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November 15, 2021

Mr. Chip Poalinelli
Section Manager - California Site Cleanup Section I
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Subject: Annual Performance Evaluation Report, Interim Groundwater Containment Remedy, Omega Chemical Superfund Site, Whittier, California

Dear Mr. Poalinelli:

Enclosed for your review is the Annual Performance Evaluation Report for the Operable Unit 1 (OU-1) Interim Groundwater Containment Remedy (GCR), Omega Chemical Superfund Site, Whittier, California. The purpose for this report is to provide the USEPA with data associated with the operations of the OU-1 Groundwater Containment Remedy during the third quarter 2021, and annual updates as required.

This report complies with the requirements in the April 2007 Performance Standards Verification Plan, Operations, Maintenance, and Monitoring Manual for the operation of the GCR. Overall, this report is being provided to satisfy the data reporting requirements defined under Section IX of the February 2001 Consent Decree No. 00-12471 between the USEPA and OPOG by presenting data collected during the period and providing evidence that the GCR is compliant with the OU-1 Groundwater Removal Acton Objectives.

Should you have any questions, regarding the above, please contact me.

Sincerely,

Omega OU1/OU3 LLC

Edward Modiano
Officer, Omega OU1/OU3 LLC

Jaime Dinello, PE
Project Manager

cc: Don Indermill, DTSC

de maximis, inc.

November 15, 2021

INTERIM GROUNDWATER CONTAINMENT REMEDY ANNUAL PERFORMANCE EVALUATION REPORT THIRD QUARTER 2021 OMEGA CHEMICAL SUPERFUND SITE, OU-1

Prepared for:

Omega OU1/OU3 LLC

Prepared by:

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INTERIM GROUNDWATER CONTAINMENT REMEDY
OPERABLE UNIT 1 OMEGA CHEMICAL SUPERFUND SITE

Annual Performance Evaluation Report
Third Quarter 2021

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INTERIM GROUNDWATER CONTAINMENT REMEDY
OPERABLE UNIT 1 OMEGA CHEMICAL SUPERFUND SITE

Annual Performance Evaluation Report
Third Quarter 2021

1. INTRODUCTION

This Annual Performance Evaluation Report has been prepared for the Interim Groundwater Containment Remedy (GCR) on behalf of the Omega Chemical Site Potentially Responsible Parties Organized Group (OPOG) to comply with the February 2001 Consent Decree (CD) No. 00-12471 between the United States Environmental Protection Agency (USEPA) and OPOG (USEPA, 2001). As stated in the September 2005 Removal Action Memorandum (USEPA, 2005), the primary goal of the selected remedy is to contain the highest levels of contamination dissolved in groundwater within Operable Unit 1 (OU-1), so that the contamination does not migrate and contribute to the downgradient regional groundwater plume. To achieve this goal, the OU-1 Groundwater Containment Remedy (GCR) was installed and began operating in 2009. The location and components of the GCR are presented on Figure 1.

The GCR Remedial Action Objective (RAO) monitoring requirements are specified in the Performance Standards Verification Plan (PSVP) (CDM, 2007). Updated monitoring requirements will be included in the Final OU-1 Groundwater Containment System Operations Monitoring & Maintenance (OM&M) Manual. The Draft OM&M Manual was submitted to the USEPA on July 3, 2019 and is currently under review by the USEPA. Current monitoring requirements for this reporting period are as follows:

- GCR operational data are collected to support the determination of compliance with the second RAO (RAO #2, treated vapor emissions and treated groundwater discharge) as well as to conform to the requirements of the PSVP and the current OM&M Manual (CDM, 2010). These data are included in Section 2.

- Quarterly piezometric data from the PSVP-specified monitoring locations are plotted to illustrate that groundwater flow is toward the pumping wells (CDM, 2005). The goal of this

monitoring is to verify hydraulic containment of groundwater contamination within OU-1 is achieved. According to the CD, these data provide the primary documentation of containment required by RAO #1 (USEPA, 2001). These data are included in Section 3.

- Annually, concentration trends at downgradient wells OW-9 and OW-10 are evaluated using the Mann-Kendall test on cumulative historical tetrachloroethene (PCE), trichloroethene (TCE), and 1,4-dioxane concentrations, and over the most current three-year period (OPOG, 2016). This analysis is conducted as part of the Annual Performance Evaluation Report. This analysis supports the documentation of containment required by RAO#1 and is discussed in Section 3.

- Semi-annual water quality monitoring data are plotted on time-series charts to show concentration trends (CDM, 2007). These data are collected during the first and third quarter monitoring events and are used to further demonstrate horizontal and vertical containment. Results of the water quality monitoring are summarized in Section 4.

2. GCR SYSTEM OPERATIONS THIS QUARTER

The GCR System functioned during the third quarter with various periods of downtime. Below is a list of non-routine operations, maintenance items, and downtime events which occurred during the third quarter:

- The GCR System was shut down on July 10, 2021 due to a high effluent discharge flow alarm. The effluent discharge flow meter had an electrical failure. Power to the system was cycled to clear the error and the system was re-started on July 12, 2021.
- Following the restart of the GCR System on July 12, 2021, the system shut down as the blower discharge flow/dP meter was not operating. The meter was replaced on July 14, 2021 and the system was restarted.
- The GCR System shut down on August 8, 2021 due to a high water level alarm in the effluent sump. The system was restarted on August 10, 2021, after troubleshooting the sensor display. The system shut down again on August 11, 2021 as the effluent sump level display failed again. The system remained off until August 19, 2021 when a new effluent sump level display was received and installed.
- The GCR System shut down on August 25, 2021 due to a break in the blower vacuum switch tubing. The tubing was repaired and the system re-started.

- The GCR system was shut down on September 23, 2021 to conduct aquifer testing as part of the voluntary OU-1 data collection program which was conditionally approved by USEPA on April 29, 2021 (USEPA, 2021). The system was re-started in the fourth quarter (October 18, 2021). The data collected during the voluntary OU-1 data collection program will be reported as a separate data submittal to USEPA.
- On September 27, 2021, new transducers were installed in DPE-3, DPE-5, and DPE-8.

The GCR had an operational run time of approximately 72 percent during the third quarter and approximately 88 percent over the previous 12 months (Table 1). Approximately 0.6 pounds of Volatile Organic Carbon (VOC) mass was removed from treated groundwater (via the air stripper) during the third quarter, compared to 1.0 pounds removed during the previous quarter. Figure 2 shows the cumulative mass removed since 2009. The total amount of water treated during the second and third quarters was 463,900 and 365,500 gallons, respectively.

EXTRACTION WELLS

The Extraction Wells (EWs) (EW-1 through EW-5) were mechanically functional this quarter. Attachment A, Table A-1 includes measurements for each EW for the last twelve months, including pump runtime, extracted volume, operational flow rate and average flow rate. Flow rates in EW-3, EW-4, and EW-5 have been inconsistent between the third quarter 2020 and this reporting period. The flow rates in the third and fourth quarter 2020 are elevated (compared to historical trends), potentially due to set-point adjustments conducted in July 2020. However, flows at these three wells have since returned to the historically normal conditions. Routine monitoring will continue at these wells to confirm that flow rates have returned to the historical trends. The measured depth to water (during the quarterly piezometric monitoring) and targeted extraction interval (i.e. screen interval) are discussed in Section 3.

In addition to the five GCR EWs, six dual-phase extraction (DPE) wells are extracting groundwater within OU-1. These DPE wells were constructed in 2014 as part of the Full Scale On-Site (OU-1) Soil Remedy under the 2010 Consent Decree between the USEPA and OPOG (USEPA 2010). These wells are designated DPE-3, DPE-4, DPE-5, DPE-8, DPE-9, and VE-10D and are shown on Figure 1. Although installed as part of the OU-1 soil remedy to increase subsurface vapor removal, the DPE wells are currently extracting most of the water and contaminant mass. Pumping from the DPE wells accounted for approximately 97% of groundwater extracted in the third quarter.

Other groundwater data collected during the quarter, including data from groundwater pumped from the DPE wells, are summarized in Attachment B. This includes operational information such as volume of groundwater extracted this quarter, targeted extraction interval (i.e. screen interval), and approximate depth to water, analytical data (if collected), and calculations of mass removed per pumping well, if applicable. As shown in Table B-3, DPE-5 and VE-10D ceased operations in July and remained off through the remainder of the quarter. In the fourth quarter, DPE-5 was returned to operation following the replacement of its water level transducer the disfunction of which disallowed safe operation. Operation of VE-10D was not possible in the third quarter due to a communication issue between its control panel that is located at the AOC SVE system, and the GWCS programmable logic controller (PLC) which was resolved in the fourth quarter. As stated above, the transducers in DPE-3, DPE-5, and DPE-8 were replaced on September 27, 2021. In addition, VE-10D was redeveloped early in the fourth quarter (October 13, 2021). Effects of these maintenance items, and the evaluation of data from DPE-3, DPE-5, DPE-8, and VE-10D upon restart, will be discussed in the subsequent Quarterly Report. Laboratory analytical results and associated data validation reports are included in Attachment C.

AIR STRIPPER

VOC concentrations in groundwater prior to and after treatment by the air stripper are summarized in Table 2 for the previous 12 months. These data show continued effectiveness in transferring VOCs from the aqueous phase to the vapor phase for treatment by the Vapor Phase Granular Activated Carbon (VGAC). Air stripper influent concentrations over time are shown on Figure 3. Laboratory analytical results and associated data quality assessments are included in Attachment C.

TREATED VAPOR DISCHARGE

The GCR system operated in accordance with treated vapor discharge limits and VGAC operations requirements. The carbon changeout criteria were not triggered during the third quarter or the previous 12 months (Attachment A, Table A-2). The VGAC change out criteria are currently based on the existing Health Risk Assessment (CDM Smith, 2015). A revised Health Risk Assessment was prepared and submitted to the USEPA on March 18, 2019 and is currently under review by the USEPA. The most recent carbon changeout of the lead and lag vessels was completed on July 8, 2020.

Table 3 shows the chemical-specific concentrations in the VGAC influent, midpoint, and effluent and effluent discharge limits for this quarter. Attachment A, Table A-2 show VGAC operational conditions for flow rate, temperature, and total VOC emissions as indicated by a photo ionization detector (PID).

TREATED EFFLUENT DISCHARGE

Discharge compliance samples are collected on a quarterly basis from the designated sample collection point (20039A) to confirm compliance with the current Sanitation Districts of Los Angeles County (SDLAC) Industrial Waste Discharge Permit (No. 20039). The SDLAC permit is dated August 8, 2017 and is scheduled to expire on August 7, 2022. The results for the third quarter's effluent samples were provided to SDLAC in the self-monitoring report (Attachment D). The analytical results show that all analytes were within SDLAC permit limits or non-detectable above reporting limits.

3. QUARTERLY PIEZOMETRIC MONITORING

A network of five EWs, 11 groundwater observation wells, and four piezometers are included in the quarterly piezometric monitoring. The quarterly piezometric data are provided in Attachment E, Table E-1. Included in this table are the screen interval, and approximate depth to water. Historical piezometric data are presented in time series charts in Attachment E, Figures E-1 through E-20. Note that observation wells OW-4a and OW-4b, included in the PSVP, were transferred out of the OU-1 program in 2017 and are now monitored by OPOG and other Settling Work Defendants as part of OU-2 in accordance with the OU-2 Consent Decree (USEPA 2017).

Attachment F provides a review of the piezometric conditions during this quarter's piezometric monitoring. As demonstrated by Figure F-1, horizontal containment of OU-1 groundwater continues to be achieved. It is also noted that the regional drought conditions and the pumping from Full Scale On-Site (OU-1) Soil Remedy DPE wells have reduced water levels locally to below the pump intake of some GCR extraction wells. The combination of all these factors has essentially dewatered the aquifer within the OU-1 boundary, and thus is providing horizontal containment.

Vertical gradients are examined at a well triplet and two well pairs (Figure F-2). There is minimal hydraulic connection between the shallow extraction zone (A-Zone) and the deeper B-Zone due

to the presence of a confining layer which prevents significant downward vertical transport (Figure F-4). The significant head differential between the A-Zone and B-Zone is further evidence of very limited hydraulic connection between the zones.

Field forms for the quarterly piezometric monitoring are included in Attachment G.

MANN-KENDALL ANALYSIS

The results of the annual Mann-Kendall analysis conducted on data from observations wells OW-9 and OW-10 are presented in Attachment H. This analysis shows statistically significant declining trends in concentrations over the historical data collection period for PCE and TCE. The 1,4-dioxane concentrations at both locations over the historical period show a weak downward trend or stable (no trend), with low statistical significance. The concentrations of 1,4-dioxane at OW-10 are difficult to evaluate statistically due to multiple non-detect results and variable method reporting limits (see Figure E-35). The concentrations of PCE, TCE, and 1,4-dioxane at both locations over the most recent three year period are shown to have weak downward trends to stable (no trend), with low statistical significance.

4. SEMI-ANNUAL WATER QUALITY MONITORING

A network of five EWs and 11 groundwater observation wells are included in semi-annual water quality monitoring, conducted in the first and third quarters. Concentrations of PCE, TCE, 1,4-dioxane, and other analytes in samples collected during this quarter are presented in Attachment E, Table E-2. Historical data from these locations are presented in time series charts in Figures E-21 through E-36. Field forms for the semi-annual monitoring are included in Attachment H. Analytical laboratory reports and data validation reports are included in Attachment C.

5. SUBMITTALS DURING THE QUARTER

The following submittals were provided to USEPA this quarter as part of the OU-1 GCR:

- Interim Groundwater Containment Remedy QPER, Second Quarter 2021 (August 16, 2021)
- Email Notification to EPA Regarding Planned GCR System Shutdown in support of the OU-1 Data Collection Program (September 21, 2021)

6. PLANNED ACTIVITIES

Planned operational and monitoring activities scheduled for the fourth quarter 2021 include the following:

- VE-10D redevelopment (completed on October 13, 2021), as recommended in the second quarter report.
- Restart of the GCR System following the completion of aquifer testing as part of the voluntary OU-1 data collection program (completed on October 18, 2021). The data collected during the voluntary OU-1 data collection program will be reported as a separate data submittal to USEPA.
- Semi-annual alarm testing
- Quarterly piezometric monitoring
- Monthly assessment of VGAC effectiveness and need for carbon changeout
- Monthly and quarterly assessment of data to determine if system adjustments are appropriate
- Quarterly performance reporting

7. REFERENCES

APTIM. (2021). Omega: Interim Groundwater Containment Remedy – Annual Report (3rd Quarter 2020), May 6, 2021. Email from Tomas Parina to Jaime Dinello.

CDM. (2005). *Removal Action Plan and Preliminary Design Report, December 16.*

CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System, April 19.*

CDM. (2010). *Final Operations, Maintenance, and Monitoring Manual, February 19*

CDM Smith. (2015). *Memorandum: Treatment of Effluent from Groundwater Treatment System and Soil Vapor Extraction, Omega Chemical Superfund Site, Whittier, California 90602, February 26.*

USEPA. (2001). *Consent Decree No. 00-12471, February 28*

USEPA. (2005). *Removal Action Memorandum, September 27*

Table 1
GWTP Operational Summary and Mass Removed Totals
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

Month	GWTP Runtime Percent[1] (%)	GWTP Runtime Hours (hrs)	Operational Flow Rate[2] (gpm)	Average Flow Rate[3] (gpm)	Total Gallons Processed[4] (gal)	Mass Removed[5] (lbs)
October 2020	99	739	6.6	6.5	289,700	0.5
November 2020	100	716	5.1	5.1	219,500	0.4
December 2020	100	739	4.7	4.7	207,700	0.4
January 2021	100	743	4.1	4.1	183,000	0.4
February 2021	100	670	4.2	4.2	171,300	0.3
March 2021	100	741	4.0	4.0	178,500	0.4
April 2021	81	581	4.6	3.7	158,400	0.3
May 2021	76	564	2.8	2.1	92,200	0.1
June 2021	86	617	5.7	4.9	213,300	0.6
July 2021	88	654	4.1	3.6	161,100	0.3
August 2021	56	414	3.9	2.2	100,300	0.1
September 2021	71	512	3.4	2.4	104,100	0.2
Annual	**Average = 88**	**Average = 641**	**Average = 4.4**	**Average = 4.0**	**Total = 2,079,100**	**Total = 4.0**
				Cumulative Total[6]	**49,147,065**	**990.9**

Notes:

1. GWTP Runtime Percent is the percentage of total hours in the month that the GWTP actually operated.
2. Operational flow rate calculated from total gallons processed in the month and hours the GWTP actually operated in the month.
3. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of GWTP uptime.
4. Total gallons processed includes groundwater pumped to the GWTP from the Full Scale On-Site (OU-1) Soil Remedy DPE wells.
5. Mass removed is calculated from the average VOC concentration in the air stripper influent and discharge, and the total gallons processed. See Table 3.
6. The GWTP has to date treated 49,147,065 gallons of water and removed a cumulative total of 990.9 pounds of contaminant. See Figure 2.

gpm = gallons per minute
hrs = hours
gal = gallons
lbs = pounds

Table 2
Air Stripper Influent and Effluent Concentrations Demonstrating Proper System Function
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

Sample ID	Sample Date	PCE	TCE	MeCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_100920	10/9/2020	100	11	5.0 UJ	1.0	11	52
OC_SP220B_EFF_100920	10/9/2020	1.0 U	1.0 U	5.0 UJ	1.0 U	1.0 U	5.0 U
OC_SP210_INF_110320	11/3/2020	110	11	5.0 U	0.75	9.0	51
OC_SP220B_EFF_110320	11/3/2020	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_120120	12/1/2020	140	14	5.0 U	1.0 U	11	68
OC_SP220B_EFF_120120	12/1/2020	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_010521	1/5/2021	100	12	5.0 U	1.0 U	14	69
OC_SP220B_EFF_010521	1/5/2021	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_020821	2/8/2021	100	13	5.0 U	1.2	7.8	60
OC_SP220B_EFF_020821	2/8/2021	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_030921	3/9/2021	130	18	5.0 U	1.1	13	87
OC_SP220B_EFF_030921	3/9/2021	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U

Table 2
Air Stripper Influent and Effluent Concentrations Demonstrating Proper System Function
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

Sample ID	Sample Date	PCE	TCE	MeCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_040621	4/6/2021	110	13	5.0 U	1.0 U	11	64
OC_SP220B_EFF_040621	4/6/2021	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_050321	5/3/2021	98	11	5.0 U	1.0 U	9.1	59
OC_SP220B_EFF_050321	5/3/2021	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
OC_SP210_INF_060221	6/2/2021	160	24	1.0 U	0.9	9.1	120
OC_SP220B_EFF_060221	6/2/2021	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
OC_SP210_INF_070621	7/6/2021	120	15	2.0 U	1.0	9.9	67
OC_SP220B_EFF_070621	7/6/2021	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
OC_SP210_INF_081021	8/10/2021	100	11	2.0 U	1.0 U	5.2	42
OC_SP220B_EFF_081021	8/10/2021	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U
OC_SP210_INF_090721	9/7/2021	100	9.4	2.0 U	1.0 U	7.5	81
OC_SP220B_EFF_090721	9/7/2021	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U

Notes:
INF = Air stripper influent water. Untreated water sample collected downstream of bag filters.
EFF = Air stripper effluent water. Treated water sample collected in discharge header upstream of SDLAC sample box.
All results are in micrograms per liter (ug/L)
U = not detected above reporting limit listed
UJ = analyte was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
PCE = Tetrachloroethene; TCE = Trichloroethene; MeCL = Methylene chloride; 1,2-DCA = Dichloroethane

Table 3
Vapor Phase GAC Concentrations Demonstrating Substantive Compliance with SCAQMD Regulations
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

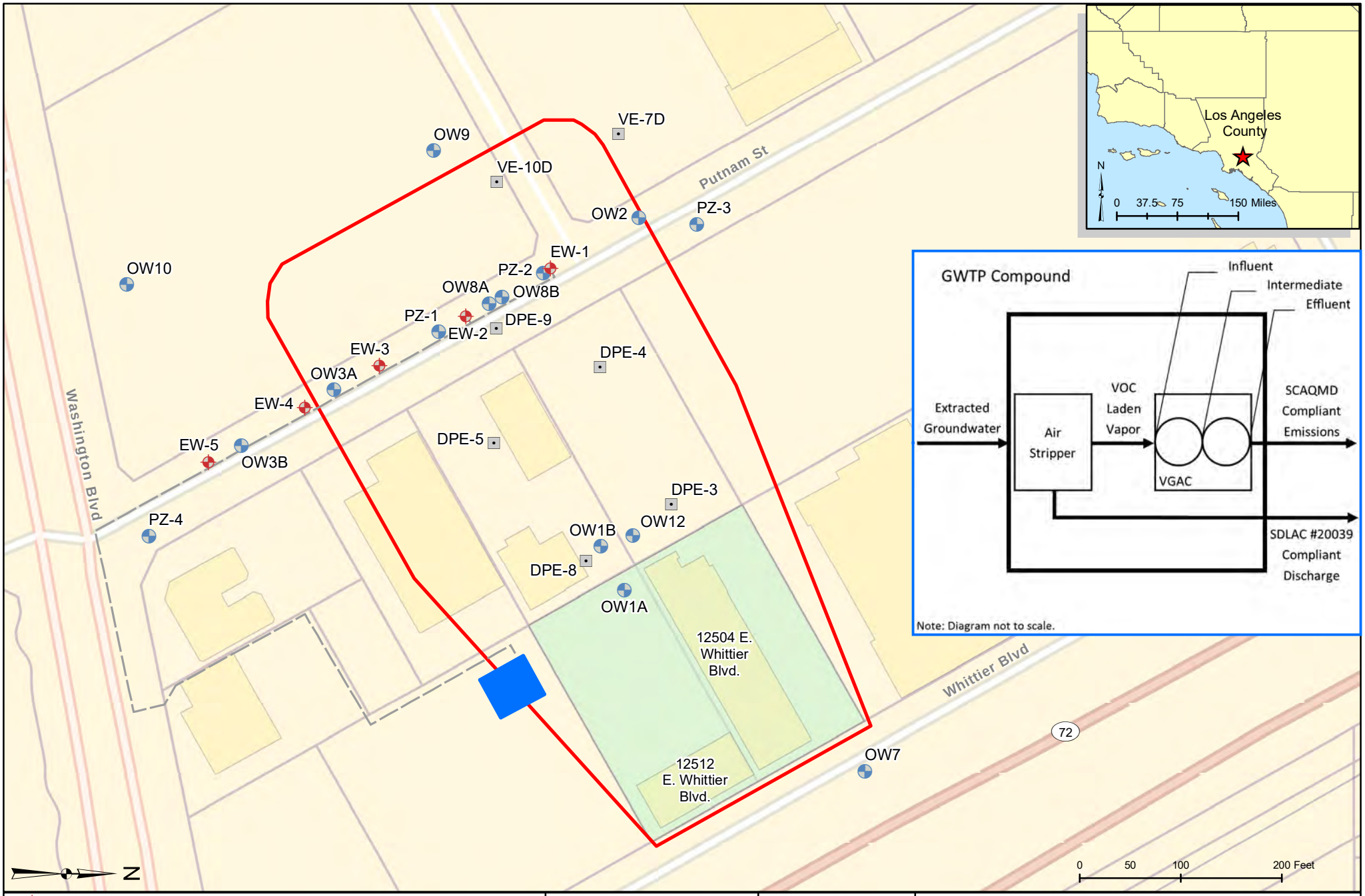
SCAQMD Chemical-Specific Effluent Limit[1]			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**1,1-DCA**	**1,2-DCA**	**BZ**	**MeCL**	**VC**	**CFM**
OC_VGAC_INF_SP241_100920	10/9/2020	ppbv	23	4.0	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.8
OC_VGAC_INT_SP245_100920	10/9/2020	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.2 U
OC_VGAC_EFF_SP242_100920[2]	10/9/2020	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**	**1.2 U**
OC_VGAC_INF_SP241_110320	11/3/2020	ppbv	30	4.4	1.2 U	1.2 U	1.2 U	12 U	1.2 U	2.3
OC_VGAC_INT_SP245_110320	11/3/2020	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.2 U
OC_VGAC_EFF_SP242_110320	11/3/2020	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**	**1.2 U**
OC_VGAC_INF_SP241_120120	12/1/2020	ppbv	22	3.5	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.4
OC_VGAC_INT_SP245_120120	12/1/2020	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.2 U
OC_VGAC_EFF_SP242_120120	12/1/2020	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**	**1.2 U**
OC_VGAC_INF_SP241_010521	1/5/2021	ppbv	22	3.3	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.4
OC_VGAC_INT_SP245_010521	1/5/2021	ppbv	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	13 U	1.3 U	1.3 U
OC_VGAC_EFF_SP242_010521	1/5/2021	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**	**1.2 U**
OC_VGAC_INF_SP241_020821	2/8/2021	ppbv	21	3.4	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.2
OC_VGAC_INT_SP245_020821	2/8/2021	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U	1.2 U
OC_VGAC_EFF_SP242_020821	2/8/2021	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**	**1.2 U**
OC_VGAC_INF_SP241_030921	3/9/2021	ppbv	23	6.2	0.94 U	0.94 U	0.94 U	9.4 U	0.94 U	1.3
OC_VGAC_INT_SP245_030921	3/9/2021	ppbv	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	9.6 U	0.96 U	0.96 U
OC_VGAC_EFF_SP242_030921	3/9/2021	ppbv	**0.98 U**	**0.98 U**	**0.98 U**	**0.98 U**	**0.98 U**	**9.8 U**	**0.98 U**	**0.98 U**

Table 3
Vapor Phase GAC Concentrations Demonstrating Substantive Compliance with SCAQMD Regulations
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

SCAQMD Chemical-Specific Effluent Limit[1]			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**1,1-DCA**	**1,2-DCA**	**BZ**	**MeCL**	**VC**	**CFM**
OC_VGAC_INF_SP241_040621	4/6/2021	ppbv	25	4.0	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.5
OC_VGAC_INT_SP245_040621	4/6/2021	ppbv	0.90 U	0.90 U	0.90 U	0.90 U	0.90 U	9.0 U	0.90 U	0.90 U
OC_VGAC_EFF_SP242_040621	4/6/2021	ppbv	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.0 U**	**1.0 U**
OC_VGAC_INF_SP241_050321	5/3/2021	ppbv	23	3.7	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.6
OC_VGAC_INT_SP245_050321	5/3/2021	ppbv	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	9.7 U	0.97 U	0.97 U
OC_VGAC_EFF_SP242_050321	5/3/2021	ppbv	**0.99 U**	**0.99 U**	**0.99 U**	**0.99 U**	**0.99 U**	**9.9 U**	**0.99 U**	**0.99 U**
OC_VGAC_INF_SP241_060221	6/2/2021	ppbv	30	4.6	1.0 U	1.0 U	1.0 U	10 U	1.0 U	2.2
OC_VGAC_INT_SP245_060221	6/2/2021	ppbv	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	9.2 U	0.92 U	0.92 U
OC_VGAC_EFF_SP242_060221	6/2/2021	ppbv	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.0 U**	**1.0 U**
OC_VGAC_INF_SP241_070621	7/6/2021	ppbv	22	3.4	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.1
OC_VGAC_INT_SP245_070621	7/6/2021	ppbv	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
OC_VGAC_EFF_SP242_070621	7/6/2021	ppbv	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.0 U**	**1.0 U**
OC_VGAC_INF_SP241_081021	8/10/2021	ppbv	22	2.4	0.99 U	0.99 U	0.99 U	9.9 U	0.99 U	0.99 U
OC_VGAC_INT_SP245_081021	8/10/2021	ppbv	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
OC_VGAC_EFF_SP242_081021	8/10/2021	ppbv	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**1.0 U**	**10 U**	**1.0 U**	**1.0 U**
OC_VGAC_INF_SP241_090721	9/7/2021	ppbv	7.9	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
OC_VGAC_INT_SP245_090721	9/7/2021	ppbv	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
OC_VGAC_EFF_SP242_090721	9/7/2021	ppbv	**1.1 U**	**1.1 U**	**1.1 U**	**1.1 U**	**1.1 U**	**11 U**	**1.1 U**	**1.1 U**
Compliance with Effluent Limits?			**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**

1. SCAQMD effluent limits are derived from the Health Risk Assessment (CDM Smith, 2015).
2. Bold text indicates vapor effluent results from the VGAC effluent required to meet SCAQMD HRA chemical specific limits shown in the table.

INF = Vapor phase GAC influent. VOC-laden vapor sample collected at the influent to the lead vapor GAC unit.
INT = Vapor phase GAC intermediate. Partially treated vapor sample collected between the lead and lag vapor GAC units.
EFF = Vapor phase GAC effluent. Fully treated vapor sample collected at the effluent from lag (polishing) vapor GAC unit.
VGAC = vapor phase granular activated carbon; GAC = granular activated carbon
SCAQMD HRA Limit = South Coast Air Quality Management District Health Risk Assessment permitted concentration limit in ppbv
U = not detected above reporting limit listed
PCE = Tetrachloroethene; TCE = Trichloroethene; 1,1-DCA = 1,1-Dichloroethane; 1,2-DCA = 1,2-Dichloroethane; BZ = Benzene; MeCL = Methylene chloride; VC = Vinyl chloride; CFM = Chloroform



GCR Extraction Well

Observation Well / Piezometer

OU-1 On-Site Soil Remedy Dual Phase Extraction Well

GCR Conveyance Piping

GWTP Compound Location

Former Omega Chemical Property Boundary

OU-1 Boundary

Extraction from VE-7D was terminated on February 11, 2020.The pump will remain off as the value of extraction at this location is limited. Only piezometric data are collected from PZ-3 for GCR performance monitoring.

ddms

de maximis, inc.

Reviewed By: KRK
Drawn By: LEM
Date: 10/27/2020

Figure 1
OU-1 Location Map
OU-1 Groundwater Containment Remedy,
Omega Chemical Superfund Site
12504/12512 East Whittier Boulevard
Whittier, California

Figure 2
Cumulative Gallons Treated and Mass Removed
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021

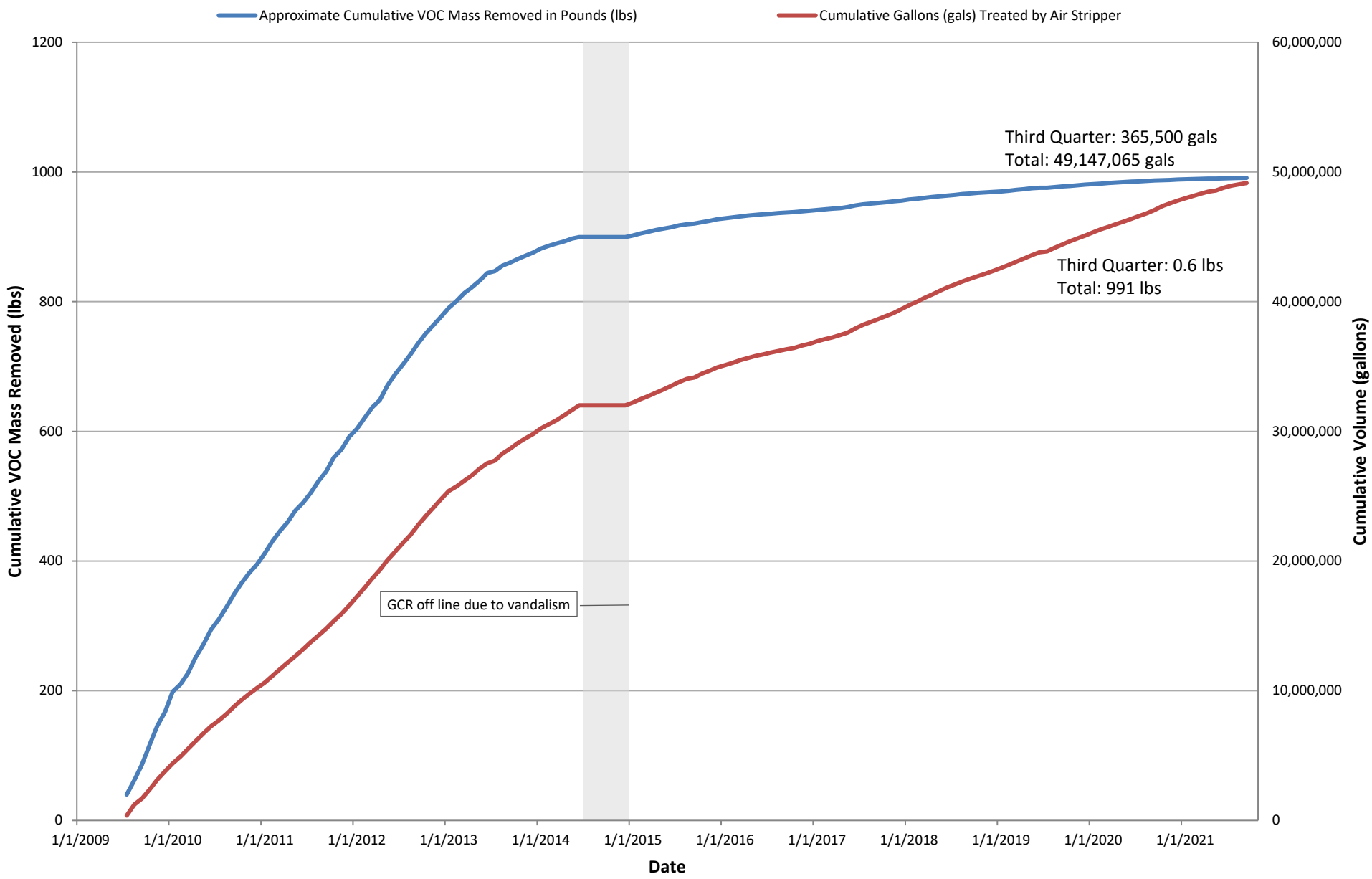
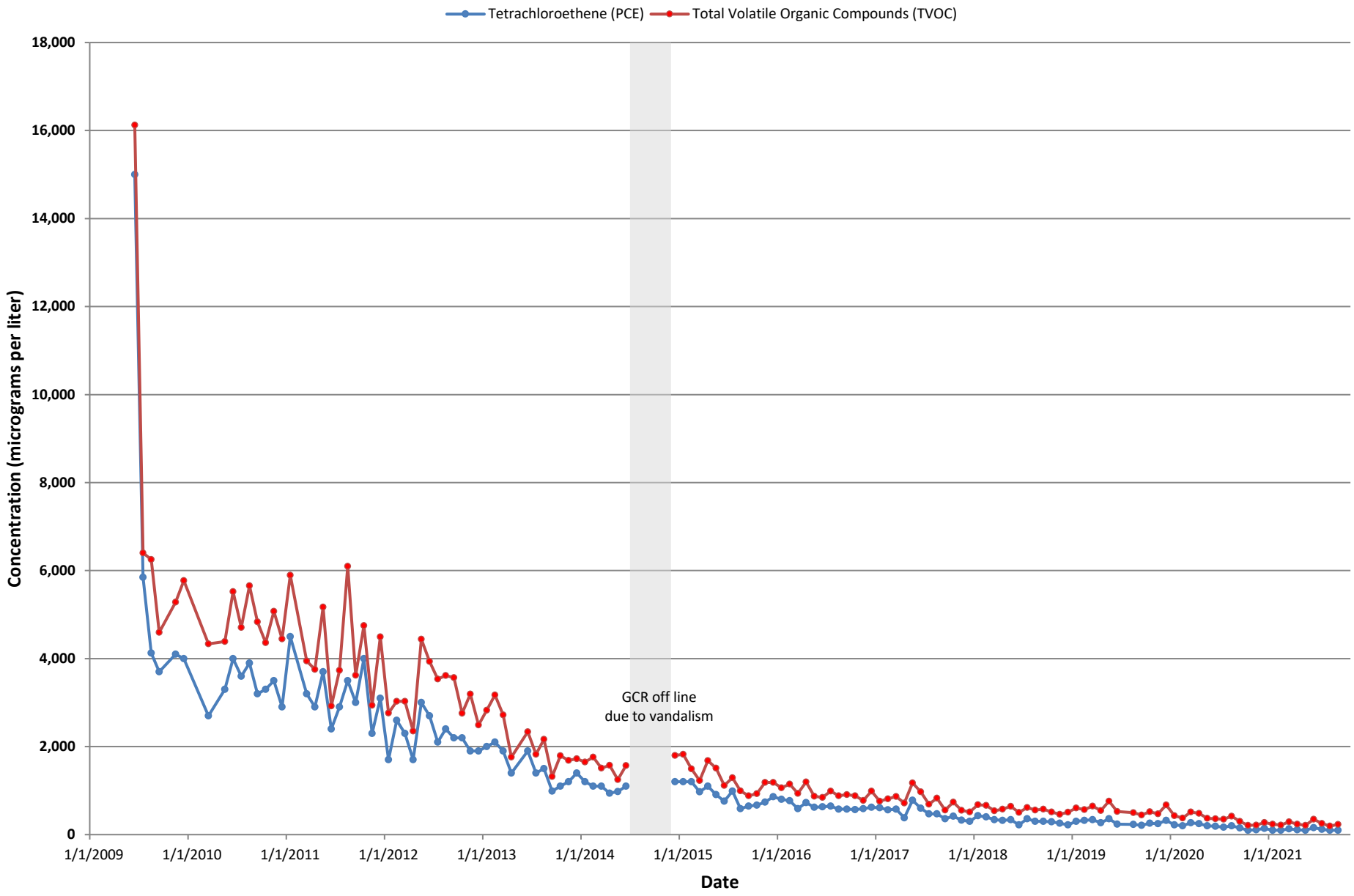


Figure 3
GCR Air Stripper Influent Concentrations
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021



ATTACHMENT A

Operational Data Summaries

Attachment A, Table A-1
Hydraulic Containment Extraction Well Operational Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
EW-1	Oct 2020 - Sept 2021	0	0	0	0	
	Annual	0	0	0	0	NA
EW-2[3]	Oct 2020 - Sept 2021	0	0	0	0	
	Annual	0	0	0	0	NA
EW-3	October 2020	62.4	6185	1.65	0.14	
	November 2020	17.8	1757	1.64	0.04	
	December 2020	8.16	899	1.84	0.02	
	January 2021	4.74	473	1.66	0.01	
	February 2021	3.04	349	1.91	0.01	
	March 2021	5.40	663	2.05	0.01	
	April 2021	10.2	1215	1.98	0.03	
	May 2021	1.12	91.7	1.36	0.002	
	June 2021	3.20	585	3.05	0.01	
	July 2021	4.11	532	2.16	0.01	
	August 2021	1.26	167	2.20	0.004	
	September 2021	0.11	13.6	2.06	0.0003	
	Annual	122	12,929	1.96	0.02	0.001
EW-4	October 2020	15.7	5,684	6.02	0.13	
	November 2020	5.15	1,787	5.78	0.04	
	December 2020	4.07	1,513	6.20	0.03	
	January 2021	3.62	1,235	5.68	0.03	
	February 2021	2.87	1,016	5.90	0.03	
	March 2021	3.04	1,141	6.25	0.03	
	April 2021	4.11	1,515	6.14	0.04	
	May 2021	3.08	722	3.91	0.02	
	June 2021	2.44	1,228	8.39	0.03	
	July 2021	2.24	829	6.17	0.02	
	August 2021	1.69	655	6.46	0.01	
	September 2021	1.43	546	6.37	0.01	
	Annual	49.5	17,871	6.11	0.03	0.002

Attachment A, Table A-1
Hydraulic Containment Extraction Well Operational Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
October 2020 - September 2021

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
EW-5	October 2020	39.5	12,050	5.08	0.27	
	November 2020	22.2	6,465	4.85	0.15	
	December 2020	25.1	7,629	5.07	0.17	
	January 2021	17.5	5,025	4.79	0.11	
	February 2021	12.4	3,725	5.03	0.09	
	March 2021	20.0	6,363	5.31	0.14	
	April 2021	17.4	5,572	5.35	0.13	
	May 2021	13.3	2,710	3.39	0.06	
	June 2021	11.5	5,045	7.29	0.12	
	July 2021	11.3	3,523	5.20	0.08	
	August 2021	7.15	2,288	5.33	0.05	
	September 2021	7.71	2,426	5.24	0.06	
	Annual	205	62,821	5.16	0.12	0.01

Notes:

1. Operational flow rate calculated from total gallons processed in the month and hours the pump actually operated in the month.

2. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of pump uptime.

3. Hour meter indicated the pump motor experienced short and intermittent periods of being energized, but the pump itself did not discharge for December 2020 and July 2021.

All extraction wells operate on/off based on water levels measured by pressure transducers installed in each well.

NA = no analytical data available, no mass calculation performed

hrs = hours

gal = gallons

gpm = gallons per minute

lbs = pounds

Attachment A, Table A-2
Vapor Phase GAC Operational Data Demonstrating Substantive Compliance with SCAQMD Regulations
October 2020 - September 2021

SCAQMD Limit		1000	145			3.6		
HRA Changeout Criteria					12[3]		90[3]	
Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)
10/9/2020	25.6	690	103.1	0.115	0.063	0.025	--	--
10/13/2020	25.8	682	105.1	0.301	0.133	0.110	--	--
10/20/2020	25.4	689	103.2	0.435	0.201	0.299	--	--
10/26/2020	25.3	685	101.5	0.181	0.000	0.000	--	--
11/3/2020	25.9	687	99.8	2.875	1.877	0.943	--	--
11/9/2020	25.7	687	98.6	0.787	0.610	0.650	--	--
11/17/2020	24.3	692	102.3	0.000	0.000	0.000	--	--
11/24/2020	24.2	689	98.7	0.077	0.202	0.230[6]	--	--
12/1/2020	24.9	689	97.0	0.000	0.000	0.156[6]	--	--
12/8/2020	24.9	695	101.9	0.040	0.000	0.002	--	--
12/15/2020	24.8	692	98.5	0.000	0.000	0.000	--	--
12/21/2020	24.7	687	100.4	0.351	0.002	0.245	--	--
12/28/2020	24.4	704	87.1	0.579	0.276	0.446	--	--
1/5/2021	24.8	687	93.2	0.372	0.295	0.261	--	--
1/12/2021	25.0	680	91.2	0.132	0.000	0.000	--	--
1/18/2021	24.9	679	94.0	0.000	0.229	0.639[6]	--	--
1/26/2021	24.9	690	87.4	0.070	0.000	0.243[6]	--	--

Attachment A, Table A-2
Vapor Phase GAC Operational Data Demonstrating Substantive Compliance with SCAQMD Regulations
October 2020 - September 2021

SCAQMD Limit		1000	145			3.6		
HRA Changeout Criteria					12[3]		90[3]	
Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)
2/2/2021	25.3	698	96.6	0.657	0.493	1.001[6]	--	--
2/8/2021	25.2	683	92.7	0.441	0.000	0.428	--	--
2/15/2021	25.4	658	93.8	1.256	1.311	1.863[6]	--	--
2/23/2021	25.9	645	95.3	0.187	0.019	0.219[6]	--	--
3/2/2021	26.2	641	100.5	0.000	0.000	1.748[6]	--	--
3/9/2021	26.0	633	91.8	0.483	0.309	1.896[6]	--	--
3/15/2021	25.6	636	90.8	0.000	0.000	0.722[6]	--	--
3/22/2021	N/A[4]	639	100.7	0.299	0.103	0.880[6]	--	--
3/30/2021	N/A[4]	619	99.0	0.212	0.200	0.308[6]	--	--
4/6/2021	N/A[4]	625	101.5	0.396	0.256	1.162[6]	--	--
4/13/2021	N/A[4]	613	101.4	0.000	0.000	0.000	--	--
4/20/2021	N/A[4]	634	101.4	0.147	0.000	0.417[6]	--	--
4/28/2021	N/A[4]	632	102.8	0.263	0.371	1.293[6]	--	--
5/3/2021	N/A[4]	706	111.9	0.000	0.000	0.270[6]	--	--
5/10/2021	N/A[4]	676	112.2	0.000	0.000	0.380[6]	--	--
5/17/2021	N/A[4]	690	110.9	0.000	0.000	0.951[6]	--	--
5/24/2021	N/A[4]	685	107.6	0.000	0.009	1.285[6]	--	--
6/2/2021	N/A[4]	700	106.9	0.413	0.118	2.101[6]	--	--
6/7/2021	33.7	696	113.6	0.205	0.068	0.507[6]	--	--
6/14/2021	34.6	701	116.5	0.000	0.000	0.364[6]	--	--
6/22/2021	35.0	715	113.1	0.000	0.000	0.018[6]	--	--
6/29/2021	35.2	709	114.3	0.181	0.022	0.078	--	--

Attachment A, Table A-2
Vapor Phase GAC Operational Data Demonstrating Substantive Compliance with SCAQMD Regulations
October 2020 - September 2021

SCAQMD Limit		1000	145			3.6		
HRA Changeout Criteria					12[3]		90[3]	
Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)
7/6/2021	33.0	709	115.7	0.000	0.000	0.056[6]	--	--
7/14/2021	31.7	195	122.2	0.267	0.243	0.268[6]	--	--
7/20/2021	33.1	674	117.8	0.000	0.000	0.000	--	--
7/27/2021	33.0	N/A[5]	116.6	0.032	0.000	0.968[6]	--	--
8/3/2021	32.2	675	119.1	0.260	0.000	0.193	--	--
8/10/2021	37.0	650	121.1	0.187	0.093	0.045	--	--
8/19/2021	35.6	643	122.5	0.017	0.097	0.362[6]	--	--
8/24/2021	32.1	643	121.3	0.000	0.000	0.000	--	--
9/7/2021	32.8	643	117.8	0.022	0.000	0.293[6]	--	--
9/14/2021	32.2	639	119.5	0.066	0.348	1.357[6]	--	--
9/21/2021	31.6	637	120.2	1.453	1.652	2.187[6]	--	--
Annual	**28.4**	**662**	**105.0**	**0.275**	**0.192**	**0.557[6]**	**--**	**--**
Compliance with SCAQMD Limits?		**YES**	**YES**			**YES**		
Carbon changeout required this year?					**NO**		**NO**	

Notes:

°F = degrees Fahrenheight
SCFM = Standard Cubic Feet per Minute
PID = photoionization detector
VGAC = vapor phase granular activated carbon
GAC = granular activated carbon
ppmv = parts per million by volume as hexane
SCAQMD HRA = South Coast Air Quality Management District Health Risk Assessment
N/A = not applicable

1. Lead VGAC efficiency is calculated by the PID readings between the influent and intermediate. The lead VGAC efficiency is only calculated if the influent and midpoint PID readings exceed 12 ppmv as hexane, see Note 3.
2. Overall VGAC efficiency is calculated by the PID readings between the influent and effluent. The overall VGAC efficiency is only calculated if the influent and effluent PID readings exceed 12 ppmv as hexane, see Note 3.
3. Carbon changeouts are required when the efficiency across the lead VGAC vessel drops below 90% AND the midpoint concentration exceeds 12 ppmv as hexane, by PID during the same sampling event.
4. The relative humidity sensor was malfunctioning and was replaced on June 7, 2021.
5. Flow meter was broken and has since been replaced.
6. The Effluent PID is observed to be higher than the Influent PID measurement; however, the PID measurements are very low (i.e., usually ppb range) and these measurements are not indicative of breakthrough or issues with carbon performance. Carbon efficiency is evaluated based on Notes 2 and 3 listed above.

Reed, Alesandra F.

From: Reed, Alesandra F.
Sent: Wednesday, November 10, 2021 9:19 PM
To: 'jdinello@demaximis.com'
Subject: Omega GWCS GAC Evaluation - July 2021
Attachments: Omega GWCS GAC Assessment_July 2021.xlsx

Team,

We evaluated the performance of the GAC used by the GWCS for the month of July 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of July, the GWCS system met the conditions presented in the HRA and was therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit except methyl ethyl ketone (MEK) (see table below). While the MEK concentration at the effluent did exceed the discharge limit modeled in the 2015 HRA, the effluent concentration does not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant.
- The GWCS did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, a voluntary changeout of the lead vessel GAC was not recommended in July.

GWCS GAC Assessment - Based on Samples Collected July 6, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	ND	ND	ND	3	Yes
1,1-Dichloroethane	ND	ND	ND	18	Yes
1,1-Dichloroethene	3.9	6.5	3.4	140	Yes
1,2-Dichloroethane	ND	ND	ND	12	Yes
Benzene	ND	ND	ND	12	Yes
Carbon disulfide	ND	ND	ND	690	Yes
Chloroform	1.1	ND	ND	95	Yes
Freon 11	2	3	2.9	4200	Yes
Freon 113	10	ND	ND	510	Yes
Freon 12	ND	ND	ND	249	Yes
Isopropyl Alcohol (Isopropanol)	ND	5.5	5.9	29	Yes
o-Xylene	ND	ND	ND	3	Yes
Methyl ethyl ketone	ND	ND	340	24	No
Methylene chloride	ND	ND	ND	6900	Yes

Tetrachloroethene (PCE)	22	ND	ND	28	Yes
TNMOC ref. to Heptane (MW=100)	77	ND	980	4177	Yes
Toluene	1	ND	ND	42	Yes
Trichloroethene (TCE)	3.4	ND	ND	12	Yes
Vinyl chloride	ND	ND	ND	230	Yes

Please let us know if there are any questions or if you would like to discuss the data further.

Thanks!
Alesandra

Alesandra Reed, PE
Environmental Engineer
CDM Smith
9430 Research Blvd., Suite 1-200, Austin, TX 78759
(cell) 352.222.2583, (office) 303.383.2475

Reed, Alesandra F.

From: Reed, Alesandra F.
Sent: Wednesday, November 10, 2021 9:19 PM
To: 'jdinello@demaximis.com'
Subject: Omega GWCS GAC Evaluation - August 2021
Attachments: Omega GWCS GAC Assessment_August 2021.xlsx

Team,

We evaluated the performance of the GAC used by the GWCS for the month of August 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of August, the GWCS system met the conditions presented in the HRA and was therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit except methyl ethyl ketone (MEK) (see table below). While the MEK concentration at the effluent did exceed the discharge limit modeled in the 2015 HRA, the effluent concentration does not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant.
- The GWCS did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, a voluntary changeout of the lead vessel GAC was not recommended in August.

GWCS GAC Assessment - Based on Samples Collected August 10, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	ND	ND	ND	3	Yes
1,1-Dichloroethane	ND	ND	ND	18	Yes
1,1-Dichloroethene	2.8	5.6	2.5	140	Yes
1,2-Dichloroethane	ND	ND	ND	12	Yes
Benzene	ND	ND	ND	12	Yes
Carbon disulfide	ND	ND	ND	690	Yes
Chloroform	ND	ND	ND	95	Yes
Freon 11	1.7	2.3	1.9	4200	Yes
Freon 113	13	ND	ND	510	Yes
Freon 12	ND	ND	ND	249	Yes
Isopropyl Alcohol (Isopropanol)	5.1	6.1	5.3	29	Yes
o-Xylene	ND	ND	ND	3	Yes
Methyl ethyl ketone	ND	ND	230	24	No
Methylene chloride	ND	ND	ND	6900	Yes

Tetrachloroethene (PCE)	22	ND	ND	28	Yes
TNMOC ref. to Heptane (MW=100)	84	ND	840	4177	Yes
Toluene	ND	ND	ND	42	Yes
Trichloroethene (TCE)	2.4	ND	ND	12	Yes
Vinyl chloride	ND	ND	ND	230	Yes

Please let us know if there are any questions or if you would like to discuss the data further.

Thanks!
Alesandra

Alesandra Reed, PE
Environmental Engineer
CDM Smith
9430 Research Blvd., Suite 1-200, Austin, TX 78759
(cell) 352.222.2583, (office) 303.383.2475

Reed, Alesandra F.

From: Reed, Alesandra F.
Sent: Wednesday, November 10, 2021 9:19 PM
To: 'jdinello@demaximis.com'
Subject: Omega GWCS GAC Evaluation - September 2021
Attachments: Omega GWCS GAC Assessment_September 2021.xlsx

Team,

We evaluated the performance of the GAC used by the GWCS for the month of September 2021, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of September, the GWCS system met the conditions presented in the HRA and was therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit except methyl ethyl ketone (MEK) (see table below). While the MEK concentration at the effluent did exceed the discharge limit modeled in the 2015 HRA, the effluent concentration does not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant.
- The GWCS did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, a voluntary changeout of the lead vessel GAC was not recommended in September.

GWCS GAC Assessment - Based on Samples Collected September 7, 2021					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	ND	ND	ND	3	Yes
1,1-Dichloroethane	ND	ND	ND	18	Yes
1,1-Dichloroethene	ND	5.4	3.9	140	Yes
1,2-Dichloroethane	ND	ND	ND	12	Yes
Benzene	ND	ND	ND	12	Yes
Carbon disulfide	ND	ND	ND	690	Yes
Chloroform	ND	ND	ND	95	Yes
Freon 11	ND	2	2.6	4200	Yes
Freon 113	4.8	ND	ND	510	Yes
Freon 12	ND	ND	ND	249	Yes
Isopropyl Alcohol (Isopropanol)	12	6	25	29	Yes
o-Xylene	ND	ND	ND	3	Yes
Methyl ethyl ketone	ND	ND	240	24	No

Methylene chloride	ND	ND	ND	6900	Yes
Tetrachloroethene (PCE)	7.9	ND	ND	28	Yes
TNMOC ref. to Heptane (MW=100)	ND	33	1100	4177	Yes
Toluene	ND	ND	ND	42	Yes
Trichloroethene (TCE)	ND	ND	ND	12	Yes
Vinyl chloride	ND	ND	ND	230	Yes

Please let us know if there are any questions or if you would like to discuss the data further.

Thanks!
Alesandra

Alesandra Reed, PE
Environmental Engineer
CDM Smith
9430 Research Blvd., Suite 1-200, Austin, TX 78759
(cell) 352.222.2583, (office) 303.383.2475

ATTACHMENT B

Other Data Collected This Quarter

OU-1 On-Site Soil Remedy Dual Phase Extraction Well

Observation Well/Piezometer

Former Omega Chemical Property Boundary

OU-1 Boundary

Extraction from VE-7D was terminated on February 11, 2020.
The pump will remain off as the value of extraction at this location is limited.

ddms

de maximis, inc.

Reviewed By: BAR
Drawn By: KM
Date: 10/7/2021

Attachment B, Figure B-1
Other Groundwater Data Locations
Omega Chemical Superfund Site

Attachment B, Table B-1
Other Groundwater Elevation Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2021

Well No.	Top of Casing Elevation (feet MSL)	Screen Interval (feet MSL)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
PZ-9	195.75	105.75 - 125.75	7/23/2021	84.00	111.75
OW11	200.06	100.06 - 120.06	7/16/2021	86.21	113.85
OW13B	210.89	70.89 - 80.89	7/16/2021	99.45	111.44
DPE-3	206.76	106.76 - 166.76	7/14/2021	87.00	119.76
DPE-4	202.97	102.97 - 162.97	7/14/2021	90.55	112.42
DPE-5	201.77	101.77 - 161.77	7/14/2021	82.21	119.56
DPE-8	204.87	104.87 - 164.87	7/14/2021	88.14	116.73
DPE-9	199.06	99.06 - 159.06	7/14/2021	89.50	109.56
VE-7D	200.11	100.11 - 160.11	7/23/2021	86.08	114.03
VE-10D	198.80	98.80 - 158.80	7/23/2021	90.23	108.57

Notes:
Elevation data per California Coordinate System NADV88
btoc = below top of casing
MSL = mean sea level
All depths to water shown are based on hand measurements.

Attachment B, Table B-2
Other Groundwater Analytical Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2021

Well ID / Screen Interval[1]	Sample Date	Sample Type	PCE	TCE	1,4DIOX[2]	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
PZ-3 (69.8 - 89.8)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
PZ-9 (70 - 90)	7/16/2021	ORIG	58	6.3	150 J-	0.50 U	6.3	2.1	16	6.0	1.0 U
OW11 (80 - 100)	7/16/2021	ORIG	150	37	0.10 UJ	0.50 U	22	0.50 U	30	11	1.0 U
OW13B (130 - 140)	7/16/2021	ORIG	21	0.50 U	0.10 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
	7/16/2021	DUP	20	0.50 U	0.10 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
DPE-3 (40 - 100)	7/14/2021	ORIG	59	2.2	2.1 J-	0.50 U	0.90	1.0	65	5.2	1.0 U
DPE-4 (40 - 100)	7/14/2021	ORIG	300	38	4.8 J-	3.0	15	0.90	310	11	1.0 U
DPE-5 (40 - 100)	7/14/2021	ORIG	95	11	14 J-	0.50 U	45	0.33 J	6.8	5.3	1.0 U
DPE-8 (40 - 100)	7/14/2021	ORIG	18	2.8	2.4 J-	0.50 U	0.50 U	0.50 U	2.0	1.4	1.0 U
DPE-9 (40 - 100)	7/14/2021	ORIG	76	8.5	13 J-	0.50 U	17	1.1	21	10	1.0 U
VE-10D (40 - 100)	7/15/2021	ORIG	250	42	13 J-	0.50 U	34	3.8	44	19	1.0 U

Notes:

1. The screen interval units are feet below top of casing.

2. 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details. All results are in micrograms per liter (ug/L)

ORIG = primary sample

DUP = duplicate sample

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene;

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane; Freon 11 = Trichlorofluoromethane;

Freon 12 = Dichlorodifluoromethane; DCA = Dichloroethane; 1,4DIOX = 1,4-dioxane

Dry = No water detected, water detected below the screen interval, or insufficient water to sample

U = not detected above reporting limit listed

UJ = analyte was analyzed for but was not detected. The reported quantitation limit may be higher than reported.

J = results are qualified as estimated

J- = result is an estimated quantity, but the result may be biased low

Attachment B, Table B-3
Other Groundwater Pumping Data Collected This Quarter
Omega Chemical Superfund Site
Third Quarter 2021

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Estimated Mass Removed (lbs)
DPE-3	**July 2021**	104	18,291	2.94	0.41	
	August 2021	75.0	14,005	3.11	0.31	
	September 2021	70.4	12,604	2.98	0.29	
	3rd Quarter 2021	249	44,900	3.01	0.34	0.05
DPE-4	**July 2021**	136	26,734	3.28	0.60	
	August 2021	95.4	19,410	3.39	0.43	
	September 2021	103	19,837	3.21	0.46	
	3rd Quarter 2021	335	65,982	3.29	0.50	0.39
DPE-5	**July 2021**	0.10	19.2	3.21	0.0004	
	August 2021	0	0	0	0	
	September 2021	0	0	0	0	
	3rd Quarter 2021	0.10	19	1.07	0.0001	0.00003
DPE-8	**July 2021**	229	31,937	2.32	0.72	
	August 2021	148	19,995	2.26	0.45	
	September 2021	165	23,046	2.33	0.53	
	3rd Quarter 2021	541	74,979	2.31	0.57	0.02
DPE-9	**July 2021**	265	63,422	4.00	1.42	
	August 2021	176	43,780	4.15	0.98	
	September 2021	188	45,627	4.04	1.06	
	3rd Quarter 2021	629	152,829	4.06	1.15	0.20
VE-10D	**July 2021**	80.4	15,810	3.28	0.35	
	August 2021	0	0	0	0	
	September 2021	0	0	0	0	
	3rd Quarter 2021	80.4	15,810	1.09	0.12	0.06

Notes:

1. Operational flow rate calculated from total gallons processed in the month and hours the pump actually operated in the month.

2. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of pump uptime.

All extraction wells operate on/off based on water levels measured by pressure transducers installed in each well.

hrs = hours gal = gallons gpm = gallons per minute lbs = pounds

ATTACHMENT C

Laboratory Analytical Results and Data Verification Reports

DATA VALIDATION

FOR

GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA

ORGANIC ANALYSIS DATA
Volatile Organics and 1,4-Dioxane in Water

Laboratory Job Nos.

440-286114-1
440-286115-1
440-286116-1
440-286220-1

Analyses Performed By:

Eurofins Calscience
Garden Grove, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

September 24, 2021

EXECUTIVE SUMMARY

Validation of the volatile organic and semi-volatile organic (1,4-dioxane only) analysis data prepared by Eurofins Calscience Irvine for 12 ground water samples, three trip blanks (TB), and two rinse blanks from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Stage 2B review was performed on the samples. The data were reported by the laboratory under Job Nos. 440-286114-1, 440-286115-1, 440-286116-1 and 440-286220-1. The following samples were reported:

SDG 440-286114-1

OC_GW_OW-1BN-20210714

SDG 440-286115-1

OC_GW_EW-3_20210714
OC_GW_EW-5_20210714
OC_GW_EW-3_20210714
OC_GW_EW-4_20210714
OC_TB2_20210714

SDG 400-286116-1

OC_GW_OW-12-20210715K
OC_GW_OW-9_20210715 3
OC_TB2_20210715
OC_GW_OW-1B_20210715
OC_GW_OW-12_20210715

SDG 440-286220-1

OC_GW_OW-3BN_20210716
OC_GW_OW-8B_20210716K
OC_GW_OW-10_20210716
OC_GW_OW-3B_20210716
OC_GW_OW-8B_20210716
OC_TB1_20210716

Based on the validation effort, the following data qualifiers were applied:

- The results for acetone in the following samples were qualified as estimated (J-, UJ) due to low response in the continuing calibration (CC) standard:
  - OC_GW_OW-3BN_20210716
  - OC_GW_OW-3B_20210716
  - OC_GW_OW-8B_20210716K
  - OC_GW_OW-8B_20210716
  - OC_GW_OW-10_20210716
  - OC_TB1_20210716

- The results for 1,4-dioxane in OC_GW_OW-12-20210715K and OC_GW_OW-12-20210715 were qualified as estimated (J) due to imprecision between paired samples.

- The results for 1,4-dioxane in all samples were qualified as estimated (J, UJ) due to low surrogate, matrix spike (MS), MS duplicate (MSD), and/or laboratory control sample (LCS)/ LCS duplicate (LCSD) recoveries.

All other results were determined to be valid as reported. This report should be considered part of the data package for all future distributions of the data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW846 Method 8260B and Method 8270C Selected Ion Monitoring (SIM). The laboratory provided 'Level 4' data packages for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms SOPs ECS-002 and ECS-003, and the analytical methods. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following qualifiers:

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit may be higher than reported.1

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates of July 14, 15 and 16, 2021. The samples were received at the laboratory on July 15 and 16, 2021.

The temperatures of the coolers upon receipt at the laboratory were acceptable (acceptable range is 4°C ±2°C). Documentation of proper pH was included in the data packages. All samples were prepared and analyzed within method holding times.

II. Documentation

No following documentation issues were observed during the validation effort.

The remainder of this report discusses the review effort for each of the parameters. The table below documents the Quality Control (QC) parameters reviewed. Only those quality excursions resulting in qualified data are discussed below. Quality control excursions having no impact to sample results are not discussed. If a result was qualified J+ or J- and J, the J qualifier takes precedence. If a result was qualified biased high and low for differing data quality excursions, the final qualifier is J with an indeterminate bias.

III. VOCs

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration (Initial Calibration [IC], IC Verification [ICV], Continuing Calibration [CC])	N
Laboratory and Field Blanks	Y
Surrogates	Y
Laboratory Control Samples (LCS)/ LCS Duplicates (LCSD)	Y
Field Duplicates	Y
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	n/a
Internal Standard Responses	Y
Compound Identification	N
Compound Quantitation	Y

n/a-not analyzed

Calibration

Two initial calibrations (ICs) were reported in support of sample analyses. All reported average relative response factors (RRFs) were greater than the evaluation criterion (QC >0.05) and the relative standard deviations (RSDs) were acceptable (QC <20% RSD) or the correlation coefficient was acceptable (≥0.99). An initial calibration verification (ICV) standard was analyzed following each IC and all recoveries were acceptable.

Continuing calibration (CC) standards were analyzed at the appropriate frequency. All RRFs and percent differences were acceptable (%D<20) with the exception noted below:

CCV	Compound	%D	Samples Affected
GCMSUU 7/20/2021	Acetone	27.9	OC_GW_OW-3BN_20210716 OC_GW_OW-3B_20210716 OC_GW_OW-8B_20210716K OC_GW_OW-8B_20210716 OC_GW_OW-10_20210716 OC_TB1_20210716

The percent difference represents a decrease in instrument response. Sample results were qualified as estimated (J-, UJ) due to low response in the CC.

Compound Identification

The laboratory reported tentatively identified compounds (TICs) even though TICs were not requested in SDG 440-286114-1. In all instances, the TICs reported are not valid peaks but are mis-integrations performed by the software, or the TICs reported are artifacts from the analytical run (i.e., CO_2). All TICs were marked 'not reportable' in the electronic EDD.

IV. SVOCs – 1,4-Dioxane only

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration - IC, ICV, CC	Y
Laboratory and Field Blanks	Y
Surrogates	N
LCS/LCSD	N
Field Duplicates	Y
MS/MSD	N
Internal Standard Responses	Y
Compound Identification	Y
Compound Quantitation	N

N/A = not applicable

Field Duplicates

Two field duplicate pairs were submitted with this sampling event:

OC_GW_OW-12-20210715K / OC_GW_OW-12-20210715
OC_GW_OW-8B_20210716K / OC_GW_OW-8B_20210716

Precision between paired samples was acceptable with the following exception:

Compound	OC_GW_OW-12-20210715	OC_GW_OW-12-20210715K	RPD
1,4-Dioxane	4.1 ug/L	1.6 ug/L	118

The results for 1,4-dioxane in C_GW_OW-12-20210715K and OC_GW_OW-12-20210715 were qualified as estimated (J) due to imprecision between paired samples.

NOTE: The concentrations of 1,4-dioxane indicated above are corrected sample concentrations. Refer to discussion below:

Compound Quantitation

The laboratory reported results for 1,4-dioxane using isotope dilution. Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The concentration of 1,4-dioxane was corrected as indicated in the table below. Because isotope dilution was not used, sample results were qualified as estimated (J-, UJ) due to low surrogate, MS/MSD and/or LCS/LCSD recoveries.

Sample	Original Result (ug/L)	Corrected result (ug/L)	QC %R	1,4-Dioxane-d8 Surrogate %R
SDGs 440-286115-1, 440-286116-1				
OC_GW_EW-5_20210714	ND	ND	N/A	49
OC_GW_EW-3_20210714	0.85	0.4		47
OC_GW_EW-4_20210715	0.81	0.41		51
OC_GW_OW-12_20210715K	2.8	1.6		60
OC_GW_OW-12_20210715	11	4.1		39
OC_GW_OW-9-20210715	910	410		45
OC_GW_OW-1B_20210715	1.7	0.74		42
OC_GW_EW-3_20210714MS	24	10	50	42
OC_GW_EW-3_20210714MSD	25	11	55	43
LCS 164889	24	14	70	59
LCSD 164889	24	17	85	73
SDG 440-286220-1				
OC_GW_OW-3BN_20210716	ND	ND	N/A	59
OC_GW_OW-3B_20210716	ND	ND		40
OC_GW_OW-8B_20210716K	ND	ND		33
OC_GW_OW-8B_20210716	ND	ND		35
OC_GW_OW-10_20210716	ND	ND		35

OC_GW_OW-3B_20210716MS	23	8.9		39
OC_GW_OW-3B_20210716MSD	23	9.6		42
LCS 165913	23	9.6	48	38
LCSD 165913	22	13	65	42
LCS 165534	24	9.3	46	46
LCSD 165534	23	11	55	57

ATTACHMENT A

DATA SUMMARY FORMS
440-286114-1
440-286115-1
440-286116-1
440-286220-1

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286114-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/14/2021

		Field Sample ID	OC_GW_OW-1BN_20210714	
		Lab Sample ID	440-286114-1	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U
SW8260B	Acetone	ug/l	8.0	U
SW8260B	Benzene	ug/l	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U
SW8260B	Bromoform	ug/l	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U
SW8260B	Chloroform	ug/l	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286114-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/14/2021

		Field Sample ID	OC_GW_OW-1BN_20210714	
		Lab Sample ID	440-286114-1	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	Dibromomethane	ug/l	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U
SW8260B	Freon 11	ug/l	0.50	U
SW8260B	Freon 113	ug/l	0.50	U
SW8260B	Freon 12	ug/l	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U
SW8260B	Styrene	ug/l	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	0.50	U
SW8260B	Toluene	ug/l	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286115-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/14/2021

		Field Sample ID	OC_GW_EW-3_20210714		OC_GW_EW-4_20210714		OC_GW_EW-5_20210714		OC_TB2_20210714	
		Lab Sample ID	440-286115-1		440-286115-2		440-286115-3		440-286115-4	
		Dilution Factor	1		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	5.7		0.42	J	6.4		0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Acetone	ug/l	8.0	U	8.0	U	8.0	U	8.0	U
SW8260B	Benzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	0.36	J	0.50	U	0.30	J	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286115-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/14/2021

		Field Sample ID	OC_GW_EW-3_20210714		OC_GW_EW-4_20210714		OC_GW_EW-5_20210714		OC_TB2_20210714	
		Lab Sample ID	440-286115-1		440-286115-2		440-286115-3		440-286115-4	
		Dilution Factor	1		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	2.0		0.50	U	5.8		0.50	U
SW8260B	Freon 113	ug/l	2.7		0.50	U	7.3		0.50	U
SW8260B	Freon 12	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	40	U	40	U	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Styrene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	5.5		1.4		6.5		0.50	U
SW8260B	Toluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.88		0.50	U	0.55		0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	0.4	J-	0.41	J-	0.10	UJ	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_GW_OW-12_20210715		OC_GW_OW-12_20210715		OC_GW_OW-12-20210715K		OC_GW_OW-12-20210715K	
		Lab Sample ID	440-286116-4		440-286116-4		440-286116-1		440-286116-1	
		Dilution Factor	1		20		1		20	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	6.1		--	--	5.9		--	--
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,1-Dichloroethene	ug/l	6.3		--	--	6.2		--	--
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,2-Dichlorobenzene	ug/l	0.33	J	--	--	0.31	J	--	--
SW8260B	1,2-Dichloroethane	ug/l	0.24	J	--	--	0.24	J	--	--
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	2-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	4-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Acetone	ug/l	8.0	U	--	--	8.0	U	--	--
SW8260B	Benzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Bromobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Bromochloromethane	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Bromodichloromethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Bromoform	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Bromomethane	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Carbon tetrachloride	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Chlorobenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Chloroethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Chloroform	ug/l	2.0		--	--	2.0		--	--
SW8260B	Chloromethane	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Dibromochloromethane	ug/l	0.50	U	--	--	0.50	U	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_GW_OW-12_20210715		OC_GW_OW-12_20210715		OC_GW_OW-12-20210715K		OC_GW_OW-12-20210715K	
		Lab Sample ID	440-286116-4		440-286116-4		440-286116-1		440-286116-1	
		Dilution Factor	1		20		1		20	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Ethylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Freon 11	ug/l	6.4		--	--	6.0		--	--
SW8260B	Freon 113	ug/l	--	--	400		--	--	380	
SW8260B	Freon 12	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	--	--	40	U	--	--
SW8260B	Isopropylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	m,p-Xylene	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Methylene chloride	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	Naphthalene	ug/l	1.0	U	--	--	1.0	U	--	--
SW8260B	N-butylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	o-Xylene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Propylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	sec-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Styrene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	tert-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Tetrachloroethene (PCE)	ug/l	--	--	340		--	--	350	
SW8260B	Toluene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	--	--
SW8260B	Trichloroethene (TCE)	ug/l	21		--	--	21		--	--
SW8260B	Vinyl chloride	ug/l	0.50	U	--	--	0.50	U	--	--
SW8270C SIM	1,4-Dioxane	ug/l	4.1	J	--	--	1.6	J	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_GW_OW-1B_20210715		OC_GW_OW-9_20210715		OC_GW_OW-9_20210715		OC_GW_OW-9_20210715	
		Lab Sample ID	440-286116-2		440-286116-3		440-286116-3		440-286116-3	
		Dilution Factor	1		5		20		100	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	2.3	J	--	--	--	--
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	4.4		--	--	--	--
SW8260B	1,1-Dichloroethene	ug/l	0.50	U	94		--	--	--	--
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,2-Dichloroethane	ug/l	0.50	U	31		--	--	--	--
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	2-Chlorotoluene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	4-Chlorotoluene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Acetone	ug/l	6.8	J	40	U	--	--	--	--
SW8260B	Benzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Bromobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Bromochloromethane	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Bromodichloromethane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Bromoform	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Bromomethane	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Carbon tetrachloride	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Chlorobenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Chloroethane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Chloroform	ug/l	0.50	U	120		--	--	--	--
SW8260B	Chloromethane	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	5.5		--	--	--	--
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Dibromochloromethane	ug/l	0.50	U	2.5	U	--	--	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_GW_OW-1B_20210715		OC_GW_OW-9_20210715		OC_GW_OW-9_20210715		OC_GW_OW-9_20210715	
		Lab Sample ID	440-286116-2		440-286116-3		440-286116-3		440-286116-3	
		Dilution Factor	1		5		20		100	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Ethylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Freon 11	ug/l	6.2		28		--	--	--	--
SW8260B	Freon 113	ug/l	14		81		--	--	--	--
SW8260B	Freon 12	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	200	U	--	--	--	--
SW8260B	Isopropylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	m,p-Xylene	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Methylene chloride	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	Naphthalene	ug/l	1.0	U	5.0	U	--	--	--	--
SW8260B	N-butylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	o-Xylene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Propylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	sec-Butylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Styrene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	tert-Butylbenzene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Tetrachloroethene (PCE)	ug/l	7.6		--	--	--	--	1800	
SW8260B	Toluene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	2.5	U	--	--	--	--
SW8260B	Trichloroethene (TCE)	ug/l	0.32	J	84		--	--	--	--
SW8260B	Vinyl chloride	ug/l	0.50	U	2.5	U	--	--	--	--
SW8270C SIM	1,4-Dioxane	ug/l	0.74	J-	--	--	400	J-	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_TB2_20210715	
		Lab Sample ID	440-286116-5	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U
SW8260B	Acetone	ug/l	8.0	U
SW8260B	Benzene	ug/l	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U
SW8260B	Bromoform	ug/l	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U
SW8260B	Chloroform	ug/l	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286116-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/15/2021 - 7/15/2021

		Field Sample ID	OC_TB2_20210715	
		Lab Sample ID	440-286116-5	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	Dibromomethane	ug/l	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U
SW8260B	Freon 11	ug/l	0.50	U
SW8260B	Freon 113	ug/l	0.50	U
SW8260B	Freon 12	ug/l	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U
SW8260B	Styrene	ug/l	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	0.50	U
SW8260B	Toluene	ug/l	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	--	--

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286220-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-10_20210716		OC_GW_OW-3B_20210716		OC_GW_OW-3BN_20210716		OC_GW_OW-8B_20210716	
		Lab Sample ID	440-286220-5		440-286220-2		440-286220-1		440-286220-4	
		Dilution Factor	1		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	1.0		0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ	8.0	UJ	8.0	UJ	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286220-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-10_20210716		OC_GW_OW-3B_20210716		OC_GW_OW-3BN_20210716		OC_GW_OW-8B_20210716	
		Lab Sample ID	440-286220-5		440-286220-2		440-286220-1		440-286220-4	
		Dilution Factor	1		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	1.5		0.50	U	0.50	U	0.50	U
SW8260B	Freon 113	ug/l	1.9		0.50	U	0.50	U	0.50	U
SW8260B	Freon 12	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	40	U	40	U	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	1.0	U	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Styrene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	12		12		0.50	U	25	
SW8260B	Toluene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.81		0.50	U	0.50	U	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U	0.50	U	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	0.10	UJ	0.10	UJ	0.10	UJ	0.10	UJ

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286220-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-8B_20210716K		OC_TB1_20210716	
		Lab Sample ID	440-286220-3		440-286220-6	
		Dilution Factor	1		1	
Analytical Method	Parameter	Unit				
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	0.50	U	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	0.50	U	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	0.50	U

Data Summary Form for WATER QUALITY CONTROL MATRIX Samples
Job No. 440-286220-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-8B_20210716K		OC_TB1_20210716	
		Lab Sample ID	440-286220-3		440-286220-6	
		Dilution Factor	1		1	
Analytical Method	Parameter	Unit				
SW8260B	Dibromomethane	ug/l	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	0.50	U	0.50	U
SW8260B	Freon 113	ug/l	0.50	U	0.50	U
SW8260B	Freon 12	ug/l	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	0.50	U
SW8260B	Styrene	ug/l	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	25		0.50	U
SW8260B	Toluene	ug/l	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.50	U	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	0.10	UJ	--	--

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ANALYTICAL REPORT

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Laboratory Job ID: 440-286114-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual
Revision: 1

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286114-1	OC_GW_OW-1BN_20210714	Water	07/14/21 12:20	07/15/21 16:03

Job ID: 440-286114-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286114-1

Comments
This report revision is due to: Revised sampleID. No other changes to the report or original sample data detections provided have been made.

No additional comments.

