
Event Name	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)

2: Sum of TKN+NO₃-N+NO₂-N

Laboratory Qualifiers:

QM-05: The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.

QM-07: The spike recovery and/or RPD was outside the acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QM-4X: The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentrations at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

QR-04: The percent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.

TABLE 6o: DUPLICATE AND EQUIPMENT BLANK NITROGEN AND PHOSPHOROUS SAMPLE RESULTS

Sample Name	Sample Type	Event Name	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Total Phosphorus (mg/l)	Comments
Tahquitz	D	DW-1	7/14/2015	0.120	<0.152	0.379 QM-07	0.050 ⁽¹⁾	
RHE City Hall				0.120	<0.152	0.363	0.081 ⁽¹⁾	
Tahquitz	D	DW-2	8/3/2015	<0.100	<0.100	0.466 ⁽¹⁾	0.580	
Valmonte				<0.100	<0.100	1.07 ⁽¹⁾	0.540	
Tahquitz	D	DW-3	9/3/2015	<0.152	<0.113	0.423 ⁽¹⁾	0.082 QM-07	
RHE City Hall				<0.152	<0.113	0.558 ⁽¹⁾	0.081	
Tahquitz	D	DW-4	10/8/2015	<0.113	<0.152	0.572 ⁽¹⁾	0.550	
Valmonte				<0.113	<0.152	0.449 ⁽¹⁾	0.550	
Tahquitz	D	DW-5	11/11/2015	0.452	<0.152	0.214 QR-04	0.200	
RHE City Hall				0.448	<0.152	0.259	0.210	
Tahquitz	D	DW-6	12/8/2015	<0.113	<0.152	0.920 ⁽¹⁾	1.600 ⁽¹⁾	
Valmonte				<0.013	<0.152	1.92 ⁽¹⁾	0.440 ⁽¹⁾	
Tahquitz	D	WW-1	1/5/2016	0.610	<0.152	0.830 ⁽¹⁾	0.810 ⁽¹⁾	
Solano				0.570	<0.152	1.19 ⁽¹⁾	1.300 ⁽¹⁾	
Harwick	EB	WW-1	1/5/2016	<0.113	<0.152	0.022	<0.050	Sample bucket
Tahquitz	D	DW-7	1/13/2016	0.230	<0.152	0.950 QM-05	<0.050	
RHE City Hall				0.220	<0.152	0.920	<0.050	
Tahquitz	D	DW-8	2/9/2016	<0.113	<0.152	0.695	<0.050 ⁽¹⁾	
Valmonte				<0.113	<0.152	0.755	1.0 ⁽¹⁾	
Tahquitz	D	DW-9	3/3/2016	0.560	<0.152	2.89 ⁽¹⁾	1.1	
RHE City Hall				0.560	<0.152	1.98 ⁽¹⁾	1.1	
Tahquitz	D	WW-2	3/7/2016	0.19 QM-05	<0.152	0.229 ⁽¹⁾	0.53	
Solano				0.190	<0.152	0.950 ⁽¹⁾	0.56	
Tahquitz	D	DW-10	4/6/2016	<0.113	<0.152	0.261 ⁽¹⁾	0.59	
Valmonte				<0.113	<0.152	0.497 ⁽¹⁾	0.60	
Tahquitz	D	DW-11	5/10/2016	<0.113	<0.152	0.298 ⁽¹⁾	<0.050	
RHE City Hall				<0.113	<0.152	<0.020 ⁽¹⁾	<0.050	

Sample Name	Sample Type	Event Name	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Total Phosphorus (mg/l)	Comments
Tahquitz	D	DW-12	6/1/2016	<0.113	<0.152	0.370 ⁽¹⁾	0.340	
Valmonte				<0.113	<0.152	0.265 ⁽¹⁾	0.410	

Notes:

mg/l: milligrams per liter

D: Blind field duplicate

EB: Blind equipment blank

1¹ Field duplicate >20% RPD when results were > 5X the Reporting Limit

Laboratory Qualifiers:

QM-05: The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria.
The data is acceptable as no negative impact on data is expected.

QM-07: The spike recovery and/or RPD was outside the acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QR-04: The percent recovery and/or RPD was outside acceptance criteria. Acceptance based on percent recovery results in duplicate QC sample and the CCV and CCB results.

TABLE 6p: TOC AND TSS DUPLICATE SAMPLE RESULTS					
Sample Name	Sample Type	Event Name	Sample Date	Total Organic Carbon (TOC) (mg/L)	Total Suspended Solids (TSS) (mg/L)
Tahquitz	D	WW-1	1/5/2016	17	1,800
Lariat				16	1,700
Tahquitz	D	WW-2	3/7/2016	14	14
Solano				14	17

Notes:

mg/L: milligrams per liter

TABLE 6q: OCP AND PCB DUPLICATE SAMPLE RESULTS								
Sample Name	Sample Type	Event Name	Sample Date	OCPs				PCBs
				gamma-Chlordane (ug/kg)	alpha-Chlordane (ug/kg)	4,4'-DDE (ug/kg)	4,4'-DDT (ug/kg)	(ug/kg)
Tahquitz	D	WW-1	1/5/2016	<5.0	<5.0	<5.0	<5.0	<10
Lariat				<5.0	<5.0	<5.0	<5.0	<10
Tahquitz	D	WW-2	3/7/2016	<96	<96	<96	<96	<190
Solano				<63	<63	<63	<63	<130

Notes:

OCPs: Organochlorine pesticides

PCBs: Polychlorinated biphenyls

4,4'-DDE: 4,4'-dichlorodipenyldichloroethylene

4,4'-DDT: 4,4'-dichlorodipenyltrichloroethane

ug/Kg: Microgram per kilogram

D: Blind field duplicate

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
August	RHE City Hall	8/2/2011	0.77	< 0.15	0.77	0.75	1.52	0.57	0.15	0.08
	Valmonte		0.15	< 0.75	0.15	0.59	0.74		0.16	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
September	RHE City Hall	9/8/2011	0.51	< 0.15	0.51	0.48	0.99	0.43	0.13	0.17
	Valmonte		0.14	< 0.15	0.14	0.57	0.71		0.54	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
October	RHE City Hall	10/3/2011	0.91	< 0.15	0.91	0.55	1.46	0.63	0.17	0.19
	Valmonte		0.37	< 0.15	0.37	0.70	1.07		0.59	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
November	RHE City Hall	11/3/2011	0.79	< 0.30	0.79	11	11.79	2.08	0.20	0.12
	Valmonte		< 0.55	< 0.75	< 0.75	0.59	0.59		0.41	
	Solano		No Flow				0.00		0.00	
	Blackwater Cyn		No Flow				0.00		0.00	
	RHE City Hall	11/15/2011	0.62	< 0.75	0.62	< 0.50	0.62		0.071	
	RHE City Hall	11/22/2011	1.0	< 0.15	1.0	< 0.50	1.0		0.12	
	RHE City Hall	11/28/2011	0.58	< 0.30	0.58	< 0.50	0.58		0.058	
December	RHE City Hall	12/9/2011	1.9	< 0.15	1.9	1.2	3.10	0.92	0.083	0.13
	Valmonte		< 0.22	< 0.30	< 0.30	0.56	0.56		0.43	
	Solano		No Flow				0.00		0.00	
	Blackwater Cyn		No Flow				0.00		0.00	
January	RHE City Hall	1/6/2012	0.68	< 0.30	0.68	< 0.50	0.68	0.32	< 0.050	0.11
	Valmonte		< 0.55	< 0.75	< 0.75	0.58	0.58		0.42	
	Solano		No Flow				0.00		0.00	
	Blackwater Cyn		No Flow				0.00		0.00	
February	RHE City Hall	2/6/2012	0.91	< 0.75	0.91	0.63	1.54	0.56	< 0.050	0.12
	Valmonte		< 0.55	< 0.75	< 0.75	0.70	0.70		0.49	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
March	RHE City Hall	3/2/2012	0.35	< 0.15	0.35	< 0.50	0.35	2.04	< 0.050	0.65
	Valmonte		< 0.11	< 0.15	<0.15	0.62	0.62		0.19	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	3/17/2012 (Wet Weather Sample)	1.2	0.27	1.47	1.3	2.77		0.17	
	Valmonte		0.31	<0.15	0.31	0.72	1.03		0.51	
	Solano		0.75	< 0.15	0.75	4.7	5.45		1.40	
	Lariat		3.0	0.30	3.3	4.8	8.1		3.6	
	Lariat	3/28/2012	No Flow				0.00		0.00	
April	RHE City Hall	4/2/2012	0.75	< 1.5	0.75	< 0.50	0.75	1.05	< 0.050	0.16
	Valmonte		0.37	< 1.5	0.37	0.77	1.14		0.35	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	4/11/2012 (Wet Weather Sample)	0.78	< 0.15	0.78	0.79	1.57		0.11	
	Valmonte		0.64	<0.30	0.64	3.0	3.64		0.39	
	Solano		0.48	< 0.15	0.48	0.79	1.27		0.40	
	Lariat		No Flow				0		0.00	
	Lariat									
May	RHE City Hall	5/8/2012	< 0.22	< 0.30	<0.30	< 0.50	0.00	0.20	0.056	0.25
	Valmonte		0.26	< 0.30	0.26	0.55	0.81		0.96	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
June	RHE City Hall	6/5/2012	0.87	<0.30	0.87	0.52	1.39	0.65	0.084	0.26
	Valmonte		0.55	<0.75	0.55	0.65	1.20		0.95	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
July	RHE City Hall	7/3/2012	<0.10	<0.10	<0.10	0.224	0.224	0.16	<0.050	0.11
	Valmonte		<0.10	<0.10	<0.10	0.398	0.398		0.45	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
August	RHE City Hall	8/3/2012	<0.10	<0.10	<0.10	0.411	0.411	0.25	<0.050	0.15
	Valmonte		<0.10	<0.10	<0.10	0.579	0.579		0.60	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
September	RHE City Hall	9/11/2012	<0.10	<0.10	<0.10	0.616	0.616	0.35	0.19	0.15
	Valmonte		<0.10	<0.10	<0.10	0.802	0.802		0.40	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
October	RHE City Hall	10/1/2012	0.100	<0.10	0.100	0.594	0.694	0.41	0.27	0.73
	Valmonte		<0.10	<0.10	<0.10	0.756	0.756		1.2 Q*	
	Solano		No Flow				0.000		0.00	
	Lariat		No Flow				0.000		0.00	
	Valmonte	10/15/2012	<0.100	<0.100	<0.100	0.587	0.587		2.2 Q*	
November	RHE City Hall	11/2/2012	<0.100	0.100	0.100	0.481	0.581	0.29	<0.050	0.019
	Valmonte		<0.100	<0.100	<0.100	0.588	0.588		0.075	
	Solano		No Flow				0.000		0.00	
	Lariat		No Flow				0.000		0.00	
December	RHE City Hall	12/7/2012	0.820	<0.100	0.820	0.192 B	1.012	0.25	0.05	0.07
	Valmonte		<0.100	<0.500	<0.500	0.301 B	0.301		0.43	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	12/13/2012 (Wet Weather Sample)	0.120 ⁽¹⁾	<0.100	0.12	0.237	0.357		0.05	
	Valmonte		<0.100	<0.100	<0.100	0.342	0.342		<0.050	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
January	RHE City Hall	1/2/2013	0.340	<0.100	0.340	0.337 B	0.677	0.34	<0.050	0.11
	Valmonte		<0.100	<0.100	<0.100	0.680 B	0.680		0.45	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
February	RHE City Hall	2/5/2013	0.470	<0.100	0.470	0.236 ⁽¹⁾	0.706 ⁽¹⁾	0.28	<0.050	0.13
	Valmonte		<0.100	<0.100	<0.100	0.428	0.428		0.52	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
March	RHE City Hall	3/1/2013	0.350 O-04	<0.100 O-04	0.35 O-04	0.495 B N O-04	0.845 B N O-04	1.30	<0.050 O-04	0.26
	Valmonte		<0.100 O-04	<0.100 O-04	<0.100 O-04	0.707 B N O-04	0.707 B N O-04		0.78 O-04	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	3/8/2013 (Wet Weather Sample)	1.02	<0.100	1.020	1.23	2.250		0.31	
	Valmonte		4.90	<0.100	4.900	0.588	5.488		0.63	
	Solano		0.41	<0.100	0.410	0.687	1.097		0.38	
	Lariat		No Flow				0.00		0.00	
April	RHE City Hall	4/1/2013	<0.100	<0.100	<0.100	0.594	0.594	0.32	<0.050	0.16
	Valmonte		<0.100	<0.100	<0.100	0.68	0.680		0.65	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
May	RHE City Hall	5/13/2013	0.150	<0.500	0.150	0.416	0.566	0.25	<0.050	0.19
	Valmonte		<0.050	<0.500	<0.500	0.419	0.419		0.75	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
June	RHE City Hall	6/5/2013	0.230	<0.10	0.230	0.584	0.814	0.36	0.20	0.15
	Valmonte		0.130 ⁽¹⁾	<0.10	0.130 ⁽¹⁾	0.505 ⁽¹⁾	0.635 ⁽¹⁾		0.39 ⁽¹⁾	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
July	RHE City Hall	7/1/2013	<0.100	<0.100	<0.100	<0.400	<0.400	0.12	<0.050	0.15
	Valmonte		<0.100	<0.100	<0.100	0.474	0.474		0.59	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
August	RHE City Hall	8/14/2013	<0.100	<0.100	<0.100	0.632	0.632	0.37	0.24	0.23
	Valmonte		<0.100	<0.100	<0.100	0.834	0.834		0.68	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
September	RHE City Hall	9/26/2013	<0.100	<0.100	<0.100	0.804	0.80	0.20	0.59	0.15
	Valmonte		No Flow				0.00		0.00	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
October	RHE City Hall	10/2/2013	0.24	<0.100	0.24	0.346	0.59	0.47	0.00	0.04
	Valmonte		0.33	<0.100	0.33	0.95	1.280		0.15	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
November	RHE City Hall	11/5/2013	1.16	<0.400	1.16	0.212	1.37	0.48	0.00	0.02
	Valmonte		<0.100	<0.100	<0.100	0.558	0.558		0.07	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
December	RHE City Hall	12/13/2013	0.52	<0.100	0.52	0.053	0.57	0.22	0.085	0.13
	Valmonte		<0.100	<0.100	<0.100	0.322	0.322		0.45	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
January	RHE City Hall	1/10/2014	0.74	<0.200	0.74	0.277 N	1.02	0.34	0.056	0.18
	Valmonte		<0.100	<0.100	<0.100	0.353 N	0.353		0.66	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
February	RHE City Hall	2/3/2014	0.75	<0.10	0.75	0.494 N	1.24	0.89	0.130	0.49
	Valmonte		<0.10	<0.10	<0.10	0.545 N	0.545		0.56	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	2/28/2014 (Wet Weather Sample)	0.64	<0.10	0.64	0.316 N	0.96		0.440	
	Valmonte		2.1 O-04	<0.10	2.1	0.872 N	2.972		0.72	
	Solano		0.33	<0.10	0.33	0.57 N	0.90		0.53	
	Lariat		0.27	<0.10	0.27	0.234 N	0.50		1.50	
March	RHE City Hall	3/19/2014	<0.100	<0.100	<0.100	0.255	0.26	0.20	<0.050	0.12
	Valmonte		<0.100	<0.100	<0.100	0.527	0.527		0.470	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
April	RHE City Hall	4/16/2014	<0.100	<0.100	<0.100	0.159	0.159	0.11	0.058	0.14
	Valmonte		<0.100	<0.100	<0.100	0.263 ⁽¹⁾	0.263		0.520	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
May	RHE City Hall	5/9/2014	<0.100 O-04	<0.100 O-04	<0.100	0.48 QM-05	0.480	0.35	0.140	0.19
	Valmonte		0.31 O-04	<0.100 O-04	0.310	0.592	0.902		0.600	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
June	RHE City Hall	6/18/2014	<0.100	<0.100	<0.100	0.338 ⁽¹⁾	0.338	0.19	0.074	0.11
	Valmonte		<0.100	<0.100	<0.100	0.436	0.436		0.360	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
July	RHE City Hall	7/18/2014	<0.100	<0.100	<0.100	0.115 ⁽³⁾ , QM-05	0.115	0.20	<0.050	0.15
	Valmonte		<0.100	<0.100	<0.100	0.682 ⁽³⁾	0.682		0.580	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
August	RHE City Hall	8/7/2014	0.170	<0.100	0.170	0.398	0.568	0.27	0.099	0.21
	Valmonte		<0.100	<0.100	<0.100	0.512	0.512		0.730	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
September	RHE City Hall	9/16/2014	0.10 QM-05	<0.100	0.100	0.467 QM-05	0.567	0.25	0.077	0.22
	Valmonte		<0.100	<0.100	<0.100	0.431	0.431		0.800	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
October	RHE City Hall	10/15/2014	0.240	<0.100	0.240	0.366 QM-05	0.606	0.23	<0.050	0.19
	Valmonte		<0.100	<0.100	<0.100	0.331	0.331		0.770	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
November	RHE City Hall	11/11/2014	<0.100	<0.100	<0.100	0.262 ⁽¹⁾ , QM-07	0.262	0.17	<0.050	0.23
	Valmonte		<0.100	<0.100	<0.100	0.420	0.420		0.900	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA

Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)
December	RHE City Hall	12/2/2014 (Wet Weather Sample)	0.900	<0.100	0.900	0.655	1.555	2.07	0.410	0.41
	Valmonte		0.450	<0.100	0.450	0.805	1.255		0.500	
	Solano		3.43 RR-01 QM-4X	0.480	3.910 RR-01	8.200 QM-02	12.110		1.600	
	Lariat		0.180 (4)	<0.100	0.180 (4)	0.902	1.082		0.660	
	RHE City Hall	12/10/2014	0.240	<0.100	0.240	0.476	0.716		<0.050 QM-05	
	Valmonte		0.140	<0.100	0.140	0.666	0.806		0.350	
	Solano		No Flow				0.00		0.00	
	Lariat		No Flow				0.00		0.00	
	RHE City Hall	12/12/2014 (Wet Weather Sample)	0.370	<0.100	0.370	0.472	0.842		0.300	
	Valmonte		4.58	<0.100	4.58	0.784	5.364		0.320	
	Solano		0.160	<0.100	0.160	0.726	0.886		0.490	
	Lariat		<0.100	<0.100	<0.100	0.283	0.283		0.320	
January	RHE City Hall	1/8/2015	0.620	<0.100	0.620	0.261 ⁽¹⁾	0.881	0.38	<0.050	0.10
	Valmonte		<0.100	<0.100	<0.100	0.642	0.642		0.400	
	Solano		No Flow						0.000	
	Lariat		No Flow						0.000	
February	RHE City Hall	2/2/2015	<0.100	<0.100	<0.100	0.304 QM-4X	0.304	0.20	<0.050	0.14
	Valmonte		<0.100	<0.100	<0.100	0.509	0.509		0.560	
	Solano		No Flow						0.000	
	Lariat		No Flow						0.000	
March	RHE City Hall	3/11/2015	0.340	<0.100	0.340	0.389	0.729	0.32	<0.050	0.13
	Valmonte		<0.100	<0.100	<0.100	0.541	0.541		0.510	
	Solano		No Flow						0.000	
	Lariat		No Flow						0.000	
April	RHE City Hall	4/7/2015	0.260	<0.100	0.260	0.201	0.461	0.21	<0.050	0.18
	Valmonte		<0.100	<0.100	<0.100	0.367 ⁽¹⁾	0.367 ⁽¹⁾		0.710	
	Solano		No Flow						0.000	
	Lariat		No Flow						0.000	

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA											
Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)	
May	RHE City Hall	5/4/2015	<0.100	<0.100	<0.100	0.215 ⁽¹⁾	0.215 ⁽¹⁾	0.57	<0.050	0.32	
	Valmonte		<0.100	<0.100	<0.100	0.437	0.437		0.360		
	Solano		No Flow						0.000		
	Lariat		No Flow						0.000		
	RHE City Hall	5/15/2015 (Wet Weather Sample)	0.500	<0.100	0.500	1.14 ⁽¹⁾	1.64 ⁽¹⁾		0.310		
	Valmonte		<0.100	<0.100	<0.100	0.422 QM-05	0.422		0.600		
	Solano		0.660	<0.100	0.660	1.18	1.840		1.300		
	Lariat		No Flow						0.000		
June	RHE City Hall	6/3/2015	<0.100	<0.100	<0.100	0.261 QR-05	0.261	0.17	<0.050	0.17	
	Valmonte		<0.100	<0.100	<0.100	0.418	0.418		0.680		
	Solano		No Flow						0.000		
	Lariat		No Flow						0.000		
						Interim WLA (3/11/2014)		2.45		1.25	
						Final WLA (9/11/2018)		1.00		0.10	

Notes:

TMDL: Total maximum daily load

WLA: Waste load allocation

mg/l: milligrams per liter

1: Field duplicate >20% RPD when results were > 5X the Reporting Limit

2: No-flow observations are equivalent to a zero result for Total N and Total P.

3: Analyte was detected in the associated equipment blank, the sample result was > 3X the equipment blank concentration

4: Regarding the QC for Batch No. 4120326 (Nitrate/Nitrite analysis), the spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits. The sample used for MS/MSD sample was from another project.

N: Spiked sample recovery not within control limits

Laboratory Qualifiers:

QM-02: The RPD and/or percent recovery for the QC spike sample cannot be accurately calculated due to high concentration of analyte inherent in the sample

QM-05: The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.

QM-07: The spike recovery and/or RPD was outside the acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QM-4X: The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentrations at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptable limits.

QR-05: The RPD between the sample and sample duplicate was outside of control limits. The lack of reproducibility may be attributed to the sample matrix.

TABLE 6r: HISTORIC MACHADO LAKE NUTRIENT TMDL MONITORING DATA										
Month	Sample Location	Sample Date	Nitrate as N (NO ₃) (mg/l)	Nitrite as N (NO ₂) (mg/l)	Nitrate/Nitrite as N (mg/l)	Total Kjeldahl Nitrogen (TKN) (mg/l)	Sum of Nitrogen Values ⁽²⁾ (mg/l)	Monthly Average Nitrogen (TN) (mg/l)	Total Phosphorus (mg/l)	Monthly Average Phosphorus (TP) (mg/l)

QR-04: The percent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.

RR-01: Sample originally analyzed within EPA hold time; however, subsequent re-analysis due to dilution and/or poor purge, occurred outside of EPA recommended holding time.

TABLE 6s: 2015-2016 REPORTING YEAR MACHADO LAKE TMDL TOC AND TSS RESULTS				
Sample Location	Event Name	Sample Date	Total Organic Carbon (TOC) (mg/L)	Total Suspended Solids (TSS) (mg/L)
RHE City Hall	Event 7	1/5/2016	41	790
	Event 11	3/7/2016	12	31
Valmonte	Event 7	1/5/2016	7.1	3,400 QR-05
	Event 11	3/7/2016	11	670 QR-05
Solano	Event 7	1/5/2016	15	31
	Event 11	3/7/2016	14	17
Lariat	Event 7	1/5/2016	16	1,700

Notes:

mg/L: milligrams per liter

Laboratory Qualifiers:

QR-05: The relative percent difference between the sample and sample duplicate was outside control limits

TABLE 6t: 2015-2016 REPORTING YEAR MACHADO LAKE TOXICS TMDL OCP AND PCB SAMPLE RESULTS

Sample Location	Event Name	Sample Date	OCPs				PCBs (ug/kg)
			gamma-Chlordane (ug/kg)	alpha-Chlordane (ug/kg)	4,4'-DDE (ug/kg)	4,4'-DDT (ug/kg)	
RHE City Hall	WW-1	1/5/2016	<5.0	<5.0	<5.0	<5.0	<10
	WW-2	3/7/2016	<120	<120	<120	<120	<240
Valmonte	WW-1	1/5/2016	<5.0	<5.0	<5.0	<5.0	<10
	WW-2	3/7/2016	<85	<85	<85	<85	<170
Solano	WW-1	1/5/2016	<1,700	<1,700	<1,700	<1,700	<3,300
	WW-2	3/7/2016	<63	<63	<63	<63	<130
Lariat	WW-1	1/5/2016	<5.0	<5.0	<5.0	<5.0	<10.0

Notes:

OCP: Organochlorine pesticides

PCB: Polychlorinated biphenyls

4,4'-DDE: 4,4'-dichlorodipenyldichloroethylene

4,4'-DDT: 4,4'-dichlorodiphenyltrichloroethane

ug/kg: micrograms per kilogram

APPENDIX B: STORMWATER OUTFALL MONITORING DATA

See **Figure 1** for map of all monitoring locations.

Watershed Name	Subwatershed	Monitoring Station Name	Monitoring Conditions	Sample Date and Time	Nitrate as N (mg/L)	Nitrite as N (mg/L)	Nitrite as NO ² (mg/L)	Nitrate as NO ³ (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Phosphate, Total as Orthophosphate (mg/l)	Phosphorus	
					EPA 300	EPA 300	EPA 300	EPA 300	EPA 300	EPA 300	EPA 6010B	Units
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-1	07/14/2015 08:15:00	0.120	ND			0.363		81	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-2	08/03/2015 08:50:00	ND		ND	ND	0.346		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-3	09/03/2015 09:40:00	ND	ND			0.558		81	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-4	10/08/2015 09:10:00	ND	ND			0.185		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-5	11/11/2015 09:20:00	0.448	ND	ND	1.98	0.259		210	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-6	12/08/2015 09:30:00	ND	ND			0.242		55	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	WW-1	01/05/2016 07:30:00	1.34	ND			2.99		630	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-7	01/13/2016 07:45:00	0.220	ND			0.920		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-8	02/08/2016 08:45:00	0.340	ND			0.138		170	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-9	03/03/2016 07:46:00	0.560	<0.152			1.98	<0.500	1.1	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	WW-2	03/07/2016 09:05:00	0.500	<0.152			1.80		0.51	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-10	04/06/2016 09:00:00	<0.113	<0.152			0.324		<0.050	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-11	05/10/2016 08:00:00	<0.113	<0.152			<0.0200	<0.500	<0.050	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	DW-12	06/01/2016 08:40:00	ND	ND			0.324		75	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-1	07/14/2015 07:15:00	0.120	ND			0.379		50	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-2	08/03/2015 08:35:00	ND		ND	ND	0.466		580	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-3	09/03/2015 08:40:00	ND	ND			0.423		82	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-4	10/08/2015 09:10:00	ND	ND			0.572		550	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-5	11/11/2015 08:20:00	0.452	ND	ND	2.00	0.214		200	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-6	12/08/2015 09:05:00	ND	ND			0.920		1600	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	WW-1	01/05/2016 08:27:00	0.610	ND			0.830		810	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-7	01/13/2016 06:45:00	0.230	ND			0.950		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-8	02/08/2016 08:30:00	ND	ND			0.695		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-9	03/03/2016 06:46:00	0.560	<0.152			2.89	<0.500	1.1	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	WW-2	03/07/2016 06:25:00	0.190	<0.152			0.229		0.53	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-10	04/06/2016 08:40:00	<0.113	<0.152			0.261		0.59	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-11	05/10/2016 07:00:00	<0.113	<0.152			0.298	<0.500	<0.050	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	DW-12	06/01/2016 08:25:00	ND	ND			0.370		340	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-1	07/14/2015 09:00:00	ND	ND			0.600		100	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-2	08/03/2015 09:35:00	ND		ND	ND	1.07		540	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-3	09/03/2015 10:20:00	ND	ND			0.452		350	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-4	10/08/2015 09:10:00	ND	ND			0.449		550	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-5	11/11/2015 10:30:00	ND	ND	ND	ND	0.559		650	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-6	12/08/2015 10:05:00	ND	ND			1.92		440	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	WW-1	01/05/2016 08:28:00	ND	ND			2.28		5200	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-7	01/13/2016 08:26:00	0.740	ND			0.781		500	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-8	02/08/2016 09:30:00	ND	ND			0.755		1000	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-9	03/03/2016 07:07:00	<0.113	<0.152			2.84	<0.500	0.58	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	WW-2	03/07/2016 07:55:00	0.700	<0.152			0.210		0.77	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-10	04/06/2016 09:40:00	<0.113	<0.152			0.497		0.60	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-11	05/10/2016 08:40:00	<0.113	<0.152			0.393	<0.500	0.79	mg/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	DW-12	06/01/2016 09:25:00	ND	ND			0.265		410	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Harwick	WW-1	01/05/2016 09:45:00	ND	ND			0.0220		ND	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Lariat	WW-1	01/05/2016 10:40:00	0.860	ND			1.68		2300	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Solano	WW-1	01/05/2016 09:27:00	0.570	ND			1.19		1300	ug/l
Dominguez Channel Watershed	Machado Lake Subwatershed	Solano	WW-2	03/07/2016 07:25:00	0.190	<0.152			0.950		0.56	mg/l

[illegible]

Subwatershed	Monitoring Station Name	Sample Date	Monitoring Conditions	Sample Type	Units	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
						EPA 8082	EPA 8082	EPA 8082	EPA 8082	EPA 8082	EPA 8082	EPA 8082
Machado Lake Subwatershed	RHE City Hall	01/05/2016 07:30:00	WW1	Grab/Soil	ug/kg	ND	ND	ND	ND	ND	ND	ND
Machado Lake Subwatershed	RHE City Hall	03/07/2016 09:05:00	WW2	Grab/Soil	mg/kg	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Machado Lake Subwatershed	Solano	01/05/2016 09:27:00	WW1	Grab/Soil	ug/kg	ND	ND	ND	ND	ND	ND	ND
Machado Lake Subwatershed	Solano	03/07/2016 07:25:00	WW2	Grab/Soil	mg/kg	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Machado Lake Subwatershed	Tahquitz	01/05/2016 09:40:00	WW1	Grab/Soil	ug/kg	ND	ND	ND	ND	ND	ND	ND
Machado Lake Subwatershed	Tahquitz	03/07/2016 06:25:00	WW2	Grab/Soil	mg/kg	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Machado Lake Subwatershed	Valmonte	01/05/2016 08:28:00	WW1	Grab/Soil	ug/kg	ND	ND	ND	ND	ND	ND	ND
Machado Lake Subwatershed	Valmonte	03/07/2016 07:55:00	WW2	Grab/Soil	mg/kg	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Machado Lake Subwatershed	Lariat	01/05/2016 10:40:00	WW1	Grab/Soil	ug/kg	ND	ND	ND	ND	ND	ND	ND

Watershed Name	Subwatershed	Monitoring Station Name	Sample Date	Monitoring Conditions	Sample Type	Units	Total Organic Carbon	Total Suspended Solids
							EPA 415.3	EPA 160.2
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	01/05/2016 07:30:00	WW1	Grab/Water	mg/l	41	790
Dominguez Channel Watershed	Machado Lake Subwatershed	RHE City Hall	03/07/2016 09:05:00	WW2	Grab/Water	mg/l	12	31
Dominguez Channel Watershed	Machado Lake Subwatershed	Solano	01/05/2016 09:27:00	WW1	Grab/Water	mg/l	15	31
Dominguez Channel Watershed	Machado Lake Subwatershed	Solano	03/07/2016 07:25:00	WW2	Grab/Water	mg/l	14	17
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	01/05/2016 09:40:00	WW1	Grab/Water	mg/l	17	1800
Dominguez Channel Watershed	Machado Lake Subwatershed	Tahquitz	03/07/2016 06:25:00	WW2	Grab/Water	mg/l	14	14
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	01/05/2016 08:28:00	WW1	Grab/Water	mg/l	7.1	3400
Dominguez Channel Watershed	Machado Lake Subwatershed	Valmonte	03/07/2016 07:55:00	WW2	Grab/Water	mg/l	11	670
Dominguez Channel Watershed	Machado Lake Subwatershed	Lariat	01/05/2016 10:40:00	WW1	Grab/Water	mg/l	16	1700

APPENDIX C: RECEIVING WATER MONITORING DATA (NON-TMDL SITES)

See **Figure 1** for map of all monitoring locations.

TECHNICAL MEMORANDUM

To: Charles Eder, City of Rancho Palos Verdes
From: Andrew Martin, Anchor QEA, LLC
Cc: Michelle Kim, John L. Hunter & Associates
Re: Receiving Water Monitoring Results: Dry Weather Monitoring, Resample
August 25, 2016

INTRODUCTION

In November 2012, the Los Angeles Regional Water Quality Control Board adopted the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit to protect the beneficial uses of receiving waters in the Los Angeles region (RWQCB 2012). In June 2014, the County of Los Angeles; Los Angeles County Flood Control District; and Cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates submitted a Coordinated Integrated Monitoring Program (CIMP) for the Palos Verdes Peninsula Group (CIMP Group). The CIMP addresses monitoring elements described in Appendix E (Monitoring and Reporting Program) of the Los Angeles County MS4 Permit. The objective of receiving water sampling is to fulfill the requirements of the MS4 Permit.

This technical memorandum satisfies data submittal requirement as specified in the MS4 Permit for the June 2016 dry weather receiving water monitoring event (Section 6 of the *Sampling and Analysis Plan*; Anchor QEA 2016). Anchor QEA will incorporate these results into a project-specific EQUIS database for subsequent development of California Environmental Data Exchange Network (CEDEN)-formatted files to be submitted semiannually.

An oversight at the analytical chemistry laboratory caused the need to resample several parameters in August 2016. Resampling in August was determined to be satisfactory and still meet permit requirements because there had been no change in conditions at the sampling locations since the initial sampling event in June 2016. Specifically, no measurable rainfall was recorded; therefore, the resampling event in August was still representative of dry conditions.

WATER COLUMN MONITORING RESULTS

Receiving water monitoring for the dry weather event was initially performed on June 23, 2016. The resampling event was performed on August 25, 2016. Monitoring included field observations, water column measurements, surface water chemistry, and surface water toxicity. Monitoring was performed at two stations (Table 1). Sampling locations are presented in Figures 1 and 2. Water column measurements were not taken during the resample event. Only chemistry samples were needed.

Field Observations and Water Column Measurements

At each station, dissolved oxygen, pH, salinity, and temperature were measured at the surface. A YSI 6920 V2 sonde was used to measure all parameters. Instruments were calibrated prior to sampling in accordance with the manufacturers' recommendations. YSI calibration worksheets are included in the field logs of Attachment A. Water column measurements are summarized in Table 1.

Water Column Chemistry

The following samples were collected and submitted to an analytical laboratory:

- Total suspended solids
- Hardness
- Polychlorinated biphenyl congeners
- Chlorinated pesticides
- Bacteria
- Additional parameters from Table E-2 of the Los Angeles County MS4 Permit (RWQCB 2012)

Table 2 presents receiving water analytical chemistry results from Eurofins Calscience. Table 3 presents receiving water toxicity data from Nautilus Environmental. Complete analytical chemistry and toxicity data reports are included in Attachments B-1 and C, respectively.

Resample Water Column Chemistry

The following samples were collected and submitted to an analytical laboratory:

- Hexavalent Chromium
- Organophosphate pesticides
- Total metals (Beryllium only)

Table 2 presents receiving water analytical chemistry results from Eurofins Calscience.

Complete analytical chemistry reports are included in Attachment B-2.

Water Column Chemistry and Toxicity Quality Assurance/Quality Control

A review of analytical results was conducted to evaluate the laboratory's performance in meeting data quality objectives. The quality assurance/quality control (QA/QC) summary is as follows:

- Holding times were met (from sampling date to preparation and preparation to analysis) except for OP pesticides: Chlorpyrifos and malathion. The samples were extracted from sample Peninsula-RW2-08-25-16, 2 days past the 7-day hold time. Results were qualified "UJ" to indicate a potentially low bias.
 - Surrogates were added to all field and QC samples as required, and recoveries were within laboratory control limits.
 - Laboratory control samples (LCS) were analyzed at the required frequency, and recoveries were within laboratory control limits with one exception. The pesticide endrin was recovered below the control limit in the LCS/LCS duplicate. Results were qualified "UJ" to indicate a potentially low bias.
 - Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequency, and recoveries were within laboratory control limits with a few exceptions. Total Kjeldahl nitrogen, total silver, and total iron recovered above the control limit in the MS and MSD, and total chromium recovered above the control limit in the MSD. Detected results were qualified "J" to indicate a potentially high bias. Total copper, thallium, and fluoride recovered below the control limit in the MS and MSD. Total petroleum hydrocarbon (TPH), total antimony, and total lead recovered below the control limit in the MS. The relative percent difference values for TPH as diesel and lead were above the control limit. Total aluminum, arsenic, and
-

total organic carbon recovered below the control limit in the MSD. Associated results were qualified “J” or “UJ” to indicate a potentially low bias.

QA/QC results indicate that the quality of most of the data is acceptable as reported; all other data are acceptable as qualified. A Data Validation Report is included in Attachment D.

REFERENCES

Anchor QEA, 2016. *Receiving Water Sampling and Analysis Plan, Palos Verdes Peninsula Coordinated Integrated Monitoring Plan (CIMP)*. Prepared for the Palos Verdes Peninsula Group. June 2016.

RWQCB (Regional Water Quality Control Board), 2012. *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4*. Order No. R4-2012-0175. NPDES Permit No. CAS004001. November 2012.

Table 1
Water Column Measurements

Date	Time	Station ID	Depth (feet)	Latitude ¹	Longitude ¹	DO (mg/L)	pH	Temperature (°C)	Salinity (ppt)	Description of Sample
6/23/16	11:48	Peninsula-RW1	3	33.80570	-118.39801	7.5	8.2	50.3	34.2	Clear; no particulates
6/23/16	15:26	Peninsula-RW2	3	33.73971	-118.38162	7.4	8.1	43.4	34.8	Clear; no particulates
8/25/16	10:50	Peninsula-RW1	3	33.80415	-118.40046	-	-	-	-	Clear; no particulates
8/25/16	11:40	Peninsula-RW2	3	33.73964	-118.3815	-	-	-	-	Clear; no particulates

Notes:

1 Latitude and longitude coordinates are in decimal degrees, North American Datum 1983.

- Data not collected

DO dissolved oxygen

mg/L milligrams per liter

ppt parts per thousand

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID			Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID			Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date			6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type			N			FD			N			FD			N			N		
					Matrix			WO			WO			WO			WO			WO			WO		
					X			-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y			33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
		2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL
Conventional Parameters (mg/L)																									
SM5540C	Methylene Blue Active Substances	--	--	--	0.064 U	0.064	0.1	0.064 U	0.064	0.1	0.064 U	0.064	0.1	--	--	--	--	--	--	--	--	--	--	--	--
SM2320B	Alkalinity, carbonate as calcium carbonate (CaCO3)	--	--	--	109	0.848	5	110	0.848	5	110	0.848	5	--	--	--	--	--	--	--	--	--	--	--	--
SM4500NH3F	Ammonia	6000	--	--	0.061 U	0.061	0.1	0.061 U	0.061	0.1	0.061 U	0.061	0.1	--	--	--	--	--	--	--	--	--	--	--	--
SM5210B	Biochemical oxygen demand (BOD-5)	--	--	--	1.9	0.58	1	2.6	0.58	1	2.2	0.58	1	--	--	--	--	--	--	--	--	--	--	--	--
SM5220C	Chemical oxygen demand	--	--	--	280	4.8	5	280	4.8	5	270	4.8	5	--	--	--	--	--	--	--	--	--	--	--	--
SM4500CL-C	Chloride	--	--	--	20000	150	400	20000	76	200	20000	76	200	--	--	--	--	--	--	--	--	--	--	--	--
SM4500CNE	Cyanide	10	--	--	0.00069 U	0.00069	0.001	0.00069 U	0.00069	0.001	0.00069 U	0.00069	0.001	--	--	--	--	--	--	--	--	--	--	--	--
SM4500FC	Fluoride	--	--	--	0.88 J	0.064	0.1	0.87 J	0.064	0.1	0.88 J	0.064	0.1	--	--	--	--	--	--	--	--	--	--	--	--
SM2340C	Hardness as CaCO3	--	--	--	6000	9.9	20	6000	9.9	20	6000	9.9	20	--	--	--	--	--	--	--	--	--	--	--	--
SM4500NO3E	Nitrate + nitrite as nitrogen	--	--	--	0.055 J	0.029	0.1	0.043 J	0.029	0.1	0.045 J	0.029	0.1	--	--	--	--	--	--	--	--	--	--	--	--
E351.2	Nitrogen (Total Kjeldahl) as nitrogen	--	--	--	0.11 J	0.047	0.2	0.16 J	0.047	0.2	0.092 J	0.047	0.2	--	--	--	--	--	--	--	--	--	--	--	--
E314.0	Perchlorate	--	--	--	0.035 U	0.035	0.1	0.035 U	0.035	0.1	0.035 U	0.035	0.1	--	--	--	--	--	--	--	--	--	--	--	--
E420.1	Phenolics	0.3	--	--	0.046 U	0.046	0.1	0.046 U	0.046	0.1	0.046 U	0.046	0.1	--	--	--	--	--	--	--	--	--	--	--	--
E365.1	Phosphorus	--	--	--	0.02 U	0.02	0.05	0.024 J	0.02	0.05	0.02 U	0.02	0.05	--	--	--	--	--	--	--	--	--	--	--	--
SM2540D	Total suspended solids	60	--	--	0.83 U	0.83	1	0.83 U	0.83	1	0.83 U	0.83	1	--	--	--	--	--	--	--	--	--	--	--	--
SM5310B	Total organic carbon	--	--	--	1.6 J	0.24	0.5	14 J	0.24	0.5	1.7 J	0.24	0.5	--	--	--	--	--	--	--	--	--	--	--	--
SM2540DE	Volatile Suspended Solids	--	--	--	1 UJ	1	1	1 UJ	1	1	1 U	1	1	--	--	--	--	--	--	--	--	--	--	--	--
Conventional Parameters (NTU)																									
SM2130B	Turbidity	--	--	--	1.3	0.044	0.1	0.62	0.044	0.05	0.51	0.044	0.05	--	--	--	--	--	--	--	--	--	--	--	--
Conventional Parameters, Dissolved (mg/L)																									
E365.1	Phosphorus	--	--	--	0.012 U	0.012	0.05	0.012 U	0.012	0.05	0.012 U	0.012	0.05	--	--	--	--	--	--	--	--	--	--	--	--
SM2540C	Total dissolved solids	--	--	--	35300	0.87	100	35600	0.87	100	35300	0.87	100	--	--	--	--	--	--	--	--	--	--	--	--
Pathogens (MPN/100mL)																									
SM9221B	Coliforms, fecal	400	--	--	1.8 U	--	1.8	1.8 U	--	1.8	1.8 U	--	1.8	--	--	--	--	--	--	--	--	--	--	--	--
SM9221B	Coliforms, total	10000	--	--	280	--	1.8	470	--	1.8	130	--	1.8	--	--	--	--	--	--	--	--	--	--	--	--
SM9221B	Enterococci	104	--	--	130	--	1.8	72	--	1.8	2	--	1.8	--	--	--	--	--	--	--	--	--	--	--	--
SM9221B	Escherichia coli	--	--	--	44	--	1.8	61	--	1.8	8.5	--	1.8	--	--	--	--	--	--	--	--	--	--	--	--
Metals (µg/L)																									
E1640	Aluminum	--	--	--	1.62 J	0.227	1	0.562 J	0.227	1	0.643 J	0.227	1	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Antimony	1200	--	--	0.134 J	0.0154	0.05	0.127 J	0.0154	0.05	0.135 J	0.0154	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Arsenic	80	--	--	1.32 J	0.0122	0.03	1.23 J	0.0122	0.03	1.2 J	0.0122	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Beryllium	0.033	--	--	0.0635 U	0.0635	0.5	0.069 J	0.0635	0.5	0.0881 J	0.0635	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Cadmium	10	--	--	0.0185 J	0.00567	0.03	0.0382	0.00567	0.03	0.0307	0.00567	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Chromium	20	--	--	0.338 J	0.164	0.5	0.164 U	0.164	0.5	0.164 U	0.164	0.5	--	--	--	--	--	--	--	--	--	--	--	--
SW7199	Chromium VI	20	--	--	3.3 U	3.3	50	3.3 U	3.3	50	3.3 U	3.3	50	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Copper	30	--	--	0.652 J	0.00898	0.03	0.648 J	0.00898	0.03	0.356 J	0.00898	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Iron	--	--	--	6.74 J	0.0634	0.5	3.55 J	0.0634	0.5	3.54 J	0.0634	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Lead	20	--	--	0.0135 UJ	0.0135	0.03	0.043 UJ	0.0135	0.03	0.043 UJ	0.0135	0.03	--	--	--	--	--	--	--	--	--	--	--	--
SW7470A	Mercury	0.4	--	--	0.0453 U	0.0453	0.5	0.0453 U	0.0453	0.5	0.0453 U	0.0453	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Nickel	50	--	--	2.17	0.00607	0.05	1.84	0.00607	0.05	1.22	0.00607	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Selenium	150	--	--	0.0121 U	0.0121	0.05	0.0121 U	0.0121	0.05	0.0625	0.0121	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Silver	7	--	--	0.00822 U	0.00822	0.05	0.00822 U	0.00822	0.05	0.00822 U	0.00822	0.05	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID			Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID			Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date			6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type			N			FD			N			FD			N			N		
					Matrix			WO			WO			WO			WO			WO			WO		
					X			-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y			33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
		2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL
E1640	Thallium	2	--	--	0.0087 UJ	0.0087	0.03	0.0087 UJ	0.0087	0.03	0.0087 UJ	0.0087	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Zinc	200	--	--	0.696	0.0736	0.5	0.857	0.0736	0.5	1.92	0.0736	0.5	--	--	--	--	--	--	--	--	--	--	--	--
Metals, Dissolved (µg/L)																									
E1640	Aluminum	--	--	--	2.77	0.227	1	0.547 J	0.227	1	0.483 J	0.227	1	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Antimony	--	--	--	0.136	0.0154	0.05	0.127	0.0154	0.05	0.141	0.0154	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Arsenic	--	--	--	1.18	0.0122	0.03	1.11	0.0122	0.03	0.907	0.0122	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Beryllium	--	--	--	0.0727 J	0.0635	0.5	0.0635 U	0.0635	0.5	0.0635 U	0.0635	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Cadmium	--	--	--	0.0499	0.00567	0.03	0.0201 J	0.00567	0.03	0.0153 J	0.00567	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Chromium	--	--	--	0.293 J	0.164	0.5	0.256 J	0.164	0.5	0.254 J	0.164	0.5	--	--	--	--	--	--	--	--	--	--	--	--
SW7199	Chromium VI	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	1.3	20	1.3 U	1.3	20	1.3 U	1.3	20	1.3 U	1.3	20
E1640	Copper	--	--	--	0.901	0.00898	0.03	0.641	0.00898	0.03	0.623	0.00898	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Iron	--	--	--	7.68	0.0634	0.5	2.66	0.0634	0.5	1.07	0.0634	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Lead	--	--	--	0.0738	0.0135	0.03	0.0135 U	0.0135	0.03	0.0218 J	0.0135	0.03	--	--	--	--	--	--	--	--	--	--	--	--
SW7470A	Mercury	--	--	--	0.0453 U	0.0453	0.5	0.0453 U	0.0453	0.5	0.0453 U	0.0453	0.5	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Nickel	--	--	--	3	0.00607	0.05	2.07	0.00607	0.05	2.07	0.00607	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Selenium	--	--	--	0.014 J	0.0121	0.05	0.029 J	0.0121	0.05	0.0584	0.0121	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Silver	--	--	--	0.00822 U	0.00822	0.05	0.00822 U	0.00822	0.05	0.00822 U	0.00822	0.05	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Thallium	--	--	--	0.0087 U	0.0087	0.03	0.0087 U	0.0087	0.03	0.0087 U	0.0087	0.03	--	--	--	--	--	--	--	--	--	--	--	--
E1640	Zinc	--	--	--	1.45	0.0736	0.5	1.11	0.0736	0.5	0.942	0.0736	0.5	--	--	--	--	--	--	--	--	--	--	--	--
Volatile Organics (µg/L)																									
E624	2-Chloroethylvinyl ether	--	--	--	0.51 U	0.51	2	0.51 U	0.51	2	0.51 U	0.51	2	--	--	--	--	--	--	--	--	--	--	--	--
E624	Methyl tert-butyl ether (MTBE)	--	--	--	0.14 U	0.14	1	0.14 U	0.14	1	0.14 U	0.14	1	--	--	--	--	--	--	--	--	--	--	--	--
Semivolatile Organics (µg/L)																									
E625	1,2,4-Trichlorobenzene	--	--	--	0.057 U	0.057	0.19	0.057 U	0.057	0.19	0.057 U	0.057	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	1,2-Dichlorobenzene	--	--	--	0.043 U	0.043	0.19	0.043 U	0.043	0.19	0.043 U	0.043	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	1,3-Dichlorobenzene	--	--	--	0.043 U	0.043	0.19	0.043 U	0.043	0.19	0.043 U	0.043	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	1,4-Dichlorobenzene	18	--	--	0.051 U	0.051	0.19	0.051 U	0.051	0.19	0.051 U	0.051	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,2'-Oxybis (2-chloropropane)	--	--	--	0.04 U	0.04	0.19	0.04 U	0.04	0.19	0.04 U	0.04	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4,5-Trichlorophenol	10	--	--	1.4 U	1.4	4.8	1.4 U	1.4	4.8	1.4 U	1.4	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4,6-Trichlorophenol	0.29	--	--	1.4 U	1.4	4.8	1.4 U	1.4	4.8	1.4 U	1.4	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4-Dichlorophenol	10	--	--	1.9 U	1.9	4.8	1.9 U	1.9	4.8	1.9 U	1.9	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4-Dimethylphenol	300	--	--	0.033 U	0.033	0.19	0.033 U	0.033	0.19	0.033 U	0.033	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4-Dinitrophenol	4	--	--	0.97 U	0.97	4.8	0.97 U	0.97	4.8	0.97 U	0.97	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,4-Dinitrotoluene	2.6	--	--	0.029 U	0.029	0.19	0.029 U	0.029	0.19	0.029 U	0.029	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,6-Dichlorophenol	10	--	--	2 U	2	4.8	2 U	2	4.8	2 U	2	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2,6-Dinitrotoluene	--	--	--	0.037 U	0.037	0.19	0.037 U	0.037	0.19	0.037 U	0.037	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2-Chloronaphthalene	--	--	--	0.055 U	0.055	0.19	0.055 U	0.055	0.19	0.055 U	0.055	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2-Chlorophenol	10	--	--	0.045 U	0.045	0.19	0.045 U	0.045	0.19	0.045 U	0.045	0.19	--	--	--	--	--	--	--	--	--	--	--	--
E625	2-Methylphenol (o-Cresol)	--	--	--	1.5 U	1.5	4.8	1.5 U	1.5	4.8	1.5 U	1.5	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2-Nitroaniline	--	--	--	1.2 U	1.2	4.8	1.2 U	1.2	4.8	1.2 U	1.2	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	2-Nitrophenol	--	--	--	1.9 U	1.9	4.8	1.9 U	1.9	4.8	1.9 U	1.9	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	3,3'-Dichlorobenzidine	0.0081	--	--	1.2 U	1.2	4.8	1.2 U	1.2	4.8	1.2 U	1.2	4.8	--	--	--	--	--	--	--	--	--	--	--	--
E625	3-Methylphenol & 4-Methylphenol (m&p-Cresol)	--	--	--	0.059 U	0.059	1.9	0.059 U	0.059	1.9	0.059 U	0.059	1.9	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID	Sample ID	Sample Date	Depth	Sample Type	Matrix	X	Y	Peninsula-RW1_201606	Peninsula-RW101-06-23-16	Peninsula-RW2_201606	Peninsula-RW201-08-25-16	Peninsula-RW1_201608	Peninsula-RW101-08-25-16	Peninsula-RW2_201608	Peninsula-RW101-08-25-16	Peninsula-RW2_201608	Peninsula-RW201-08-25-16
					Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL
E625	3-Nitroaniline	--	--	--	1.3 U	1.3	4.8	1.3 U	1.3	4.8	1.3 U	1.3	4.8	--	--	--	--	--	--	--	--	--
E625	4-Bromophenyl-phenyl ether	--	--	--	0.044 U	0.044	0.19	0.044 U	0.044	0.19	0.044 U	0.044	0.19	--	--	--	--	--	--	--	--	--
E625	4-Chloro-3-methylphenol	10	--	--	1.8 U	1.8	4.8	1.8 U	1.8	4.8	1.8 U	1.8	4.8	--	--	--	--	--	--	--	--	--
E625	4-Chloroaniline	--	--	--	1.6 U	1.6	4.8	1.6 U	1.6	4.8	1.6 U	1.6	4.8	--	--	--	--	--	--	--	--	--
E625	4-Chlorophenyl phenyl ether	--	--	--	0.047 U	0.047	0.19	0.047 U	0.047	0.19	0.047 U	0.047	0.19	--	--	--	--	--	--	--	--	--
E625	4-Nitroaniline	--	--	--	1.5 U	1.5	4.8	1.5 U	1.5	4.8	1.5 U	1.5	4.8	--	--	--	--	--	--	--	--	--
E625	4-Nitrophenol	300	--	--	0.91 U	0.91	4.8	0.91 U	0.91	4.8	0.91 U	0.91	4.8	--	--	--	--	--	--	--	--	--
E625	Aniline	--	--	--	0.02 U	0.02	0.19	0.02 U	0.02	0.19	0.02 U	0.02	0.19	--	--	--	--	--	--	--	--	--
E625	Azobenzene	--	--	--	0.045 U	0.045	0.19	0.045 U	0.045	0.19	0.045 U	0.045	0.19	--	--	--	--	--	--	--	--	--
E625	Benzidine	0.000069	--	--	0.73 U	0.73	4.8	0.73 U	0.73	4.8	0.73 U	0.73	4.8	--	--	--	--	--	--	--	--	--
E625	Benzoic acid	--	--	--	0.54 U	0.54	4.8	0.54 U	0.54	4.8	0.54 U	0.54	4.8	--	--	--	--	--	--	--	--	--
E625	Benzyl alcohol	--	--	--	0.036 U	0.036	0.19	0.036 U	0.036	0.19	0.036 U	0.036	0.19	--	--	--	--	--	--	--	--	--
E625	bis(2-Chloroethoxy)methane	4.4	--	--	0.059 U	0.059	0.19	0.059 U	0.059	0.19	0.059 U	0.059	0.19	--	--	--	--	--	--	--	--	--
E625	bis(2-Chloroethyl)ether	1200	--	--	0.038 U	0.038	0.19	0.038 U	0.038	0.19	0.038 U	0.038	0.19	--	--	--	--	--	--	--	--	--
E625	bis(2-Ethylhexyl)phthalate	3.5	--	--	3.3 U	3.3	4.8	3.3 U	3.3	4.8	3.3 U	3.3	4.8	--	--	--	--	--	--	--	--	--
E625	Butylbenzyl phthalate	--	--	--	2 U	2	4.8	2 U	2	4.8	2 U	2	4.8	--	--	--	--	--	--	--	--	--
E625	Diethyl phthalate	33000	--	--	1.5 U	1.5	4.8	1.5 U	1.5	4.8	1.5 U	1.5	4.8	--	--	--	--	--	--	--	--	--
E625	Dimethyl phthalate	820000	--	--	1.5 U	1.5	4.8	1.5 U	1.5	4.8	1.5 U	1.5	4.8	--	--	--	--	--	--	--	--	--
E625	Di-n-butyl phthalate	3500	--	--	1.4 U	1.4	4.8	1.4 U	1.4	4.8	1.4 U	1.4	4.8	--	--	--	--	--	--	--	--	--
E625	Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	220	--	--	0.85 U	0.85	4.8	0.85 U	0.85	4.8	0.85 U	0.85	4.8	--	--	--	--	--	--	--	--	--
E625	Di-n-octyl phthalate	--	--	--	1.4 U	1.4	4.8	1.4 U	1.4	4.8	1.4 U	1.4	4.8	--	--	--	--	--	--	--	--	--
E625	Hexachlorobenzene	0.00021	--	--	0.049 U	0.049	0.19	0.049 U	0.049	0.19	0.049 U	0.049	0.19	--	--	--	--	--	--	--	--	--
E625	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	14	--	--	0.051 U	0.051	0.19	0.051 U	0.051	0.19	0.051 U	0.051	0.19	--	--	--	--	--	--	--	--	--
E625	Hexachlorocyclopentadiene	58	--	--	0.034 U	0.034	0.19	0.034 U	0.034	0.19	0.034 U	0.034	0.19	--	--	--	--	--	--	--	--	--
E625	Hexachloroethane	2.5	--	--	0.052 U	0.052	0.19	0.052 U	0.052	0.19	0.052 U	0.052	0.19	--	--	--	--	--	--	--	--	--
E625	Isophorone	730	--	--	0.053 U	0.053	1.9	0.053 U	0.053	1.9	0.053 U	0.053	1.9	--	--	--	--	--	--	--	--	--
E625	Nitrobenzene	4.9	--	--	0.064 U	0.064	0.19	0.064 U	0.064	0.19	0.064 U	0.064	0.19	--	--	--	--	--	--	--	--	--
E625	n-Nitrosodimethylamine	7.3	--	--	0.18 U	0.18	0.19	0.18 U	0.18	0.19	0.18 U	0.18	0.19	--	--	--	--	--	--	--	--	--
E625	n-Nitrosodi-n-propylamine	0.38	--	--	0.033 U	0.033	0.19	0.033 U	0.033	0.19	0.033 U	0.033	0.19	--	--	--	--	--	--	--	--	--
E625	n-Nitrosodiphenylamine	2.5	--	--	0.045 U	0.045	0.19	0.045 U	0.045	0.19	0.045 U	0.045	0.19	--	--	--	--	--	--	--	--	--
E625	Pentachlorophenol	10	--	--	0.72 U	0.72	4.8	0.72 U	0.72	4.8	0.72 U	0.72	4.8	--	--	--	--	--	--	--	--	--
E625	Phenol	300	--	--	0.031 U	0.031	0.19	0.031 U	0.031	0.19	0.031 U	0.031	0.19	--	--	--	--	--	--	--	--	--
E625	Pyridine	--	--	--	0.048 U	0.048	0.19	0.048 U	0.048	0.19	0.048 U	0.048	0.19	--	--	--	--	--	--	--	--	--
	Total Dichlorobenzene (1,2- and 1,3-dichlorobenzene) (U = 0)	5100	--	--	0.043 U	--	--	0.043 U	--	--	0.043 U	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/L)																						
E625	1-Methylnaphthalene	--	--	--	0.042 U	0.042	0.19	0.042 U	0.042	0.19	0.042 U	0.042	0.19	--	--	--	--	--	--	--	--	--
E625	2-Methylnaphthalene	--	--	--	0.039 U	0.039	0.19	0.039 U	0.039	0.19	0.039 U	0.039	0.19	--	--	--	--	--	--	--	--	--
E625	Acenaphthene	--	--	--	0.062 U	0.062	0.19	0.062 U	0.062	0.19	0.062 U	0.062	0.19	--	--	--	--	--	--	--	--	--
E625	Acenaphthylene	--	--	--	0.052 U	0.052	0.19	0.052 U	0.052	0.19	0.052 U	0.052	0.19	--	--	--	--	--	--	--	--	--
E625	Anthracene	--	--	--	0.041 U	0.041	0.19	0.041 U	0.041	0.19	0.041 U	0.041	0.19	--	--	--	--	--	--	--	--	--
E625	Benzo(a)anthracene	--	--	--	0.048 U	0.048	0.19	0.048 U	0.048	0.19	0.048 U	0.048	0.19	--	--	--	--	--	--	--	--	--
E625	Benzo(a)pyrene	--	--	--	0.05 U	0.05	0.19	0.05 U	0.05	0.19	0.05 U	0.05	0.19	--	--	--	--	--	--	--	--	--
E625	Benzo(b)fluoranthene	--	--	--	0.041 U	0.041	0.19	0.041 U	0.041	0.19	0.041 U	0.041	0.19	--	--	--	--	--	--	--	--	--