Receipt
The sample was received on 7/15/2021 4:03 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-164799. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165271. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-1BN_20210714 — Lab Sample ID: 440-286114-1

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-1BN_20210714

Lab Sample ID: 440-286114-1

Date Collected: 07/14/21 12:20
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 22:12	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 22:12	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 22:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 22:12	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 22:12	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 22:12	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 22:12	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 22:12	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 22:12	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 22:12	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 22:12	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:12	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 22:12	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 22:12	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 22:12	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 22:12	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 22:12	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 22:12	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 22:12	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 22:12	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 22:12	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 22:12	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 22:12	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 22:12	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 22:12	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 22:12	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 22:12	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 22:12	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 22:12	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 22:12	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 22:12	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 22:12	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 22:12	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 22:12	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 22:12	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 22:12	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 22:12	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 22:12	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 22:12	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 22:12	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 22:12	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 22:12	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 22:12	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 22:12	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 22:12	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 22:12	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 22:12	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:12	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 22:12	1

Client Sample ID: OC_GW_OW-1BN_20210714

Lab Sample ID: 440-286114-1

Date Collected: 07/14/21 12:20
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 22:12	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 22:12	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:12	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 22:12	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:12	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 22:12	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 22:12	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 22:12	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 22:12	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 22:12	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 22:12	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 22:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*460*	*T J*	*ug/L*		*1.41*			*07/19/21 22:12*	*1*
Unknown	*12*	*T J*	*ug/L*		*1.74*			*07/19/21 22:12*	*1*
Unknown	*19*	*T J*	*ug/L*		*1.82*			*07/19/21 22:12*	*1*
Unknown	*24*	*T J*	*ug/L*		*1.95*			*07/19/21 22:12*	*1*
Unknown	*20*	*T J*	*ug/L*		*2.18*			*07/19/21 22:12*	*1*
Unknown	*15*	*T J*	*ug/L*		*2.24*			*07/19/21 22:12*	*1*
Unknown	*8.4*	*T J*	*ug/L*		*3.24*			*07/19/21 22:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 135*		*07/19/21 22:12*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*07/19/21 22:12*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/19/21 22:12*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/19/21 22:12*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/20/21 22:52	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 22:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Germacyclohexane, 1,1-dichloro-	*180*	*T J N*	*ug/L*		*1.44*	*56438-28-9*		*07/20/21 22:52*	*1*
Germacyclohexane, 1,1-dichloro-	*190*	*T J N*	*ug/L*		*1.45*	*56438-28-9*		*07/20/21 22:52*	*1*
Unknown	*970*	*T J*	*ug/L*		*1.50*			*07/20/21 22:52*	*1*
Unknown	*23*	*T J*	*ug/L*		*1.85*			*07/20/21 22:52*	*1*
Unknown	*22*	*T J*	*ug/L*		*1.93*			*07/20/21 22:52*	*1*
Unknown	*28*	*T J*	*ug/L*		*3.47*			*07/20/21 22:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 135*		*07/20/21 22:52*	*1*
4-Bromofluorobenzene (Surr)	*85*		*71 - 120*		*07/20/21 22:52*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 120*		*07/20/21 22:52*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 22:52*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(68-135)**	**(71-120)**	**(80-120)**	**(80-120)**
440-286114-1	OC_GW_OW-1BN_20210714	104	93	104	101
440-286114-1 - RA	OC_GW_OW-1BN_20210714	109	85	111	100
LCS 570-164799/4	Lab Control Sample	93	101	95	103
LCS 570-165271/3	Lab Control Sample	106	105	105	101
LCSD 570-164799/5	Lab Control Sample Dup	92	101	93	100
LCSD 570-165271/4	Lab Control Sample Dup	105	105	106	100
MB 570-164799/7	Method Blank	95	89	98	98
MB 570-165271/6	Method Blank	114	91	111	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-1BN_20210714

Lab Sample ID: 440-286114-1

Date Collected: 07/14/21 12:20
Date Received: 07/15/21 16:03

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164799	07/19/21 22:12	OH1	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	165271	07/20/21 22:52	A1W	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-164799/7
Matrix: Water
Analysis Batch: 164799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 15:23	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 15:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 15:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 15:23	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 15:23	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 15:23	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 15:23	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 15:23	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 15:23	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 15:23	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 15:23	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 15:23	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 15:23	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 15:23	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 15:23	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 15:23	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 15:23	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 15:23	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 15:23	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 15:23	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 15:23	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 15:23	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 15:23	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 15:23	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 15:23	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 15:23	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 15:23	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 15:23	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 15:23	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 15:23	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 15:23	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 15:23	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 15:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 15:23	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 15:23	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 15:23	1
Isopropanol	ND		40	40	ug/L			07/19/21 15:23	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 15:23	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 15:23	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 15:23	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 15:23	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-164799/7
Matrix: Water
Analysis Batch: 164799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 15:23	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 15:23	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 15:23	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 15:23	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 15:23	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 15:23	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 15:23	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 15:23	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/19/21 15:23*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*07/19/21 15:23*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/19/21 15:23*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*07/19/21 15:23*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/19/21 15:23*	*1*

Lab Sample ID: LCS 570-164799/4
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	76 - 143
1,1,1-Trichloroethane	10.0	9.70		ug/L		97	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.66		ug/L		97	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.85		ug/L		89	50 - 120
1,1,2-Trichloroethane	10.0	9.90		ug/L		99	80 - 120
1,1-Dichloroethane	10.0	9.06		ug/L		91	76 - 120
1,1-Dichloroethene	10.0	8.52		ug/L		85	72 - 120
1,1-Dichloropropene	10.0	9.21		ug/L		92	76 - 120
1,2,3-Trichlorobenzene	10.0	10.0		ug/L		100	80 - 125
1,2,3-Trichloropropane	10.0	10.6		ug/L		106	66 - 131
1,2,4-Trichlorobenzene	10.0	9.83		ug/L		98	80 - 123
1,2,4-Trimethylbenzene	10.0	9.82		ug/L		98	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	77 - 120
1,2-Dibromoethane	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	9.88		ug/L		99	79 - 123
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137
1,2-Dichloropropane	10.0	9.73		ug/L		97	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-164799/4
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	10.0	10.1		ug/L		101	77 - 133
1,3-Dichlorobenzene	10.0	9.45		ug/L		94	79 - 123
1,3-Dichloropropane	10.0	9.95		ug/L		99	80 - 123
1,4-Dichlorobenzene	10.0	9.19		ug/L		92	75 - 123
2,2-Dichloropropane	10.0	9.77		ug/L		98	78 - 133
2-Butanone	10.0	9.06		ug/L		91	32 - 133
2-Chlorotoluene	10.0	9.77		ug/L		98	80 - 120
2-Hexanone	10.0	10.5		ug/L		105	57 - 127
4-Chlorotoluene	10.0	9.36		ug/L		94	78 - 120
Acetone	10.0	10.5		ug/L		105	57 - 133
Benzene	10.0	9.78		ug/L		98	80 - 120
Bromobenzene	10.0	10.6		ug/L		106	80 - 124
Bromochloromethane	10.0	9.06		ug/L		91	76 - 125
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141
Bromoform	10.0	11.7		ug/L		117	46 - 178
Bromomethane	10.0	7.85		ug/L		79	52 - 162
Carbon tetrachloride	10.0	10.7		ug/L		107	69 - 145
Chlorobenzene	10.0	9.89		ug/L		99	80 - 120
Chloroethane	10.0	8.51		ug/L		85	73 - 139
Chloroform	10.0	9.04		ug/L		90	80 - 120
Chloromethane	10.0	8.87		ug/L		89	35 - 159
cis-1,2-Dichloroethene	10.0	9.14		ug/L		91	76 - 122
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122
Dibromochloromethane	10.0	11.5		ug/L		115	63 - 151
Dibromomethane	10.0	10.5		ug/L		105	80 - 121
Dichlorodifluoromethane	10.0	10.1		ug/L		101	59 - 139
Ethylbenzene	10.0	10.0		ug/L		100	80 - 120
Hexachloro-1,3-butadiene	10.0	10.1		ug/L		101	76 - 141
Isopropanol	100	80.9		ug/L		81	29 - 141
Isopropylbenzene	10.0	10.5		ug/L		105	80 - 124
m,p-Xylene	20.0	20.8		ug/L		104	80 - 122
Methylene Chloride	10.0	9.25		ug/L		93	70 - 120
Naphthalene	10.0	10.2		ug/L		102	75 - 120
n-Butylbenzene	10.0	9.35		ug/L		94	76 - 124
N-Propylbenzene	10.0	9.75		ug/L		98	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 122
p-Isopropyltoluene	10.0	9.94		ug/L		99	77 - 127
sec-Butylbenzene	10.0	9.92		ug/L		99	75 - 123
Styrene	10.0	9.93		ug/L		99	80 - 121
tert-Butylbenzene	10.0	9.98		ug/L		100	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	9.84		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	8.68		ug/L		87	67 - 123
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	78 - 140
Trichloroethene	10.0	9.95		ug/L		100	80 - 123
Trichlorofluoromethane	10.0	9.10		ug/L		91	64 - 168
Vinyl acetate	10.0	8.88		ug/L		89	75 - 144
Vinyl chloride	10.0	8.58		ug/L		86	74 - 130
Methyl-t-Butyl Ether (MTBE)	10.0	10.1		ug/L		101	72 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		68 - 135
4-Bromofluorobenzene (Surr)	101		71 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCSD 570-164799/5
Matrix: Water
Analysis Batch: 164799

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			10.0	11.7		ug/L		117	76 - 143	5	20
1,1,1-Trichloroethane			10.0	10.3		ug/L		103	75 - 128	6	20
1,1,2,2-Tetrachloroethane			10.0	9.86		ug/L		99	73 - 126	2	21
1,1,2-Trichloro-1,2,2-trifluoroethane			10.0	9.27		ug/L		93	50 - 120	5	20
1,1,2-Trichloroethane			10.0	10.3		ug/L		103	80 - 120	4	20
1,1-Dichloroethane			10.0	9.63		ug/L		96	76 - 120	6	20
1,1-Dichloroethene			10.0	9.19		ug/L		92	72 - 120	8	20
1,1-Dichloropropene			10.0	10.1		ug/L		101	76 - 120	9	20
1,2,3-Trichlorobenzene			10.0	10.8		ug/L		108	80 - 125	8	22
1,2,3-Trichloropropane			10.0	10.7		ug/L		107	66 - 131	1	20
1,2,4-Trichlorobenzene			10.0	10.4		ug/L		104	80 - 123	5	20
1,2,4-Trimethylbenzene			10.0	10.6		ug/L		106	78 - 125	8	22
1,2-Dibromo-3-Chloropropane			10.0	9.80		ug/L		98	77 - 120	3	21
1,2-Dibromoethane			10.0	10.7		ug/L		107	80 - 120	3	20
1,2-Dichlorobenzene			10.0	10.4		ug/L		104	79 - 123	5	20
1,2-Dichloroethane			10.0	10.4		ug/L		104	71 - 137	0	20
1,2-Dichloropropane			10.0	10.2		ug/L		102	80 - 120	5	20
1,3,5-Trimethylbenzene			10.0	11.0		ug/L		110	77 - 133	8	20
1,3-Dichlorobenzene			10.0	10.2		ug/L		102	79 - 123	7	20
1,3-Dichloropropane			10.0	10.4		ug/L		104	80 - 123	5	20
1,4-Dichlorobenzene			10.0	9.67		ug/L		97	75 - 123	5	22
2,2-Dichloropropane			10.0	10.4		ug/L		104	78 - 133	6	20
2-Butanone			10.0	9.32		ug/L		93	32 - 133	3	26
2-Chlorotoluene			10.0	10.3		ug/L		103	80 - 120	6	20
2-Hexanone			10.0	9.08		ug/L		91	57 - 127	14	21
4-Chlorotoluene			10.0	9.99		ug/L		100	78 - 120	6	21
Acetone			10.0	9.95		ug/L		99	57 - 133	6	28
Benzene			10.0	10.1		ug/L		101	80 - 120	3	20
Bromobenzene			10.0	11.0		ug/L		110	80 - 124	4	20
Bromochloromethane			10.0	9.55		ug/L		95	76 - 125	5	20
Bromodichloromethane			10.0	11.1		ug/L		111	77 - 141	3	20
Bromoform			10.0	11.8		ug/L		118	46 - 178	0	23
Bromomethane			10.0	7.74		ug/L		77	52 - 162	1	20
Carbon tetrachloride			10.0	11.4		ug/L		114	69 - 145	6	20
Chlorobenzene			10.0	10.6		ug/L		106	80 - 120	7	20
Chloroethane			10.0	8.76		ug/L		88	73 - 139	3	20
Chloroform			10.0	9.60		ug/L		96	80 - 120	6	20
Chloromethane			10.0	8.90		ug/L		89	35 - 159	0	20
cis-1,2-Dichloroethene			10.0	9.43		ug/L		94	76 - 122	3	20
cis-1,3-Dichloropropene			10.0	10.5		ug/L		105	80 - 122	0	20
Dibromochloromethane			10.0	11.8		ug/L		118	63 - 151	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-164799/5
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	10.0	10.5		ug/L		105	80 - 121	0	20
Dichlorodifluoromethane	10.0	10.5		ug/L		105	59 - 139	4	20
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120	7	20
Hexachloro-1,3-butadiene	10.0	10.8		ug/L		108	76 - 141	7	23
Isopropanol	100	82.2		ug/L		82	29 - 141	2	22
Isopropylbenzene	10.0	11.4		ug/L		114	80 - 124	8	20
m,p-Xylene	20.0	22.3		ug/L		111	80 - 122	7	20
Methylene Chloride	10.0	9.62		ug/L		96	70 - 120	4	20
Naphthalene	10.0	10.6		ug/L		106	75 - 120	4	22
n-Butylbenzene	10.0	10.4		ug/L		104	76 - 124	11	23
N-Propylbenzene	10.0	10.6		ug/L		106	80 - 122	8	20
o-Xylene	10.0	11.0		ug/L		110	80 - 122	7	20
p-Isopropyltoluene	10.0	10.9		ug/L		109	77 - 127	9	21
sec-Butylbenzene	10.0	10.6		ug/L		106	75 - 123	7	21
Styrene	10.0	10.6		ug/L		106	80 - 121	6	20
tert-Butylbenzene	10.0	10.8		ug/L		108	72 - 128	8	22
Tetrachloroethene	10.0	11.1		ug/L		111	80 - 128	9	20
Toluene	10.0	10.3		ug/L		103	80 - 120	4	20
trans-1,2-Dichloroethene	10.0	8.79		ug/L		88	67 - 123	1	20
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	78 - 140	6	20
Trichloroethene	10.0	10.4		ug/L		104	80 - 123	4	20
Trichlorofluoromethane	10.0	9.75		ug/L		97	64 - 168	7	20
Vinyl acetate	10.0	8.72		ug/L		87	75 - 144	2	25
Vinyl chloride	10.0	9.31		ug/L		93	74 - 130	8	20
Methyl-t-Butyl Ether (MTBE)	10.0	9.95		ug/L		99	72 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 570-165271/6
Matrix: Water
Analysis Batch: 165271

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/20/21 22:20	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 22:20	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Iodomethane	*13.1*	*J*	*ug/L*		*3.49*	*74-88-4*		*07/20/21 22:20*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 22:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 135*		*07/20/21 22:20*	*1*
4-Bromofluorobenzene (Surr)	*91*		*71 - 120*		*07/20/21 22:20*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165271/6
Matrix: Water
Analysis Batch: 165271

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

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*80 - 120*		*07/20/21 22:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 22:20*	*1*

Lab Sample ID: LCS 570-165271/3
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropanol	100	109		ug/L		109	29 - 141
Methyl-t-Butyl Ether (MTBE)	10.0	10.8		ug/L		108	72 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 570-165271/4
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropanol	100	117		ug/L		117	29 - 141	7	22
Methyl-t-Butyl Ether (MTBE)	10.0	10.5		ug/L		105	72 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 164799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286114-1	OC_GW_OW-1BN_20210714	Total/NA	Water	8260B	
MB 570-164799/7	Method Blank	Total/NA	Water	8260B	
LCS 570-164799/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-164799/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 165271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286114-1 - RA	OC_GW_OW-1BN_20210714	Total/NA	Water	8260B	
MB 570-165271/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165271/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165271/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Qualifiers

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286114-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/ 14 /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_OW-18 N_202107 14	7/14/2021	1220	Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_GW_OW- N_202107	7/ /2021		Grab	GW	3			x		
OC_TB _202107	7/ /2021		Grab	H2O	2			x		

440-286114 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TWS	7/15/21 1314		ECIRV	7/15/21 1314
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ECIRV	7/15/21 1603			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				ECIRV	7/15/21 1603

2.1/1.8 IR-93

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286114-1
SDG Number: Omega Chemical

Login Number: 286114
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286114-1
SDG Number: Omega Chemical

Login Number: 286114
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/15/21 09:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-286115-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
7/31/2021 7:09:21 AM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286115-1	OC_GW_EW-3_20210714	Water	07/14/21 11:16	07/15/21 16:03
440-286115-2	OC_GW_EW-4_20210714	Water	07/14/21 11:35	07/15/21 16:03
440-286115-3	OC_GW_EW-5_20210714	Water	07/14/21 11:50	07/15/21 16:03
440-286115-4	OC_TB2_20210714	Water	07/14/21 06:00	07/15/21 16:03

Job ID: 440-286115-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286115-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2021 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-164799. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165271. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-3_20210714 — Lab Sample ID: 440-286115-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	2.7		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	5.7		0.50	0.39	ug/L	1		8260B	Total/NA
Chloroform	0.36	J	0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	5.5		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	0.88		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	2.0		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.85		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_EW-4_20210714 — Lab Sample ID: 440-286115-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.42	J	0.50	0.39	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.4		0.50	0.29	ug/L	1		8260B	Total/NA
1,4-Dioxane	0.81		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_EW-5_20210714 — Lab Sample ID: 440-286115-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	7.3		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	6.4		0.50	0.39	ug/L	1		8260B	Total/NA
Chloroform	0.30	J	0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	6.5		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	0.55		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	5.8		0.50	0.30	ug/L	1		8260B	Total/NA

Client Sample ID: OC_TB2_20210714 — Lab Sample ID: 440-286115-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-3_20210714

Lab Sample ID: 440-286115-1

Date Collected: 07/14/21 11:16
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 22:39	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 22:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 22:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.7**		0.50	0.25	ug/L			07/19/21 22:39	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 22:39	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 22:39	1
1,1-Dichloroethene	**5.7**		0.50	0.39	ug/L			07/19/21 22:39	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 22:39	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 22:39	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 22:39	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 22:39	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 22:39	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 22:39	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 22:39	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 22:39	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 22:39	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 22:39	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 22:39	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 22:39	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 22:39	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 22:39	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 22:39	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 22:39	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 22:39	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 22:39	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 22:39	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 22:39	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 22:39	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 22:39	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 22:39	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 22:39	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 22:39	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 22:39	1
Chloroform	**0.36**	**J**	0.50	0.28	ug/L			07/19/21 22:39	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 22:39	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 22:39	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 22:39	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 22:39	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 22:39	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 22:39	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 22:39	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 22:39	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 22:39	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 22:39	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 22:39	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 22:39	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:39	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 22:39	1

Client Sample ID: OC_GW_EW-3_20210714

Lab Sample ID: 440-286115-1

Date Collected: 07/14/21 11:16
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 22:39	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 22:39	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:39	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 22:39	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:39	1
Tetrachloroethene	**5.5**		0.50	0.29	ug/L			07/19/21 22:39	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 22:39	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 22:39	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 22:39	1
Trichloroethene	**0.88**		0.50	0.29	ug/L			07/19/21 22:39	1
Trichlorofluoromethane	**2.0**		0.50	0.30	ug/L			07/19/21 22:39	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 22:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*760*	*T J*	*ug/L*		*1.41*			*07/19/21 22:39*	*1*
Unknown	*12*	*T J*	*ug/L*		*1.74*			*07/19/21 22:39*	*1*
Unknown	*24*	*T J*	*ug/L*		*1.83*			*07/19/21 22:39*	*1*
Unknown	*17*	*T J*	*ug/L*		*1.99*			*07/19/21 22:39*	*1*
Unknown	*50*	*T J*	*ug/L*		*2.10*			*07/19/21 22:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 135*		*07/19/21 22:39*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/19/21 22:39*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/19/21 22:39*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/19/21 22:39*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/20/21 23:20	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 23:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*15*	*T J N*	*ug/L*		*1.44*	*69493-11-4*		*07/20/21 23:20*	*1*
Dec-9-en-6-oxo-1-ylamide	*12*	*T J N*	*ug/L*		*1.46*	*1000128-20-0*		*07/20/21 23:20*	*1*
Unknown	*110*	*T J*	*ug/L*		*1.50*			*07/20/21 23:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*68 - 135*		*07/20/21 23:20*	*1*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/20/21 23:20*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 120*		*07/20/21 23:20*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 23:20*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.85**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 15:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*47*		*15 - 150*	*07/19/21 11:01*	*07/30/21 15:15*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-3_20210714

Lab Sample ID: 440-286115-1
Matrix: Water

Date Collected: 07/14/21 11:16
Date Received: 07/15/21 16:03

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	100		46 - 128	07/19/21 11:01	07/30/21 15:15	1

Client Sample ID: OC_GW_EW-4_20210714

Lab Sample ID: 440-286115-2
Matrix: Water

Date Collected: 07/14/21 11:35
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 23:06	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 23:06	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 23:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 23:06	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 23:06	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 23:06	1
1,1-Dichloroethene	**0.42**	**J**	0.50	0.39	ug/L			07/19/21 23:06	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 23:06	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 23:06	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 23:06	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 23:06	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 23:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 23:06	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 23:06	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 23:06	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 23:06	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 23:06	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 23:06	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 23:06	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 23:06	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 23:06	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 23:06	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 23:06	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 23:06	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 23:06	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 23:06	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 23:06	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 23:06	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 23:06	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 23:06	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 23:06	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 23:06	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 23:06	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 23:06	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 23:06	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 23:06	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 23:06	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 23:06	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 23:06	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 23:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 23:06	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 23:06	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-4_20210714

Lab Sample ID: 440-286115-2
Date Collected: 07/14/21 11:35
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 23:06	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 23:06	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 23:06	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 23:06	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 23:06	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 23:06	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 23:06	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 23:06	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 23:06	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 23:06	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 23:06	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 23:06	1
Tetrachloroethene	**1.4**		0.50	0.29	ug/L			07/19/21 23:06	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 23:06	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 23:06	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 23:06	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 23:06	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 23:06	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 23:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1200*	*T J*	*ug/L*		*1.41*			*07/19/21 23:06*	*1*
Unknown	*19*	*T J*	*ug/L*		*1.74*			*07/19/21 23:06*	*1*
Unknown	*190*	*T J*	*ug/L*		*1.83*			*07/19/21 23:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 135*		*07/19/21 23:06*	*1*
4-Bromofluorobenzene (Surr)	*90*		*71 - 120*		*07/19/21 23:06*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*07/19/21 23:06*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/19/21 23:06*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/20/21 23:48	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 23:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Propane, 1-chloro-	*140*	*T J N*	*ug/L*		*1.44*	*540-54-5*		*07/20/21 23:48*	*1*
Unknown	*200*	*T J*	*ug/L*		*1.45*			*07/20/21 23:48*	*1*
Unknown	*2000*	*T J*	*ug/L*		*1.50*			*07/20/21 23:48*	*1*
Unknown	*25*	*T J*	*ug/L*		*3.48*			*07/20/21 23:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*68 - 135*		*07/20/21 23:48*	*1*
4-Bromofluorobenzene (Surr)	*85*		*71 - 120*		*07/20/21 23:48*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 120*		*07/20/21 23:48*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/20/21 23:48*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.81**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 16:51	1

Client Sample ID: OC_GW_EW-4_20210714

Lab Sample ID: 440-286115-2

Date Collected: 07/14/21 11:35
Matrix: Water
Date Received: 07/15/21 16:03

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	51		15 - 150	07/19/21 11:01	07/30/21 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	118		46 - 128	07/19/21 11:01	07/30/21 16:51	1

Client Sample ID: OC_GW_EW-5_20210714

Lab Sample ID: 440-286115-3

Date Collected: 07/14/21 11:50
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 23:33	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 23:33	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 23:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**7.3**		0.50	0.25	ug/L			07/19/21 23:33	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 23:33	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 23:33	1
1,1-Dichloroethene	**6.4**		0.50	0.39	ug/L			07/19/21 23:33	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 23:33	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 23:33	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 23:33	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 23:33	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 23:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 23:33	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 23:33	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 23:33	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 23:33	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 23:33	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 23:33	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 23:33	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 23:33	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 23:33	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 23:33	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 23:33	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 23:33	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 23:33	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 23:33	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 23:33	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 23:33	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 23:33	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 23:33	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 23:33	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 23:33	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 23:33	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 23:33	1
Chloroform	**0.30**	**J**	0.50	0.28	ug/L			07/19/21 23:33	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 23:33	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 23:33	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 23:33	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 23:33	1

Client Sample ID: OC_GW_EW-5_20210714

Lab Sample ID: 440-286115-3

Date Collected: 07/14/21 11:50
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 23:33	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 23:33	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 23:33	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 23:33	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 23:33	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 23:33	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 23:33	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 23:33	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 23:33	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 23:33	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 23:33	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 23:33	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 23:33	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 23:33	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 23:33	1
Tetrachloroethene	**6.5**		0.50	0.29	ug/L			07/19/21 23:33	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 23:33	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 23:33	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 23:33	1
Trichloroethene	**0.55**		0.50	0.29	ug/L			07/19/21 23:33	1
Trichlorofluoromethane	**5.8**		0.50	0.30	ug/L			07/19/21 23:33	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 23:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1700*	*T J*	*ug/L*		*1.40*			*07/19/21 23:33*	*1*
Unknown	*21*	*T J*	*ug/L*		*2.29*			*07/19/21 23:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*07/19/21 23:33*	*1*
4-Bromofluorobenzene (Surr)	*92*		*71 - 120*		*07/19/21 23:33*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*07/19/21 23:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/19/21 23:33*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/21/21 00:16	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/21/21 00:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Urotropin borane	*8.1*	*T J N*	*ug/L*		*1.45*	*1000153-69-4*		*07/21/21 00:16*	*1*
Propane, 1-chloro-	*5.5*	*T J N*	*ug/L*		*1.46*	*540-54-5*		*07/21/21 00:16*	*1*
Unknown	*93*	*T J*	*ug/L*		*1.50*			*07/21/21 00:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*68 - 135*		*07/21/21 00:16*	*1*
4-Bromofluorobenzene (Surr)	*84*		*71 - 120*		*07/21/21 00:16*	*1*
Dibromofluoromethane (Surr)	*113*		*80 - 120*		*07/21/21 00:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/21/21 00:16*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-5_20210714

Lab Sample ID: 440-286115-3
Date Collected: 07/14/21 11:50
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 17:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*49*		*15 - 150*	*07/19/21 11:01*	*07/30/21 17:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*122*		*46 - 128*	*07/19/21 11:01*	*07/30/21 17:07*	*1*

Client Sample ID: OC_TB2_20210714

Lab Sample ID: 440-286115-4
Date Collected: 07/14/21 06:00
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 21:44	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 21:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 21:44	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 21:44	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 21:44	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 21:44	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 21:44	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 21:44	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 21:44	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 21:44	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 21:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 21:44	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 21:44	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 21:44	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 21:44	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 21:44	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 21:44	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 21:44	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 21:44	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 21:44	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 21:44	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 21:44	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 21:44	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 21:44	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 21:44	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 21:44	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 21:44	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 21:44	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 21:44	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 21:44	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 21:44	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 21:44	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 21:44	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 21:44	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 21:44	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 21:44	1

Client Sample ID: OC_TB2_20210714

Lab Sample ID: 440-286115-4

Date Collected: 07/14/21 06:00
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 21:44	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 21:44	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 21:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 21:44	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 21:44	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 21:44	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 21:44	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 21:44	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 21:44	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 21:44	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 21:44	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 21:44	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 21:44	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 21:44	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 21:44	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 21:44	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 21:44	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 21:44	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 21:44	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 21:44	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 21:44	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 21:44	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 21:44	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 21:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*510*	*T J*	*ug/L*		*1.41*			*07/19/21 21:44*	*1*
Unknown	*19*	*T J*	*ug/L*		*1.68*			*07/19/21 21:44*	*1*
Unknown	*38*	*T J*	*ug/L*		*1.81*			*07/19/21 21:44*	*1*
Unknown	*37*	*T J*	*ug/L*		*1.94*			*07/19/21 21:44*	*1*
Unknown	*15*	*T J*	*ug/L*		*2.17*			*07/19/21 21:44*	*1*
Unknown	*9.0*	*T J*	*ug/L*		*2.26*			*07/19/21 21:44*	*1*
Cyclobutanol	*11*	*T J N*	*ug/L*		*3.20*	*2919-23-5*		*07/19/21 21:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 135*		*07/19/21 21:44*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/19/21 21:44*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*07/19/21 21:44*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/19/21 21:44*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/21/21 00:44	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/21/21 00:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Germacyclohexane, 1,1-dichloro-	*730*	*T J N*	*ug/L*		*1.44*	*56438-28-9*		*07/21/21 00:44*	*1*
Unknown	*550*	*T J*	*ug/L*		*1.46*			*07/21/21 00:44*	*1*
Unknown	*3400*	*T J*	*ug/L*		*1.50*			*07/21/21 00:44*	*1*
Unknown	*66*	*T J*	*ug/L*		*1.86*			*07/21/21 00:44*	*1*

Client Sample ID: OC_TB2_20210714

Lab Sample ID: 440-286115-4

Date Collected: 07/14/21 06:00

Matrix: Water

Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	75	T J	ug/L		3.57			07/21/21 00:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		68 - 135		07/21/21 00:44	1
4-Bromofluorobenzene (Surr)	88		71 - 120		07/21/21 00:44	1
Dibromofluoromethane (Surr)	113		80 - 120		07/21/21 00:44	1
Toluene-d8 (Surr)	101		80 - 120		07/21/21 00:44	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-135)	(71-120)	(80-120)	(80-120)
440-286115-1	OC_GW_EW-3_20210714	105	89	104	97
440-286115-1 - RA	OC_GW_EW-3_20210714	117	87	114	99
440-286115-2	OC_GW_EW-4_20210714	105	90	103	100
440-286115-2 - RA	OC_GW_EW-4_20210714	119	85	114	98
440-286115-3	OC_GW_EW-5_20210714	106	92	103	100
440-286115-3 - RA	OC_GW_EW-5_20210714	119	84	113	101
440-286115-4	OC_TB2_20210714	101	89	100	100
440-286115-4 - RA	OC_TB2_20210714	113	88	113	101
LCS 570-164799/4	Lab Control Sample	93	101	95	103
LCS 570-165271/3	Lab Control Sample	106	105	105	101
LCSD 570-164799/5	Lab Control Sample Dup	92	101	93	100
LCSD 570-165271/4	Lab Control Sample Dup	105	105	106	100
MB 570-164799/7	Method Blank	95	89	98	98
MB 570-165271/6	Method Blank	114	91	111	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-286115-1	OC_GW_EW-3_20210714	100
440-286115-1 MS	OC_GW_EW-3_20210714	111
440-286115-1 MSD	OC_GW_EW-3_20210714	95
440-286115-2	OC_GW_EW-4_20210714	118
440-286115-3	OC_GW_EW-5_20210714	122
LCS 570-164889/2-A	Lab Control Sample	79
LCSD 570-164889/3-A	Lab Control Sample Dup	77
MB 570-164889/1-A	Method Blank	78

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Client Sample ID: OC_GW_EW-3_20210714 — Lab Sample ID: 440-286115-1

Date Collected: 07/14/21 11:16 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164799	07/19/21 22:39	OH1	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	165271	07/20/21 23:20	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 15:15	AJ2Q	ECL 1

Client Sample ID: OC_GW_EW-4_20210714 — Lab Sample ID: 440-286115-2

Date Collected: 07/14/21 11:35 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164799	07/19/21 23:06	OH1	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	165271	07/20/21 23:48	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 16:51	AJ2Q	ECL 1

Client Sample ID: OC_GW_EW-5_20210714 — Lab Sample ID: 440-286115-3

Date Collected: 07/14/21 11:50 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164799	07/19/21 23:33	OH1	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	165271	07/21/21 00:16	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 17:07	AJ2Q	ECL 1

Client Sample ID: OC_TB2_20210714 — Lab Sample ID: 440-286115-4

Date Collected: 07/14/21 06:00 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164799	07/19/21 21:44	OH1	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	165271	07/21/21 00:44	A1W	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-164799/7
Matrix: Water
Analysis Batch: 164799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 15:23	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 15:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 15:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 15:23	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 15:23	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 15:23	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 15:23	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 15:23	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 15:23	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 15:23	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 15:23	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 15:23	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 15:23	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 15:23	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 15:23	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 15:23	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 15:23	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 15:23	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 15:23	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 15:23	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 15:23	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 15:23	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 15:23	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 15:23	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 15:23	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 15:23	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 15:23	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 15:23	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 15:23	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 15:23	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 15:23	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 15:23	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 15:23	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 15:23	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 15:23	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 15:23	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 15:23	1
Isopropanol	ND		40	40	ug/L			07/19/21 15:23	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 15:23	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 15:23	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 15:23	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 15:23	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-164799/7
Matrix: Water
Analysis Batch: 164799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 15:23	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 15:23	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 15:23	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 15:23	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 15:23	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 15:23	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 15:23	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 15:23	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 15:23	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 15:23	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/19/21 15:23*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*07/19/21 15:23*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/19/21 15:23*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*07/19/21 15:23*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/19/21 15:23*	*1*

Lab Sample ID: LCS 570-164799/4
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	76 - 143
1,1,1-Trichloroethane	10.0	9.70		ug/L		97	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.66		ug/L		97	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroetha ne	10.0	8.85		ug/L		89	50 - 120
1,1,2-Trichloroethane	10.0	9.90		ug/L		99	80 - 120
1,1-Dichloroethane	10.0	9.06		ug/L		91	76 - 120
1,1-Dichloroethene	10.0	8.52		ug/L		85	72 - 120
1,1-Dichloropropene	10.0	9.21		ug/L		92	76 - 120
1,2,3-Trichlorobenzene	10.0	10.0		ug/L		100	80 - 125
1,2,3-Trichloropropane	10.0	10.6		ug/L		106	66 - 131
1,2,4-Trichlorobenzene	10.0	9.83		ug/L		98	80 - 123
1,2,4-Trimethylbenzene	10.0	9.82		ug/L		98	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	77 - 120
1,2-Dibromoethane	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	9.88		ug/L		99	79 - 123
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137
1,2-Dichloropropane	10.0	9.73		ug/L		97	80 - 120
1,3,5-Trimethylbenzene	10.0	10.1		ug/L		101	77 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-164799/4
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	9.45		ug/L		94	79 - 123
1,3-Dichloropropane	10.0	9.95		ug/L		99	80 - 123
1,4-Dichlorobenzene	10.0	9.19		ug/L		92	75 - 123
2,2-Dichloropropane	10.0	9.77		ug/L		98	78 - 133
2-Chlorotoluene	10.0	9.77		ug/L		98	80 - 120
4-Chlorotoluene	10.0	9.36		ug/L		94	78 - 120
Acetone	10.0	10.5		ug/L		105	57 - 133
Benzene	10.0	9.78		ug/L		98	80 - 120
Bromobenzene	10.0	10.6		ug/L		106	80 - 124
Bromochloromethane	10.0	9.06		ug/L		91	76 - 125
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141
Bromoform	10.0	11.7		ug/L		117	46 - 178
Bromomethane	10.0	7.85		ug/L		79	52 - 162
Carbon tetrachloride	10.0	10.7		ug/L		107	69 - 145
Chlorobenzene	10.0	9.89		ug/L		99	80 - 120
Chloroethane	10.0	8.51		ug/L		85	73 - 139
Chloroform	10.0	9.04		ug/L		90	80 - 120
Chloromethane	10.0	8.87		ug/L		89	35 - 159
cis-1,2-Dichloroethene	10.0	9.14		ug/L		91	76 - 122
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122
Dibromochloromethane	10.0	11.5		ug/L		115	63 - 151
Dibromomethane	10.0	10.5		ug/L		105	80 - 121
Dichlorodifluoromethane	10.0	10.1		ug/L		101	59 - 139
Ethylbenzene	10.0	10.0		ug/L		100	80 - 120
Hexachloro-1,3-butadiene	10.0	10.1		ug/L		101	76 - 141
Isopropanol	100	80.9		ug/L		81	29 - 141
Isopropylbenzene	10.0	10.5		ug/L		105	80 - 124
m,p-Xylene	20.0	20.8		ug/L		104	80 - 122
Methylene Chloride	10.0	9.25		ug/L		93	70 - 120
Naphthalene	10.0	10.2		ug/L		102	75 - 120
n-Butylbenzene	10.0	9.35		ug/L		94	76 - 124
N-Propylbenzene	10.0	9.75		ug/L		98	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 122
p-Isopropyltoluene	10.0	9.94		ug/L		99	77 - 127
sec-Butylbenzene	10.0	9.92		ug/L		99	75 - 123
Styrene	10.0	9.93		ug/L		99	80 - 121
tert-Butylbenzene	10.0	9.98		ug/L		100	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	9.84		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	8.68		ug/L		87	67 - 123
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	78 - 140
Trichloroethene	10.0	9.95		ug/L		100	80 - 123
Trichlorofluoromethane	10.0	9.10		ug/L		91	64 - 168
Vinyl chloride	10.0	8.58		ug/L		86	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-164799/4
Matrix: Water
Analysis Batch: 164799

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 570-164799/5
Matrix: Water
Analysis Batch: 164799

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			10.0	11.7		ug/L		117	76 - 143	5	20
1,1,1-Trichloroethane			10.0	10.3		ug/L		103	75 - 128	6	20
1,1,2,2-Tetrachloroethane			10.0	9.86		ug/L		99	73 - 126	2	21
1,1,2-Trichloro-1,2,2-trifluoroethane			10.0	9.27		ug/L		93	50 - 120	5	20
1,1,2-Trichloroethane			10.0	10.3		ug/L		103	80 - 120	4	20
1,1-Dichloroethane			10.0	9.63		ug/L		96	76 - 120	6	20
1,1-Dichloroethene			10.0	9.19		ug/L		92	72 - 120	8	20
1,1-Dichloropropene			10.0	10.1		ug/L		101	76 - 120	9	20
1,2,3-Trichlorobenzene			10.0	10.8		ug/L		108	80 - 125	8	22
1,2,3-Trichloropropane			10.0	10.7		ug/L		107	66 - 131	1	20
1,2,4-Trichlorobenzene			10.0	10.4		ug/L		104	80 - 123	5	20
1,2,4-Trimethylbenzene			10.0	10.6		ug/L		106	78 - 125	8	22
1,2-Dibromo-3-Chloropropane			10.0	9.80		ug/L		98	77 - 120	3	21
1,2-Dibromoethane			10.0	10.7		ug/L		107	80 - 120	3	20
1,2-Dichlorobenzene			10.0	10.4		ug/L		104	79 - 123	5	20
1,2-Dichloroethane			10.0	10.4		ug/L		104	71 - 137	0	20
1,2-Dichloropropane			10.0	10.2		ug/L		102	80 - 120	5	20
1,3,5-Trimethylbenzene			10.0	11.0		ug/L		110	77 - 133	8	20
1,3-Dichlorobenzene			10.0	10.2		ug/L		102	79 - 123	7	20
1,3-Dichloropropane			10.0	10.4		ug/L		104	80 - 123	5	20
1,4-Dichlorobenzene			10.0	9.67		ug/L		97	75 - 123	5	22
2,2-Dichloropropane			10.0	10.4		ug/L		104	78 - 133	6	20
2-Chlorotoluene			10.0	10.3		ug/L		103	80 - 120	6	20
4-Chlorotoluene			10.0	9.99		ug/L		100	78 - 120	6	21
Acetone			10.0	9.95		ug/L		99	57 - 133	6	28
Benzene			10.0	10.1		ug/L		101	80 - 120	3	20
Bromobenzene			10.0	11.0		ug/L		110	80 - 124	4	20
Bromochloromethane			10.0	9.55		ug/L		95	76 - 125	5	20
Bromodichloromethane			10.0	11.1		ug/L		111	77 - 141	3	20
Bromoform			10.0	11.8		ug/L		118	46 - 178	0	23
Bromomethane			10.0	7.74		ug/L		77	52 - 162	1	20
Carbon tetrachloride			10.0	11.4		ug/L		114	69 - 145	6	20
Chlorobenzene			10.0	10.6		ug/L		106	80 - 120	7	20
Chloroethane			10.0	8.76		ug/L		88	73 - 139	3	20
Chloroform			10.0	9.60		ug/L		96	80 - 120	6	20
Chloromethane			10.0	8.90		ug/L		89	35 - 159	0	20
cis-1,2-Dichloroethene			10.0	9.43		ug/L		94	76 - 122	3	20
cis-1,3-Dichloropropene			10.0	10.5		ug/L		105	80 - 122	0	20
Dibromochloromethane			10.0	11.8		ug/L		118	63 - 151	2	20
Dibromomethane			10.0	10.5		ug/L		105	80 - 121	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-164799/5
Matrix: Water
Analysis Batch: 164799

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	10.0	10.5		ug/L		105	59 - 139	4	20
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120	7	20
Hexachloro-1,3-butadiene	10.0	10.8		ug/L		108	76 - 141	7	23
Isopropanol	100	82.2		ug/L		82	29 - 141	2	22
Isopropylbenzene	10.0	11.4		ug/L		114	80 - 124	8	20
m,p-Xylene	20.0	22.3		ug/L		111	80 - 122	7	20
Methylene Chloride	10.0	9.62		ug/L		96	70 - 120	4	20
Naphthalene	10.0	10.6		ug/L		106	75 - 120	4	22
n-Butylbenzene	10.0	10.4		ug/L		104	76 - 124	11	23
N-Propylbenzene	10.0	10.6		ug/L		106	80 - 122	8	20
o-Xylene	10.0	11.0		ug/L		110	80 - 122	7	20
p-Isopropyltoluene	10.0	10.9		ug/L		109	77 - 127	9	21
sec-Butylbenzene	10.0	10.6		ug/L		106	75 - 123	7	21
Styrene	10.0	10.6		ug/L		106	80 - 121	6	20
tert-Butylbenzene	10.0	10.8		ug/L		108	72 - 128	8	22
Tetrachloroethene	10.0	11.1		ug/L		111	80 - 128	9	20
Toluene	10.0	10.3		ug/L		103	80 - 120	4	20
trans-1,2-Dichloroethene	10.0	8.79		ug/L		88	67 - 123	1	20
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	78 - 140	6	20
Trichloroethene	10.0	10.4		ug/L		104	80 - 123	4	20
Trichlorofluoromethane	10.0	9.75		ug/L		97	64 - 168	7	20
Vinyl chloride	10.0	9.31		ug/L		93	74 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*93*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 570-165271/6
Matrix: Water
Analysis Batch: 165271

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropanol	ND		40	40	ug/L			07/20/21 22:20	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 22:20	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Iodomethane	*13.1*	*J*	*ug/L*		*3.49*	*74-88-4*		*07/20/21 22:20*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 22:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 135*		*07/20/21 22:20*	*1*
4-Bromofluorobenzene (Surr)	*91*		*71 - 120*		*07/20/21 22:20*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 120*		*07/20/21 22:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 22:20*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165271/3
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropanol	100	109		ug/L		109	29 - 141
Methyl-t-Butyl Ether (MTBE)	10.0	10.8		ug/L		108	72 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 570-165271/4
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Isopropanol	100	117		ug/L		117	29 - 141	7	22
Methyl-t-Butyl Ether (MTBE)	10.0	10.5		ug/L		105	72 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-164889/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 164889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 13:55	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*68*		*15 - 150*	*07/19/21 11:01*	*07/30/21 13:55*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*46 - 128*	*07/19/21 11:01*	*07/30/21 13:55*	*1*

Lab Sample ID: LCS 570-164889/2-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 164889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	20.0	24.0		ug/L		120	57 - 136

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*59*		*15 - 150*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-164889/2-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 164889

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	79		46 - 128

Lab Sample ID: LCSD 570-164889/3-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 164889

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	23.8		ug/L		119	57 - 136	1	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	73		15 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	77		46 - 128

Lab Sample ID: 440-286115-1 MS
Matrix: Water
Analysis Batch: 167748

Client Sample ID: OC_GW_EW-3_20210714
Prep Type: Total/NA
Prep Batch: 164889

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	0.85		20.0	24.4		ug/L		118	45 - 139		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	42		15 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	111		46 - 128

Lab Sample ID: 440-286115-1 MSD
Matrix: Water
Analysis Batch: 167748

Client Sample ID: OC_GW_EW-3_20210714
Prep Type: Total/NA
Prep Batch: 164889

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.85		20.0	24.7		ug/L		119	45 - 139	1	17

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	43		15 - 150

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	95		46 - 128

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 164799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286115-1	OC_GW_EW-3_20210714	Total/NA	Water	8260B	
440-286115-2	OC_GW_EW-4_20210714	Total/NA	Water	8260B	
440-286115-3	OC_GW_EW-5_20210714	Total/NA	Water	8260B	
440-286115-4	OC_TB2_20210714	Total/NA	Water	8260B	
MB 570-164799/7	Method Blank	Total/NA	Water	8260B	
LCS 570-164799/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-164799/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 165271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286115-1 - RA	OC_GW_EW-3_20210714	Total/NA	Water	8260B	
440-286115-2 - RA	OC_GW_EW-4_20210714	Total/NA	Water	8260B	
440-286115-3 - RA	OC_GW_EW-5_20210714	Total/NA	Water	8260B	
440-286115-4 - RA	OC_TB2_20210714	Total/NA	Water	8260B	
MB 570-165271/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165271/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165271/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 164889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286115-1	OC_GW_EW-3_20210714	Total/NA	Water	3510C	
440-286115-2	OC_GW_EW-4_20210714	Total/NA	Water	3510C	
440-286115-3	OC_GW_EW-5_20210714	Total/NA	Water	3510C	
MB 570-164889/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-286115-1 MS	OC_GW_EW-3_20210714	Total/NA	Water	3510C	
440-286115-1 MSD	OC_GW_EW-3_20210714	Total/NA	Water	3510C	

Analysis Batch: 167748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286115-1	OC_GW_EW-3_20210714	Total/NA	Water	8270C SIM ID	164889
440-286115-2	OC_GW_EW-4_20210714	Total/NA	Water	8270C SIM ID	164889
440-286115-3	OC_GW_EW-5_20210714	Total/NA	Water	8270C SIM ID	164889
MB 570-164889/1-A	Method Blank	Total/NA	Water	8270C SIM ID	164889
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	164889
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	164889
440-286115-1 MS	OC_GW_EW-3_20210714	Total/NA	Water	8270C SIM ID	164889
440-286115-1 MSD	OC_GW_EW-3_20210714	Total/NA	Water	8270C SIM ID	164889

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/ /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_EW-1_202107	7/ /21		Grab	GW	5			x	x	
OC_GW_EW-2_202107	7/ /21		Grab	GW	5			x	x	
OC_GW_EW-3_202107 14	7/14/21	1110	Grab	GW	5			x	x	
OC_GW_EW-4_202107 14	7/14/21	1135	Grab	GW	5			x	x	
OC_GW_EW-5_202107 14	7/14/21	1150	Grab	GW	5			x	x	
OC_TB 2_202107	7/14/21	0600	Grab	H2O	2			x		

440-286115 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	JHM	7/10/21 1314		ECIRV	7/15/21 1314
Relinquished by:	Company: ECIRV	Date/Time: 7/15/21 1603	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EC IRV	Date/Time: 7/15/21 1603

2.1 / 1.8 IR-93

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171485 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286115-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/22/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email	WO #:			
Project Name: Omega Chemical -Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_GW_EW-3_20210714 (440-286115-1)	7/14/21	11:16 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_EW-4_20210714 (440-286115-2)	7/14/21	11 35 Pacific		Water			X	X	5	Special Multiple Dils close to 1.Run in order J's Maybe high chlorobenzene
OC_GW_EW-5_20210714 (440-286115-3)	7/14/21	11:50 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_TB2_202107 (440-286115-4)	7/14/21	06:00 Pacific		Water			X		2	Special Multiple Dils close to 1 Run in order J's Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time		Method of Shipment:	
Relinquished by:	Date/Time: ~~1655~~ 7/15/21 1655	Company: ECIDV	Received by:	Date/Time: 7-15-2021 16:55	Company: ECI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: N/A		Cooler Temperature(s) °C and Other Remarks: 20/16 Dec		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286115-1
SDG Number: Omega Chemical

Login Number: 286115
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286115-1
SDG Number: Omega Chemical

Login Number: 286115
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/15/21 09:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286115-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-286115-1	OC_GW_EW-3_20210714	47							
440-286115-1 MS	OC_GW_EW-3_20210714	42							
440-286115-1 MSD	OC_GW_EW-3_20210714	43							
440-286115-2	OC_GW_EW-4_20210714	51							
440-286115-3	OC_GW_EW-5_20210714	49							
LCS 570-164889/2-A	Lab Control Sample	59							
LCSD 570-164889/3-A	Lab Control Sample Dup	73							
MB 570-164889/1-A	Method Blank	68							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-286116-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/4/2021 12:58:39 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286116-1	OC_GW_OW-12-20210715K	Water	07/15/21 07:15	07/15/21 16:03
440-286116-2	OC_GW_OW-1B_20210715	Water	07/15/21 07:30	07/15/21 16:03
440-286116-3	OC_GW_OW-9_20210715	Water	07/15/21 09:56	07/15/21 16:03
440-286116-4	OC_GW_OW-12_20210715	Water	07/15/21 07:15	07/15/21 16:03
440-286116-5	OC_TB2_20210715	Water	07/15/21 06:00	07/15/21 16:03

Job ID: 440-286116-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286116-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2021 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.3º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-164836. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165271. A laboratory LCS/LCSD was analyzed to provide precision data.

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

GC/MS Semi VOA
Method 8270C SIM ID: Results for sample OC_GW_OW-9_20210715 (440-286116-3) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-12-20210715K — Lab Sample ID: 440-286116-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	5.9		0.50	0.27	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	6.2		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.31	J	0.50	0.23	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.24	J	0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	2.0		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	21		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	6.0		0.50	0.30	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	380		10	5.0	ug/L	20		8260B	Total/NA
Tetrachloroethene - DL	350		10	5.8	ug/L	20		8260B	Total/NA
1,4-Dioxane	2.8		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_OW-1B_20210715 — Lab Sample ID: 440-286116-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	14		0.50	0.25	ug/L	1		8260B	Total/NA
Acetone	6.8	J	8.0	4.0	ug/L	1		8260B	Total/NA
Tetrachloroethene	7.6		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	0.32	J	0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	6.2		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	1.7		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_OW-9_20210715 — Lab Sample ID: 440-286116-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	81		2.5	1.3	ug/L	5		8260B	Total/NA
1,1,2-Trichloroethane	2.3	J	2.5	0.42	ug/L	5		8260B	Total/NA
1,1-Dichloroethane	4.4		2.5	1.8	ug/L	5		8260B	Total/NA
1,1-Dichloroethene	94		2.5	2.0	ug/L	5		8260B	Total/NA
1,2-Dichloroethane	31		2.5	0.75	ug/L	5		8260B	Total/NA
Chloroform	120		2.5	1.4	ug/L	5		8260B	Total/NA
cis-1,2-Dichloroethene	5.5		2.5	1.5	ug/L	5		8260B	Total/NA
Trichloroethene	84		2.5	1.4	ug/L	5		8260B	Total/NA
Trichlorofluoromethane	28		2.5	1.5	ug/L	5		8260B	Total/NA
Tetrachloroethene - DL	1800		50	29	ug/L	100		8260B	Total/NA
1,4-Dioxane - DL	910		2.0	0.77	ug/L	20		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_OW-12_20210715 — Lab Sample ID: 440-286116-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.1		0.50	0.27	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	6.3		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.33	J	0.50	0.23	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.24	J	0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	2.0		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	21		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	6.4		0.50	0.30	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	400		10	5.0	ug/L	20		8260B	Total/NA
Tetrachloroethene - DL	340		10	5.8	ug/L	20		8260B	Total/NA
1,4-Dioxane	11		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_TB2_20210715

Lab Sample ID: 440-286116-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-12-20210715K

Lab Sample ID: 440-286116-1

Date Collected: 07/15/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 20:51	1
1,1,1-Trichloroethane	**5.9**		0.50	0.27	ug/L			07/19/21 20:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 20:51	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 20:51	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 20:51	1
1,1-Dichloroethene	**6.2**		0.50	0.39	ug/L			07/19/21 20:51	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 20:51	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 20:51	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 20:51	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 20:51	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 20:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 20:51	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 20:51	1
1,2-Dichlorobenzene	**0.31**	**J**	0.50	0.23	ug/L			07/19/21 20:51	1
1,2-Dichloroethane	**0.24**	**J**	0.50	0.15	ug/L			07/19/21 20:51	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 20:51	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 20:51	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 20:51	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 20:51	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 20:51	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 20:51	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 20:51	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 20:51	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 20:51	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 20:51	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 20:51	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 20:51	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 20:51	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 20:51	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 20:51	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 20:51	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 20:51	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 20:51	1
Chloroform	**2.0**		0.50	0.28	ug/L			07/19/21 20:51	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 20:51	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 20:51	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 20:51	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 20:51	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 20:51	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 20:51	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 20:51	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 20:51	1
Isopropanol	ND		40	40	ug/L			07/19/21 20:51	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 20:51	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 20:51	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 20:51	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 20:51	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 20:51	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 20:51	1

Client Sample ID: OC_GW_OW-12-20210715K

Lab Sample ID: 440-286116-1

Date Collected: 07/15/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 20:51	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 20:51	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 20:51	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 20:51	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 20:51	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 20:51	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 20:51	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 20:51	1
Trichloroethene	**21**		0.50	0.29	ug/L			07/19/21 20:51	1
Trichlorofluoromethane	**6.0**		0.50	0.30	ug/L			07/19/21 20:51	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 20:51	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 20:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.2*	*T J*	*ug/L*		*1.50*			*07/19/21 20:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 135*		*07/19/21 20:51*	*1*
4-Bromofluorobenzene (Surr)	*83*		*71 - 120*		*07/19/21 20:51*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/19/21 20:51*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/19/21 20:51*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**380**		10	5.0	ug/L			07/21/21 01:12	20
Tetrachloroethene	**350**		10	5.8	ug/L			07/21/21 01:12	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
N(1,1-Difluoro-2,2-bis-trifluor-methyl ethyl)-aziridine	*110*	*T J N*	*ug/L*		*1.44*	*1000143-33-6*		*07/21/21 01:12*	*20*
Germacyclohexane, 1,1-dichloro-	*180*	*T J N*	*ug/L*		*1.45*	*56438-28-9*		*07/21/21 01:12*	*20*
Unknown	*910*	*T J*	*ug/L*		*1.50*			*07/21/21 01:12*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*68 - 135*		*07/21/21 01:12*	*20*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/21/21 01:12*	*20*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/21/21 01:12*	*20*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/21/21 01:12*	*20*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**2.8**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 17:23	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*60*		*15 - 150*	*07/19/21 11:01*	*07/30/21 17:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*46 - 128*	*07/19/21 11:01*	*07/30/21 17:23*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-1B_20210715

Lab Sample ID: 440-286116-2

Date Collected: 07/15/21 07:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 21:19	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 21:19	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 21:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**14**		0.50	0.25	ug/L			07/19/21 21:19	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 21:19	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 21:19	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 21:19	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 21:19	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 21:19	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 21:19	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 21:19	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 21:19	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 21:19	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 21:19	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 21:19	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 21:19	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 21:19	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 21:19	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 21:19	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 21:19	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 21:19	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 21:19	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 21:19	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 21:19	1
Acetone	**6.8**	**J**	8.0	4.0	ug/L			07/19/21 21:19	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 21:19	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 21:19	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 21:19	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 21:19	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 21:19	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 21:19	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 21:19	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 21:19	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 21:19	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 21:19	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 21:19	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 21:19	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 21:19	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 21:19	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 21:19	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 21:19	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 21:19	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 21:19	1
Isopropanol	ND		40	40	ug/L			07/19/21 21:19	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 21:19	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 21:19	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 21:19	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 21:19	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 21:19	1

Client Sample ID: OC_GW_OW-1B_20210715

Lab Sample ID: 440-286116-2

Date Collected: 07/15/21 07:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 21:19	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 21:19	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 21:19	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 21:19	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 21:19	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 21:19	1
Tetrachloroethene	**7.6**		0.50	0.29	ug/L			07/19/21 21:19	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 21:19	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 21:19	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 21:19	1
Trichloroethene	**0.32**	**J**	0.50	0.29	ug/L			07/19/21 21:19	1
Trichlorofluoromethane	**6.2**		0.50	0.30	ug/L			07/19/21 21:19	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 21:19	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 21:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Propane, 1-chloro-	*3.5*	*T J N*	*ug/L*		*1.44*	*540-54-5*		*07/19/21 21:19*	*1*
Unknown	*92*	*T J*	*ug/L*		*1.50*			*07/19/21 21:19*	*1*
Unknown	*2.1*	*T J*	*ug/L*		*1.62*			*07/19/21 21:19*	*1*
Unknown	*2.3*	*T J*	*ug/L*		*1.68*			*07/19/21 21:19*	*1*
Unknown	*1.6*	*T J*	*ug/L*		*1.77*			*07/19/21 21:19*	*1*
Methane, dichlorofluoro-	*2.9*	*T J N*	*ug/L*		*2.61*	*75-43-4*		*07/19/21 21:19*	*1*
Ethane, 1,2-dichloro-1,1,2-trifluoro-	*4.0*	*T J N*	*ug/L*		*3.02*	*354-23-4*		*07/19/21 21:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 135*		*07/19/21 21:19*	*1*
4-Bromofluorobenzene (Surr)	*83*		*71 - 120*		*07/19/21 21:19*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/19/21 21:19*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/19/21 21:19*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**1.7**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 17:39	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*42*		*15 - 150*	*07/19/21 11:01*	*07/30/21 17:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*104*		*46 - 128*	*07/19/21 11:01*	*07/30/21 17:39*	*1*

Client Sample ID: OC_GW_OW-9_20210715

Lab Sample ID: 440-286116-3

Date Collected: 07/15/21 09:56
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.5	1.3	ug/L			07/19/21 21:47	5
1,1,1-Trichloroethane	ND		2.5	1.3	ug/L			07/19/21 21:47	5
1,1,2,2-Tetrachloroethane	ND		2.5	0.97	ug/L			07/19/21 21:47	5
1,1,2-Trichloro-1,2,2-trifluoroethane	**81**		2.5	1.3	ug/L			07/19/21 21:47	5
1,1,2-Trichloroethane	**2.3**	**J**	2.5	0.42	ug/L			07/19/21 21:47	5

Client Sample ID: OC_GW_OW-9_20210715

Lab Sample ID: 440-286116-3

Date Collected: 07/15/21 09:56
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**4.4**		2.5	1.8	ug/L			07/19/21 21:47	5
1,1-Dichloroethene	**94**		2.5	2.0	ug/L			07/19/21 21:47	5
1,1-Dichloropropene	ND		2.5	1.2	ug/L			07/19/21 21:47	5
1,2,3-Trichlorobenzene	ND		2.5	1.4	ug/L			07/19/21 21:47	5
1,2,3-Trichloropropane	ND		2.5	1.6	ug/L			07/19/21 21:47	5
1,2,4-Trichlorobenzene	ND		2.5	1.9	ug/L			07/19/21 21:47	5
1,2,4-Trimethylbenzene	ND		2.5	1.4	ug/L			07/19/21 21:47	5
1,2-Dibromo-3-Chloropropane	ND		5.0	3.2	ug/L			07/19/21 21:47	5
1,2-Dibromoethane	ND		2.5	0.68	ug/L			07/19/21 21:47	5
1,2-Dichlorobenzene	ND		2.5	1.2	ug/L			07/19/21 21:47	5
1,2-Dichloroethane	**31**		2.5	0.75	ug/L			07/19/21 21:47	5
1,2-Dichloropropane	ND		2.5	1.2	ug/L			07/19/21 21:47	5
1,3,5-Trimethylbenzene	ND		2.5	1.4	ug/L			07/19/21 21:47	5
1,3-Dichlorobenzene	ND		2.5	1.3	ug/L			07/19/21 21:47	5
1,3-Dichloropropane	ND		2.5	1.0	ug/L			07/19/21 21:47	5
1,4-Dichlorobenzene	ND		2.5	1.1	ug/L			07/19/21 21:47	5
2,2-Dichloropropane	ND		2.5	2.0	ug/L			07/19/21 21:47	5
2-Chlorotoluene	ND		2.5	1.6	ug/L			07/19/21 21:47	5
4-Chlorotoluene	ND		2.5	1.7	ug/L			07/19/21 21:47	5
Acetone	ND		40	20	ug/L			07/19/21 21:47	5
Benzene	ND		2.5	1.3	ug/L			07/19/21 21:47	5
Bromobenzene	ND		2.5	1.3	ug/L			07/19/21 21:47	5
Bromochloromethane	ND		5.0	1.8	ug/L			07/19/21 21:47	5
Bromodichloromethane	ND		2.5	1.1	ug/L			07/19/21 21:47	5
Bromoform	ND		2.5	1.9	ug/L			07/19/21 21:47	5
Bromomethane	ND		5.0	4.7	ug/L			07/19/21 21:47	5
Carbon tetrachloride	ND		2.5	1.4	ug/L			07/19/21 21:47	5
Chlorobenzene	ND		2.5	1.2	ug/L			07/19/21 21:47	5
Chloroethane	ND		2.5	2.2	ug/L			07/19/21 21:47	5
Chloroform	**120**		2.5	1.4	ug/L			07/19/21 21:47	5
Chloromethane	ND		5.0	1.5	ug/L			07/19/21 21:47	5
cis-1,2-Dichloroethene	**5.5**		2.5	1.5	ug/L			07/19/21 21:47	5
cis-1,3-Dichloropropene	ND		2.5	0.96	ug/L			07/19/21 21:47	5
Dibromochloromethane	ND		2.5	1.4	ug/L			07/19/21 21:47	5
Dibromomethane	ND		2.5	1.2	ug/L			07/19/21 21:47	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			07/19/21 21:47	5
Ethylbenzene	ND		2.5	1.8	ug/L			07/19/21 21:47	5
Hexachloro-1,3-butadiene	ND		5.0	1.6	ug/L			07/19/21 21:47	5
Isopropanol	ND		200	200	ug/L			07/19/21 21:47	5
Isopropylbenzene	ND		2.5	1.9	ug/L			07/19/21 21:47	5
m,p-Xylene	ND		5.0	3.9	ug/L			07/19/21 21:47	5
Methylene Chloride	ND		5.0	2.4	ug/L			07/19/21 21:47	5
Naphthalene	ND		5.0	1.6	ug/L			07/19/21 21:47	5
n-Butylbenzene	ND		2.5	1.5	ug/L			07/19/21 21:47	5
N-Propylbenzene	ND		2.5	1.9	ug/L			07/19/21 21:47	5
o-Xylene	ND		2.5	1.8	ug/L			07/19/21 21:47	5
p-Isopropyltoluene	ND		2.5	1.4	ug/L			07/19/21 21:47	5
sec-Butylbenzene	ND		2.5	1.7	ug/L			07/19/21 21:47	5
Styrene	ND		2.5	1.4	ug/L			07/19/21 21:47	5

Client Sample ID: OC_GW_OW-9_20210715

Lab Sample ID: 440-286116-3

Date Collected: 07/15/21 09:56
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		2.5	1.7	ug/L			07/19/21 21:47	5
Toluene	ND		2.5	1.7	ug/L			07/19/21 21:47	5
trans-1,2-Dichloroethene	ND		2.5	1.8	ug/L			07/19/21 21:47	5
trans-1,3-Dichloropropene	ND		2.5	0.86	ug/L			07/19/21 21:47	5
Trichloroethene	**84**		2.5	1.4	ug/L			07/19/21 21:47	5
Trichlorofluoromethane	**28**		2.5	1.5	ug/L			07/19/21 21:47	5
Vinyl chloride	ND		2.5	2.0	ug/L			07/19/21 21:47	5
Methyl-t-Butyl Ether (MTBE)	ND		2.5	1.0	ug/L			07/19/21 21:47	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*89*	*T J*	*ug/L*		*1.50*			*07/19/21 21:47*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*68 - 135*		*07/19/21 21:47*	*5*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/19/21 21:47*	*5*
Dibromofluoromethane (Surr)	*112*		*80 - 120*		*07/19/21 21:47*	*5*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/19/21 21:47*	*5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**1800**		50	29	ug/L			07/21/21 01:40	100

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
4,4,6-Trimethyltetrahydro-1,3-oxazin-2-one	*8000*	*T J N*	*ug/L*		*1.45*	*27830-77-9*		*07/21/21 01:40*	*100*
Unknown	*6100*	*T J*	*ug/L*		*1.46*			*07/21/21 01:40*	*100*
Unknown	*38000*	*T J*	*ug/L*		*1.50*			*07/21/21 01:40*	*100*
Unknown	*670*	*T J*	*ug/L*		*1.85*			*07/21/21 01:40*	*100*
2-Chloroethanol	*950*	*T J N*	*ug/L*		*2.19*	*107-07-3*		*07/21/21 01:40*	*100*
Unknown	*1100*	*T J*	*ug/L*		*3.49*			*07/21/21 01:40*	*100*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*68 - 135*		*07/21/21 01:40*	*100*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/21/21 01:40*	*100*
Dibromofluoromethane (Surr)	*115*		*80 - 120*		*07/21/21 01:40*	*100*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/21/21 01:40*	*100*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**910**		2.0	0.77	ug/L		07/19/21 11:01	08/02/21 17:13	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*45*	**3*	*15 - 150*	*07/19/21 11:01*	*08/02/21 17:13*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*51*	**3*	*46 - 128*	*07/19/21 11:01*	*08/02/21 17:13*	*20*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-12_20210715

Lab Sample ID: 440-286116-4

Date Collected: 07/15/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 22:15	1
1,1,1-Trichloroethane	**6.1**		0.50	0.27	ug/L			07/19/21 22:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 22:15	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 22:15	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 22:15	1
1,1-Dichloroethene	**6.3**		0.50	0.39	ug/L			07/19/21 22:15	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 22:15	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 22:15	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 22:15	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 22:15	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:15	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 22:15	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 22:15	1
1,2-Dichlorobenzene	**0.33**	**J**	0.50	0.23	ug/L			07/19/21 22:15	1
1,2-Dichloroethane	**0.24**	**J**	0.50	0.15	ug/L			07/19/21 22:15	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 22:15	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 22:15	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 22:15	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 22:15	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 22:15	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 22:15	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 22:15	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 22:15	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 22:15	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 22:15	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 22:15	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 22:15	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 22:15	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 22:15	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 22:15	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 22:15	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 22:15	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 22:15	1
Chloroform	**2.0**		0.50	0.28	ug/L			07/19/21 22:15	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 22:15	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 22:15	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 22:15	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 22:15	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 22:15	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 22:15	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 22:15	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 22:15	1
Isopropanol	ND		40	40	ug/L			07/19/21 22:15	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 22:15	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 22:15	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 22:15	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 22:15	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 22:15	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 22:15	1

Client Sample ID: OC_GW_OW-12_20210715

Lab Sample ID: 440-286116-4

Date Collected: 07/15/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 22:15	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 22:15	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:15	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 22:15	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 22:15	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 22:15	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 22:15	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 22:15	1
Trichloroethene	**21**		0.50	0.29	ug/L			07/19/21 22:15	1
Trichlorofluoromethane	**6.4**		0.50	0.30	ug/L			07/19/21 22:15	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 22:15	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 22:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*5.4*	*T J*	*ug/L*		*1.50*			*07/19/21 22:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*68 - 135*		*07/19/21 22:15*	*1*
4-Bromofluorobenzene (Surr)	*84*		*71 - 120*		*07/19/21 22:15*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 120*		*07/19/21 22:15*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/19/21 22:15*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**400**		10	5.0	ug/L			07/21/21 02:08	20
Tetrachloroethene	**340**		10	5.8	ug/L			07/21/21 02:08	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Boroxin, diethylpropyl-	*180*	*T J N*	*ug/L*		*1.45*	*1000162-61-2*		*07/21/21 02:08*	*20*
Unknown	*880*	*T J*	*ug/L*		*1.50*			*07/21/21 02:08*	*20*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*68 - 135*		*07/21/21 02:08*	*20*
4-Bromofluorobenzene (Surr)	*81*		*71 - 120*		*07/21/21 02:08*	*20*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/21/21 02:08*	*20*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/21/21 02:08*	*20*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**11**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 18:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*39*		*15 - 150*	*07/19/21 11:01*	*07/30/21 18:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*112*		*46 - 128*	*07/19/21 11:01*	*07/30/21 18:11*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_TB2_20210715

Lab Sample ID: 440-286116-5

Date Collected: 07/15/21 06:00
Date Received: 07/15/21 16:03

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 18:31	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 18:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 18:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 18:31	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 18:31	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 18:31	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 18:31	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 18:31	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 18:31	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 18:31	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 18:31	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 18:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 18:31	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 18:31	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 18:31	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 18:31	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 18:31	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 18:31	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 18:31	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 18:31	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 18:31	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 18:31	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 18:31	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 18:31	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 18:31	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 18:31	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 18:31	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 18:31	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 18:31	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 18:31	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 18:31	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 18:31	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 18:31	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 18:31	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 18:31	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 18:31	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 18:31	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 18:31	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 18:31	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 18:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 18:31	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 18:31	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 18:31	1
Isopropanol	ND		40	40	ug/L			07/19/21 18:31	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 18:31	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 18:31	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 18:31	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 18:31	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 18:31	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_TB2_20210715

Lab Sample ID: 440-286116-5

Date Collected: 07/15/21 06:00
Date Received: 07/15/21 16:03

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 18:31	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 18:31	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 18:31	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 18:31	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 18:31	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 18:31	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 18:31	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 18:31	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 18:31	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 18:31	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 18:31	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 18:31	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 18:31	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 18:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,3,2-Dioxaborolane, 2-ethyl-4-(3-oxiranylpropyl)-	*890*	*T J N*	*ug/L*		*1.45*	*74810-66-5*		*07/19/21 18:31*	*1*
Unknown	*2700*	*T J*	*ug/L*		*1.50*			*07/19/21 18:31*	*1*
Unknown	*57*	*T J*	*ug/L*		*1.85*			*07/19/21 18:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 135*		*07/19/21 18:31*	*1*
4-Bromofluorobenzene (Surr)	*86*		*71 - 120*		*07/19/21 18:31*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/19/21 18:31*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/19/21 18:31*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(68-135)**	**(71-120)**	**(80-120)**	**(80-120)**
440-286116-1	OC_GW_OW-12-20210715K	111	83	107	100
440-286116-1 - DL	OC_GW_OW-12-20210715K	121	87	116	102
440-286116-2	OC_GW_OW-1B_20210715	111	83	108	99
440-286116-3	OC_GW_OW-9_20210715	110	87	112	100
440-286116-3 - DL	OC_GW_OW-9_20210715	120	87	115	101
440-286116-4	OC_GW_OW-12_20210715	112	84	109	101
440-286116-4 - DL	OC_GW_OW-12_20210715	119	81	116	99
440-286116-5	OC_TB2_20210715	107	86	104	101
LCS 570-164836/1012	Lab Control Sample	98	103	98	100
LCS 570-165271/3	Lab Control Sample	106	105	105	101
LCSD 570-164836/13	Lab Control Sample Dup	97	102	99	100
LCSD 570-165271/4	Lab Control Sample Dup	105	105	106	100
MB 570-164836/16	Method Blank	105	95	102	98
MB 570-165271/6	Method Blank	114	91	111	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	**Client Sample ID**	**(46-128)**
440-286115-D-1-A MS	Matrix Spike	111
440-286115-D-1-B MSD	Matrix Spike Duplicate	95
440-286116-1	OC_GW_OW-12-20210715K	70
440-286116-2	OC_GW_OW-1B_20210715	104
440-286116-3 - DL	OC_GW_OW-9_20210715	51 *3
440-286116-4	OC_GW_OW-12_20210715	112
LCS 570-164889/2-A	Lab Control Sample	79
LCSD 570-164889/3-A	Lab Control Sample Dup	77
MB 570-164889/1-A	Method Blank	78

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-12-20210715K — Lab Sample ID: 440-286116-1

Date Collected: 07/15/21 07:15 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164836	07/19/21 20:51	UX77	ECL 2
Total/NA	Analysis	8260B	DL	20	20 mL	20 mL	165271	07/21/21 01:12	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 17:23	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-1B_20210715 — Lab Sample ID: 440-286116-2

Date Collected: 07/15/21 07:30 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164836	07/19/21 21:19	UX77	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 17:39	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-9_20210715 — Lab Sample ID: 440-286116-3

Date Collected: 07/15/21 09:56 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	20 mL	20 mL	164836	07/19/21 21:47	UX77	ECL 2
Total/NA	Analysis	8260B	DL	100	20 mL	20 mL	165271	07/21/21 01:40	A1W	ECL 2
Total/NA	Prep	3510C	DL		100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID	DL	20			168254	08/02/21 17:13	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-12_20210715 — Lab Sample ID: 440-286116-4

Date Collected: 07/15/21 07:15 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164836	07/19/21 22:15	UX77	ECL 2
Total/NA	Analysis	8260B	DL	20	20 mL	20 mL	165271	07/21/21 02:08	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 18:11	AJ2Q	ECL 1

Client Sample ID: OC_TB2_20210715 — Lab Sample ID: 440-286116-5

Date Collected: 07/15/21 06:00 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	164836	07/19/21 18:31	UX77	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-164836/16
Matrix: Water
Analysis Batch: 164836

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/19/21 17:07	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/19/21 17:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/19/21 17:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/19/21 17:07	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/19/21 17:07	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/19/21 17:07	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/19/21 17:07	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/19/21 17:07	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/19/21 17:07	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/19/21 17:07	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/19/21 17:07	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/19/21 17:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/19/21 17:07	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/19/21 17:07	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/19/21 17:07	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/19/21 17:07	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/19/21 17:07	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/19/21 17:07	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/19/21 17:07	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/19/21 17:07	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/19/21 17:07	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/19/21 17:07	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/19/21 17:07	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/19/21 17:07	1
Acetone	ND		8.0	4.0	ug/L			07/19/21 17:07	1
Benzene	ND		0.50	0.27	ug/L			07/19/21 17:07	1
Bromobenzene	ND		0.50	0.26	ug/L			07/19/21 17:07	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/19/21 17:07	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/19/21 17:07	1
Bromoform	ND		0.50	0.39	ug/L			07/19/21 17:07	1
Bromomethane	ND		1.0	0.93	ug/L			07/19/21 17:07	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/19/21 17:07	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/19/21 17:07	1
Chloroethane	ND		0.50	0.44	ug/L			07/19/21 17:07	1
Chloroform	ND		0.50	0.28	ug/L			07/19/21 17:07	1
Chloromethane	ND		1.0	0.29	ug/L			07/19/21 17:07	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/19/21 17:07	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/19/21 17:07	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/19/21 17:07	1
Dibromomethane	ND		0.50	0.23	ug/L			07/19/21 17:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/19/21 17:07	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/19/21 17:07	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/19/21 17:07	1
Isopropanol	ND		40	40	ug/L			07/19/21 17:07	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/19/21 17:07	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/19/21 17:07	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/19/21 17:07	1
Naphthalene	ND		1.0	0.32	ug/L			07/19/21 17:07	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-164836/16
Matrix: Water
Analysis Batch: 164836

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/19/21 17:07	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/19/21 17:07	1
o-Xylene	ND		0.50	0.35	ug/L			07/19/21 17:07	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/19/21 17:07	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 17:07	1
Styrene	ND		0.50	0.28	ug/L			07/19/21 17:07	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/19/21 17:07	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/19/21 17:07	1
Toluene	ND		0.50	0.33	ug/L			07/19/21 17:07	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/19/21 17:07	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/19/21 17:07	1
Trichloroethene	ND		0.50	0.29	ug/L			07/19/21 17:07	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/19/21 17:07	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/19/21 17:07	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/19/21 17:07	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/19/21 17:07*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 135*		*07/19/21 17:07*	*1*
4-Bromofluorobenzene (Surr)	*95*		*71 - 120*		*07/19/21 17:07*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*07/19/21 17:07*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/19/21 17:07*	*1*

Lab Sample ID: LCS 570-164836/1012
Matrix: Water
Analysis Batch: 164836

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.78		ug/L		98	76 - 143
1,1,1-Trichloroethane	10.0	9.63		ug/L		96	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroetha ne	10.0	9.47		ug/L		95	50 - 120
1,1,2-Trichloroethane	10.0	9.96		ug/L		100	80 - 120
1,1-Dichloroethane	10.0	9.66		ug/L		97	76 - 120
1,1-Dichloroethene	10.0	10.0		ug/L		100	72 - 120
1,1-Dichloropropene	10.0	9.80		ug/L		98	76 - 120
1,2,3-Trichlorobenzene	10.0	10.9		ug/L		109	80 - 125
1,2,3-Trichloropropane	10.0	10.4		ug/L		104	66 - 131
1,2,4-Trichlorobenzene	10.0	11.0		ug/L		110	80 - 123
1,2,4-Trimethylbenzene	10.0	10.6		ug/L		106	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	9.82		ug/L		98	77 - 120
1,2-Dibromoethane	10.0	10.4		ug/L		104	80 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	9.82		ug/L		98	71 - 137
1,2-Dichloropropane	10.0	9.81		ug/L		98	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-164836/1012
Matrix: Water
Analysis Batch: 164836