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task	PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID	Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID	Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date	6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth	3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type	N			FD			N			FD			N			N		
					Matrix	WO			WO			WO			WO			WO			WO		
					X	-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y	33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
		2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	
E625	Benzo(g,h,i)perylene	--	--	--	0.041 U	0.041	0.19	0.041 U	0.041	0.19	0.041 U	0.041	0.19	--	--	--	--	--	--	--	--	--	
E625	Benzo(k)fluoranthene	--	--	--	0.04 U	0.04	0.19	0.04 U	0.04	0.19	0.04 U	0.04	0.19	--	--	--	--	--	--	--	--	--	
E625	Chrysene	--	--	--	0.05 U	0.05	0.19	0.05 U	0.05	0.19	0.05 U	0.05	0.19	--	--	--	--	--	--	--	--	--	
E625	Dibenzo(a,h)anthracene	--	--	--	0.036 U	0.036	0.19	0.036 U	0.036	0.19	0.036 U	0.036	0.19	--	--	--	--	--	--	--	--	--	
E625	Dibenzofuran	--	--	--	0.046 U	0.046	0.19	0.046 U	0.046	0.19	0.046 U	0.046	0.19	--	--	--	--	--	--	--	--	--	
E625	Fluoranthene	15	--	--	0.042 U	0.042	0.19	0.042 U	0.042	0.19	0.042 U	0.042	0.19	--	--	--	--	--	--	--	--	--	
E625	Fluorene	--	--	--	0.05 U	0.05	0.19	0.05 U	0.05	0.19	0.05 U	0.05	0.19	--	--	--	--	--	--	--	--	--	
E625	Indeno(1,2,3-c,d)pyrene	--	--	--	0.043 U	0.043	0.19	0.043 U	0.043	0.19	0.043 U	0.043	0.19	--	--	--	--	--	--	--	--	--	
E625	Naphthalene	--	--	--	0.048 U	0.048	0.19	0.048 U	0.048	0.19	0.048 U	0.048	0.19	--	--	--	--	--	--	--	--	--	
E625	Phenanthrene	--	--	--	0.05 U	0.05	0.19	0.05 U	0.05	0.19	0.05 U	0.05	0.19	--	--	--	--	--	--	--	--	--	
E625	Pyrene	--	--	--	0.047 U	0.047	0.19	0.047 U	0.047	0.19	0.047 U	0.047	0.19	--	--	--	--	--	--	--	--	--	
	Total PAH (12) (U = 0)	0.0088	--	--	0.052 U	--	--	0.052 U	--	--	0.052 U	--	--	--	--	--	--	--	--	--	--	--	
Organochlorine Pesticides (µg/L)																							
SW8270CSIM	2,4'-DDD (o,p'-DDD)	--	--	--	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	2,4'-DDE (o,p'-DDE)	--	--	--	0.00048 U	0.00048	0.0019	0.00048 U	0.00048	0.0019	0.00048 U	0.00048	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	2,4'-DDT (o,p'-DDT)	--	--	--	0.00059 U	0.00059	0.0019	0.00059 U	0.00059	0.0019	0.00059 U	0.00059	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	4,4'-DDD (p,p'-DDD)	--	--	--	0.00049 U	0.00049	0.0019	0.0005 U	0.0005	0.0019	0.00049 U	0.00049	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	4,4'-DDE (p,p'-DDE)	--	--	--	0.00073 U	0.00073	0.0019	0.00074 U	0.00074	0.0019	0.00073 U	0.00073	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	4,4'-DDT (p,p'-DDT)	--	--	--	0.00084 U	0.00084	0.0019	0.00085 U	0.00085	0.0019	0.00084 U	0.00084	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Aldrin	0.000022	--	--	0.00065 U	0.00065	0.0019	0.00066 U	0.00066	0.0019	0.00065 U	0.00065	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Chlordane, alpha- (Chlordane, cis-)	--	--	--	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Chlordane, gamma- (Chlordane, trans-)	--	--	--	0.00065 U	0.00065	0.0019	0.00066 U	0.00066	0.0019	0.00065 U	0.00065	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Dieldrin	0.00004	--	--	0.00056 U	0.00056	0.0019	0.00057 U	0.00057	0.0019	0.00056 U	0.00056	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Endosulfan sulfate	--	--	--	0.00081 U	0.00081	0.0019	0.00082 U	0.00082	0.0019	0.00081 U	0.00081	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Endosulfan, alpha- (I)	--	--	--	0.00073 U	0.00073	0.0019	0.00073 U	0.00073	0.0019	0.00073 U	0.00073	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Endosulfan, beta (II)	--	--	--	0.00081 U	0.00081	0.0019	0.00082 U	0.00082	0.0019	0.00081 U	0.00081	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Endrin	0.006	--	--	0.00087 U	0.00087	0.0019	0.00088 U	0.00088	0.0019	0.00087 U	0.00087	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Endrin aldehyde	--	--	--	0.00075 U	0.00075	0.0019	0.00076 U	0.00076	0.0019	0.00075 U	0.00075	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Heptachlor	0.00005	--	--	0.00074 U	0.00074	0.0019	0.00074 U	0.00074	0.0019	0.00074 U	0.00074	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Heptachlor epoxide	0.00002	--	--	0.00052 U	0.00052	0.0019	0.00053 U	0.00053	0.0019	0.00052 U	0.00052	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Hexachlorocyclohexane (HCH), alpha-	--	--	--	0.00034 U	0.00034	0.0019	0.00034 U	0.00034	0.0019	0.00034 U	0.00034	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Hexachlorocyclohexane (HCH), beta-	--	--	--	0.00037 U	0.00037	0.0019	0.00037 U	0.00037	0.0019	0.00037 U	0.00037	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Hexachlorocyclohexane (HCH), delta-	--	--	--	0.0006 U	0.0006	0.0019	0.00061 U	0.00061	0.0019	0.0006 U	0.0006	0.0019	--	--	--	--	--	--	--	--	--	
SW8270CSIM	Hexachlorocyclohexane (HCH), gamma- (Lindane)	--	--	--	0.00074 U	0.00074	0.0019	0.00075 U	0.00075	0.0019	0.00074 U	0.00074	0.0019	--	--	--	--	--	--	--	--	--	
SW8081A	Toxaphene	0.00021	--	--	0.28 U	0.28	1.9	0.29 U	0.29	1.9	0.28 U	0.28	1.9	--	--	--	--	--	--	--	--	--	
	Sum DDD (U = 0)	--	--	--	0.00049 U	--	--	0.0005 U	--	--	0.00049 U	--	--	--	--	--	--	--	--	--	--	--	
	Sum DDE (U = 0)	--	--	--	0.00073 U	--	--	0.00074 U	--	--	0.00073 U	--	--	--	--	--	--	--	--	--	--	--	
	Sum DDT (U = 0)	--	--	--	0.00084 U	--	--	0.00085 U	--	--	0.00084 U	--	--	--	--	--	--	--	--	--	--	--	
	Total HCH (U = 0)	0.012	--	--	0.00074 U	--	--	0.00075 U	--	--	0.00074 U	--	--	--	--	--	--	--	--	--	--	--	
	Total Chlordane (U = 0)	0.000023	--	--	0.00065 U	--	--	0.00066 U	--	--	0.00065 U	--	--	--	--	--	--	--	--	--	--	--	
	Total DDx (U = 0)	0.00017	0.00017	0.00022	0.00084 U	--	--	0.00085 U	--	--	0.00084 U	--	--	--	--	--	--	--	--	--	--	--	
	Total Endosulfan (U = 0)	0.027	--	--	0.00081 U	--	--	0.00082 U	--	--	0.00081 U	--	--	--	--	--	--	--	--	--	--	--	

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task	PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID	Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID	Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date	6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth	3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type	N			FD			N			FD			N			N		
					Matrix	WO			WO			WO			WO			WO			WO		
					X	-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y	33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
			2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL
Organophosphate Pesticides (µg/L)																							
E525.2	Atrazine		--	--	--	--	--	--	--	--	--	--	--	--	0.034 U	0.034	0.1	0.034 U	0.034	0.1	0.034 U	0.034	0.1
E525.2	Bladex (Cyanazine)		--	--	--	--	--	--	--	--	--	--	--	--	0.024 U	0.024	0.1	0.024 U	0.024	0.1	0.024 U	0.024	0.1
E525.2	Chlorpyrifos		--	--	--	--	--	--	--	--	--	--	--	--	0.0069 U	0.0069	0.01	0.0069 U	0.0069	0.01	0.0069 U	0.0069	0.01
E525.2	Diazinon		--	--	--	--	--	--	--	--	--	--	--	--	0.096 U	0.096	0.1	0.096 U	0.096	0.1	0.096 U	0.096	0.1
E525.2	Malathion		--	--	--	--	--	--	--	--	--	--	--	--	0.0076 U	0.0076	0.01	0.0076 U	0.0076	0.01	0.0076 U	0.0076	0.01
E525.2	Prometryn		--	--	--	--	--	--	--	--	--	--	--	--	0.036 U	0.036	0.1	0.036 U	0.036	0.1	0.036 U	0.036	0.1
E525.2	Simazine		--	--	--	--	--	--	--	--	--	--	--	--	0.015 U	0.015	0.1	0.015 U	0.015	0.1	0.015 U	0.015	0.1
Herbicides (µg/L)																							
SW8151A	2,4,5-TP (Silvex)		--	--	--	0.22 U	0.22	0.49	0.22 U	0.22	0.49	0.22 U	0.22	0.48	--	--	--	--	--	--	--	--	--
SW8151A	2,4-D (2,4-Dichlorophenoxyacetic acid)		--	--	--	1.7 U	1.7	4.9	1.7 U	1.7	4.9	1.7 U	1.7	4.8	--	--	--	--	--	--	--	--	--
E547	Glyphosate		--	--	--	1.6 U	1.6	6	1.6 U	1.6	6	1.6 U	1.6	6	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/L)																							
SW8082	Aroclor 1016		--	--	--	0.14 U	0.14	0.48	0.14 U	0.14	0.49	0.14 U	0.14	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1221		--	--	--	0.14 U	0.14	0.48	0.14 U	0.14	0.49	0.14 U	0.14	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1232		--	--	--	0.12 U	0.12	0.48	0.12 U	0.12	0.49	0.12 U	0.12	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1242		--	--	--	0.06 U	0.06	0.48	0.061 U	0.061	0.49	0.06 U	0.06	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1248		--	--	--	0.097 U	0.097	0.48	0.098 U	0.098	0.49	0.097 U	0.097	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1254		--	--	--	0.11 U	0.11	0.48	0.11 U	0.11	0.49	0.11 U	0.11	0.48	--	--	--	--	--	--	--	--	--
SW8082	Aroclor 1260		--	--	--	0.13 U	0.13	0.48	0.13 U	0.13	0.49	0.13 U	0.13	0.48	--	--	--	--	--	--	--	--	--
	Total 7 PCB Aroclors (U = 0)		0.000019	0.000019	0.000064	0.14 U	--	--	0.14 U	--	--	0.14 U	--	--	--	--	--	--	--	--	--	--	--
PCB Congeners - Low resolution (µg/L)																							
SW8270CSIM	PCB-003		--	--	--	0.00033 U	0.00033	0.0019	0.00033 U	0.00033	0.0019	0.00033 U	0.00033	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-005/008		--	--	--	0.00069 U	0.00069	0.0038	0.0007 U	0.0007	0.0039	0.00069 U	0.00069	0.0038	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-015		--	--	--	0.00019 U	0.00019	0.0019	0.00019 U	0.00019	0.0019	0.00019 U	0.00019	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-018		--	--	--	0.00049 J	0.0004	0.0019	0.0004 U	0.0004	0.0019	0.0004 U	0.0004	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-027		--	--	--	0.0004 U	0.0004	0.0019	0.0004 U	0.0004	0.0019	0.0004 U	0.0004	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-028		--	--	--	0.00064 U	0.00064	0.0019	0.00064 U	0.00064	0.0019	0.00064 U	0.00064	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-029		--	--	--	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-031		--	--	--	0.0004 U	0.0004	0.0019	0.0004 U	0.0004	0.0019	0.0004 U	0.0004	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-033		--	--	--	0.00056 U	0.00056	0.0019	0.00057 U	0.00057	0.0019	0.00056 U	0.00056	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-037		--	--	--	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	0.00046 U	0.00046	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-044		--	--	--	0.00075 U	0.00075	0.0019	0.00076 U	0.00076	0.0019	0.00075 U	0.00075	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-049		--	--	--	0.00075 U	0.00075	0.0019	0.00076 U	0.00076	0.0019	0.00075 U	0.00075	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-052		--	--	--	0.00049 U	0.00049	0.0019	0.0005 U	0.0005	0.0019	0.00049 U	0.00049	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-056		--	--	--	0.00073 U	0.00073	0.0019	0.00074 U	0.00074	0.0019	0.00073 U	0.00073	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-060		--	--	--	0.00095 U	0.00095	0.0019	0.00096 U	0.00096	0.0019	0.00095 U	0.00095	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-066		--	--	--	0.00055 U	0.00055	0.0019	0.00056 U	0.00056	0.0019	0.00055 U	0.00055	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-070		--	--	--	0.00037 U	0.00037	0.0019	0.00037 U	0.00037	0.0019	0.00037 U	0.00037	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-074		--	--	--	0.00041 U	0.00041	0.0019	0.00042 U	0.00042	0.0019	0.00041 U	0.00041	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-077		--	--	--	0.00063 U	0.00063	0.0019	0.00063 U	0.00063	0.0019	0.00063 U	0.00063	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-081		--	--	--	0.00047 U	0.00047	0.0019	0.00047 U	0.00047	0.0019	0.00047 U	0.00047	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-087		--	--	--	0.00048 U	0.00048	0.0019	0.00048 U	0.00048	0.0019	0.00048 U	0.00048	0.0019	--	--	--	--	--	--	--	--	--

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task	PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID	Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID	Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date	6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth	3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type	N			FD			N			FD			N			N		
					Matrix	WO			WO			WO			WO			WO			WO		
					X	-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y	33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
			2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL
SW8270CSIM	PCB-095		--	--	--	0.00079 U	0.00079	0.0019	0.0008 U	0.0008	0.0019	0.00079 U	0.00079	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-097		--	--	--	0.00066 U	0.00066	0.0019	0.00067 U	0.00067	0.0019	0.00066 U	0.00066	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-099		--	--	--	0.00058 U	0.00058	0.0019	0.00059 U	0.00059	0.0019	0.00058 U	0.00058	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-101		--	--	--	0.00056 U	0.00056	0.0019	0.00056 U	0.00056	0.0019	0.00056 U	0.00056	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-105		--	--	--	0.00036 U	0.00036	0.0019	0.00037 U	0.00037	0.0019	0.00036 U	0.00036	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-110		--	--	--	0.00048 U	0.00048	0.0019	0.00049 U	0.00049	0.0019	0.00048 U	0.00048	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-114		--	--	--	0.00042 U	0.00042	0.0019	0.00043 U	0.00043	0.0019	0.00042 U	0.00042	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-118		--	--	--	0.00047 U	0.00047	0.0019	0.00065 J	0.00048	0.0019	0.00047 U	0.00047	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-119		--	--	--	0.00041 U	0.00041	0.0019	0.00042 U	0.00042	0.0019	0.00041 U	0.00041	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-123		--	--	--	0.00074 U	0.00074	0.0019	0.00074 U	0.00074	0.0019	0.00074 U	0.00074	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-126		--	--	--	0.00052 U	0.00052	0.0019	0.00053 U	0.00053	0.0019	0.00052 U	0.00052	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-128		--	--	--	0.00068 U	0.00068	0.0019	0.00068 U	0.00068	0.0019	0.00068 U	0.00068	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-132/153		--	--	--	0.0011 U	0.0011	0.0038	0.0011 U	0.0011	0.0039	0.0011 U	0.0011	0.0038	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-137		--	--	--	0.00085 U	0.00085	0.0019	0.00086 U	0.00086	0.0019	0.00085 U	0.00085	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-138/158		--	--	--	0.0011 U	0.0011	0.0038	0.0011 U	0.0011	0.0039	0.0011 U	0.0011	0.0038	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-141		--	--	--	0.00075 U	0.00075	0.0019	0.00076 U	0.00076	0.0019	0.00075 U	0.00075	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-149		--	--	--	0.00049 U	0.00049	0.0019	0.00049 U	0.00049	0.0019	0.00049 U	0.00049	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-151		--	--	--	0.00059 U	0.00059	0.0019	0.00059 U	0.00059	0.0019	0.00059 U	0.00059	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-156		--	--	--	0.00049 U	0.00049	0.0019	0.0005 U	0.0005	0.0019	0.00049 U	0.00049	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-157		--	--	--	0.00072 U	0.00072	0.0019	0.00073 U	0.00073	0.0019	0.00072 U	0.00072	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-167		--	--	--	0.00083 U	0.00083	0.0019	0.00084 U	0.00084	0.0019	0.00083 U	0.00083	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-168		--	--	--	0.00032 U	0.00032	0.0019	0.00032 U	0.00032	0.0019	0.00032 U	0.00032	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-169		--	--	--	0.00054 U	0.00054	0.0019	0.00055 U	0.00055	0.0019	0.00054 U	0.00054	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-170		--	--	--	0.00054 U	0.00054	0.0019	0.00055 U	0.00055	0.0019	0.00054 U	0.00054	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-174		--	--	--	0.00053 U	0.00053	0.0019	0.00053 U	0.00053	0.0019	0.00053 U	0.00053	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-177		--	--	--	0.00055 U	0.00055	0.0019	0.00055 U	0.00055	0.0019	0.00055 U	0.00055	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-180		--	--	--	0.00069 U	0.00069	0.0019	0.0007 U	0.0007	0.0019	0.00069 U	0.00069	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-183		--	--	--	0.00051 U	0.00051	0.0019	0.00052 U	0.00052	0.0019	0.00051 U	0.00051	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-184		--	--	--	0.00047 U	0.00047	0.0019	0.00048 U	0.00048	0.0019	0.00047 U	0.00047	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-187		--	--	--	0.00054 U	0.00054	0.0019	0.00054 U	0.00054	0.0019	0.00054 U	0.00054	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-189		--	--	--	0.00038 U	0.00038	0.0019	0.00039 U	0.00039	0.0019	0.00038 U	0.00038	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-194		--	--	--	0.0004 U	0.0004	0.0019	0.00041 U	0.00041	0.0019	0.0004 U	0.0004	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-195		--	--	--	0.00034 U	0.00034	0.0019	0.00034 U	0.00034	0.0019	0.00034 U	0.00034	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-200		--	--	--	0.00064 U	0.00064	0.0019	0.00064 U	0.00064	0.0019	0.00064 U	0.00064	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-201		--	--	--	0.0007 U	0.0007	0.0019	0.0007 U	0.0007	0.0019	0.0007 U	0.0007	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-203		--	--	--	0.00037 U	0.00037	0.0019	0.00038 U	0.00038	0.0019	0.00037 U	0.00037	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-206		--	--	--	0.00025 U	0.00025	0.0019	0.00025 U	0.00025	0.0019	0.00025 U	0.00025	0.0019	--	--	--	--	--	--	--	--	--
SW8270CSIM	PCB-209		--	--	--	0.0008 U	0.0008	0.0019	0.0008 U	0.0008	0.0019	0.0008 U	0.0008	0.0019	--	--	--	--	--	--	--	--	--
	Total PCB Congener - low resolution (U = 0) ³		0.000019	0.000019	0.000064	0.00049 J	--	--	0.00065 J	--	--	0.0011 U	--	--	--	--	--	--	--	--	--	--	--
Total Petroleum Hydrocarbons (mg/L)																							
E1664A	Oil & grease (HEM)		--	--	--	2	0.8	1	1.6	0.8	1	0.8 U	0.8	1	--	--	--	--	--	--	--	--	--
SW8015BM	Total petroleum hydrocarbons (C6)		--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--
SW8015BM	Total petroleum hydrocarbons (C7)		--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--

Table 2
Water Chemistry Results

FINAL VALIDATED D					Task	PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1			PVPRW-2016Dry1		
					Location ID	Peninsula-RW1_201606			Peninsula-RW1_201606			Peninsula-RW2_201606			Peninsula-RW1_201608			Peninsula-RW1_201608			Peninsula-RW2_201608		
					Sample ID	Peninsula-RW1-06-23-16			Peninsula-RW101-06-23-16			Peninsula-RW2-06-23-16			Peninsula-RW101-08-25-16			Peninsula-RW1-08-25-16			Peninsula-RW2-08-25-16		
					Sample Date	6/23/2016			6/23/2016			6/23/2016			8/25/2016			8/25/2016			8/25/2016		
					Depth	3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft			3 - 3 ft		
					Sample Type	N			FD			N			FD			N			N		
					Matrix	WO			WO			WO			WO			WO			WO		
					X	-118.39801			-118.39801			-118.38162			-118.40046			-118.40046			-118.3815		
					Y	33.80570			33.80570			33.73971			33.80415			33.80415			33.73964		
		2012 Ocean Plan ¹	SMB TMDL North ²	SMB TMDL South ²	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	Result	MDL	RL	
SW8015BM	Total petroleum hydrocarbons (C8)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C9-C10)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C11-C12)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C13-C14)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C15-C16)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C17-C18)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C19-C20)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C21-C22)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C23-C24)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C25-C28)	--	--	--	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	0.032 UJ	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C29-C32)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C33-C36)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C37-C40)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	
SW8015BM	Total petroleum hydrocarbons (C41-C44)	--	--	--	0.032 U	0.032	0.1	0.032 U	0.032	0.1	0.032 U	0.032	0.1	--	--	--	--	--	--	--	--	--	

Table 2
Water Chemistry Results

Notes:

Detected concentration is greater than 2012 California Ocean Plan screening level

Detected concentration is greater than Santa Monica Bay TMDL North screening level

Detected concentration is greater than Santa Monica Bay TMDL South screening level

Non-detected concentration is above one or more identified screening levels

Bold = Detected result

J = Estimated value
U = Compound analyzed but not detected above detection limit
UJ = Compound analyzed but not detected above estimated detection limit
-- Results not reported or not applicable

FD = field duplicate sample
HCH = hexachlorocyclohexane or benzenhexachloride (BHC)
mg/L = milligrams per liter
N = normal environmental sample
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
pct = percent
µg/L = micrograms per liter
WO = ocean water matrix

Horizontal coordinate datum is GCS North American Datum 1983 latitude/longitude.
All non-detect results are reported at the method detection limit.
USEPA Stage 2A data validation was completed by Anchor QEA.

¹ SWRCB, 2012. *California Ocean Plan - Water Quality Control Plan, Ocean Waters of California.* October 2012.

² USEPA Region IX, 2012. *Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs.* March 2012.
SMB TMDL North values were compared against Peninsula-RW1, which is located within coastal reach from Point Vicente to Point Dume per Table ES-1 of SMB DDT/PCB TMDL.
SMB TMDL South values were compared against Peninsula-RW2, which is located within coastal reach from Point Fermin to Point Vicente per Table ES-1 of SMB DDT/PCB TMDL.

³ The 2012 California Ocean Plan and Santa Monica Bay TMDL North criteria for total PCBs are based on the sum of individual Aroclors. The criteria were also applied to the total PCB value based on the sum of individual congeners for comparative purposes only.
The Santa Monica Bay TMDL South criteria for total PCBs are based on the sum of individual Aroclors or congeners.
Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest method detection limit value is reported as the sum.
Gamma chlordane and trans-chlordane are synonymous and refer to CAS RN 5103-74-2.
Total HCH is the sum of alpha-, beta-, delta-, and gamma-HCH (lindane) (if measured).
Total dichlorobenzene is the sum of 1,2-dichlorobenzene and 1,3-dichlorobenzene.
Total chlordane is the sum of cis-chlordane, trans-chlordane, chlordene-alpha, chlordene-gamma, cis-nonachlor, trans-nonachlor, and oxychlordane (if measured).
Total DDD is the sum of 4,4'-DDD and 2,4'-DDD.
Total DDE is the sum of 4,4'-DDE and 2,4'-DDE.
Total DDT is the sum of 4,4'-DDT and 2,4'-DDT.
Total DDx is the sum of 4,4'-DDD, 4,4'-DDE, 4,4'-DDT 2,4'-DDD, 2,4'-DDE, and 2,4'-DDT (if measured).
Total Endosulfan is the sum of alpha-endosulfan, beta-endosulfan, and endosulfan sulfate (if measured).
Total PAH (12) is the total of acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene,
Total PCB Aroclors is the total of all PCB Aroclors listed in this table.
Total PCB congeners is the total of all PCB congeners listed in this table.

FINAL VALIDATED DATA

Table 3
Summary of Chronic Test Results for Palos Verdes Receiving Water Samples

Sample ID	Mean Percent Urchin Fertilization	PE (%)	TST Result (Pass/Fail)	Mean Percent Normal Abalone Development	PE (%)	TST Result (Pass/Fail)
Lab Control	90.8	-	-	94.8	-	-
RW1	96.2	-6.0	Pass	93.0	1.9	Pass
RW2	95.8	-5.5	Pass	93.8	1.1	Pass

Notes:

- = not applicable

Percent effect (PE) calculated as ((mean response in control - mean response in sample)/mean response in control)*100.

A negative PE indicates better organism performance in the sample compared to that in the control.

TST Pass = Sample is non-toxic according to TST calculation

ATTACHMENT A

FIELD SAMPLING FORMS

Daily Log



Anchor QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, California 92691
Phone 949.347.2780

PROJECT NAME: Palos Verdes Peninsula

DATE: 6/23/14

SITE ADDRESS:

PERSONNEL: C. Doiphin/C. Osuch

WEATHER:**WIND FROM:**

N	NE	E	SE	S	SW	W	NW
SUNNY		CLOUDY		RAIN			

LIGHT	MEDIUM	HEAVY
-------	--------	-------

TEMPERATURE: (°F) 72 °C
[Circle appropriate units]

TIME	COMMENTS
0615	met at office, load equipment, pick up boat
0915	arrive at Caballo, load boat
1007	Departed for Peninsula-RW1
1148	Sampled Peninsula-RW-1
1310	Sampled Peninsula-RW-101
1413	Collected Peninsula-RW-1 Toxicity sample
1420	Collected Peninsula-RW-101 Bacteria sample
1422	Collected Peninsula-RW-1 Bacteria sample
1530	Sampled Peninsula-RW2
	RW2 = Bacteria
	* No trip blank or equipment blank. No laboratory supplied DI water
1720	hand off samples to RMS
1730	pull the boat, offload equipment, head to ECI
1940	drop samples at ECI
2015	return boat to storage
2100	return to office and unload equipment
	Perform post sampling calibration

Signature:

Chris Oshk



DATE: 6/23/16

PROJECT NAME: Palos Verdes Peninsula

PROJECT NO: 161338-0.01

DAILY SAFETY BRIEFING

PERSON CONDUCTING

MEETING: C. Osuch

HEALTH & SAFETY

OFFICER: C. Towell

PROJECT

MANAGER: A. Martin

TOPICS COVERED:

- | | | |
|--|---|---|
| <input type="checkbox"/> Emergency Procedures and Evacuation Route | <input type="checkbox"/> Lines of Authority | <input type="checkbox"/> Lifting Techniques |
| <input type="checkbox"/> Directions to Hospital | <input checked="" type="checkbox"/> Communication | <input checked="" type="checkbox"/> Slips, Trips, and Falls |
| <input checked="" type="checkbox"/> HASP Review and Location | <input type="checkbox"/> Site Security | <input type="checkbox"/> Hazard Exposure Routes |
| <input checked="" type="checkbox"/> Safety Equipment Location | <input checked="" type="checkbox"/> Vessel Safety Protocols | <input type="checkbox"/> Heat and Cold Stress |
| <input checked="" type="checkbox"/> Proper Safety Equipment Use | <input type="checkbox"/> Work Zones | <input type="checkbox"/> Overhead and Underfoot Hazards |
| <input type="checkbox"/> Employee Right-to-Know/MSDS Location | <input type="checkbox"/> Vehicle Safety and Driving/Road Conditions | <input type="checkbox"/> Chemical Hazards |
| <input checked="" type="checkbox"/> Fire Extinguisher Location | <input type="checkbox"/> Equipment Safety and Operation | <input type="checkbox"/> Flammable Hazards |
| <input type="checkbox"/> Eye Wash Station Location | <input type="checkbox"/> Proper Use of PPE | <input type="checkbox"/> Biological Hazards |
| <input type="checkbox"/> Buddy System | <input type="checkbox"/> Decontamination Procedures | <input type="checkbox"/> Eating/Drinking/Smoking |
| <input type="checkbox"/> Self and Coworker Monitoring | <input checked="" type="checkbox"/> Other: Launching boat, weather conditions (swell, wind) | |

WEATHER CONDITIONS:

cloudy

DAILY WORK SCOPE:

Receiving water sampling

SITE-SPECIFIC HAZARDS:

Working over water, swell, wind chop in afternoon.

SAFETY COMMENTS:

ATTENDEES

PRINTED NAME

SIGNATURE

Chris Osuch	
Claire Dolphin	



27201 Puerta Real, Suite 50
Mission Viejo, CA 92691
(949) 347-2780

Water Quality Sample Form

Project Name: Palos Verdes Peninsula WQ		Project Number: 161338-01.01		Date: 6/13/16		Time: 1200								
Station ID: Peninsula-RW-1		Latitude/Northing: 33.80570		Longitude/Easting: -118.39801		Water Depth (ft): 29.2								
Weather Conditions: Sunny, Windy		Wind Speed and Direction (see Beaufort Scale): 8-12 mph from SW		Field Personnel: C. Dolphin, A. H. H. C. O. J. W. C.										
Biological Activity (e.g., presence of fish, birds, macrophytes, phytoplankton): few western gulls														
Description of In-water activities (e.g., recreational boating, active discharges): 1 rec. boat														
In Situ Field Parameters ¹ and Water Sample Collection								Analytes						
Time	Depth (feet)	DO (mg/L)	pH	Salinity (ppt)	Temp (°C)	Sample Collected? (Y/N)	Physical Description of Sample ²	TSS	Hardness	Indicator Bacteria	PCB Congeners	DDXs	MS4 Permit Table E-2	Sample ID
1148	3	8.6	7.1	34.2	18.2	Y	clear *	X	X	X	X	X	X	Peninsula-RW1-06-23-16
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
QA/QC Samples Collected: Y/N	Field duplicate (5% of project) / Field blank (1 during monitoring event) / Rinsate blank (1 during monitoring event) MS/MSD and kb duplicate							Recorded by: Chris						
Comments (include photographs taken, if any): 1 photo taken *no suspended material, odor or sheen														

Notes:

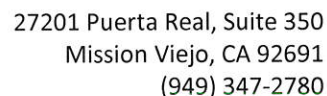
- Field measurements will be made in triplicate on 5% of measurements to ensure project DQOs are met. These measurements will be recorded on the DQO form.
- Description should include suspended or floating material, color, odor, or sheen.

Water Quality Sample Form

Project Name: Palos Verdes Peninsula WQ				Project Number: 161338-01.01				Date: 6/13/16				Time: 1522		
Station ID: Peninsula-RW2		Latitude/Northing: 33.73971°		Longitude/Easting: -118.38162°				Water Depth (ft): 21.4						
Weather Conditions: Partly cloudy				Wind Speed and Direction (see Beaufort Scale): 8-12 mph from SW				Field Personnel: C. Dolphin A. Martin						
Biological Activity (e.g., presence of fish, birds, macrophytes, phytoplankton): western gulls (~10)														
Description of In-water activities (e.g., recreational boating, active discharges): None														
In Situ Field Parameters ¹ and Water Sample Collection								Analytes						
Time	Depth (feet)	DO (mg/L)	pH	Salinity (ppt)	Temp (°C)	Sample Collected? (Y/N)	Physical Description of Sample ²	TSS	Hardness	Indicator Bacteria	PCB Congeners	DDXs	MS4 Permit Table E-2	Sample ID
1526	3	8.6	7.9	34.8	20.1	Y	clear *	X	X	X	X	X	X	Peninsula-RW2-06-23-16
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
QA/QC Samples Collected: Y/N	Field duplicate (5% of project) / Field blank (1 during monitoring event) / Rinsate blank (1 during monitoring event)							Recorded by: Chris Osuch						
Comments (include photographs taken, if any):								* no suspended material, odor, or sheen						

Notes:

- Field measurements will be made in triplicate on 5% of measurements to ensure project DQOs are met. These measurements will be recorded on the DQO form.
- Description should include suspended or floating material, color, odor, or sheen.



Project Name: Palos Verdes Peninsula CIMP Monitoring			Project Number: 161338-01.01			
Station ID: <i>Peninsula-RW2</i>		Time: <i>1522</i>		Date: <i>6/23/16</i>		
In Situ Field Parameters ¹						
Time	Depth (m)	DO (mg/L)	pH (units)	Salinity (ppt)	Temp (°C)	Comments
<i>1526</i>	<i>3</i>	<i>8.6</i>	<i>8.0</i>	<i>34.8</i>	<i>20.1</i>	
<i>1526</i>	<i>3</i>	<i>8.6</i>	<i>7.9</i>	<i>34.8</i>	<i>20.1</i>	
Average	<i>3</i>	<i>8.6</i>	<i>7.95</i>	<i>34.8</i>	<i>20.1</i>	
Difference between max and min	<i>0</i>	<i>0</i>	<i>0.05</i>	<i>0</i>	<i>0</i>	
RPD	<i>0</i>	<i>0</i>	<i>1.3%</i>	<i>0</i>	<i>0</i>	
Precision	± 0.1	5 percent	± 0.2	± 0.2	± 0.5 °C	
DQO Met? (Y/N) ²	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	<i>Y</i>	
Time	Depth (m)	DO (mg/L)	pH	Salinity (ppt)	Temp (°C)	Comments
Average						
Difference between max and min						
RPD						
Precision	± 0.1	5 percent	± 0.2	± 0.2	± 0.5 °C	
DQO Met? (Y/N) ²						
Comments:						

1. Field measurements will be made in triplicate on 5 percent of measurements to ensure project DQOs are met. Each result will be recorded along with the average of the three results, the difference between the largest and smallest result, and the percent difference between the largest and smallest result. The percent difference will be calculated as follows:
$$\text{Percent difference} = 100 * (\text{largest} - \text{smallest}) / \text{average}$$

Triplicate measurements, the average of the results, and percent difference will be recorded on the field data sheet. The percent difference, as appropriate, will be compared against the precision criteria established for field measurements in Table 7.
2. If no, write corrective actions taken in the comments box (e.g., re-calibrated instrument, etc.) and re-measure.

YSI 6 Series CALIBF ON WORKSHEET

PROJECT(S): PV receiving water PROJECT #: 161338-01.01 EQUIPMENT TYPE: YSI 6920 v2

			DO				pH						
Calib by:	Date	Time (24 Hr)	Temp. (°C)	BP (mm Hg)	Initial DO (mg/L)	Final DO (mg/L)	Temp (°C)	Initial pH 7	Final pH 7	Initial pH 10	Final pH 10	Initial pH 4	Final pH 4
<u>CD</u>	<u>6/23/16</u>	<u>0700</u>	<u>24.3</u>	<u>755.1</u>	<u>7.6</u>	<u>8.3</u>	<u>24.1</u>	<u>7.2</u>	<u>7.0</u>	<u>9.3</u> <u>7.0</u>	<u>15.5</u> <u>7.5</u>	<u>10.5</u> <u>10.0</u>	<u>4.0</u>
<u>CD</u>	<u>6/23/16</u>	<u>2100</u>				<u>8.6</u>			<u>7.2</u>	<u>6</u>	<u>6</u>	<u>6</u>	

			CONDUCTIVITY					TURBIDITY					
Calib by:	Date	Time (24 Hr)	Initial 0 µs/cm	Final 0 µs/cm	Temp. (°C)	Initial 111.8 ms/cm	Final 111.8 ms/cm	Initial 0 NTU	Final 0 NTU	Temp. (°C)	Initial 126 NTU	Final 126 NTU	Serial Number
<u>CD</u>	<u>6/23/16</u>	<u>0700</u>			<u>24.1</u>	<u>111.5</u>	<u>111.8</u>	<u>-0.5</u>	<u>0.0</u>	<u>22.7</u>	<u>122.5</u>	<u>126.0</u>	
<u>CD</u>	<u>6/23/16</u>	<u>2100</u>					<u>114.3</u>						

Conductivity Stds: Calibration: 111.8 ms/cm
Lot# 66C570 Exp. Date: Mar. 17

pH Buffers:
pH 7 Lot# A5357 Exp. Date: Dec. 17
pH 10 Lot# A5359 Exp. Date: Dec. 16
pH 4 Lot# A5357 Exp. Date: Dec. 19

Dissolved Oxygen Method (circle one):
Air Saturated Water Winkler Titration

Turbidity Stds:
0 NTU Distilled
126 NTU Lot# 15M584366 Exp. Date: Dec. 16

Source of Barometric Pressure 650 mDS

2 wiper rotations prior to calibration

NOTES:
Second row is post sampling calibration / check
DO +/- 0.5 pH +/- 0.2 cond. +/- 10%



AMS COC & WORK ORDER

Client: Anchor GEA.

Date Placed: 6/23/16

Contact: _____

PO#: _____

Sample Site Address: Project: 161338-01.01

6/23/16 14:00
14:20 11

Lab ID (for lab use)	Location/Client ID#	Analyses to be performed	Sample Date/Time	R.chl.	°C
1	Peninsula - RW1 - 06-23-16	coliform MPN, Ent. MPN, Fecal col. MTA			
2	Peninsula - RW2 - 06-23-16	coliform MPN, Enterolent MPN, Fecal MTA			
3	Peninsula - RW101 - 06-23-16	coliform MPN, Enterolent MPN, Fecal MTA			
4					
5					
6					
7					
8					
9					
10					
11					
12					

Sampled By: CWH Company: Anchor GEA
Date Received: 6/23 Time Received: 17:50 Received/Checked By: DN
Temperature on receipt: 9°C Condition on receipt: good, 1 yloo Comments: ice

coliform MPN QT
Enterolent MPN QT
Fecal col. forms MPN MTF

RELINQUISHED BY: _____

COMPANY: _____

DATE: _____

RELINQUISHED BY: _____

COMPANY: _____

DATE: _____

RECEIVED BY: Dr. B. Deen

COMPANY: AMS

DATE: 6/23/16

RECEIVED BY: _____

COMPANY: _____

DATE: _____

1538 W. Gaylord Street, Long Beach CA 90813 WEBSITE: AMSLABS.COM

Ph: (562) 495-9500 Fx: (562) 495-9522 (888) 685-3330

CHAIN OF CUSTODY RECORD

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS:

SAMPLES CHECKED AGAINST COC BY:

SAMPLES LOGGED IN BY:

SAMPLE TEMP RECEIVED AT:

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

☐ Colton / No. California / Arizona _____ °C (Compliance: 4 ± 2 °C)

Monrovia °C (Compliance: 4 ± 2 °C)

CONDITION OF BLUE ICE: Frozen _____ Partially Frozen _____ Thawed _____ Wet Ice _____ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME:

PROJECT CODE:

PROJECT CODE:
Palos Verdes Peninsula
Receiving Water

COMPLIANCE SAMPLES

- Requires state forms

NON-COMPLIANCE SAMPLES

REGULATION INVOLVED:

Type of samples (circle one): ROUTINE SPECIAL CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)

EEA CLIENT CODE:

COC ID:

SAMPLE GROUP:

SEE ATTACHED BOTTLE ORDER FOR ANALYSES	(check for yes), <u>OR</u>
--	----------------------------

List ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

TAT requested: rush by adv notice only

STD ____ 1 wk ____ 3 day ____ 2 day ____ 1 day ____

[illegible]

* **MATRIX TYPES:** RSW = Raw Surface Water
RGW = Raw Ground Water

CFW = Chlor(am)inated Finished Water
FW = Other Finished Water

SEAW = Sea Water
WW = Waste Water

BW = Bottled Water
SW = Storm Water

SO = Soil
SL = Sludge

O = Other - Please Identify



SIGNATURE

PRINT NAME

COMPANY/TITLE

DATE _____

TIME

SAMPLED BY: 	Claire Dolphin	Anchor QEA	6/23/16	1726
RELINQUISHED BY:				
RECEIVED BY: 	Daniel B. Duren	AMC	6/23/16	1726
RELINQUISHED BY:				
RECEIVED BY:				

Water Quality Sample Form

Project Name: Palos Verdes Peninsula WQ				Project Number: 161338-01.01				Date: 6/13/16				Time: 1522		
Station ID: Peninsula-RW2		Latitude/Northing: 33.73971°		Longitude/Easting: -118.38162°				Water Depth (ft): 21.4						
Weather Conditions: Partly cloudy				Wind Speed and Direction (see Beaufort Scale): 8-12 mph from SW				Field Personnel: C. Dolphin A. Martin						
Biological Activity (e.g., presence of fish, birds, macrophytes, phytoplankton): western gulls (~10)														
Description of In-water activities (e.g., recreational boating, active discharges): None														
In Situ Field Parameters ¹ and Water Sample Collection								Analytes						
Time	Depth (feet)	DO (mg/L)	pH	Salinity (ppt)	Temp (°C)	Sample Collected? (Y/N)	Physical Description of Sample ²	TSS	Hardness	Indicator Bacteria	PCB Congeners	DDXs	MS4 Permit Table E-2	Sample ID
1526	3	8.6	7.9	34.8	20.1	Y	clear *	X	X	X	X	X	X	Peninsula-RW2-06-23-16
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
														Peninsula-RW
QA/QC Samples Collected: Y/N		Field duplicate (5% of project) / Field blank (1 during monitoring event) / Rinsate blank (1 during monitoring event)												Recorded by: Chris Osuch
Comments (include photographs taken, if any):								* no suspended material, odor, or sheen						

Notes:

- Field measurements will be made in triplicate on 5% of measurements to ensure project DQOs are met. These measurements will be recorded on the DQO form.
- Description should include suspended or floating material, color, odor, or sheen.

Date 6/24/16 Page 1 of 1

Sample Collection By: <u>C. Osuch, C. Dolphin, Anchor QEA</u>						ANALYSES REQUIRED												Receipt Temperature (°C)																																																																																																																																																																																																																																							
Report to: Company <u>Anchor QEA</u> Address <u>27201 Parida Road Suite 350</u> City/State/Zip <u>Mission Viejo, CA 92691</u> Contact <u>Andy Martin</u> Phone <u>(766) 443-2402</u> Email <u>A.Martin@anchorqea.com</u>						Invoice To: Company <u>Same</u> Address <u></u> City/State/Zip <u></u> Contact <u></u> Phone <u></u> Email <u></u>						<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Red Abalone Development</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Purple Urchin Fertilization</div> </div>																																																																																																																																																																																																																																													
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Table 4 SAP

Parameter	Container Size and Type (per station)	QA/QC needed	Holding Time	Preservative
Required Parameters				
Total suspended solids (TSS)	1 L HDPE	1 lab dup, 1 field dup	7 days	None
Hardness	250 mL HDPE	1 lab dup, 1 field dup	48 hours until preservation	None
			6 months to analysis; 28 days for mercury	HNO ₃ to pH < 2
PCB Congeners	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	None ¹	None
Chlorinated pesticides ²	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	14 days to extraction	None
			40 days after extraction	None
Bacteria	3 x 125 mL sterile container	field dup (3 bottles)	6 hours	None
Additional Parameters (from MS4 Permit Table E-2, as necessary)				
Conventionals			Field preservation; 28 days to analysis	
Ammonia	1 L amber glass	1 lab dup, 1 field dup		
Chemical oxygen demand (COD)	250 mL glass	1 lab dup, 1 field dup		
Nitrate + nitrite	125 mL HDPE	MS/MSD: 2 bottles, 1 field dup		
Total Kjeldahl nitrogen (TKN)	1 L amber glass	1 lab dup, 1 field dup	None	
Biological oxygen demand (BOD)	1 L HDPE	1 lab dup, 1 field dup		
Alkalinity	250 mL HDPE	1 lab dup, 1 field dup		
Methylene blue active substances (MBAS)	500 mL HDPE	MS/MSD: 2 bottles, 1 field dup		
Total dissolved solids (TDS)	1 L HDPE	1 lab dup, 1 field dup		
Total suspended solids (TSS)	1 L HDPE	1 lab dup, 1 field dup		
Turbidity	125 mL HDPE			
Volatile suspended solids (VSS)	1 L HDPE	1 field dup		
Fluoride, chloride	250 mL HDPE	1 field dup		
Perchlorate	125 mL/100 mL sterile HDPE	MS/MSD: 2 bottles, 1 field dup	28 days	
Total phosphorous	250 mL glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Dissolved phosphorous	250 mL glass	MS/MSD: 2 bottles, 1 field dup	28 days	None
Total organic carbon	250 mL amber glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Cyanide	1 L HDPE	1 lab dup, 1 field dup	14 days	NaOH
Oil and grease ²	2 x 1 L glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Phenolics	500 mL amber glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Petroleum Hydrocarbons				
TPH-Diesel, TPH-motor oil ²	2 x 500 mL amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days to analysis	
Metals				
Total metals, hardness	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	48 hours until preservation	None
			6 months to analysis; 28 days for mercury	HNO ₃ to pH < 2
Dissolved metals	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	Field filter ³ ; 48 hours until preservation	None
			6 months to analysis; 28 days for mercury	None
Total hexavalent chromium	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	24 hours	None
Dissolved hexavalent chromium	250-mL HDPE		24 hours	None
Organics				
PCB (Aroclors and congeners)	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	None ¹	None
Semivolatile organic compounds	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days to analysis	

grayed out rows are repetitive and not counted as bottles

fluoride/chloride is wet chemistry

organophosphate/organochlorine pesticides are same container

Volatile organic compounds (VOCs) ⁴	3 x 40 mL vial	MS/MSD: 2 bottles, 1 field dup	14 days to analysis	HCl to pH < 2, no headspace
Organochlorine pesticides	2 X 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days after extraction	None
Organophosphate pesticides ²	2 X 1 L amber glass	1 field dup	7 days to extraction	None
			40 days after extraction	None
Chlorinated herbicides	2 X 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days after extraction	None
Glyphosate ⁴	1 x 40 mL amber glass vial	MS/MSD: 3 vials, 1 field dup	7 days to extraction	None
			40 days after extraction	None

Notes:

Recommendations are intended as guidance only. The selection of sample container and amount of sample required may vary per the contracted laboratory's sampling requirements.