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	10.0	9.56		ug/L		96	77 - 133
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123
1,3-Dichloropropane	10.0	10.0		ug/L		100	80 - 123
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	75 - 123
2,2-Dichloropropane	10.0	8.58		ug/L		86	78 - 133
2-Butanone	10.0	8.04		ug/L		80	32 - 133
2-Chlorotoluene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	10.0	10.6		ug/L		106	57 - 127
4-Chlorotoluene	10.0	9.96		ug/L		100	78 - 120
Acetone	10.0	10.9		ug/L		109	57 - 133
Benzene	10.0	9.93		ug/L		99	80 - 120
Bromobenzene	10.0	10.4		ug/L		104	80 - 124
Bromochloromethane	10.0	9.53		ug/L		95	76 - 125
Bromodichloromethane	10.0	10.4		ug/L		104	77 - 141
Bromoform	10.0	10.3		ug/L		103	46 - 178
Bromomethane	10.0	13.2		ug/L		132	52 - 162
Carbon tetrachloride	10.0	9.73		ug/L		97	69 - 145
Chlorobenzene	10.0	10.0		ug/L		100	80 - 120
Chloroethane	10.0	9.97		ug/L		100	73 - 139
Chloroform	10.0	9.87		ug/L		99	80 - 120
Chloromethane	10.0	9.98		ug/L		100	35 - 159
cis-1,2-Dichloroethene	10.0	9.87		ug/L		99	76 - 122
cis-1,3-Dichloropropene	10.0	9.90		ug/L		99	80 - 122
Dibromochloromethane	10.0	10.7		ug/L		107	63 - 151
Dibromomethane	10.0	9.84		ug/L		98	80 - 121
Dichlorodifluoromethane	10.0	9.50		ug/L		95	59 - 139
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
Hexachloro-1,3-butadiene	10.0	10.0		ug/L		100	76 - 141
Isopropanol	100	96.0		ug/L		96	29 - 141
Isopropylbenzene	10.0	10.5		ug/L		105	80 - 124
m,p-Xylene	20.0	20.3		ug/L		102	80 - 122
Methylene Chloride	10.0	9.22		ug/L		92	70 - 120
Naphthalene	10.0	10.0		ug/L		100	75 - 120
n-Butylbenzene	10.0	10.6		ug/L		106	76 - 124
N-Propylbenzene	10.0	9.95		ug/L		100	80 - 122
o-Xylene	10.0	10.5		ug/L		105	80 - 122
p-Isopropyltoluene	10.0	10.5		ug/L		105	77 - 127
sec-Butylbenzene	10.0	10.5		ug/L		105	75 - 123
Styrene	10.0	9.58		ug/L		96	80 - 121
tert-Butylbenzene	10.0	10.3		ug/L		103	72 - 128
Tetrachloroethene	10.0	9.94		ug/L		99	80 - 128
Toluene	10.0	10.1		ug/L		101	80 - 120
trans-1,2-Dichloroethene	10.0	9.72		ug/L		97	67 - 123
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	78 - 140
Trichloroethene	10.0	9.95		ug/L		100	80 - 123
Trichlorofluoromethane	10.0	9.96		ug/L		100	64 - 168
Vinyl acetate	10.0	8.37		ug/L		84	75 - 144
Vinyl chloride	10.0	9.91		ug/L		99	74 - 130
Methyl-t-Butyl Ether (MTBE)	10.0	10.2		ug/L		102	72 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		68 - 135
4-Bromofluorobenzene (Surr)	103		71 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-164836/13
Matrix: Water
Analysis Batch: 164836

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			10.0	10.1		ug/L		101	76 - 143	3	20
1,1,1-Trichloroethane			10.0	10.3		ug/L		103	75 - 128	7	20
1,1,2,2-Tetrachloroethane			10.0	10.4		ug/L		104	73 - 126	3	21
1,1,2-Trichloro-1,2,2-trifluoroethane			10.0	10.4		ug/L		104	50 - 120	10	20
1,1,2-Trichloroethane			10.0	9.77		ug/L		98	80 - 120	2	20
1,1-Dichloroethane			10.0	10.1		ug/L		101	76 - 120	5	20
1,1-Dichloroethene			10.0	10.8		ug/L		108	72 - 120	7	20
1,1-Dichloropropene			10.0	10.6		ug/L		106	76 - 120	7	20
1,2,3-Trichlorobenzene			10.0	11.3		ug/L		113	80 - 125	4	22
1,2,3-Trichloropropane			10.0	10.2		ug/L		102	66 - 131	2	20
1,2,4-Trichlorobenzene			10.0	11.2		ug/L		112	80 - 123	2	20
1,2,4-Trimethylbenzene			10.0	11.5		ug/L		115	78 - 125	8	22
1,2-Dibromo-3-Chloropropane			10.0	9.98		ug/L		100	77 - 120	2	21
1,2-Dibromoethane			10.0	10.4		ug/L		104	80 - 120	0	20
1,2-Dichlorobenzene			10.0	10.7		ug/L		107	79 - 123	6	20
1,2-Dichloroethane			10.0	10.1		ug/L		101	71 - 137	3	20
1,2-Dichloropropane			10.0	10.4		ug/L		104	80 - 120	6	20
1,3,5-Trimethylbenzene			10.0	10.3		ug/L		103	77 - 133	7	20
1,3-Dichlorobenzene			10.0	11.1		ug/L		111	79 - 123	7	20
1,3-Dichloropropane			10.0	10.3		ug/L		103	80 - 123	3	20
1,4-Dichlorobenzene			10.0	10.4		ug/L		104	75 - 123	3	22
2,2-Dichloropropane			10.0	8.97		ug/L		90	78 - 133	4	20
2-Butanone			10.0	7.54		ug/L		75	32 - 133	6	26
2-Chlorotoluene			10.0	10.7		ug/L		107	80 - 120	6	20
2-Hexanone			10.0	10.2		ug/L		102	57 - 127	4	21
4-Chlorotoluene			10.0	10.7		ug/L		107	78 - 120	8	21
Acetone			10.0	10.5		ug/L		105	57 - 133	4	28
Benzene			10.0	10.4		ug/L		104	80 - 120	5	20
Bromobenzene			10.0	10.7		ug/L		107	80 - 124	3	20
Bromochloromethane			10.0	9.66		ug/L		97	76 - 125	1	20
Bromodichloromethane			10.0	10.6		ug/L		106	77 - 141	2	20
Bromoform			10.0	10.6		ug/L		106	46 - 178	3	23
Bromomethane			10.0	12.4		ug/L		124	52 - 162	6	20
Carbon tetrachloride			10.0	10.5		ug/L		105	69 - 145	8	20
Chlorobenzene			10.0	10.3		ug/L		103	80 - 120	3	20
Chloroethane			10.0	10.4		ug/L		104	73 - 139	4	20
Chloroform			10.0	10.3		ug/L		103	80 - 120	5	20
Chloromethane			10.0	10.4		ug/L		104	35 - 159	4	20
cis-1,2-Dichloroethene			10.0	10.4		ug/L		104	76 - 122	5	20
cis-1,3-Dichloropropene			10.0	10.3		ug/L		103	80 - 122	4	20
Dibromochloromethane			10.0	10.8		ug/L		108	63 - 151	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-164836/13
Matrix: Water
Analysis Batch: 164836

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	10.0	10.2		ug/L		102	80 - 121	3	20
Dichlorodifluoromethane	10.0	10.7		ug/L		107	59 - 139	12	20
Ethylbenzene	10.0	11.2		ug/L		112	80 - 120	6	20
Hexachloro-1,3-butadiene	10.0	10.9		ug/L		109	76 - 141	9	23
Isopropanol	100	94.2		ug/L		94	29 - 141	2	22
Isopropylbenzene	10.0	11.3		ug/L		113	80 - 124	7	20
m,p-Xylene	20.0	21.7		ug/L		108	80 - 122	7	20
Methylene Chloride	10.0	9.76		ug/L		98	70 - 120	6	20
Naphthalene	10.0	9.76		ug/L		98	75 - 120	3	22
n-Butylbenzene	10.0	11.6		ug/L		116	76 - 124	9	23
N-Propylbenzene	10.0	10.6		ug/L		106	80 - 122	6	20
o-Xylene	10.0	11.2		ug/L		112	80 - 122	7	20
p-Isopropyltoluene	10.0	11.4		ug/L		114	77 - 127	8	21
sec-Butylbenzene	10.0	11.5		ug/L		115	75 - 123	9	21
Styrene	10.0	10.1		ug/L		101	80 - 121	6	20
tert-Butylbenzene	10.0	11.2		ug/L		112	72 - 128	9	22
Tetrachloroethene	10.0	10.5		ug/L		105	80 - 128	6	20
Toluene	10.0	10.8		ug/L		108	80 - 120	7	20
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	67 - 123	6	20
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	78 - 140	3	20
Trichloroethene	10.0	11.0		ug/L		110	80 - 123	10	20
Trichlorofluoromethane	10.0	10.9		ug/L		109	64 - 168	9	20
Vinyl acetate	10.0	7.93		ug/L		79	75 - 144	5	25
Vinyl chloride	10.0	10.8		ug/L		108	74 - 130	9	20
Methyl-t-Butyl Ether (MTBE)	10.0	10.3		ug/L		103	72 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*
4-Bromofluorobenzene (Surr)	*102*		*71 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 570-165271/6
Matrix: Water
Analysis Batch: 165271

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 22:20	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 22:20	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Iodomethane	*13.1*	*J*	*ug/L*		*3.49*	*74-88-4*		*07/20/21 22:20*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 22:20*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 135*		*07/20/21 22:20*	*1*
4-Bromofluorobenzene (Surr)	*91*		*71 - 120*		*07/20/21 22:20*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165271/6
Matrix: Water
Analysis Batch: 165271

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		80 - 120		07/20/21 22:20	1
Toluene-d8 (Surr)	100		80 - 120		07/20/21 22:20	1

Lab Sample ID: LCS 570-165271/3
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.4		ug/L		114	50 - 120
Tetrachloroethene	10.0	11.3		ug/L		113	80 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		68 - 135
4-Bromofluorobenzene (Surr)	105		71 - 120
Dibromofluoromethane (Surr)	105		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 570-165271/4
Matrix: Water
Analysis Batch: 165271

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	50 - 120	8	20
Tetrachloroethene	10.0	10.5		ug/L		105	80 - 128	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		68 - 135
4-Bromofluorobenzene (Surr)	105		71 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-164889/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 164889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 13:55	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	68		15 - 150	07/19/21 11:01	07/30/21 13:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		46 - 128	07/19/21 11:01	07/30/21 13:55	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-164889/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	24.0		ug/L		120	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*59*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*79*		*46 - 128*

Lab Sample ID: LCSD 570-164889/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	23.8		ug/L		119	57 - 136	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*73*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*77*		*46 - 128*

Lab Sample ID: 440-286115-D-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	0.85		20.0	24.4		ug/L		118	45 - 139		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*111*		*46 - 128*

Lab Sample ID: 440-286115-D-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.85		20.0	24.7		ug/L		119	45 - 139	1	17

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*43*		*15 - 150*

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*95*		*46 - 128*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 164836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286116-1	OC_GW_OW-12-20210715K	Total/NA	Water	8260B	
440-286116-2	OC_GW_OW-1B_20210715	Total/NA	Water	8260B	
440-286116-3	OC_GW_OW-9_20210715	Total/NA	Water	8260B	
440-286116-4	OC_GW_OW-12_20210715	Total/NA	Water	8260B	
440-286116-5	OC_TB2_20210715	Total/NA	Water	8260B	
MB 570-164836/16	Method Blank	Total/NA	Water	8260B	
LCS 570-164836/1012	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-164836/13	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 165271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286116-1 - DL	OC_GW_OW-12-20210715K	Total/NA	Water	8260B	
440-286116-3 - DL	OC_GW_OW-9_20210715	Total/NA	Water	8260B	
440-286116-4 - DL	OC_GW_OW-12_20210715	Total/NA	Water	8260B	
MB 570-165271/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165271/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165271/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 164889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286116-1	OC_GW_OW-12-20210715K	Total/NA	Water	3510C	
440-286116-2	OC_GW_OW-1B_20210715	Total/NA	Water	3510C	
440-286116-3 - DL	OC_GW_OW-9_20210715	Total/NA	Water	3510C	
440-286116-4	OC_GW_OW-12_20210715	Total/NA	Water	3510C	
MB 570-164889/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-286115-D-1-A MS	Matrix Spike	Total/NA	Water	3510C	
440-286115-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 167748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286116-1	OC_GW_OW-12-20210715K	Total/NA	Water	8270C SIM ID	164889
440-286116-2	OC_GW_OW-1B_20210715	Total/NA	Water	8270C SIM ID	164889
440-286116-4	OC_GW_OW-12_20210715	Total/NA	Water	8270C SIM ID	164889
MB 570-164889/1-A	Method Blank	Total/NA	Water	8270C SIM ID	164889
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	164889
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	164889
440-286115-D-1-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	164889
440-286115-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	164889

Analysis Batch: 168254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286116-3 - DL	OC_GW_OW-9_20210715	Total/NA	Water	8270C SIM ID	164889

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21 *
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/ 14 /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_OW-12_202107 15 K (KA)	7/15/2021	0715	Grab	GW	5			x	x	
OC_GW_OW-1B_202107 15	7/15/2021	0730	Grab	GW	5			x	x	
OC_GW_OW-2_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-3_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-3B_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-7_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-8_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-8B_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-9_202107 15	7/15/2021	0956	Grab	GW	5			x	x	
OC_GW_OW-10_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-12_202107 15	7/15/2021	0715	Grab	GW	5			x	x	
OC_TB 1_202107 15	7/15/2021	0600	Grab	H2O	2			x		

440-286116 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: JHA	Date/Time: 7/15/21 1314	Received by:	Company: EC-IRV	Date/Time: 7/15/21 1514
Relinquished by:	Company: EC-IRV	Date/Time: 7/15/21 1603	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EC IRV	Date/Time: 7/15/21 1603

1.6 / 1.3 IR-93

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax. 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171485 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286116-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/22/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email	WO #:			
Project Name: Omega Chemical - Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_GW_OW-12_20210715K (440-286116-1)	7/15/21	07 15 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_OW-1B_20210715 (440-286116-2)	7/15/21	07:30 Pacific		Water			X	X	5	Special Multiple Dils close to 1.Run in order J's.Maybe high chlorobenzene
OC_GW_OW-9_20210715 (440-286116-3)	7/15/21	09:56 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_OW-12_20210715 (440-286116-4)	7/15/21	07 15 Pacific		Water			X	X	5	Special Multiple Dils close to 1.Run in order J's.Maybe high chlorobenzene
OC_TB2_20210715 (440-286116-5)	7/15/21	06:00 Pacific		Water			X		2	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment:		
Relinquished by:	Date/Time: 7/15/21 1655	Company EC IRV	Received by:	Date/Time: 7-15-2021 16:55	Company ECI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No. N/A		Cooler Temperature(s) °C and Other Remarks: 2.0/1.6 SCS		

Ver: 06/08/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax. 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171485 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286114-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/22/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical- Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
OC_GW_OW1BN_20210714 (440-286114-1)	7/14/21	12:20 Pacific		Water			X	3	Special Multiple Dils close to 1.Run in order J's.Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Calscience

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date	Time		Method of Shipment:	
Relinquished by:	Date/Time: 7/15/21 1655	Company EC IRV	Received by:		Date/Time: 7-15-2021 16:55	Company ECI
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No N/A		Cooler Temperature(s) °C and Other Remarks: 2.0/1.6 SCG			

Ver: 06/08/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone. 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fama, Sheri M	Carrier Tracking No(s):	COC No: 440-171486 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sheri Fama@Eurofinset.com	State of Origin: California	Page: Page 1 of 2
Company: Eurofins Calscience LLC		Accreditations Required (See note): State - California		Job #: 440-286106-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/28/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Shell- 1202 E. Edinger, Santa Ana	Project #: 44015180			
Site: 1202 E. Edinger, Santa Ana	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C 8260B-full Scan+Ethanol	8260B/CA_LUFTMS/5030C C4-C12 Volatile Fuel Hydrocarbons	3500_Fe+2_B_Calc/ Ferrous iron	RSK_175/ (MOD) Methane, Ethane, and Ethene	Total Number of containers	Special Instructions/Note:
				Preservation Code:								
MW-1D (440-286106-1)	7/15/21	07:15 Pacific		Water			X	X			3	
MW-9D (440-286106-2)	7/15/21	07.35 Pacific		Water			X	X			3	
MW-54 (440-286106-3)	7/15/21	08.15 Pacific		Water			X	X			3	
MW-44 (440-286106-4)	7/15/21	08.48 Pacific		Water			X	X			3	
MW-20 (440-286106-5)	7/15/21	10.37 Pacific		Water			X	X	X	X	7	
MW-51 (440-286106-6)	7/15/21	10 17 Pacific		Water			X	X	X	X	7	
MW-52 (440-286106-7)	7/15/21	10:08 Pacific		Water			X	X			3	
MW-49 (440-286106-8)	7/15/21	12:00 Pacific		Water			X	X	X	X	7	
MW-50 (440-286106-9)	7/15/21	11.47 Pacific		Water			X	X	X	X	7	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/15/21 1655	EC-IRV		7-15-2021 16:55	EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: N/A | Cooler Temperature(s) °C and Other Remarks: 1.9 / 1.5 RCC

Ver: 06/08/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone. 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fama, Sheri M	Carrier Tracking No(s):	COC No: 440-171486.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sheri Fama@Eurofinset.com	State of Origin: California	Page: Page 2 of 2
Company: Eurofins Calscience LLC		Accreditations Required (See note): State - California		Job #: 440-286106-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/28/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Shell- 1202 E. Edinger, Santa Ana	Project #: 44015180			
Site: 1202 E. Edinger, Santa Ana	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C 8260B-full Scan+Ethanol	8260B/CA_LUFTMS/5030C C4-C12 Volatile Fuel Hydrocarbons	3500_Fe+2_B_Calc/ Ferrous Iron	RSK_175/ (MOD) Methane, Ethane, and Ethene	Total Number of containers	Special Instructions/Note:
				Preservation Code:								
MW-39 (440-286106-10)	7/15/21	13:10 Pacific		Water			X	X	X	X	7	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time		Method of Shipment:	
Relinquished by:	Date/Time: 7/15/21 1655	Company: EC-IRV	Received by:	Date/Time: 7-15-2021 16:55	Company: ECI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: N/A		Cooler Temperature(s) °C and Other Remarks: 1.9/1.5 3C6		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286116-1
SDG Number: Omega Chemical

Login Number: 286116
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286116-1
SDG Number: Omega Chemical

Login Number: 286116
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/15/21 09:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286116-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-286115-D-1-A MS	Matrix Spike	42							
440-286115-D-1-B MSD	Matrix Spike Duplicate	43							
440-286116-1	OC_GW_OW-12-20210715K	60							
440-286116-2	OC_GW_OW-1B_20210715	42							
440-286116-3 - DL	OC_GW_OW-9_20210715	45 *3							
440-286116-4	OC_GW_OW-12_20210715	39							
LCS 570-164889/2-A	Lab Control Sample	59							
LCSD 570-164889/3-A	Lab Control Sample Dup	73							
MB 570-164889/1-A	Method Blank	68							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-286220-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/2/2021 4:45:54 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286220-1	OC_GW_OW-3BN_20210716	Water	07/16/21 14:45	07/16/21 15:51
440-286220-2	OC_GW_OW-3B_20210716	Water	07/16/21 14:31	07/16/21 15:51
440-286220-3	OC_GW_OW-8B_20210716K	Water	07/16/21 08:25	07/16/21 15:51
440-286220-4	OC_GW_OW-8B_20210716	Water	07/16/21 08:25	07/16/21 15:51
440-286220-5	OC_GW_OW-10_20210716	Water	07/16/21 08:15	07/16/21 15:51
440-286220-6	OC_TB1_20210716	Water	07/16/21 06:00	07/16/21 15:51

Job ID: 440-286220-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286220-1

Comments
No additional comments.

Receipt
The samples were received on 7/16/2021 3:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165109. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-3BN_20210716 — Lab Sample ID: 440-286220-1

No Detections.

Client Sample ID: OC_GW_OW-3B_20210716 — Lab Sample ID: 440-286220-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	12		0.50	0.29	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-8B_20210716K — Lab Sample ID: 440-286220-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	25		0.50	0.29	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-8B_20210716 — Lab Sample ID: 440-286220-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	25		0.50	0.29	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-10_20210716 — Lab Sample ID: 440-286220-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	1.9		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	1.0		0.50	0.39	ug/L	1		8260B	Total/NA
Tetrachloroethene	12		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	0.81		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	1.5		0.50	0.30	ug/L	1		8260B	Total/NA

Client Sample ID: OC_TB1_20210716 — Lab Sample ID: 440-286220-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-3BN_20210716

Lab Sample ID: 440-286220-1

Date Collected: 07/16/21 14:45
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 16:41	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 16:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 16:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 16:41	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 16:41	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 16:41	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 16:41	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 16:41	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 16:41	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 16:41	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 16:41	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 16:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 16:41	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 16:41	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 16:41	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 16:41	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 16:41	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 16:41	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 16:41	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 16:41	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 16:41	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 16:41	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 16:41	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 16:41	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 16:41	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 16:41	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 16:41	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 16:41	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 16:41	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 16:41	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 16:41	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 16:41	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 16:41	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 16:41	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 16:41	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 16:41	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 16:41	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 16:41	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 16:41	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 16:41	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 16:41	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 16:41	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 16:41	1
Isopropanol	ND		40	40	ug/L			07/20/21 16:41	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 16:41	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 16:41	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 16:41	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 16:41	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 16:41	1

Client Sample ID: OC_GW_OW-3BN_20210716

Lab Sample ID: 440-286220-1

Date Collected: 07/16/21 14:45
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 16:41	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 16:41	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 16:41	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 16:41	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 16:41	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 16:41	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 16:41	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 16:41	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 16:41	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 16:41	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 16:41	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 16:41	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 16:41	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 16:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
N,N-Dinitro-1,3,5,7-tetrazabicyclo[3,3,1]nonane	*110*	*T J N*	*ug/L*		*1.44*	*1000143-33-4*		*07/20/21 16:41*	*1*
N(1,1-Difluoro-2,2-bis-trifluor-methyl ethyl)-aziridine	*84*	*T J N*	*ug/L*		*1.46*	*1000143-33-6*		*07/20/21 16:41*	*1*
Unknown	*510*	*T J*	*ug/L*		*1.50*			*07/20/21 16:41*	*1*
Unknown	*10*	*T J*	*ug/L*		*1.85*			*07/20/21 16:41*	*1*
Unknown	*12*	*T J*	*ug/L*		*1.89*			*07/20/21 16:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*68 - 135*		*07/20/21 16:41*	*1*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/20/21 16:41*	*1*
Dibromofluoromethane (Surr)	*117*		*80 - 120*		*07/20/21 16:41*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 16:41*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/22/21 15:27	07/30/21 20:50	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*59*		*15 - 150*	*07/22/21 15:27*	*07/30/21 20:50*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*109*		*46 - 128*	*07/22/21 15:27*	*07/30/21 20:50*	*1*

Client Sample ID: OC_GW_OW-3B_20210716

Lab Sample ID: 440-286220-2

Date Collected: 07/16/21 14:31
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 17:09	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 17:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 17:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 17:09	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 17:09	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 17:09	1

Client Sample ID: OC_GW_OW-3B_20210716

Lab Sample ID: 440-286220-2

Date Collected: 07/16/21 14:31

Matrix: Water

Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 17:09	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 17:09	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 17:09	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 17:09	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 17:09	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 17:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 17:09	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 17:09	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 17:09	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 17:09	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 17:09	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 17:09	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 17:09	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 17:09	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 17:09	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 17:09	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 17:09	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 17:09	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 17:09	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 17:09	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 17:09	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 17:09	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 17:09	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 17:09	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 17:09	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 17:09	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 17:09	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 17:09	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 17:09	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 17:09	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 17:09	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 17:09	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 17:09	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 17:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 17:09	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 17:09	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 17:09	1
Isopropanol	ND		40	40	ug/L			07/20/21 17:09	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 17:09	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 17:09	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 17:09	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 17:09	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 17:09	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 17:09	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 17:09	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 17:09	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 17:09	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 17:09	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 17:09	1

Client Sample ID: OC_GW_OW-3B_20210716

Lab Sample ID: 440-286220-2
Date Collected: 07/16/21 14:31
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**12**		0.50	0.29	ug/L			07/20/21 17:09	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 17:09	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 17:09	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 17:09	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 17:09	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 17:09	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 17:09	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 17:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Imidazole, 2-bromo-4-methyl-5-nitro-	*290*	*T J N*	*ug/L*		*1.46*	*105983-46-8*		*07/20/21 17:09*	*1*
Unknown	*2000*	*T J*	*ug/L*		*1.50*			*07/20/21 17:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*68 - 135*		*07/20/21 17:09*	*1*
4-Bromofluorobenzene (Surr)	*83*		*71 - 120*		*07/20/21 17:09*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 120*		*07/20/21 17:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 17:09*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 22:26	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 150*	*07/21/21 11:53*	*07/30/21 22:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*107*		*46 - 128*	*07/21/21 11:53*	*07/30/21 22:26*	*1*

Client Sample ID: OC_GW_OW-8B_20210716K

Lab Sample ID: 440-286220-3
Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 17:37	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 17:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 17:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 17:37	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 17:37	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 17:37	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 17:37	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 17:37	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 17:37	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 17:37	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 17:37	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 17:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 17:37	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 17:37	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 17:37	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 17:37	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 17:37	1

Client Sample ID: OC_GW_OW-8B_20210716K

Lab Sample ID: 440-286220-3

Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 17:37	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 17:37	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 17:37	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 17:37	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 17:37	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 17:37	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 17:37	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 17:37	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 17:37	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 17:37	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 17:37	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 17:37	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 17:37	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 17:37	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 17:37	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 17:37	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 17:37	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 17:37	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 17:37	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 17:37	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 17:37	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 17:37	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 17:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 17:37	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 17:37	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 17:37	1
Isopropanol	ND		40	40	ug/L			07/20/21 17:37	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 17:37	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 17:37	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 17:37	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 17:37	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 17:37	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 17:37	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 17:37	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 17:37	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 17:37	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 17:37	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 17:37	1
Tetrachloroethene	**25**		0.50	0.29	ug/L			07/20/21 17:37	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 17:37	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 17:37	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 17:37	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 17:37	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 17:37	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 17:37	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 17:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*120*	*T J N*	*ug/L*		*1.44*	*69493-11-4*		*07/20/21 17:37*	*1*

Client Sample ID: OC_GW_OW-8B_20210716K

Lab Sample ID: 440-286220-3

Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Boroxin, dimethylpropyl-	170	T J N	ug/L		1.45	1000162-61-0		07/20/21 17:37	1
Unknown	1900	T J	ug/L		1.50			07/20/21 17:37	1
Unknown	23	T J	ug/L		1.68			07/20/21 17:37	1
Unknown	21	T J	ug/L		3.49			07/20/21 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120		68 - 135		07/20/21 17:37	1
4-Bromofluorobenzene (Surr)	87		71 - 120		07/20/21 17:37	1
Dibromofluoromethane (Surr)	110		80 - 120		07/20/21 17:37	1
Toluene-d8 (Surr)	98		80 - 120		07/20/21 17:37	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 22:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 150	07/21/21 11:53	07/30/21 22:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	81		46 - 128	07/21/21 11:53	07/30/21 22:42	1

Client Sample ID: OC_GW_OW-8B_20210716

Lab Sample ID: 440-286220-4

Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 18:05	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 18:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 18:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 18:05	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 18:05	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 18:05	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 18:05	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 18:05	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 18:05	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 18:05	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 18:05	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 18:05	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 18:05	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 18:05	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 18:05	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 18:05	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 18:05	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 18:05	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 18:05	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 18:05	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 18:05	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 18:05	1

Client Sample ID: OC_GW_OW-8B_20210716

Lab Sample ID: 440-286220-4

Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 18:05	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 18:05	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 18:05	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 18:05	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 18:05	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 18:05	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 18:05	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 18:05	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 18:05	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 18:05	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 18:05	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 18:05	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 18:05	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 18:05	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 18:05	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 18:05	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 18:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 18:05	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 18:05	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 18:05	1
Isopropanol	ND		40	40	ug/L			07/20/21 18:05	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 18:05	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 18:05	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 18:05	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 18:05	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:05	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 18:05	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 18:05	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 18:05	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:05	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 18:05	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:05	1
Tetrachloroethene	**25**		0.50	0.29	ug/L			07/20/21 18:05	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 18:05	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 18:05	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 18:05	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 18:05	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 18:05	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 18:05	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 18:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*250*	*T J N*	*ug/L*		*1.45*	*69493-11-4*		*07/20/21 18:05*	*1*
Unknown	*1700*	*T J*	*ug/L*		*1.50*			*07/20/21 18:05*	*1*
Unknown	*18*	*T J*	*ug/L*		*1.85*			*07/20/21 18:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*68 - 135*		*07/20/21 18:05*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/20/21 18:05*	*1*

Client Sample ID: OC_GW_OW-8B_20210716

Lab Sample ID: 440-286220-4

Date Collected: 07/16/21 08:25
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/20/21 18:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 18:05*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 22:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*35*		*15 - 150*	*07/21/21 11:53*	*07/30/21 22:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*102*		*46 - 128*	*07/21/21 11:53*	*07/30/21 22:58*	*1*

Client Sample ID: OC_GW_OW-10_20210716

Lab Sample ID: 440-286220-5

Date Collected: 07/16/21 08:15
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 18:33	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 18:33	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 18:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.9**		0.50	0.25	ug/L			07/20/21 18:33	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 18:33	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 18:33	1
1,1-Dichloroethene	**1.0**		0.50	0.39	ug/L			07/20/21 18:33	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 18:33	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 18:33	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 18:33	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 18:33	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 18:33	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 18:33	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 18:33	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 18:33	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 18:33	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 18:33	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 18:33	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 18:33	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 18:33	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 18:33	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 18:33	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 18:33	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 18:33	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 18:33	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 18:33	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 18:33	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 18:33	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 18:33	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 18:33	1

Client Sample ID: OC_GW_OW-10_20210716

Lab Sample ID: 440-286220-5

Date Collected: 07/16/21 08:15
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 18:33	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 18:33	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 18:33	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 18:33	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 18:33	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 18:33	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 18:33	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 18:33	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 18:33	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 18:33	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 18:33	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 18:33	1
Isopropanol	ND		40	40	ug/L			07/20/21 18:33	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 18:33	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 18:33	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 18:33	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 18:33	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:33	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 18:33	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 18:33	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 18:33	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:33	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 18:33	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:33	1
Tetrachloroethene	**12**		0.50	0.29	ug/L			07/20/21 18:33	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 18:33	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 18:33	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 18:33	1
Trichloroethene	**0.81**		0.50	0.29	ug/L			07/20/21 18:33	1
Trichlorofluoromethane	**1.5**		0.50	0.30	ug/L			07/20/21 18:33	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 18:33	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 18:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Germacyclohexane, 1,1-dichloro-	*43*	*T J N*	*ug/L*		*1.44*	*56438-28-9*		*07/20/21 18:33*	*1*
Imidazole, 2-bromo-4-methyl-5-nitro-	*41*	*T J N*	*ug/L*		*1.46*	*105983-46-8*		*07/20/21 18:33*	*1*
Unknown	*710*	*T J*	*ug/L*		*1.50*			*07/20/21 18:33*	*1*
Ethane, 1,2-dichloro-1,1,2-trifluoro-	*23*	*T J N*	*ug/L*		*3.03*	*354-23-4*		*07/20/21 18:33*	*1*
Unknown	*8.3*	*T J*	*ug/L*		*3.48*			*07/20/21 18:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*68 - 135*		*07/20/21 18:33*	*1*
4-Bromofluorobenzene (Surr)	*85*		*71 - 120*		*07/20/21 18:33*	*1*
Dibromofluoromethane (Surr)	*115*		*80 - 120*		*07/20/21 18:33*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/20/21 18:33*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 23:14	1

Client Sample ID: OC_GW_OW-10_20210716

Lab Sample ID: 440-286220-5

Date Collected: 07/16/21 08:15
Matrix: Water
Date Received: 07/16/21 15:51

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	35		15 - 150	07/21/21 11:53	07/30/21 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	108		46 - 128	07/21/21 11:53	07/30/21 23:14	1

Client Sample ID: OC_TB1_20210716

Lab Sample ID: 440-286220-6

Date Collected: 07/16/21 06:00
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 16:13	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 16:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 16:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 16:13	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 16:13	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 16:13	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 16:13	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 16:13	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 16:13	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 16:13	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 16:13	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 16:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 16:13	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 16:13	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 16:13	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 16:13	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 16:13	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 16:13	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 16:13	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 16:13	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 16:13	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 16:13	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 16:13	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 16:13	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 16:13	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 16:13	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 16:13	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 16:13	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 16:13	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 16:13	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 16:13	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 16:13	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 16:13	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 16:13	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 16:13	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 16:13	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 16:13	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 16:13	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 16:13	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 16:13	1

Client Sample ID: OC_TB1_20210716

Lab Sample ID: 440-286220-6

Date Collected: 07/16/21 06:00
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 16:13	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 16:13	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 16:13	1
Isopropanol	ND		40	40	ug/L			07/20/21 16:13	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 16:13	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 16:13	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 16:13	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 16:13	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 16:13	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 16:13	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 16:13	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 16:13	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 16:13	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 16:13	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 16:13	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 16:13	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 16:13	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 16:13	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 16:13	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 16:13	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 16:13	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 16:13	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 16:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
4-Hydroxy-5-hydroxyimino-4-(2-iminopropyl)-4,5,6,7-tetrahydr	*680*	*T J N*	*ug/L*		*1.44*	*1000110-70-7*		*07/20/21 16:13*	*1*
4-Hydroxy-5-hydroxyimino-4-(2-iminopropyl)-4,5,6,7-tetrahydr	*550*	*T J N*	*ug/L*		*1.46*	*1000110-70-7*		*07/20/21 16:13*	*1*
Unknown	*3300*	*T J*	*ug/L*		*1.50*			*07/20/21 16:13*	*1*
Unknown	*83*	*T J*	*ug/L*		*1.63*			*07/20/21 16:13*	*1*
Unknown	*60*	*T J*	*ug/L*		*1.85*			*07/20/21 16:13*	*1*
Unknown	*79*	*T J*	*ug/L*		*3.37*			*07/20/21 16:13*	*1*
Unknown	*54*	*T J*	*ug/L*		*3.42*			*07/20/21 16:13*	*1*
Unknown	*85*	*T J*	*ug/L*		*3.48*			*07/20/21 16:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*68 - 135*		*07/20/21 16:13*	*1*
4-Bromofluorobenzene (Surr)	*85*		*71 - 120*		*07/20/21 16:13*	*1*
Dibromofluoromethane (Surr)	*113*		*80 - 120*		*07/20/21 16:13*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 16:13*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-135)	(71-120)	(80-120)	(80-120)
440-286220-1	OC_GW_OW-3BN_20210716	120	87	117	99
440-286220-2	OC_GW_OW-3B_20210716	117	83	112	99
440-286220-3	OC_GW_OW-8B_20210716K	120	87	110	98
440-286220-4	OC_GW_OW-8B_20210716	122	89	116	100
440-286220-5	OC_GW_OW-10_20210716	120	85	115	101
440-286220-6	OC_TB1_20210716	116	85	113	100
LCS 570-165109/3	Lab Control Sample	99	103	102	101
LCSD 570-165109/4	Lab Control Sample Dup	100	105	101	100
MB 570-165109/6	Method Blank	106	88	107	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-286220-1	OC_GW_OW-3BN_20210716	109
440-286220-2	OC_GW_OW-3B_20210716	107
440-286220-2 MS	OC_GW_OW-3B_20210716	88
440-286220-2 MSD	OC_GW_OW-3B_20210716	107
440-286220-3	OC_GW_OW-8B_20210716K	81
440-286220-4	OC_GW_OW-8B_20210716	102
440-286220-5	OC_GW_OW-10_20210716	108
LCS 570-165534/2-A	Lab Control Sample	104
LCS 570-165913/2-A	Lab Control Sample	101
LCSD 570-165534/3-A	Lab Control Sample Dup	105
LCSD 570-165913/3-A	Lab Control Sample Dup	119
MB 570-165534/1-A	Method Blank	97
MB 570-165913/1-A	Method Blank	79

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-3BN_20210716 — Lab Sample ID: 440-286220-1

Date Collected: 07/16/21 14:45 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 16:41	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165913	07/22/21 15:27	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 20:50	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-3B_20210716 — Lab Sample ID: 440-286220-2

Date Collected: 07/16/21 14:31 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 17:09	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 22:26	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-8B_20210716K — Lab Sample ID: 440-286220-3

Date Collected: 07/16/21 08:25 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 17:37	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 22:42	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-8B_20210716 — Lab Sample ID: 440-286220-4

Date Collected: 07/16/21 08:25 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 18:05	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 22:58	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-10_20210716 — Lab Sample ID: 440-286220-5

Date Collected: 07/16/21 08:15 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 18:33	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 23:14	AJ2Q	ECL 1

Client Sample ID: OC_TB1_20210716 — Lab Sample ID: 440-286220-6

Date Collected: 07/16/21 06:00 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 16:13	UJHB	ECL 2

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-165109/6
Matrix: Water
Analysis Batch: 165109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 11:25	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 11:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 11:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 11:25	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 11:25	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 11:25	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 11:25	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 11:25	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 11:25	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 11:25	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 11:25	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 11:25	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 11:25	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 11:25	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 11:25	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 11:25	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 11:25	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 11:25	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 11:25	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 11:25	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 11:25	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 11:25	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 11:25	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 11:25	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 11:25	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 11:25	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 11:25	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 11:25	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 11:25	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 11:25	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 11:25	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 11:25	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 11:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 11:25	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 11:25	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 11:25	1
Isopropanol	ND		40	40	ug/L			07/20/21 11:25	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 11:25	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 11:25	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 11:25	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 11:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165109/6
Matrix: Water
Analysis Batch: 165109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 11:25	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 11:25	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 11:25	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 11:25	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 11:25	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 11:25	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 11:25	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 11:25	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 11:25*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*07/20/21 11:25*	*1*
4-Bromofluorobenzene (Surr)	*88*		*71 - 120*		*07/20/21 11:25*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/20/21 11:25*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 11:25*	*1*

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	76 - 143
1,1,1-Trichloroethane	10.0	10.3		ug/L		103	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.7		ug/L		107	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.97		ug/L		100	50 - 120
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethane	10.0	10.4		ug/L		104	76 - 120
1,1-Dichloroethene	10.0	9.91		ug/L		99	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichlorobenzene	10.0	11.2		ug/L		112	80 - 125
1,2,3-Trichloropropane	10.0	10.7		ug/L		107	66 - 131
1,2,4-Trichlorobenzene	10.0	11.0		ug/L		110	80 - 123
1,2,4-Trimethylbenzene	10.0	11.0		ug/L		110	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.2		ug/L		102	77 - 120
1,2-Dibromoethane	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	10.0	9.99		ug/L		100	77 - 133
1,3-Dichlorobenzene	10.0	10.7		ug/L		107	79 - 123
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123
1,4-Dichlorobenzene	10.0	10.0		ug/L		100	75 - 123
2,2-Dichloropropane	10.0	11.3		ug/L		113	78 - 133
2-Chlorotoluene	10.0	10.6		ug/L		106	80 - 120
4-Chlorotoluene	10.0	10.2		ug/L		102	78 - 120
Acetone	10.0	8.82		ug/L		88	57 - 133
Benzene	10.0	10.4		ug/L		104	80 - 120
Bromobenzene	10.0	10.5		ug/L		105	80 - 124
Bromochloromethane	10.0	9.89		ug/L		99	76 - 125
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141
Bromoform	10.0	10.4		ug/L		104	46 - 178
Bromomethane	10.0	11.2		ug/L		112	52 - 162
Carbon tetrachloride	10.0	10.4		ug/L		104	69 - 145
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	9.97		ug/L		100	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	10.2		ug/L		102	35 - 159
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	80 - 122
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 151
Dibromomethane	10.0	10.2		ug/L		102	80 - 121
Dichlorodifluoromethane	10.0	10.4		ug/L		104	59 - 139
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120
Hexachloro-1,3-butadiene	10.0	10.6		ug/L		106	76 - 141
Isopropanol	100	102		ug/L		102	29 - 141
Isopropylbenzene	10.0	10.8		ug/L		108	80 - 124
m,p-Xylene	20.0	21.0		ug/L		105	80 - 122
Methylene Chloride	10.0	10.1		ug/L		101	70 - 120
Naphthalene	10.0	9.62		ug/L		96	75 - 120
n-Butylbenzene	10.0	11.3		ug/L		113	76 - 124
N-Propylbenzene	10.0	10.4		ug/L		104	80 - 122
o-Xylene	10.0	10.8		ug/L		108	80 - 122
p-Isopropyltoluene	10.0	10.8		ug/L		108	77 - 127
sec-Butylbenzene	10.0	10.8		ug/L		108	75 - 123
Styrene	10.0	9.88		ug/L		99	80 - 121
tert-Butylbenzene	10.0	10.5		ug/L		105	72 - 128
Tetrachloroethene	10.0	10.3		ug/L		103	80 - 128
Toluene	10.0	10.4		ug/L		104	80 - 120
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	67 - 123
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	78 - 140
Trichloroethene	10.0	10.3		ug/L		103	80 - 123
Trichlorofluoromethane	10.0	10.0		ug/L		100	64 - 168
Vinyl chloride	10.0	10.1		ug/L		101	74 - 130
Methyl-t-Butyl Ether (MTBE)	10.0	10.2		ug/L		102	72 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 135*
4-Bromofluorobenzene (Surr)	*103*		*71 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 570-165109/4
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	76 - 143	8	20
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	75 - 128	9	20
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	73 - 126	5	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.2		ug/L		112	50 - 120	11	20
1,1,2-Trichloroethane	10.0	11.1		ug/L		111	80 - 120	7	20
1,1-Dichloroethane	10.0	11.4		ug/L		114	76 - 120	10	20
1,1-Dichloroethene	10.0	11.2		ug/L		112	72 - 120	12	20
1,1-Dichloropropene	10.0	11.6		ug/L		116	76 - 120	15	20
1,2,3-Trichlorobenzene	10.0	11.7		ug/L		117	80 - 125	5	22
1,2,3-Trichloropropane	10.0	11.3		ug/L		113	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	11.7		ug/L		117	80 - 123	7	20
1,2,4-Trimethylbenzene	10.0	12.0		ug/L		120	78 - 125	9	22
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	77 - 120	1	21
1,2-Dibromoethane	10.0	10.6		ug/L		106	80 - 120	3	20
1,2-Dichlorobenzene	10.0	11.1		ug/L		111	79 - 123	8	20
1,2-Dichloroethane	10.0	10.8		ug/L		108	71 - 137	6	20
1,2-Dichloropropane	10.0	11.1		ug/L		111	80 - 120	7	20
1,3,5-Trimethylbenzene	10.0	10.8		ug/L		108	77 - 133	8	20
1,3-Dichlorobenzene	10.0	11.5		ug/L		115	79 - 123	7	20
1,3-Dichloropropane	10.0	10.8		ug/L		108	80 - 123	4	20
1,4-Dichlorobenzene	10.0	10.8		ug/L		108	75 - 123	7	22
2,2-Dichloropropane	10.0	12.2		ug/L		122	78 - 133	7	20
2-Chlorotoluene	10.0	11.5		ug/L		115	80 - 120	8	20
4-Chlorotoluene	10.0	10.7		ug/L		107	78 - 120	5	21
Acetone	10.0	9.29		ug/L		93	57 - 133	5	28
Benzene	10.0	11.3		ug/L		113	80 - 120	8	20
Bromobenzene	10.0	11.2		ug/L		112	80 - 124	6	20
Bromochloromethane	10.0	10.6		ug/L		106	76 - 125	7	20
Bromodichloromethane	10.0	11.6		ug/L		116	77 - 141	8	20
Bromoform	10.0	10.7		ug/L		107	46 - 178	3	23
Bromomethane	10.0	11.5		ug/L		115	52 - 162	3	20
Carbon tetrachloride	10.0	11.5		ug/L		115	69 - 145	10	20
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120	8	20
Chloroethane	10.0	11.2		ug/L		112	73 - 139	11	20
Chloroform	10.0	11.4		ug/L		114	80 - 120	8	20
Chloromethane	10.0	11.5		ug/L		115	35 - 159	12	20
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	76 - 122	8	20
cis-1,3-Dichloropropene	10.0	11.4		ug/L		114	80 - 122	9	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-165109/4
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	10.0	11.4		ug/L		114	63 - 151	4	20
Dibromomethane	10.0	10.8		ug/L		108	80 - 121	6	20
Dichlorodifluoromethane	10.0	11.9		ug/L		119	59 - 139	13	20
Ethylbenzene	10.0	11.8		ug/L		118	80 - 120	9	20
Hexachloro-1,3-butadiene	10.0	11.6		ug/L		116	76 - 141	9	23
Isopropanol	100	102		ug/L		102	29 - 141	0	22
Isopropylbenzene	10.0	11.9		ug/L		119	80 - 124	10	20
m,p-Xylene	20.0	23.4		ug/L		117	80 - 122	11	20
Methylene Chloride	10.0	10.8		ug/L		108	70 - 120	7	20
Naphthalene	10.0	9.83		ug/L		98	75 - 120	2	22
n-Butylbenzene	10.0	12.4		ug/L		124	76 - 124	9	23
N-Propylbenzene	10.0	11.5		ug/L		115	80 - 122	10	20
o-Xylene	10.0	11.7		ug/L		117	80 - 122	8	20
p-Isopropyltoluene	10.0	11.7		ug/L		117	77 - 127	8	21
sec-Butylbenzene	10.0	12.0		ug/L		120	75 - 123	10	21
Styrene	10.0	10.6		ug/L		106	80 - 121	7	20
tert-Butylbenzene	10.0	11.3		ug/L		113	72 - 128	8	22
Tetrachloroethene	10.0	11.5		ug/L		115	80 - 128	11	20
Toluene	10.0	11.3		ug/L		113	80 - 120	8	20
trans-1,2-Dichloroethene	10.0	11.2		ug/L		112	67 - 123	9	20
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	78 - 140	7	20
Trichloroethene	10.0	11.4		ug/L		114	80 - 123	10	20
Trichlorofluoromethane	10.0	11.4		ug/L		114	64 - 168	13	20
Vinyl chloride	10.0	11.3		ug/L		113	74 - 130	11	20
Methyl-t-Butyl Ether (MTBE)	10.0	10.9		ug/L		109	72 - 120	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-165534/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:52	07/30/21 21:06	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*41*		*15 - 150*	*07/21/21 11:52*	*07/30/21 21:06*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*46 - 128*	*07/21/21 11:52*	*07/30/21 21:06*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-165534/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	24.4		ug/L		122	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*38*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*104*		*46 - 128*

Lab Sample ID: LCSD 570-165534/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	23.1		ug/L		115	57 - 136	6	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*46*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*105*		*46 - 128*

Lab Sample ID: 440-286220-2 MS — **Client Sample ID: OC_GW_OW-3B_20210716**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		20.0	22.8		ug/L		114	45 - 139		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*39*		*15 - 150*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*46 - 128*

Lab Sample ID: 440-286220-2 MSD — **Client Sample ID: OC_GW_OW-3B_20210716**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		20.0	22.8		ug/L		114	45 - 139	0	17

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*107*		*46 - 128*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-165913/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/22/21 15:27	07/30/21 20:02	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*36*		*15 - 150*	*07/22/21 15:27*	*07/30/21 20:02*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*46 - 128*	*07/22/21 15:27*	*07/30/21 20:02*	*1*

Lab Sample ID: LCS 570-165913/2-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 165913

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	22.8		ug/L		114	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*101*		*46 - 128*

Lab Sample ID: LCSD 570-165913/3-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 165913

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	22.5		ug/L		112	57 - 136	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*57*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*119*		*46 - 128*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 165109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286220-1	OC_GW_OW-3BN_20210716	Total/NA	Water	8260B	
440-286220-2	OC_GW_OW-3B_20210716	Total/NA	Water	8260B	
440-286220-3	OC_GW_OW-8B_20210716K	Total/NA	Water	8260B	
440-286220-4	OC_GW_OW-8B_20210716	Total/NA	Water	8260B	
440-286220-5	OC_GW_OW-10_20210716	Total/NA	Water	8260B	
440-286220-6	OC_TB1_20210716	Total/NA	Water	8260B	
MB 570-165109/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165109/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165109/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 165534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286220-2	OC_GW_OW-3B_20210716	Total/NA	Water	3510C	
440-286220-3	OC_GW_OW-8B_20210716K	Total/NA	Water	3510C	
440-286220-4	OC_GW_OW-8B_20210716	Total/NA	Water	3510C	
440-286220-5	OC_GW_OW-10_20210716	Total/NA	Water	3510C	
MB 570-165534/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-165534/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-165534/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-286220-2 MS	OC_GW_OW-3B_20210716	Total/NA	Water	3510C	
440-286220-2 MSD	OC_GW_OW-3B_20210716	Total/NA	Water	3510C	

Prep Batch: 165913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286220-1	OC_GW_OW-3BN_20210716	Total/NA	Water	3510C	
MB 570-165913/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-165913/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-165913/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 167748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286220-1	OC_GW_OW-3BN_20210716	Total/NA	Water	8270C SIM ID	165913
440-286220-2	OC_GW_OW-3B_20210716	Total/NA	Water	8270C SIM ID	165534
440-286220-3	OC_GW_OW-8B_20210716K	Total/NA	Water	8270C SIM ID	165534
440-286220-4	OC_GW_OW-8B_20210716	Total/NA	Water	8270C SIM ID	165534
440-286220-5	OC_GW_OW-10_20210716	Total/NA	Water	8270C SIM ID	165534
MB 570-165534/1-A	Method Blank	Total/NA	Water	8270C SIM ID	165534
MB 570-165913/1-A	Method Blank	Total/NA	Water	8270C SIM ID	165913
LCS 570-165534/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	165534
LCS 570-165913/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	165913
LCSD 570-165534/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	165534
LCSD 570-165913/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	165913
440-286220-2 MS	OC_GW_OW-3B_20210716	Total/NA	Water	8270C SIM ID	165534
440-286220-2 MSD	OC_GW_OW-3B_20210716	Total/NA	Water	8270C SIM ID	165534

Qualifiers

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

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Chain of Custody Record

TestAmerica
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TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/16 /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	_____ of _____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes: JLL 7/16/21
OC_GW_OW-1_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-1B_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-2_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_~~OW-8~~ OW-3BN_202107 16	7/16/2021	1445	Grab	GW	5			x	x	
OC_GW_OW-3B_202107 16	7/16/2021	1431	Grab	GW	5			x	x	
OC_GW_OW-7_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_~~OW-8~~ OW-8B_202107 16 K (KA)	7/16/2021	0825	Grab	GW	5			x	x	
OC_GW_OW-8B_202107 16	7/16/2021	0825	Grab	GW	5			x	x	
OC_GW_OW-9_202107	7/ /2021		Grab	GW	5			x	x	
OC_GW_OW-10_202107 16	7/16/2021	0815	Grab	GW	5			x	x	
OC_GW_OW-12_202107	7/ /2021		Grab	GW	5			x	x	
OC_TB 1 _202107 16	7/16/2021	0600	Grab	H2O	2			x		

440-286220 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JNA	7/16/21 1450	[signature]	EC-IRV	7/16/21 1450
[signature]	ECIRV	7/16/21 1551	[signature]	EC-IRV	7/16/21 1551
			Received in Laboratory by:		

0.9/0.9 ~~1.4/1.4~~ 112-89
JLL 7/16/21

8/2/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone. 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171524.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle.Roberts@Eurofinset.com	State of Origin California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286220-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/23/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Monthly/Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isotope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_GW_OW-3BN_20210716 (440-286220-1)	7/16/21	14:45 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1.Run in order J's.Maybe high
OC_GW_OW-3B_20210716 (440-286220-2)	7/16/21	14 31 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_GW_OW-8B_20210716K (440-286220-3)	7/16/21	08.25 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1.Run in order J's.Maybe high
OC_GW_OW-8B_20210716 (440-286220-4)	7/16/21	08.25 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_GW_OW-10_20210716 (440-286220-5)	7/16/21	08 15 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_TB1_20210716 (440-286220-6)	7/16/21	06:00 Pacific		Water			X		2	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time: 7/16/21 1745	Company EC-FRU	Received by:	Date/Time: 7/16/21 1745	Company EC
Relinquished by: Andy W	Date/Time: 7/16/21 1905	Company EC	Received by:	Date/Time: 7/16/21 1905	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No N/A	Cooler Temperature(s) °C and Other Remarks: 2.6/2.2 JLC

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286220-1
SDG Number: Omega Chemical

Login Number: 286220
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286220-1
SDG Number: Omega Chemical

Login Number: 286220
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/16/21 09:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286220-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-286220-1	OC_GW_OW-3BN_20210716	59							
440-286220-2	OC_GW_OW-3B_20210716	40							
440-286220-2 MS	OC_GW_OW-3B_20210716	39							
440-286220-2 MSD	OC_GW_OW-3B_20210716	42							
440-286220-3	OC_GW_OW-8B_20210716K	33							
440-286220-4	OC_GW_OW-8B_20210716	35							
440-286220-5	OC_GW_OW-10_20210716	35							
LCS 570-165534/2-A	Lab Control Sample	38							
LCS 570-165913/2-A	Lab Control Sample	42							
LCSD 570-165534/3-A	Lab Control Sample Dup	46							
LCSD 570-165913/3-A	Lab Control Sample Dup	57							
MB 570-165534/1-A	Method Blank	41							
MB 570-165913/1-A	Method Blank	36							

Surrogate Legend

DXE = 1,4-Dioxane-d8

DATA VALIDATION

FOR

GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA

ORGANIC ANALYSIS DATA
Volatile Organics and 1,4-Dioxane in Water

Laboratory Job Nos.

440-286117-1
440-286221-1

Analyses Performed By:

Eurofins Calscience
Garden Grove, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

September 24, 2021

EXECUTIVE SUMMARY

Validation of the volatile organic and semi-volatile organic (1,4-dioxane only) analysis data prepared by Eurofins Calscience Irvine for 10 ground water samples, and two trip blanks from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Stage 2B review was performed on the samples. The data were reported by the laboratory under Job Nos. 440-286117- and 440-286221-1. The following samples were reported:

SDG 440-286117-1

OC_GW_DPE-3_20210714
OC_GW_DPE-4_20210714
OC_GW_DPE-5_20210714
OC_GW_DPE-8_20210714
OC_GW_DPE-9_20210714
OC_GW_DPE-10D_20210715
OC_TB1_20210714

SDG 440-286221-1

OC_GW_OW-11_20210716
OC_GW_OW-13B_20210716
OC_GW_OW-13B_20210716K
OC_GW_PZ-9_20210716
OC_TB2_20210716

Based on the validation effort, the following data qualifiers were applied:

- The results for acetone in the following samples were qualified as estimated (UJ) due to low response in the continuing calibration (CC) standard:
  - OC_GW_OW-11_20210716
  - OC_GW_OW-13B_20210716
  - OC_GW_OW-13B_20210716K
  - OC_GW_PZ-9_20210716
  - OC_TB2_20210716
  - OC_GW_DPE-3_20210714
  - OC_GW_DPE-4_20210714
  - OC_GW_DPE-5_20210714
  - OC_GW_DPE-8_20210714
  - OC_GW_DPE-9_20210714
  - OC_GW_DPE-10D_20210715
  - OC_TB1_20210714

- The results for isopropyl alcohol and 2,2-dichloropropane in the following samples were qualified as estimated (UJ) due to low response in the CC standard:

  - OC_GW_OW-11_20210716
  - OC_GW_OW-13B_20210716
  - OC_GW_OW-13B_20210716K

- OC_GW_PZ-9_20210716
- OC_TB2_20210716

- The results for 1,4-dioxane in all samples were qualified as estimated (J, UJ) due to low surrogate, matrix spike (MS), MS duplicate (MSD), and/or laboratory control sample (LCS)/ LCS duplicate (LCSD) recoveries.

All other results were determined to be valid as reported. This report should be considered part of the data package for all future distributions of the data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW846 Method 8260B and Method 8270C Selected Ion Monitoring (SIM). The laboratory provided 'Level 4' data packages for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms SOPs ECS-002 and ECS-003, and the analytical methods. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. It is assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following qualifiers:

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

J- The result is an estimated quantity, but the result may be biased low.

NJ The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the sample.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit may be higher than reported.1

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates of July 14, 15 and 16, 2021. The samples were received at the laboratory on July 15 and 16, 2021.

The temperatures of the coolers upon receipt at the laboratory were acceptable (acceptable range is 4°C ±2°C). Documentation of proper pH was included in the data packages. All samples were prepared and analyzed within method holding times.

II. Documentation

No following documentation issues were observed during the validation effort.

The remainder of this report discusses the review effort for each of the parameters. The table below documents the Quality Control (QC) parameters reviewed. Only those quality excursions resulting in qualified data are discussed below. Quality control excursions having no impact to sample results are not discussed. If a result was qualified J+ or J- and J, the J qualifier takes precedence. If a result was qualified biased high and low for differing data quality excursions, the final qualifier is J with an indeterminate bias.

III. VOCs

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration (Initial Calibration [IC], IC Verification [ICV], Continuing Calibration [CC])	N
Laboratory and Field Blanks	Y
Surrogates	Y
Laboratory Control Samples (LCS)/ LCS Duplicates (LCSD)	Y
Field Duplicates	Y
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	n/a
Internal Standard Responses	Y
Compound Identification	Y
Compound Quantitation	Y

n/a-not analyzed

Calibration

Three initial calibrations (ICs) were reported in support of sample analyses. All reported average relative response factors (RRFs) were greater than the evaluation criterion (QC >0.05) and the relative standard deviations (RSDs) were acceptable (QC <20% RSD) or the correlation coefficient was acceptable (≥0.99). An initial calibration verification (ICV) standard was analyzed following each IC and all recoveries were acceptable.

Continuing calibration (CC) standards were analyzed at the appropriate frequency. All RRFs and percent differences were acceptable (%D<20) with the exceptions noted below:

CCV	Compound	%D	Samples Affected
GCMSWW 7/20/2021	Acetone	38.8	OC_GW_OW-11_20210716 OC_GW_OW-13B_20210716 OC_GW_OW-13B_20210716K OC_GW_PZ-9_20210716 OC_TB2_20210716
	Isopropyl alcohol	37.3	
	2,2-Dichloropropane	34.0	
GCMSUU 7/20/2021	Acetone	27.9	OC_GW_DPE-3_20210714 OC_GW_DPE-4_20210714 OC_GW_DPE-5_20210714 OC_GW_DPE-8_20210714 OC_GW_DPE-9_20210714 OC_GW_DPE-10D_20210715 OC_TB1_20210714

In all instances, the percent difference represents a decrease in instrument response. Sample results were qualified as estimated (J-, UJ) due to low response in the CC.

IV. SVOCs – 1,4-Dioxane only

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration - IC, ICV, CC	Y
Laboratory and Field Blanks	Y
Surrogates	N
LCS/LCSD	N
Field Duplicates	Y
MS/MSD	N
Internal Standard Responses	Y
Compound Identification	Y
Compound Quantitation	N

N/A = not applicable

Compound Quantitation

The laboratory reported results for 1,4-dioxane using isotope dilution. Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The concentration of 1,4-dioxane was corrected as indicated in the table below. Because isotope dilution was not used, sample results were qualified as estimated (J-, UJ) due to low surrogate, MS/MSD and/or LCS/LCSD recoveries.

Sample	Original Result (ug/L)	Corrected result (ug/L)	QC %R	1,4-Dioxane-d8 Surrogate %R
SDGs 440-286117				
OC_GW_DPE-3_20210714	5.3	2.1	N/A	40
OC_GW_DPE-4_20210714	13	4.8		36
OC_GW_DPE-5_20210714	30	14		48
OC_GW_DPE-8_20210714	5.8	2.4		41
OC_GW_DPE-9_20210714	28	13		45
OC_GW_DPE-10D_20210715	29	13		45
OC_GW_EW-3_20210714MS	24	10	50	42
OC_GW_EW-3_20210714MSD	25	11	55	43
LCS 164889	24	14	70	59
LCSD 164889	24	17	85	73
SDG 440-286221-1				
OC_GW_PZ-9_20210716	410	150	N/A	37
OC_GW_OW-11_20210716	ND	ND		41
OC_GW_OW-13B_20210716	ND	ND		34
OC_GW_OW-13B_20210716K	ND	ND		52
OC_GW_OW-3B_20210716MS	23	8.9		39
OC_GW_OW-3B_20210716MSD	23	9.6		42
LCS 165534	24	9.3	46	46
LCSD 165534	23	11	55	57

ATTACHMENT A

DATA SUMMARY FORMS
440-286117-1
440-286221-1

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_GW_DPE-10D_20210715		OC_GW_DPE-10D_20210715		OC_GW_DPE-3_20210714		OC_GW_DPE-4_20210714	
		Lab Sample ID	440-286117-6		440-286117-6		440-286117-1		440-286117-2	
		Dilution Factor	1		20		1		1	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	--	--	0.50	U	3.0	
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.30	J	--	--	0.098	J	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.74		--	--	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	34		--	--	0.90		15	
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	3.8		--	--	1.0		0.90	
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ	--	--	8.0	UJ	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	21		--	--	0.57		12	
SW8260B	Chloromethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	--	--	0.50	U	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_GW_DPE-10D_20210715		OC_GW_DPE-10D_20210715		OC_GW_DPE-3_20210714		OC_GW_DPE-4_20210714	
		Lab Sample ID	440-286117-6		440-286117-6		440-286117-1		440-286117-2	
		Dilution Factor	1		20		1		1	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	19		--	--	5.2		11	
SW8260B	Freon 113	ug/l	44		--	--	65		--	--
SW8260B	Freon 12	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U	--	--	40	U	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Styrene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	--	--	250		59		--	--
SW8260B	Toluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	42		--	--	2.2		38	
SW8260B	Vinyl chloride	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	13	J-	--	--	2.1	J-	4.8	J-

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_GW_DPE-4_20210714		OC_GW_DPE-5_20210714		OC_GW_DPE-8_20210714		OC_GW_DPE-9_20210714	
		Lab Sample ID	440-286117-2		440-286117-3		440-286117-4		440-286117-5	
		Dilution Factor	20		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	--	--	45		0.50	U	17	
SW8260B	1,1-Dichloropropene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	--	--	0.33	J	0.50	U	1.1	
SW8260B	1,2-Dichloropropane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	2-Chlorotoluene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Acetone	ug/l	--	--	8.0	UJ	8.0	UJ	8.0	UJ
SW8260B	Benzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	--	--	0.74		0.50	U	4.7	
SW8260B	Chloromethane	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	--	--	0.50	U	0.50	U	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_GW_DPE-4_20210714		OC_GW_DPE-5_20210714		OC_GW_DPE-8_20210714		OC_GW_DPE-9_20210714	
		Lab Sample ID	440-286117-2		440-286117-3		440-286117-4		440-286117-5	
		Dilution Factor	20		1		1		1	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	--	--	5.3		1.4		10	
SW8260B	Freon 113	ug/l	310		6.8		2.0		21	
SW8260B	Freon 12	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	--	--	40	U	40	U	40	U
SW8260B	Isopropylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	--	--	1.0	U	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Styrene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	300		95		18		76	
SW8260B	Toluene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	--	--	11		2.8		8.5	
SW8260B	Vinyl chloride	ug/l	--	--	0.50	U	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	--	--	14	J-	2.4	J-	13	J-

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_TB1_20210714	
		Lab Sample ID	440-286117-7	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	U
SW8260B	2-Chlorotoluene	ug/l	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U
SW8260B	Bromoform	ug/l	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U
SW8260B	Chloroform	ug/l	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286117-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/14/2021 - 7/15/2021

		Field Sample ID	OC_TB1_20210714	
		Lab Sample ID	440-286117-7	
		Dilution Factor	1	
Analytical Method	Parameter	Unit		
SW8260B	Dibromomethane	ug/l	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U
SW8260B	Freon 11	ug/l	0.50	U
SW8260B	Freon 113	ug/l	0.50	U
SW8260B	Freon 12	ug/l	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	U
SW8260B	Isopropylbenzene	ug/l	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U
SW8260B	Styrene	ug/l	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	0.50	U
SW8260B	Toluene	ug/l	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	--	--

Data Summary Form for GROUND WATER Samples
Job No. 440-286221-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-11_20210716		OC_GW_OW-11_20210716		OC_GW_OW-13B_20210716		OC_GW_OW-13B_20210716K	
		Lab Sample ID	440-286221-1		440-286221-1		440-286221-2		440-286221-3	
		Dilution Factor	1		5		1		1	
Analytical Method	Parameter	Unit								
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	22		--	--	0.50	U	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	UJ	--	--	0.50	UJ	0.50	UJ
SW8260B	2-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ	--	--	8.0	UJ	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Chloroform	ug/l	0.49	J	--	--	0.50	U	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	--	--	0.50	U	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286221-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_OW-11_20210716		OC_GW_OW-11_20210716		OC_GW_OW-13B_20210716		OC_GW_OW-13B_20210716K	
		Lab Sample ID	440-286221-1		440-286221-1		440-286221-2		440-286221-3	
		Dilution Factor	1		5		1		1	
Analytical Method	Parameter	Unit								
SW8260B	Dibromomethane	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Freon 11	ug/l	11		--	--	0.50	U	0.50	U
SW8260B	Freon 113	ug/l	30		--	--	0.50	U	0.50	U
SW8260B	Freon 12	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	UJ	--	--	40	UJ	40	UJ
SW8260B	Isopropylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	--	--	1.0	U	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Styrene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	--	--	150		21		20	
SW8260B	Toluene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	37		--	--	0.50	U	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U	--	--	0.50	U	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	0.10	UJ	--	--	0.10	UJ	0.10	UJ

Data Summary Form for GROUND WATER Samples
Job No. 440-286221-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_PZ-9_20210716		OC_GW_PZ-9_20210716		OC_TB2_20210716	
		Lab Sample ID	440-286221-4		440-286221-4		440-286221-5	
		Dilution Factor	1		10		1	
Analytical Method	Parameter	Unit						
SW8260B	1,1,1,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,1,1-Trichloroethane (TCA)	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,1,2,2-Tetrachloroethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,1,2-Trichloroethane	ug/l	0.087	J	--	--	0.50	U
SW8260B	1,1-Dichloroethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,1-Dichloroethene	ug/l	6.3		--	--	0.50	U
SW8260B	1,1-Dichloropropene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2,3-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2,3-Trichloropropane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2,4-Trichlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2,4-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2-Dibromo-3-chloropropane	ug/l	1.0	U	--	--	1.0	U
SW8260B	1,2-Dibromoethane (EDB)	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,2-Dichloroethane	ug/l	2.1		--	--	0.50	U
SW8260B	1,2-Dichloropropane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,3,5-Trimethylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,3-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,3-Dichloropropane	ug/l	0.50	U	--	--	0.50	U
SW8260B	1,4-Dichlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	2,2-Dichloropropane	ug/l	0.50	UJ	--	--	0.50	UJ
SW8260B	2-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U
SW8260B	4-Chlorotoluene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Acetone	ug/l	8.0	UJ	--	--	8.0	UJ
SW8260B	Benzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Bromobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Bromochloromethane	ug/l	1.0	U	--	--	1.0	U
SW8260B	Bromodichloromethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	Bromoform	ug/l	0.50	U	--	--	0.50	U
SW8260B	Bromomethane	ug/l	1.0	U	--	--	1.0	U
SW8260B	Carbon tetrachloride	ug/l	0.50	U	--	--	0.50	U
SW8260B	Chlorobenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Chloroethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	Chloroform	ug/l	7.3		--	--	0.50	U
SW8260B	Chloromethane	ug/l	1.0	U	--	--	1.0	U
SW8260B	cis-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U
SW8260B	cis-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Dibromochloromethane	ug/l	0.50	U	--	--	0.50	U

Data Summary Form for GROUND WATER Samples
Job No. 440-286221-1
Site Name: Omega OU1/OU3
ddms Project No: proj_15473139D
Sample Date Range: 7/16/2021 - 7/16/2021

		Field Sample ID	OC_GW_PZ-9_20210716		OC_GW_PZ-9_20210716		OC_TB2_20210716	
		Lab Sample ID	440-286221-4		440-286221-4		440-286221-5	
		Dilution Factor	1		10		1	
Analytical Method	Parameter	Unit						
SW8260B	Dibromomethane	ug/l	0.50	U	--	--	0.50	U
SW8260B	Ethylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Freon 11	ug/l	6.0		--	--	0.50	U
SW8260B	Freon 113	ug/l	16		--	--	0.50	U
SW8260B	Freon 12	ug/l	1.0	U	--	--	1.0	U
SW8260B	Hexachlorobutadiene	ug/l	1.0	U	--	--	1.0	U
SW8260B	Isopropyl Alcohol (Isopropanol)	ug/l	40	UJ	--	--	40	UJ
SW8260B	Isopropylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	m,p-Xylene	ug/l	1.0	U	--	--	1.0	U
SW8260B	Methyl Tert-Butyl Ether	ug/l	0.50	U	--	--	0.50	U
SW8260B	Methylene chloride	ug/l	1.0	U	--	--	1.0	U
SW8260B	Naphthalene	ug/l	1.0	U	--	--	1.0	U
SW8260B	N-butylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	o-Xylene	ug/l	0.50	U	--	--	0.50	U
SW8260B	p-Isopropyltoluene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Propylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	sec-Butylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Styrene	ug/l	0.50	U	--	--	0.50	U
SW8260B	tert-Butylbenzene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Tetrachloroethene (PCE)	ug/l	58		--	--	0.50	U
SW8260B	Toluene	ug/l	0.50	U	--	--	0.50	U
SW8260B	trans-1,2-Dichloroethene	ug/l	0.50	U	--	--	0.50	U
SW8260B	trans-1,3-Dichloropropene	ug/l	0.50	U	--	--	0.50	U
SW8260B	Trichloroethene (TCE)	ug/l	6.3		--	--	0.50	U
SW8260B	Vinyl chloride	ug/l	0.50	U	--	--	0.50	U
SW8270C SIM	1,4-Dioxane	ug/l	--	--	150	J-	--	--

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ANALYTICAL REPORT

Eurofins Calscience Irvine
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Tel: (949)261-1022

Laboratory Job ID: 440-286117-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/2/2021 3:03:40 PM

Danielle Roberts, Senior Project Manager
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LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286117-1	OC_GW_DPE-3_20210714	Water	07/14/21 07:15	07/15/21 16:03
440-286117-2	OC_GW_DPE-4_20210714	Water	07/14/21 07:30	07/15/21 16:03
440-286117-3	OC_GW_DPE-5_20210714	Water	07/14/21 08:30	07/15/21 16:03
440-286117-4	OC_GW_DPE-8_20210714	Water	07/14/21 07:53	07/15/21 16:03
440-286117-5	OC_GW_DPE-9_20210714	Water	07/14/21 09:05	07/15/21 16:03
440-286117-6	OC_GW_DPE-10D_20210715	Water	07/15/21 11:32	07/15/21 16:03
440-286117-7	OC_TB1_20210714	Water	07/14/21 06:00	07/15/21 16:03

Job ID: 440-286117-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286117-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2021 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165109. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165270. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-3_20210714 — Lab Sample ID: 440-286117-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	65		0.50	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	0.098	J	0.50	0.085	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	0.90		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	1.0		0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	0.57		0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	59		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	2.2		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	5.2		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	5.3		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_DPE-4_20210714 — Lab Sample ID: 440-286117-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.0		0.50	0.27	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	15		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.90		0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	12		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	38		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	11		0.50	0.30	ug/L	1		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	310		10	5.0	ug/L	20		8260B	Total/NA
Tetrachloroethene - DL	300		10	5.8	ug/L	20		8260B	Total/NA
1,4-Dioxane	13		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_DPE-5_20210714 — Lab Sample ID: 440-286117-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	6.8		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	45		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.33	J	0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	0.74		0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	95		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	11		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	5.3		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	30		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_DPE-8_20210714 — Lab Sample ID: 440-286117-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0		0.50	0.25	ug/L	1		8260B	Total/NA
Tetrachloroethene	18		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	2.8		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	1.4		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	5.8		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_DPE-9_20210714 — Lab Sample ID: 440-286117-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	21		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	17		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	1.1		0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	4.7		0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	76		0.50	0.29	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-9_20210714 (Continued) — Lab Sample ID: 440-286117-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	8.5		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	10		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	28		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_GW_DPE-10D_20210715 — Lab Sample ID: 440-286117-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	44		0.50	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	0.30	J	0.50	0.085	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.74		0.50	0.35	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	34		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	3.8		0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	21		0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	42		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	19		0.50	0.30	ug/L	1		8260B	Total/NA
Tetrachloroethene - DL	250		10	5.8	ug/L	20		8260B	Total/NA
1,4-Dioxane	29		0.10	0.038	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_TB1_20210714 — Lab Sample ID: 440-286117-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-3_20210714

Lab Sample ID: 440-286117-1

Date Collected: 07/14/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 12:30	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 12:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 12:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**65**		0.50	0.25	ug/L			07/20/21 12:30	1
1,1,2-Trichloroethane	**0.098**	**J**	0.50	0.085	ug/L			07/20/21 12:30	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 12:30	1
1,1-Dichloroethene	**0.90**		0.50	0.39	ug/L			07/20/21 12:30	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 12:30	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 12:30	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 12:30	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 12:30	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:30	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 12:30	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 12:30	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 12:30	1
1,2-Dichloroethane	**1.0**		0.50	0.15	ug/L			07/20/21 12:30	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 12:30	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 12:30	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 12:30	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 12:30	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 12:30	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 12:30	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 12:30	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 12:30	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 12:30	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 12:30	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 12:30	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 12:30	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 12:30	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 12:30	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 12:30	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 12:30	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 12:30	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 12:30	1
Chloroform	**0.57**		0.50	0.28	ug/L			07/20/21 12:30	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 12:30	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 12:30	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 12:30	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 12:30	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 12:30	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 12:30	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 12:30	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 12:30	1
Isopropanol	ND		40	40	ug/L			07/20/21 12:30	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 12:30	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 12:30	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 12:30	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 12:30	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 12:30	1

Client Sample ID: OC_GW_DPE-3_20210714

Lab Sample ID: 440-286117-1

Date Collected: 07/14/21 07:15
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:30	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 12:30	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 12:30	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 12:30	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:30	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 12:30	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:30	1
Tetrachloroethene	**59**		0.50	0.29	ug/L			07/20/21 12:30	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 12:30	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 12:30	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 12:30	1
Trichloroethene	**2.2**		0.50	0.29	ug/L			07/20/21 12:30	1
Trichlorofluoromethane	**5.2**		0.50	0.30	ug/L			07/20/21 12:30	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 12:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*24*	*T J*	*ug/L*		*1.50*			*07/20/21 12:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*07/20/21 12:30*	*1*
4-Bromofluorobenzene (Surr)	*88*		*71 - 120*		*07/20/21 12:30*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/20/21 12:30*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/20/21 12:30*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.3**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 18:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 150*	*07/19/21 11:01*	*07/30/21 18:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*101*		*46 - 128*	*07/19/21 11:01*	*07/30/21 18:27*	*1*

Client Sample ID: OC_GW_DPE-4_20210714

Lab Sample ID: 440-286117-2

Date Collected: 07/14/21 07:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 12:58	1
1,1,1-Trichloroethane	**3.0**		0.50	0.27	ug/L			07/20/21 12:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 12:58	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 12:58	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 12:58	1
1,1-Dichloroethene	**15**		0.50	0.39	ug/L			07/20/21 12:58	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 12:58	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 12:58	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 12:58	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 12:58	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 12:58	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-4_20210714

Lab Sample ID: 440-286117-2

Date Collected: 07/14/21 07:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 12:58	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 12:58	1
1,2-Dichloroethane	**0.90**		0.50	0.15	ug/L			07/20/21 12:58	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 12:58	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 12:58	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 12:58	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 12:58	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 12:58	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 12:58	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 12:58	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 12:58	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 12:58	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 12:58	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 12:58	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 12:58	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 12:58	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 12:58	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 12:58	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 12:58	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 12:58	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 12:58	1
Chloroform	**12**		0.50	0.28	ug/L			07/20/21 12:58	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 12:58	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 12:58	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 12:58	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 12:58	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 12:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 12:58	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 12:58	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 12:58	1
Isopropanol	ND		40	40	ug/L			07/20/21 12:58	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 12:58	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 12:58	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 12:58	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 12:58	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 12:58	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:58	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 12:58	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 12:58	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 12:58	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:58	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 12:58	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:58	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 12:58	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 12:58	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 12:58	1
Trichloroethene	**38**		0.50	0.29	ug/L			07/20/21 12:58	1
Trichlorofluoromethane	**11**		0.50	0.30	ug/L			07/20/21 12:58	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 12:58	1

Client Sample ID: OC_GW_DPE-4_20210714

Lab Sample ID: 440-286117-2

Date Collected: 07/14/21 07:30
Matrix: Water
Date Received: 07/15/21 16:03

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	5.5	T J	ug/L		1.50			07/20/21 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		68 - 135		07/20/21 12:58	1
4-Bromofluorobenzene (Surr)	84		71 - 120		07/20/21 12:58	1
Dibromofluoromethane (Surr)	108		80 - 120		07/20/21 12:58	1
Toluene-d8 (Surr)	100		80 - 120		07/20/21 12:58	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**310**		10	5.0	ug/L			07/21/21 17:14	20
Tetrachloroethene	**300**		10	5.8	ug/L			07/21/21 17:14	20