1 = PCB hold time was removed in SW-846, Chapter 4, Revision 4, February 2007 for aqueous and solid samples stored cool ≤6°C.

2 = Collect two additional bottles for MS/MSD sample analysis.

3 = Dissolved metals samples will be filtered upon receipt at the analytical laboratory.

4 = Collect three additional vials for MS/MSD sample analysis.

HDPE = high-density polyethylene

L = liter

LDPE = low-density polyethylene

mL = milliliter

MS = matrix spike

MSD = matrix spike duplicate

PCB = polychlorinated biphenyl

TIE = toxicity identification evaluation

ATTACHMENT B-1
CHEMISTRY LABORATORY REPORT



Calscience



WORK ORDER NUMBER: 16-06-1746

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: PV Peninsula Receiving Water Sampling

Attention: Andrew Martin
27201 Puerta Real
Suite 350
Mission Viejo, CA 92691-8306

Approved for release on 07/21/2016 by:
Carla Hollowell
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Number: 16-06-1746

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Work Order: 16-06-1746

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/23/16. They were assigned to Work Order 16-06-1746.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

CASE NARRATIVE

Eurofins Calscience Work Order No.: 16-06-1746
Project ID: PV Peninsula Receiving Water Sampling

Provided below is a narrative of our analytical effort, including any unique features or anomalies encountered as part of the analysis of the sediment samples.

Sample Condition on Receipt

Three (3) water samples were received for this project on June 23, 2016. The samples were transferred to the laboratory in an ice-chest following strict chain-of-custody (COC) procedures. The temperature of the samples upon receipt at the laboratory ranged from 2.2°C to 3.0°C. All samples were assigned laboratory identification numbers, logged into the Laboratory Information Management System (LIMS), and subsequently stored at -18°C pending analytical chemistry testing.

Sample receiving anomalies (if any) are noted in the attached Sample Anomaly Form.

Tests Performed

Analyses were performed in accordance with the *Palos Verdes Peninsula Coordinated Integrated Monitoring Program Receiving Water Monitoring Sampling and Analysis Plan*, dated June 2016.

Holding times

All holding times were met unless otherwise noted.

Calibration

Frequency and control criteria for initial and continuing calibration verifications were met.

Reporting Limits

All Method Detection Limits were met. Results were reported to the MDL, and if detections were found below the RL the results were flagged with a “J” qualifier.

Blanks

Concentrations of target analytes in the method blanks were found to be below reporting limits for all testing. Results were reported to the MDL, and if detections were found below the RL the results were flagged with a “J” Flag Qualifier (see EPA Method 7470A Filtered and EPA Method 1640 Total and Filtered Method Blank results). All corresponding samples with reported concentrations of the same parameter were marked with a “B” Flag Qualifier.

Laboratory Control Samples

Laboratory Control Sample (LCS) analysis was performed at the required frequencies for all applicable tests, and unless otherwise noted, all parameters were within the established control limits.

Matrix Spikes

Matrix spike analyses were performed for each applicable analysis. Matrix spikes were performed on project samples (where possible / available) and all parameters were within the established control limits with the following exceptions:

The TKN and Total Phosphorus MS and MSD recoveries were outside the established control limits. The results have been flagged with the appropriate qualifiers.

The TPH MS/MSD RPD % recovery was outside the established control limits. The results have been flagged with the appropriate qualifiers.

The Total Metals MS/MSD recoveries and RPD % recoveries were outside the established control limits for multiple parameters. The results have been flagged with the appropriate qualifiers.

The Di-n-Butyl Phthalate (EPA 8270C SIM PAH) MSD RPD % recovery was outside the established control limits. The results have been flagged with the appropriate qualifiers.

Surrogates

Surrogate recoveries for all applicable tests and samples were within the established control limits.

Laboratory Duplicate

A laboratory duplicate for all applicable tests were within the established control limits.

Acronyms

LCS - Laboratory Control Sample

MS/MSD- Matrix Spike/Matrix Spike Duplicate

RPD- Relative Percent Difference



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Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 16-06-1746
27201 Puerta Real, Suite 350	Project Name: PV Peninsula Receiving Water Sampling
Mission Viejo, CA 92691-8306	PO Number: 161338-01.01
	Date/Time Received: 06/23/16 19:40
	Number of Containers: 208

Attn: Andrew Martin

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Peninsula-RW1-06-23-16	16-06-1746-1	06/23/16 11:48	69	Aqueous
Peninsula-RW101-06-23-16	16-06-1746-2	06/23/16 13:10	33	Aqueous
Peninsula-RW2-06-23-16	16-06-1746-3	06/23/16 15:30	37	Aqueous


Return to Contents



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 314.0
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-G	06/23/16 11:48	Aqueous	IC 13	N/A	06/25/16 16:19	160625L01

Comment(s):
- The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Perchlorate	ND	0.10	0.035	50.0	

Peninsula-RW101-06-23-16	16-06-1746-2-G	06/23/16 13:10	Aqueous	IC 13	N/A	06/25/16 16:36	160625L01
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Comment(s):
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Perchlorate	ND	0.10	0.035	50.0	

Peninsula-RW2-06-23-16	16-06-1746-3-G	06/23/16 15:30	Aqueous	IC 13	N/A	06/25/16 16:52	160625L01
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Comment(s):
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Perchlorate	ND	0.10	0.035	50.0	

Method Blank	099-16-242-475	N/A	Aqueous	IC 13	N/A	06/25/16 11:55	160625L01
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Comment(s):
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Perchlorate	ND	0.0020	0.00071	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 7199
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Q	06/23/16 11:48	Aqueous	IC 12	N/A	06/24/16 11:09	160624L01

Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	50	3.3	50.0	

Peninsula-RW101-06-23-16	16-06-1746-2-Q	06/23/16 13:10	Aqueous	IC 12	N/A	06/24/16 11:18	160624L01
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Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	50	3.3	50.0	

Peninsula-RW2-06-23-16	16-06-1746-3-Q	06/23/16 15:30	Aqueous	IC 12	N/A	06/24/16 11:27	160624L01
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Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	50	3.3	50.0	

Method Blank	099-05-123-4212	N/A	Aqueous	IC 12	N/A	06/24/16 09:32	160624L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	1.0	0.067	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 1664A
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-B2	06/23/16 11:48	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
HEM: Oil and Grease	2.0	1.0	0.80	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-B2	06/23/16 13:10	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
HEM: Oil and Grease	1.6	1.0	0.80	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-B2	06/23/16 15:30	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
HEM: Oil and Grease	ND	1.0	0.80	1.00	

Method Blank	099-05-119-4361	N/A	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
HEM: Oil and Grease	ND	1.0	0.80	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 351.2
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Z	06/23/16 11:48	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Total Kjeldahl Nitrogen	0.11	0.20	0.047	1.00	J

Peninsula-RW101-06-23-16	16-06-1746-2-Z	06/23/16 13:10	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Total Kjeldahl Nitrogen	0.16	0.20	0.047	1.00	J

Peninsula-RW2-06-23-16	16-06-1746-3-Z	06/23/16 15:30	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Total Kjeldahl Nitrogen	0.092	0.20	0.047	1.00	J

Method Blank	099-12-741-215	N/A	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Total Kjeldahl Nitrogen	ND	0.20	0.047	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-J	06/23/16 11:48	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Total	ND	0.050	0.020	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-J	06/23/16 13:10	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Total	0.024	0.050	0.020	1.00	J

Peninsula-RW2-06-23-16	16-06-1746-3-J	06/23/16 15:30	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Total	ND	0.050	0.020	1.00	

Method Blank	099-12-739-153	N/A	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Total	ND	0.050	0.020	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-H	06/23/16 11:48	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Dissolved	ND	0.050	0.012	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-H	06/23/16 13:10	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Dissolved	ND	0.050	0.012	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-H	06/23/16 15:30	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Dissolved	ND	0.050	0.012	1.00	

Method Blank	099-14-349-24	N/A	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Phosphorus, Dissolved	ND	0.050	0.012	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 420.1
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-S	06/23/16 11:48	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Phenolics, Total		ND	0.10	1.00			
Peninsula-RW101-06-23-16	16-06-1746-2-S	06/23/16 13:10	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Phenolics, Total		ND	0.10	1.00			
Peninsula-RW2-06-23-16	16-06-1746-3-S	06/23/16 15:30	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Phenolics, Total		ND	0.10	1.00			
Method Blank	099-05-085-2997	N/A	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Phenolics, Total		ND	0.10	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2130 B
Units: NTU

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-O	06/23/16 11:48	Aqueous	TUR 3	N/A	06/24/16 21:54	G0624TURD2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Turbidity	1.3	0.10	0.044	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-O	06/23/16 13:10	Aqueous	TUR 3	N/A	06/24/16 21:54	G0624TURD2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Turbidity	0.62	0.050	0.044	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-O	06/23/16 15:30	Aqueous	TUR 3	N/A	06/24/16 21:54	G0624TURD2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Turbidity	0.51	0.050	0.044	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2320B
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Q	06/23/16 11:48	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO ₃)	109	5.00	0.848	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-Q	06/23/16 13:10	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO ₃)	110	5.00	0.848	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-Q	06/23/16 15:30	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO ₃)	110	5.00	0.848	1.00	

Method Blank	099-15-859-1015	N/A	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alkalinity, Total (as CaCO ₃)	ND	1.0	0.85	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2340C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-P	06/23/16 11:48	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Hardness, Total (as CaCO ₃)	6000	20	9.9	10.0	

Peninsula-RW101-06-23-16	16-06-1746-2-P	06/23/16 13:10	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Hardness, Total (as CaCO ₃)	6000	20	9.9	10.0	

Peninsula-RW2-06-23-16	16-06-1746-3-P	06/23/16 15:30	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Hardness, Total (as CaCO ₃)	6000	20	9.9	10.0	

Method Blank	099-14-457-632	N/A	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Hardness, Total (as CaCO ₃)	ND	2.0	0.99	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-I3	06/23/16 11:48	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Dissolved		35300	100		1.00		
Peninsula-RW101-06-23-16	16-06-1746-2-C2	06/23/16 13:10	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Dissolved		35600	100		1.00		
Peninsula-RW2-06-23-16	16-06-1746-3-C2	06/23/16 15:30	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Dissolved		35300	100		1.00		
Method Blank	099-12-180-5140	N/A	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Dissolved		ND	1.0		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 D
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-F2	06/23/16 11:48	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Suspended		ND	1.0		1.00		
Peninsula-RW101-06-23-16	16-06-1746-2-F2	06/23/16 13:10	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Suspended		ND	1.0		1.00		
Peninsula-RW2-06-23-16	16-06-1746-3-F2	06/23/16 15:30	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Suspended		ND	1.0		1.00		
Method Blank	099-09-010-7782	N/A	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Solids, Total Suspended		ND	1.0		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 D/E
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-F2	06/23/16 11:48	Aqueous	N/A	06/30/16	06/30/16 14:00	G0630VSSB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Volatile Suspended	ND	1.0	1.0	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-F2	06/23/16 13:10	Aqueous	N/A	06/30/16	06/30/16 14:00	G0630VSSB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Volatile Suspended	ND	1.0	1.0	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-F2	06/23/16 15:30	Aqueous	N/A	06/30/16	06/30/16 14:00	G0630VSSB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Volatile Suspended	ND	1.0	1.0	1.00	

Method Blank	099-05-104-314	N/A	Aqueous	N/A	06/30/16	06/30/16 14:00	G0630VSSB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Volatile Suspended	ND	1.0	1.0	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-Cl C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-C2	06/23/16 11:48	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chloride	20000	400	150	200	

Peninsula-RW101-06-23-16	16-06-1746-2-C2	06/23/16 13:10	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chloride	20000	200	76	100	

Peninsula-RW2-06-23-16	16-06-1746-3-C2	06/23/16 15:30	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chloride	20000	200	76	100	

Method Blank	099-05-057-2142	N/A	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chloride	ND	2.0	0.76	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-CN E
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-G2	06/23/16 11:48	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Cyanide, Total		ND	0.0010	1.00			
Peninsula-RW101-06-23-16	16-06-1746-2-G2	06/23/16 13:10	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Cyanide, Total		ND	0.0010	1.00			
Peninsula-RW2-06-23-16	16-06-1746-3-G2	06/23/16 15:30	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Cyanide, Total		ND	0.0010	1.00			
Method Blank	099-14-357-214	N/A	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Cyanide, Total		ND	0.0010	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-F C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-C2	06/23/16 11:48	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLL1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Fluoride	0.88	0.10	0.064	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-C2	06/23/16 13:10	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Fluoride	0.87	0.10	0.064	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-C2	06/23/16 15:30	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Fluoride	0.88	0.10	0.064	1.00	

Method Blank	097-01-022-709	N/A	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Fluoride	ND	0.10	0.064	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-NH3 F
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-A2	06/23/16 11:48	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Ammonia (as N)		ND	0.10		1.00		
Peninsula-RW101-06-23-16	16-06-1746-2-A2	06/23/16 13:10	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Ammonia (as N)		ND	0.10		1.00		
Peninsula-RW2-06-23-16	16-06-1746-3-A2	06/23/16 15:30	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Ammonia (as N)		ND	0.10		1.00		
Method Blank	099-12-052-506	N/A	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Ammonia (as N)		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 06/23/16
 Work Order: 16-06-1746
 Preparation: N/A
 Method: SM 4500-NO3 E
 Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-I	06/23/16 11:48	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate-Nitrite (as N)	0.055	0.10	0.029	1.00	J

Peninsula-RW101-06-23-16	16-06-1746-2-I	06/23/16 13:10	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate-Nitrite (as N)	0.043	0.10	0.029	1.00	J

Peninsula-RW2-06-23-16	16-06-1746-3-I	06/23/16 15:30	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate-Nitrite (as N)	0.045	0.10	0.029	1.00	J

Method Blank	099-14-282-418	N/A	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Nitrate-Nitrite (as N)	ND	0.10	0.029	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5210 B
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-D2	06/23/16 11:48	Aqueous	BOD 1	06/24/16	06/29/16 15:40	G0624BODB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Biochemical Oxygen Demand	1.9	1.0	0.58	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-D2	06/23/16 13:10	Aqueous	BOD 1	06/24/16	06/29/16 15:40	G0624BODB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Biochemical Oxygen Demand	2.6	1.0	0.58	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-D2	06/23/16 15:30	Aqueous	BOD 1	06/24/16	06/29/16 15:40	G0624BODB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Biochemical Oxygen Demand	2.2	1.0	0.58	1.00	

Method Blank	099-05-054-4728	N/A	Aqueous	BOD 1	06/24/16	06/29/16 15:40	G0624BODB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Biochemical Oxygen Demand	ND	1.0	0.58	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5220 C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-L	06/23/16 11:48	Aqueous	BUR16	06/30/16	06/30/16 14:05	G0630ODB1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chemical Oxygen Demand		280	5.0		1.00		
Peninsula-RW101-06-23-16	16-06-1746-2-L	06/23/16 13:10	Aqueous	BUR16	06/30/16	06/30/16 14:05	G0630ODB1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chemical Oxygen Demand		280	5.0		1.00		
Peninsula-RW2-06-23-16	16-06-1746-3-L	06/23/16 15:30	Aqueous	BUR16	06/30/16	06/30/16 14:05	G0630ODB1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chemical Oxygen Demand		270	5.0		1.00		
Method Blank	099-05-114-190	N/A	Aqueous	BUR16	06/30/16	06/30/16 14:05	G0630ODB1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Chemical Oxygen Demand		ND	5.0		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 06/23/16
 Work Order: 16-06-1746
 Preparation: N/A
 Method: SM 5310 B
 Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-K	06/23/16 11:48	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Carbon, Total Organic	1.6	0.50	0.24	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-K	06/23/16 13:10	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Carbon, Total Organic	14	0.50	0.24	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-K	06/23/16 15:30	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Carbon, Total Organic	1.7	0.50	0.24	1.00	

Method Blank	099-05-097-5854	N/A	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Carbon, Total Organic	ND	0.50	0.24	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5540C
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-T	06/23/16 11:48	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
MBAS		ND	0.10	1.00			
Peninsula-RW101-06-23-16	16-06-1746-2-T	06/23/16 13:10	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
MBAS		ND	0.10	1.00			
Peninsula-RW2-06-23-16	16-06-1746-3-T	06/23/16 15:30	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
MBAS		ND	0.10	1.00			
Method Blank	099-05-093-3094	N/A	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
MBAS		ND	0.10	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-V	06/23/16 11:48	Aqueous	GC 48	06/27/16	06/28/16 21:29	160627B12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
C6	ND	0.10	0.032	1.00	
C7	ND	0.10	0.032	1.00	
C8	ND	0.10	0.032	1.00	
C9-C10	ND	0.10	0.032	1.00	
C11-C12	ND	0.10	0.032	1.00	
C13-C14	ND	0.10	0.032	1.00	
C15-C16	ND	0.10	0.032	1.00	
C17-C18	ND	0.10	0.032	1.00	
C19-C20	ND	0.10	0.032	1.00	
C21-C22	ND	0.10	0.032	1.00	
C23-C24	ND	0.10	0.032	1.00	
C25-C28	ND	0.10	0.032	1.00	
C29-C32	ND	0.10	0.032	1.00	
C33-C36	ND	0.10	0.032	1.00	
C37-C40	ND	0.10	0.032	1.00	
C41-C44	ND	0.10	0.032	1.00	
C6-C44 Total	ND	0.10	0.032	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	68-140	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-V	06/23/16 13:10	Aqueous	GC 48	06/27/16	06/28/16 21:45	160627B12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	0.10	0.032	1.00	
C7	ND	0.10	0.032	1.00	
C8	ND	0.10	0.032	1.00	
C9-C10	ND	0.10	0.032	1.00	
C11-C12	ND	0.10	0.032	1.00	
C13-C14	ND	0.10	0.032	1.00	
C15-C16	ND	0.10	0.032	1.00	
C17-C18	ND	0.10	0.032	1.00	
C19-C20	ND	0.10	0.032	1.00	
C21-C22	ND	0.10	0.032	1.00	
C23-C24	ND	0.10	0.032	1.00	
C25-C28	ND	0.10	0.032	1.00	
C29-C32	ND	0.10	0.032	1.00	
C33-C36	ND	0.10	0.032	1.00	
C37-C40	ND	0.10	0.032	1.00	
C41-C44	ND	0.10	0.032	1.00	
C6-C44 Total	ND	0.10	0.032	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	99	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-V	06/23/16 15:30	Aqueous	GC 48	06/27/16	06/28/16 22:00	160627B12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
C6	ND	0.10	0.032	1.00	
C7	ND	0.10	0.032	1.00	
C8	ND	0.10	0.032	1.00	
C9-C10	ND	0.10	0.032	1.00	
C11-C12	ND	0.10	0.032	1.00	
C13-C14	ND	0.10	0.032	1.00	
C15-C16	ND	0.10	0.032	1.00	
C17-C18	ND	0.10	0.032	1.00	
C19-C20	ND	0.10	0.032	1.00	
C21-C22	ND	0.10	0.032	1.00	
C23-C24	ND	0.10	0.032	1.00	
C25-C28	ND	0.10	0.032	1.00	
C29-C32	ND	0.10	0.032	1.00	
C33-C36	ND	0.10	0.032	1.00	
C37-C40	ND	0.10	0.032	1.00	
C41-C44	ND	0.10	0.032	1.00	
C6-C44 Total	ND	0.10	0.032	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	84	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: mg/L

Project: PV Peninsula Receiving Water Sampling

Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-498-376	N/A	Aqueous	GC 48	06/27/16	06/27/16 18:06	160627B12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
C6	ND	0.10	0.032	1.00	
C7	ND	0.10	0.032	1.00	
C8	ND	0.10	0.032	1.00	
C9-C10	ND	0.10	0.032	1.00	
C11-C12	ND	0.10	0.032	1.00	
C13-C14	ND	0.10	0.032	1.00	
C15-C16	ND	0.10	0.032	1.00	
C17-C18	ND	0.10	0.032	1.00	
C19-C20	ND	0.10	0.032	1.00	
C21-C22	ND	0.10	0.032	1.00	
C23-C24	ND	0.10	0.032	1.00	
C25-C28	ND	0.10	0.032	1.00	
C29-C32	ND	0.10	0.032	1.00	
C33-C36	ND	0.10	0.032	1.00	
C37-C40	ND	0.10	0.032	1.00	
C41-C44	ND	0.10	0.032	1.00	
C6-C44 Total	ND	0.10	0.032	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Total
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-N	06/23/16 11:48	Aqueous	ICP/MS 05	07/06/16	07/09/16 18:46	160706L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.134	0.0500	0.0154	1.00	
Arsenic	1.32	0.0300	0.0122	1.00	
Beryllium	ND	0.500	0.0635	1.00	
Cadmium	0.0185	0.0300	0.00567	1.00	J
Chromium	0.338	0.500	0.164	1.00	J
Copper	0.652	0.0300	0.00898	1.00	B
Lead	ND	0.0300	0.0135	1.00	
Nickel	2.17	0.0500	0.00607	1.00	B
Selenium	ND	0.0500	0.0121	1.00	
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	0.696	0.500	0.0736	1.00	B
Aluminum	1.62	1.00	0.227	1.00	
Iron	6.74	0.500	0.0634	1.00	B

Peninsula-RW101-06-23-16	16-06-1746-2-N	06/23/16 13:10	Aqueous	ICP/MS 05	07/06/16	07/08/16 16:34	160706L02
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Beryllium	0.0690	0.500	0.0635	1.00	J
Cadmium	0.0382	0.0300	0.00567	1.00	
Chromium	ND	0.500	0.164	1.00	
Copper	0.648	0.0300	0.00898	1.00	B
Lead	0.0430	0.0300	0.0135	1.00	B
Nickel	1.84	0.0500	0.00607	1.00	B
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	0.857	0.500	0.0736	1.00	B
Aluminum	0.562	1.00	0.227	1.00	J
Iron	3.55	0.500	0.0634	1.00	B

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Total
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-N	06/23/16 13:10	Aqueous	ICP/MS 05	07/06/16	07/06/16 15:05	160706L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.127	0.0500	0.0154	1.00	
Arsenic	1.23	0.0300	0.0122	1.00	
Selenium	ND	0.0500	0.0121	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-N	06/23/16 15:30	Aqueous	ICP/MS 05	07/06/16	07/08/16 16:42	160706L02
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Beryllium	0.0881	0.500	0.0635	1.00	J
Cadmium	0.0307	0.0300	0.00567	1.00	
Chromium	ND	0.500	0.164	1.00	
Copper	0.356	0.0300	0.00898	1.00	B
Lead	0.0168	0.0300	0.0135	1.00	B,J
Nickel	1.22	0.0500	0.00607	1.00	B
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	1.92	0.500	0.0736	1.00	B
Aluminum	0.643	1.00	0.227	1.00	J
Iron	3.54	0.500	0.0634	1.00	B

Peninsula-RW2-06-23-16	16-06-1746-3-N	06/23/16 15:30	Aqueous	ICP/MS 05	07/06/16	07/06/16 15:11	160706L02
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.135	0.0500	0.0154	1.00	
Arsenic	1.20	0.0300	0.0122	1.00	
Selenium	0.0625	0.0500	0.0121	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Total
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-13-067-611	N/A	Aqueous	ICP/MS 05	07/06/16	07/07/16 17:36	160706L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.0500	0.0154	1.00	
Arsenic	ND	0.0300	0.0122	1.00	
Beryllium	ND	0.500	0.0635	1.00	
Cadmium	ND	0.0300	0.00567	1.00	
Chromium	ND	0.500	0.164	1.00	
Copper	0.0168	0.0300	0.00898	1.00	J
Lead	0.0252	0.0300	0.0135	1.00	J
Nickel	0.0154	0.0500	0.00607	1.00	J
Selenium	ND	0.0500	0.0121	1.00	
Silver	0.0113	0.0500	0.00822	1.00	J
Thallium	ND	0.0300	0.00870	1.00	
Zinc	0.0755	0.500	0.0736	1.00	J
Aluminum	ND	1.00	0.227	1.00	
Iron	0.0814	0.500	0.0634	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-M	06/23/16 11:48	Aqueous	ICP/MS 05	07/06/16	07/11/16 15:53	160706L02F

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Beryllium	0.0727	0.500	0.0635	1.00	J
Cadmium	0.0499	0.0300	0.00567	1.00	
Chromium	0.293	0.500	0.164	1.00	J
Copper	0.901	0.0300	0.00898	1.00	B
Lead	0.0738	0.0300	0.0135	1.00	
Nickel	3.00	0.0500	0.00607	1.00	B
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	1.45	0.500	0.0736	1.00	B
Aluminum	2.77	1.00	0.227	1.00	
Iron	7.68	0.500	0.0634	1.00	B

Peninsula-RW1-06-23-16	16-06-1746-1-M	06/23/16 11:48	Aqueous	ICP/MS 05	07/06/16	07/06/16 15:28	160706L02F
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.136	0.0500	0.0154	1.00	
Arsenic	1.18	0.0300	0.0122	1.00	
Selenium	0.0140	0.0500	0.0121	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-M	06/23/16 13:10	Aqueous	ICP/MS 05	07/06/16	07/09/16 19:10	160706L02F

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Beryllium	ND	0.500	0.0635	1.00	
Cadmium	0.0201	0.0300	0.00567	1.00	J
Chromium	0.256	0.500	0.164	1.00	J
Copper	0.641	0.0300	0.00898	1.00	B
Lead	ND	0.0300	0.0135	1.00	
Nickel	2.07	0.0500	0.00607	1.00	B
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	1.11	0.500	0.0736	1.00	B
Aluminum	0.547	1.00	0.227	1.00	J
Iron	2.66	0.500	0.0634	1.00	B

Peninsula-RW101-06-23-16	16-06-1746-2-M	06/23/16 13:10	Aqueous	ICP/MS 05	07/06/16	07/06/16 15:39	160706L02F
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.127	0.0500	0.0154	1.00	
Arsenic	1.11	0.0300	0.0122	1.00	
Selenium	0.0290	0.0500	0.0121	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-M	06/23/16 15:30	Aqueous	ICP/MS 05	07/06/16	07/09/16 19:18	160706L02F

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Beryllium	ND	0.500	0.0635	1.00	
Cadmium	0.0153	0.0300	0.00567	1.00	J
Chromium	0.254	0.500	0.164	1.00	J
Copper	0.623	0.0300	0.00898	1.00	B
Lead	0.0218	0.0300	0.0135	1.00	J
Nickel	2.07	0.0500	0.00607	1.00	B
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	0.942	0.500	0.0736	1.00	B
Aluminum	0.483	1.00	0.227	1.00	J
Iron	1.07	0.500	0.0634	1.00	B

Peninsula-RW2-06-23-16	16-06-1746-3-M	06/23/16 15:30	Aqueous	ICP/MS 05	07/06/16	07/06/16 18:25	160706L02F
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	0.141	0.0500	0.0154	1.00	
Arsenic	0.907	0.0300	0.0122	1.00	
Selenium	0.0584	0.0500	0.0121	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Filt.
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-823-209	N/A	Aqueous	ICP/MS 05	07/06/16	07/07/16 17:44	160706L02F

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.0500	0.0154	1.00	
Arsenic	ND	0.0300	0.0122	1.00	
Beryllium	ND	0.500	0.0635	1.00	
Cadmium	ND	0.0300	0.00567	1.00	
Chromium	ND	0.500	0.164	1.00	
Copper	0.0159	0.0300	0.00898	1.00	J
Lead	ND	0.0300	0.0135	1.00	
Nickel	0.0140	0.0500	0.00607	1.00	J
Selenium	ND	0.0500	0.0121	1.00	
Silver	ND	0.0500	0.00822	1.00	
Thallium	ND	0.0300	0.00870	1.00	
Zinc	0.0777	0.500	0.0736	1.00	J
Aluminum	ND	1.00	0.227	1.00	
Iron	0.0670	0.500	0.0634	1.00	J

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Total
Method: EPA 7470A
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-R2	06/23/16 11:48	Aqueous	Mercury 04	06/30/16	06/30/16 15:47	160630LA1A

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-P	06/23/16 13:10	Aqueous	Mercury 04	06/30/16	06/30/16 15:50	160630LA1A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-P	06/23/16 15:30	Aqueous	Mercury 04	06/30/16	06/30/16 15:52	160630LA1A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Method Blank	099-04-008-7908	N/A	Aqueous	Mercury 04	06/30/16	06/30/16 14:32	160630LA1A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Filt.
Method: EPA 7470A
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Q	06/23/16 11:48	Aqueous	Mercury 05	06/28/16	07/01/16 12:28	160628LA3A

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Peninsula-RW101-06-23-16	16-06-1746-2-Q	06/23/16 13:10	Aqueous	Mercury 05	06/28/16	07/01/16 12:30	160628LA3A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Peninsula-RW2-06-23-16	16-06-1746-3-Q	06/23/16 15:30	Aqueous	Mercury 05	06/28/16	07/01/16 12:32	160628LA3A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.500	0.0453	1.00	

Method Blank	099-15-763-786	N/A	Aqueous	Mercury 04	07/28/16	06/29/16 11:55	160628LA3A
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0539	0.500	0.0453	1.00	J

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 12

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-C3	06/23/16 11:48	Aqueous	GC/MS JJJ	06/29/16	06/30/16 13:41	160629L14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,4-Trichlorobenzene	ND	0.19	0.057	1.00	
1,2-Dichlorobenzene	ND	0.19	0.043	1.00	
1,3-Dichlorobenzene	ND	0.19	0.043	1.00	
1,4-Dichlorobenzene	ND	0.19	0.051	1.00	
1-Methylnaphthalene	ND	0.19	0.042	1.00	
2,4,5-Trichlorophenol	ND	4.8	1.4	1.00	
2,4,6-Trichlorophenol	ND	4.8	1.4	1.00	
2,4-Dichlorophenol	ND	4.8	1.9	1.00	
2,4-Dimethylphenol	ND	0.19	0.033	1.00	
2,4-Dinitrophenol	ND	4.8	0.97	1.00	
2,4-Dinitrotoluene	ND	0.19	0.029	1.00	
2,6-Dichlorophenol	ND	4.8	2.0	1.00	
2,6-Dinitrotoluene	ND	0.19	0.037	1.00	
2-Chloronaphthalene	ND	0.19	0.055	1.00	
2-Chlorophenol	ND	0.19	0.045	1.00	
2-Methylnaphthalene	ND	0.19	0.039	1.00	
2-Methylphenol	ND	4.8	1.5	1.00	
2-Nitroaniline	ND	4.8	1.2	1.00	
2-Nitrophenol	ND	4.8	1.9	1.00	
3,3'-Dichlorobenzidine	ND	4.8	1.2	1.00	
3-Nitroaniline	ND	4.8	1.3	1.00	
3/4-Methylphenol	ND	1.9	0.059	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.19	0.044	1.00	
4,6-Dinitro-2-Methylphenol	ND	4.8	0.85	1.00	
4-Chloro-3-Methylphenol	ND	4.8	1.8	1.00	
4-Chloroaniline	ND	4.8	1.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.19	0.047	1.00	
4-Nitroaniline	ND	4.8	1.5	1.00	
4-Nitrophenol	ND	4.8	0.91	1.00	
Acenaphthene	ND	0.19	0.062	1.00	
Acenaphthylene	ND	0.19	0.052	1.00	
Aniline	ND	0.19	0.020	1.00	
Anthracene	ND	0.19	0.041	1.00	
Azobenzene	ND	0.19	0.045	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 06/23/16
 Work Order: 16-06-1746
 Preparation: EPA 3520C
 Method: EPA 625 SIM
 Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Parameter	Result	RL	MDL	DF	Qualifiers
Benzidine	ND	4.8	0.73	1.00	
Benzo (a) Anthracene	ND	0.19	0.048	1.00	
Benzo (a) Pyrene	ND	0.19	0.050	1.00	
Benzo (b) Fluoranthene	ND	0.19	0.041	1.00	
Benzo (g,h,i) Perylene	ND	0.19	0.041	1.00	
Benzo (k) Fluoranthene	ND	0.19	0.040	1.00	
Benzoic Acid	ND	4.8	0.54	1.00	
Benzyl Alcohol	ND	0.19	0.036	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.19	0.059	1.00	
Bis(2-Chloroethyl) Ether	ND	0.19	0.038	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.19	0.040	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	4.8	3.3	1.00	
Butyl Benzyl Phthalate	ND	4.8	2.0	1.00	
Chrysene	ND	0.19	0.050	1.00	
Di-n-Butyl Phthalate	ND	4.8	1.4	1.00	
Di-n-Octyl Phthalate	ND	4.8	1.4	1.00	
Dibenz (a,h) Anthracene	ND	0.19	0.036	1.00	
Dibenzofuran	ND	0.19	0.046	1.00	
Diethyl Phthalate	ND	4.8	1.5	1.00	
Dimethyl Phthalate	ND	4.8	1.5	1.00	
Fluoranthene	ND	0.19	0.042	1.00	
Fluorene	ND	0.19	0.050	1.00	
Hexachloro-1,3-Butadiene	ND	0.19	0.051	1.00	
Hexachlorobenzene	ND	0.19	0.049	1.00	
Hexachlorocyclopentadiene	ND	0.19	0.034	1.00	
Hexachloroethane	ND	0.19	0.052	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.19	0.043	1.00	
Isophorone	ND	1.9	0.053	1.00	
N-Nitroso-di-n-propylamine	ND	0.19	0.033	1.00	
N-Nitrosodimethylamine	ND	0.19	0.18	1.00	
N-Nitrosodiphenylamine	ND	0.19	0.045	1.00	
Naphthalene	ND	0.19	0.048	1.00	
Nitrobenzene	ND	0.19	0.064	1.00	
Pentachlorophenol	ND	4.8	0.72	1.00	
Phenanthrene	ND	0.19	0.050	1.00	
Phenol	ND	0.19	0.031	1.00	
Pyrene	ND	0.19	0.047	1.00	
Pyridine	ND	0.19	0.048	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,6-Tribromophenol	59	25-137	
2-Fluorobiphenyl	79	42-138	
2-Fluorophenol	82	7-121	
Nitrobenzene-d5	82	10-146	
Phenol-d6	83	1-127	
p-Terphenyl-d14	84	47-173	


Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-U	06/23/16 13:10	Aqueous	GC/MS JJJ	06/29/16	06/30/16 14:00	160629L14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,4-Trichlorobenzene	ND	0.19	0.057	1.00	
1,2-Dichlorobenzene	ND	0.19	0.043	1.00	
1,3-Dichlorobenzene	ND	0.19	0.043	1.00	
1,4-Dichlorobenzene	ND	0.19	0.051	1.00	
1-Methylnaphthalene	ND	0.19	0.042	1.00	
2,4,5-Trichlorophenol	ND	4.8	1.4	1.00	
2,4,6-Trichlorophenol	ND	4.8	1.4	1.00	
2,4-Dichlorophenol	ND	4.8	1.9	1.00	
2,4-Dimethylphenol	ND	0.19	0.033	1.00	
2,4-Dinitrophenol	ND	4.8	0.97	1.00	
2,4-Dinitrotoluene	ND	0.19	0.029	1.00	
2,6-Dichlorophenol	ND	4.8	2.0	1.00	
2,6-Dinitrotoluene	ND	0.19	0.037	1.00	
2-Chloronaphthalene	ND	0.19	0.055	1.00	
2-Chlorophenol	ND	0.19	0.045	1.00	
2-Methylnaphthalene	ND	0.19	0.039	1.00	
2-Methylphenol	ND	4.8	1.5	1.00	
2-Nitroaniline	ND	4.8	1.2	1.00	
2-Nitrophenol	ND	4.8	1.9	1.00	
3,3'-Dichlorobenzidine	ND	4.8	1.2	1.00	
3-Nitroaniline	ND	4.8	1.3	1.00	
3/4-Methylphenol	ND	1.9	0.059	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.19	0.044	1.00	
4,6-Dinitro-2-Methylphenol	ND	4.8	0.85	1.00	
4-Chloro-3-Methylphenol	ND	4.8	1.8	1.00	
4-Chloroaniline	ND	4.8	1.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.19	0.047	1.00	
4-Nitroaniline	ND	4.8	1.5	1.00	
4-Nitrophenol	ND	4.8	0.91	1.00	
Acenaphthene	ND	0.19	0.062	1.00	
Acenaphthylene	ND	0.19	0.052	1.00	
Aniline	ND	0.19	0.020	1.00	
Anthracene	ND	0.19	0.041	1.00	
Azobenzene	ND	0.19	0.045	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Parameter	Result	RL	MDL	DF	Qualifiers
Benzidine	ND	4.8	0.73	1.00	
Benzo (a) Anthracene	ND	0.19	0.048	1.00	
Benzo (a) Pyrene	ND	0.19	0.050	1.00	
Benzo (b) Fluoranthene	ND	0.19	0.041	1.00	
Benzo (g,h,i) Perylene	ND	0.19	0.041	1.00	
Benzo (k) Fluoranthene	ND	0.19	0.040	1.00	
Benzoic Acid	ND	4.8	0.54	1.00	
Benzyl Alcohol	ND	0.19	0.036	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.19	0.059	1.00	
Bis(2-Chloroethyl) Ether	ND	0.19	0.038	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.19	0.040	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	4.8	3.3	1.00	
Butyl Benzyl Phthalate	ND	4.8	2.0	1.00	
Chrysene	ND	0.19	0.050	1.00	
Di-n-Butyl Phthalate	ND	4.8	1.4	1.00	
Di-n-Octyl Phthalate	ND	4.8	1.4	1.00	
Dibenz (a,h) Anthracene	ND	0.19	0.036	1.00	
Dibenzofuran	ND	0.19	0.046	1.00	
Diethyl Phthalate	ND	4.8	1.5	1.00	
Dimethyl Phthalate	ND	4.8	1.5	1.00	
Fluoranthene	ND	0.19	0.042	1.00	
Fluorene	ND	0.19	0.050	1.00	
Hexachloro-1,3-Butadiene	ND	0.19	0.051	1.00	
Hexachlorobenzene	ND	0.19	0.049	1.00	
Hexachlorocyclopentadiene	ND	0.19	0.034	1.00	
Hexachloroethane	ND	0.19	0.052	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.19	0.043	1.00	
Isophorone	ND	1.9	0.053	1.00	
N-Nitroso-di-n-propylamine	ND	0.19	0.033	1.00	
N-Nitrosodimethylamine	ND	0.19	0.18	1.00	
N-Nitrosodiphenylamine	ND	0.19	0.045	1.00	
Naphthalene	ND	0.19	0.048	1.00	
Nitrobenzene	ND	0.19	0.064	1.00	
Pentachlorophenol	ND	4.8	0.72	1.00	
Phenanthrene	ND	0.19	0.050	1.00	
Phenol	ND	0.19	0.031	1.00	
Pyrene	ND	0.19	0.047	1.00	
Pyridine	ND	0.19	0.048	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,6-Tribromophenol	62	25-137	
2-Fluorobiphenyl	83	42-138	
2-Fluorophenol	89	7-121	
Nitrobenzene-d5	85	10-146	
Phenol-d6	90	1-127	
p-Terphenyl-d14	88	47-173	


Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-X	06/23/16 15:30	Aqueous	GC/MS JJJ	06/29/16	06/30/16 14:18	160629L14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,4-Trichlorobenzene	ND	0.19	0.057	1.00	
1,2-Dichlorobenzene	ND	0.19	0.043	1.00	
1,3-Dichlorobenzene	ND	0.19	0.043	1.00	
1,4-Dichlorobenzene	ND	0.19	0.051	1.00	
1-Methylnaphthalene	ND	0.19	0.042	1.00	
2,4,5-Trichlorophenol	ND	4.8	1.4	1.00	
2,4,6-Trichlorophenol	ND	4.8	1.4	1.00	
2,4-Dichlorophenol	ND	4.8	1.9	1.00	
2,4-Dimethylphenol	ND	0.19	0.033	1.00	
2,4-Dinitrophenol	ND	4.8	0.97	1.00	
2,4-Dinitrotoluene	ND	0.19	0.029	1.00	
2,6-Dichlorophenol	ND	4.8	2.0	1.00	
2,6-Dinitrotoluene	ND	0.19	0.037	1.00	
2-Chloronaphthalene	ND	0.19	0.055	1.00	
2-Chlorophenol	ND	0.19	0.045	1.00	
2-Methylnaphthalene	ND	0.19	0.039	1.00	
2-Methylphenol	ND	4.8	1.5	1.00	
2-Nitroaniline	ND	4.8	1.2	1.00	
2-Nitrophenol	ND	4.8	1.9	1.00	
3,3'-Dichlorobenzidine	ND	4.8	1.2	1.00	
3-Nitroaniline	ND	4.8	1.3	1.00	
3/4-Methylphenol	ND	1.9	0.059	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.19	0.044	1.00	
4,6-Dinitro-2-Methylphenol	ND	4.8	0.85	1.00	
4-Chloro-3-Methylphenol	ND	4.8	1.8	1.00	
4-Chloroaniline	ND	4.8	1.6	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.19	0.047	1.00	
4-Nitroaniline	ND	4.8	1.5	1.00	
4-Nitrophenol	ND	4.8	0.91	1.00	
Acenaphthene	ND	0.19	0.062	1.00	
Acenaphthylene	ND	0.19	0.052	1.00	
Aniline	ND	0.19	0.020	1.00	
Anthracene	ND	0.19	0.041	1.00	
Azobenzene	ND	0.19	0.045	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 06/23/16
 Work Order: 16-06-1746
 Preparation: EPA 3520C
 Method: EPA 625 SIM
 Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Parameter	Result	RL	MDL	DF	Qualifiers
Benzidine	ND	4.8	0.73	1.00	
Benzo (a) Anthracene	ND	0.19	0.048	1.00	
Benzo (a) Pyrene	ND	0.19	0.050	1.00	
Benzo (b) Fluoranthene	ND	0.19	0.041	1.00	
Benzo (g,h,i) Perylene	ND	0.19	0.041	1.00	
Benzo (k) Fluoranthene	ND	0.19	0.040	1.00	
Benzoic Acid	ND	4.8	0.54	1.00	
Benzyl Alcohol	ND	0.19	0.036	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.19	0.059	1.00	
Bis(2-Chloroethyl) Ether	ND	0.19	0.038	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.19	0.040	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	4.8	3.3	1.00	
Butyl Benzyl Phthalate	ND	4.8	2.0	1.00	
Chrysene	ND	0.19	0.050	1.00	
Di-n-Butyl Phthalate	ND	4.8	1.4	1.00	
Di-n-Octyl Phthalate	ND	4.8	1.4	1.00	
Dibenz (a,h) Anthracene	ND	0.19	0.036	1.00	
Dibenzofuran	ND	0.19	0.046	1.00	
Diethyl Phthalate	ND	4.8	1.5	1.00	
Dimethyl Phthalate	ND	4.8	1.5	1.00	
Fluoranthene	ND	0.19	0.042	1.00	
Fluorene	ND	0.19	0.050	1.00	
Hexachloro-1,3-Butadiene	ND	0.19	0.051	1.00	
Hexachlorobenzene	ND	0.19	0.049	1.00	
Hexachlorocyclopentadiene	ND	0.19	0.034	1.00	
Hexachloroethane	ND	0.19	0.052	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.19	0.043	1.00	
Isophorone	ND	1.9	0.053	1.00	
N-Nitroso-di-n-propylamine	ND	0.19	0.033	1.00	
N-Nitrosodimethylamine	ND	0.19	0.18	1.00	
N-Nitrosodiphenylamine	ND	0.19	0.045	1.00	
Naphthalene	ND	0.19	0.048	1.00	
Nitrobenzene	ND	0.19	0.064	1.00	
Pentachlorophenol	ND	4.8	0.72	1.00	
Phenanthrene	ND	0.19	0.050	1.00	
Phenol	ND	0.19	0.031	1.00	
Pyrene	ND	0.19	0.047	1.00	
Pyridine	ND	0.19	0.048	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,6-Tribromophenol	59	25-137	
2-Fluorobiphenyl	83	42-138	
2-Fluorophenol	89	7-121	
Nitrobenzene-d5	87	10-146	
Phenol-d6	89	1-127	
p-Terphenyl-d14	86	47-173	


Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-700-20	N/A	Aqueous	GC/MS JJJ	06/29/16	06/30/16 11:56	160629L14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,4-Trichlorobenzene	ND	0.20	0.059	1.00	
1,2-Dichlorobenzene	ND	0.20	0.045	1.00	
1,3-Dichlorobenzene	ND	0.20	0.044	1.00	
1,4-Dichlorobenzene	ND	0.20	0.053	1.00	
1-Methylnaphthalene	ND	0.20	0.044	1.00	
2,4,5-Trichlorophenol	ND	5.0	1.4	1.00	
2,4,6-Trichlorophenol	ND	5.0	1.4	1.00	
2,4-Dichlorophenol	ND	5.0	1.9	1.00	
2,4-Dimethylphenol	ND	0.20	0.034	1.00	
2,4-Dinitrophenol	ND	5.0	1.0	1.00	
2,4-Dinitrotoluene	ND	0.20	0.030	1.00	
2,6-Dichlorophenol	ND	5.0	2.1	1.00	
2,6-Dinitrotoluene	ND	0.20	0.038	1.00	
2-Chloronaphthalene	ND	0.20	0.057	1.00	
2-Chlorophenol	ND	0.20	0.047	1.00	
2-Methylnaphthalene	ND	0.20	0.041	1.00	
2-Methylphenol	ND	5.0	1.6	1.00	
2-Nitroaniline	ND	5.0	1.3	1.00	
2-Nitrophenol	ND	5.0	1.9	1.00	
3,3'-Dichlorobenzidine	ND	5.0	1.2	1.00	
3-Nitroaniline	ND	5.0	1.3	1.00	
3/4-Methylphenol	ND	2.0	0.061	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.20	0.046	1.00	
4,6-Dinitro-2-Methylphenol	ND	5.0	0.88	1.00	
4-Chloro-3-Methylphenol	ND	5.0	1.8	1.00	
4-Chloroaniline	ND	5.0	1.7	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.20	0.049	1.00	
4-Nitroaniline	ND	5.0	1.5	1.00	
4-Nitrophenol	ND	5.0	0.95	1.00	
Acenaphthene	ND	0.20	0.064	1.00	
Acenaphthylene	ND	0.20	0.054	1.00	
Aniline	ND	0.20	0.021	1.00	
Anthracene	ND	0.20	0.043	1.00	
Azobenzene	ND	0.20	0.046	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 06/23/16
 Work Order: 16-06-1746
 Preparation: EPA 3520C
 Method: EPA 625 SIM
 Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Parameter	Result	RL	MDL	DF	Qualifiers
Benzidine	ND	5.0	0.76	1.00	
Benzo (a) Anthracene	ND	0.20	0.050	1.00	
Benzo (a) Pyrene	ND	0.20	0.052	1.00	
Benzo (b) Fluoranthene	ND	0.20	0.043	1.00	
Benzo (g,h,i) Perylene	ND	0.20	0.043	1.00	
Benzo (k) Fluoranthene	ND	0.20	0.042	1.00	
Benzoic Acid	ND	5.0	0.56	1.00	
Benzyl Alcohol	ND	0.20	0.038	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.20	0.061	1.00	
Bis(2-Chloroethyl) Ether	ND	0.20	0.039	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.20	0.042	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	5.0	3.4	1.00	
Butyl Benzyl Phthalate	ND	5.0	2.1	1.00	
Chrysene	ND	0.20	0.052	1.00	
Di-n-Butyl Phthalate	ND	5.0	1.5	1.00	
Di-n-Octyl Phthalate	ND	5.0	1.5	1.00	
Dibenz (a,h) Anthracene	ND	0.20	0.037	1.00	
Dibenzofuran	ND	0.20	0.048	1.00	
Diethyl Phthalate	ND	5.0	1.6	1.00	
Dimethyl Phthalate	ND	5.0	1.5	1.00	
Fluoranthene	ND	0.20	0.044	1.00	
Fluorene	ND	0.20	0.052	1.00	
Hexachloro-1,3-Butadiene	ND	0.20	0.053	1.00	
Hexachlorobenzene	ND	0.20	0.051	1.00	
Hexachlorocyclopentadiene	ND	0.20	0.035	1.00	
Hexachloroethane	ND	0.20	0.054	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.20	0.045	1.00	
Isophorone	ND	2.0	0.055	1.00	
N-Nitroso-di-n-propylamine	ND	0.20	0.035	1.00	
N-Nitrosodimethylamine	ND	0.20	0.19	1.00	
N-Nitrosodiphenylamine	ND	0.20	0.047	1.00	
Naphthalene	ND	0.20	0.050	1.00	
Nitrobenzene	ND	0.20	0.066	1.00	
Pentachlorophenol	ND	5.0	0.75	1.00	
Phenanthrene	ND	0.20	0.052	1.00	
Phenol	ND	0.20	0.032	1.00	
Pyrene	ND	0.20	0.049	1.00	
Pyridine	ND	0.20	0.050	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,6-Tribromophenol	61	25-137	
2-Fluorobiphenyl	84	42-138	
2-Fluorophenol	90	7-121	
Nitrobenzene-d5	88	10-146	
Phenol-d6	91	1-127	
p-Terphenyl-d14	88	47-173	


Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Y	06/23/16 11:48	Aqueous	GC 44	06/29/16	06/30/16 12:31	160629L17

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Toxaphene	ND	1.9	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	50-135	
2,4,5,6-Tetrachloro-m-Xylene	88	50-135	

Peninsula-RW101-06-23-16	16-06-1746-2-Y	06/23/16 13:10	Aqueous	GC 44	06/29/16	06/30/16 12:46	160629L17
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Toxaphene	ND	1.9	0.29	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	50-135	
2,4,5,6-Tetrachloro-m-Xylene	71	50-135	

Peninsula-RW2-06-23-16	16-06-1746-3-Y	06/23/16 15:30	Aqueous	GC 44	06/29/16	06/30/16 13:00	160629L17
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Toxaphene	ND	1.9	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	50-135	
2,4,5,6-Tetrachloro-m-Xylene	83	50-135	