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	840	T J	ug/L		1.76			07/21/21 17:14	20
Unknown	270	T J	ug/L		1.87			07/21/21 17:14	20
Unknown	320	T J	ug/L		1.99			07/21/21 17:14	20
Unknown	520	T J	ug/L		2.06			07/21/21 17:14	20
Unknown	350	T J	ug/L		2.14			07/21/21 17:14	20
Unknown	330	T J	ug/L		2.22			07/21/21 17:14	20
Unknown	260	T J	ug/L		2.30			07/21/21 17:14	20
Unknown	300	T J	ug/L		2.37			07/21/21 17:14	20
Unknown	310	T J	ug/L		2.39			07/21/21 17:14	20
Unknown	330	T J	ug/L		3.17			07/21/21 17:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		68 - 135		07/21/21 17:14	20
4-Bromofluorobenzene (Surr)	89		71 - 120		07/21/21 17:14	20
Dibromofluoromethane (Surr)	106		80 - 120		07/21/21 17:14	20
Toluene-d8 (Surr)	99		80 - 120		07/21/21 17:14	20

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**13**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 18:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	36		15 - 150	07/19/21 11:01	07/30/21 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	101		46 - 128	07/19/21 11:01	07/30/21 18:43	1

Client Sample ID: OC_GW_DPE-5_20210714

Lab Sample ID: 440-286117-3

Date Collected: 07/14/21 08:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 13:26	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 13:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 13:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**6.8**		0.50	0.25	ug/L			07/20/21 13:26	1

Client Sample ID: OC_GW_DPE-5_20210714

Lab Sample ID: 440-286117-3

Date Collected: 07/14/21 08:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 13:26	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 13:26	1
1,1-Dichloroethene	**45**		0.50	0.39	ug/L			07/20/21 13:26	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 13:26	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 13:26	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 13:26	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 13:26	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 13:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 13:26	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 13:26	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 13:26	1
1,2-Dichloroethane	**0.33**	**J**	0.50	0.15	ug/L			07/20/21 13:26	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 13:26	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 13:26	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 13:26	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 13:26	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 13:26	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 13:26	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 13:26	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 13:26	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 13:26	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 13:26	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 13:26	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 13:26	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 13:26	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 13:26	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 13:26	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 13:26	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 13:26	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 13:26	1
Chloroform	**0.74**		0.50	0.28	ug/L			07/20/21 13:26	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 13:26	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 13:26	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 13:26	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 13:26	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 13:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 13:26	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 13:26	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 13:26	1
Isopropanol	ND		40	40	ug/L			07/20/21 13:26	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 13:26	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 13:26	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 13:26	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 13:26	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 13:26	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 13:26	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 13:26	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 13:26	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 13:26	1

Client Sample ID: OC_GW_DPE-5_20210714

Lab Sample ID: 440-286117-3

Date Collected: 07/14/21 08:30
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 13:26	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 13:26	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 13:26	1
Tetrachloroethene	**95**		0.50	0.29	ug/L			07/20/21 13:26	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 13:26	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 13:26	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 13:26	1
Trichloroethene	**11**		0.50	0.29	ug/L			07/20/21 13:26	1
Trichlorofluoromethane	**5.3**		0.50	0.30	ug/L			07/20/21 13:26	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 13:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*33*	*T J*	*ug/L*		*1.50*			*07/20/21 13:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*68 - 135*		*07/20/21 13:26*	*1*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/20/21 13:26*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 120*		*07/20/21 13:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/20/21 13:26*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**30**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 18:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*48*		*15 - 150*	*07/19/21 11:01*	*07/30/21 18:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*101*		*46 - 128*	*07/19/21 11:01*	*07/30/21 18:59*	*1*

Client Sample ID: OC_GW_DPE-8_20210714

Lab Sample ID: 440-286117-4

Date Collected: 07/14/21 07:53
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 13:53	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 13:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 13:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.0**		0.50	0.25	ug/L			07/20/21 13:53	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 13:53	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 13:53	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 13:53	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 13:53	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 13:53	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 13:53	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 13:53	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 13:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 13:53	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 13:53	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 13:53	1

Client Sample ID: OC_GW_DPE-8_20210714

Lab Sample ID: 440-286117-4

Date Collected: 07/14/21 07:53
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 13:53	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 13:53	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 13:53	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 13:53	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 13:53	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 13:53	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 13:53	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 13:53	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 13:53	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 13:53	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 13:53	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 13:53	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 13:53	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 13:53	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 13:53	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 13:53	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 13:53	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 13:53	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 13:53	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 13:53	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 13:53	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 13:53	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 13:53	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 13:53	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 13:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 13:53	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 13:53	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 13:53	1
Isopropanol	ND		40	40	ug/L			07/20/21 13:53	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 13:53	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 13:53	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 13:53	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 13:53	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 13:53	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 13:53	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 13:53	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 13:53	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 13:53	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 13:53	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 13:53	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 13:53	1
Tetrachloroethene	**18**		0.50	0.29	ug/L			07/20/21 13:53	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 13:53	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 13:53	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 13:53	1
Trichloroethene	**2.8**		0.50	0.29	ug/L			07/20/21 13:53	1
Trichlorofluoromethane	**1.4**		0.50	0.30	ug/L			07/20/21 13:53	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 13:53	1

Client Sample ID: OC_GW_DPE-8_20210714

Lab Sample ID: 440-286117-4
Date Collected: 07/14/21 07:53
Matrix: Water
Date Received: 07/15/21 16:03

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	95	T J	ug/L		1.44			07/20/21 13:53	1
Unknown	730	T J	ug/L		1.50			07/20/21 13:53	1
Unknown	8.1	T J	ug/L		3.47			07/20/21 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		68 - 135		07/20/21 13:53	1
4-Bromofluorobenzene (Surr)	90		71 - 120		07/20/21 13:53	1
Dibromofluoromethane (Surr)	108		80 - 120		07/20/21 13:53	1
Toluene-d8 (Surr)	100		80 - 120		07/20/21 13:53	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.8**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 19:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	41		15 - 150	07/19/21 11:01	07/30/21 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	98		46 - 128	07/19/21 11:01	07/30/21 19:15	1

Client Sample ID: OC_GW_DPE-9_20210714

Lab Sample ID: 440-286117-5
Date Collected: 07/14/21 09:05
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 14:21	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 14:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 14:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**21**		0.50	0.25	ug/L			07/20/21 14:21	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 14:21	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 14:21	1
1,1-Dichloroethene	**17**		0.50	0.39	ug/L			07/20/21 14:21	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 14:21	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 14:21	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 14:21	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 14:21	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 14:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 14:21	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 14:21	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 14:21	1
1,2-Dichloroethane	**1.1**		0.50	0.15	ug/L			07/20/21 14:21	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 14:21	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 14:21	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 14:21	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 14:21	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 14:21	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 14:21	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 14:21	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 14:21	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 14:21	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-9_20210714

Lab Sample ID: 440-286117-5

Date Collected: 07/14/21 09:05
Date Received: 07/15/21 16:03

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	0.27	ug/L			07/20/21 14:21	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 14:21	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 14:21	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 14:21	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 14:21	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 14:21	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 14:21	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 14:21	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 14:21	1
Chloroform	**4.7**		0.50	0.28	ug/L			07/20/21 14:21	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 14:21	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 14:21	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 14:21	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 14:21	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 14:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 14:21	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 14:21	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 14:21	1
Isopropanol	ND		40	40	ug/L			07/20/21 14:21	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 14:21	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 14:21	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 14:21	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 14:21	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 14:21	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 14:21	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 14:21	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 14:21	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 14:21	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 14:21	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 14:21	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 14:21	1
Tetrachloroethene	**76**		0.50	0.29	ug/L			07/20/21 14:21	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 14:21	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 14:21	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 14:21	1
Trichloroethene	**8.5**		0.50	0.29	ug/L			07/20/21 14:21	1
Trichlorofluoromethane	**10**		0.50	0.30	ug/L			07/20/21 14:21	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 14:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*44*	*T J*	*ug/L*		*1.50*			*07/20/21 14:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*68 - 135*		*07/20/21 14:21*	*1*
4-Bromofluorobenzene (Surr)	*82*		*71 - 120*		*07/20/21 14:21*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/20/21 14:21*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 14:21*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-9_20210714

Lab Sample ID: 440-286117-5
Date Collected: 07/14/21 09:05
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**28**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 19:31	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*45*		*15 - 150*	*07/19/21 11:01*	*07/30/21 19:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*105*		*46 - 128*	*07/19/21 11:01*	*07/30/21 19:31*	*1*

Client Sample ID: OC_GW_DPE-10D_20210715

Lab Sample ID: 440-286117-6
Date Collected: 07/15/21 11:32
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 14:49	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 14:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 14:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**44**		0.50	0.25	ug/L			07/20/21 14:49	1
1,1,2-Trichloroethane	**0.30**	**J**	0.50	0.085	ug/L			07/20/21 14:49	1
1,1-Dichloroethane	**0.74**		0.50	0.35	ug/L			07/20/21 14:49	1
1,1-Dichloroethene	**34**		0.50	0.39	ug/L			07/20/21 14:49	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 14:49	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 14:49	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 14:49	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 14:49	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 14:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 14:49	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 14:49	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 14:49	1
1,2-Dichloroethane	**3.8**		0.50	0.15	ug/L			07/20/21 14:49	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 14:49	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 14:49	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 14:49	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 14:49	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 14:49	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 14:49	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 14:49	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 14:49	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 14:49	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 14:49	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 14:49	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 14:49	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 14:49	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 14:49	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 14:49	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 14:49	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 14:49	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 14:49	1
Chloroform	**21**		0.50	0.28	ug/L			07/20/21 14:49	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 14:49	1

Client Sample ID: OC_GW_DPE-10D_20210715

Lab Sample ID: 440-286117-6

Date Collected: 07/15/21 11:32
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 14:49	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 14:49	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 14:49	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 14:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 14:49	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 14:49	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 14:49	1
Isopropanol	ND		40	40	ug/L			07/20/21 14:49	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 14:49	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 14:49	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 14:49	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 14:49	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 14:49	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 14:49	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 14:49	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 14:49	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 14:49	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 14:49	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 14:49	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 14:49	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 14:49	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 14:49	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 14:49	1
Trichloroethene	**42**		0.50	0.29	ug/L			07/20/21 14:49	1
Trichlorofluoromethane	**19**		0.50	0.30	ug/L			07/20/21 14:49	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 14:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*23*	*T J*	*ug/L*		*1.50*			*07/20/21 14:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 135*		*07/20/21 14:49*	*1*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/20/21 14:49*	*1*
Dibromofluoromethane (Surr)	*114*		*80 - 120*		*07/20/21 14:49*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/20/21 14:49*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**250**		10	5.8	ug/L			07/21/21 17:39	20

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*590*	*T J*	*ug/L*		*1.72*			*07/21/21 17:39*	*20*
Unknown	*350*	*T J*	*ug/L*		*2.11*			*07/21/21 17:39*	*20*
Unknown	*360*	*T J*	*ug/L*		*2.30*			*07/21/21 17:39*	*20*
Unknown	*440*	*T J*	*ug/L*		*2.56*			*07/21/21 17:39*	*20*
Unknown	*200*	*T J*	*ug/L*		*2.67*			*07/21/21 17:39*	*20*
Unknown	*210*	*T J*	*ug/L*		*2.73*			*07/21/21 17:39*	*20*
Unknown	*240*	*T J*	*ug/L*		*2.90*			*07/21/21 17:39*	*20*
Unknown	*300*	*T J*	*ug/L*		*2.95*			*07/21/21 17:39*	*20*
Unknown	*220*	*T J*	*ug/L*		*3.21*			*07/21/21 17:39*	*20*

Client Sample ID: OC_GW_DPE-10D_20210715

Lab Sample ID: 440-286117-6
Date Collected: 07/15/21 11:32
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	330	T J	ug/L		3.29			07/21/21 17:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		68 - 135		07/21/21 17:39	20
4-Bromofluorobenzene (Surr)	90		71 - 120		07/21/21 17:39	20
Dibromofluoromethane (Surr)	106		80 - 120		07/21/21 17:39	20
Toluene-d8 (Surr)	100		80 - 120		07/21/21 17:39	20

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**29**		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 19:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	45		15 - 150	07/19/21 11:01	07/30/21 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	104		46 - 128	07/19/21 11:01	07/30/21 19:47	1

Client Sample ID: OC_TB1_20210714

Lab Sample ID: 440-286117-7
Date Collected: 07/14/21 06:00
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 12:02	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 12:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 12:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 12:02	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 12:02	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 12:02	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 12:02	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 12:02	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 12:02	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 12:02	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 12:02	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 12:02	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 12:02	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 12:02	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 12:02	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 12:02	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 12:02	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 12:02	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 12:02	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 12:02	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 12:02	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 12:02	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 12:02	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 12:02	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 12:02	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 12:02	1

Client Sample ID: OC_TB1_20210714

Lab Sample ID: 440-286117-7

Date Collected: 07/14/21 06:00
Matrix: Water
Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 12:02	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 12:02	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 12:02	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 12:02	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 12:02	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 12:02	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 12:02	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 12:02	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 12:02	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 12:02	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 12:02	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 12:02	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 12:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 12:02	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 12:02	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 12:02	1
Isopropanol	ND		40	40	ug/L			07/20/21 12:02	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 12:02	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 12:02	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 12:02	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 12:02	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 12:02	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 12:02	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 12:02	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 12:02	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 12:02	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:02	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 12:02	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 12:02	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 12:02	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 12:02	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 12:02	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 12:02	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 12:02	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 12:02	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 12:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*100*	*T J N*	*ug/L*		*1.43*	*69493-11-4*		*07/20/21 12:02*	*1*
Germacyclohexane, 1,1-dichloro-	*220*	*T J N*	*ug/L*		*1.45*	*56438-28-9*		*07/20/21 12:02*	*1*
Unknown	*850*	*T J*	*ug/L*		*1.50*			*07/20/21 12:02*	*1*
Unknown	*24*	*T J*	*ug/L*		*1.77*			*07/20/21 12:02*	*1*
p-Methoxyamphetamine	*29*	*T J N*	*ug/L*		*3.50*	*1000125-76-1*		*07/20/21 12:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 135*		*07/20/21 12:02*	*1*
4-Bromofluorobenzene (Surr)	*88*		*71 - 120*		*07/20/21 12:02*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*07/20/21 12:02*	*1*

Client Sample ID: OC_TB1_20210714

Lab Sample ID: 440-286117-7

Date Collected: 07/14/21 06:00

Matrix: Water

Date Received: 07/15/21 16:03

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120		07/20/21 12:02	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-135)	(71-120)	(80-120)	(80-120)
440-286117-1	OC_GW_DPE-3_20210714	106	88	105	98
440-286117-2	OC_GW_DPE-4_20210714	113	84	108	100
440-286117-2 - DL	OC_GW_DPE-4_20210714	116	89	106	99
440-286117-3	OC_GW_DPE-5_20210714	115	87	111	101
440-286117-4	OC_GW_DPE-8_20210714	112	90	108	100
440-286117-5	OC_GW_DPE-9_20210714	113	82	108	100
440-286117-6	OC_GW_DPE-10D_20210715	114	87	114	101
440-286117-6 - DL	OC_GW_DPE-10D_20210715	117	90	106	100
440-286117-7	OC_TB1_20210714	99	88	104	102
LCS 570-165109/3	Lab Control Sample	99	103	102	101
LCS 570-165270/3	Lab Control Sample	112	97	106	98
LCSD 570-165109/4	Lab Control Sample Dup	100	105	101	100
LCSD 570-165270/4	Lab Control Sample Dup	110	97	108	99
MB 570-165109/6	Method Blank	106	88	107	99
MB 570-165270/6	Method Blank	114	92	105	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-286115-D-1-A MS	Matrix Spike	111
440-286115-D-1-B MSD	Matrix Spike Duplicate	95
440-286117-1	OC_GW_DPE-3_20210714	101
440-286117-2	OC_GW_DPE-4_20210714	101
440-286117-3	OC_GW_DPE-5_20210714	101
440-286117-4	OC_GW_DPE-8_20210714	98
440-286117-5	OC_GW_DPE-9_20210714	105
440-286117-6	OC_GW_DPE-10D_20210715	104
LCS 570-164889/2-A	Lab Control Sample	79
LCSD 570-164889/3-A	Lab Control Sample Dup	77
MB 570-164889/1-A	Method Blank	78

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-3_20210714 — Lab Sample ID: 440-286117-1

Date Collected: 07/14/21 07:15 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 12:30	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 18:27	AJ2Q	ECL 1

Client Sample ID: OC_GW_DPE-4_20210714 — Lab Sample ID: 440-286117-2

Date Collected: 07/14/21 07:30 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 12:58	UJHB	ECL 2
Total/NA	Analysis	8260B	DL	20	20 mL	20 mL	165270	07/21/21 17:14	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 18:43	AJ2Q	ECL 1

Client Sample ID: OC_GW_DPE-5_20210714 — Lab Sample ID: 440-286117-3

Date Collected: 07/14/21 08:30 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 13:26	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 18:59	AJ2Q	ECL 1

Client Sample ID: OC_GW_DPE-8_20210714 — Lab Sample ID: 440-286117-4

Date Collected: 07/14/21 07:53 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 13:53	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 19:15	AJ2Q	ECL 1

Client Sample ID: OC_GW_DPE-9_20210714 — Lab Sample ID: 440-286117-5

Date Collected: 07/14/21 09:05 — **Matrix: Water**
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 14:21	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 19:31	AJ2Q	ECL 1

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Client Sample ID: OC_GW_DPE-10D_20210715

Lab Sample ID: 440-286117-6

Date Collected: 07/15/21 11:32
Matrix: Water
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 14:49	UJHB	ECL 2
Total/NA	Analysis	8260B	DL	20	20 mL	20 mL	165270	07/21/21 17:39	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	164889	07/19/21 11:01	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 19:47	AJ2Q	ECL 1

Client Sample ID: OC_TB1_20210714

Lab Sample ID: 440-286117-7

Date Collected: 07/14/21 06:00
Matrix: Water
Date Received: 07/15/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165109	07/20/21 12:02	UJHB	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-165109/6
Matrix: Water
Analysis Batch: 165109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 11:25	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 11:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 11:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 11:25	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 11:25	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 11:25	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 11:25	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 11:25	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 11:25	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 11:25	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 11:25	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 11:25	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 11:25	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 11:25	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 11:25	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 11:25	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 11:25	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 11:25	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 11:25	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 11:25	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 11:25	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 11:25	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 11:25	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 11:25	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 11:25	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 11:25	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 11:25	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 11:25	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 11:25	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 11:25	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 11:25	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 11:25	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 11:25	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 11:25	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 11:25	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 11:25	1
Hexachloro-1,3-butadiene	ND		1.0	0.32	ug/L			07/20/21 11:25	1
Isopropanol	ND		40	40	ug/L			07/20/21 11:25	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 11:25	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 11:25	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 11:25	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 11:25	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165109/6
Matrix: Water
Analysis Batch: 165109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 11:25	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 11:25	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 11:25	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 11:25	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:25	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 11:25	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 11:25	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 11:25	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 11:25	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 11:25	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 11:25	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 11:25*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*07/20/21 11:25*	*1*
4-Bromofluorobenzene (Surr)	*88*		*71 - 120*		*07/20/21 11:25*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/20/21 11:25*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 11:25*	*1*

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.1		ug/L		101	76 - 143
1,1,1-Trichloroethane	10.0	10.3		ug/L		103	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.7		ug/L		107	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroetha ne	10.0	9.97		ug/L		100	50 - 120
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethane	10.0	10.4		ug/L		104	76 - 120
1,1-Dichloroethene	10.0	9.91		ug/L		99	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichlorobenzene	10.0	11.2		ug/L		112	80 - 125
1,2,3-Trichloropropane	10.0	10.7		ug/L		107	66 - 131
1,2,4-Trichlorobenzene	10.0	11.0		ug/L		110	80 - 123
1,2,4-Trimethylbenzene	10.0	11.0		ug/L		110	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.2		ug/L		102	77 - 120
1,2-Dibromoethane	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	10.0	9.99		ug/L		100	77 - 133
1,3-Dichlorobenzene	10.0	10.7		ug/L		107	79 - 123
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123
1,4-Dichlorobenzene	10.0	10.0		ug/L		100	75 - 123
2,2-Dichloropropane	10.0	11.3		ug/L		113	78 - 133
2-Chlorotoluene	10.0	10.6		ug/L		106	80 - 120
4-Chlorotoluene	10.0	10.2		ug/L		102	78 - 120
Acetone	10.0	8.82		ug/L		88	57 - 133
Benzene	10.0	10.4		ug/L		104	80 - 120
Bromobenzene	10.0	10.5		ug/L		105	80 - 124
Bromochloromethane	10.0	9.89		ug/L		99	76 - 125
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141
Bromoform	10.0	10.4		ug/L		104	46 - 178
Bromomethane	10.0	11.2		ug/L		112	52 - 162
Carbon tetrachloride	10.0	10.4		ug/L		104	69 - 145
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	9.97		ug/L		100	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	10.2		ug/L		102	35 - 159
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	80 - 122
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 151
Dibromomethane	10.0	10.2		ug/L		102	80 - 121
Dichlorodifluoromethane	10.0	10.4		ug/L		104	59 - 139
Ethylbenzene	10.0	10.8		ug/L		108	80 - 120
Hexachloro-1,3-butadiene	10.0	10.6		ug/L		106	76 - 141
Isopropanol	100	102		ug/L		102	29 - 141
Isopropylbenzene	10.0	10.8		ug/L		108	80 - 124
m,p-Xylene	20.0	21.0		ug/L		105	80 - 122
Methylene Chloride	10.0	10.1		ug/L		101	70 - 120
Methyl-t-Butyl Ether (MTBE)	10.0	10.2		ug/L		102	72 - 120
Naphthalene	10.0	9.62		ug/L		96	75 - 120
n-Butylbenzene	10.0	11.3		ug/L		113	76 - 124
N-Propylbenzene	10.0	10.4		ug/L		104	80 - 122
o-Xylene	10.0	10.8		ug/L		108	80 - 122
p-Isopropyltoluene	10.0	10.8		ug/L		108	77 - 127
sec-Butylbenzene	10.0	10.8		ug/L		108	75 - 123
Styrene	10.0	9.88		ug/L		99	80 - 121
tert-Butylbenzene	10.0	10.5		ug/L		105	72 - 128
Tetrachloroethene	10.0	10.3		ug/L		103	80 - 128
Toluene	10.0	10.4		ug/L		104	80 - 120
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	67 - 123
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	78 - 140
Trichloroethene	10.0	10.3		ug/L		103	80 - 123
Trichlorofluoromethane	10.0	10.0		ug/L		100	64 - 168
Vinyl chloride	10.0	10.1		ug/L		101	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165109/3
Matrix: Water
Analysis Batch: 165109

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 135*
4-Bromofluorobenzene (Surr)	*103*		*71 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 570-165109/4
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	76 - 143	8	20
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	75 - 128	9	20
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	73 - 126	5	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.2		ug/L		112	50 - 120	11	20
1,1,2-Trichloroethane	10.0	11.1		ug/L		111	80 - 120	7	20
1,1-Dichloroethane	10.0	11.4		ug/L		114	76 - 120	10	20
1,1-Dichloroethene	10.0	11.2		ug/L		112	72 - 120	12	20
1,1-Dichloropropene	10.0	11.6		ug/L		116	76 - 120	15	20
1,2,3-Trichlorobenzene	10.0	11.7		ug/L		117	80 - 125	5	22
1,2,3-Trichloropropane	10.0	11.3		ug/L		113	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	11.7		ug/L		117	80 - 123	7	20
1,2,4-Trimethylbenzene	10.0	12.0		ug/L		120	78 - 125	9	22
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	77 - 120	1	21
1,2-Dibromoethane	10.0	10.6		ug/L		106	80 - 120	3	20
1,2-Dichlorobenzene	10.0	11.1		ug/L		111	79 - 123	8	20
1,2-Dichloroethane	10.0	10.8		ug/L		108	71 - 137	6	20
1,2-Dichloropropane	10.0	11.1		ug/L		111	80 - 120	7	20
1,3,5-Trimethylbenzene	10.0	10.8		ug/L		108	77 - 133	8	20
1,3-Dichlorobenzene	10.0	11.5		ug/L		115	79 - 123	7	20
1,3-Dichloropropane	10.0	10.8		ug/L		108	80 - 123	4	20
1,4-Dichlorobenzene	10.0	10.8		ug/L		108	75 - 123	7	22
2,2-Dichloropropane	10.0	12.2		ug/L		122	78 - 133	7	20
2-Chlorotoluene	10.0	11.5		ug/L		115	80 - 120	8	20
4-Chlorotoluene	10.0	10.7		ug/L		107	78 - 120	5	21
Acetone	10.0	9.29		ug/L		93	57 - 133	5	28
Benzene	10.0	11.3		ug/L		113	80 - 120	8	20
Bromobenzene	10.0	11.2		ug/L		112	80 - 124	6	20
Bromochloromethane	10.0	10.6		ug/L		106	76 - 125	7	20
Bromodichloromethane	10.0	11.6		ug/L		116	77 - 141	8	20
Bromoform	10.0	10.7		ug/L		107	46 - 178	3	23
Bromomethane	10.0	11.5		ug/L		115	52 - 162	3	20
Carbon tetrachloride	10.0	11.5		ug/L		115	69 - 145	10	20
Chlorobenzene	10.0	11.1		ug/L		111	80 - 120	8	20
Chloroethane	10.0	11.2		ug/L		112	73 - 139	11	20
Chloroform	10.0	11.4		ug/L		114	80 - 120	8	20
Chloromethane	10.0	11.5		ug/L		115	35 - 159	12	20
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	76 - 122	8	20
cis-1,3-Dichloropropene	10.0	11.4		ug/L		114	80 - 122	9	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-165109/4
Matrix: Water
Analysis Batch: 165109

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	10.0	11.4		ug/L		114	63 - 151	4	20
Dibromomethane	10.0	10.8		ug/L		108	80 - 121	6	20
Dichlorodifluoromethane	10.0	11.9		ug/L		119	59 - 139	13	20
Ethylbenzene	10.0	11.8		ug/L		118	80 - 120	9	20
Hexachloro-1,3-butadiene	10.0	11.6		ug/L		116	76 - 141	9	23
Isopropanol	100	102		ug/L		102	29 - 141	0	22
Isopropylbenzene	10.0	11.9		ug/L		119	80 - 124	10	20
m,p-Xylene	20.0	23.4		ug/L		117	80 - 122	11	20
Methylene Chloride	10.0	10.8		ug/L		108	70 - 120	7	20
Methyl-t-Butyl Ether (MTBE)	10.0	10.9		ug/L		109	72 - 120	6	20
Naphthalene	10.0	9.83		ug/L		98	75 - 120	2	22
n-Butylbenzene	10.0	12.4		ug/L		124	76 - 124	9	23
N-Propylbenzene	10.0	11.5		ug/L		115	80 - 122	10	20
o-Xylene	10.0	11.7		ug/L		117	80 - 122	8	20
p-Isopropyltoluene	10.0	11.7		ug/L		117	77 - 127	8	21
sec-Butylbenzene	10.0	12.0		ug/L		120	75 - 123	10	21
Styrene	10.0	10.6		ug/L		106	80 - 121	7	20
tert-Butylbenzene	10.0	11.3		ug/L		113	72 - 128	8	22
Tetrachloroethene	10.0	11.5		ug/L		115	80 - 128	11	20
Toluene	10.0	11.3		ug/L		113	80 - 120	8	20
trans-1,2-Dichloroethene	10.0	11.2		ug/L		112	67 - 123	9	20
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	78 - 140	7	20
Trichloroethene	10.0	11.4		ug/L		114	80 - 123	10	20
Trichlorofluoromethane	10.0	11.4		ug/L		114	64 - 168	13	20
Vinyl chloride	10.0	11.3		ug/L		113	74 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 135*
4-Bromofluorobenzene (Surr)	*105*		*71 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 570-165270/6
Matrix: Water
Analysis Batch: 165270

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/21/21 12:27	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/21/21 12:27	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/21/21 12:27*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 135*		*07/21/21 12:27*	*1*
4-Bromofluorobenzene (Surr)	*92*		*71 - 120*		*07/21/21 12:27*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*07/21/21 12:27*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165270/6
Matrix: Water
Analysis Batch: 165270

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		07/21/21 12:27	1

Lab Sample ID: LCS 570-165270/3
Matrix: Water
Analysis Batch: 165270

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.36		ug/L		94	50 - 120
Tetrachloroethene	10.0	8.80		ug/L		88	80 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		68 - 135
4-Bromofluorobenzene (Surr)	97		71 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 570-165270/4
Matrix: Water
Analysis Batch: 165270

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.1		ug/L		101	50 - 120	8	20
Tetrachloroethene	10.0	9.38		ug/L		94	80 - 128	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		68 - 135
4-Bromofluorobenzene (Surr)	97		71 - 120
Dibromofluoromethane (Surr)	108		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-164889/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 164889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/19/21 11:01	07/30/21 13:55	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	68		15 - 150	07/19/21 11:01	07/30/21 13:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		46 - 128	07/19/21 11:01	07/30/21 13:55	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-164889/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	24.0		ug/L		120	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*59*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*79*		*46 - 128*

Lab Sample ID: LCSD 570-164889/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	23.8		ug/L		119	57 - 136	1	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*73*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*77*		*46 - 128*

Lab Sample ID: 440-286115-D-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	0.85		20.0	24.4		ug/L		118	45 - 139		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*111*		*46 - 128*

Lab Sample ID: 440-286115-D-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 164889**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.85		20.0	24.7		ug/L		119	45 - 139	1	17

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*43*		*15 - 150*

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*95*		*46 - 128*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 165109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286117-1	OC_GW_DPE-3_20210714	Total/NA	Water	8260B	
440-286117-2	OC_GW_DPE-4_20210714	Total/NA	Water	8260B	
440-286117-3	OC_GW_DPE-5_20210714	Total/NA	Water	8260B	
440-286117-4	OC_GW_DPE-8_20210714	Total/NA	Water	8260B	
440-286117-5	OC_GW_DPE-9_20210714	Total/NA	Water	8260B	
440-286117-6	OC_GW_DPE-10D_20210715	Total/NA	Water	8260B	
440-286117-7	OC_TB1_20210714	Total/NA	Water	8260B	
MB 570-165109/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165109/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165109/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 165270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286117-2 - DL	OC_GW_DPE-4_20210714	Total/NA	Water	8260B	
440-286117-6 - DL	OC_GW_DPE-10D_20210715	Total/NA	Water	8260B	
MB 570-165270/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165270/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165270/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 164889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286117-1	OC_GW_DPE-3_20210714	Total/NA	Water	3510C	
440-286117-2	OC_GW_DPE-4_20210714	Total/NA	Water	3510C	
440-286117-3	OC_GW_DPE-5_20210714	Total/NA	Water	3510C	
440-286117-4	OC_GW_DPE-8_20210714	Total/NA	Water	3510C	
440-286117-5	OC_GW_DPE-9_20210714	Total/NA	Water	3510C	
440-286117-6	OC_GW_DPE-10D_20210715	Total/NA	Water	3510C	
MB 570-164889/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-286115-D-1-A MS	Matrix Spike	Total/NA	Water	3510C	
440-286115-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 167748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286117-1	OC_GW_DPE-3_20210714	Total/NA	Water	8270C SIM ID	164889
440-286117-2	OC_GW_DPE-4_20210714	Total/NA	Water	8270C SIM ID	164889
440-286117-3	OC_GW_DPE-5_20210714	Total/NA	Water	8270C SIM ID	164889
440-286117-4	OC_GW_DPE-8_20210714	Total/NA	Water	8270C SIM ID	164889
440-286117-5	OC_GW_DPE-9_20210714	Total/NA	Water	8270C SIM ID	164889
440-286117-6	OC_GW_DPE-10D_20210715	Total/NA	Water	8270C SIM ID	164889
MB 570-164889/1-A	Method Blank	Total/NA	Water	8270C SIM ID	164889
LCS 570-164889/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	164889
LCSD 570-164889/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	164889
440-286115-D-1-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	164889
440-286115-D-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	164889

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/14/21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE-3_202107 14	7/14/21	0715	Grab	GW	5			x	x	
OC_GW_DPE-4_202107 14	7/14/21	0730	Grab	GW	5			x	x	
OC_GW_DPE-5_202107 14	7/14/21	0830	Grab	GW	5			x	x	
OC_GW_DPE-8_202107 14	7/14/21	0753	Grab	GW	5			x	x	
OC_GW_DPE-9_202107 14	7/14/21	0905	Grab	GW	5			x	x	
OC_GW_DPE-7D_202107	7/ /21		Grab	GW	5			x	x	
OC_GW_DPE-10D_202107 15	7/15/21	1132	Grab	GW	5			x	x	
OC_TB 1 _202107	7/14/21	0600	Grab	H2O	2			x		

440-286117 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	JKA	7/15 1314	Received by:	EGA	7/15/21 1314
Relinquished by:	EGA	7/15/21 1603	Received by:		
Relinquished by:			Received in Laboratory by:	EGA	7/15/21 1603

0.8/0.5 IR93

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171485 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286117-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/22/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email	WO #:			
Project Name: Omega Chemical -Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_GW_DPE-3_20210714 (440-286117-1)	7/14/21	07:15 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_DPE-4_20210714 (440-286117-2)	7/14/21	07.30 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_DPE-5_20210714 (440-286117-3)	7/14/21	08.30 Pacific		Water			X	X	5	Special Multiple Dils close to 1.Run in order J's.Maybe high chlorobenzene
OC_GW_DPE-8_20210714 (440-286117-4)	7/14/21	07:53 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_DPE-9_20210714 (440-286117-5)	7/14/21	09:05 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_GW_DPE-10D_20210715 (440-286117-6)	7/15/21	11.32 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_TB1_202107 (440-286117-7)	7/14/21	06:00 Pacific		Water			X		2	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date	Time	Method of Shipment:		
Relinquished by:	Date/Time: 7/15/21 1655	Company ECL IRV	Received by:	Date/Time: 7-15-2021 16:55	Company ECL	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No N/A		Cooler Temperature(s) °C and Other Remarks: 20/1.6 SCG			

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286117-1
SDG Number: Omega Chemical

Login Number: 286117
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286117-1
SDG Number: Omega Chemical

Login Number: 286117
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/16/21 01:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286117-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-286115-D-1-A MS	Matrix Spike	42							
440-286115-D-1-B MSD	Matrix Spike Duplicate	43							
440-286117-1	OC_GW_DPE-3_20210714	40							
440-286117-2	OC_GW_DPE-4_20210714	36							
440-286117-3	OC_GW_DPE-5_20210714	48							
440-286117-4	OC_GW_DPE-8_20210714	41							
440-286117-5	OC_GW_DPE-9_20210714	45							
440-286117-6	OC_GW_DPE-10D_20210715	45							
LCS 570-164889/2-A	Lab Control Sample	59							
LCSD 570-164889/3-A	Lab Control Sample Dup	73							
MB 570-164889/1-A	Method Blank	68							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-286221-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical -GW/Semi Annual

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/5/2021 2:31:42 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-286221-1	OC_GW_OW-11_20210716	Water	07/16/21 12:20	07/16/21 15:51
440-286221-2	OC_GW_OW-13B_20210716	Water	07/16/21 10:56	07/16/21 15:51
440-286221-3	OC_GW_OW-13B_20210716K	Water	07/16/21 10:56	07/16/21 15:51
440-286221-4	OC_GW_PZ-9_20210716	Water	07/16/21 08:45	07/16/21 15:51
440-286221-5	OC_TB2_20210716	Water	07/16/21 06:00	07/16/21 15:51

Job ID: 440-286221-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-286221-1

Comments
No additional comments.

Receipt
The samples were received on 7/16/2021 3:51 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.4º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165108. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-165632. A laboratory LCS/LCSD was analyzed to provide precision data.