Method Blank	099-12-525-264	N/A	Aqueous	GC 44	06/29/16	06/30/16 12:17	160629L17
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Toxaphene	ND	2.0	0.30	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	50-135	
2,4,5,6-Tetrachloro-m-Xylene	112	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-Y	06/23/16 11:48	Aqueous	GC 66	06/29/16	07/01/16 01:20	160629L18

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	0.48	0.14	1.00	
Aroclor-1221	ND	0.48	0.14	1.00	
Aroclor-1232	ND	0.48	0.12	1.00	
Aroclor-1242	ND	0.48	0.060	1.00	
Aroclor-1248	ND	0.48	0.097	1.00	
Aroclor-1254	ND	0.48	0.11	1.00	
Aroclor-1260	ND	0.48	0.13	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	50-135	
2,4,5,6-Tetrachloro-m-Xylene	64	50-135	

Peninsula-RW101-06-23-16	16-06-1746-2-Y	06/23/16 13:10	Aqueous	GC 66	06/29/16	07/01/16 01:38	160629L18
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	0.49	0.14	1.00	
Aroclor-1221	ND	0.49	0.14	1.00	
Aroclor-1232	ND	0.49	0.12	1.00	
Aroclor-1242	ND	0.49	0.061	1.00	
Aroclor-1248	ND	0.49	0.098	1.00	
Aroclor-1254	ND	0.49	0.11	1.00	
Aroclor-1260	ND	0.49	0.13	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	50-135	
2,4,5,6-Tetrachloro-m-Xylene	62	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8082
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-Y	06/23/16 15:30	Aqueous	GC 66	06/29/16	07/01/16 01:56	160629L18

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	0.48	0.14	1.00	
Aroclor-1221	ND	0.48	0.14	1.00	
Aroclor-1232	ND	0.48	0.12	1.00	
Aroclor-1242	ND	0.48	0.060	1.00	
Aroclor-1248	ND	0.48	0.097	1.00	
Aroclor-1254	ND	0.48	0.11	1.00	
Aroclor-1260	ND	0.48	0.13	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-135	
2,4,5,6-Tetrachloro-m-Xylene	63	50-135	

Method Blank	099-12-527-510	N/A	Aqueous	GC 66	06/29/16	07/01/16 00:27	160629L18
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	0.50	0.15	1.00	
Aroclor-1221	ND	0.50	0.14	1.00	
Aroclor-1232	ND	0.50	0.12	1.00	
Aroclor-1242	ND	0.50	0.063	1.00	
Aroclor-1248	ND	0.50	0.10	1.00	
Aroclor-1254	ND	0.50	0.11	1.00	
Aroclor-1260	ND	0.50	0.13	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-135	
2,4,5,6-Tetrachloro-m-Xylene	83	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-W	06/23/16 11:48	Aqueous	GC 40	06/29/16	07/02/16 14:49	160629L15

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-D	ND	4.9	1.7	1.00	
2,4,5-TP (Silvex)	ND	0.49	0.22	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	106	0-123	

Peninsula-RW101-06-23-16	16-06-1746-2-W	06/23/16 13:10	Aqueous	GC 40	06/29/16	07/02/16 15:12	160629L15
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-D	ND	4.9	1.7	1.00	
2,4,5-TP (Silvex)	ND	0.49	0.22	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	104	0-123	

Peninsula-RW2-06-23-16	16-06-1746-3-H2	06/23/16 15:30	Aqueous	GC 40	06/29/16	07/02/16 15:35	160629L15
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-D	ND	4.8	1.7	1.00	
2,4,5-TP (Silvex)	ND	0.48	0.22	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	109	0-123	

Method Blank	095-01-034-691	N/A	Aqueous	GC 40	06/29/16	07/02/16 13:19	160629L15
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-D	ND	5.0	1.8	1.00	
2,4,5-TP (Silvex)	ND	0.50	0.22	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4-Dichlorophenylacetic acid	109	0-123	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C PEST-SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-X2	06/23/16 11:48	Aqueous	GC/MS BBB	06/30/16	07/05/16 18:08	160630L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	0.0019	0.00065	1.00	
Alpha Chlordane	ND	0.0019	0.00046	1.00	
Alpha-BHC	ND	0.0019	0.00034	1.00	
Beta-BHC	ND	0.0019	0.00037	1.00	
2,4'-DDD	ND	0.0019	0.00046	1.00	
2,4'-DDE	ND	0.0019	0.00048	1.00	
2,4'-DDT	ND	0.0019	0.00059	1.00	
4,4'-DDD	ND	0.0019	0.00049	1.00	
4,4'-DDE	ND	0.0019	0.00073	1.00	
4,4'-DDT	ND	0.0019	0.00084	1.00	
Delta-BHC	ND	0.0019	0.00060	1.00	
Dieldrin	ND	0.0019	0.00056	1.00	
Endosulfan I	ND	0.0019	0.00073	1.00	
Endosulfan II	ND	0.0019	0.00081	1.00	
Endosulfan Sulfate	ND	0.0019	0.00081	1.00	
Endrin	ND	0.0019	0.00087	1.00	
Endrin Aldehyde	ND	0.0019	0.00075	1.00	
Gamma Chlordane	ND	0.0019	0.00065	1.00	
Gamma-BHC	ND	0.0019	0.00074	1.00	
Heptachlor	ND	0.0019	0.00074	1.00	
Heptachlor Epoxide	ND	0.0019	0.00052	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	66	25-200	
2,4,5,6-Tetrachloro-m-Xylene	66	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C PEST-SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-X	06/23/16 13:10	Aqueous	GC/MS BBB	06/30/16	07/05/16 18:24	160630L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	0.0019	0.00066	1.00	
Alpha Chlordane	ND	0.0019	0.00046	1.00	
Alpha-BHC	ND	0.0019	0.00034	1.00	
Beta-BHC	ND	0.0019	0.00037	1.00	
2,4'-DDD	ND	0.0019	0.00046	1.00	
2,4'-DDE	ND	0.0019	0.00048	1.00	
2,4'-DDT	ND	0.0019	0.00059	1.00	
4,4'-DDD	ND	0.0019	0.00050	1.00	
4,4'-DDE	ND	0.0019	0.00074	1.00	
4,4'-DDT	ND	0.0019	0.00085	1.00	
Delta-BHC	ND	0.0019	0.00061	1.00	
Dieldrin	ND	0.0019	0.00057	1.00	
Endosulfan I	ND	0.0019	0.00073	1.00	
Endosulfan II	ND	0.0019	0.00082	1.00	
Endosulfan Sulfate	ND	0.0019	0.00082	1.00	
Endrin	ND	0.0019	0.00088	1.00	
Endrin Aldehyde	ND	0.0019	0.00076	1.00	
Gamma Chlordane	ND	0.0019	0.00066	1.00	
Gamma-BHC	ND	0.0019	0.00075	1.00	
Heptachlor	ND	0.0019	0.00074	1.00	
Heptachlor Epoxide	ND	0.0019	0.00053	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	68	25-200	
2,4,5,6-Tetrachloro-m-Xylene	66	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C PEST-SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-I2	06/23/16 15:30	Aqueous	GC/MS BBB	06/30/16	07/05/16 18:40	160630L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	0.0019	0.00065	1.00	
Alpha Chlordane	ND	0.0019	0.00046	1.00	
Alpha-BHC	ND	0.0019	0.00034	1.00	
Beta-BHC	ND	0.0019	0.00037	1.00	
2,4'-DDD	ND	0.0019	0.00046	1.00	
2,4'-DDE	ND	0.0019	0.00048	1.00	
2,4'-DDT	ND	0.0019	0.00059	1.00	
4,4'-DDD	ND	0.0019	0.00049	1.00	
4,4'-DDE	ND	0.0019	0.00073	1.00	
4,4'-DDT	ND	0.0019	0.00084	1.00	
Delta-BHC	ND	0.0019	0.00060	1.00	
Dieldrin	ND	0.0019	0.00056	1.00	
Endosulfan I	ND	0.0019	0.00073	1.00	
Endosulfan II	ND	0.0019	0.00081	1.00	
Endosulfan Sulfate	ND	0.0019	0.00081	1.00	
Endrin	ND	0.0019	0.00087	1.00	
Endrin Aldehyde	ND	0.0019	0.00075	1.00	
Gamma Chlordane	ND	0.0019	0.00065	1.00	
Gamma-BHC	ND	0.0019	0.00074	1.00	
Heptachlor	ND	0.0019	0.00074	1.00	
Heptachlor Epoxide	ND	0.0019	0.00052	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	69	25-200	
2,4,5,6-Tetrachloro-m-Xylene	66	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C PEST-SIM
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-186-25	N/A	Aqueous	GC/MS BBB	06/30/16	07/05/16 17:20	160630L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	0.0020	0.00068	1.00	
Alpha Chlordane	ND	0.0020	0.00048	1.00	
Alpha-BHC	ND	0.0020	0.00035	1.00	
Beta-BHC	ND	0.0020	0.00038	1.00	
2,4'-DDD	ND	0.0020	0.00047	1.00	
2,4'-DDE	ND	0.0020	0.00050	1.00	
2,4'-DDT	ND	0.0020	0.00061	1.00	
4,4'-DDD	ND	0.0020	0.00051	1.00	
4,4'-DDE	ND	0.0020	0.00076	1.00	
4,4'-DDT	ND	0.0020	0.00088	1.00	
Delta-BHC	ND	0.0020	0.00062	1.00	
Dieldrin	ND	0.0020	0.00059	1.00	
Endosulfan I	ND	0.0020	0.00075	1.00	
Endosulfan II	ND	0.0020	0.00084	1.00	
Endosulfan Sulfate	ND	0.0020	0.00084	1.00	
Endrin	ND	0.0020	0.00091	1.00	
Endrin Aldehyde	ND	0.0020	0.00078	1.00	
Gamma Chlordane	ND	0.0020	0.00068	1.00	
Gamma-BHC	ND	0.0020	0.00077	1.00	
Heptachlor	ND	0.0020	0.00077	1.00	
Heptachlor Epoxide	ND	0.0020	0.00054	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	74	25-200	
2,4,5,6-Tetrachloro-m-Xylene	78	25-200	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-X2	06/23/16 11:48	Aqueous	GC/MS HHH	06/30/16	07/01/16 13:19	160630L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB003	ND	0.0019	0.00033	1.00	
PCB005/008	ND	0.0038	0.00069	1.00	
PCB015	ND	0.0019	0.00019	1.00	
PCB018	0.00049	0.0019	0.00040	1.00	J
PCB027	ND	0.0019	0.00040	1.00	
PCB028	ND	0.0019	0.00064	1.00	
PCB029	ND	0.0019	0.00046	1.00	
PCB031	ND	0.0019	0.00040	1.00	
PCB033	ND	0.0019	0.00056	1.00	
PCB037	ND	0.0019	0.00046	1.00	
PCB044	ND	0.0019	0.00075	1.00	
PCB049	ND	0.0019	0.00075	1.00	
PCB052	ND	0.0019	0.00049	1.00	
PCB056	ND	0.0019	0.00073	1.00	
PCB060	ND	0.0019	0.00095	1.00	
PCB066	ND	0.0019	0.00055	1.00	
PCB070	ND	0.0019	0.00037	1.00	
PCB074	ND	0.0019	0.00041	1.00	
PCB077	ND	0.0019	0.00063	1.00	
PCB081	ND	0.0019	0.00047	1.00	
PCB087	ND	0.0019	0.00048	1.00	
PCB095	ND	0.0019	0.00079	1.00	
PCB097	ND	0.0019	0.00066	1.00	
PCB099	ND	0.0019	0.00058	1.00	
PCB101	ND	0.0019	0.00056	1.00	
PCB105	ND	0.0019	0.00036	1.00	
PCB110	ND	0.0019	0.00048	1.00	
PCB114	ND	0.0019	0.00042	1.00	
PCB118	ND	0.0019	0.00047	1.00	
PCB119	ND	0.0019	0.00041	1.00	
PCB123	ND	0.0019	0.00074	1.00	
PCB126	ND	0.0019	0.00052	1.00	
PCB128	ND	0.0019	0.00068	1.00	
PCB132/153	ND	0.0038	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB137	ND	0.0019	0.00085	1.00	
PCB138/158	ND	0.0038	0.0011	1.00	
PCB141	ND	0.0019	0.00075	1.00	
PCB149	ND	0.0019	0.00049	1.00	
PCB151	ND	0.0019	0.00059	1.00	
PCB156	ND	0.0019	0.00049	1.00	
PCB157	ND	0.0019	0.00072	1.00	
PCB167	ND	0.0019	0.00083	1.00	
PCB168	ND	0.0019	0.00032	1.00	
PCB169	ND	0.0019	0.00054	1.00	
PCB170	ND	0.0019	0.00054	1.00	
PCB174	ND	0.0019	0.00053	1.00	
PCB177	ND	0.0019	0.00055	1.00	
PCB180	ND	0.0019	0.00069	1.00	
PCB183	ND	0.0019	0.00051	1.00	
PCB184	ND	0.0019	0.00047	1.00	
PCB187	ND	0.0019	0.00054	1.00	
PCB189	ND	0.0019	0.00038	1.00	
PCB194	ND	0.0019	0.00040	1.00	
PCB195	ND	0.0019	0.00034	1.00	
PCB200	ND	0.0019	0.00064	1.00	
PCB201	ND	0.0019	0.00070	1.00	
PCB203	ND	0.0019	0.00037	1.00	
PCB206	ND	0.0019	0.00025	1.00	
PCB209	ND	0.0019	0.00080	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	87	50-150	
p-Terphenyl-d14	90	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW101-06-23-16	16-06-1746-2-X	06/23/16 13:10	Aqueous	GC/MS HHH	06/30/16	07/01/16 13:44	160630L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB003	ND	0.0019	0.00033	1.00	
PCB005/008	ND	0.0039	0.00070	1.00	
PCB015	ND	0.0019	0.00019	1.00	
PCB018	ND	0.0019	0.00040	1.00	
PCB027	ND	0.0019	0.00040	1.00	
PCB028	ND	0.0019	0.00064	1.00	
PCB029	ND	0.0019	0.00046	1.00	
PCB031	ND	0.0019	0.00040	1.00	
PCB033	ND	0.0019	0.00057	1.00	
PCB037	ND	0.0019	0.00046	1.00	
PCB044	ND	0.0019	0.00076	1.00	
PCB049	ND	0.0019	0.00076	1.00	
PCB052	ND	0.0019	0.00050	1.00	
PCB056	ND	0.0019	0.00074	1.00	
PCB060	ND	0.0019	0.00096	1.00	
PCB066	ND	0.0019	0.00056	1.00	
PCB070	ND	0.0019	0.00037	1.00	
PCB074	ND	0.0019	0.00042	1.00	
PCB077	ND	0.0019	0.00063	1.00	
PCB081	ND	0.0019	0.00047	1.00	
PCB087	ND	0.0019	0.00048	1.00	
PCB095	ND	0.0019	0.00080	1.00	
PCB097	ND	0.0019	0.00067	1.00	
PCB099	ND	0.0019	0.00059	1.00	
PCB101	ND	0.0019	0.00056	1.00	
PCB105	ND	0.0019	0.00037	1.00	
PCB110	ND	0.0019	0.00049	1.00	
PCB114	ND	0.0019	0.00043	1.00	
PCB118	0.00065	0.0019	0.00048	1.00	J
PCB119	ND	0.0019	0.00042	1.00	
PCB123	ND	0.0019	0.00074	1.00	
PCB126	ND	0.0019	0.00053	1.00	
PCB128	ND	0.0019	0.00068	1.00	
PCB132/153	ND	0.0039	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB137	ND	0.0019	0.00086	1.00	
PCB138/158	ND	0.0039	0.0011	1.00	
PCB141	ND	0.0019	0.00076	1.00	
PCB149	ND	0.0019	0.00049	1.00	
PCB151	ND	0.0019	0.00059	1.00	
PCB156	ND	0.0019	0.00050	1.00	
PCB157	ND	0.0019	0.00073	1.00	
PCB167	ND	0.0019	0.00084	1.00	
PCB168	ND	0.0019	0.00032	1.00	
PCB169	ND	0.0019	0.00055	1.00	
PCB170	ND	0.0019	0.00055	1.00	
PCB174	ND	0.0019	0.00053	1.00	
PCB177	ND	0.0019	0.00055	1.00	
PCB180	ND	0.0019	0.00070	1.00	
PCB183	ND	0.0019	0.00052	1.00	
PCB184	ND	0.0019	0.00048	1.00	
PCB187	ND	0.0019	0.00054	1.00	
PCB189	ND	0.0019	0.00039	1.00	
PCB194	ND	0.0019	0.00041	1.00	
PCB195	ND	0.0019	0.00034	1.00	
PCB200	ND	0.0019	0.00064	1.00	
PCB201	ND	0.0019	0.00070	1.00	
PCB203	ND	0.0019	0.00038	1.00	
PCB206	ND	0.0019	0.00025	1.00	
PCB209	ND	0.0019	0.00080	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	84	50-150	
p-Terphenyl-d14	82	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-06-23-16	16-06-1746-3-I2	06/23/16 15:30	Aqueous	GC/MS HHH	06/30/16	07/01/16 14:09	160630L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB003	ND	0.0019	0.00033	1.00	
PCB005/008	ND	0.0038	0.00069	1.00	
PCB015	ND	0.0019	0.00019	1.00	
PCB018	ND	0.0019	0.00040	1.00	
PCB027	ND	0.0019	0.00040	1.00	
PCB028	ND	0.0019	0.00064	1.00	
PCB029	ND	0.0019	0.00046	1.00	
PCB031	ND	0.0019	0.00040	1.00	
PCB033	ND	0.0019	0.00056	1.00	
PCB037	ND	0.0019	0.00046	1.00	
PCB044	ND	0.0019	0.00075	1.00	
PCB049	ND	0.0019	0.00075	1.00	
PCB052	ND	0.0019	0.00049	1.00	
PCB056	ND	0.0019	0.00073	1.00	
PCB060	ND	0.0019	0.00095	1.00	
PCB066	ND	0.0019	0.00055	1.00	
PCB070	ND	0.0019	0.00037	1.00	
PCB074	ND	0.0019	0.00041	1.00	
PCB077	ND	0.0019	0.00063	1.00	
PCB081	ND	0.0019	0.00047	1.00	
PCB087	ND	0.0019	0.00048	1.00	
PCB095	ND	0.0019	0.00079	1.00	
PCB097	ND	0.0019	0.00066	1.00	
PCB099	ND	0.0019	0.00058	1.00	
PCB101	ND	0.0019	0.00056	1.00	
PCB105	ND	0.0019	0.00036	1.00	
PCB110	ND	0.0019	0.00048	1.00	
PCB114	ND	0.0019	0.00042	1.00	
PCB118	ND	0.0019	0.00047	1.00	
PCB119	ND	0.0019	0.00041	1.00	
PCB123	ND	0.0019	0.00074	1.00	
PCB126	ND	0.0019	0.00052	1.00	
PCB128	ND	0.0019	0.00068	1.00	
PCB132/153	ND	0.0038	0.0011	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB137	ND	0.0019	0.00085	1.00	
PCB138/158	ND	0.0038	0.0011	1.00	
PCB141	ND	0.0019	0.00075	1.00	
PCB149	ND	0.0019	0.00049	1.00	
PCB151	ND	0.0019	0.00059	1.00	
PCB156	ND	0.0019	0.00049	1.00	
PCB157	ND	0.0019	0.00072	1.00	
PCB167	ND	0.0019	0.00083	1.00	
PCB168	ND	0.0019	0.00032	1.00	
PCB169	ND	0.0019	0.00054	1.00	
PCB170	ND	0.0019	0.00054	1.00	
PCB174	ND	0.0019	0.00053	1.00	
PCB177	ND	0.0019	0.00055	1.00	
PCB180	ND	0.0019	0.00069	1.00	
PCB183	ND	0.0019	0.00051	1.00	
PCB184	ND	0.0019	0.00047	1.00	
PCB187	ND	0.0019	0.00054	1.00	
PCB189	ND	0.0019	0.00038	1.00	
PCB194	ND	0.0019	0.00040	1.00	
PCB195	ND	0.0019	0.00034	1.00	
PCB200	ND	0.0019	0.00064	1.00	
PCB201	ND	0.0019	0.00070	1.00	
PCB203	ND	0.0019	0.00037	1.00	
PCB206	ND	0.0019	0.00025	1.00	
PCB209	ND	0.0019	0.00080	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	83	50-150	
p-Terphenyl-d14	87	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-414-73	N/A	Aqueous	GC/MS HHH	06/30/16	07/01/16 12:03	160630L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB003	ND	0.0020	0.00034	1.00	
PCB005/008	ND	0.0040	0.00072	1.00	
PCB015	ND	0.0020	0.00020	1.00	
PCB018	ND	0.0020	0.00042	1.00	
PCB027	ND	0.0020	0.00041	1.00	
PCB028	ND	0.0020	0.00066	1.00	
PCB029	ND	0.0020	0.00048	1.00	
PCB031	ND	0.0020	0.00041	1.00	
PCB033	ND	0.0020	0.00059	1.00	
PCB037	ND	0.0020	0.00048	1.00	
PCB044	ND	0.0020	0.00078	1.00	
PCB049	ND	0.0020	0.00078	1.00	
PCB052	ND	0.0020	0.00051	1.00	
PCB056	ND	0.0020	0.00076	1.00	
PCB060	ND	0.0020	0.00099	1.00	
PCB066	ND	0.0020	0.00057	1.00	
PCB070	ND	0.0020	0.00038	1.00	
PCB074	ND	0.0020	0.00043	1.00	
PCB077	ND	0.0020	0.00065	1.00	
PCB081	ND	0.0020	0.00048	1.00	
PCB087	ND	0.0020	0.00050	1.00	
PCB095	ND	0.0020	0.00082	1.00	
PCB097	ND	0.0020	0.00069	1.00	
PCB099	ND	0.0020	0.00060	1.00	
PCB101	ND	0.0020	0.00058	1.00	
PCB105	ND	0.0020	0.00038	1.00	
PCB110	ND	0.0020	0.00050	1.00	
PCB114	ND	0.0020	0.00044	1.00	
PCB118	ND	0.0020	0.00049	1.00	
PCB119	ND	0.0020	0.00043	1.00	
PCB123	ND	0.0020	0.00077	1.00	
PCB126	ND	0.0020	0.00055	1.00	
PCB128	ND	0.0020	0.00070	1.00	
PCB132/153	ND	0.0040	0.0012	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB137	ND	0.0020	0.00088	1.00	
PCB138/158	ND	0.0040	0.0011	1.00	
PCB141	ND	0.0020	0.00078	1.00	
PCB149	ND	0.0020	0.00050	1.00	
PCB151	ND	0.0020	0.00061	1.00	
PCB156	ND	0.0020	0.00051	1.00	
PCB157	ND	0.0020	0.00075	1.00	
PCB167	ND	0.0020	0.00087	1.00	
PCB168	ND	0.0020	0.00033	1.00	
PCB169	ND	0.0020	0.00056	1.00	
PCB170	ND	0.0020	0.00056	1.00	
PCB174	ND	0.0020	0.00055	1.00	
PCB177	ND	0.0020	0.00057	1.00	
PCB180	ND	0.0020	0.00072	1.00	
PCB183	ND	0.0020	0.00053	1.00	
PCB184	ND	0.0020	0.00049	1.00	
PCB187	ND	0.0020	0.00056	1.00	
PCB189	ND	0.0020	0.00040	1.00	
PCB194	ND	0.0020	0.00042	1.00	
PCB195	ND	0.0020	0.00035	1.00	
PCB200	ND	0.0020	0.00066	1.00	
PCB201	ND	0.0020	0.00072	1.00	
PCB203	ND	0.0020	0.00039	1.00	
PCB206	ND	0.0020	0.00026	1.00	
PCB209	ND	0.0020	0.00083	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	92	50-150	
p-Terphenyl-d14	89	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 624
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-06-23-16	16-06-1746-1-A	06/23/16 11:48	Aqueous	GC/MS WW	06/24/16	06/24/16 16:56	160624L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2-Chloroethyl Vinyl Ether	ND	2.0	0.51	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.14	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	115	80-126	
1,2-Dichloroethane-d4	118	80-134	
Toluene-d8	99	80-120	
1,4-Bromofluorobenzene	84	80-120	

Peninsula-RW101-06-23-16	16-06-1746-2-A	06/23/16 13:10	Aqueous	GC/MS WW	06/24/16	06/24/16 17:28	160624L019
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2-Chloroethyl Vinyl Ether	ND	2.0	0.51	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.14	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	115	80-126	
1,2-Dichloroethane-d4	119	80-134	
Toluene-d8	98	80-120	
1,4-Bromofluorobenzene	85	80-120	

Peninsula-RW2-06-23-16	16-06-1746-3-A	06/23/16 15:30	Aqueous	GC/MS WW	06/24/16	06/24/16 18:00	160624L019
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2-Chloroethyl Vinyl Ether	ND	2.0	0.51	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.14	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	112	80-126	
1,2-Dichloroethane-d4	118	80-134	
Toluene-d8	98	80-120	
1,4-Bromofluorobenzene	83	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 624
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-681-579	N/A	Aqueous	GC/MS WW	06/24/16	06/24/16 12:14	160624L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2-Chloroethyl Vinyl Ether	ND	2.0	0.51	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.14	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	111	80-126	
1,2-Dichloroethane-d4	113	80-134	
Toluene-d8	98	80-120	
1,4-Bromofluorobenzene	83	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 314.0

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	IC 13	N/A	06/25/16 16:19	160625S01
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	IC 13	N/A	06/25/16 17:25	160625S01
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	IC 13	N/A	06/25/16 17:41	160625S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Perchlorate	ND	2.500	2.181	87	2.228	89	80-120	2	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 7199

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	IC 12	N/A	06/24/16 11:09	160624S01
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	IC 12	N/A	06/24/16 11:36	160624S01
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	IC 12	N/A	06/24/16 11:46	160624S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	50.00	48.00	96	47.20	94	70-130	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 1664A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEMS1
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEMS1
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEMS1

Parameter	Sample Conc.	MS Spike	MS Conc.	MS %Rec.	MSD Spike	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
HEM: Oil and Grease	2.020	40.00	36.25	86	40.00	34.22	80	78-114	6	0-18	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 351.2

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	ACA 1	N/A	07/05/16 12:23	160705S01
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ACA 1	N/A	07/05/16 12:23	160705S01
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ACA 1	N/A	07/05/16 12:23	160705S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Total Kjeldahl Nitrogen	ND	1.000	1.365	137	1.356	136	90-110	1	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
Peninsula-RW1-06-23-16	Sample	Aqueous	ACA 1	N/A	06/30/16 12:57	160630S01				
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ACA 1	N/A	06/30/16 12:57	160630S01				
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ACA 1	N/A	06/30/16 12:57	160630S01				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Phosphorus, Total	ND	0.2000	0.2251	113	0.2279	114	90-110	1	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
Peninsula-RW1-06-23-16	Sample	Aqueous	ACA 1	N/A	06/29/16 13:52	160629S01				
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ACA 1	N/A	06/29/16 13:52	160629S01				
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ACA 1	N/A	06/29/16 13:52	160629S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phosphorus, Dissolved	ND	0.2000	0.2163	108	0.2208	110	90-110	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-F C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLS1
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLS1
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ISE 1	06/28/16	06/28/16 17:45	G0628FLS1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Fluoride	0.8800	0.5000	1.230	70	1.230	70	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-NH3 F

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
Peninsula-RW1-06-23-16	Sample	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3S1				
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3S1				
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3S1				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Ammonia (as N)	ND	10.00	8.700	87	8.600	86	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-NO3 E

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3S1
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3S1
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3S1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Nitrate-Nitrite (as N)	ND	0.5000	0.5426	109	0.5428	109	70-130	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5310 B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCS1
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCS1
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCS1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	1.645	10.00	10.94	93	8.992	73	31-145	20	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5540C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURS1
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURS1
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURS1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.8700	87	0.8800	88	70-130	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	GC 48	06/27/16	06/28/16 21:29	160627S12
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	GC 48	06/27/16	06/28/16 20:58	160627S12
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	GC 48	06/27/16	06/28/16 21:14	160627S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	4.000	2.839	71	3.862	97	55-133	31	0-30	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Total
Method: EPA 1640

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	ICP/MS 05	07/06/16	07/09/16 18:46	160706S02
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	ICP/MS 05	07/06/16	07/08/16 11:41	160706S02
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	ICP/MS 05	07/06/16	07/08/16 11:48	160706S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	0.1345	0.5000	0.4869	70	0.5480	83	50-150	12	0-20	
Arsenic	1.321	0.5000	1.872	110	1.620	60	50-150	14	0-20	
Beryllium	ND	5.000	4.466	89	4.142	83	50-150	8	0-20	
Cadmium	ND	0.5000	0.4051	81	0.4766	95	50-150	16	0-20	
Chromium	ND	5.000	5.774	115	6.409	128	50-150	10	0-20	
Copper	0.6519	0.5000	0.9343	56	0.8470	39	50-150	10	0-20	3
Lead	ND	0.5000	0.3364	67	0.4933	99	50-150	38	0-20	4
Nickel	2.169	0.5000	2.947	4X	1.842	4X	50-150	4X	0-20	Q
Selenium	ND	0.5000	0.5451	109	0.4462	89	50-150	20	0-20	
Silver	ND	0.2500	0.3744	150	0.4050	162	50-150	8	0-20	3
Thallium	ND	0.5000	0.3157	63	0.3437	69	50-150	8	0-20	
Zinc	0.6962	5.000	5.444	95	5.692	100	50-150	4	0-20	
Aluminum	1.621	5.000	5.818	84	5.270	73	50-150	10	0-20	
Iron	6.744	5.000	21.48	295	19.61	257	50-150	9	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Total
Method: EPA 7470A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	Mercury 04	06/30/16	06/30/16 15:47	160630SA1A
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	Mercury 05	06/28/16	07/01/16 13:29	160630SA1A
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	Mercury 05	06/28/16	07/01/16 13:31	160630SA1A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	10.00	9.498	95	9.560	96	55-133	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Filt.
Method: EPA 7470A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-06-1724-4	Sample	Aqueous	Mercury 04	06/28/16	06/29/16 12:00	160628SA3
16-06-1724-4	Matrix Spike	Aqueous	Mercury 04	06/28/16	06/29/16 12:02	160628SA3
16-06-1724-4	Matrix Spike Duplicate	Aqueous	Mercury 04	06/28/16	06/29/16 12:09	160628SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	10.00	10.86	109	12.05	121	55-133	10	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
Peninsula-RW1-06-23-16	Sample	Aqueous	GC/MS JJJ	06/29/16	06/30/16 13:41	160629S14				
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	GC/MS JJJ	06/29/16	06/30/16 13:05	160629S14				
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	GC/MS JJJ	06/29/16	06/30/16 13:23	160629S14				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	ND	20.00	13.05	65	15.07	75	37-144	14	0-20	
2,4-Dichlorophenol	ND	20.00	13.50	67	15.82	79	39-135	16	0-20	
2-Methylphenol	ND	20.00	14.74	74	16.65	83	50-130	12	0-20	
2-Nitrophenol	ND	20.00	12.64	63	15.09	75	29-182	18	0-20	
4-Chloro-3-Methylphenol	ND	20.00	13.98	70	16.71	84	58-130	18	0-27	
Acenaphthene	ND	20.00	13.81	69	15.69	78	46-136	13	0-19	
Benzo (a) Pyrene	ND	20.00	17.15	86	20.19	101	17-163	16	0-20	
Chrysene	ND	20.00	13.79	69	16.19	81	17-168	16	0-20	
Di-n-Butyl Phthalate	ND	20.00	13.54	68	16.71	84	1-118	21	0-20	4
Dimethyl Phthalate	ND	20.00	13.67	68	15.63	78	50-150	13	0-20	
Fluoranthene	ND	20.00	14.66	73	17.29	86	26-137	16	0-20	
Fluorene	ND	20.00	14.24	71	16.37	82	50-150	14	0-20	
Naphthalene	ND	20.00	13.30	66	15.55	78	50-150	16	0-20	
Phenanthrene	ND	20.00	14.43	72	17.32	87	54-120	18	0-20	
Phenol	ND	20.00	15.11	76	17.25	86	6-138	13	0-39	
Pyrene	ND	20.00	14.81	74	17.08	85	39-165	14	0-56	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8082

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	GC 66	06/29/16	07/01/16 01:20	160629S18
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	GC 66	06/29/16	07/01/16 00:45	160629S18
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	GC 66	06/29/16	07/01/16 01:02	160629S18

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	1.000	1.100	110	1.065	106	50-135	3	0-25	
Aroclor-1260	ND	1.000	1.095	110	1.035	104	50-135	6	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 8151A
Method: EPA 8151A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	GC 40	06/29/16	07/02/16 14:49	160629S15
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	GC 40	06/29/16	07/02/16 14:05	160629S15
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	GC 40	06/29/16	07/02/16 14:28	160629S15

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	ND	20.00	18.40	92	22.33	112	30-130	19	0-30	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW2-06-23-16	Sample	Aqueous	GC/MS HHH	06/30/16	07/01/16 14:09	160630S02
Peninsula-RW2-06-23-16	Matrix Spike	Aqueous	GC/MS HHH	06/30/16	07/01/16 14:34	160630S02
Peninsula-RW2-06-23-16	Matrix Spike Duplicate	Aqueous	GC/MS HHH	06/30/16	07/01/16 14:59	160630S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	0.5000	0.4356	87	0.4263	85	50-150	2	0-25	
PCB028	ND	0.5000	0.4432	89	0.4455	89	50-150	1	0-25	
PCB044	ND	0.5000	0.4339	87	0.4310	86	50-150	1	0-25	
PCB052	ND	0.5000	0.4435	89	0.4446	89	50-150	0	0-25	
PCB066	ND	0.5000	0.5060	101	0.5096	102	50-150	1	0-25	
PCB077	ND	0.5000	0.4178	84	0.4392	88	50-150	5	0-25	
PCB101	ND	0.5000	0.4182	84	0.4226	85	50-150	1	0-25	
PCB105	ND	0.5000	0.4587	92	0.4544	91	50-150	1	0-25	
PCB118	ND	0.5000	0.4673	93	0.4788	96	50-150	2	0-25	
PCB126	ND	0.5000	0.4080	82	0.4219	84	50-150	3	0-25	
PCB128	ND	0.5000	0.3994	80	0.4191	84	50-150	5	0-25	
PCB170	ND	0.5000	0.4282	86	0.4293	86	50-150	0	0-25	
PCB180	ND	0.5000	0.4441	89	0.4591	92	50-150	3	0-25	
PCB187	ND	0.5000	0.4154	83	0.4222	84	50-150	2	0-25	
PCB195	ND	0.5000	0.4140	83	0.4298	86	50-150	4	0-25	
PCB206	ND	0.5000	0.4053	81	0.4176	84	50-150	3	0-25	
PCB209	ND	0.5000	0.3947	79	0.4039	81	50-150	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 624

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
Peninsula-RW1-06-23-16	Sample	Aqueous	GC/MS WW	06/24/16	06/24/16 16:56	160624S010				
Peninsula-RW1-06-23-16	Matrix Spike	Aqueous	GC/MS WW	06/24/16	06/24/16 19:05	160624S010				
Peninsula-RW1-06-23-16	Matrix Spike Duplicate	Aqueous	GC/MS WW	06/24/16	06/24/16 19:37	160624S010				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Methyl-t-Butyl Ether (MTBE)	ND	50.00	49.82	100	50.66	101	70-124	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2130 B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	TUR 3	N/A	06/24/16 21:54	G0624TURD2
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	TUR 3	N/A	06/24/16 21:54	G0624TURD2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Turbidity	1.290	1.360	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2320B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKD3
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKD3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Alkalinity, Total (as CaCO ₃)	109.0	108.0	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2340C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARD2
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	BUR21	N/A	06/25/16 17:15	G0625HARD2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Hardness, Total (as CaCO ₃)	6010	6060	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	SC 2	06/24/16 00:00	06/24/16 15:00	G0624TDSD2
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	SC 2	06/24/16 00:00	06/24/16 15:00	G0624TDSD2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	35300	34740	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 D

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-06-1682-2	Sample	Aqueous	N/A	06/29/16 00:00	06/29/16 19:30	G0629TSSD1
16-06-1682-2	Sample Duplicate	Aqueous	N/A	06/29/16 00:00	06/29/16 19:30	G0629TSSD1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Suspended	734.0	724.0	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-Cl C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCD1
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	BUR02	N/A	06/27/16 14:30	G0627CLCD1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chloride	20310	20010	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5210 B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	BOD 1	06/24/16 00:00	06/29/16 15:40	G0624BODD1
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	BOD 1	06/24/16 00:00	06/29/16 15:40	G0624BODD1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Biochemical Oxygen Demand	1.900	2.000	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC 27201 Puerta Real, Suite 350 Mission Viejo, CA 92691-8306 Project: PV Peninsula Receiving Water Sampling	Date Received: 06/23/16 Work Order: 16-06-1746 Preparation: N/A Method: SM 5220 C Page 8 of 8
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
Peninsula-RW1-06-23-16	Sample	Aqueous	BUR16	06/30/16 00:00	06/30/16 14:05	G0630ODD1
Peninsula-RW1-06-23-16	Sample Duplicate	Aqueous	BUR16	06/30/16 00:00	06/30/16 14:05	G0630ODD1
<u>Parameter</u>		<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chemical Oxygen Demand		284.0	280.0	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 314.0

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-242-475	LCS	Aqueous	IC 13	N/A	06/25/16 12:11	160625L01
099-16-242-475	LCSD	Aqueous	IC 13	N/A	06/25/16 16:03	160625L01

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Perchlorate	0.02500	0.02200	88	0.02235	89	85-115	2	0-15	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 7199

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-123-4212	LCS	Aqueous	IC 12	N/A	06/24/16 09:41	160624L01

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium, Hexavalent	50.00	48.73	97	80-120	

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Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 1664A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-119-4361	LCS	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1
099-05-119-4361	LCSD	Aqueous	N/A	07/05/16	07/05/16 14:00	G0705HEML1

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
HEM: Oil and Grease	40.00	38.40	96	39.50	99	78-114	3	0-18	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 351.2

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-741-215	LCS	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01			
099-12-741-215	LCSD	Aqueous	ACA 1	N/A	07/05/16 12:23	160705L01			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Total Kjeldahl Nitrogen	1.000	0.9741	97	0.9456	95	90-110	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-739-153	LCS	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01			
099-12-739-153	LCSD	Aqueous	ACA 1	N/A	06/30/16 12:57	160630L01			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Phosphorus, Total	0.2000	0.1997	100	0.1977	99	90-110	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 365.1

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-349-24	LCS	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A			
099-14-349-24	LCSD	Aqueous	ACA 1	N/A	06/29/16 13:52	160629L01A			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Phosphorus, Dissolved	0.2000	0.1963	98	0.2020	101	90-110	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 420.1

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-05-085-2997	LCS	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1			
099-05-085-2997	LCSD	Aqueous	UV 8	06/24/16	06/24/16 17:37	G0624PHEL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Phenolics, Total	0.5000	0.4600	92	0.4700	94	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2320B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-859-1015	LCS	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2			
099-15-859-1015	LCSD	Aqueous	PH1/BUR03	N/A	06/27/16 20:00	G0627ALKB2			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Alkalinity, Total (as CaCO3)	100.0	97.00	97	99.00	99	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-180-5140	LCS	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1			
099-12-180-5140	LCSD	Aqueous	SC 2	06/24/16	06/24/16 15:00	G0624TDSL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Dissolved	100.0	95.00	95	90.00	90	80-120	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 2540 D

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-09-010-7782	LCS	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1			
099-09-010-7782	LCSD	Aqueous	N/A	06/29/16	06/29/16 19:30	G0629TSSL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Suspended	100.0	96.00	96	98.00	98	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-CN E

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-357-214	LCS	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2
099-14-357-214	LCSD	Aqueous	UV 9	06/30/16	06/30/16 19:39	G0630CNL2

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cyanide, Total	0.01000	0.009930	99	0.009850	98	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-F C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
097-01-022-709	LCS	Aqueous		ISE 1	06/28/16	06/28/16 17:45	G0628FLL1			
097-01-022-709	LCSD	Aqueous		ISE 1	06/28/16	06/28/16 17:45	G0628FLL1			
Parameter	Spike Added	LCS	Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Fluoride	0.5000	0.5420		108	0.5490	110	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-NH3 F

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-052-506	LCS	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1			
099-12-052-506	LCSD	Aqueous	ISE 1	06/30/16	06/30/16 16:39	G0630NH3L1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Ammonia (as N)	10.00	8.700	87	8.800	88	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 4500-NO3 E

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-282-418	LCS	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1			
099-14-282-418	LCSD	Aqueous	UV 9	06/24/16	06/24/16 21:38	G0624NO3L1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Nitrate-Nitrite (as N)	0.5000	0.4737	95	0.4718	94	80-120	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5310 B

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-05-097-5854	LCS	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1			
099-05-097-5854	LCSD	Aqueous	TOC 11	06/29/16	06/30/16 00:28	G0629TOCL1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	10.00	8.378	84	8.530	85	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: SM 5540C

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-05-093-3094	LCS	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1			
099-05-093-3094	LCSD	Aqueous	UV 8	06/24/16	06/24/16 17:56	G0624SURL1			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	1.000	0.9300	93	0.9100	91	80-120	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-498-376	LCS	Aqueous	GC 48	06/27/16	06/27/16 18:21	160627B12			
099-15-498-376	LCSD	Aqueous	GC 48	06/27/16	06/27/16 18:36	160627B12			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	4.000	4.296	107	4.230	106	75-117	2	0-13	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Total
Method: EPA 1640

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-13-067-611	LCS	Aqueous	ICP/MS 05	07/06/16	07/08/16 15:46	160706L02
099-13-067-611	LCSD	Aqueous	ICP/MS 05	07/06/16	07/08/16 15:54	160706L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	0.5000	0.4546	91	0.4634	93	70-130	60-140	2	0-20	
Arsenic	0.5000	0.4616	92	0.4565	91	70-130	60-140	1	0-20	
Beryllium	5.000	4.628	93	4.570	91	70-130	60-140	1	0-20	
Cadmium	0.5000	0.4544	91	0.4507	90	70-130	60-140	1	0-20	
Chromium	5.000	4.839	97	4.723	94	70-130	60-140	2	0-20	
Copper	0.5000	0.4707	94	0.4595	92	70-130	60-140	2	0-20	
Lead	0.5000	0.4445	89	0.4406	88	70-130	60-140	1	0-20	
Nickel	0.5000	0.4792	96	0.4619	92	70-130	60-140	4	0-20	
Selenium	0.5000	0.4605	92	0.4521	90	70-130	60-140	2	0-20	
Silver	0.2500	0.2726	109	0.2467	99	70-130	60-140	10	0-20	
Thallium	0.5000	0.4631	93	0.4879	98	70-130	60-140	5	0-20	
Zinc	5.000	4.587	92	4.544	91	70-130	60-140	1	0-20	
Aluminum	5.000	4.690	94	4.751	95	70-130	60-140	1	0-20	
Iron	5.000	5.248	105	5.178	104	70-130	60-140	1	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3005A Filt.
Method: EPA 1640

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-823-209	LCS	Aqueous	ICP/MS 05	07/06/16	07/08/16 15:46	160706L02F
099-15-823-209	LCSD	Aqueous	ICP/MS 05	07/06/16	07/08/16 15:54	160706L02F

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	0.5000	0.4546	91	0.4634	93	70-130	60-140	2	0-20	
Arsenic	0.5000	0.4616	92	0.4565	91	70-130	60-140	1	0-20	
Beryllium	5.000	4.628	93	4.570	91	70-130	60-140	1	0-20	
Cadmium	0.5000	0.4544	91	0.4507	90	70-130	60-140	1	0-20	
Chromium	5.000	4.839	97	4.723	94	70-130	60-140	2	0-20	
Copper	0.5000	0.4707	94	0.4595	92	70-130	60-140	2	0-20	
Lead	0.5000	0.4445	89	0.4406	88	70-130	60-140	1	0-20	
Nickel	0.5000	0.4792	96	0.4619	92	70-130	60-140	4	0-20	
Selenium	0.5000	0.4605	92	0.4521	90	70-130	60-140	2	0-20	
Silver	0.2500	0.2726	109	0.2467	99	70-130	60-140	10	0-20	
Thallium	0.5000	0.4631	93	0.4879	98	70-130	60-140	5	0-20	
Zinc	5.000	4.587	92	4.544	91	70-130	60-140	1	0-20	
Aluminum	5.000	4.690	94	4.751	95	70-130	60-140	1	0-20	
Iron	5.000	5.248	105	5.178	104	70-130	60-140	1	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Total
Method: EPA 7470A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-7908	LCS	Aqueous	Mercury 04	06/30/16	06/30/16 14:34	160630LA1A
099-04-008-7908	LCSD	Aqueous	Mercury 05	06/30/16	07/01/16 13:26	160630LA1A

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	10.00	9.089	91	10.50	105	80-120	14	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 7470A Filt.
Method: EPA 7470A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-763-786	LCS	Aqueous	Mercury 04	07/28/16	06/29/16 11:57	160628LA3A
099-15-763-786	LCSD	Aqueous	Mercury 05	07/28/16	07/01/16 13:24	160628LA3A

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	10.00	9.818	98	10.54	105	80-120	7	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3520C
Method: EPA 625 SIM

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-700-20	LCS	Aqueous		GC/MS JJJ	06/29/16	06/30/16 12:14	160629L14			
099-16-700-20	LCSD	Aqueous		GC/MS JJJ	06/29/16	06/30/16 12:42	160629L14			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	20.00	12.48	62	12.78	64	37-144	19-162	2	0-20	
2,4-Dichlorophenol	20.00	13.32	67	14.24	71	39-135	23-151	7	0-20	
2-Methylphenol	20.00	14.35	72	15.09	75	50-130	37-143	5	0-20	
2-Nitrophenol	20.00	12.48	62	13.38	67	29-182	4-208	7	0-20	
4-Chloro-3-Methylphenol	20.00	13.76	69	14.47	72	55-121	44-132	5	0-18	
Acenaphthene	20.00	13.43	67	13.96	70	55-139	41-153	4	0-17	
Benzo (a) Pyrene	20.00	17.25	86	17.43	87	17-163	0-187	1	0-20	
Chrysene	20.00	13.84	69	14.14	71	17-168	0-193	2	0-20	
Di-n-Butyl Phthalate	20.00	12.92	65	13.85	69	1-118	0-138	7	0-20	
Dimethyl Phthalate	20.00	13.06	65	13.44	67	0-112	0-131	3	0-20	
Fluoranthene	20.00	14.36	72	15.18	76	26-137	8-156	6	0-20	
Fluorene	20.00	14.15	71	13.83	69	59-121	49-131	2	0-20	
Naphthalene	20.00	13.36	67	14.02	70	21-133	2-152	5	0-20	
Phenanthrene	20.00	14.29	71	14.89	74	54-120	43-131	4	0-20	
Phenol	20.00	14.67	73	15.51	78	4-142	0-165	6	0-24	
Pyrene	20.00	14.63	73	14.72	74	38-170	16-192	1	0-27	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8082

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-527-510	LCS	Aqueous	GC 66	06/29/16	06/30/16 23:51	160629L18			
099-12-527-510	LCSD	Aqueous	GC 66	06/29/16	07/01/16 00:09	160629L18			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Aroclor-1016	1.000	1.015	102	1.020	102	50-135	0	0-25	
Aroclor-1260	1.000	0.9700	97	0.9400	94	50-135	3	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 8151A
Method: EPA 8151A

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
095-01-034-691	LCS	Aqueous	GC 40	06/29/16	07/02/16 15:58	160629L15			
095-01-034-691	LCSD	Aqueous	GC 40	06/29/16	07/02/16 16:21	160629L15			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-D	20.00	17.15	86	16.85	84	30-130	2	0-30	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C PEST-SIM

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-186-25	LCS	Aqueous	GC/MS BBB	06/30/16	07/05/16 17:36	160630L03
099-16-186-25	LCSD	Aqueous	GC/MS BBB	06/30/16	07/05/16 17:52	160630L03

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	0.05000	0.03034	61	0.02929	59	25-200	0-229	4	0-25	
Alpha Chlordane	0.05000	0.02888	58	0.03503	70	25-200	0-229	19	0-25	
Alpha-BHC	0.05000	0.03210	64	0.03119	62	25-200	0-229	3	0-25	
Beta-BHC	0.05000	0.03011	60	0.02692	54	25-200	0-229	11	0-25	
4,4'-DDD	0.05000	0.02703	54	0.03320	66	25-200	0-229	20	0-25	
4,4'-DDE	0.05000	0.02822	56	0.03347	67	25-200	0-229	17	0-25	
4,4'-DDT	0.05000	0.03169	63	0.03565	71	25-200	0-229	12	0-25	
Delta-BHC	0.05000	0.03531	71	0.02918	58	25-200	0-229	19	0-25	
Dieldrin	0.05000	0.02725	54	0.03272	65	25-200	0-229	18	0-25	
Endosulfan I	0.05000	0.02567	51	0.03156	63	25-200	0-229	21	0-25	
Endosulfan II	0.05000	0.03258	65	0.04063	81	25-200	0-229	22	0-25	
Endosulfan Sulfate	0.05000	0.03160	63	0.02819	56	25-200	0-229	11	0-25	
Endrin	0.05000	0.01892	38	0.02046	41	25-200	0-229	8	0-25	
Endrin Aldehyde	0.05000	0.02690	54	0.02788	56	25-200	0-229	4	0-25	
Endrin Ketone	0.05000	0.03135	63	0.03110	62	25-200	0-229	1	0-25	
Gamma Chlordane	0.05000	0.03336	67	0.03014	60	25-200	0-229	10	0-25	
Gamma-BHC	0.05000	0.03318	66	0.02899	58	25-200	0-229	13	0-25	
Heptachlor	0.05000	0.03171	63	0.02919	58	25-200	0-229	8	0-25	
Heptachlor Epoxide	0.05000	0.03244	65	0.02865	57	25-200	0-229	12	0-25	
Methoxychlor	0.05000	0.03298	66	0.03818	76	25-200	0-229	15	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: EPA 3510C
Method: EPA 8270C SIM PCB Congeners

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-414-73	LCS	Aqueous	GC/MS HHH	06/30/16	07/01/16 12:28	160630L02
099-16-414-73	LCSD	Aqueous	GC/MS HHH	06/30/16	07/01/16 12:53	160630L02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	0.5000	0.4065	81	0.4364	87	50-150	33-167	7	0-25	
PCB028	0.5000	0.4302	86	0.4487	90	50-150	33-167	4	0-25	
PCB044	0.5000	0.4124	82	0.4251	85	50-150	33-167	3	0-25	
PCB052	0.5000	0.4304	86	0.4457	89	50-150	33-167	4	0-25	
PCB066	0.5000	0.4984	100	0.4963	99	50-150	33-167	0	0-25	
PCB077	0.5000	0.4295	86	0.4186	84	50-150	33-167	3	0-25	
PCB101	0.5000	0.4076	82	0.4060	81	50-150	33-167	0	0-25	
PCB105	0.5000	0.4427	89	0.4288	86	50-150	33-167	3	0-25	
PCB118	0.5000	0.4679	94	0.4547	91	50-150	33-167	3	0-25	
PCB126	0.5000	0.4121	82	0.3993	80	50-150	33-167	3	0-25	
PCB128	0.5000	0.4103	82	0.3973	79	50-150	33-167	3	0-25	
PCB170	0.5000	0.4194	84	0.4324	86	50-150	33-167	3	0-25	
PCB180	0.5000	0.4490	90	0.4300	86	50-150	33-167	4	0-25	
PCB187	0.5000	0.4066	81	0.4012	80	50-150	33-167	1	0-25	
PCB195	0.5000	0.4222	84	0.4103	82	50-150	33-167	3	0-25	
PCB206	0.5000	0.4050	81	0.4269	85	50-150	33-167	5	0-25	
PCB209	0.5000	0.3857	77	0.4107	82	50-150	33-167	6	0-25	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 06/23/16
Work Order: 16-06-1746
Preparation: N/A
Method: EPA 624

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-681-579	LCS	Aqueous	GC/MS WW	06/24/16	06/24/16 09:28	160624L019			
099-15-681-579	LCSD	Aqueous	GC/MS WW	06/24/16	06/24/16 10:00	160624L019			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2-Chloroethyl Vinyl Ether	50.00	41.65	83	43.38	87	11-161	4	0-23	
Methyl-t-Butyl Ether (MTBE)	50.00	47.27	95	48.37	97	73-127	2	0-20	


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RPD: Relative Percent Difference. CL: Control Limits

Glossary of Terms and Qualifiers

Work Order: 16-06-1746

Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. 
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Parameter	Container Size and Type (per station)	QA/QC needed	Holding Time	Preservative
Required Parameters				
Total suspended solids (TSS)	1 L HDPE	1 lab dup, 1 field dup	7 days	None
Hardness	250 mL HDPE	1 lab dup, 1 field dup	48 hours until preservation	None
			6 months to analysis; 28 days for mercury	HNO ₃ to pH < 2
PCB Congeners	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	None ¹	None
Chlorinated pesticides ²	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	14 days to extraction	None
			40 days after extraction	None
Bacteria	3 x 125 mL sterile container	field dup (3 bottles)	6 hours	None
Additional Parameters (from MS4 Permit Table E-2, as necessary)				
Conventionals				
Ammonia	1 L amber glass	1 lab dup, 1 field dup	Field preservation; 28 days to analysis	H ₂ SO ₄ to pH < 2
Chemical oxygen demand (COD)	250 mL glass	1 lab dup, 1 field dup		
Nitrate + nitrite	125 mL HDPE	MS/MSD: 2 bottles, 1 field dup		
Total Kjeldahl nitrogen (TKN)	1 L amber glass	1 lab dup, 1 field dup		
Biological oxygen demand (BOD)	1 L HDPE	1 lab dup, 1 field dup	48 hours	None
Alkalinity	250 mL HDPE	1 lab dup, 1 field dup	14 days	
Methylene blue active substances (MBAS)	500 mL HDPE	MS/MSD: 2 bottles, 1 field dup	48 hours	
Total dissolved solids (TDS)	1 L HDPE	1 lab dup, 1 field dup	7 days	
Total suspended solids (TSS)	1 L HDPE	1 lab dup, 1 field dup	7 days	
Turbidity	125 mL HDPE		48 hours	
Volatile suspended solids (VSS)	1 L HDPE	1 field dup	7 days	
Fluoride, chloride	250 mL HDPE	1 field dup	28 days	
Perchlorate	125 mL/100 mL sterile HDPE	MS/MSD: 2 bottles, 1 field dup	28 days	
Total phosphorous	250 mL glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Dissolved phosphorous	250 mL glass	MS/MSD: 2 bottles, 1 field dup	28 days	None
Total organic carbon	250 mL amber glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Cyanide	1 L HDPE	1 lab dup, 1 field dup	14 days	NaOH
Oil and grease ²	2 x 1 L glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Phenolics	500 mL amber glass	MS/MSD: 2 bottles, 1 field dup	28 days	H ₂ SO ₄ to pH < 2
Petroleum Hydrocarbons				
TPH-Diesel, TPH-motor oil ²	2 x 500 mL amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days to analysis	
Metals				
Total metals, hardness	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	48 hours until preservation	None
			6 months to analysis; 28 days for mercury	HNO ₃ to pH < 2
Dissolved metals	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	Field filter ³ ; 48 hours until preservation	None
			6 months to analysis; 28 days for mercury	None
Total hexavalent chromium	250 mL HDPE	MS/MSD: 2 bottles, 1 field dup	24 hours	None
Dissolved hexavalent chromium	250-mL HDPE		24 hours	None
Organics				
PCB (Aroclors and congeners)	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	None ¹	None
Semivolatile organic compounds	2 x 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days to analysis	

grayed out rows are repetitive and not counted as bottles

fluoride/chloride is wet chemistry

organophosphate/organochlorine pesticides are same container

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Volatile organic compounds (VOCs) ⁴	3 x 40 mL vial	MS/MSD: 2 bottles, 1 field dup	14 days to analysis	HCl to pH < 2, no headspace
Organochlorine pesticides	2 X 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days after extraction	None
Organophosphate pesticides ²	2 X 1 L amber glass	1 field dup	7 days to extraction	None
			40 days after extraction	None
Chlorinated herbicides	2 X 1 L amber glass	MS/MSD: 2 bottles, 1 field dup	7 days to extraction	None
			40 days after extraction	None
Glyphosate ⁴	1 x 40 mL amber glass vial	MS/MSD: 3 vials, 1 field dup	7 days to extraction	None
			40 days after extraction	None

Notes:

Recommendations are intended as guidance only. The selection of sample container and amount of sample required may vary per the contracted laboratory's sampling requirements.

1 = PCB hold time was removed in SW-846, Chapter 4, Revision 4, February 2007 for aqueous and solid samples stored cool ≤6°C.

2 = Collect two additional bottles for MS/MSD sample analysis.

3 = Dissolved metals samples will be filtered upon receipt at the analytical laboratory.

4 = Collect three additional vials for MS/MSD sample analysis.

HDPE = high-density polyethylene

L = liter

LDPE = low-density polyethylene

mL = milliliter

MS = matrix spike

MSD = matrix spike duplicate

PCB = polychlorinated biphenyl

TIE = toxicity identification evaluation

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 6

DATE: 06/23/2016

CLIENT: Anchor

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.5 °C (w/ CF): 2.5 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR
CUSTODY SEAL:

Cooler ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: SR

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 1017
SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC ☐ Yes ☒ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☐ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☒ Volatile Organics ☐ Total Metals ☒ Dissolved Metals

Container(s) for certain analysis free of headspace ☐ Yes ☒ No ☐ N/A

☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☒ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☒ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 125PB

☐ 125PB_{znna} ☐ 250AGB ☒ 250CGB ☐ 250CGB_s ☒ 250PB ☒ 250PB_n ☐ 500AGB ☐ 500AGJ ☒ 500AGJs

☒ 500PB ☒ 1AGB ☐ 1AGB_{na2} ☒ 1AGBs ☒ 1PB ☒ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: CS

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 6

DATE: 06 / 23 / 2016

CLIENT: Anchor

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.9 °C (w/ CF): 2.9 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: SR

Checked by: 10/7

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time			
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AG_j ☐ 500AG_{js}

☐ 500PB ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☒ 1PB ☒ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 10/7

Reviewed by: SR

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 6

DATE: 06 / 23 / 2016

CLIENT: Anchor

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.0 °C (w/ CF): 3.0 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: SR

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Container(s) for certain analysis free of headspace	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☒ VOA ☐ VOA_h ☐ VOA_{na} ☐ 100PJ ☐ 100PJ_{na} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s

☐ 500PB ☐ 1AGB ☐ 1AGB_{na} ☒ 1AGB_s ☒ 1PB ☒ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

Reviewed by: GBI

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

SAMPLE RECEIPT CHECKLIST

COOLER 4 OF 6

DATE: 06 / 23 / 2016

CLIENT: Anchor

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR
CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: SR

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017
SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals ☐ Yes ☐ No ☒ N/A

Container(s) for certain analysis free of headspace ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach) ☐ Yes ☐ No ☒ N/A

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☒ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 125PB

☐ 125PB_{znna} ☐ 250AGB ☒ 250CGB ☒ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJs

☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGBs ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 681

SAMPLE RECEIPT CHECKLIST

COOLER 5 OF 6

DATE: 06 / 23 / 2016

CLIENT: Anchor

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3.0 °C (w/ CF): 3.0 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: SR

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes ☒ No ☐ N/A ☐

COC document(s) received complete Yes ☒ No ☐ N/A ☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC Yes ☒ No ☐ N/A ☐

Sample container label(s) consistent with COC Yes ☒ No ☐ N/A ☐

Sample container(s) intact and in good condition Yes ☒ No ☐ N/A ☐

Proper containers for analyses requested Yes ☒ No ☐ N/A ☐

Sufficient volume/mass for analyses requested Yes ☒ No ☐ N/A ☐

Samples received within holding time Yes ☒ No ☐ N/A ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen Yes ☐ No ☐ N/A ☒

Proper preservation chemical(s) noted on COC and/or sample container Yes ☒ No ☐ N/A ☐

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals Yes ☐ No ☐ N/A ☒

Container(s) for certain analysis free of headspace Yes ☐ No ☐ N/A ☒
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes ☐ No ☐ N/A ☒

CONTAINER TYPE:

(Trip Blank Lot Number:)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☒ 250PB ☒ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s
☒ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ ☐ ☐ ☐

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® () ☐ TerraCores® () ☐

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ Other Matrix (): ☐ ☐

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

Reviewed by: 1021

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

SAMPLE RECEIPT CHECKLIST

COOLER 6 OF 6

CLIENT: Anchor

DATE: 06 / 23 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 2.6 °C (w/ CF): 2.6 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: SR

CUSTODY SEAL:

Cooler ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: SR

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 1017

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number:)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 250PB ☐ 250PB_n ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s
☐ 500PB ☒ 1AGB ☐ 1AGB_{na2} ☒ 1AGB_s ☒ 1PB ☐ 1PB_{na} ☐ ☐ ☐ ☐

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® () ☐ TerraCores® () ☐

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ Other Matrix (): ☐ ☐

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1017

Reviewed by: 681

s = H₂SO₄, u = ultra-pure, znna = Zn (CH₃CO₂)₂ + NaOH

SAMPLE ANOMALY REPORT

DATE: 06/23/2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☒ Client sample label(s) do not match COC (comment)
- ☐ Project information
- ☐ Client sample ID
- ☐ Sampling date and/or time
- ☒ Number of container(s)
- ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
- ☐ Broken
- ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
- ☐ Flat
- ☐ Very low in volume
- ☐ Leaking (not transferred; duplicate bag submitted)
- ☐ Leaking (transferred into ECI Tedlar™ bags*)
- ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

MISCELLANEOUS: (Describe)

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**
2	E	5			

Comments: _____

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Comments

(-1) Received 69 containers instead of 73.
 7 x 1 Liter Plastic bottle
 13 x 1 Liter Amber glass bottle
 2 x 500 mL Plastic bottle
 10 x 250 mL Plastic bottle
 2 x 250 mL Clear glass bottle
 2 x 125 mL Amber glass bottle
 8 x 250 mL Clear glass bottle w/ Sulfuric
 10 x vials w/ ~~100~~ 123116 mL (unpreserved)
 2 x 1 Liter Plastic bottle w/ NaOH
 7 x 1 A6B w/ Sulfuric
 2 x 500 mL Amber glass bottle w/ Sulfuric
 2 x 250 mL Plastic bottle w/ Nitric Acid
 2 x 125 mL Plastic bottle

(-3) Received 37 instead of 33.

* See Container type *

Extra bottle received for:

-OC Pesticide

-PCB

-SVOA

-oil & grease

3 x 1 Liter Amber glass bottle

1 x 1 Liter Amber glass bottle w/ Sulfuric Acid

Comments

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Reported by: 1017

Reviewed by: 681

Carla Hollowell

From: Cindy Fields <cfields@anchorqea.com>
Sent: Tuesday, June 28, 2016 12:29 PM
To: Carla Hollowell; Andy Martin
Cc: Claire Dolphin; Michele Castro
Subject: RE: PV Peninsula Receiving Water Sampling - 16-06-1746 - Sample Receipt Confirmation & COC Document

Hi Carla,

I responded yesterday at 3:58 pm, did you not get that email? It had the following responses and both of our SAPs attached.

Here were my responses:

- COC is marked for Fecal Bacterial analyses, but bottles were not received (and holding time was at / past expiration when samples were submitted). **You can ignore; these samples were hand-delivered to AMS Labs.**
- We found some discrepancies between the different tables that we received – the request for TPH is written as “Total Petroleum Hydrocarbons”; table in App B has TPH listed as diesel and motor oil range; Michele Castro built the quote for this project based on us reporting a total number for TPH that covered both the motor oil and diesel ranges. Please confirm – would you like us to report one number OR one concentration value for TPH-mo and another concentration value for TPH-d? **1 number to cover both ranges.**
- PCB Congeners is requested in Table 4 (referenced on the COC), but not requested in Table E2. Please confirm – is this a requirement for this set of samples? **Yes please**

The COC is marked for sample -1 to be used as the MS/MSD and as the laboratory duplicate; We did not receive enough bottles to use sample #1 as both the MS/MSD for all analyses and create a laboratory duplicate for all analyses. Would you like us to use sample #1 as either the MS/MSD or the laboratory duplicate (when an MS/MSD would not be reported)? **Yes please** Or would you like us to create another sample (ie. Lab Duplicate Sample Peninsula-RW1-06-23-16) and run for all analyses requested for sample #1? **No thanks.** Please confirm.

Let me know if you still have questions.

Cindy Fields
 Scientist

ANCHOR QEA, LLC
cfields@anchorqea.com
 D 206.903.3394
 C 206.326.8170

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From: Carla Hollowell [mailto:CarlaHollowell@eurofinsUS.com]
Sent: Tuesday, June 28, 2016 12:19 PM
To: Andy Martin <amartin@anchorqea.com>
Cc: Cindy Fields <cfields@anchorqea.com>; Claire Dolphin <cdolphin@anchorqea.com>; Michele Castro

ATTACHMENT B-2
CHEMISTRY LABORATORY REPORT



WORK ORDER NUMBER: 16-08-1854

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: PV Peninsula Receiving Water Sampling

Attention: Andrew Martin
27201 Puerta Real
Suite 350
Mission Viejo, CA 92691-8306

A handwritten signature in black ink, appearing to read "Carla Hollowell".

Approved for release on 09/29/2016 by:
Carla Hollowell
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: PV Peninsula Receiving Water Sampling
 Work Order Number: 16-08-1854

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Work Order: 16-08-1854

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/25/16. They were assigned to Work Order 16-08-1854.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 16-08-1854
27201 Puerta Real, Suite 350	Project Name: PV Peninsula Receiving Water Sampling
Mission Viejo, CA 92691-8306	PO Number: 161338-01.01
	Date/Time Received: 08/25/16 14:12
	Number of Containers: 11

Attn: Andrew Martin

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
Peninsula-RW1-08-25-16	16-08-1854-1	08/25/16 10:50	4	Aqueous
Peninsula-RW101-08-25-16	16-08-1854-2	08/25/16 10:45	3	Aqueous
Peninsula-RW2-08-25-16	16-08-1854-3	08/25/16 11:40	4	Aqueous


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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: Filtered
Method: EPA 7199
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW1-08-25-16	16-08-1854-1-A	08/25/16 10:50	Aqueous	IC 11	08/25/16	08/25/16 16:41	160825L01B

Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	20	1.3	20.0	

Peninsula-RW101-08-25-16	16-08-1854-2-A	08/25/16 10:45	Aqueous	IC 11	08/25/16	08/25/16 16:50	160825L01B
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Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	20	1.3	20.0	

Peninsula-RW2-08-25-16	16-08-1854-3-A	08/25/16 11:40	Aqueous	IC 11	08/25/16	08/25/16 16:59	160825L01B
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Comment(s): - The reporting limit is elevated resulting from matrix interference.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	20	1.3	20.0	

Method Blank	099-05-123-4255	N/A	Aqueous	IC 11	08/25/16	08/25/16 09:17	160825L01B
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	1.0	0.067	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: EPA 3005A Total
Method: EPA 1640
Units: ug/L

Project: PV Peninsula Receiving Water Sampling

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Peninsula-RW2-08-25-16	16-08-1854-3-B	08/25/16 11:40	Aqueous	ICP/MS 05	08/26/16	08/26/16 21:54	160826L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Beryllium	0.606	0.500	0.0635	1.00	

Method Blank	099-13-067-630	N/A	Aqueous	ICP/MS 05	08/26/16	08/30/16 14:43	160826L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Beryllium	ND	0.500	0.0635	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: Filtered
Method: EPA 7199

Project: PV Peninsula Receiving Water Sampling

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Peninsula-RW1-08-25-16	Sample	Aqueous	IC 11	08/25/16	08/25/16 16:41	160825S01B
Peninsula-RW1-08-25-16	Matrix Spike	Aqueous	IC 11	08/25/16	08/25/16 17:08	160825S01B
Peninsula-RW1-08-25-16	Matrix Spike Duplicate	Aqueous	IC 11	08/25/16	08/25/16 17:17	160825S01B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	50.00	45.82	92	47.16	94	70-130	3	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: EPA 3005A Total
Method: EPA 1640

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
16-08-1743-1	Sample	Sea Water	ICP/MS 05	08/26/16	08/30/16 20:28	160826S01
16-08-1743-1	Matrix Spike	Sea Water	ICP/MS 05	08/26/16	08/30/16 20:05	160826S01
16-08-1743-1	Matrix Spike Duplicate	Sea Water	ICP/MS 05	08/26/16	08/30/16 20:13	160826S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Beryllium	ND	5.000	4.826	97	4.720	94	50-150	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: Filtered
Method: EPA 7199

Project: PV Peninsula Receiving Water Sampling

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-05-123-4255	LCS	Aqueous	IC 11	08/25/16	08/25/16 09:26	160825L01B			
099-05-123-4255	LCSD	Aqueous	IC 11	08/25/16	08/25/16 16:32	160825L01B			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	50.00	47.60	95	47.76	96	80-120	0	0-20	

[Return to Contents](#)

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 08/25/16
Work Order: 16-08-1854
Preparation: EPA 3005A Total
Method: EPA 1640

Project: PV Peninsula Receiving Water Sampling

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-13-067-630	LCS	Aqueous	ICP/MS 05	08/26/16	08/30/16 15:06	160826L01			
099-13-067-630	LCSD	Aqueous	ICP/MS 05	08/26/16	08/30/16 15:14	160826L01			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Beryllium	5.000	4.886	98	4.741	95	70-130	3	0-20	

[Return to Contents](#)

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Sample Analysis Summary Report

Work Order: 16-08-1854

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 1640	EPA 3005A Total	110	ICP/MS 05	1
EPA 7199	Filtered	1037	IC 11	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 16-08-1854

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.

CHAIN OF CUSTODY RECORD

DATE: 8/25/16
PAGE: 1 OF 1

·W.O.#7·LAB USE ONLY·

16-08-1854

[illegible]

*OP Pesticide Data required by Sept. 16



Calscience

WORK ORDER NUMBER: 16-08-1854

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Anchor REA

DATE: 08/25/2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3-8 °C (w/ CF): 3-8 °C; ☐ Blank ☒ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ Filter

Checked by: 836

CUSTODY SEAL:

Cooler ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 836

Sample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/A

Checked by: 1053

SAMPLE CONDITION:

Yes No N/A

Chain-of-Custody (COC) document(s) received with samples ☒ ☐ ☐COC document(s) received complete ☒ ☐ ☐☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ ☐ ☐Sample container label(s) consistent with COC ☒ ☐ ☐Sample container(s) intact and in good condition ☒ ☐ ☐Proper containers for analyses requested ☒ ☒ ☐Sufficient volume/mass for analyses requested ☒ ☐ ☐Samples received within holding time ☒ ☐ ☐

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ ☐ ☒Proper preservation chemical(s) noted on COC and/or sample container ☒ ☐ ☐

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☒ Total Metals ☐ Dissolved MetalsContainer(s) for certain analysis free of headspace ☐ ☐ ☒☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ ☐ ☒

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB☐ 125PBz_{na} ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☒ 250PB ☐ 250PBn ☐ 500AGB ☐ 500AGJ ☐ 500AGJs☐ 500PB ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1053s = H₂SO₄, u = ultra-pure, z_{na} = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 802

SAMPLE ANOMALY REPORT

DATE: 08/25/2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☒ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
 - ☐ Project information
 - ☐ Client sample ID
 - ☐ Sampling date and/or time
 - ☐ Number of container(s)
 - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
 - ☐ Broken
 - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (not transferred; duplicate bag submitted)
 - ☐ Leaking (transferred into ECI Tedlar™ bags*)
 - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

MISCELLANEOUS: (Describe)

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

Comments

(-3) Received 1X1 Little Amber Glass Bottle for 1640

Comments

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Reported by: 802

Reviewed by: 778

Subcontractor Analysis Report

Work Order: 16-08-1854Page 1 of 1

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Weck Laboratories, Inc. - City of Industry, CA NELAP 04229CA
Various



WECK LABORATORIES, INC.

Certificate of Analysis

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FINAL REPORT

Work Orders: 6H25081**Report Date:** 9/20/2016**Received Date:** 8/25/2016**Project:** 16-08-1854/ PV Peninsula Receiving Water Sampling**Turnaround Time:** Normal**Phones:** (714) 895-5494**Fax:** (714) 894-7501**P.O. #:****Attn:** Carla Lee Hollowell**Client:** Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Carla Lee Hollowell,

Enclosed are the results of analyses for samples received 8/25/16 with the Chain-of-Custody document. The samples were received in good condition, at 1.4 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Peninsula-RW1-08-25-16
6H25081-01 (Water)

Sampled: 08/25/16 10:50 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2	Batch ID: W6H1677	Instr: GCMS16		Prepared: 08/29/16 13:09		Analyst: etn	
Atrazine	ND	0.034	0.10	ug/l	1	09/17/16 01:07	
Cyanazine	ND	0.024	0.10	ug/l	1	09/17/16 01:07	
Diazinon	ND	0.096	0.10	ug/l	1	09/17/16 01:07	
Prometryn	ND	0.036	0.10	ug/l	1	09/17/16 01:07	
Simazine	ND	0.015	0.10	ug/l	1	09/17/16 01:07	
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	106%		73-138	Conc: 5.28		09/17/16 01:07	
Perylene-d12	85%		30-118	Conc: 4.25		09/17/16 01:07	
Triphenyl phosphate	105%		70-149	Conc: 5.24		09/17/16 01:07	
Method: EPA 525.2	Batch ID: W6H1795	Instr: GCMS13		Prepared: 08/31/16 08:32		Analyst: EFC	
Chlorpyrifos	ND	6.9	10	ng/l	1	09/13/16 11:04	
Malathion	ND	7.6	10	ng/l	1	09/13/16 11:04	
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	179%		76-128	Conc: 895		09/13/16 11:04	S-GC
Triphenyl phosphate	125%		40-163	Conc: 624		09/13/16 11:04	

Sample: Peninsula-RW101-08-25-16
6H25081-02 (Water)

Sampled: 08/25/16 10:45 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2	Batch ID: W6H1677	Instr: GCMS16	Prepared: 08/29/16 13:09	Analyst: etn			
Atrazine	ND	0.034	0.10	ug/l	1	09/17/16 14:53	

6H25081

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WECK LABORATORIES, INC.

Certificate of Analysis

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FINAL REPORT

Sample Results

(Continued)

Sample: Peninsula-RW101-08-25-16
6H25081-02 (Water)Sampled: 08/25/16 10:45 by Client
(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2 (Continued) Batch ID: W6H1677 Instr: GCMS16 Prepared: 08/29/16 13:09 Analyst: etn							
Cyanazine	ND	0.024	0.10	ug/l	1	09/17/16 14:53	
Diazinon	ND	0.096	0.10	ug/l	1	09/17/16 14:53	
Prometryn	ND	0.036	0.10	ug/l	1	09/17/16 14:53	
Simazine	ND	0.015	0.10	ug/l	1	09/17/16 14:53	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	103%		73-138	Conc: 5.17		09/17/16 14:53	
Perylene-d12	103%		30-118	Conc: 5.13		09/17/16 14:53	
Triphenyl phosphate	152%		70-149	Conc: 7.61		09/17/16 14:53	S-GC
Method: EPA 525.2 Batch ID: W6H1795 Instr: GCMS13 Prepared: 08/31/16 08:32 Analyst: EFC							
Chlorpyrifos	ND	6.9	10	ng/l	1	09/13/16 11:30	
Malathion	ND	7.6	10	ng/l	1	09/13/16 11:30	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	112%		76-128	Conc: 559		09/13/16 11:30	
Triphenyl phosphate	140%		40-163	Conc: 701		09/13/16 11:30	

Sample: Peninsula-RW2-08-25-16
6H25081-03 (Water)

Sampled: 08/25/16 11:40 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2 Batch ID: W6H1677 Instr: GCMS16 Prepared: 08/29/16 13:09 Analyst: etn							
Atrazine	ND	0.034	0.10	ug/l	1	09/17/16 01:58	
Cyanazine	ND	0.024	0.10	ug/l	1	09/17/16 01:58	
Diazinon	ND	0.096	0.10	ug/l	1	09/17/16 01:58	
Prometryn	ND	0.036	0.10	ug/l	1	09/17/16 01:58	
Simazine	ND	0.015	0.10	ug/l	1	09/17/16 01:58	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	100%		73-138	Conc: 4.98		09/17/16 01:58	
Perylene-d12	91%		30-118	Conc: 4.54		09/17/16 01:58	
Triphenyl phosphate	144%		70-149	Conc: 7.18		09/17/16 01:58	
Method: EPA 525.2 Batch ID: W6I0132 Instr: GCMS13 Prepared: 09/03/16 09:44 Analyst: EFC							
Chlorpyrifos	ND	6.9	10	ng/l	1	09/15/16 04:25	
Malathion	ND	7.6	10	ng/l	1	09/15/16 04:25	
<i>Surrogate(s)</i>							
1,3-Dimethyl-2-nitrobenzene	100%		76-128	Conc: 500		09/15/16 04:25	
Triphenyl phosphate	108%		40-163	Conc: 542		09/15/16 04:25	



WECK LABORATORIES, INC.

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FINAL REPORT

Quality Control Results

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Batch: W6H1677 - EPA 525.2

Blank (W6H1677-BLK1)

Prepared: 08/29/16 Analyzed: 09/16/16

Atrazine	ND	0.034	ug/l							
Cyanazine	ND	0.024	ug/l							
Diazinon	ND	0.096	ug/l							
Prometryn	ND	0.036	ug/l							
Simazine	ND	0.015	ug/l							
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene			5.33	ug/l	5.00	107	73-138			
Perylene-d12			4.53	ug/l	5.00	91	30-118			
Triphenyl phosphate			6.66	ug/l	5.00	133	70-149			

LCS (W6H1677-BS1)

Prepared: 08/29/16 Analyzed: 09/16/16

Alachlor	4.61	0.022	ug/l	5.00		92	55-124			
Atrazine	4.54	0.034	ug/l	5.00		91	67-131			
Bromacil	5.81	0.038	ug/l	5.00		116	62-139			
Butachlor	5.19	0.017	ug/l	5.00		104	61-127			
Chlorpropham	4.77	0.010	ug/l	5.00		95	77-143			
Diazinon	3.66	0.096	ug/l	5.00		73	30-120			
Dimethoate	3.78	0.024	ug/l	5.00		76	38-102			
Diphenamid	5.84	0.024	ug/l	5.00		117	77-124			
Disulfoton	3.52	0.031	ug/l	5.00		70	54-156			
EPTC	4.96	0.017	ug/l	5.00		99	82-116			
Metolachlor	4.78	0.012	ug/l	5.00		96	61-123			
Metribuzin	4.87	0.015	ug/l	5.00		97	50-121			
Molinate	4.74	0.039	ug/l	5.00		95	82-117			
Prometon	1.30	0.024	ug/l	5.00		26	17-101			
Prometryn	3.17	0.036	ug/l	5.00		63	57-122			
Simazine	4.07	0.015	ug/l	5.00		81	53-116			
Terbacil	7.29	0.55	ug/l	5.00		146	70-135			Q-08
Thiobencarb	4.26	0.025	ug/l	5.00		85	56-125			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene			5.23	ug/l	5.00	105	73-138			
Perylene-d12			4.93	ug/l	5.00	99	30-118			
Triphenyl phosphate			6.65	ug/l	5.00	133	70-149			

Matrix Spike (W6H1677-MS1)

Source: 6H23093-03

Prepared: 08/29/16 Analyzed: 09/16/16

Alachlor	3.84	0.022	ug/l	5.00	ND	77	44-149			
Atrazine	4.21	0.034	ug/l	5.00	ND	84	67-145			
Bromacil	6.55	0.038	ug/l	5.00	ND	131	60-160			
Butachlor	4.76	0.017	ug/l	5.00	ND	95	53-146			
Chlorpropham	4.61	0.010	ug/l	5.00	ND	92	80-156			
Diazinon	3.33	0.096	ug/l	5.00	ND	67	21-153			
Dimethoate	5.80	0.024	ug/l	5.00	ND	116	40-132			
Diphenamid	6.52	0.024	ug/l	5.00	ND	130	80-130			

6H25081

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WECK LABORATORIES, INC.

Certificate of Analysis

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FINAL REPORT

Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Batch: W6H1677 - EPA 525.2 (Continued)

Matrix Spike (W6H1677-MS1)

Source: 6H23093-03

Prepared: 08/29/16 Analyzed: 09/16/16

Disulfoton	3.31	0.031	ug/l	5.00	ND	66	24-164			
EPTC	4.26	0.017	ug/l	5.00	ND	85	75-126			
Metolachlor	4.10	0.012	ug/l	5.00	ND	82	60-137			
Metribuzin	4.44	0.015	ug/l	5.00	ND	89	47-125			
Molinate	4.25	0.039	ug/l	5.00	ND	85	81-125			
Prometon	1.58	0.024	ug/l	5.00	ND	32	28-112			
Prometryn	3.16	0.036	ug/l	5.00	ND	63	61-127			
Simazine	3.58	0.015	ug/l	5.00	ND	72	55-113			
Terbacil	9.57	0.55	ug/l	5.00	ND	191	72-155			Q-08
Thiobencarb	3.72	0.025	ug/l	5.00	ND	74	45-145			

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene		4.40	ug/l	5.00		88	73-138			
Perylene-d12		4.92	ug/l	5.00		98	30-118			
Triphenyl phosphate		8.17	ug/l	5.00		163	70-149			S-GC

Matrix Spike Dup (W6H1677-MSD1)

Source: 6H23093-03

Prepared: 08/29/16 Analyzed: 09/16/16

Alachlor	3.70	0.022	ug/l	5.00	ND	74	44-149	4	30	
Atrazine	4.28	0.034	ug/l	5.00	ND	86	67-145	2	30	
Bromacil	7.00	0.038	ug/l	5.00	ND	140	60-160	7	30	
Butachlor	4.66	0.017	ug/l	5.00	ND	93	53-146	2	30	
Chlorpropham	4.71	0.010	ug/l	5.00	ND	94	80-156	2	30	
Diazinon	3.14	0.096	ug/l	5.00	ND	63	21-153	6	30	
Dimethoate	6.20	0.024	ug/l	5.00	ND	124	40-132	7	30	
Diphenamid	6.54	0.024	ug/l	5.00	ND	131	80-130	0.3	30	MS-05
Disulfoton	3.60	0.031	ug/l	5.00	ND	72	24-164	8	30	
EPTC	4.24	0.017	ug/l	5.00	ND	85	75-126	0.5	30	
Metolachlor	3.96	0.012	ug/l	5.00	ND	79	60-137	3	30	
Metribuzin	4.41	0.015	ug/l	5.00	ND	88	47-125	0.7	30	
Molinate	4.32	0.039	ug/l	5.00	ND	86	81-125	2	30	
Prometon	1.70	0.024	ug/l	5.00	ND	34	28-112	7	30	
Prometryn	3.08	0.036	ug/l	5.00	ND	62	61-127	3	30	
Simazine	3.50	0.015	ug/l	5.00	ND	70	55-113	2	30	
Terbacil	10.4	0.55	ug/l	5.00	ND	208	72-155	8	30	Q-08
Thiobencarb	3.64	0.025	ug/l	5.00	ND	73	45-145	2	30	

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene		4.45	ug/l	5.00		89	73-138			
Perylene-d12		5.19	ug/l	5.00		104	30-118			
Triphenyl phosphate		8.71	ug/l	5.00		174	70-149			S-GC

Batch: W6H1795 - EPA 525.2

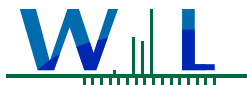
Blank (W6H1795-BLK1)

Prepared: 08/31/16 Analyzed: 09/13/16

Chlorpyrifos	ND	6.9	ng/l							
Malathion	ND	7.6	ng/l							

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Batch: W6H1795 - EPA 525.2 (Continued)

Blank (W6H1795-BLK1)

Prepared: 08/31/16 Analyzed: 09/13/16

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	587	ng/l	500	117	76-128	
Triphenyl phosphate	573	ng/l	500	115	40-163	

LCS (W6H1795-BS1)

Prepared: 08/31/16 Analyzed: 09/13/16

Azinphos methyl (Guthion)	54.8	5.5	ng/l	50.0	110	0.1-188
Bolstar	58.4	4.6	ng/l	50.0	117	11-166
Chlorpyrifos	58.4	6.9	ng/l	50.0	117	37-169
Coumaphos	60.3	5.1	ng/l	50.0	121	0.1-225
Demeton-o	46.7	10	ng/l	50.0	93	0.1-211
Demeton-s	62.8	10	ng/l	50.0	126	0.1-213
Diazinon	65.6	5.2	ng/l	50.0	131	43-152
Dichlorvos	67.8	2.9	ng/l	50.0	136	46-133
Dimethoate	50.6	6.2	ng/l	50.0	101	10-234
Disulfoton	67.6	10	ng/l	50.0	135	0.1-212
Ethoprop	82.3	6.7	ng/l	50.0	165	53-163
Ethyl parathion	95.0	5.4	ng/l	50.0	190	7-230
Fensulfothion	57.8	2.9	ng/l	50.0	116	0.1-265
Fenthion	61.0	3.8	ng/l	50.0	122	20-177
Malathion	85.3	7.6	ng/l	50.0	171	14-175
Merphos	56.0	5.8	ng/l	50.0	112	28-181
Methyl parathion	83.5	6.3	ng/l	50.0	167	0.1-252
Mevinphos	60.6	4.2	ng/l	50.0	121	14-202
Naled	52.6	7.6	ng/l	50.0	105	0.1-240
Phorate	75.6	3.0	ng/l	50.0	151	26-180
Ronnel	50.5	4.1	ng/l	50.0	101	34-154
Stirophos	65.6	3.1	ng/l	50.0	131	0.1-188
Tokuthion (Prothiofos)	49.7	7.8	ng/l	50.0	99	23-159
Trichloronate	56.3	6.7	ng/l	50.0	113	34-153

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	546	ng/l	500	109	76-128	
Triphenyl phosphate	614	ng/l	500	123	40-163	

Matrix Spike (W6H1795-MS1)

Source: 6H23063-01

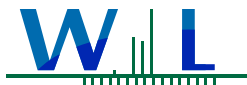
Prepared: 08/31/16 Analyzed: 09/13/16

Azinphos methyl (Guthion)	72.7	5.5	ng/l	50.0	ND	145	0.1-154
Bolstar	81.9	4.6	ng/l	50.0	ND	164	4-184
Chlorpyrifos	69.7	6.9	ng/l	50.0	ND	139	37-168
Coumaphos	81.1	5.1	ng/l	50.0	ND	162	0.1-203
Demeton-o	59.1	10	ng/l	50.0	ND	118	0.1-208
Demeton-s	71.9	10	ng/l	50.0	ND	144	0.1-207
Diazinon	57.4	5.2	ng/l	50.0	ND	115	36-153
Dichlorvos	75.4	2.9	ng/l	50.0	ND	151	42-137
Dimethoate	70.1	6.2	ng/l	50.0	ND	140	4-222

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(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W6H1795 - EPA 525.2 (Continued)										
Matrix Spike (W6H1795-MS1)			Source: 6H23063-01		Prepared: 08/31/16 Analyzed: 09/13/16					
Disulfoton	76.1	10	ng/l	50.0	ND	152	12-199			
Ethoprop	90.9	6.7	ng/l	50.0	ND	182	51-167			Q-08
Ethyl parathion	119	5.4	ng/l	50.0	ND	239	5-229			MS-05
Fensulfothion	86.4	2.9	ng/l	50.0	ND	173	0.1-316			
Fenthion	69.2	3.8	ng/l	50.0	ND	138	23-169			
Malathion	115	7.6	ng/l	50.0	ND	230	6-184			MS-05
Merphos	36.2	5.8	ng/l	50.0	ND	72	3-210			
Methyl parathion	120	6.3	ng/l	50.0	ND	240	0.1-249			
Mevinphos	70.2	4.2	ng/l	50.0	ND	140	25-189			
Naled	52.4	7.6	ng/l	50.0	ND	105	0.1-242			
Phorate	73.8	3.0	ng/l	50.0	ND	148	31-181			
Ronnel	63.8	4.1	ng/l	50.0	ND	128	29-153			
Stirophos	91.1	3.1	ng/l	50.0	ND	182	0.1-167			MS-05
Tokuthion (Prothiofos)	57.0	7.8	ng/l	50.0	ND	114	27-160			
Trichloronate	63.6	6.7	ng/l	50.0	ND	127	40-150			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene			657 ng/l	500		131	76-128			S-GC
Triphenyl phosphate			682 ng/l	500		136	40-163			
Matrix Spike Dup (W6H1795-MSD1)			Source: 6H23063-01		Prepared: 08/31/16 Analyzed: 09/13/16					
Azinphos methyl (Guthion)	68.4	5.5	ng/l	50.0	ND	137	0.1-154	6	30	
Bolstar	62.9	4.6	ng/l	50.0	ND	126	4-184	26	30	
Chlorpyrifos	75.6	6.9	ng/l	50.0	ND	151	37-168	8	30	
Coumaphos	69.2	5.1	ng/l	50.0	ND	138	0.1-203	16	30	
Demeton-o	78.0	10	ng/l	50.0	ND	156	0.1-208	28	30	
Demeton-s	94.5	10	ng/l	50.0	ND	189	0.1-207	27	30	
Diazinon	76.2	5.2	ng/l	50.0	ND	152	36-153	28	30	
Dichlorvos	88.4	2.9	ng/l	50.0	ND	177	42-137	16	30	Q-08
Dimethoate	103	6.2	ng/l	50.0	ND	206	4-222	38	30	MS-05
Disulfoton	91.8	10	ng/l	50.0	ND	184	12-199	19	30	
Ethoprop	103	6.7	ng/l	50.0	ND	206	51-167	13	30	Q-08
Ethyl parathion	141	5.4	ng/l	50.0	ND	281	5-229	16	30	MS-05
Fensulfothion	85.4	2.9	ng/l	50.0	ND	171	0.1-316	1	30	
Fenthion	77.1	3.8	ng/l	50.0	ND	154	23-169	11	30	
Malathion	148	7.6	ng/l	50.0	ND	296	6-184	25	30	MS-05
Merphos	29.8	5.8	ng/l	50.0	ND	60	3-210	20	30	
Methyl parathion	143	6.3	ng/l	50.0	ND	287	0.1-249	18	30	MS-05
Mevinphos	89.0	4.2	ng/l	50.0	ND	178	25-189	24	30	
Naled	59.3	7.6	ng/l	50.0	ND	119	0.1-242	12	30	
Phorate	89.0	3.0	ng/l	50.0	ND	178	31-181	19	30	
Ronnel	66.2	4.1	ng/l	50.0	ND	132	29-153	4	30	

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Batch: W6H1795 - EPA 525.2 (Continued)

Matrix Spike Dup (W6H1795-MSD1)

Source: 6H23063-01

Prepared: 08/31/16 Analyzed: 09/13/16

Stirophos	116	3.1	ng/l	50.0	ND	232	0.1-167	24	30	MS-05
Tokuthion (Prothiofos)	42.8	7.8	ng/l	50.0	ND	86	27-160	28	30	
Trichloronate	64.2	6.7	ng/l	50.0	ND	128	40-150	0.9	30	

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene		683	ng/l	500		137	76-128			S-GC
Triphenyl phosphate		582	ng/l	500		116	40-163			

Batch: W6I0132 - EPA 525.2

Blank (W6I0132-BLK1)

Prepared: 09/03/16 Analyzed: 09/15/16

Chlorpyrifos	ND	6.9	ng/l							
Malathion	ND	7.6	ng/l							

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene		516	ng/l	500		103	76-128			
Triphenyl phosphate		559	ng/l	500		112	40-163			

LCS (W6I0132-BS1)

Prepared: 09/03/16 Analyzed: 09/15/16

Azinphos methyl (Guthion)	59.9	5.5	ng/l	50.0		120	0.1-188			
Bolstar	29.6	4.6	ng/l	50.0		59	11-166			
Chlorpyrifos	53.7	6.9	ng/l	50.0		107	37-169			
Coumaphos	57.3	5.1	ng/l	50.0		115	0.1-225			
Demeton-o	3.40	0.0	ng/l	50.0		7	0.1-211			J
Demeton-s	37.0	10	ng/l	50.0		74	0.1-213			
Diazinon	17.9	5.2	ng/l	50.0		36	43-152			BS-03
Dichlorvos	60.0	2.9	ng/l	50.0		120	46-133			
Dimethoate	49.0	6.2	ng/l	50.0		98	10-234			
Disulfoton	26.0	10	ng/l	50.0		52	0.1-212			
Ethoprop	56.3	6.7	ng/l	50.0		113	53-163			
Ethyl parathion	58.1	5.4	ng/l	50.0		116	7-230			
Fensulfothion	71.9	2.9	ng/l	50.0		144	0.1-265			
Fenthion	34.3	3.8	ng/l	50.0		69	20-177			
Malathion	62.7	7.6	ng/l	50.0		125	14-175			
Merphos	51.7	5.8	ng/l	50.0		103	28-181			
Methyl parathion	60.7	6.3	ng/l	50.0		121	0.1-252			
Mevinphos	72.6	4.2	ng/l	50.0		145	14-202			
Naled	33.8	7.6	ng/l	50.0		68	0.1-240			
Phorate	48.7	3.0	ng/l	50.0		97	26-180			
Ronnel	52.3	4.1	ng/l	50.0		105	34-154			
Stirophos	61.5	3.1	ng/l	50.0		123	0.1-188			
Tokuthion (Prothiofos)	46.8	7.8	ng/l	50.0		94	23-159			
Trichloronate	52.6	6.7	ng/l	50.0		105	34-153			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene		497	ng/l	500		99	76-128			
Triphenyl phosphate		600	ng/l	500		120	40-163			

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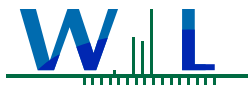
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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W6I0132 - EPA 525.2 (Continued)										
Matrix Spike (W6I0132-MS1)			Source: 6H29067-01		Prepared: 09/03/16 Analyzed: 09/15/16					
Azinphos methyl (Guthion)	64.0	5.5	ng/l	50.0	ND	128	0.1-154			
Bolstar	44.1	4.6	ng/l	50.0	ND	88	4-184			
Chlorpyrifos	57.7	6.9	ng/l	50.0	ND	115	37-168			
Coumaphos	54.8	5.1	ng/l	50.0	ND	110	0.1-203			
Demeton-o	42.8	10	ng/l	50.0	ND	86	0.1-208			
Demeton-s	58.8	10	ng/l	50.0	ND	118	0.1-207			
Diazinon	52.4	5.2	ng/l	50.0	ND	105	36-153			
Dichlorvos	66.7	2.9	ng/l	50.0	ND	133	42-137			
Dimethoate	72.7	6.2	ng/l	50.0	ND	145	4-222			
Disulfoton	49.7	10	ng/l	50.0	ND	99	12-199			
Ethoprop	56.6	6.7	ng/l	50.0	ND	113	51-167			
Ethyl parathion	65.9	5.4	ng/l	50.0	ND	132	5-229			
Fensulfothion	70.4	2.9	ng/l	50.0	ND	141	0.1-316			
Fenthion	57.4	3.8	ng/l	50.0	ND	115	23-169			
Malathion	75.8	7.6	ng/l	50.0	ND	152	6-184			
Merphos	32.7	5.8	ng/l	50.0	ND	65	3-210			
Methyl parathion	66.3	6.3	ng/l	50.0	ND	133	0.1-249			
Mevinphos	77.6	4.2	ng/l	50.0	ND	155	25-189			
Naled	37.8	7.6	ng/l	50.0	ND	76	0.1-242			
Phorate	54.9	3.0	ng/l	50.0	ND	110	31-181			
Ronnel	56.7	4.1	ng/l	50.0	ND	113	29-153			
Stirophos	67.4	3.1	ng/l	50.0	ND	135	0.1-167			
Tokuthion (Prothiofos)	44.5	7.8	ng/l	50.0	ND	89	27-160			
Trichloronate	56.0	6.7	ng/l	50.0	ND	112	40-150			
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene			519 ng/l	500		104	76-128			
Triphenyl phosphate			550 ng/l	500		110	40-163			
Matrix Spike Dup (W6I0132-MSD1)			Source: 6H29067-01		Prepared: 09/03/16 Analyzed: 09/15/16					
Azinphos methyl (Guthion)	74.9	5.5	ng/l	50.0	ND	150	0.1-154	16	30	
Bolstar	44.9	4.6	ng/l	50.0	ND	90	4-184	2	30	
Chlorpyrifos	63.2	6.9	ng/l	50.0	ND	126	37-168	9	30	
Coumaphos	65.1	5.1	ng/l	50.0	ND	130	0.1-203	17	30	
Demeton-o	40.3	10	ng/l	50.0	ND	81	0.1-208	6	30	
Demeton-s	63.7	10	ng/l	50.0	ND	127	0.1-207	8	30	
Diazinon	59.4	5.2	ng/l	50.0	ND	119	36-153	12	30	
Dichlorvos	68.2	2.9	ng/l	50.0	ND	136	42-137	2	30	
Dimethoate	86.7	6.2	ng/l	50.0	ND	173	4-222	18	30	
Disulfoton	53.9	10	ng/l	50.0	ND	108	12-199	8	30	
Ethoprop	64.7	6.7	ng/l	50.0	ND	129	51-167	13	30	
Ethyl parathion	74.3	5.4	ng/l	50.0	ND	149	5-229	12	30	



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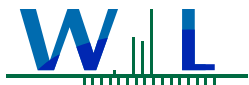
Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W6I0132 - EPA 525.2 (Continued)										
Matrix Spike Dup (W6I0132-MSD1)			Source: 6H29067-01		Prepared: 09/03/16 Analyzed: 09/15/16					
Fensulfothion	88.7	2.9	ng/l	50.0	ND	177	0.1-316	23	30	
Fenthion	63.4	3.8	ng/l	50.0	ND	127	23-169	10	30	
Malathion	85.1	7.6	ng/l	50.0	ND	170	6-184	12	30	
Merphos	41.9	5.8	ng/l	50.0	ND	84	3-210	25	30	
Methyl parathion	75.1	6.3	ng/l	50.0	ND	150	0.1-249	12	30	
Mevinphos	84.8	4.2	ng/l	50.0	ND	170	25-189	9	30	
Naled	41.9	7.6	ng/l	50.0	ND	84	0.1-242	10	30	
Phorate	57.3	3.0	ng/l	50.0	ND	115	31-181	4	30	
Ronnel	60.6	4.1	ng/l	50.0	ND	121	29-153	7	30	
Stirophos	86.1	3.1	ng/l	50.0	ND	172	0.1-167	24	30	MS-05
Tokuthion (Prothiofos)	43.8	7.8	ng/l	50.0	ND	88	27-160	2	30	
Trichloronate	58.3	6.7	ng/l	50.0	ND	117	40-150	4	30	
<i>Surrogate(s)</i>										
1,3-Dimethyl-2-nitrobenzene			527 ng/l	500		105	76-128			
Triphenyl phosphate			623 ng/l	500		125	40-163			

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Notes and Definitions

Item	Definition
BS-03	The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
J	Estimated conc. detected <MRL and >MDL.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
Q-08	High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
S-GC	Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ) and Detection Limit for Reporting (DLR)
MDA	Minimum Detectable Activity
NR	Not Reportable
TIC	Tentatively Identified Compound (TIC) using mass spectrometry. The reported concentration is relative concentration based on the nearest internal standard. If the library search produces no matches at, or above 85%, the compound is reported as unknown.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California State Water Resources Control Board (SWRCB)

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS 002.

Reviewed by:

Kim G. Tu
Project Manager



DoD-ELAP #L15-366 • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO 17025 #L15-365 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

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ATTACHMENT C
TOXICITY LABORATORY REPORT



Results of Toxicity Testing for the Palos Verdes Peninsula CIMP Dry Weather Monitoring

❖ Sample Collection Date: June 23, 2016

Prepared for: Anchor QEA
720 Olive Way, Suite 1900
Seattle, WA 98101

Prepared by: Nautilus Environmental
4340 Vandever Avenue
San Diego, CA 92120

Report Submitted: July 22, 2016

Data Quality Assurance:

- Nautilus Environmental is accredited in accordance with NELAP by the State of Oregon Environmental Laboratory Accreditation Program (Certificate No. 4053-001). It is also certified by the State of California Water Resources Control Board Environmental Laboratory Accreditation Program (Certificate No. 1802) and the State of Washington Department of Ecology (Lab ID C552). Specific fields of testing applicable to each accreditation are available upon request.
- All data have been reviewed and verified.
- All test results have met minimum test acceptability criteria under their respective EPA protocols, unless otherwise noted in this report.
- All test results have met internal Quality Assurance Program requirements.

California
4340 Vandever Avenue
San Diego, California 92120
858.587.7333
fax: 858.587.3961

British Columbia
8664 Commerce Court
Burnaby, British Columbia
V5A 4N7
604-420-8773
fax: 604-603-9381

Results verified by: Adrienne Cibar

INTRODUCTION

Bioassay testing was performed on two samples to evaluate the toxicity of ambient receiving water during a dry weather event. Testing was conducted using the purple urchin (*Strongylocentrotus purpuratus*) chronic sperm-cell fertilization test and the red abalone (*Haliotis rufescens*) larval shell development test. Sampling and testing was conducted according to the Coordinated Integrated Monitoring Program (CIMP) for the Palos Verdes (PV) Peninsula Group to satisfy requirements in the Los Angeles Region MS4 permit (Order No. R4-2012-0175). The samples were collected during a dry weather event that occurred on June 23, 2016 by Anchor QEA staff. Toxicity screening tests were conducted at Nautilus Environmental (Nautilus) in San Diego, California between June 24 and 26, 2016.

MATERIALS AND METHODS

Test Material

The test material consisted of ambient water collected from two PV peninsula receiving water stations. Sample collection station, sample ID number, as well as collection and receipt date and time are provided in Table 1.

Table 1. Sample Collection and Receipt Times

Station ID	Sample ID	Sample Collection Date/Time	Sample Receipt Date/Time
Peninsula-RW1-06-23-16	RW1	6/23/16, 14:13	6/24/16, 09:17
Peninsula-RW2-06-23-16	RW2	6/23/16, 15:30	

Upon arrival at Nautilus, an aliquot of the sample was drawn and standard water quality parameters of pH, dissolved oxygen (DO), conductivity, salinity, temperature, alkalinity, and hardness were measured and recorded. The sample was stored in the dark at 4°C until used for testing.

Toxicity Screen Methods

Testing was conducted in accordance with methods published in USEPA 1995. Test specifications are summarized in Tables 2 and 3.

Per permit requirements, the results were analyzed using the USEPA's Test of Significant Toxicity (TST) approach specified in the National Pollution Discharge Elimination System Test of Significant Toxicity Implementation Document (USEPA, 2010). This approach applies a modified t-test that takes into account both the statistical power of the test and the magnitude of biological effects in determining the presence of a response. For these samples, the in-stream waste concentration (IWC) is 100 percent sample, and results are reported as "Pass" if a sample is considered non-toxic according to the TST calculation, or "Fail" if considered toxic according to the TST. Percent effect from control was also calculated for the samples.

Table 2. Echinoderm Fertilization Chronic Bioassay Specifications

Test Date, Times:	6/24/16, 15:20 through 16:00
Test Organism:	<i>Strongylocentrotus purpuratus</i> (purple sea urchin)
Test Organism Source:	Field-collected locally (Point Loma, CA)
Lab Control/Dilution Water:	Natural seawater (source: Scripps Institution of Oceanography (SIO) inlet), 34±2 parts per thousand (ppt); 20-µm filtered
Test Concentration:	100 percent sample
Number of Replicates, Organisms per Replicate:	5 replicates, 2000 eggs per replicate. Sperm to egg ratio determined before each test with a preliminary rangefinding test.
Test Chamber Type, Volume per Replicate:	Glass scintillation vial containing 10 mL of test solution
Protocol Used:	EPA/600/R-95/136, 1995 West Coast Marine Chronic
Test Type:	Fertilization; 20-min sperm exposure to effluent followed by a 20-min fertilization period
Acceptability Criteria:	Mean fertilization ≥ 70% in the control
Reference Toxicant Testing:	Copper chloride
Statistical Analysis Software:	CETIS™, version 1.8.7.20

Table 3. Red abalone Shell Development Chronic Bioassay Specifications

Test Dates, Times:	6/24/16, 14:25 through 6/26/16, 12:55
Test Organism:	<i>Haliotis rufescens</i> (red abalone)
Test Organism Source:	American Abalone (Davenport, CA)
Lab Control/Dilution Water:	Natural seawater (source: Scripps Institution of Oceanography (SIO) inlet), 34±2 parts per thousand (ppt); 1-µm filtered
Test Concentration:	100 percent sample
Number of Replicates, Organisms per Replicate:	5 replicates, ~150-200 embryos per replicate.
Test Chamber Type, Volume per Replicate:	Glass shell vial containing 20 mL of test solution
Protocol Used:	EPA/600/R-95/136, 1995 West Coast Marine Chronic
Test Type:	48-hour normal shell development
Acceptability Criteria:	Control mean development > 80%. There must be a statistically significant effect at the 56 µg/L zinc concentration in the reference toxicant test.
Reference Toxicant Testing:	Zinc sulfate
Statistical Analysis Software:	CETIS™, version 1.8.7.20

RESULTS

Toxicity Screening

No toxicity was observed in the either sample with the urchin or abalone test. Detailed results and a statistical summary are provided in Table 4. Copies of the chain of custody form and water quality measurements at sample check-in are provided in Appendix A. Complete statistical analyses and raw bench datasheets are provided in Appendix B.

Table 4. Summary of Chronic Test Results for the PV Receiving Water Samples

Sample ID (100% sample)	Mean Percent Urchin Fertilization	PE (%)	TST Result (Pass/Fail)	Mean Percent Normal Abalone Development	PE (%)	TST Result (Pass/Fail)
Lab Control	90.8	-	-	94.8	-	-
RW1	96.2	-6.0	Pass	93.0	1.9	Pass
RW2	95.8	-5.5	Pass	93.8	1.1	Pass

Percent effect (PE) calculated as: ((mean response in control - mean response in sample)/mean response in control) *100. A negative PE indicates better organism performance in the sample compared to that in the control.

TST: Pass = sample is non-toxic according to the TST calculation; Fail = sample is toxic according to the TST calculation.

QUALITY ASSURANCE

Toxicity Screening

The samples were received within the appropriate temperature range of 0 - 6°C on the day after collection, and all tests were initiated within the targeted 36 hours from sample collection. The lab controls met all test acceptability criteria. The tests followed protocol procedures and met internal QA Program requirements. Appropriate alpha levels were used for statistical analyses according to the TST Implementation Document guidelines (USEPA 2010).

Reference Toxicant Testing

The concurrent reference toxicant test results are summarized in Table 5 and historical control charts are provided in Appendix C. A list of qualifier codes for datasheets is provided in Appendix D. Results for both reference toxicant tests met all applicable acceptability criteria. Additionally, the calculated median effect concentration (EC₅₀) values were within two standard deviations (SD) of historical means, indicating typical organism sensitivity.

Table 5. Reference Toxicant Test Results

Test Species	Endpoint	EC ₅₀ (µg/L)	Historical Mean EC ₅₀ ± 2 SD (µg/L)	CV (%)
Purple Urchin	Fertilization	38.4	40.9 ± 22.1	27.0
Red Abalone	Development	69.8	50.5 ± 20.8	20.6

EC₅₀ = Concentration expected to cause an adverse effect to 50 percent of the test organisms. The urchin test is reported in □g/L copper, the abalone test in □g/L zinc.

Historical Mean EC₅₀ ± 2 SD = Mean of historical test results plus or minus two standard deviations

CV = Coefficient of Variation

REFERENCES

Tidepool Scientific Software. 2000-2013. CETIS Comprehensive Environmental Toxicity Information System Software, Version 1.8.7.20.

USEPA. 1995. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. EPA/600/R-95/136. August 1995.

USEPA. 2010. National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document. EPA/833/R-10/003. June 2010.

Appendix A
Chain of Custody Form
and Sample Receipt Information

Nautilus Environmental
4340 Vandever Avenue
San Diego, CA 92120

Sample Check-In Information

Client: Anchor OEA

Tests Performed:

abalone development
urchin fertilization

Project: PV Cimp Dry weather

Test ID No.(s): 1606-S175 to S179

Sample Descriptions:

- 1) No odor, clear, no odor, no debris
- 2) No odor, clear, no odor, no debris
- 3) _____
- 4) _____
- 5) _____
- 6) _____

COC Complete? Y N

Filtration? Y N

Pore Size: _____

Organisms _____ or _____ Debris

pH Adjustment? Y N

	1	2	3	4	5	6
Initial pH:						
Amount of HCl added:						
Final pH:						

Cl₂ Adjustment? Y N

	1	2	3	4	5	6
Initial Free Cl ₂ :						
STS added:						
Final Free Cl ₂ :						

Sample Aeration? Y N

	1	2	3	4	5	6
Initial D.O.						
Duration & Rate						
Final D.O.						

Subsamples For Additional Chemistry Required? Y N

NH₃ _____ Other _____

Tech Initials _____

Final Review: KB 7/7/16

Sample ID:

1) <u>RW1-06-23-16</u>	2) <u>RW2-06-23-16</u>	3)	4)	5)	6)
Log-in No. (16-xxxx): <u>0803</u>	<u>0804</u>				
Sample Collection Date & Time: <u>6/23/16 1413</u>	<u>6/23/16 1530</u>				
Sample Receipt Date & Time: <u>06/24/16 0917</u>	<u>6/24/16 0917</u>				
Number of Containers & Container Type: <u>1, 10L cub</u>	<u>1, 10L cub</u>				
Approx. Total Volume Received (L): <u>~10L</u>	<u>~10L</u>				
Check-in Temp (°C) <u>2.3</u>	<u>2.6</u>				
Temperature OK? ¹ <u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>
DO (mg/L) <u>9.0</u>	<u>8.9</u>				
pH (units) <u>8.21</u>	<u>8.21</u>				
Conductivity (µS/cm) <u>—</u>	<u>—</u>				
Salinity (ppt) <u>33.1</u>	<u>33.3</u>				
Alkalinity (mg/L) ² <u>126</u>	<u>113</u>				
Hardness (mg/L) ^{2,3} <u>—</u>	<u>—</u>				
Total Chlorine (mg/L) <u><0.02</u>	<u><0.02</u>				
Technician Initials <u>NHE</u>	<u>NHE</u>				

Freshwater Tests:

Control/Dilution Water Source: 8:2 Culligan Other: _____ Alkalinity: _____ Hardness: _____

Additional Control? Y N = _____ Alkalinity: _____ Hardness: _____

Marine Tests:

Control/Dilution Water Source: LAB SW ART SW Other: _____ Alkalinity: 112 Salinity: 34 ppt

Additional Control? Y N = _____ Alkalinity: _____ Salinity: _____

Sample Salted w/ artificial salt? Y N If yes, target ppt and source? _____

Sample salted w/brine? Y N If yes, target ppt? _____

Notes ¹ Temperature for sample must be 0-6°C if received >24 hours past collection time.

² mg/L as CaCO₃, ³ Measured for freshwater samples only, NA = Not Applicable

Additional Comments

QC Check: JC 6/30/16

PV CIMP project

Date 6/24/16 Page 1 of 1

Sample Collection By: <u>C. Osuch, C. Dolphin, Anchor QEA</u>							ANALYSES REQUIRED										Receipt Temperature (°C)		
Report to: Company <u>Anchor QEA</u> Address <u>27201 Fainta Red Suite 350</u> City/State/Zip <u>Mission Viejo, CA 92691</u> Contact <u>Andy Martin</u> Phone <u>(760) 443-2402</u> Email <u>A.Martin@anchoragea.com</u>				Invoice To: Company <u>Same</u> Address _____ City/State/Zip _____ Contact _____ Phone _____ Email _____			Red abalone Wipe Swabbing Fertilization												
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS													
1 Peninsula-RW1-06-23-16	6/23/16	1413	water	10L abalone	1	Testing per SAP	X	X											
2 Peninsula-RW2-06-23-16	↓	1530	↓	↓	1	↓	X	X											
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

PROJECT INFORMATION		SAMPLE RECEIPT		1) RELINQUISHED BY (CLIENT)		2) RECEIVED BY (COURIER)	
Client:		Total No. of Containers	2	(Signature) <u>Chris Osuch</u>	(Time) <u>0917</u>	(Signature) _____	(Time) _____
PO No.:		Received Good Condition?	y	(Printed Name) <u>Chris Osuch</u>	(Date) <u>6/24/16</u>	(Printed Name) _____	(Date) _____
Shipped Via:		Matches Test Schedule?	y	(Company) <u>Anchor QEA</u>		(Company) _____	

SPECIAL INSTRUCTIONS/COMMENTS:				3) RELINQUISHED BY (COURIER)		4) RECEIVED BY (LABORATORY)	
				(Signature) _____	(Time) _____	(Signature) <u>Chris Osuch</u>	(Time) <u>0917</u>
				(Printed Name) _____	(Date) _____	(Printed Name) <u>Ashley Donohue</u>	(Date) <u>6/24/16</u>
				(Company) _____		(Company) <u>Nautilus</u>	

Appendix B
Raw Data and Statistical Analysis

Purple Urchin Fertilization Test

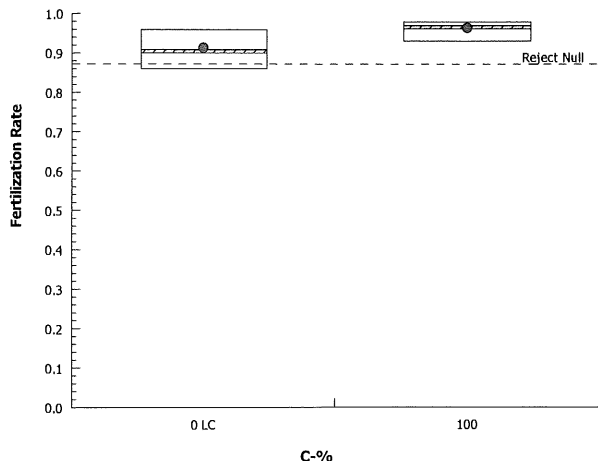
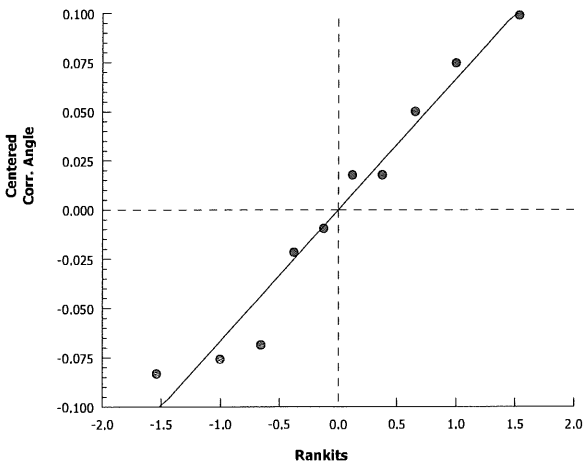
CETIS Summary Report

Report Date: 08 Jul-16 11:48 (p 1 of 1)
 Test Code: 1606-S177 | 06-5446-8052

Echinoid Sperm Cell Fertilization Test 15C							Nautilus Environmental (CA)				
Batch ID:	07-2636-2078	Test Type:	Fertilization	Analyst:							
Start Date:	24 Jun-16 15:20	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Not Applicable						
Ending Date:	24 Jun-16 16:00	Species:	Strongylocentrotus purpuratus	Brine:	Not Applicable						
Duration:	40m	Source:	Pt. Loma	Age:							
Sample ID:	01-5302-3487	Code:	16-0803	Client:	Anchor QEA						
Sample Date:	23 Jun-16 14:13	Material:	Ambient Water	Project:	PV CIMP Dry Weather						
Receive Date:	24 Jun-16 09:17	Source:	Anchor QEA								
Sample Age:	25h (2.3 °C)	Station:	RW1								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
11-9379-2566	Fertilization Rate	100	>100	NA	4.0%	1	TST-Welch's t Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision			
11-9379-2566	Fertilization Rate	Control Resp		0.908	0.7 - NL		Yes	Passes Acceptability Criteria			
11-9379-2566	Fertilization Rate	PMSD		0.04004	NL - 0.25		No	Passes Acceptability Criteria			
Fertilization Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.908	0.8515	0.9645	0.86	0.96	0.02035	0.0455	5.01%	0.0%
100		5	0.962	0.9381	0.9859	0.93	0.98	0.008602	0.01924	2.0%	-5.95%
Fertilization Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	0.9	0.96	0.95	0.87	0.86					
100		0.96	0.97	0.98	0.97	0.93					

CETIS Analytical Report

Report Date: 08 Jul-16 11:48 (p 1 of 1)
Test Code: 1606-S177 | 06-5446-8052

Echinoid Sperm Cell Fertilization Test 15C										Nautilus Environmental (CA)	
Analysis ID: 11-9379-2566		Endpoint: Fertilization Rate					CETIS Version: CETISv1.8.7				
Analyzed: 08 Jul-16 11:45		Analysis: Parametric Bioequivalence-Two Sample					Official Results: Yes				
Data Transform		Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result			
Angular (Corrected)		NA	C*b < T	NA	NA	0.75	4.0%	Passes fertilization rate			
TST-Welch's t Test											
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α :5%)		
Lab Control		100*	12.19	1.895	0.066	7	<0.0001	CDF	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(α :5%)				
Between	0.02935449		0.02935449	1	6.444	0.0348	Significant Effect				
Error	0.03644512		0.00455564	8							
Total	0.06579961			9							
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α :1%)					
Variances	Variance Ratio F		3.059	23.15	0.3044	Equal Variances					
Distribution	Shapiro-Wilk W Normality		0.943	0.7411	0.5868	Normal Distribution					
Fertilization Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.908	0.8515	0.9645	0.9	0.86	0.96	0.02035	5.01%	0.0%
100		5	0.962	0.9381	0.9859	0.97	0.93	0.98	0.008602	2.0%	-5.95%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.271	1.168	1.373	1.249	1.187	1.369	0.03706	6.52%	0.0%
100		5	1.379	1.32	1.438	1.397	1.303	1.429	0.02119	3.44%	-8.53%
Graphics											
											

CETIS Summary Report

Report Date: 08 Jul-16 11:50 (p 1 of 1)
 Test Code: 1606-S178 | 10-4914-8241

Echinoid Sperm Cell Fertilization Test 15C							Nautilus Environmental (CA)				
Batch ID:	05-0135-5326	Test Type:	Fertilization	Analyst:							
Start Date:	24 Jun-16 15:20	Protocol:	EPA/600/R-95/136 (1995)	Diluent:	Not Applicable						
Ending Date:	24 Jun-16 16:00	Species:	Strongylocentrotus purpuratus	Brine:	Not Applicable						
Duration:	40m	Source:	Pt. Loma	Age:							
Sample ID:	07-1325-5006	Code:	16-0804	Client:	Anchor QEA						
Sample Date:	23 Jun-16 15:30	Material:	Ambient Water	Project:	pu camp Dry weather						
Receive Date:	24 Jun-16 09:17	Source:	Anchor QEA								
Sample Age:	24h (2.6 °C)	Station:	RW2								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
09-9402-1176	Fertilization Rate	100	>100	NA	3.86%	1	TST-Welch's t Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
09-9402-1176	Fertilization Rate	Control Resp	0.908	0.7 - NL	Yes	Passes Acceptability Criteria					
09-9402-1176	Fertilization Rate	PMSD	0.0386	NL - 0.25	No	Passes Acceptability Criteria					
Fertilization Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.908	0.8515	0.9645	0.86	0.96	0.02035	0.0455	5.01%	0.0%
100		5	0.958	0.9376	0.9784	0.94	0.98	0.007348	0.01643	1.72%	-5.51%
Fertilization Rate Detail											
C-100%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	0.9	0.96	0.95	0.87	0.86					
100		0.98	0.97	0.95	0.95	0.94					

CETIS Analytical Report

Report Date: 08 Jul-16 11:50 (p 1 of 1)

Test Code: 1606-S178 | 10-4914-8241

Echinoid Sperm Cell Fertilization Test 15C						Nautilus Environmental (CA)	
--	--	--	--	--	--	-----------------------------	--

Analysis ID: 09-9402-1176	Endpoint: Fertilization Rate	CETIS Version: CETISv1.8.7
Analyzed: 08 Jul-16 11:50	Analysis: Parametric Bioequivalence-Two Sample	Official Results: Yes

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Angular (Corrected)	NA	C*b < T	NA	NA	0.75	3.86%	Passes fertilization rate

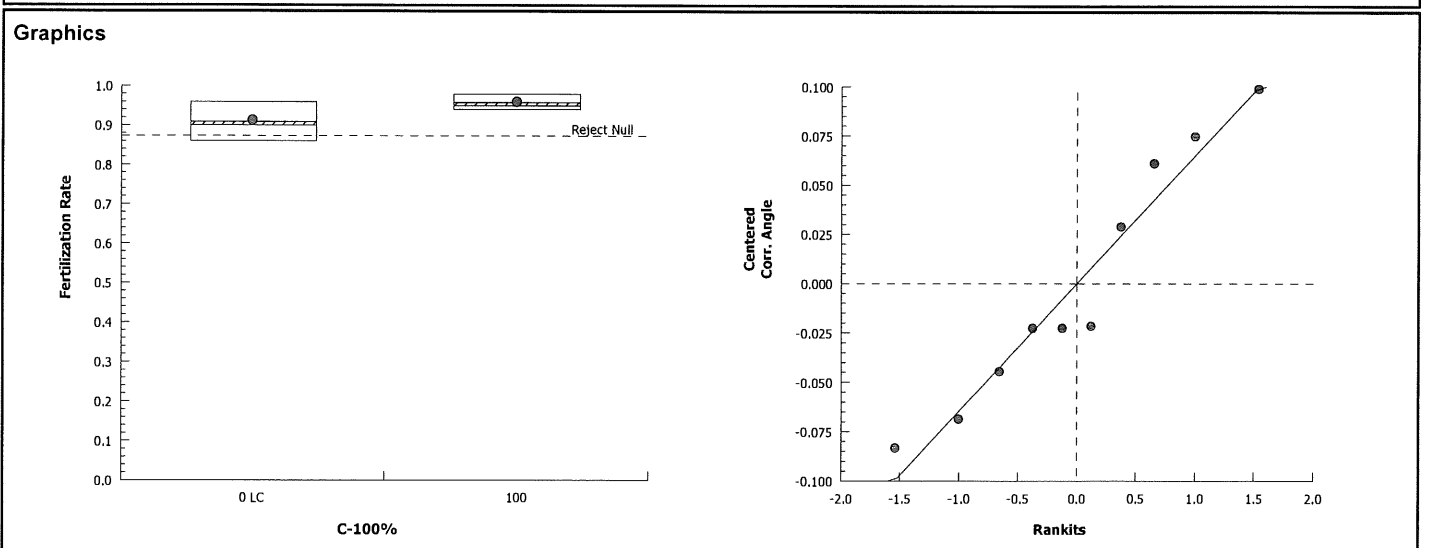
TST-Welch's t Test									
Control	vs	C-100%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α :5%)
Lab Control		100*	12.23	1.895	0.064	7	<0.0001	CDF	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α :5%)
Between	0.02366901	0.02366901	1	5.406	0.0485	Significant Effect
Error	0.035026	0.00437825	8			
Total	0.05869501		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision(α :1%)
Variances	Variance Ratio F	3.633	23.15	0.2393	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9316	0.7411	0.4640	Normal Distribution

Fertilization Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.908	0.8515	0.9645	0.9	0.86	0.96	0.02035	5.01%	0.0%
100		5	0.958	0.9376	0.9784	0.95	0.94	0.98	0.007348	1.72%	-5.51%

Angular (Corrected) Transformed Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.271	1.168	1.373	1.249	1.187	1.369	0.03706	6.52%	0.0%
100		5	1.368	1.314	1.422	1.345	1.323	1.429	0.01944	3.18%	-7.66%



Echinoderm Bioassay

Fertilization

Client: Anchor QEATest Species: S. purpuratusProject ID: PV CIMP Dry WeatherStart Date/Time: 6/24/2016 1520Test No.: 1606-S177, -S178End Date/Time: 6/24/2016 1600

Random No.	Total # Counted	# Fertilized	Technician Initials
31	100	87	NHE 7/1/16
32	100	95	
33	100	98	
34	100	97	
35	100	96	
36	100	97	
37	100	96	
38	100	95	
39	100	94	
40	100	97	
41	100	98	
42	100	95	
43	100	86	
44	100	93	
45	100	90	
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			
64			
65 QIBVS	7/7/16		

QC Check: VB 7/7/16Final Review: AC 7/8/16

Anchor QEA/PV CIMP Dry Weather
Urchin Fertilization Test
Random Number Assignment
Test Initiation Date: 6/24/16

Sample ID	Rand#
Lab Control	45
	35
	42
	31
	43
RW #1	37
	36
	33
	34
	44
RW #2	41
	40
	38
	32
	39

924/100 AD 6/24/16

97/100

98/100

QC: AD

Marine Chronic Bioassay

Water Quality Measurements

Client : Anchor QEA/ PV Cimp Dry WeatherTest Species: S. purpuratusSample ID: RW1, RW2 (Peninsula 06-23-16)Start Date/Time: 6/24/2016 1520Sample Log No.: 16-0803, -0804End Date/Time: 6/24/2016 1600Dilutions made by: ADTest No: 1606-S177, -S178

Analyst:

AP

Sample ID	Initial Readings			
	DO (mg/L)	pH (units)	Salinity (ppt)	Temperature (°C)
Lab Control	8.2	7.99	33.5	15.2
RW1	8.4	8.11	33.6	14.4
RW2	8.4	8.13	33.7	14.3

Comments: _____

QC Check: KB 7/7/16Final Review: AC 7/8/16

Marine Chronic Bioassay

Echinoderm Sperm-Cell Fertilization Worksheet

Client: Anchor QEA
 Sample ID: PV Camp Dry Weather
 Test No.: 1606-5177, -5178

Start Date/Time: 6/24/16 1520
 End Date/Time: 6/24/16 1600
 Species: S. purpuratus
 Animal Source: PT 15ma
 Date Collected: 5/31/16

Tech initials: AD
 Injection Time: 1425

Sperm Absorbance at 400 nm: 1.000 (target range of 0.8 - 1.0 for density of 4×10^6 sperm/ml)

Eggs Counted: 130 Mean: 138.4 X 50 = 6920 eggs/ml

132
147
138

(target counts of 80 eggs per vertical pass on Sedgwick-Rafter slide for a final density of 4000 eggs/ml)

@ 154145

Initial density: 6920 eggs/ml = 1.73 dilution factor egg stock 100 ml
 Final density: 4000 eggs/ml - 1.0 part egg stock seawater 73 ml
.73 parts seawater

Prepare the embryo stock according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

	Sperm:Egg Ratio							
RangeFinder Test:	2000:1	1600:1	1200:1	800:1	400:1	200:1	100:1	50:1
ml Sperm Stock	50	40	30	20	10	5.0	2.5	1.25
ml Seawater	0.0	10	20	30	40	45	47.5	48.75

	Time	RangeFinder Ratio:	Fert.	Unfert.
Sperm Added (100 μ l):	<u>1445</u>	<u>50:1</u>	<u>73</u>	<u>27</u>
Eggs Added (0.5 ml):	<u>1500</u>	<u>100:1</u>	<u>92</u>	<u>8</u>
Test Ended:	<u>1510</u>	<u>200:1</u>	<u>99</u>	<u>1</u>

NOTE: Choose a sperm-to-egg ratio that results in fertilization between 80 and 90 percent. If more than one concentration is within this range, choose the ratio closest to 90 percent unless professional judgment dictates consideration of other factors (e.g., organism health, stage of reproductive season, site conditions).

Definitive Test

Sperm:Egg Ratio Used: 100:1

	Time		Fert.	Unfert.
Sperm Added (100 μ l):	<u>1520</u>	QC1	<u>96</u>	<u>4</u>
Eggs Added (0.5 ml):	<u>1540</u>	QC2	<u>91</u>	<u>9</u>
Test Ended:	<u>1600</u>	Egg Control 1	<u>0</u>	<u>100</u>
		Egg Control 2	<u>0</u>	<u>100</u>

Comments:

QAD 018 6/24/16

QC Check:

AC 6/28/16

Final Review: KB 7/7/16

Red Abalone Development Test

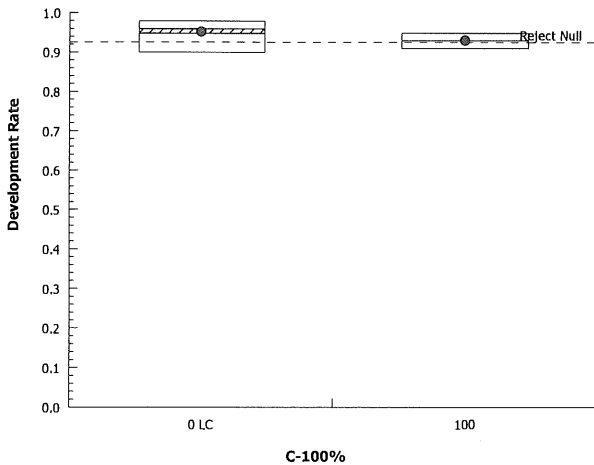
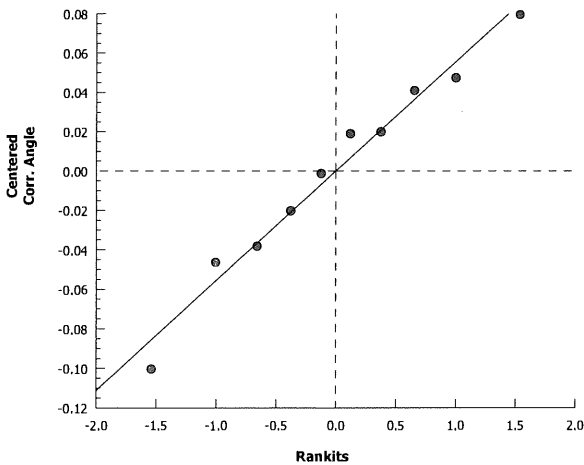
CETIS Summary Report

Report Date: 08 Jul-16 12:04 (p 1 of 1)
 Test Code: 1606-S175 | 16-3433-6099

Red Abalone Larval Development Test						Nautilus Environmental (CA)					
Batch ID:	14-0306-0475	Test Type:	Development			Analyst:					
Start Date:	24 Jun-16 14:25	Protocol:	EPA/600/R-95/136 (1995)			Diluent:	Not Applicable				
Ending Date:	26 Jun-16 12:55	Species:	Haliotis rufescens			Brine:	Not Applicable				
Duration:	46h	Source:	American Abalone			Age:					
Sample ID:	08-6123-3181	Code:	16-0803			Client:	Anchor QEA				
Sample Date:	23 Jun-16 14:13	Material:	Ambient Water			Project:	PN CIMP Dry Weather				
Receive Date:	24 Jun-16 09:17	Source:	Anchor QEA								
Sample Age:	24h (2.3 °C)	Station:	RW1								
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
13-7313-3791	Development Rate	100	>100	NA	2.35%	1	TST-Welch's t Test				
Test Acceptability											
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision			
13-7313-3791	Development Rate	Control Resp		0.948	0.8 - NL		Yes	Passes Acceptability Criteria			
13-7313-3791	Development Rate	PMSD		0.0235	NL - 0.2		No	Passes Acceptability Criteria			
Development Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.948	0.9074	0.9886	0.9	0.98	0.01463	0.03271	3.45%	0.0%
100		5	0.93	0.9104	0.9496	0.91	0.95	0.007071	0.01581	1.7%	1.9%
Development Rate Detail											
C-100%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	0.98	0.97	0.93	0.96	0.9					
100		0.94	0.95	0.92	0.93	0.91					

CETIS Analytical Report

Report Date: 08 Jul-16 12:03 (p 1 of 1)
Test Code: 1606-S175 | 16-3433-6099

Red Abalone Larval Development Test							Nautilus Environmental (CA)				
Analysis ID: 13-7313-3791		Endpoint: Development Rate			CETIS Version: CETISv1.8.7						
Analyzed: 08 Jul-16 12:03		Analysis: Parametric Bioequivalence-Two Sample			Official Results: Yes						
Data Transform		Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result			
Angular (Corrected)		NA	C*b < T	NA	NA	0.75	2.35%	Passes development rate			
TST-Welch's t Test											
Control vs C-100%		Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α :5%)			
Lab Control 100*		10.39	1.943	0.055	6	<0.0001	CDF	Non-Significant Effect			
ANOVA Table											
Source		Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α :5%)				
Between		0.005077863	0.005077863	1	1.619	0.2390	Non-Significant Effect				
Error		0.02509383	0.003136728	8							
Total		0.03017169		9							
Distributional Tests											
Attribute Test		Test Stat	Critical	P-Value	Decision(α :1%)						
Variances Variance Ratio F		5.413	23.15	0.1307	Equal Variances						
Distribution Shapiro-Wilk W Normality		0.979	0.7411	0.9598	Normal Distribution						
Development Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.948	0.9074	0.9886	0.96	0.9	0.98	0.01463	3.45%	0.0%
100		5	0.93	0.9104	0.9496	0.93	0.91	0.95	0.007071	1.7%	1.9%
Angular (Corrected) Transformed Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.349	1.259	1.44	1.369	1.249	1.429	0.03254	5.39%	0.0%
100		5	1.304	1.266	1.343	1.303	1.266	1.345	0.01399	2.4%	3.34%
Graphics											
											

CETIS Summary Report

Report Date: 08 Jul-16 12:08 (p 1 of 1)
 Test Code: 1606-S176 | 16-7993-9008

Red Abalone Larval Development Test							Nautilus Environmental (CA)				
Batch ID:	07-6247-5105		Test Type: Development				Analyst:				
Start Date:	24 Jun-16 14:25		Protocol: EPA/600/R-95/136 (1995)				Diluent:		Not Applicable		
Ending Date:	26 Jun-16 12:55		Species: Haliotis rufescens				Brine:		Not Applicable		
Duration:	46h		Source: American Abalone				Age:				
Sample ID:	03-6094-9502		Code: 16-0804				Client:		Anchor QEA		
Sample Date:	23 Jun-16 15:30		Material: Ambient Water				Project:				
Receive Date:	24 Jun-16 09:17		Source: Anchor QEA								
Sample Age:	23h (2.6 °C)		Station: RW2								
Comparison Summary											
Analysis ID	Endpoint		NOEL	LOEL	TOEL	PMSD	TU	Method			
07-7839-2087	Development Rate		100	>100	NA	2.61%	1	TST-Welch's t Test			
Test Acceptability											
Analysis ID	Endpoint		Attribute		Test Stat	TAC Limits		Overlap	Decision		
07-7839-2087	Development Rate		Control Resp		0.948	0.8 - NL		Yes	Passes Acceptability Criteria		
07-7839-2087	Development Rate		PMSD		0.02614	NL - 0.2		No	Passes Acceptability Criteria		
Development Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.948	0.9074	0.9886	0.9	0.98	0.01463	0.03271	3.45%	0.0%
100		5	0.938	0.9141	0.9619	0.92	0.97	0.008602	0.01924	2.05%	1.06%
Development Rate Detail											
C-100%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	0.98	0.97	0.93	0.96	0.9					
100		0.92	0.97	0.93	0.94	0.93					

CETIS Analytical Report

Report Date: 08 Jul-16 12:08 (p 1 of 1)
Test Code: 1606-S176 | 16-7993-9008

Red Abalone Larval Development Test					Nautilus Environmental (CA)		
Analysis ID:	07-7839-2087	Endpoint:	Development Rate		CETIS Version:	CETISv1.8.7	
Analyzed:	08 Jul-16 12:08	Analysis:	Parametric Bioequivalence-Two Sample		Official Results:	Yes	

Data Transform	Zeta	Alt Hyp	Trials	Seed	TST b	PMSD	Test Result
Angular (Corrected)	NA	C*b < T	NA	NA	0.75	2.61%	Passes development rate

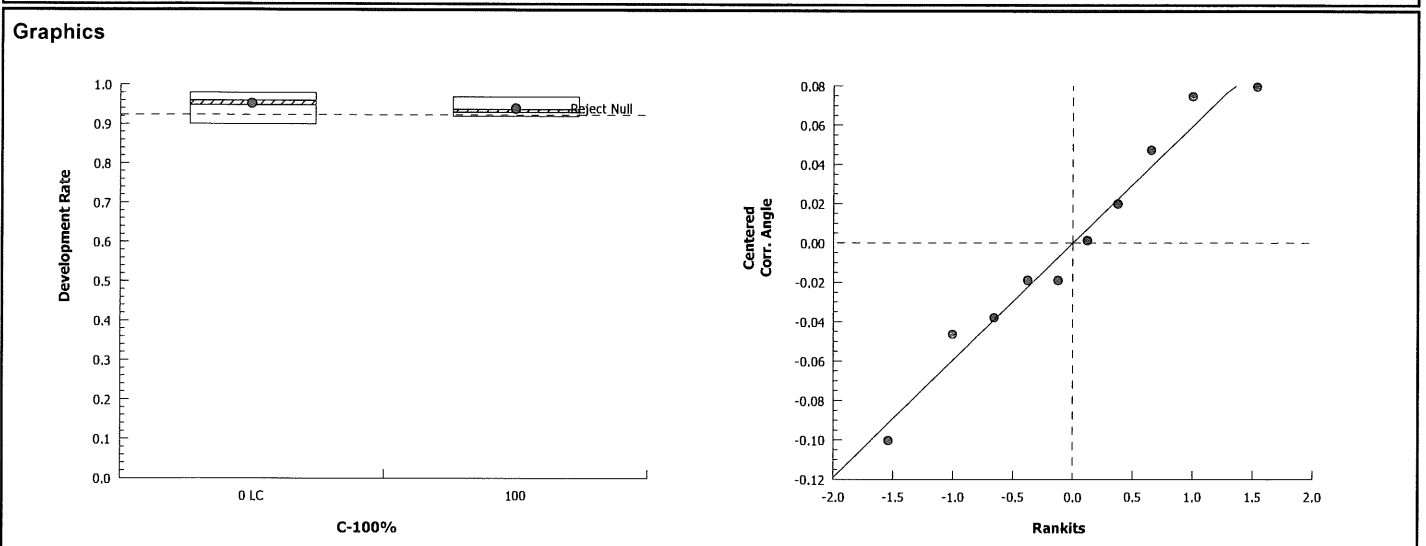
TST-Welch's t Test									
Control	vs	C-100%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α :5%)
Lab Control		100*	9.887	1.895	0.059	7	<0.0001	CDF	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α :5%)
Between	0.001876391	0.001876391	1	0.519	0.4918	Non-Significant Effect
Error	0.0289254	0.003615675	8			
Total	0.0308018		9			

Distributional Tests					
Attribute	Test	Test Stat	Critical	P-Value	Decision(α :1%)
Variances	Variance Ratio F	2.735	23.15	0.3533	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.963	0.7411	0.8194	Normal Distribution

Development Rate Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.948	0.9074	0.9886	0.96	0.9	0.98	0.01463	3.45%	0.0%
100		5	0.938	0.9141	0.9619	0.93	0.92	0.97	0.008602	2.05%	1.06%

Angular (Corrected) Transformed Summary											
C-100%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.349	1.259	1.44	1.369	1.249	1.429	0.03254	5.39%	0.0%
100		5	1.322	1.267	1.377	1.303	1.284	1.397	0.01968	3.33%	2.03%



48-hour Development

Test Species: *H. rufescens*

Start Date/Time: 6/24/2016 1425

End Date/Time: 6/26/2016 1255

[illegible]

QC Check: AC 7/8/16

Final Review: KB7/0/10

**Anchor QEA/PV CIMP Dry Weather
48-hr Abalone Development Test
Random Number Assignment
Test Initiation Date: 6/24/16**

Sample ID	Rand#
Lab Control	44 97/100
	31
	43
	38
	34
#1	35
	41
	40
	37
	33 98/100
#2	39
	36
	42 94/100
	45
	32

CH 6/26/16

QC: AG

Marine Chronic Bioassay

Water Quality Measurements

Client: Anchor QEA/ PV CIMP Dry Weather
 Sample ID: Peninsula RW1 + RW2
 Sample Log No.: 16-0803, 0804
 Test No.: 1606-SITS, 176

Test Species: H. rufescens
 Start Date/Time: 6/24/2016 1425
 End Date/Time: 6/26/2016 1255

Sample ID	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control	33.5	33.2	33.3	15.8	15.2	15.0	8.0	8.4	8.2	8.06	8.03	8.05
Anchor RW1	33.4	33.6	33.5	14.3	14.7	14.8	8.6	8.5	8.0	8.22	8.13	8.07
Anchor ^{RW} 2	33.6	33.7	33.7	14.0	14.6	14.5	8.6	8.5	8.1	8.24	8.14	8.08

Technician Initials: _____ WQ Readings:

0	24	48
AB	AD	CH

 Dilutions made by:

AB		
----	--	--

Comments: 0 hrs: _____
 24 hrs: _____
 48 hrs: _____

QC Check: AC 6/7/8/16
 Final Review: CB 7/8/16

Client:

Anchor QEA/ PV Cimp
Dry WeatherTest Species: Haliotis rufescens

Sample ID:

RW #1, RW #2Start Date/Time: 6/24/2016 1425

Test No.:

1606-S175, -S176End Date/Time: 6/26/2016 1255

Animal Source/Date Received:

American Abalone / 6-10-16

Number of abalone and condition upon receipt/holding:

Males:

4

Females:

4

	Males:	Females:
Tris & peroxide addition time	1030	1010
Spawn time	1240	1315
Number of spawners	4	3
Condition of spawn (light, moderate, heavy)	Heavy	Heavy
Fertilization time	1235	

Embryo counts (per 0.5 ml)	
1	154
2	163
3	170
Mean	162

Time of test Initiation: 142548 hr. QC 9890

Technician Initials:

AB

Comments:

QC Check:

ACCA/29/16

Final Review:

KB-7/10/16

Appendix C
Reference Toxicant Testing
Control Charts

Echinoid Sperm Cell Fertilization Test 15C

Nautilus Environmental (CA)

Test Type: Fertilization

Organism: Strongylocentrotus purpuratus (Purpl

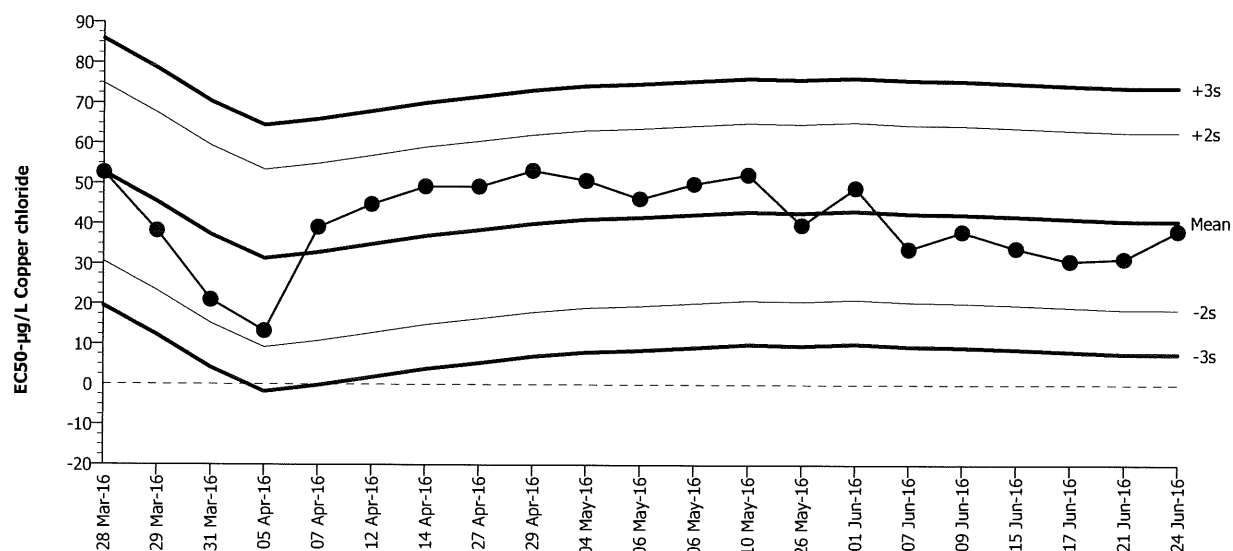
Material: Copper chloride

Protocol: EPA/600/R-95/136 (1995)

Endpoint: Fertilization Rate

Source: Reference Toxicant-REF

Echinoid Sperm Cell Fertilization Test 15C



Mean: 40.88

Count: 20

-2s Warning Limit: 18.78

-3s Action Limit: 7.735

Sigma: 11.05

CV: 27.00%

+2s Warning Limit: 62.98

+3s Action Limit: 74.03

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2016	Mar	28	15:15	52.67	11.79	1.067			01-1250-0132	12-4732-1302
2			29	15:36	38.2	-2.679	-0.2424			14-1271-0737	06-9650-6083
3			31	15:40	20.99	-19.89	-1.8			05-3706-7973	17-2403-9594
4		Apr	5	16:08	13.31	-27.57	-2.495	(-)		07-1492-7217	05-1218-7200
5			7	16:53	39.16	-1.72	-0.1556			13-1714-8389	07-8514-2311
6			12	14:47	44.84	3.958	0.3582			19-5147-8314	08-6134-7942
7			14	15:35	49.29	8.41	0.7611			21-1783-0848	07-9794-1434
8			27	14:19	49.3	8.416	0.7616			04-9099-8665	14-1557-1447
9			29	15:01	53.26	12.38	1.12			16-5935-0780	20-7483-2813
10		May	4	15:00	50.82	9.945	0.9			12-0952-8454	10-8089-8088
11			6	11:12	46.3	5.422	0.4907			06-7760-8866	01-1421-0896
12			6	15:15	50	9.119	0.8252			02-1182-8629	02-7785-5640
13			10	12:27	52.34	11.46	1.037			14-6219-6750	17-0185-7710
14			26	15:19	39.8	-1.077	-0.09744			11-5696-1403	10-7249-4650
15		Jun	1	15:20	49.05	8.172	0.7395			18-6906-2633	21-0496-7957
16			7	14:47	33.83	-7.047	-0.6378			21-1734-2250	13-3727-4258
17			9	16:20	38.2	-2.68	-0.2426			06-2733-5246	17-2186-5322
18			15	15:25	34.01	-6.874	-0.6221			03-4063-9508	20-0101-7054
19			17	15:44	30.87	-10.01	-0.9062			20-7637-7533	04-8261-1748
20			21	16:20	31.45	-9.429	-0.8533			04-4219-3612	11-8526-3112
21			24	15:20	38.41	-2.467	-0.2232			05-7610-1132	19-7360-1177

Red Abalone Larval Development Test

Nautilus Environmental (CA)

Test Type: Development

Organism: *Haliotis rufescens* (Red Abalone)

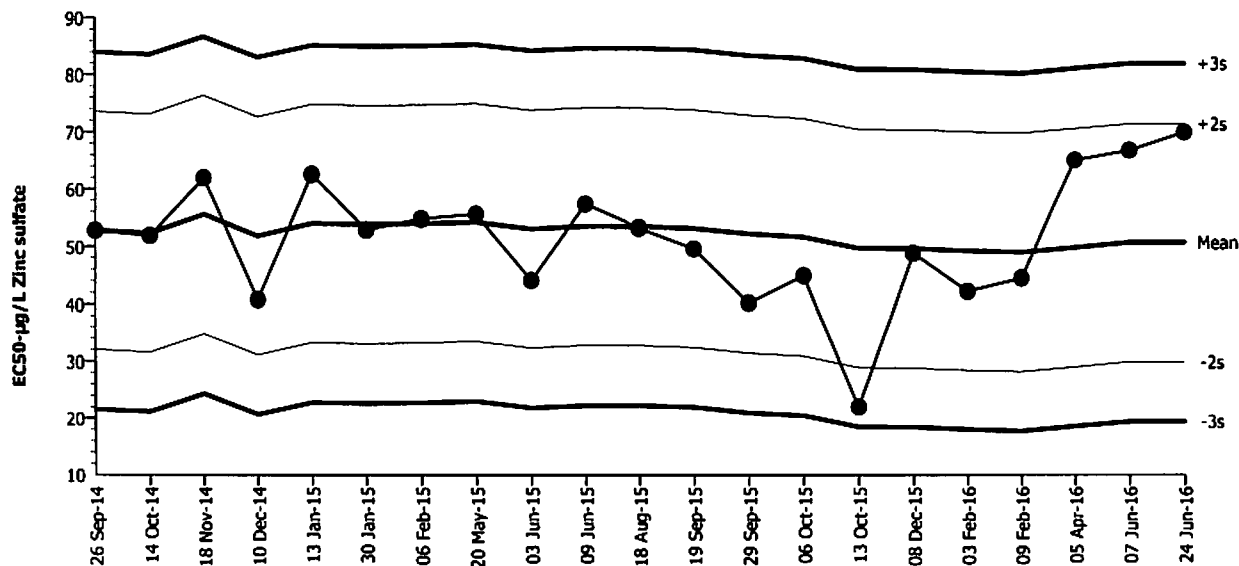
Material: Zinc sulfate

Protocol: EPA/600/R-95/136 (1995)

Endpoint: Development Rate

Source: Reference Toxicant-REF

Red Abalone Larval Development Test



Mean: 50.52

Count: 20

-2s Warning Limit: 29.74

-3s Action Limit: 19.35

Sigma: 10.39

CV: 20.60%

+2s Warning Limit: 71.3

+3s Action Limit: 81.69

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2014	Sep	26	16:10	52.78	2.263	0.2178			12-0077-1970	07-6392-1596
2		Oct	14	15:30	51.91	1.387	0.1335			01-1692-6353	05-8596-4968
3		Nov	18	15:05	61.92	11.4	1.097			12-7477-5365	16-0305-1770
4		Dec	10	15:30	40.8	-9.718	-0.9353			18-3651-9027	05-5260-7606
5	2015	Jan	13	14:48	62.52	12	1.155			11-7205-2664	10-2598-5960
6			30	15:22	52.83	2.308	0.2221			06-2409-9903	03-0729-5027
7		Feb	6	13:33	54.69	4.169	0.4013			19-4508-4987	07-8543-5535
8		May	20	14:15	55.54	5.017	0.4829			08-9621-2840	00-2924-1270
9		Jun	3	14:15	44	-6.517	-0.6273			08-7968-5659	15-1264-2071
10			9	21:15	57.28	6.756	0.6502			07-8975-1166	13-0330-2233
11		Aug	18	15:10	53.14	2.616	0.2517			17-4116-9756	11-4841-2516
12		Sep	19	16:00	49.51	-1.011	-0.09733			20-1654-2615	01-6398-1770
13			29	14:30	40.16	-10.36	-0.9967			18-4513-3412	05-2148-0293
14		Oct	6	15:00	44.88	-5.641	-0.5429			01-0669-3210	16-1524-0101
15			13	14:25	21.9	-28.62	-2.754	(-)		20-0823-8934	20-2925-4984
16		Dec	8	14:55	48.64	-1.882	-0.1812			07-6360-4835	09-9967-6913
17	2016	Feb	3	15:00	42.1	-8.419	-0.8103			04-0326-9576	20-3139-0076
18			9	15:20	44.37	-6.151	-0.592			16-0480-1141	12-3184-0885
19		Apr	5	14:25	64.82	14.3	1.376			08-4093-2571	02-8770-0519
20		Jun	7	14:15	66.61	16.09	1.548			12-6474-3945	19-6828-3247
21			24	14:25	69.81	19.29	1.856			01-4992-2747	14-0541-2187

Appendix D
Laboratory Qualifier Codes

Glossary of Qualifier Codes:

- Q1 - Temperatures out of recommended range; corrective action taken and recorded in Test Temperature Correction Log
- Q2 - Temperatures out of recommended range; no action taken, test terminated same day
- Q3 - Sample aerated prior to initiation or renewal due to dissolved oxygen (D.O.) levels below 6.0 mg/L
- Q4 - Test aerated; D.O. levels dropped below 4.0 mg/L
- Q5 - Test initiated with aeration due to an anticipated drop in D.O.
- Q6 - Airline obstructed or fell out of replicate and replaced; drop in D.O. occurred
- Q7 - Salinity out of recommended range
- Q8 - Spilled test chamber/ Unable to recover test organism(s)
- Q9 - Inadequate sample volume remaining, 50% renewal performed
- Q10 - Inadequate sample volume remaining, no renewal performed
- Q11 - Sample out of holding time; refer to QA section of report
- Q12 - Replicate(s) not initiated; excluded from data analysis
- Q13 - Survival counts not recorded due to poor visibility or heavy debris
- Q14 - D.O. percent saturation was checked and was $\leq 110\%$
- Q15 - Did not meet minimum test acceptability criteria. Refer to QA section of report.
- Q16 - Percent minimum significant difference (PMSD) was below the lower bound limit for acceptability. This indicates that statistics may be over-sensitive in detecting a difference from the control due to low variability in the data set.
- Q17 - Percent minimum significant difference (PMSD) was above the upper bound limit for acceptability. This indicates that statistics may be under-sensitive in detecting a difference from the control due to high variability in the data set.
- Q18 - Incorrect Entry
- Q19 - Illegible Entry
- Q20 - Miscalculation
- Q21 - Other (provide reason in comments section)
- Q22 - Greater than 10% mortality observed upon receipt and/or in holding prior to test initiation. Organisms acclimated to test conditions at Nautilus and ultimately deemed fit to use for testing.
- Q23 - Test organisms received at a temperature greater than 3°C outside the recommended test temperature range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.
- Q24 - Test organisms received at salinity greater than 3 ppt outside of the recommended test salinity range. However, due to age-specific protocol requirements and/or sample holding time constraints, the organisms were used to initiate tests upon the day of arrival. Organisms were acclimated to the appropriate test conditions upon receipt and prior to test initiation.

ATTACHMENT D

DATA VALIDATION REPORT

DATA VALIDATION REVIEW REPORT – EPA STAGE 2A

Project: Palos Verdes Peninsula (PVP) Coordinated Integrated Monitoring Plan (CIMP) Receiving Water (RW) – Dry Weather Event #1 (D1)

Project Number: 161338-01.01

Date: October 6, 2016

This report summarizes the review of analytical results for two water samples and one field duplicate collected June 23 and August 25, 2016. The samples were collected by Anchor QEA, LLC, and submitted to Eurofins Calscience, Inc. (ECI), in Garden Grove, California, and to Applied Microbiological Services (AMS) in Long Beach, California. ECI subcontracted analyses to Eurofins Eaton Analytical (EEA) in Monrovia, California and Weck Laboratories, Inc. (Weck) in City of Industry, California. The samples were analyzed for the following parameters:

- Perchlorate by United States Environmental Protection Agency (USEPA) method 314.0
 - Hexavalent chromium by USEPA method 7199
 - Hexane extractable material: oil and grease by USEPA method 1664A
 - Total Kjeldahl nitrogen (TKN) by USEPA method 351.2
 - Total and dissolved phosphorous (P) by USEPA method 365.1
 - Phenolics by USEPA method 420.1
 - Turbidity by USEPA method 2130B
 - Alkalinity by Standard Method (SM) 2320B
 - Total hardness by USEPA method 2340C
 - Total dissolved solids by SM 2540C
 - Total suspended solids by SM 2540D
 - Volatile suspended solids by SM 2540 D/E
 - Chloride by SM 4500-Cl C
 - Total cyanide by SM 4500-CN E
 - Fluoride by SM 4500-F C
 - Ammonia by SM 4500-NH3 F
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- Nitrate/nitrite by SM 4500 NO3 E
 - Biochemical oxygen demand (BOD) by SM 5210 B
 - Chemical oxygen demand by SM 5220 C
 - Total organic carbon (TOC) by SM 5310 B
 - Methylene blue active substances by SM 5540 C
 - Total petroleum hydrocarbons (C6-C44) by USEPA method 8015B (M)
 - Total and dissolved mercury by USEPA method 7470A
 - Total and dissolved metals by USEPA method 1640
 - Semi-volatile organic compounds (SVOCs) by USEPA method 625 with selective ion monitoring (SIM)
 - Toxaphene by USEPA method 8081A
 - Polychlorinated biphenyl Aroclors (PCBs) by USEPA method 8082
 - Chlorinated herbicides by USEPA 8151A
 - Organochlorine (OC pesticides) by USEPA method 8270C SIM
 - Volatile organic compounds (VOCs) by USEPA method 624
 - Polychlorinated biphenyl congeners (PCBs) by USEPA method 8270C SIM
 - Glyphosate by USEPA method 547
 - Total coliforms, fecal coliforms, Enterococci and E. Coli by SM 9221B
 - Organophosphate (OP) pesticides by USEPA method 525.2
 - Hexavalent chromium (CrVI) by USEPA 7199

ECI sample data group (SDG) numbers 16-06-1746, 16-06-1746_s1, and 16-08-1854 and AMS SDG S6409-11 were reviewed in this report. Sample IDs, matrices, and analyses conducted are presented in Table 1.

Table 1
Sample IDs, Matrices, and Analyses

Sample ID	ECI Lab ID	Weck Lab ID	EEA Lab ID	AMS Lab ID	Matrix	Analyses
Peninsula-RW1-06-23-16	16-06-1746-1	--	201606280604	6409	Water	All analyses listed above, except OP pesticides and CrVI

Sample ID	ECI Lab ID	Weck Lab ID	EEA Lab ID	AMS Lab ID	Matrix	Analyses
Peninsula-RW101-06-23-16	16-06-1746-2	--	201606280605	6410	Water	All analyses listed above, except OP pesticides and CrVI
Peninsula-RW2-06-23-16	16-06-1746-3	--	201606280606	6411	Water	All analyses listed above, except OP pesticides and CrVI
Peninsula-RW1-08-25-16	16-08-1854-1	6H25081-01	--	--	Water	OP pesticides and CrVI
Peninsula-RW101-08-25-16	16-08-1854-2	6H25081-02	--	--	Water	OP pesticides and CrVI
Peninsula-RW2-08-25-16	16-08-1854-3	6H25081-03	--	--	Water	Total metals (beryllium), OP pesticides and CrVI

Notes:

ID = identifier

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective sections of the Sampling and Analysis Plan (SAP; Anchor QEA 2014).

Laboratory results were reviewed using the following guidelines:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA 2008)
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (USEPA 2010)

Laboratory and method QC criteria were also used as stated in USEPA 1986 (SW-846, Third Edition), *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, update 1, August 1993; update II, January 1995; update IIA, February 1994; update IIB, August 1995; update III, June 1997; update IIIA, May 1999; update IIIB, June 2008; update IVA and IVB, January 2008. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by ECI, Weck, EEA, and AMS at the time of sample receipt; the samples were received within the recommended temperature range and in good condition. One container for VOC analysis contained headspace. A total of three containers were submitted for that analysis so the laboratory analyzed a sample from a container without headspace.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyzed within holding times, with the following exceptions:

- Conventionals: Samples Peninsula-RW1-06-23-16 and Peninsula-RW101-06-23-16 were analyzed for volatile suspended solids slightly past the hold time of 7 days. Results were qualified “J” to indicate they may have a low bias.
- OP pesticides: Chlorpyrifos and malathion were extracted from sample Peninsula-RW2-08-25-16, 2 days past the 7-day hold time. Results were qualified “UJ” to indicate a potentially low bias.

See Table 3 for qualified data.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. Several metals were detected in the method blanks associated with both the total and dissolved fractions. Sample results that were either below detection or significantly greater than (five times) the method blank concentration were not qualified. Two total lead results were qualified as non-detects at the reporting limit. All other method blanks were free of target analytes.

Field Quality Control

Field Blanks and Equipment Blanks

Field blanks were not required for this sampling event.

Field Duplicates

Two field duplicates were collected in association with this sample set. Detected results and relative percent difference (RPDs) values are summarized in Table 2.

Table 2
Field Duplicate Summary

Analyte	Peninsula-RW01-06-23-16	Peninsula-RW101-06-23-16	RPD	Difference	Reporting Limit
Dissolved aluminum	2.77 µg/L	0.547J µg/L	134%	2.2 µg/L	1 µg/L
Dissolved antimony	0.136 µg/L	0.127 µg/L	7%	0.009 µg/L	0.05 µg/L
Dissolved arsenic	1.18 µg/L	1.11 µg/L	6%	--	--
Dissolved beryllium	0.0727J µg/L	0.5U µg/L	200%	--	--
Dissolved cadmium	0.0499 µg/L	0.0201J µg/L	85%	0.03 µg/L	0.03 µg/L
Dissolved chromium	0.293J µg/L	0.256J µg/L	13%	0.04 µg/L	0.5 µg/L
Dissolved copper	0.901 µg/L	0.641 µg/L	34%	--	--
Dissolved iron	7.68 µg/L	2.66 µg/L	97%	--	--
Dissolved lead	0.0738 µg/L	0.03U µg/L	200%	--	--
Dissolved nickel	3.0 µg/L	2.07 µg/L	37%	--	--
Dissolved selenium	0.014J µg/L	0.029J µg/L	70%	0.015 µg/L	0.05 µg/L
Dissolved zinc	1.45 µg/L	1.11 µg/L	27%	0.34 µg/L	0.5 µg/L
Total aluminum	1.62 µg/L	0.562J µg/L	97%	1.058 µg/L	1 µg/L
Total antimony	0.134 µg/L	0.127 µg/L	5%	0.007 µg/L	0.05 µg/L
Total arsenic	1.32 µg/L	1.23 µg/L	7%	--	--
Total beryllium	0 µg/L	0.069J µg/L	200%	--	--
Total cadmium	0.0185J µg/L	0.0382 µg/L	69%	0.0197 µg/L	0.03 µg/L
Total chromium	0.338J µg/L	0.5U µg/L	200%	--	--
Total copper	0.652 µg/L	0.648 µg/L	1%	--	--
Total iron	6.74 µg/L	3.55 µg/L	62%	--	--
Total nickel	2.17 µg/L	1.84 µg/L	16%	--	--
Total zinc	0.696 µg/L	0.857 µg/L	21%	0.161 µg/L	0.5 µg/L
HEM: Oil and Grease	2 mg/L	1.6 mg/L	22%	0.4 mg/L	1 mg/L
Total Kjeldahl Nitrogen	0.11J mg/L	0.16J mg/L	37%	0.05 mg/L	0.2 mg/L
Phosphorus, Total	0.05U mg/L	0.024J mg/L	200%	--	--
PCB018	0.00049J µg/L	0.0019U µg/L	200%	--	--
PCB118	0.0019U µg/L	0.00065J µg/L	200%	--	--
Turbidity	1.3 NTU	0.62 NTU	71%	--	--
Alkalinity, Total (as CaCO ₃)	109 mg/L	110 mg/L	1%	--	--

Analyte	Peninsula-RW01-06-23-16	Peninsula-RW101-06-23-16	RPD	Difference	Reporting Limit
Hardness, Total (as CaCO ₃)	6000 mg/L	6000 mg/L	0%	--	--
Solids, Total Dissolved	35300 mg/L	35600 mg/L	1%	--	--
Chloride	20000 mg/L	20000 mg/L	0%	--	--
Fluoride	0.88 mg/L	0.87 mg/L	1%	--	--
Nitrate-Nitrite (as N)	0.055J mg/L	0.043J mg/L	24%	0.012 mg/L	0.1 mg/L
Biochemical Oxygen Demand	1.9 mg/L	2.6 mg/L	31%	0.7 mg/L	1 mg/L
Chemical Oxygen Demand	280 mg/L	280 mg/L	0%	--	--
Carbon, Total Organic	1.6 mg/L	14 mg/L	159%	12.4 mg/L	0.5 mg/L

Notes:

μg/L = microgram per liter

mg/L = milligram per liter

RPD = relative percent difference

Results at or near the reporting limit (RL) may have exaggerated RPD values. Non-detect results were treated as zero for the purpose of calculating RPD values. Most results are within the project required control limit of less than or equal to 25% RPD value.

The RPD control limit does not apply when one result is below detection, or when either result is less than five times the RL, and the difference between the results is less than the RL. The difference between results for total cadmium, TKN, and BOD were less than the RL. Dissolved aluminum, copper, iron and nickel, total aluminum and iron, turbidity, and TOC had RPD values above the data quality objective. Although total and dissolved aluminum and TOC had at least one result within five times the RL, the differences between the values were greater than the RL.

No data were qualified based on field duplicate results.

Surrogate Recoveries

Surrogate recoveries were within laboratory control limits, with the exceptions of 1,3-dimethyl-2-nitrobenzene and triphenyl phosphate, which recovered above the control limit in the OPP analysis of samples Peninsula-RW1-08-25-16 and Peninsula-RW101-08-25-16. No OPP compounds were detected in either sample, so no data were qualified.

Column Confirmation

No pesticide results were detected by method 8081A or PCB Aroclors by method 8082, so second column confirmations were not required.

Laboratory Control Sample and Laboratory Control Sample Duplicate

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequencies and all LCS/LCSD analyses resulted in recoveries and/or RPD values within project-required control limits, with the following exceptions:

- The OC pesticide endrin recovered below the control limit in the LCS/LCSD. Results were qualified “UJ” to indicate a potentially low bias.
- The OP pesticide malathion recovered above the control limit in the LCS. This compound was not detected in any sample so no data were qualified.

See Table 3 for qualified data.

Matrix Spike and Matrix Spike Duplicate

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at required frequencies, or LCS/LCSDs were analyzed in place of MS/MSD samples. When the parent sample concentration was significantly greater than (four times) the spike concentration, percent recoveries were not calculated and no data were qualified. Sample Peninsula-RW1-06-23-16 was used for all MS/MSD analyses except PCB congeners and mercury. MS/MSD recoveries and/or RPD values were within project-required control limits with a few exceptions. TKN, total silver, and total iron recovered above the control limit in the MS and MSD, and total chromium recovered above the control limit in the MSD. Detected results were qualified “J” to indicate a potentially high bias. Total copper, thallium, and fluoride recovered below the control limit in the MS and MSD. TPH, total antimony, and total lead recovered below the control limit in the MS. The RPD values for TPH as diesel and lead were above the control limit. Total aluminum, arsenic, and TOC recovered below the control limit in the MSD. Associated results were qualified “J” or “UJ” to indicate a potentially low bias.

See Table 3 for qualified data.

Laboratory Duplicates

In general, laboratory duplicates were analyzed at the required frequencies or MSDs or LCSDs were analyzed in place of lab duplicates. All duplicate results were within required limits. Volatile suspended solids, the OC pesticide Toxaphene, and the herbicide 2,4,5-TP (Silvex) were reported with method blank and field duplicate data only, and were not detected above the method detection limits.

Method Reporting and Detection Limits

Most RLs and method detection limits (MDLs) were acceptable as reported. All values below detection were reported using the laboratory MDLs. Values were reported as undiluted, or when reported as diluted, the MDL and RL accurately reflect the dilution factors. In some instances, RLs that were above the target RLs listed in the SAP were acceptable because they were still at or below the minimum level (ML) listed in Table E-2 of the municipal separate storm sewer system (MS4) discharge permit for the coastal watersheds of Los Angeles County (California Regional Water Quality Control Board [CRWQCB] 2012). Perchlorate, and the SVOCs 2,4-dichlorophenol and 4-chloro-3-methylphenol were not detected above the MDL; however, the MDL was greater than the ML.

The estimated concentrations of PCB-018 and PCB-118 in Peninsula-RW1-06-23-16 and Peninsula-RW101-06-23-16, respectively, are uncertain because these detections are below the RL and only slightly above the MDL. The RL is the lowest concentration that can be accurately quantified because it is the lowest point on the calibration curve. All detections between the MDL and the RL are estimated concentrations (and reported with a “J” qualifier by the lab), and could potentially be a result of instrument noise.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was also acceptable as demonstrated by the field and laboratory duplicates, MS/MSD, and LCS/LCSD RPD values. Most data were acceptable as

reported; all other data are acceptable as qualified. Table 3 summarizes the qualifiers applied to sample results reviewed in this report.

Data Qualifier Definitions

- J Indicates an estimated value
- U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit
- UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated

Table 3
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Qualifier Reason
Peninsula-RW101-06-23-16	Total metals	Lead	0.0430B µg/L	0.0430UJ µg/L	Method blank contamination, MS %R below control limit, high MS/MSD RPD
		Antimony	0.127 µg/L	0.127J µg/L	MS %R below control limit
		Iron	3.55B µg/L	3.55J µg/L	MS/MSD %R above control limit
		Copper	0.648B µg/L	0.648J µg/L	MS/MSD %R below control limit
		Thallium	0.00870U µg/L	0.00870UJ µg/L	
		Aluminum	0.562J µg/L	0.562J µg/L	MSD %R below control limit
		Arsenic	1.23 µg/L	1.23J µg/L	
	Conventionals	Total Kjeldahl Nitrogen	0.16J mg/L	0.16J mg/L	MS/MSD %R above the control limit
		TPH (C10 – C28)	0.032U mg/L	0.032UJ mg/L	MS %R below the control limit
		Solids, Volatile Suspended	1.0 mg/L	1.0UJ mg/L	Hold time exceeded
		Fluoride	0.87 mg/L	0.87J mg/L	MS/MSD %R below control limit
		Carbon, Total Organic	14 mg/L	14J mg/L	MSD %R below control limit

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Qualifier Reason
Peninsula-RW1-06-23-16	Total metals	Antimony	0.134 µg/L	0.134J µg/L	MS %R below control limit
		Lead	0.0135U µg/L	0.0135UJ µg/L	
		Iron	6.74B µg/L	6.74J µg/L	MS/MSD %R above control limit
		Copper	0.652B µg/L	0.652J µg/L	
		Thallium	0.00870U µg/L	0.00870UJ µg/L	MS/MSD %R below control limit
		Chromium	0.338J µg/L	0.338J µg/L	MSD %R above control limit
		Aluminum	1.62 µg/L	1.62J µg/L	MSD %R below control limit
		Arsenic	1.32 µg/L	1.32J µg/L	
	Conventionals	Total Kjeldahl Nitrogen	0.11J mg/L	0.11J mg/L	MS/MSD %R above the control limit
		TPH (C10 – C28)	0.032U mg/L	0.032UJ mg/L	MS %R below the control limit
		Solids, Volatile Suspended	1.0U mg/L	1.0UJ mg/L	Hold time exceeded
		Fluoride	0.88 mg/L	0.88J mg/L	MS/MSD %R below control limit
		Carbon, Total Organic	1.6 mg/L	1.6J mg/L	MSD %R below control limit
Peninsula-RW2-06-23-16	Total metals	Lead	0.0168B,J µg/L	0.03UJ µg/L	Method blank contamination, MS %R below control limit, high MS/MSD RPD
		Antimony	0.135 µg/L	0.135J µg/L	MS %R below control limit
		Iron	3.54B µg/L	3.54J µg/L	MS/MSD %R above control limit
		Copper	0.356B µg/L	0.356J µg/L	MS/MSD %R below control limit
		Thallium	0.00870U µg/L	0.00870UJ µg/L	
		Aluminum	0.643J µg/L	0.643J µg/L	MSD %R below control limit
		Arsenic	1.20 µg/L	1.20J µg/L	
	Conventionals	Total Kjeldahl Nitrogen	0.092J mg/L	0.092J mg/L	MS/MSD %R above the control limit

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Qualifier Reason
		TPH (C10 – C28)	0.032U mg/L	0.032UJ mg/L	MS %R below the control limit
		Fluoride	0.88 mg/L	0.88J mg/L	MS/MSD %R below control limit
		Carbon, Total Organic	1.7 mg/L	1.7J mg/L	MSD %R below control limit
Peninsula-RW2-08-25-16	OPP	Chlorpyrifos	6.9U ng/L	6.9UJ ng/L	Extracted past the hold time
		Malathion	7.6U ng/L	7.6UJ ng/L	

REFERENCES

- Anchor QEA, 2016. *Palos Verdes Peninsula Coordinated Integrated Monitoring Program Receiving Water Monitoring Sampling and Analysis Plan*. Prepared for Cities of Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates, Los Angeles County, and Los Angeles Flood District. June 2016.
- RWQCB (Regional Water Quality Control Board), 2012. *Monitoring and Reporting Program No. CI-6948 for Order R4-2012-0175. NPDES Permit No. CAS004001. Waste Discharge Requirements for MS4 Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4. CRWQB, Los Angeles Region*. November 2012.
- USEPA (U.S. Environmental Protection Agency), 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 530/SW-846.
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- USEPA, 2010. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Methods Data Review*. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. USEPA 540-R-10-001. January 2010.

APPENDIX D: RECEIVING WATER MONITORING DATA (SMBBB TMDL)

See **Figure 1** for map of all monitoring locations.

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SM	SMB 7-1	7/6/2015	8:53	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
SM	SMB 7-1	7/13/2015	8:24	Grab	SM 9222B	Total Coliforms		86	cfu/100ml
SM	SMB 7-1	7/20/2015	8:48	Grab	SM 9222B	Total Coliforms	R	51	cfu/100ml
SM	SMB 7-1	7/27/2015	8:32	Grab	SM 9222B	Total Coliforms		150	cfu/100ml
SM	SMB 7-1	8/3/2015	8:19	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SM	SMB 7-1	8/10/2015	8:37	Grab	SM 9222B	Total Coliforms		28	cfu/100ml
SM	SMB 7-1	8/17/2015	8:57	Grab	SM 9222B	Total Coliforms		31	cfu/100ml
SM	SMB 7-1	8/25/2015	8:09	Grab	SM 9222B	Total Coliforms		59	cfu/100ml
SM	SMB 7-1	8/31/2015	9:08	Grab	SM 9222B	Total Coliforms		91	cfu/100ml
SM	SMB 7-1	9/8/2015	8:13	Grab	SM 9222B	Total Coliforms		39	cfu/100ml
SM	SMB 7-1	9/14/2015	8:36	Grab	SM 9222B	Total Coliforms		34	cfu/100ml
SM	SMB 7-1	9/22/2015	8:46	Grab	SM 9222B	Total Coliforms		51	cfu/100ml
SM	SMB 7-1	9/28/2015	9:01	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
SM	SMB 7-1	10/5/2015	8:53	Grab	SM 9222B	Total Coliforms		47	cfu/100ml
SM	SMB 7-1	10/13/2015	8:05	Grab	SM 9222B	Total Coliforms		110	cfu/100ml
SM	SMB 7-1	10/19/2015	8:48	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SM	SMB 7-1	10/26/2015	8:47	Grab	SM 9222B	Total Coliforms		400	cfu/100ml
SM	SMB 7-1	11/2/2015	8:54	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
SM	SMB 7-1	11/9/2015	8:35	Grab	SM 9222B	Total Coliforms		42	cfu/100ml
SM	SMB 7-1	11/16/2015	8:50	Grab	SM 9222B	Total Coliforms		59	cfu/100ml
SM	SMB 7-1	11/23/2015	8:50	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SM	SMB 7-1	11/30/2015	8:53	Grab	SM 9222B	Total Coliforms	PR	35	cfu/100ml
SM	SMB 7-1	12/7/2015	8:48	Grab	SM 9222B	Total Coliforms		51	cfu/100ml
SM	SMB 7-1	12/14/2015	9:31	Grab	SM 9222B	Total Coliforms		120	cfu/100ml
SM	SMB 7-1	12/21/2015	8:23	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
SM	SMB 7-1	12/29/2015	7:48	Grab	SM 9222B	Total Coliforms		34	cfu/100ml
SM	SMB 7-1	1/4/2016	8:43	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SM	SMB 7-1	1/11/2016	8:46	Grab	SM 9222B	Total Coliforms	PR	91	cfu/100ml
SM	SMB 7-1	1/19/2016	8:15	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
SM	SMB 7-1	1/25/2016	8:26	Grab	SM 9222B	Total Coliforms		39	cfu/100ml
SM	SMB 7-1	2/1/2016	8:41	Grab	SM 9222B	Total Coliforms	PR	420	cfu/100ml
SM	SMB 7-1	2/9/2016	8:10	Grab	SM 9222B	Total Coliforms		15	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SM	SMB 7-1	2/16/2016	8:07	Grab	SM 9222B	Total Coliforms		19	cfu/100ml
SM	SMB 7-1	2/22/2016	8:43	Grab	SM 9222B	Total Coliforms		27	cfu/100ml
SM	SMB 7-1	2/29/2016	9:05	Grab	SM 9222B	Total Coliforms		10	cfu/100ml
SM	SMB 7-1	3/8/2016	8:14	Grab	SM 9222B	Total Coliforms		150	cfu/100ml
SM	SMB 7-1	3/14/2016	9:02	Grab	SM 9222B	Total Coliforms		540	cfu/100ml
SB	SMB 7-1	3/16/2016	8:13	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SM	SMB 7-1	3/21/2016	8:54	Grab	SM 9222B	Total Coliforms		51	cfu/100ml
SM	SMB 7-1	3/29/2016	8:11	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SM	SMB 7-1	4/4/2016	8:50	Grab	SM 9222B	Total Coliforms		110	cfu/100ml
SM	SMB 7-1	4/11/2016	8:39	Grab	SM 9222B	Total Coliforms		18	cfu/100ml
SM	SMB 7-1	4/18/2016	8:42	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
SM	SMB 7-1	4/25/2016	8:35	Grab	SM 9222B	Total Coliforms		6	cfu/100ml
SM	SMB 7-1	5/2/2016	8:48	Grab	SM 9222B	Total Coliforms		19	cfu/100ml
SM	SMB 7-1	5/9/2016	8:54	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
SM	SMB 7-1	5/17/2016	8:34	Grab	SM 9222B	Total Coliforms		25	cfu/100ml
SM	SMB 7-1	5/23/2016	9:25	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
SM	SMB 7-1	5/31/2016	7:54	Grab	SM 9222B	Total Coliforms		29	cfu/100ml
SM	SMB 7-1	6/6/2016	8:35	Grab	SM 9222B	Total Coliforms		17	cfu/100ml
SM	SMB 7-1	6/13/2016	8:31	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
SM	SMB 7-1	6/20/2016	8:12	Grab	SM 9222B	Total Coliforms		25	cfu/100ml
SM	SMB 7-1	6/27/2016	8:29	Grab	SM 9222B	Total Coliforms		30	cfu/100ml
SB	SMB 7-2	7/6/2015	9:44	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	7/13/2015	8:45	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	7/20/2015	9:45	Grab	SM 9222B	Total Coliforms	R	47	cfu/100ml
SB	SMB 7-2	7/27/2015	9:11	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
SB	SMB 7-2	8/3/2015	8:37	Grab	SM 9222B	Total Coliforms		180	cfu/100ml
SB	SMB 7-2	8/10/2015	8:58	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
SB	SMB 7-2	8/17/2015	9:40	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	8/25/2015	8:49	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
SB	SMB 7-2	8/31/2015	9:37	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
SB	SMB 7-2	9/8/2015	8:48	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
SB	SMB 7-2	9/14/2015	8:57	Grab	SM 9222B	Total Coliforms		17	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SB	SMB 7-2	9/22/2015	9:10	Grab	SM 9222B	Total Coliforms		7	cfu/100ml
SB	SMB 7-2	9/28/2015	9:35	Grab	SM 9222B	Total Coliforms	<	4	cfu/100ml
SB	SMB 7-2	10/5/2015	9:14	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
SB	SMB 7-2	10/13/2015	8:38	Grab	SM 9222B	Total Coliforms		43	cfu/100ml
SB	SMB 7-2	10/19/2015	9:39	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	10/26/2015	9:32	Grab	SM 9222B	Total Coliforms		110	cfu/100ml
SB	SMB 7-2	11/2/2015	9:22	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
SB	SMB 7-2	11/9/2015	9:07	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	11/16/2015	9:24	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	11/23/2015	9:37	Grab	SM 9222B	Total Coliforms		4000	cfu/100ml
SB	SMB 7-2	11/30/2015	9:33	Grab	SM 9222B	Total Coliforms	PR	1	cfu/100ml
SB	SMB 7-2	12/7/2015	9:14	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	12/14/2015	10:12	Grab	SM 9222B	Total Coliforms		71	cfu/100ml
SB	SMB 7-2	12/21/2015	8:58	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
SB	SMB 7-2	12/29/2015	8:18	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	1/4/2016	9:12	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	1/11/2016	9:35	Grab	SM 9222B	Total Coliforms	PR	36	cfu/100ml
SB	SMB 7-2	1/19/2016	8:57	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	1/25/2016	8:56	Grab	SM 9222B	Total Coliforms		5	cfu/100ml
SB	SMB 7-2	2/1/2016	9:03	Grab	SM 9222B	Total Coliforms	PR	200	cfu/100ml
SB	SMB 7-2	2/9/2016	8:47	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
SB	SMB 7-2	2/16/2016	8:44	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	2/22/2016	9:30	Grab	SM 9222B	Total Coliforms	<	4	cfu/100ml
SB	SMB 7-2	2/29/2016	9:50	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	3/8/2016	8:42	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SB	SMB 7-2	3/21/2016	9:26	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
SB	SMB 7-2	3/29/2016	8:48	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	4/4/2016	9:18	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
SB	SMB 7-2	4/11/2016	9:04	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	4/18/2016	9:02	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	4/25/2016	9:07	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	5/2/2016	9:17	Grab	SM 9222B	Total Coliforms		5	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SB	SMB 7-2	5/9/2016	9:30	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
SB	SMB 7-2	5/17/2016	8:54	Grab	SM 9222B	Total Coliforms		5	cfu/100ml
SB	SMB 7-2	5/23/2016	9:53	Grab	SM 9222B	Total Coliforms		5	cfu/100ml
SB	SMB 7-2	5/31/2016	8:16	Grab	SM 9222B	Total Coliforms		2	cfu/100ml
SB	SMB 7-2	6/6/2016	9:17	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
SB	SMB 7-2	6/13/2016	8:58	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
SB	SMB 7-2	6/20/2016	8:39	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
SB	SMB 7-2	6/27/2016	8:50	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	7/6/2015	10:31	Grab	SM 9222B	Total Coliforms		20	cfu/100ml
S1	SMB 7-3	7/13/2015	9:25	Grab	SM 9222B	Total Coliforms		42	cfu/100ml
S1	SMB 7-3	7/20/2015	10:25	Grab	SM 9222B	Total Coliforms	R	16	cfu/100ml
S1	SMB 7-3	7/27/2015	9:49	Grab	SM 9222B	Total Coliforms		2	cfu/100ml
S1	SMB 7-3	8/3/2015	9:26	Grab	SM 9222B	Total Coliforms		15	cfu/100ml
S1	SMB 7-3	8/10/2015	9:28	Grab	SM 9222B	Total Coliforms		15	cfu/100ml
S1	SMB 7-3	8/17/2015	10:20	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	8/25/2015	9:24	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S1	SMB 7-3	9/14/2015	9:47	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S1	SMB 7-3	9/22/2015	9:48	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	9/28/2015	10:15	Grab	SM 9222B	Total Coliforms		6	cfu/100ml
S1	SMB 7-3	10/5/2015	10:04	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	10/13/2015	9:06	Grab	SM 9222B	Total Coliforms		21	cfu/100ml
S1	SMB 7-3	10/19/2015	10:21	Grab	SM 9222B	Total Coliforms		11	cfu/100ml
S1	SMB 7-3	10/26/2015	10:05	Grab	SM 9222B	Total Coliforms		360	cfu/100ml
S1	SMB 7-3	11/2/2015	10:09	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S1	SMB 7-3	11/9/2015	9:57	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	11/16/2015	9:59	Grab	SM 9222B	Total Coliforms		5	cfu/100ml
S1	SMB 7-3	11/23/2015	10:10	Grab	SM 9222B	Total Coliforms		2	cfu/100ml
S1	SMB 7-3	11/30/2015	10:13	Grab	SM 9222B	Total Coliforms	PR<	1	cfu/100ml
S1	SMB 7-3	12/7/2015	9:53	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S1	SMB 7-3	12/14/2015	9:00	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S1	SMB 7-3	12/21/2015	9:38	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	12/29/2015	8:47	Grab	SM 9222B	Total Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S1	SMB 7-3	1/4/2016	9:47	Grab	SM 9222B	Total Coliforms		41	cfu/100ml
S1	SMB 7-3	1/11/2016	10:12	Grab	SM 9222B	Total Coliforms	PR	33	cfu/100ml
S1	SMB 7-3	1/19/2016	9:21	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
S1	SMB 7-3	1/25/2016	9:35	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S1	SMB 7-3	2/1/2016	9:49	Grab	SM 9222B	Total Coliforms	PR	12	cfu/100ml
S1	SMB 7-3	2/9/2016	9:15	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	2/16/2016	9:14	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	2/22/2016	10:07	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	2/29/2016	10:38	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
S1	SMB 7-3	3/8/2016	9:11	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	3/14/2016	10:19	Grab	SM 9222B	Total Coliforms		11	cfu/100ml
S1	SMB 7-3	3/21/2016	10:22	Grab	SM 9222B	Total Coliforms		37	cfu/100ml
S1	SMB 7-3	3/29/2016	9:19	Grab	SM 9222B	Total Coliforms		17	cfu/100ml
S1	SMB 7-3	4/4/2016	9:57	Grab	SM 9222B	Total Coliforms		20	cfu/100ml
S1	SMB 7-3	4/11/2016	9:41	Grab	SM 9222B	Total Coliforms		17	cfu/100ml
S1	SMB 7-3	4/18/2016	9:45	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S1	SMB 7-3	4/25/2016	9:40	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S1	SMB 7-3	5/2/2016	9:49	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-3	5/9/2016	10:15	Grab	SM 9222B	Total Coliforms		22	cfu/100ml
S1	SMB 7-3	5/17/2016	9:30	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S1	SMB 7-3	5/23/2016	10:30	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S1	SMB 7-3	5/31/2016	8:50	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
S1	SMB 7-3	6/6/2016	9:52	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S1	SMB 7-3	6/13/2016	9:44	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
S1	SMB 7-3	6/20/2016	9:20	Grab	SM 9222B	Total Coliforms		13	cfu/100ml
S1	SMB 7-3	6/27/2016	9:29	Grab	SM 9222B	Total Coliforms		26	cfu/100ml
S2(D)	SMB 7-4	7/6/2015	11:01	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
S2(D)	SMB 7-4	7/13/2015	9:49	Grab	SM 9222B	Total Coliforms		19	cfu/100ml
S2(D)	SMB 7-4	7/20/2015	10:48	Grab	SM 9222B	Total Coliforms	R	1	cfu/100ml
S2(D)	SMB 7-4	7/27/2015	10:11	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	8/3/2015	9:48	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	8/10/2015	9:52	Grab	SM 9222B	Total Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S2(D)	SMB 7-4	8/17/2015	10:55	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	8/25/2015	9:45	Grab	SM 9222B	Total Coliforms		13	cfu/100ml
S2(D)	SMB 7-4	8/31/2015	10:48	Grab	SM 9222B	Total Coliforms		91	cfu/100ml
S2(D)	SMB 7-4	9/8/2015	9:38	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S2(D)	SMB 7-4	9/14/2015	10:13	Grab	SM 9222B	Total Coliforms		180	cfu/100ml
S2(D)	SMB 7-4	9/22/2015	10:15	Grab	SM 9222B	Total Coliforms		160	cfu/100ml
S2(D)	SMB 7-4	9/28/2015	10:49	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
S2(D)	SMB 7-4	10/5/2015	10:28	Grab	SM 9222B	Total Coliforms		27	cfu/100ml
S2(D)	SMB 7-4	10/13/2015	9:23	Grab	SM 9222B	Total Coliforms		31	cfu/100ml
S2(D)	SMB 7-4	10/19/2015	10:47	Grab	SM 9222B	Total Coliforms		11	cfu/100ml
S2(D)	SMB 7-4	10/26/2015	10:30	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
S2(D)	SMB 7-4	11/2/2015	10:41	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S2(D)	SMB 7-4	11/9/2015	10:16	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
S2(D)	SMB 7-4	11/16/2015	10:28	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S2(D)	SMB 7-4	11/23/2015	10:36	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
S2(D)	SMB 7-4	11/30/2015	10:50	Grab	SM 9222B	Total Coliforms	PR	1	cfu/100ml
S2(D)	SMB 7-4	12/7/2015	10:28	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	12/14/2015	8:38	Grab	SM 9222B	Total Coliforms		34	cfu/100ml
S2(D)	SMB 7-4	12/21/2015	10:02	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	12/29/2015	9:06	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	1/4/2016	10:09	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	1/11/2016	10:40	Grab	SM 9222B	Total Coliforms	PR	31	cfu/100ml
S2(D)	SMB 7-4	1/19/2016	9:47	Grab	SM 9222B	Total Coliforms		30	cfu/100ml
S2(D)	SMB 7-4	1/25/2016	9:59	Grab	SM 9222B	Total Coliforms		150	cfu/100ml
S2(D)	SMB 7-4	2/1/2016	10:13	Grab	SM 9222B	Total Coliforms	PR	3	cfu/100ml
S2(D)	SMB 7-4	2/9/2016	9:35	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
S2(D)	SMB 7-4	2/16/2016	9:35	Grab	SM 9222B	Total Coliforms		7	cfu/100ml
S2(D)	SMB 7-4	2/22/2016	10:35	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S2(D)	SMB 7-4	2/29/2016	11:03	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	3/8/2016	9:33	Grab	SM 9222B	Total Coliforms		90	cfu/100ml
S2(D)	SMB 7-4	3/14/2016	10:45	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S2(D)	SMB 7-4	3/21/2016	10:52	Grab	SM 9222B	Total Coliforms		15	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S2(D)	SMB 7-4	3/29/2016	9:37	Grab	SM 9222B	Total Coliforms		7	cfu/100ml
S2(D)	SMB 7-4	4/4/2016	10:20	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	4/11/2016	10:09	Grab	SM 9222B	Total Coliforms		7	cfu/100ml
S2(D)	SMB 7-4	4/18/2016	10:17	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	4/25/2016	10:05	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S2(D)	SMB 7-4	5/2/2016	10:21	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	5/9/2016	10:48	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
S2(D)	SMB 7-4	5/17/2016	9:49	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	5/23/2016	10:55	Grab	SM 9222B	Total Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	5/31/2016	9:05	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	6/6/2016	10:12	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S2(D)	SMB 7-4	6/13/2016	10:11	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	6/20/2016	9:43	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S2(D)	SMB 7-4	6/27/2016	9:50	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S3	SMB 7-5	7/6/2015	9:02	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S3	SMB 7-5	7/13/2015	10:25	Grab	SM 9222B	Total Coliforms		17	cfu/100ml
S3	SMB 7-5	7/20/2015	9:00	Grab	SM 9222B	Total Coliforms	R	4	cfu/100ml
S3	SMB 7-5	7/27/2015	8:50	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S3	SMB 7-5	8/3/2015	9:12	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
S3	SMB 7-5	8/10/2015	10:29	Grab	SM 9222B	Total Coliforms		18	cfu/100ml
S3	SMB 7-5	8/17/2015	9:08	Grab	SM 9222B	Total Coliforms		7	cfu/100ml
S3	SMB 7-5	8/25/2015	8:57	Grab	SM 9222B	Total Coliforms		24	cfu/100ml
S3	SMB 7-5	8/31/2015	10:29	Grab	SM 9222B	Total Coliforms		55	cfu/100ml
S1	SMB 7-5	8/31/2015	10:20	Grab	SM 9222B	Total Coliforms		120	cfu/100ml
S3	SMB 7-5	9/8/2015	10:19	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S1	SMB 7-5	9/8/2015	9:22	Grab	SM 9222B	Total Coliforms		28	cfu/100ml
S3	SMB 7-5	9/14/2015	10:27	Grab	SM 9222B	Total Coliforms		110	cfu/100ml
S3	SMB 7-5	9/22/2015	9:41	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S3	SMB 7-5	9/28/2015	9:08	Grab	SM 9222B	Total Coliforms		18	cfu/100ml
S3	SMB 7-5	10/5/2015	9:17	Grab	SM 9222B	Total Coliforms		51	cfu/100ml
S3	SMB 7-5	10/13/2015	8:58	Grab	SM 9222B	Total Coliforms		18	cfu/100ml
S3	SMB 7-5	10/19/2015	8:55	Grab	SM 9222B	Total Coliforms		11	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S3	SMB 7-5	10/26/2015	9:03	Grab	SM 9222B	Total Coliforms		400	cfu/100ml
S3	SMB 7-5	11/2/2015	8:44	Grab	SM 9222B	Total Coliforms	<	18	cfu/100ml
S3	SMB 7-5	11/9/2015	10:19	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
S3	SMB 7-5	11/16/2015	8:52	Grab	SM 9222B	Total Coliforms		100	cfu/100ml
S3	SMB 7-5	11/23/2015	8:56	Grab	SM 9222B	Total Coliforms		16	cfu/100ml
S3	SMB 7-5	11/30/2015	9:20	Grab	SM 9222B	Total Coliforms	PR	12	cfu/100ml
S3	SMB 7-5	12/7/2015	10:34	Grab	SM 9222B	Total Coliforms		31	cfu/100ml
S3	SMB 7-5	12/14/2015	8:54	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	12/21/2015	8:57	Grab	SM 9222B	Total Coliforms		18	cfu/100ml
S3	SMB 7-5	12/29/2015	8:53	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	1/4/2016	8:47	Grab	SM 9222B	Total Coliforms		36	cfu/100ml
S3	SMB 7-5	1/11/2016	9:03	Grab	SM 9222B	Total Coliforms	PR	200	cfu/100ml
S3	SMB 7-5	1/19/2016	9:33	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	1/25/2016	8:56	Grab	SM 9222B	Total Coliforms	<	200	cfu/100ml
S3	SMB 7-5	2/1/2016	8:40	Grab	SM 9222B	Total Coliforms	PR	18	cfu/100ml
S3	SMB 7-5	2/9/2016	9:18	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
S3	SMB 7-5	2/16/2016	8:47	Grab	SM 9222B	Total Coliforms		55	cfu/100ml
S3	SMB 7-5	2/22/2016	8:57	Grab	SM 9222B	Total Coliforms	<	200	cfu/100ml
S3	SMB 7-5	2/29/2016	8:44	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S3	SMB 7-5	3/8/2016	9:53	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	3/14/2016	9:07	Grab	SM 9222B	Total Coliforms		20	cfu/100ml
S3	SMB 7-5	3/21/2016	10:15	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	3/29/2016	9:08	Grab	SM 9222B	Total Coliforms		37	cfu/100ml
S3	SMB 7-5	4/4/2016	8:51	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S3	SMB 7-5	4/11/2016	9:42	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S3	SMB 7-5	4/18/2016	10:17	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	4/25/2016	8:57	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S3	SMB 7-5	5/2/2016	9:00	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S3	SMB 7-5	5/9/2016	8:55	Grab	SM 9222B	Total Coliforms		4	cfu/100ml
S3	SMB 7-5	5/17/2016	9:50	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml
S3	SMB 7-5	5/23/2016	9:13	Grab	SM 9222B	Total Coliforms		12	cfu/100ml
S3	SMB 7-5	5/31/2016	10:05	Grab	SM 9222B	Total Coliforms	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S3	SMB 7-5	6/6/2016	9:10	Grab	SM 9222B	Total Coliforms		9	cfu/100ml
S3	SMB 7-5	6/13/2016	9:10	Grab	SM 9222B	Total Coliforms		8	cfu/100ml
S3	SMB 7-5	6/20/2016	8:41	Grab	SM 9222B	Total Coliforms		1	cfu/100ml
S3	SMB 7-5	6/27/2016	10:08	Grab	SM 9222B	Total Coliforms		9	cfu/100ml

Notes:

1. PR = Rain of at least 0.1" occurred in the last three days

R = Sample was collected on a day with 0.1" or greater.

< indicates result is to be read as "less than."

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
SM	SMB 7-1	7/6/2015	8:53	Grab	SM 9221E	Fecal Coliform (MPN)		17	mpn/100ml
SM	SMB 7-1	7/13/2015	8:24	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
SM	SMB 7-1	7/20/2015	8:48	Grab	SM 9221E	Fecal Coliform (MPN)	R	0	mpn/100ml
SM	SMB 7-1	7/27/2015	8:32	Grab	SM 9221E	Fecal Coliform (MPN)		30	mpn/100ml
SM	SMB 7-1	8/3/2015	8:19	Grab	SM 9221E	Fecal Coliform (MPN)		50	mpn/100ml
SM	SMB 7-1	8/10/2015	8:37	Grab	SM 9221E	Fecal Coliform (MPN)		7	mpn/100ml
SM	SMB 7-1	8/17/2015	8:57	Grab	SM 9221E	Fecal Coliform (MPN)		50	mpn/100ml
SM	SMB 7-1	8/25/2015	8:09	Grab	SM 9221E	Fecal Coliform (MPN)		80	mpn/100ml
SM	SMB 7-1	8/31/2015	9:08	Grab	SM 9221E	Fecal Coliform (MPN)		17	mpn/100ml
SM	SMB 7-1	9/8/2015	8:13	Grab	SM 9221E	Fecal Coliform (MPN)		22	mpn/100ml
SM	SMB 7-1	9/14/2015	8:36	Grab	SM 9221E	Fecal Coliform (MPN)		0	mpn/100ml
SM	SMB 7-1	9/22/2015	8:46	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
SM	SMB 7-1	9/28/2015	9:01	Grab	SM9222D	Fecal Coliforms		15	cfu/100ml
SM	SMB 7-1	10/5/2015	8:53	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
SM	SMB 7-1	10/13/2015	8:05	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	10/19/2015	8:48	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	10/26/2015	8:47	Grab	SM9222D	Fecal Coliforms		15	cfu/100ml
SM	SMB 7-1	11/2/2015	8:54	Grab	SM9222D	Fecal Coliforms	<	4	cfu/100ml
SM	SMB 7-1	11/9/2015	8:35	Grab	SM9222D	Fecal Coliforms		9	cfu/100ml
SM	SMB 7-1	11/16/2015	8:50	Grab	SM9222D	Fecal Coliforms		21	cfu/100ml
SM	SMB 7-1	11/23/2015	8:50	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	11/30/2015	8:53	Grab	SM9222D	Fecal Coliforms	PR	5	cfu/100ml
SM	SMB 7-1	12/7/2015	8:48	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	12/14/2015	9:31	Grab	SM9222D	Fecal Coliforms		11	cfu/100ml
SM	SMB 7-1	12/21/2015	8:23	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	12/29/2015	7:48	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
SM	SMB 7-1	1/4/2016	8:43	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	1/11/2016	8:46	Grab	SM9222D	Fecal Coliforms	PR	5	cfu/100ml
SM	SMB 7-1	1/19/2016	8:15	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	1/25/2016	8:26	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	2/1/2016	8:41	Grab	SM9222D	Fecal Coliforms	PR	8	cfu/100ml
SM	SMB 7-1	2/9/2016	8:10	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
SM	SMB 7-1	2/16/2016	8:07	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	2/22/2016	8:43	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	2/29/2016	9:05	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	3/8/2016	8:14	Grab	SM9222D	Fecal Coliforms		12	cfu/100ml
SM	SMB 7-1	3/14/2016	9:02	Grab	SM9222D	Fecal Coliforms		210	cfu/100ml
SM	SMB 7-1	3/21/2016	8:54	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	3/29/2016	8:11	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	4/4/2016	8:50	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
SM	SMB 7-1	4/11/2016	8:39	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
SM	SMB 7-1	4/18/2016	8:42	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	4/25/2016	8:35	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	5/2/2016	8:48	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	5/9/2016	8:54	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
SM	SMB 7-1	5/17/2016	8:34	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	5/23/2016	9:25	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	5/31/2016	7:54	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
SM	SMB 7-1	6/6/2016	8:35	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SM	SMB 7-1	6/13/2016	8:31	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SM	SMB 7-1	6/20/2016	8:12	Grab	SM9222D	Fecal Coliforms		2	cfu/100ml
SM	SMB 7-1	6/27/2016	8:29	Grab	SM9222D	Fecal Coliforms		11	cfu/100ml
SB	SMB 7-2	7/6/2015	9:44	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
SB	SMB 7-2	7/13/2015	8:45	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
SB	SMB 7-2	7/20/2015	9:45	Grab	SM 9221E	Fecal Coliform (MPN)	R	4	mpn/100ml
SB	SMB 7-2	7/27/2015	9:11	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
SB	SMB 7-2	8/3/2015	8:37	Grab	SM 9221E	Fecal Coliform (MPN)		4	mpn/100ml
SB	SMB 7-2	8/10/2015	8:58	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
SB	SMB 7-2	8/17/2015	9:40	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
SB	SMB 7-2	8/25/2015	8:49	Grab	SM 9221E	Fecal Coliform (MPN)		0	mpn/100ml
SB	SMB 7-2	8/31/2015	9:37	Grab	SM 9221E	Fecal Coliform (MPN)		4	mpn/100ml
SB	SMB 7-2	9/8/2015	8:48	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
SB	SMB 7-2	9/14/2015	8:57	Grab	SM 9221E	Fecal Coliform (MPN)		4	mpn/100ml
SB	SMB 7-2	9/22/2015	9:10	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
SB	SMB 7-2	9/28/2015	9:35	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	10/5/2015	9:14	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	10/13/2015	8:38	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	10/19/2015	9:39	Grab	SM9222D	Fecal Coliforms		2	cfu/100ml
SB	SMB 7-2	10/26/2015	9:32	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	11/2/2015	9:22	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	11/9/2015	9:07	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	11/16/2015	9:24	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	11/23/2015	9:37	Grab	SM9222D	Fecal Coliforms		20	cfu/100ml
SB	SMB 7-2	11/30/2015	9:33	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
SB	SMB 7-2	12/7/2015	9:14	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	12/14/2015	10:12	Grab	SM9222D	Fecal Coliforms		20	cfu/100ml
SB	SMB 7-2	12/21/2015	8:58	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	12/29/2015	8:18	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	1/4/2016	9:12	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	1/11/2016	9:35	Grab	SM9222D	Fecal Coliforms	PR	1	cfu/100ml
SB	SMB 7-2	1/19/2016	8:57	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	1/25/2016	8:56	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	2/1/2016	9:03	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
SB	SMB 7-2	2/9/2016	8:47	Grab	SM9222D	Fecal Coliforms		2	cfu/100ml
SB	SMB 7-2	2/16/2016	8:44	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	2/22/2016	9:30	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	2/29/2016	9:50	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	3/8/2016	8:42	Grab	SM9222D	Fecal Coliforms		30	cfu/100ml
SB	SMB 7-2	3/16/2016	8:13	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	3/21/2016	9:26	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
SB	SMB 7-2	3/29/2016	8:48	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	4/4/2016	9:18	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	4/11/2016	9:04	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	4/18/2016	9:02	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	4/25/2016	9:07	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	5/2/2016	9:17	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
SB	SMB 7-2	5/9/2016	9:30	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	5/17/2016	8:54	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
SB	SMB 7-2	5/23/2016	9:53	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	5/31/2016	8:16	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	6/6/2016	9:17	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
SB	SMB 7-2	6/13/2016	8:58	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	6/20/2016	8:39	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
SB	SMB 7-2	6/27/2016	8:50	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	7/6/2015	10:31	Grab	SM 9221E	Fecal Coliform (MPN)		22	mpn/100ml
S1	SMB 7-3	7/13/2015	9:25	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S1	SMB 7-3	7/20/2015	10:25	Grab	SM 9221E	Fecal Coliform (MPN)	R	2	mpn/100ml
S1	SMB 7-3	7/27/2015	9:49	Grab	SM 9221E	Fecal Coliform (MPN)	<	2	mpn/100ml
S1	SMB 7-3	8/3/2015	9:26	Grab	SM 9221E	Fecal Coliform (MPN)		0	mpn/100ml
S1	SMB 7-3	8/10/2015	9:28	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
S1	SMB 7-3	8/17/2015	10:20	Grab	SM 9221E	Fecal Coliform (MPN)		13	mpn/100ml
S1	SMB 7-3	8/25/2015	9:24	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S1	SMB 7-3	8/31/2015	10:20	Grab	SM 9221E	Fecal Coliform (MPN)		27	mpn/100ml
S1	SMB 7-3	9/8/2015	9:22	Grab	SM 9221E	Fecal Coliform (MPN)		4	mpn/100ml
S1	SMB 7-3	9/14/2015	9:47	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S1	SMB 7-3	9/22/2015	9:48	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	9/28/2015	10:15	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S1	SMB 7-3	10/5/2015	10:04	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	10/13/2015	9:06	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	10/19/2015	10:21	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S1	SMB 7-3	10/26/2015	10:05	Grab	SM9222D	Fecal Coliforms		220	cfu/100ml
S1	SMB 7-3	11/2/2015	10:09	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	11/9/2015	9:57	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	11/16/2015	9:59	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	11/23/2015	10:10	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	11/30/2015	10:13	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
S1	SMB 7-3	12/7/2015	9:53	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	12/14/2015	9:00	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
S1	SMB 7-3	12/21/2015	9:38	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	12/29/2015	8:47	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	1/4/2016	9:47	Grab	SM9222D	Fecal Coliforms		17	cfu/100ml
S1	SMB 7-3	1/11/2016	10:12	Grab	SM9222D	Fecal Coliforms	PR	29	cfu/100ml
S1	SMB 7-3	1/19/2016	9:21	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	1/25/2016	9:35	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	2/1/2016	9:49	Grab	SM9222D	Fecal Coliforms	PR	1	cfu/100ml
S1	SMB 7-3	2/9/2016	9:15	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	2/16/2016	9:14	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	2/22/2016	10:07	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	2/29/2016	10:38	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	3/8/2016	9:11	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S1	SMB 7-3	3/14/2016	10:19	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	3/21/2016	10:22	Grab	SM9222D	Fecal Coliforms		20	cfu/100ml
S1	SMB 7-3	3/29/2016	9:19	Grab	SM9222D	Fecal Coliforms		13	cfu/100ml
S1	SMB 7-3	4/4/2016	9:57	Grab	SM9222D	Fecal Coliforms		9	cfu/100ml
S1	SMB 7-3	4/11/2016	9:41	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	4/18/2016	9:45	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	4/25/2016	9:40	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	5/2/2016	9:49	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S1	SMB 7-3	5/9/2016	10:15	Grab	SM9222D	Fecal Coliforms		2	cfu/100ml
S1	SMB 7-3	5/17/2016	9:30	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	5/23/2016	10:30	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S1	SMB 7-3	5/31/2016	8:50	Grab	SM9222D	Fecal Coliforms		16	cfu/100ml
S1	SMB 7-3	6/6/2016	9:52	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S1	SMB 7-3	6/13/2016	9:44	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S1	SMB 7-3	6/20/2016	9:20	Grab	SM9222D	Fecal Coliforms		12	cfu/100ml
S1	SMB 7-3	6/27/2016	9:29	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	7/6/2015	11:01	Grab	SM 9221E	Fecal Coliform (MPN)		50	mpn/100ml
S2(D)	SMB 7-4	7/13/2015	9:49	Grab	SM 9221E	Fecal Coliform (MPN)		11	mpn/100ml
S2(D)	SMB 7-4	7/20/2015	10:48	Grab	SM 9221E	Fecal Coliform (MPN)	R<	1	mpn/100ml
S2(D)	SMB 7-4	7/27/2015	10:11	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
S2(D)	SMB 7-4	8/3/2015	9:48	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S2(D)	SMB 7-4	8/10/2015	9:52	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
S2(D)	SMB 7-4	8/17/2015	10:55	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S2(D)	SMB 7-4	8/25/2015	9:45	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
S2(D)	SMB 7-4	8/31/2015	10:48	Grab	SM 9221E	Fecal Coliform (MPN)	<	2	mpn/100ml
S2(D)	SMB 7-4	9/8/2015	9:38	Grab	SM 9221E	Fecal Coliform (MPN)		50	mpn/100ml
S2(D)	SMB 7-4	9/14/2015	10:13	Grab	SM 9221E	Fecal Coliform (MPN)		4	mpn/100ml
S2(D)	SMB 7-4	9/22/2015	10:15	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	9/28/2015	10:49	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	10/5/2015	10:28	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	10/13/2015	9:23	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	10/19/2015	10:47	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	10/26/2015	10:30	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	11/2/2015	10:41	Grab	SM9222D	Fecal Coliforms		11	cfu/100ml
S2(D)	SMB 7-4	11/9/2015	10:16	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	11/16/2015	10:28	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	11/23/2015	10:36	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	11/30/2015	10:50	Grab	SM9222D	Fecal Coliforms	PR	1	cfu/100ml
S2(D)	SMB 7-4	12/7/2015	10:28	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	12/14/2015	8:38	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	12/21/2015	10:02	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	12/29/2015	9:06	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	1/4/2016	10:09	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	1/11/2016	10:40	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
S2(D)	SMB 7-4	1/19/2016	9:47	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S2(D)	SMB 7-4	1/25/2016	9:59	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	2/1/2016	10:13	Grab	SM9222D	Fecal Coliforms	PR	1	cfu/100ml
S2(D)	SMB 7-4	2/9/2016	9:35	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S2(D)	SMB 7-4	2/16/2016	9:35	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	2/22/2016	10:35	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	2/29/2016	11:03	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	3/8/2016	9:33	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
S2(D)	SMB 7-4	3/14/2016	10:45	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	3/21/2016	10:52	Grab	SM9222D	Fecal Coliforms		20	cfu/100ml
S2(D)	SMB 7-4	3/29/2016	9:37	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	4/4/2016	10:20	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	4/11/2016	10:09	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	4/18/2016	10:17	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	4/25/2016	10:05	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	5/2/2016	10:21	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	5/9/2016	10:48	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	5/17/2016	9:49	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	5/23/2016	10:55	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S2(D)	SMB 7-4	5/31/2016	9:05	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S2(D)	SMB 7-4	6/6/2016	10:12	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	6/13/2016	10:11	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S2(D)	SMB 7-4	6/20/2016	9:43	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S2(D)	SMB 7-4	6/27/2016	9:50	Grab	SM9222D	Fecal Coliforms		2	cfu/100ml
S3	SMB 7-5	7/6/2015	9:02	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
S3	SMB 7-5	7/13/2015	10:25	Grab	SM 9221E	Fecal Coliform (MPN)		70	mpn/100ml
S3	SMB 7-5	7/20/2015	9:00	Grab	SM 9221E	Fecal Coliform (MPN)	R	7	mpn/100ml
S3	SMB 7-5	7/27/2015	8:50	Grab	SM 9221E	Fecal Coliform (MPN)		2	mpn/100ml
S3	SMB 7-5	8/3/2015	9:12	Grab	SM 9221E	Fecal Coliform (MPN)		23	mpn/100ml
S3	SMB 7-5	8/10/2015	10:29	Grab	SM 9221E	Fecal Coliform (MPN)		8	mpn/100ml
S3	SMB 7-5	8/17/2015	9:08	Grab	SM 9221E	Fecal Coliform (MPN)		0	mpn/100ml
S3	SMB 7-5	8/25/2015	8:57	Grab	SM 9221E	Fecal Coliform (MPN)		8	mpn/100ml
S3	SMB 7-5	8/31/2015	10:29	Grab	SM 9221E	Fecal Coliform (MPN)		30	mpn/100ml
S3	SMB 7-5	9/8/2015	10:19	Grab	SM 9221E	Fecal Coliform (MPN)	<	1	mpn/100ml
S3	SMB 7-5	9/14/2015	10:27	Grab	SM 9221E	Fecal Coliform (MPN)		50	mpn/100ml
S3	SMB 7-5	9/22/2015	9:41	Grab	SM9222D	Fecal Coliforms	<	4	cfu/100ml
S3	SMB 7-5	9/28/2015	9:08	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S3	SMB 7-5	10/5/2015	9:17	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	10/13/2015	8:58	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S3	SMB 7-5	10/19/2015	8:55	Grab	SM9222D	Fecal Coliforms		8	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
S3	SMB 7-5	10/26/2015	9:03	Grab	SM9222D	Fecal Coliforms		58	cfu/100ml
S3	SMB 7-5	11/2/2015	8:44	Grab	SM9222D	Fecal Coliforms		16	cfu/100ml
S3	SMB 7-5	11/9/2015	10:19	Grab	SM9222D	Fecal Coliforms		5	cfu/100ml
S3	SMB 7-5	11/16/2015	8:52	Grab	SM9222D	Fecal Coliforms		64	cfu/100ml
S3	SMB 7-5	11/23/2015	8:56	Grab	SM9222D	Fecal Coliforms		7	cfu/100ml
S3	SMB 7-5	11/30/2015	9:20	Grab	SM9222D	Fecal Coliforms	PR	4	cfu/100ml
S3	SMB 7-5	12/7/2015	10:34	Grab	SM9222D	Fecal Coliforms		16	cfu/100ml
S3	SMB 7-5	12/14/2015	8:54	Grab	SM9222D	Fecal Coliforms		8	cfu/100ml
S3	SMB 7-5	12/21/2015	8:57	Grab	SM9222D	Fecal Coliforms		20	cfu/100ml
S3	SMB 7-5	12/29/2015	8:53	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	1/4/2016	8:47	Grab	SM9222D	Fecal Coliforms		12	cfu/100ml
S3	SMB 7-5	1/11/2016	9:03	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
S3	SMB 7-5	1/19/2016	9:33	Grab	SM9222D	Fecal Coliforms		12	cfu/100ml
S3	SMB 7-5	1/25/2016	8:56	Grab	SM9222D	Fecal Coliforms		17	cfu/100ml
S3	SMB 7-5	2/1/2016	8:40	Grab	SM9222D	Fecal Coliforms	PR<	1	cfu/100ml
S3	SMB 7-5	2/9/2016	9:18	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S3	SMB 7-5	2/16/2016	8:47	Grab	SM9222D	Fecal Coliforms		32	cfu/100ml
S3	SMB 7-5	2/22/2016	8:57	Grab	SM9222D	Fecal Coliforms		36	cfu/100ml
S3	SMB 7-5	2/29/2016	8:44	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S3	SMB 7-5	3/8/2016	9:53	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	3/14/2016	9:07	Grab	SM9222D	Fecal Coliforms		16	cfu/100ml
S3	SMB 7-5	3/21/2016	10:15	Grab	SM9222D	Fecal Coliforms		8	cfu/100ml
S3	SMB 7-5	3/29/2016	9:08	Grab	SM9222D	Fecal Coliforms		57	cfu/100ml
S3	SMB 7-5	4/4/2016	8:51	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S3	SMB 7-5	4/11/2016	9:42	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	4/18/2016	10:17	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	4/25/2016	8:57	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S3	SMB 7-5	5/2/2016	9:00	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	5/9/2016	8:55	Grab	SM9222D	Fecal Coliforms		1	cfu/100ml
S3	SMB 7-5	5/17/2016	9:50	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml
S3	SMB 7-5	5/23/2016	9:13	Grab	SM9222D	Fecal Coliforms		10	cfu/100ml
S3	SMB 7-5	5/31/2016	10:05	Grab	SM9222D	Fecal Coliforms	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter ¹	Qualifier ²	Result	Units
S3	SMB 7-5	6/6/2016	9:10	Grab	SM9222D	Fecal Coliforms		3	cfu/100ml
S3	SMB 7-5	6/13/2016	9:10	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S3	SMB 7-5	6/20/2016	8:41	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml
S3	SMB 7-5	6/27/2016	10:08	Grab	SM9222D	Fecal Coliforms		4	cfu/100ml

Notes:

- Effective 2/17/15, the fecal coliform results were generated by the Multiple Tube Fermentation method in response to the group's failure of at least one QC split samples and subsequent failure of the follow-up commercial standard using the Membrane Filter method.
As of 9/17/15, the Microbiology Laboratory resumed use of the membrane filtration test to generate fecal coliforms results.
- PR = Rain of at least 0.1" occurred in the last three days
R = Sample was collected on a day with 0.1" or greater.
< indicates result is to be read as "less than."

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SM	SMB 7-1	7/6/2015	8:53	Grab	EPA 1600	Enterococcus		7	cfu/100ml
SM	SMB 7-1	7/13/2015	8:24	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	7/20/2015	8:48	Grab	EPA 1600	Enterococcus	R	9	cfu/100ml
SM	SMB 7-1	7/27/2015	8:32	Grab	EPA 1600	Enterococcus		13	cfu/100ml
SM	SMB 7-1	8/3/2015	8:19	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	8/10/2015	8:37	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	8/17/2015	8:57	Grab	EPA 1600	Enterococcus		5	cfu/100ml
SM	SMB 7-1	8/25/2015	8:09	Grab	EPA 1600	Enterococcus		7	cfu/100ml
SM	SMB 7-1	8/31/2015	9:08	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	9/8/2015	8:13	Grab	EPA 1600	Enterococcus		3	cfu/100ml
SM	SMB 7-1	9/14/2015	8:36	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	9/22/2015	8:46	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	9/28/2015	9:01	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	10/5/2015	8:53	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	10/13/2015	8:05	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	10/19/2015	8:48	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	10/26/2015	8:47	Grab	EPA 1600	Enterococcus		24	cfu/100ml
SM	SMB 7-1	11/2/2015	8:54	Grab	EPA 1600	Enterococcus		4	cfu/100ml
SM	SMB 7-1	11/9/2015	8:35	Grab	EPA 1600	Enterococcus		87	cfu/100ml
SM	SMB 7-1	11/16/2015	8:50	Grab	EPA 1600	Enterococcus		20	cfu/100ml
SM	SMB 7-1	11/23/2015	8:50	Grab	EPA 1600	Enterococcus		3	cfu/100ml
SM	SMB 7-1	11/30/2015	8:53	Grab	EPA 1600	Enterococcus	PR	3	cfu/100ml
SM	SMB 7-1	12/7/2015	8:48	Grab	EPA 1600	Enterococcus		7	cfu/100ml
SM	SMB 7-1	12/14/2015	9:31	Grab	EPA 1600	Enterococcus		11	cfu/100ml
SM	SMB 7-1	12/21/2015	8:23	Grab	EPA 1600	Enterococcus		8	cfu/100ml
SM	SMB 7-1	12/29/2015	7:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	1/4/2016	8:43	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	1/11/2016	8:46	Grab	EPA 1600	Enterococcus	PR	7	cfu/100ml
SM	SMB 7-1	1/19/2016	8:15	Grab	EPA 1600	Enterococcus		3	cfu/100ml
SM	SMB 7-1	1/25/2016	8:26	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	2/1/2016	8:41	Grab	EPA 1600	Enterococcus	PR	16	cfu/100ml
SM	SMB 7-1	2/9/2016	8:10	Grab	EPA 1600	Enterococcus		4	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SM	SMB 7-1	2/16/2016	8:07	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	2/22/2016	8:43	Grab	EPA 1600	Enterococcus		3	cfu/100ml
SM	SMB 7-1	2/29/2016	9:05	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	3/8/2016	8:14	Grab	EPA 1600	Enterococcus		43	cfu/100ml
SM	SMB 7-1	3/14/2016	9:02	Grab	EPA 1600	Enterococcus		9	cfu/100ml
SM	SMB 7-1	3/21/2016	8:54	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	3/29/2016	8:11	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	4/4/2016	8:50	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	4/11/2016	8:39	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	4/18/2016	8:42	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	4/25/2016	8:35	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	5/2/2016	8:48	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	5/9/2016	8:54	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	5/17/2016	8:34	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	5/23/2016	9:25	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	5/31/2016	7:54	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	6/6/2016	8:35	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SM	SMB 7-1	6/13/2016	8:31	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SM	SMB 7-1	6/20/2016	8:12	Grab	EPA 1600	Enterococcus		7	cfu/100ml
SM	SMB 7-1	6/27/2016	8:29	Grab	EPA 1600	Enterococcus		5	cfu/100ml
SB	SMB 7-2	7/6/2015	9:44	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	7/13/2015	8:45	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	7/20/2015	9:45	Grab	EPA 1600	Enterococcus	R<	1	cfu/100ml
SB	SMB 7-2	7/27/2015	9:11	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	8/3/2015	8:37	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	8/10/2015	8:58	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	8/17/2015	9:40	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	8/25/2015	8:49	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	8/31/2015	9:37	Grab	EPA 1600	Enterococcus		4	cfu/100ml
SB	SMB 7-2	9/8/2015	8:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	9/14/2015	8:57	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	9/22/2015	9:10	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SB	SMB 7-2	9/28/2015	9:35	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	10/5/2015	9:14	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	10/13/2015	8:38	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	10/19/2015	9:39	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	10/26/2015	9:32	Grab	EPA 1600	Enterococcus		12	cfu/100ml
SB	SMB 7-2	11/2/2015	9:22	Grab	EPA 1600	Enterococcus		3	cfu/100ml
SB	SMB 7-2	11/9/2015	9:07	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	11/16/2015	9:24	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	11/23/2015	9:37	Grab	EPA 1600	Enterococcus		96	cfu/100ml
SB	SMB 7-2	11/30/2015	9:33	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
SB	SMB 7-2	12/7/2015	9:14	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	12/14/2015	10:12	Grab	EPA 1600	Enterococcus		8	cfu/100ml
SB	SMB 7-2	12/21/2015	8:58	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	12/29/2015	8:18	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	1/4/2016	9:12	Grab	EPA 1600	Enterococcus		1	cfu/100ml
SB	SMB 7-2	1/11/2016	9:35	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
SB	SMB 7-2	1/19/2016	8:57	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	1/25/2016	8:56	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	2/1/2016	9:03	Grab	EPA 1600	Enterococcus	PR	7	cfu/100ml
SB	SMB 7-2	2/9/2016	8:47	Grab	EPA 1600	Enterococcus		2	cfu/100ml
SB	SMB 7-2	2/16/2016	8:44	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	2/22/2016	9:30	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	2/29/2016	9:50	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	3/8/2016	8:42	Grab	EPA 1600	Enterococcus		43	cfu/100ml
SB	SMB 7-2	3/16/2016	8:13	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	3/21/2016	9:26	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	3/29/2016	8:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	4/4/2016	9:18	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	4/11/2016	9:04	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	4/18/2016	9:02	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	4/25/2016	9:07	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	5/2/2016	9:17	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
SB	SMB 7-2	5/9/2016	9:30	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	5/17/2016	8:54	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	5/23/2016	9:53	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	5/31/2016	8:16	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	6/6/2016	9:17	Grab	EPA 1600	Enterococcus		5	cfu/100ml
SB	SMB 7-2	6/13/2016	8:58	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	6/20/2016	8:39	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
SB	SMB 7-2	6/27/2016	8:50	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	7/6/2015	10:31	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S1	SMB 7-3	7/13/2015	9:25	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	7/27/2015	9:49	Grab	EPA 1600	Enterococcus	<	2	cfu/100ml
S1	SMB 7-3	8/3/2015	9:26	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S1	SMB 7-3	8/10/2015	9:28	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	8/17/2015	10:20	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	8/25/2015	9:24	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	9/14/2015	9:47	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S1	SMB 7-3	9/22/2015	9:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	9/28/2015	10:15	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	10/5/2015	10:04	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	10/13/2015	9:06	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S1	SMB 7-3	10/19/2015	10:21	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	10/26/2015	10:05	Grab	EPA 1600	Enterococcus		16	cfu/100ml
S1	SMB 7-3	11/2/2015	10:09	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	11/9/2015	9:57	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	11/16/2015	9:59	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	11/23/2015	10:10	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	11/30/2015	10:13	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
S1	SMB 7-3	12/7/2015	9:53	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	12/14/2015	9:00	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S1	SMB 7-3	12/21/2015	9:38	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	12/29/2015	8:47	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	1/4/2016	9:47	Grab	EPA 1600	Enterococcus		7	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S1	SMB 7-3	1/11/2016	10:12	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
S1	SMB 7-3	1/19/2016	9:21	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	1/25/2016	9:35	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	2/1/2016	9:49	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
S1	SMB 7-3	2/9/2016	9:15	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	2/16/2016	9:14	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	2/22/2016	10:07	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	2/29/2016	10:38	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	3/8/2016	9:11	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S1	SMB 7-3	3/14/2016	10:19	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S1	SMB 7-3	3/21/2016	10:22	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S1	SMB 7-3	3/29/2016	9:19	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	4/4/2016	9:57	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	4/11/2016	9:41	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	4/18/2016	9:45	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S1	SMB 7-3	4/25/2016	9:40	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	5/2/2016	9:49	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	5/9/2016	10:15	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	5/17/2016	9:30	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	5/23/2016	10:30	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	5/31/2016	8:50	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S1	SMB 7-3	6/6/2016	9:52	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S1	SMB 7-3	6/13/2016	9:44	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	6/20/2016	9:20	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	6/27/2016	9:29	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-3	7/20/2015	10:25	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	7/6/2015	11:01	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	7/13/2015	9:49	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	7/20/2015	10:48	Grab	EPA 1600	Enterococcus	R<	1	cfu/100ml
S2(D)	SMB 7-4	7/27/2015	10:11	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	8/3/2015	9:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	8/10/2015	9:52	Grab	EPA 1600	Enterococcus		1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S2(D)	SMB 7-4	8/17/2015	10:55	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	8/25/2015	9:45	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	8/31/2015	10:48	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S2(D)	SMB 7-4	9/8/2015	9:38	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	9/14/2015	10:13	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S2(D)	SMB 7-4	9/22/2015	10:15	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	9/28/2015	10:49	Grab	EPA 1600	Enterococcus		11	cfu/100ml
S2(D)	SMB 7-4	10/5/2015	10:28	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	10/13/2015	9:23	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S2(D)	SMB 7-4	10/19/2015	10:47	Grab	EPA 1600	Enterococcus		7	cfu/100ml
S2(D)	SMB 7-4	10/26/2015	10:30	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S2(D)	SMB 7-4	11/2/2015	10:41	Grab	EPA 1600	Enterococcus	<	4	cfu/100ml
S2(D)	SMB 7-4	11/9/2015	10:16	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S2(D)	SMB 7-4	11/16/2015	10:28	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	11/23/2015	10:36	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	11/30/2015	10:50	Grab	EPA 1600	Enterococcus	PR	1	cfu/100ml
S2(D)	SMB 7-4	12/7/2015	10:28	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	12/14/2015	8:38	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	12/21/2015	10:02	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	12/29/2015	9:06	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	1/4/2016	10:09	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	1/11/2016	10:40	Grab	EPA 1600	Enterococcus	PR	2	cfu/100ml
S2(D)	SMB 7-4	1/19/2016	9:47	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	1/25/2016	9:59	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	2/1/2016	10:13	Grab	EPA 1600	Enterococcus	PR	1	cfu/100ml
S2(D)	SMB 7-4	2/9/2016	9:35	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	2/16/2016	9:35	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	2/22/2016	10:35	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	2/29/2016	11:03	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	3/8/2016	9:33	Grab	EPA 1600	Enterococcus		10	cfu/100ml
S2(D)	SMB 7-4	3/14/2016	10:45	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	3/21/2016	10:52	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S2(D)	SMB 7-4	3/29/2016	9:37	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	4/4/2016	10:20	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	4/11/2016	10:09	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	4/18/2016	10:17	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	4/25/2016	10:05	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	5/2/2016	10:21	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	5/9/2016	10:48	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	5/17/2016	9:49	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	5/23/2016	10:55	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	5/31/2016	9:05	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	6/6/2016	10:12	Grab	EPA 1600	Enterococcus		16	cfu/100ml
S2(D)	SMB 7-4	6/13/2016	10:11	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S2(D)	SMB 7-4	6/20/2016	9:43	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S2(D)	SMB 7-4	6/27/2016	9:50	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	7/6/2015	9:02	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	7/13/2015	10:25	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	7/20/2015	9:00	Grab	EPA 1600	Enterococcus	R<	1	cfu/100ml
S3	SMB 7-5	7/27/2015	8:50	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	8/3/2015	9:12	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	8/10/2015	10:29	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	8/17/2015	9:08	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	8/25/2015	8:57	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	8/31/2015	10:29	Grab	EPA 1600	Enterococcus		9	cfu/100ml
S1	SMB 7-5	8/31/2015	10:20	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	9/8/2015	10:19	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S1	SMB 7-5	9/8/2015	9:22	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	9/14/2015	10:27	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	9/22/2015	9:41	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	9/28/2015	9:08	Grab	EPA 1600	Enterococcus		12	cfu/100ml
S3	SMB 7-5	10/5/2015	9:17	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	10/13/2015	8:58	Grab	EPA 1600	Enterococcus		6	cfu/100ml
S3	SMB 7-5	10/19/2015	8:55	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S3	SMB 7-5	10/26/2015	9:03	Grab	EPA 1600	Enterococcus		38	cfu/100ml
S3	SMB 7-5	11/2/2015	8:44	Grab	EPA 1600	Enterococcus	<	18	cfu/100ml
S3	SMB 7-5	11/9/2015	10:19	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	11/16/2015	8:52	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	11/23/2015	8:56	Grab	EPA 1600	Enterococcus		5	cfu/100ml
S3	SMB 7-5	11/30/2015	9:20	Grab	EPA 1600	Enterococcus	PR	1	cfu/100ml
S3	SMB 7-5	12/7/2015	10:34	Grab	EPA 1600	Enterococcus		2	cfu/100ml
S3	SMB 7-5	12/14/2015	8:54	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S3	SMB 7-5	12/21/2015	8:57	Grab	EPA 1600	Enterococcus		5	cfu/100ml
S3	SMB 7-5	12/29/2015	8:53	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	1/4/2016	8:47	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S3	SMB 7-5	1/11/2016	9:03	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
S3	SMB 7-5	1/19/2016	9:33	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	1/25/2016	8:56	Grab	EPA 1600	Enterococcus	<	18	cfu/100ml
S3	SMB 7-5	2/1/2016	8:40	Grab	EPA 1600	Enterococcus	PR<	1	cfu/100ml
S3	SMB 7-5	2/9/2016	9:18	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	2/16/2016	8:47	Grab	EPA 1600	Enterococcus		9	cfu/100ml
S3	SMB 7-5	2/22/2016	8:57	Grab	EPA 1600	Enterococcus		8	cfu/100ml
S3	SMB 7-5	2/29/2016	8:44	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	3/8/2016	9:53	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	3/14/2016	9:07	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	3/21/2016	10:15	Grab	EPA 1600	Enterococcus		5	cfu/100ml
S3	SMB 7-5	3/29/2016	9:08	Grab	EPA 1600	Enterococcus		4	cfu/100ml
S3	SMB 7-5	4/4/2016	8:51	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	4/11/2016	9:42	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	4/18/2016	10:17	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	4/25/2016	8:57	Grab	EPA 1600	Enterococcus	<	4	cfu/100ml
S3	SMB 7-5	5/2/2016	9:00	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	5/9/2016	8:55	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	5/17/2016	9:50	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	5/23/2016	9:13	Grab	EPA 1600	Enterococcus		3	cfu/100ml
S3	SMB 7-5	5/31/2016	10:05	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

NPDES Station ID	TMDL Station ID	Sample Date	Start Time	Sample Type	Analytical Method	Parameter	Qualifier ¹	Result	Units
S3	SMB 7-5	6/6/2016	9:10	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	6/13/2016	9:10	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml
S3	SMB 7-5	6/20/2016	8:41	Grab	EPA 1600	Enterococcus		1	cfu/100ml
S3	SMB 7-5	6/27/2016	10:08	Grab	EPA 1600	Enterococcus	<	1	cfu/100ml

Notes:

1. *PR* = Rain of at least 0.1" occurred in the last three days

R = Sample was collected on a day with 0.1" or greater.

< indicates result is to be read as "less than."

SMB 7-1

Concentration of Biologics

Ratio Check TMDL Single Sample Results

30 Day Running Geometric Mean Calculation

Sample Date	Enterococcus (CFU/100ml)	Fecal Coliform (CFU/100 ml) ¹	Total Coliforms (CFU/100 ml)	Ratio Fecal Coliforms/ Total Coliforms > 0.1	Total Coliform Density Check <1000 OK	Enterococcus(1)	30 Day Avg Enterococcus (<35 CFU/100 ml)	Fecal Coliform(1)	30 Day Avg Fecal Coliform (< 200 CFU/100 ml)	Total Coliforms (1)	30 Day Avg Total Coliforms (<= 1000 CFU/100 ml)
7/6/2015	1	22	20	1.1	20	1	1.2	22	2.8	20	12.9
7/13/2015	1	1	42	0.0	42	1	1.2	22	2.6	20	12.8
7/20/2015	1	2	16	0.1	16	1	1.2	22	2.3	20	12.7
7/27/2015	2	2	2	1.0	2	1	1.2	22	2.1	20	12.6
8/3/2015	1	0	15	0.0	15	1	1.2	22	1.9	20	12.5
8/10/2015	1	2	15	0.1	15	1	1.2	22	1.7	20	12.3
8/17/2015	1	13	1	13.0	1	1	1.2	22	1.6	20	12.2
8/25/2015	1	1	3	0.3	3	1	1.2	1	1.4	42	12.1
8/31/2015	3	27	120	0.2	120	1	1.2	1	1.5	42	11.7
9/8/2015	1	4	28	0.1	28	1	1.2	1	1.5	42	11.3
9/14/2015	1	1	8	0.1	8	1	1.2	1	1.6	42	10.9
9/22/2015	1	4	4	1.0	4	1	1.2	1	1.6	42	10.5
9/28/2015	1	3	6	0.5	6	1	1.2	1	1.6	42	10.2
10/5/2015	1	1	4	0.3	4	1	1.2	1	1.8	42	9.0
10/13/2015	1	4	21	0.2	21	1	1.2	2	1.9	16	7.9
10/19/2015	1	5	11	0.5	11	1	1.2	2	2.1	16	7.2
10/26/2015	16	220	360	0.6	360	1	1.2	2	2.2	16	6.6
11/2/2015	1	1	8	0.1	8	1	1.2	2	2.3	16	6.0
11/9/2015	1	1	1	1.0	1	1	1.2	2	2.5	16	5.5
11/16/2015	1	1	5	0.2	5	1	1.2	2	2.6	16	5.0
11/23/2015	1	1	2	0.5	2	1	1.2	2	2.8	16	4.6
11/30/2015	1	1	1	1.0	1	2	1.2	2	2.7	2	4.3
12/7/2015	1	1	1	1.0	1	2	1.1	2	2.7	2	4.4
12/14/2015	1	1	9	0.1	9	2	1.1	2	2.7	2	4.5
12/21/2015	1	1	1	1.0	1	2	1.1	2	2.7	2	4.6
12/29/2015	1	1	1	1.0	1	2	1.1	2	2.8	2	4.8
1/4/2016	7	17	41	0.4	41	2	1.1	2	2.8	2	4.9

1/11/2016	1	29	33
1/19/2016	1	4	16
1/25/2016	1	1	8
2/1/2016	1	1	12
2/9/2016	1	4	4
2/16/2016	1	1	4
2/22/2016	1	1	1
2/29/2016	1	4	36
3/8/2016	3	5	4
3/14/2016	4	4	11
3/21/2016	3	20	37
3/29/2016	1	13	17
4/4/2016	1	9	20
4/11/2016	1	1	17
4/18/2016	3	1	3
4/25/2016	1	1	1
5/2/2016	1	1	4
5/9/2016	1	2	22
5/17/2016	1	1	9
5/23/2016	1	1	1
5/31/2016	4	16	24
6/6/2016	4	4	8
6/13/2016	1	3	12
6/20/2016	1	12	13
6/27/2016	1	1	26

0.9	33	2	1.0	2	2.8	2	5.1
0.3	16	1	1.0	1	2.9	15	5.3
0.1	8	1	1.0	1	3.0	15	5.1
0.1	12	1	1.0	1	3.2	15	4.8
1.0	4	1	1.0	1	3.3	15	4.6
0.3	4	1	1.0	1	3.6	15	4.3
1.0	1	1	1.0	1	3.8	15	4.0
0.1	36	1	1.0	1	4.1	15	3.8
1.3	4	1	1.0	2	4.4	15	3.5
0.4	11	1	1.0	2	4.7	15	3.2
0.5	37	1	1.0	2	4.9	15	2.9
0.8	17	1	1.0	2	5.3	15	2.5
0.5	20	1	1.0	2	5.7	15	2.2
0.1	17	1	1.0	2	6.2	15	1.9
0.3	3	1	1.0	2	6.9	15	1.6
1.0	1	1	1.0	13	7.8	1	1.2
0.3	4	1	1.0	13	7.4	1	1.3
0.1	22	1	1.0	13	6.8	1	1.3
0.1	9	1	1.0	13	6.2	1	1.4
1.0	1	1	1.0	13	5.5	1	1.4
0.7	24	1	1.0	13	4.7	1	1.6
0.5	8	1	1.0	13	3.6	1	1.7
0.3	12	1	1.0	13	2.4	1	2.1
0.9	13	1	1.0	1	1.0	3	3.0
0.0	26	1	1.0	1	1.0	3	3.0

SMB 7-2

Concentration of Biologics

Ratio Check TMDL Single Sample Results

30 Day Running Geometric Mean Calculation

Sample Date	Enterococcus (CFU/100ml)	Fecal Coliform (CFU/100 ml) ¹	Total Coliforms (CFU/100 ml)	Ratio Fecal Coliforms/ Total Coliforms > 0.1	Total Coliform Density Check <1000 OK	DAY	Enterococcus(1)	30 Day Avg Enterococcus (<35 CFU/100 ml)	Fecal Coliform(1)	30 Day Avg Fecal Coliform (< 200 CFU/100 ml)	Total Coliforms (1)	30 Day Avg Total Coliforms (<= 1000 CFU/100 ml)
7/6/2015	1	50	36	1.4	1	0	1	1.0	50	5.1	36	6.4
7/13/2015	1	11	19	0.6	3	1	1	1.0	50	4.5	36	5.9
7/20/2015	1	1	1	1.0	3	2	1	1.0	50	3.9	36	5.4
7/27/2015	1	2	3	0.7	1	3	1	1.0	50	3.5	36	5.0
8/3/2015	1	1	3	0.3	1	4	1	1.0	50	3.0	36	4.6
8/10/2015	1	2	1	2.0	13	5	1	1.0	50	2.7	36	4.2
8/17/2015	1	1	1	1.0	91	6	1	1.0	50	2.4	36	3.7
8/25/2015	1	2	13	0.2	8	7	1	1.0	11	2.2	19	3.3
8/31/2015	1	2	91	0.0	180	8	1	1.0	11	2.0	19	3.0
9/8/2015	1	50	8	6.3	160	9	1	1.0	11	1.9	19	2.7
9/14/2015	3	4	180	0.0	16	10	1	1.0	11	1.8	19	2.5
9/22/2015	1	1	160	0.0	27	11	1	1.0	11	1.7	19	2.2
9/28/2015	11	1	16	0.1	31	12	1	1.0	11	1.6	19	2.0
10/5/2015	1	1	27	0.0	11	13	1	1.0	11	1.5	19	1.8
10/13/2015	4	4	31	0.1	24	14	1	1.0	1	1.4	1	1.7
10/19/2015	7	1	11	0.1	9	15	1	1.0	1	1.4	1	1.7
10/26/2015	3	3	24	0.1	16	16	1	1.0	1	1.4	1	1.7
11/2/2015	4	11	9	1.2	9	17	1	1.0	1	1.4	1	1.7
11/9/2015	3	1	16	0.1	36	18	1	1.0	1	1.4	1	1.7
11/16/2015	1	1	9	0.1	1	19	1	1.0	1	1.4	1	1.7
11/23/2015	1	1	36	0.0	3	20	1	1.0	1	1.4	1	1.7
11/30/2015	1	1	1	1.0	34	21	1	1.0	2	1.4	3	1.8
12/7/2015	1	1	3	0.3	4	22	1	1.0	2	1.4	3	1.9
12/14/2015	1	4	34	0.1	3	23	1	1.0	2	1.4	3	2.0
12/21/2015	1	1	4	0.3	4	24	1	1.0	2	1.4	3	2.0
12/29/2015	1	1	3	0.3	31	25	1	1.0	2	1.4	3	1.9

1/4/2016	1	3	4
1/11/2016	2	1	31
1/19/2016	1	5	30
1/25/2016	1	1	150
2/1/2016	1	1	3
2/9/2016	1	4	24
2/16/2016	1	1	7
2/22/2016	1	1	8
2/29/2016	1	1	3
3/8/2016	10	3	90
3/14/2016	1	1	9
3/21/2016	1	20	15
3/29/2016	1	1	7
4/4/2016	1	1	3
4/11/2016	1	1	7
4/18/2016	1	1	1
4/25/2016	1	3	9
5/2/2016	1	1	1
5/9/2016	1	1	16
5/17/2016	1	1	4
5/23/2016	1	1	3
5/31/2016	1	1	1
6/6/2016	16	3	9
6/13/2016	1	3	4
6/20/2016	1	5	8
6/27/2016	1	2	9

0.8

30

26

1

1.0

2

1.4

3

1.9

0.0

150

27

1

1.0

2

1.3

3

1.9

0.2

3

28

1

1.0

1

1.3

3

1.9

0.0

24

29

1

1.0

1

1.3

3

1.8

0.3

7

30

1

1.0

1

1.4

3

1.8

0.2

8

31

1

1.0

1

1.4

3

1.7

0.1

3

32

1

1.0

1

1.4

3

1.7

0.1

90

33

1

1.0

1

1.4

3

1.6

0.3

9

34

1

1.0

1

1.4

3

1.6

0.0

15

35

1

1.0

2

1.5

1

1.5

0.1

7

36

1

1.0

2

1.4

1

1.6

1.3

3

37

1

1.0

2

1.4

1

1.6

0.1

7

38

1

1.0

2

1.4

1

1.7

0.3

1

39

1

1.0

2

1.3

1

1.7

0.1

9

40

1

1.0

2

1.3

1

1.8

1.0

1

41

1

1.0

2

1.3

1

1.9

0.3

16

42

1

1.0

1

1.2

1

2.0

1.0

4

43

1

1.0

1

1.2

1

2.2

0.1

3

44

1

1.0

1

1.3

1

2.4

0.3

1

45

1

1.0

1

1.3

1

2.6

0.3

9

46

1

1.0

1

1.3

1

3.0

1.0

4

47

1

1.0

1

1.4

1

3.6

0.3

8

48

1

1.0

1

1.5

1

4.7

0.8

9

49

1

1.0

1

1.7

1

6.8

0.6

0

50

1

1.0

2

2.0

13

13.0

0.2

0

51

1

1.0

2

2.0

13

13.0

52

1

1.0

2

2.0

13

13.0

SMB 7-3

Concentration of Biologics					Sample Results		30 Day Running Geometric Mean Calculation						
Sample Date		Enterococcus (CFU/100ml)	Fecal Coliform (CFU/100 ml) ¹	Total Coliforms (CFU/100 ml)	Ratio Fecal Coliforms/ Total Coliforms > 0.1	Total Coliform Density Check <1000 OK	DAY	Enterococcus(1)	30 Day Avg Enterococcus (<35 CFU/100 ml)	Fecal Coliform(1)	30 Day Avg Fecal Coliform (< 200 CFU/100 ml)	Total Coliforms (1)	30 Day Avg Total Coliforms (<= 1000 CFU/100 ml)
7/6/2015	0	3	2	8	0.3	8	0	3	1.3	2	5.9	8	9.0
7/13/2015	7	1	70	17	4.1	17	1	3	1.2	2	5.7	8	9.4
7/20/2015	14	1	7	4	1.8	4	2	3	1.2	2	5.6	8	9.9
7/27/2015	21	1	2	8	0.3	8	3	3	1.2	2	5.5	8	10.4
8/3/2015	28	1	23	36	0.6	36	4	3	1.1	2	5.3	8	11.0
8/10/2015	35	1	8	18	0.4	18	5	3	1.1	2	5.2	8	11.5
8/17/2015	42	1	0	7	0.0	7	6	3	1.0	2	5.5	8	11.8
8/25/2015	50	3	8	24	0.3	24	7	1	1.0	70	5.7	17	12.2
8/31/2015	56	9	30	55	0.5	55	8	1	1.0	70	5.3	17	12.2
9/8/2015	64	1	1	4	0.3	4	9	1	1.0	70	5.0	17	12.2
9/14/2015	70	3	50	110	0.5	110	10	1	1.0	70	4.6	17	12.2
9/22/2015	78	1	4	8	0.5	8	11	1	1.0	70	4.3	17	12.3
9/28/2015	84	12	5	18	0.3	18	12	1	1.0	70	4.0	17	12.3
10/5/2015	91	1	1	51	0.0	51	13	1	1.0	70	3.5	17	11.9
10/13/2015	99	6	4	18	0.2	18	14	1	1.0	7	3.0	4	11.6
10/19/2015	105	1	8	11	0.7	11	15	1	1.0	7	2.8	4	11.8
10/26/2015	112	38	58	400	0.1	400	16	1	1.0	7	2.6	4	12.0
11/2/2015	119	18	16	18	0.9	18	17	1	1.0	7	2.5	4	12.2
11/9/2015	126	1	5	12	0.4	12	18	1	1.0	7	2.3	4	12.5
11/16/2015	133	1	64	100	0.6	100	19	1	1.0	7	2.2	4	12.7
11/23/2015	140	5	7	16	0.4	16	20	1	1.0	7	2.0	4	12.9
11/30/2015	147	1	4	12	0.3	12	21	1	1.0	2	2.0	8	13.7
12/7/2015	154	2	16	31	0.5	31	22	1	1.1	2	2.1	8	14.3
12/14/2015	161	4	8	1	8.0	1	23	1	1.1	2	2.1	8	14.5
12/21/2015	168	5	20	18	1.1	18	24	1	1.1	2	2.2	8	14.9
12/29/2015	176	1	1	1	1.0	1	25	1	1.1	2	2.2	8	15.2
1/4/2016	182	4	12	36	0.3	36	26	1	1.1	2	2.2	8	15.6

1/11/2016	189	1	1	200
1/19/2016	197	1	12	1
1/25/2016	203	18	17	200
2/1/2016	210	1	1	18
2/9/2016	218	3	3	12
2/16/2016	225	9	32	55
2/22/2016	231	8	36	200
2/29/2016	238	1	4	9
3/8/2016	246	1	1	1
3/14/2016	252	1	16	20
3/21/2016	259	5	8	1
3/29/2016	267	4	57	37
4/4/2016	273	1	3	4
4/11/2016	280	1	1	1
4/18/2016	287	1	1	1
4/25/2016	294	4	4	4
5/2/2016	301	1	1	1
5/9/2016	308	1	1	4
5/17/2016	316	1	1	1
5/23/2016	322	3	10	12
5/31/2016	330	1	1	1
6/6/2016	336	1	3	9
6/13/2016	343	1	4	8
6/20/2016	350	1	4	1
6/27/2016	357	1	4	9

0.0	200	27	1	1.1	2	2.2	8	16.0
12.0	1	28	1	1.1	1	2.2	36	16.5
0.1	200	29	1	1.1	1	2.3	36	15.9
0.1	18	30	1	1.1	1	2.3	36	15.3
0.3	12	31	1	1.1	1	2.4	36	14.7
0.6	55	32	1	1.1	1	2.5	36	14.1
0.2	200	33	1	1.1	1	2.7	36	13.4
0.4	9	34	1	1.1	1	2.8	36	12.7
1.0	1	35	1	1.1	8	3.0	18	11.9
0.8	20	36	1	1.1	8	2.8	18	11.6
8.0	1	37	1	1.2	8	2.6	18	11.3
1.5	37	38	1	1.2	8	2.4	18	10.9
0.8	4	39	1	1.2	8	2.2	18	10.5
1.0	1	40	1	1.2	8	2.0	18	10.1
1.0	1	41	1	1.2	8	1.8	18	9.5
1.0	4	42	1	1.2	1	1.5	7	9.0
1.0	1	43	1	1.3	1	1.6	7	9.2
0.3	4	44	1	1.3	1	1.7	7	9.5
1.0	1	45	1	1.4	1	1.8	7	10.0
0.8	12	46	1	1.4	1	2.0	7	10.6
1.0	1	47	1	1.6	1	2.3	7	11.5
0.3	9	48	1	1.7	1	2.8	7	13.0
0.5	8	49	1	2.1	1	4.0	7	15.9
4.0	1	50	3	3.0	8	8.0	24	24.0
0.4	9	51	3	3.0	8	8.0	24	24.0

SMB 7-4

Concentration of Biologics

Ratio Check TMDL Single Sample Result

30 Day Running Geometric Mean Calculation

Sample Date	Enterococcus (CFU/100ml)	Fecal Coliform (CFU/100 ml) ¹	Total Coliforms (CFU/100 ml)	Ratio Fecal Coliforms/ Total Coliforms > 0.1	Total Coliform Density Check <1000 OK	Enterococcus (1)	30 Day Avg Enterococcus (<35 CFU/100 ml)	Fecal Coliform(1)	30 Day Avg Fecal Coliform (< 200 CFU/100 ml)	Total Coliforms (1)	30 Day Avg Total Coliforms (<= 1000 CFU/100 ml)
7/6/2015	1	1	1	1.0	1	1	1.0	1	1.6	1	6.2
7/13/2015	1	1	1	1.0	1	1	1.0	1	1.6	1	7.4
7/20/2015	1	4	47	0.1	47	1	1.0	1	1.6	1	8.8
7/27/2015	1	2	12	0.2	12	1	1.0	1	1.6	1	10.4
8/3/2015	1	4	180	0.0	180	1	1.0	1	1.6	1	12.4
8/10/2015	1	2	8	0.3	8	1	1.0	1	1.6	1	14.7
8/17/2015	1	1	1	1.0	1	1	1.0	1	1.7	1	15.8
8/25/2015	1	0	4	0.0	4	1	1.0	1	1.7	1	16.9
8/31/2015	4	4	8	0.5	8	1	1.0	1	1.7	1	18.1
9/8/2015	1	1	8	0.1	8	1	1.0	1	1.8	1	19.4
9/14/2015	1	4	17	0.2	17	1	1.0	1	1.8	1	20.8
9/22/2015	1	1	7	0.1	7	1	1.0	1	1.9	1	22.3
9/28/2015	1	1	4	0.3	4	1	1.0	1	1.9	1	23.9
10/5/2015	1	1	3	0.3	3	1	1.0	1	1.9	1	23.9
10/13/2015	1	1	43	0.0	43	1	1.0	4	1.9	47	23.9
10/19/2015	1	2	1	2.0	1	1	1.0	4	1.8	47	21.0
10/26/2015	12	1	110	0.0	110	1	1.0	4	1.7	47	18.5
11/2/2015	3	1	8	0.1	8	1	1.0	4	1.7	47	16.3
11/9/2015	1	1	1	1.0	1	1	1.0	4	1.6	47	14.3
11/16/2015	1	1	1	1.0	1	1	1.0	4	1.5	47	12.6
11/23/2015	96	20	4000	0.0	4000	1	1.0	4	1.4	47	11.1
11/30/2015	1	1	1	1.0	1	1	1.0	2	1.4	12	10.2
12/7/2015	1	1	1	1.0	1	1	1.0	2	1.4	12	9.8
12/14/2015	8	20	71	0.3	71	1	1.0	2	1.3	12	9.8
12/21/2015	1	1	4	0.3	4	1	1.0	2	1.3	12	9.7
12/29/2015	1	1	1	1.0	1	1	1.0	2	1.3	12	9.6
1/4/2016	1	1	1	1.0	1	1	1.0	2	1.3	12	9.5

1/11/2016	1	1	36	0.0	36	1	1.0	2	1.2	12	9.5
1/19/2016	1	1	1	1.0	1	1	1.0	1	1.2	180	9.4
1/25/2016	1	1	5	0.2	5	1	1.0	1	1.2	180	8.2
2/1/2016	7	1	200	0.0	200	1	1.0	1	1.2	180	7.2
2/9/2016	2	2	3	0.7	3	1	1.0	1	1.3	180	6.1
2/16/2016	1	1	1	1.0	1	1	1.0	1	1.3	180	5.2
2/22/2016	1	1	4	0.3	4	1	1.0	1	1.3	180	4.3
2/29/2016	1	1	1	1.0	1	1	1.0	1	1.3	180	3.5
3/8/2016	43	30	36	0.8	36	1	1.0	2	1.3	8	2.8
3/16/2016	1	1	1	1.0	1	1	1.0	2	1.3	8	2.6
3/21/2016	1	5	3	1.7	3	1	1.0	2	1.3	8	2.4
3/29/2016	1	1	1	1.0	1	1	1.0	2	1.2	8	2.2
4/4/2016	1	1	1	1.0	1	1	1.0	2	1.2	8	2.0
4/11/2016	1	1	1	1.0	1	1	1.0	2	1.1	8	1.8
4/18/2016	1	1	1	1.0	1	1	1.0	2	1.1	8	1.6
4/25/2016	1	1	1	1.0	1	1	1.0	1	1.0	1	1.3
5/2/2016	1	1	5	0.2	5	1	1.0	1	1.0	1	1.4
5/9/2016	1	1	1	1.0	1	1	1.0	1	1.0	1	1.4
5/17/2016	1	1	5	0.2	5	1	1.0	1	1.0	1	1.5
5/23/2016	1	1	5	0.2	5	1	1.0	1	1.0	1	1.6
5/31/2016	1	1	2	0.5	2	1	1.0	1	1.0	1	1.7
6/6/2016	5	4	36	0.1	36	1	1.0	1	1.0	1	2.0
6/13/2016	1	1	3	0.3	3	1	1.0	1	1.0	1	2.5
6/20/2016	1	1	8	0.1	8	1	1.0	1	1.0	4	4.0
6/27/2016	1	1	1	1.0	1	1	1.0	1	1.0	4	4.0

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Concentration of Biologics					Results		30 Day Running Geometric Mean Calculation						
Sample Date		Enterococcus (CFU/100ml)	Fecal Coliform (CFU/100 ml) ¹	Total Coliforms (CFU/100 ml)	Ratio Fecal Coliforms/ Total Coliforms > 0.1	Total Coliform Density Check <1000 OK	DAY	Enterococcus (1)	30 Day Avg Enterococcus (<35 CFU/100 ml)	Fecal Coliform(1)	30 Day Avg Fecal Coliform (< 200 CFU/100 ml)	Total Coliforms (1)	30 Day Avg Total Coliforms (<= 1000 CFU/100 ml)
7/6/2015	0	7	17	24	0.7	24	0	7	4.8	17	5.0	24	60.7
7/13/2015	7	1	2	86	0.0	86	1	7	4.5	17	4.6	24	61.6
7/20/2015	14	9	0	51	0.0	51	2	7	4.2	17	4.2	24	62.4
7/27/2015	21	13	30	150	0.2	150	3	7	3.9	17	3.8	24	63.2
8/3/2015	28	1	50	36	1.4	36	4	7	3.7	17	3.5	24	64.1
8/10/2015	35	1	7	28	0.3	28	5	7	3.5	17	3.1	24	65.0
8/17/2015	42	5	50	31	1.6	31	6	7	3.2	17	3.0	24	65.3
8/25/2015	50	7	80	59	1.4	59	7	1	3.0	2	3.0	86	65.6
8/31/2015	56	1	17	91	0.2	91	8	1	3.0	2	3.1	86	63.2
9/8/2015	64	3	22	39	0.6	39	9	1	3.0	2	3.2	86	60.9
9/14/2015	70	1	0	34	0.0	34	10	1	3.0	2	3.4	86	58.7
9/22/2015	78	1	5	51	0.1	51	11	1	3.0	2	3.5	86	56.5
9/28/2015	84	1	15	24	0.6	24	12	1	3.0	2	3.6	86	54.4
10/5/2015	91	1	4	47	0.1	47	13	1	3.2	2	3.6	86	52.6
10/13/2015	99	1	3	110	0.0	110	14	9	3.4	1	3.5	51	50.9
10/19/2015	105	1	3	36	0.1	36	15	9	3.3	1	3.5	51	50.0
10/26/2015	112	24	15	400	0.0	400	16	9	3.3	1	3.5	51	49.2
11/2/2015	119	4	4	4	1.0	4	17	9	3.2	1	3.5	51	48.4
11/9/2015	126	87	9	42	0.2	42	18	9	3.1	1	3.5	51	47.6
11/16/2015	133	20	21	59	0.4	59	19	9	3.1	1	3.5	51	46.8
11/23/2015	140	3	1	36	0.0	36	20	9	3.0	1	3.5	51	46.0
11/30/2015	147	3	5	35	0.1	35	21	13	3.0	30	4.0	150	46.3
12/7/2015	154	7	1	51	0.0	51	22	13	2.9	30	4.2	150	44.9
12/14/2015	161	11	11	120	0.1	120	23	13	2.8	30	3.9	150	43.0
12/21/2015	168	8	1	24	0.0	24	24	13	2.6	30	3.6	150	41.1
12/29/2015	176	1	4	34	0.1	34	25	13	2.5	30	3.3	150	39.2
1/4/2016	182	1	3	36	0.1	36	26	13	2.3	30	3.1	150	37.2

1/11/2016	189	7	5	91	0.1	91	27	13	2.2	30	2.8	150	35.2
1/19/2016	197	3	1	12	0.1	12	28	1	2.0	1	2.5	36	33.2
1/25/2016	203	1	1	39	0.0	39	29	1	2.1	1	2.6	36	33.0
2/1/2016	210	16	8	420	0.0	420	30	1	2.1	1	2.8	36	32.9
2/9/2016	218	4	1	15	0.1	15	31	1	2.2	1	2.9	36	32.8
2/16/2016	225	1	3	19	0.2	19	32	1	2.3	1	3.1	36	32.6
2/22/2016	231	3	3	27	0.1	27	33	1	2.4	1	3.2	36	32.5
2/29/2016	238	1	1	10	0.1	10	34	1	2.5	1	3.5	36	32.3
3/8/2016	246	43	12	150	0.1	150	35	1	2.7	7	3.7	28	32.1
3/14/2016	252	9	210	540	0.4	540	36	1	2.9	7	3.6	28	32.3
3/21/2016	259	1	3	51	0.1	51	37	1	3.1	7	3.4	28	32.7
3/29/2016	267	1	1	1	1.0	1	38	1	3.3	7	3.3	28	33.0
4/4/2016	273	1	4	110	0.0	110	39	1	3.6	7	3.1	28	33.4
4/11/2016	280	1	4	18	0.2	18	40	1	4.0	7	2.9	28	33.9
4/18/2016	287	1	1	16	0.1	16	41	1	4.6	7	2.6	28	34.5
4/25/2016	294	1	1	6	0.2	6	42	5	5.3	1	2.4	31	35.3
5/2/2016	301	1	1	19	0.1	19	43	5	5.4	1	2.6	31	35.8
5/9/2016	308	1	5	24	0.2	24	44	5	5.4	1	3.0	31	36.4
5/17/2016	316	1	3	25	0.1	25	45	5	5.5	1	3.5	31	37.3
5/23/2016	322	1	1	16	0.1	16	46	5	5.6	1	4.3	31	38.4
5/31/2016	330	1	3	29	0.1	29	47	5	5.7	1	5.8	31	40.1
6/6/2016	336	1	1	17	0.1	17	48	5	5.9	1	8.9	31	42.8
6/13/2016	343	1	1	4	0.3	4	49	5	6.3	1	18.6	31	47.6
6/20/2016	350	7	2	25	0.1	25	50	7	7.0	80	80.0	59	59.0
6/27/2016	357	5	11	30	0.4	30	51	7	7.0	80	80.0	59	59.0