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

GC/MS Semi VOA
Method 8270C SIM ID: Results for sample OC_GW_PZ-9_20210716 (440-286221-4) were reported from the analysis of a diluted extract due to high concentration of the target analyte in the analysis of the undiluted extract. The dilution factor was applied to the labeled internal standard area counts and these area counts were within acceptance limits

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-11_20210716 — Lab Sample ID: 440-286221-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	30		0.50	0.25	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	22		0.50	0.39	ug/L	1		8260B	Total/NA
Chloroform	0.49	J	0.50	0.28	ug/L	1		8260B	Total/NA
Trichloroethene	37		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	11		0.50	0.30	ug/L	1		8260B	Total/NA
Tetrachloroethene - DL	150		2.5	1.4	ug/L	5		8260B	Total/NA

Client Sample ID: OC_GW_OW-13B_20210716 — Lab Sample ID: 440-286221-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	21		0.50	0.29	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_OW-13B_20210716K — Lab Sample ID: 440-286221-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	20		0.50	0.29	ug/L	1		8260B	Total/NA

Client Sample ID: OC_GW_PZ-9_20210716 — Lab Sample ID: 440-286221-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	16		0.50	0.25	ug/L	1		8260B	Total/NA
1,1,2-Trichloroethane	0.087	J	0.50	0.085	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	6.3		0.50	0.39	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	2.1		0.50	0.15	ug/L	1		8260B	Total/NA
Chloroform	7.3		0.50	0.28	ug/L	1		8260B	Total/NA
Tetrachloroethene	58		0.50	0.29	ug/L	1		8260B	Total/NA
Trichloroethene	6.3		0.50	0.29	ug/L	1		8260B	Total/NA
Trichlorofluoromethane	6.0		0.50	0.30	ug/L	1		8260B	Total/NA
1,4-Dioxane	410		1.0	0.38	ug/L	10		8270C SIM ID	Total/NA

Client Sample ID: OC_TB2_20210716 — Lab Sample ID: 440-286221-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-11_20210716

Lab Sample ID: 440-286221-1

Date Collected: 07/16/21 12:20
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 18:32	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 18:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 18:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**30**		0.50	0.25	ug/L			07/20/21 18:32	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 18:32	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 18:32	1
1,1-Dichloroethene	**22**		0.50	0.39	ug/L			07/20/21 18:32	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 18:32	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 18:32	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 18:32	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 18:32	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 18:32	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 18:32	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 18:32	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 18:32	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 18:32	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 18:32	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 18:32	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 18:32	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 18:32	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 18:32	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 18:32	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 18:32	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 18:32	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 18:32	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 18:32	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 18:32	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 18:32	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 18:32	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 18:32	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 18:32	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 18:32	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 18:32	1
Chloroform	**0.49**	**J**	0.50	0.28	ug/L			07/20/21 18:32	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 18:32	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 18:32	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 18:32	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 18:32	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 18:32	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 18:32	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 18:32	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 18:32	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 18:32	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 18:32	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 18:32	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 18:32	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 18:32	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 18:32	1

Client Sample ID: OC_GW_OW-11_20210716

Lab Sample ID: 440-286221-1

Date Collected: 07/16/21 12:20
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 18:32	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 18:32	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 18:32	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 18:32	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:32	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 18:32	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 18:32	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 18:32	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 18:32	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 18:32	1
Trichloroethene	**37**		0.50	0.29	ug/L			07/20/21 18:32	1
Trichlorofluoromethane	**11**		0.50	0.30	ug/L			07/20/21 18:32	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 18:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*10*	*T J N*	*ug/L*		*1.49*	*69493-11-4*		*07/20/21 18:32*	*1*
Unknown	*41*	*T J*	*ug/L*		*1.54*			*07/20/21 18:32*	*1*
Sulfur dioxide	*20*	*T J N*	*ug/L*		*1.85*	*7446-09-5*		*07/20/21 18:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 135*		*07/20/21 18:32*	*1*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*07/20/21 18:32*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/20/21 18:32*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*07/20/21 18:32*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**150**		2.5	1.4	ug/L			07/22/21 02:24	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Aspartic acid methyl ester	*130*	*T J N*	*ug/L*		*1.45*	*1000130-17-8*		*07/22/21 02:24*	*5*
Unknown	*290*	*T J*	*ug/L*		*4.08*			*07/22/21 02:24*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*68 - 135*		*07/22/21 02:24*	*5*
4-Bromofluorobenzene (Surr)	*85*		*71 - 120*		*07/22/21 02:24*	*5*
Dibromofluoromethane (Surr)	*116*		*80 - 120*		*07/22/21 02:24*	*5*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/22/21 02:24*	*5*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 23:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*41*		*15 - 150*	*07/21/21 11:53*	*07/30/21 23:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*101*		*46 - 128*	*07/21/21 11:53*	*07/30/21 23:30*	*1*

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-13B_20210716

Lab Sample ID: 440-286221-2

Date Collected: 07/16/21 10:56
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 19:02	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 19:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 19:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 19:02	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 19:02	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 19:02	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 19:02	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 19:02	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 19:02	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 19:02	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 19:02	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 19:02	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 19:02	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 19:02	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 19:02	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 19:02	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 19:02	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 19:02	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 19:02	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 19:02	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 19:02	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 19:02	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 19:02	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 19:02	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 19:02	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 19:02	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 19:02	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 19:02	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 19:02	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 19:02	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 19:02	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 19:02	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 19:02	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 19:02	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 19:02	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 19:02	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 19:02	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 19:02	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 19:02	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 19:02	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 19:02	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 19:02	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 19:02	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 19:02	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 19:02	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 19:02	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 19:02	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 19:02	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 19:02	1

Client Sample ID: OC_GW_OW-13B_20210716

Lab Sample ID: 440-286221-2

Date Collected: 07/16/21 10:56
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 19:02	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 19:02	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 19:02	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 19:02	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 19:02	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 19:02	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 19:02	1
Tetrachloroethene	**21**		0.50	0.29	ug/L			07/20/21 19:02	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 19:02	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 19:02	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 19:02	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 19:02	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 19:02	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 19:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*9.7*	*T J N*	*ug/L*		*1.50*	*69493-11-4*		*07/20/21 19:02*	*1*
Unknown	*33*	*T J*	*ug/L*		*1.55*			*07/20/21 19:02*	*1*
Sulfur dioxide	*15*	*T J N*	*ug/L*		*1.85*	*7446-09-5*		*07/20/21 19:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*07/20/21 19:02*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*07/20/21 19:02*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*07/20/21 19:02*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 19:02*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	07/30/21 23:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 150*	*07/21/21 11:53*	*07/30/21 23:46*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*46 - 128*	*07/21/21 11:53*	*07/30/21 23:46*	*1*

Client Sample ID: OC_GW_OW-13B_20210716K

Lab Sample ID: 440-286221-3

Date Collected: 07/16/21 10:56
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 19:31	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 19:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 19:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 19:31	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 19:31	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 19:31	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 19:31	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 19:31	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 19:31	1

Client Sample ID: OC_GW_OW-13B_20210716K

Lab Sample ID: 440-286221-3

Date Collected: 07/16/21 10:56
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 19:31	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 19:31	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 19:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 19:31	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 19:31	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 19:31	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 19:31	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 19:31	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 19:31	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 19:31	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 19:31	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 19:31	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 19:31	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 19:31	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 19:31	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 19:31	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 19:31	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 19:31	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 19:31	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 19:31	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 19:31	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 19:31	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 19:31	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 19:31	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 19:31	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 19:31	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 19:31	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 19:31	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 19:31	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 19:31	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 19:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 19:31	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 19:31	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 19:31	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 19:31	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 19:31	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 19:31	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 19:31	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 19:31	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 19:31	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 19:31	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 19:31	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 19:31	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 19:31	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 19:31	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 19:31	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 19:31	1
Tetrachloroethene	**20**		0.50	0.29	ug/L			07/20/21 19:31	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 19:31	1

Client Sample ID: OC_GW_OW-13B_20210716K

Lab Sample ID: 440-286221-3

Date Collected: 07/16/21 10:56
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 19:31	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 19:31	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 19:31	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 19:31	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 19:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Propanedioic acid	*10*	*T J N*	*ug/L*		*1.49*	*141-82-2*		*07/20/21 19:31*	*1*
Unknown	*34*	*T J*	*ug/L*		*1.55*			*07/20/21 19:31*	*1*
Sulfur dioxide	*19*	*T J N*	*ug/L*		*1.85*	*7446-09-5*		*07/20/21 19:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*07/20/21 19:31*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*07/20/21 19:31*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*07/20/21 19:31*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*07/20/21 19:31*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:53	08/02/21 17:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*52*		*15 - 150*	*07/21/21 11:53*	*08/02/21 17:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*46 - 128*	*07/21/21 11:53*	*08/02/21 17:45*	*1*

Client Sample ID: OC_GW_PZ-9_20210716

Lab Sample ID: 440-286221-4

Date Collected: 07/16/21 08:45
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 20:01	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 20:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 20:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**16**		0.50	0.25	ug/L			07/20/21 20:01	1
1,1,2-Trichloroethane	**0.087**	**J**	0.50	0.085	ug/L			07/20/21 20:01	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 20:01	1
1,1-Dichloroethene	**6.3**		0.50	0.39	ug/L			07/20/21 20:01	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 20:01	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 20:01	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 20:01	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 20:01	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 20:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 20:01	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 20:01	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 20:01	1
1,2-Dichloroethane	**2.1**		0.50	0.15	ug/L			07/20/21 20:01	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 20:01	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 20:01	1

Client Sample ID: OC_GW_PZ-9_20210716

Lab Sample ID: 440-286221-4

Date Collected: 07/16/21 08:45
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 20:01	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 20:01	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 20:01	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 20:01	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 20:01	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 20:01	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 20:01	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 20:01	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 20:01	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 20:01	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 20:01	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 20:01	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 20:01	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 20:01	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 20:01	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 20:01	1
Chloroform	**7.3**		0.50	0.28	ug/L			07/20/21 20:01	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 20:01	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 20:01	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 20:01	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 20:01	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 20:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 20:01	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 20:01	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 20:01	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 20:01	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 20:01	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 20:01	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 20:01	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 20:01	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 20:01	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 20:01	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 20:01	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 20:01	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 20:01	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 20:01	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 20:01	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 20:01	1
Tetrachloroethene	**58**		0.50	0.29	ug/L			07/20/21 20:01	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 20:01	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 20:01	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 20:01	1
Trichloroethene	**6.3**		0.50	0.29	ug/L			07/20/21 20:01	1
Trichlorofluoromethane	**6.0**		0.50	0.30	ug/L			07/20/21 20:01	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 20:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2H-Pyran-2-acetic acid, tetrahydro-6-methyl-, cis-	*10*	*T J N*	*ug/L*		*1.46*	*69493-11-4*		*07/20/21 20:01*	*1*
Unknown	*14*	*T J*	*ug/L*		*1.51*			*07/20/21 20:01*	*1*

Client Sample ID: OC_GW_PZ-9_20210716

Lab Sample ID: 440-286221-4

Date Collected: 07/16/21 08:45
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Sulfur dioxide	23	T J N	ug/L		1.82	7446-09-5		07/20/21 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		68 - 135		07/20/21 20:01	1
4-Bromofluorobenzene (Surr)	92		71 - 120		07/20/21 20:01	1
Dibromofluoromethane (Surr)	104		80 - 120		07/20/21 20:01	1
Toluene-d8 (Surr)	97		80 - 120		07/20/21 20:01	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**410**		1.0	0.38	ug/L		07/21/21 11:53	08/04/21 16:16	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	37	*3	15 - 150	07/21/21 11:53	08/04/21 16:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	55	*3	46 - 128	07/21/21 11:53	08/04/21 16:16	10

Client Sample ID: OC_TB2_20210716

Lab Sample ID: 440-286221-5

Date Collected: 07/16/21 06:00
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 15:05	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 15:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 15:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 15:05	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 15:05	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 15:05	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 15:05	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 15:05	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 15:05	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 15:05	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 15:05	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 15:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 15:05	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 15:05	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 15:05	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 15:05	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 15:05	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 15:05	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 15:05	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 15:05	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 15:05	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 15:05	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 15:05	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 15:05	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 15:05	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 15:05	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 15:05	1

Client Sample ID: OC_TB2_20210716

Lab Sample ID: 440-286221-5

Date Collected: 07/16/21 06:00
Matrix: Water
Date Received: 07/16/21 15:51

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 15:05	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 15:05	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 15:05	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 15:05	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 15:05	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 15:05	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 15:05	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 15:05	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 15:05	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 15:05	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 15:05	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 15:05	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 15:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 15:05	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 15:05	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 15:05	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 15:05	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 15:05	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 15:05	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 15:05	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 15:05	1
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 15:05	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 15:05	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 15:05	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 15:05	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 15:05	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 15:05	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 15:05	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 15:05	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 15:05	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 15:05	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 15:05	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 15:05	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 15:05	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 15:05	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 15:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Imidazole, 2-bromo-4-methyl-5-nitro-	*9.6*	*T J N*	*ug/L*		*1.49*	*105983-46-8*		*07/20/21 15:05*	*1*
Unknown	*5.6*	*T J*	*ug/L*		*1.54*			*07/20/21 15:05*	*1*
Sulfur dioxide	*24*	*T J N*	*ug/L*		*1.85*	*7446-09-5*		*07/20/21 15:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 135*		*07/20/21 15:05*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*07/20/21 15:05*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*07/20/21 15:05*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/20/21 15:05*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-135)	(71-120)	(80-120)	(80-120)
440-286221-1	OC_GW_OW-11_20210716	96	89	107	98
440-286221-1 - DL	OC_GW_OW-11_20210716	119	85	116	101
440-286221-2	OC_GW_OW-13B_20210716	95	93	102	100
440-286221-3	OC_GW_OW-13B_20210716K	95	93	97	99
440-286221-4	OC_GW_PZ-9_20210716	100	92	104	97
440-286221-5	OC_TB2_20210716	101	94	103	97
LCS 570-165108/3	Lab Control Sample	96	96	102	95
LCS 570-165632/3	Lab Control Sample	104	106	103	101
LCSD 570-165108/4	Lab Control Sample Dup	102	97	102	98
LCSD 570-165632/4	Lab Control Sample Dup	106	104	107	101
MB 570-165108/6	Method Blank	96	94	106	100
MB 570-165632/6	Method Blank	115	87	113	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-286220-D-2-A MS	Matrix Spike	88
440-286220-D-2-B MSD	Matrix Spike Duplicate	107
440-286221-1	OC_GW_OW-11_20210716	101
440-286221-2	OC_GW_OW-13B_20210716	92
440-286221-3	OC_GW_OW-13B_20210716K	90
440-286221-4	OC_GW_PZ-9_20210716	55 *3
LCS 570-165534/2-A	Lab Control Sample	104
LCSD 570-165534/3-A	Lab Control Sample Dup	105
MB 570-165534/1-A	Method Blank	97

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Client Sample ID: OC_GW_OW-11_20210716 — Lab Sample ID: 440-286221-1

Date Collected: 07/16/21 12:20 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	5	20 mL	20 mL	165632	07/22/21 02:24	A1W	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	165108	07/20/21 18:32	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 23:30	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-13B_20210716 — Lab Sample ID: 440-286221-2

Date Collected: 07/16/21 10:56 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165108	07/20/21 19:02	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			167748	07/30/21 23:46	AJ2Q	ECL 1

Client Sample ID: OC_GW_OW-13B_20210716K — Lab Sample ID: 440-286221-3

Date Collected: 07/16/21 10:56 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165108	07/20/21 19:31	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			168254	08/02/21 17:45	AJ2Q	ECL 1

Client Sample ID: OC_GW_PZ-9_20210716 — Lab Sample ID: 440-286221-4

Date Collected: 07/16/21 08:45 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165108	07/20/21 20:01	UJHB	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	165534	07/21/21 11:53	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		10			168891	08/04/21 16:16	AJ2Q	ECL 1

Client Sample ID: OC_TB2_20210716 — Lab Sample ID: 440-286221-5

Date Collected: 07/16/21 06:00 — **Matrix: Water**
Date Received: 07/16/21 15:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	165108	07/20/21 15:05	UJHB	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-165108/6
Matrix: Water
Analysis Batch: 165108

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.26	ug/L			07/20/21 11:34	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			07/20/21 11:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.19	ug/L			07/20/21 11:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.25	ug/L			07/20/21 11:34	1
1,1,2-Trichloroethane	ND		0.50	0.085	ug/L			07/20/21 11:34	1
1,1-Dichloroethane	ND		0.50	0.35	ug/L			07/20/21 11:34	1
1,1-Dichloroethene	ND		0.50	0.39	ug/L			07/20/21 11:34	1
1,1-Dichloropropene	ND		0.50	0.24	ug/L			07/20/21 11:34	1
1,2,3-Trichlorobenzene	ND		0.50	0.28	ug/L			07/20/21 11:34	1
1,2,3-Trichloropropane	ND		0.50	0.32	ug/L			07/20/21 11:34	1
1,2,4-Trichlorobenzene	ND		0.50	0.38	ug/L			07/20/21 11:34	1
1,2,4-Trimethylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.64	ug/L			07/20/21 11:34	1
1,2-Dibromoethane	ND		0.50	0.14	ug/L			07/20/21 11:34	1
1,2-Dichlorobenzene	ND		0.50	0.23	ug/L			07/20/21 11:34	1
1,2-Dichloroethane	ND		0.50	0.15	ug/L			07/20/21 11:34	1
1,2-Dichloropropane	ND		0.50	0.24	ug/L			07/20/21 11:34	1
1,3,5-Trimethylbenzene	ND		0.50	0.28	ug/L			07/20/21 11:34	1
1,3-Dichlorobenzene	ND		0.50	0.26	ug/L			07/20/21 11:34	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			07/20/21 11:34	1
1,4-Dichlorobenzene	ND		0.50	0.22	ug/L			07/20/21 11:34	1
2,2-Dichloropropane	ND		0.50	0.40	ug/L			07/20/21 11:34	1
2-Chlorotoluene	ND		0.50	0.31	ug/L			07/20/21 11:34	1
4-Chlorotoluene	ND		0.50	0.34	ug/L			07/20/21 11:34	1
Acetone	ND		8.0	4.0	ug/L			07/20/21 11:34	1
Benzene	ND		0.50	0.27	ug/L			07/20/21 11:34	1
Bromobenzene	ND		0.50	0.26	ug/L			07/20/21 11:34	1
Bromochloromethane	ND		1.0	0.35	ug/L			07/20/21 11:34	1
Bromodichloromethane	ND		0.50	0.22	ug/L			07/20/21 11:34	1
Bromoform	ND		0.50	0.39	ug/L			07/20/21 11:34	1
Bromomethane	ND		1.0	0.93	ug/L			07/20/21 11:34	1
Carbon tetrachloride	ND		0.50	0.27	ug/L			07/20/21 11:34	1
Chlorobenzene	ND		0.50	0.24	ug/L			07/20/21 11:34	1
Chloroethane	ND		0.50	0.44	ug/L			07/20/21 11:34	1
Chloroform	ND		0.50	0.28	ug/L			07/20/21 11:34	1
Chloromethane	ND		1.0	0.29	ug/L			07/20/21 11:34	1
cis-1,2-Dichloroethene	ND		0.50	0.30	ug/L			07/20/21 11:34	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			07/20/21 11:34	1
Dibromochloromethane	ND		0.50	0.27	ug/L			07/20/21 11:34	1
Dibromomethane	ND		0.50	0.23	ug/L			07/20/21 11:34	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			07/20/21 11:34	1
Ethylbenzene	ND		0.50	0.36	ug/L			07/20/21 11:34	1
Hexachlorobutadiene	ND		1.0	0.32	ug/L			07/20/21 11:34	1
Isopropyl alcohol	ND		40	40	ug/L			07/20/21 11:34	1
Isopropylbenzene	ND		0.50	0.38	ug/L			07/20/21 11:34	1
m,p-Xylene	ND		1.0	0.78	ug/L			07/20/21 11:34	1
Methylene Chloride	ND		1.0	0.48	ug/L			07/20/21 11:34	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/20/21 11:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165108/6
Matrix: Water
Analysis Batch: 165108

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.32	ug/L			07/20/21 11:34	1
n-Butylbenzene	ND		0.50	0.29	ug/L			07/20/21 11:34	1
N-Propylbenzene	ND		0.50	0.39	ug/L			07/20/21 11:34	1
o-Xylene	ND		0.50	0.35	ug/L			07/20/21 11:34	1
p-Isopropyltoluene	ND		0.50	0.28	ug/L			07/20/21 11:34	1
sec-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:34	1
Styrene	ND		0.50	0.28	ug/L			07/20/21 11:34	1
tert-Butylbenzene	ND		0.50	0.34	ug/L			07/20/21 11:34	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/20/21 11:34	1
Toluene	ND		0.50	0.33	ug/L			07/20/21 11:34	1
trans-1,2-Dichloroethene	ND		0.50	0.36	ug/L			07/20/21 11:34	1
trans-1,3-Dichloropropene	ND		0.50	0.17	ug/L			07/20/21 11:34	1
Trichloroethene	ND		0.50	0.29	ug/L			07/20/21 11:34	1
Trichlorofluoromethane	ND		0.50	0.30	ug/L			07/20/21 11:34	1
Vinyl chloride	ND		0.50	0.40	ug/L			07/20/21 11:34	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*07/20/21 11:34*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 135*		*07/20/21 11:34*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*07/20/21 11:34*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*07/20/21 11:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/20/21 11:34*	*1*

Lab Sample ID: LCS 570-165108/3
Matrix: Water
Analysis Batch: 165108

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	76 - 143
1,1,1-Trichloroethane	10.0	10.0		ug/L		100	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.19		ug/L		92	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroetha ne	10.0	10.5		ug/L		105	50 - 120
1,1,2-Trichloroethane	10.0	9.39		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	9.17		ug/L		92	76 - 120
1,1-Dichloroethene	10.0	10.2		ug/L		102	72 - 120
1,1-Dichloropropene	10.0	9.16		ug/L		92	76 - 120
1,2,3-Trichlorobenzene	10.0	10.9		ug/L		109	80 - 125
1,2,3-Trichloropropane	10.0	8.77		ug/L		88	66 - 131
1,2,4-Trichlorobenzene	10.0	11.6		ug/L		116	80 - 123
1,2,4-Trimethylbenzene	10.0	9.55		ug/L		95	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.9		ug/L		109	77 - 120
1,2-Dibromoethane	10.0	10.2		ug/L		102	80 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	9.95		ug/L		100	71 - 137
1,2-Dichloropropane	10.0	8.82		ug/L		88	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165108/3
Matrix: Water
Analysis Batch: 165108

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	10.0	9.89		ug/L		99	77 - 133
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,3-Dichloropropane	10.0	9.57		ug/L		96	80 - 123
1,4-Dichlorobenzene	10.0	10.2		ug/L		102	75 - 123
2,2-Dichloropropane	10.0	12.0		ug/L		120	78 - 133
2-Chlorotoluene	10.0	9.40		ug/L		94	80 - 120
4-Chlorotoluene	10.0	8.90		ug/L		89	78 - 120
Acetone	10.0	8.44		ug/L		84	57 - 133
Benzene	10.0	8.73		ug/L		87	80 - 120
Bromobenzene	10.0	10.5		ug/L		105	80 - 124
Bromochloromethane	10.0	10.9		ug/L		109	76 - 125
Bromodichloromethane	10.0	10.6		ug/L		106	77 - 141
Bromoform	10.0	12.3		ug/L		123	46 - 178
Bromomethane	10.0	11.3		ug/L		113	52 - 162
Carbon tetrachloride	10.0	11.1		ug/L		111	69 - 145
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
Chloroethane	10.0	10.1		ug/L		101	73 - 139
Chloroform	10.0	9.80		ug/L		98	80 - 120
Chloromethane	10.0	10.5		ug/L		105	35 - 159
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	76 - 122
cis-1,3-Dichloropropene	10.0	9.83		ug/L		98	80 - 122
Dibromochloromethane	10.0	12.2		ug/L		122	63 - 151
Dibromomethane	10.0	10.3		ug/L		103	80 - 121
Dichlorodifluoromethane	10.0	9.45		ug/L		95	59 - 139
Ethylbenzene	10.0	9.31		ug/L		93	80 - 120
Hexachlorobutadiene	10.0	11.4		ug/L		114	76 - 141
Isopropyl alcohol	100	80.8		ug/L		81	29 - 141
Isopropylbenzene	10.0	10.0		ug/L		100	80 - 124
m,p-Xylene	20.0	19.1		ug/L		95	80 - 122
Methylene Chloride	10.0	9.36		ug/L		94	70 - 120
Methyl-t-Butyl Ether (MTBE)	10.0	9.62		ug/L		96	72 - 120
Naphthalene	10.0	10.0		ug/L		100	75 - 120
n-Butylbenzene	10.0	9.59		ug/L		96	76 - 124
N-Propylbenzene	10.0	9.59		ug/L		96	80 - 122
o-Xylene	10.0	9.32		ug/L		93	80 - 122
p-Isopropyltoluene	10.0	10.0		ug/L		100	77 - 127
sec-Butylbenzene	10.0	9.50		ug/L		95	75 - 123
Styrene	10.0	9.84		ug/L		98	80 - 121
tert-Butylbenzene	10.0	10.1		ug/L		101	72 - 128
Tetrachloroethene	10.0	10.7		ug/L		107	80 - 128
Toluene	10.0	9.20		ug/L		92	80 - 120
trans-1,2-Dichloroethene	10.0	9.75		ug/L		98	67 - 123
trans-1,3-Dichloropropene	10.0	10.8		ug/L		108	78 - 140
Trichloroethene	10.0	9.55		ug/L		95	80 - 123
Trichlorofluoromethane	10.0	12.1		ug/L		121	64 - 168
Vinyl chloride	10.0	9.07		ug/L		91	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-165108/3
Matrix: Water
Analysis Batch: 165108

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 135*
4-Bromofluorobenzene (Surr)	*96*		*71 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: LCSD 570-165108/4
Matrix: Water
Analysis Batch: 165108

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	11.4		ug/L		114	76 - 143	5	20
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	75 - 128	10	20
1,1,2,2-Tetrachloroethane	10.0	9.35		ug/L		93	73 - 126	2	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.5		ug/L		115	50 - 120	9	20
1,1,2-Trichloroethane	10.0	9.89		ug/L		99	80 - 120	5	20
1,1-Dichloroethane	10.0	9.94		ug/L		99	76 - 120	8	20
1,1-Dichloroethene	10.0	11.4		ug/L		114	72 - 120	12	20
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120	9	20
1,2,3-Trichlorobenzene	10.0	11.4		ug/L		114	80 - 125	5	22
1,2,3-Trichloropropane	10.0	9.15		ug/L		92	66 - 131	4	20
1,2,4-Trichlorobenzene	10.0	11.6		ug/L		116	80 - 123	0	20
1,2,4-Trimethylbenzene	10.0	9.79		ug/L		98	78 - 125	3	22
1,2-Dibromo-3-Chloropropane	10.0	10.5		ug/L		105	77 - 120	4	21
1,2-Dibromoethane	10.0	10.9		ug/L		109	80 - 120	7	20
1,2-Dichlorobenzene	10.0	10.3		ug/L		103	79 - 123	2	20
1,2-Dichloroethane	10.0	10.7		ug/L		107	71 - 137	7	20
1,2-Dichloropropane	10.0	9.29		ug/L		93	80 - 120	5	20
1,3,5-Trimethylbenzene	10.0	10.7		ug/L		107	77 - 133	8	20
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	3	20
1,3-Dichloropropane	10.0	10.0		ug/L		100	80 - 123	5	20
1,4-Dichlorobenzene	10.0	10.3		ug/L		103	75 - 123	1	22
2,2-Dichloropropane	10.0	12.6		ug/L		126	78 - 133	5	20
2-Chlorotoluene	10.0	9.91		ug/L		99	80 - 120	5	20
4-Chlorotoluene	10.0	9.26		ug/L		93	78 - 120	4	21
Acetone	10.0	8.87		ug/L		89	57 - 133	5	28
Benzene	10.0	9.64		ug/L		96	80 - 120	10	20
Bromobenzene	10.0	11.4		ug/L		114	80 - 124	8	20
Bromochloromethane	10.0	11.2		ug/L		112	76 - 125	3	20
Bromodichloromethane	10.0	11.3		ug/L		113	77 - 141	6	20
Bromoform	10.0	12.8		ug/L		128	46 - 178	4	23
Bromomethane	10.0	12.5		ug/L		125	52 - 162	10	20
Carbon tetrachloride	10.0	12.2		ug/L		122	69 - 145	9	20
Chlorobenzene	10.0	10.8		ug/L		108	80 - 120	6	20
Chloroethane	10.0	10.5		ug/L		105	73 - 139	4	20
Chloroform	10.0	10.5		ug/L		105	80 - 120	7	20
Chloromethane	10.0	9.47		ug/L		95	35 - 159	11	20
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122	12	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122	6	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-165108/4
Matrix: Water
Analysis Batch: 165108

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromochloromethane	10.0	12.5		ug/L		125	63 - 151	2	20
Dibromomethane	10.0	10.6		ug/L		106	80 - 121	3	20
Dichlorodifluoromethane	10.0	10.5		ug/L		105	59 - 139	11	20
Ethylbenzene	10.0	10.2		ug/L		102	80 - 120	9	20
Hexachlorobutadiene	10.0	11.9		ug/L		119	76 - 141	4	23
Isopropyl alcohol	100	87.9		ug/L		88	29 - 141	8	22
Isopropylbenzene	10.0	10.8		ug/L		108	80 - 124	8	20
m,p-Xylene	20.0	20.9		ug/L		105	80 - 122	9	20
Methylene Chloride	10.0	9.99		ug/L		100	70 - 120	7	20
Methyl-t-Butyl Ether (MTBE)	10.0	10.1		ug/L		101	72 - 120	5	20
Naphthalene	10.0	10.3		ug/L		103	75 - 120	3	22
n-Butylbenzene	10.0	9.74		ug/L		97	76 - 124	2	23
N-Propylbenzene	10.0	10.3		ug/L		103	80 - 122	7	20
o-Xylene	10.0	10.1		ug/L		101	80 - 122	8	20
p-Isopropyltoluene	10.0	10.6		ug/L		106	77 - 127	5	21
sec-Butylbenzene	10.0	9.94		ug/L		99	75 - 123	5	21
Styrene	10.0	10.6		ug/L		106	80 - 121	7	20
tert-Butylbenzene	10.0	10.4		ug/L		104	72 - 128	3	22
Tetrachloroethene	10.0	11.6		ug/L		116	80 - 128	8	20
Toluene	10.0	9.88		ug/L		99	80 - 120	7	20
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	67 - 123	8	20
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	78 - 140	3	20
Trichloroethene	10.0	10.9		ug/L		109	80 - 123	13	20
Trichlorofluoromethane	10.0	13.6		ug/L		136	64 - 168	12	20
Vinyl chloride	10.0	9.83		ug/L		98	74 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 135*
4-Bromofluorobenzene (Surr)	*97*		*71 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 570-165632/6
Matrix: Water
Analysis Batch: 165632

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.21	ug/L			07/22/21 00:32	1
Tetrachloroethene	ND		0.50	0.29	ug/L			07/22/21 00:32	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Iodomethane	*13.1*	*J*	*ug/L*		*3.49*	*74-88-4*		*07/22/21 00:32*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*07/22/21 00:32*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*68 - 135*		*07/22/21 00:32*	*1*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/22/21 00:32*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-165632/6
Matrix: Water
Analysis Batch: 165632

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	113		80 - 120		07/22/21 00:32	1
Toluene-d8 (Surr)	100		80 - 120		07/22/21 00:32	1

Lab Sample ID: LCS 570-165632/3
Matrix: Water
Analysis Batch: 165632

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl-t-Butyl Ether (MTBE)	10.0	9.73		ug/L		97	72 - 120
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		68 - 135
4-Bromofluorobenzene (Surr)	106		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 570-165632/4
Matrix: Water
Analysis Batch: 165632

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl-t-Butyl Ether (MTBE)	10.0	10.0		ug/L		100	72 - 120	3	20
Tetrachloroethene	10.0	10.4		ug/L		104	80 - 128	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		68 - 135
4-Bromofluorobenzene (Surr)	104		71 - 120
Dibromofluoromethane (Surr)	107		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-165534/1-A
Matrix: Water
Analysis Batch: 167748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 165534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10	0.038	ug/L		07/21/21 11:52	07/30/21 21:06	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	41		15 - 150	07/21/21 11:52	07/30/21 21:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	97		46 - 128	07/21/21 11:52	07/30/21 21:06	1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-165534/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	24.4		ug/L		122	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*38*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*104*		*46 - 128*

Lab Sample ID: LCSD 570-165534/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	23.1		ug/L		115	57 - 136	6	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*46*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*105*		*46 - 128*

Lab Sample ID: 440-286220-D-2-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		20.0	22.8		ug/L		114	45 - 139		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*39*		*15 - 150*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*46 - 128*

Lab Sample ID: 440-286220-D-2-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 167748 — **Prep Batch: 165534**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		20.0	22.8		ug/L		114	45 - 139	0	17

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*107*		*46 - 128*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 165108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-1	OC_GW_OW-11_20210716	Total/NA	Water	8260B	
440-286221-2	OC_GW_OW-13B_20210716	Total/NA	Water	8260B	
440-286221-3	OC_GW_OW-13B_20210716K	Total/NA	Water	8260B	
440-286221-4	OC_GW_PZ-9_20210716	Total/NA	Water	8260B	
440-286221-5	OC_TB2_20210716	Total/NA	Water	8260B	
MB 570-165108/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165108/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165108/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 165632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-1 - DL	OC_GW_OW-11_20210716	Total/NA	Water	8260B	
MB 570-165632/6	Method Blank	Total/NA	Water	8260B	
LCS 570-165632/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-165632/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 165534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-1	OC_GW_OW-11_20210716	Total/NA	Water	3510C	
440-286221-2	OC_GW_OW-13B_20210716	Total/NA	Water	3510C	
440-286221-3	OC_GW_OW-13B_20210716K	Total/NA	Water	3510C	
440-286221-4	OC_GW_PZ-9_20210716	Total/NA	Water	3510C	
MB 570-165534/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-165534/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-165534/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-286220-D-2-A MS	Matrix Spike	Total/NA	Water	3510C	
440-286220-D-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 167748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-1	OC_GW_OW-11_20210716	Total/NA	Water	8270C SIM ID	165534
440-286221-2	OC_GW_OW-13B_20210716	Total/NA	Water	8270C SIM ID	165534
MB 570-165534/1-A	Method Blank	Total/NA	Water	8270C SIM ID	165534
LCS 570-165534/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	165534
LCSD 570-165534/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	165534
440-286220-D-2-A MS	Matrix Spike	Total/NA	Water	8270C SIM ID	165534
440-286220-D-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM ID	165534

Analysis Batch: 168254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-3	OC_GW_OW-13B_20210716K	Total/NA	Water	8270C SIM ID	165534

Analysis Batch: 168891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-286221-4	OC_GW_PZ-9_20210716	Total/NA	Water	8270C SIM ID	165534

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
N	Presumptive evidence of material.
T	Result is a tentatively identified compound (TIC) and an estimated value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21 *
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/ /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	____ of ____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes: JW 7/16/21
OC_GW_OW-11_202107 16	7/16/2021	1220	Grab	GW	5			x	x	
OC_GW_OW-13B_202107 16	7/16/2021	1056	Grab	GW	5			x	x	
OC_GW_~~PZ-3~~ OW-13B 202107 16 (EA)	7/16/2021	1056	Grab	GW	5			x	x	
OC_GW_PZ-9_202107 16	7/16/2021	0845	Grab	GW	5			x	x	
OC_TB 1_202107 16	7/16/2021	0600	Grab	H20	2			x		

440-286221 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd: 1.4 Corr'd: 1.4 | Therm ID No.: IR-02

Relinquished by:	Company: JWA	Date/Time: 7/16/21 1450	Received by:	Company: E Corp	Date/Time: 7/16/21 1450
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

TestAmerica Irvine
17461 Derian Ave
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Irvine, CA 92614
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/ /21	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	____ of ____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2021 Semi-Ann. GWM July	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes: JLL 7/16/21
OC_GW_OW-11_202107 16	7/16/2021	1220	Grab	GW	5			x	x	
OC_GW_OW-13B_202107 16	7/16/2021	1056	Grab	GW	5			x	x	
OC_GW_~~PZ-3~~ OW-13B_202107 16K (KA)	7/16/2021	1056	Grab	GW	5			x	x	
OC_GW_PZ-9_202107 16	7/16/2021	0845	Grab	GW	5			x	x	
OC_TB 2_202107 16	7/16/2021	0600	Grab	H20	2			x		

440-286221 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | 43509 | Cooler Temp. (°C): Obs'd: 1.4 Corr'd: 1.4 | Therm ID No.: IR-87

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JNA	7/16/21 1450	[signature]	EC-IRV	7/16/21 1450
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: EC-IRV	Date/Time: 7/16/21 1551
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171524.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-286221-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 7/23/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Monthly/Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_GW_OW-11_20210716 (440-286221-1)	7/16/21	12:20 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_GW_OW-13B_20210716 (440-286221-2)	7/16/21	10.56 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_GW_OW-13B_20210716K (440-286221-3)	7/16/21	10:56 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's Maybe high
OC_GW_PZ-9_20210716 (440-286221-4)	7/16/21	08 45 Pacific		Water			X	X	5	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high
OC_TB2_20210716 (440-286221-5)	7/16/21	06:00 Pacific		Water			X		2	Multiple Dilutions + 10 TSpecial Multiple Dils close to 1 Run in order J's.Maybe high

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time		Method of Shipment:		
Relinquished by:	Date/Time: 7/16/21 1745	Company EC-Fed	Received by: Rudy W	Date/Time: 7/16/21 1745	Company EC	
Relinquished by: Rudy W	Date/Time: 7/16/21 1905	Company EC	Received by: Michael G	Date/Time: 7/16/21 1905	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.6/2.2			

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286221-1
SDG Number: Omega Chemical

Login Number: 286221
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-286221-1
SDG Number: Omega Chemical

Login Number: 286221
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/16/21 09:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical -GW/Semi Annual

Job ID: 440-286221-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-286220-D-2-A MS	Matrix Spike	39							
440-286220-D-2-B MSD	Matrix Spike Duplicate	42							
440-286221-1	OC_GW_OW-11_20210716	41							
440-286221-2	OC_GW_OW-13B_20210716	34							
440-286221-3	OC_GW_OW-13B_20210716K	52							
440-286221-4	OC_GW_PZ-9_20210716	37 *3							
LCS 570-165534/2-A	Lab Control Sample	38							
LCSD 570-165534/3-A	Lab Control Sample Dup	46							
MB 570-165534/1-A	Method Blank	41							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Data Quality Assessment
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021

Sampling Event	Sampling Rationale	Frequency of Analysis	Matrix	Lab WO#	Sampling Date	Field Quality Control Samples	Data Review Level	Review of Laboratory QC Samples	Data Usability
SDLAC Quarterly Sampling									
Q3	Quarterly sampling of the treatment plant effluent is required per Los Angeles County Sanitation District Industrial Waste Discharge Permit Number 20039.	Quarterly	Water	440-287906-1	8/20/2021	Equipment blanks are not needed as sampling equipment is not used. Field duplicates are not needed for this compliance sampling.	Stage 2A	MB, LCS/LCSD, MS/MSD, surrogates	Results for pH and dissolved sulfide in the laboratory analyses were qualified as estimated (J,UJ) due to holding time excursions. These parameters are 'analyze immediately' parameters. Field measurements should be used. Results for the following compounds in GRAB were qualified as estimated (J, UJ) due to unacceptable recoveries in the LCS and/or LCSD and/or high LCS/LCSD RPD: 4-nitrophenol, benzyl alcohol, 4-bromophenyl phenyl ether, azobenzene, 2,4-dimethylphenol, 1,4-dichlorobenzene, 4-chloroaniline, bis(2-chloroisopropyl)ether, phenol, pyridine, bis(2-chloroethyl) ether, bis(2-chloroethoxy)methane, bis(2-ethylhexyl) phthalate, di-n-octyl phthalate, hexachlorobenzene, anthracene, 1,2,4-trichlorobenzene, 2,4-dichlorophenol, 2,4-dinitrotoluene, 1,2-diphenylhydrazine, pyrene, dimethyl phthalate, dibenzofuran, m/p-cresol, benzo(g,h,i)perylene, indeno(1,2,3-c,d)pyrene, benzo(b)fluoranthene, fluoranthene, benzo(k)fluoranthene, acenaphthylene, chrysene, benzo(a)pyrene, 2,4-dinitrophenol, and dibenz(a,h)anthracene. The laboratory reported results for 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachlorobutadiene, and Naphthalene from SW-846 Methods 8260B and 8270C and indicated the results from both methods as reportable. Based on professional judgment, the results for these compounds should be taken from the SW-846 Method 8260B because this method provided lower reporting limits. Results for all acid compounds in GRAB were qualified as estimated (UJ) due to low surrogate recoveries. The result for COD was qualified as estimate (J) and may be biased low due to low MS/MSD recoveries. The laboratory reported 1,4-dioxane in Grab using isotope dilution. Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The result was corrected to 7.7 µg/L. No other qualification of sample results was warranted.

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-287906-1
Laboratory Sample Delivery Group: Whittier, CA
Client Project/Site: Omega Chemical Wastewater

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/31/2021 3:43:48 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-287906-1	Composite	Water	08/20/21 13:00	08/20/21 15:20
440-287906-2	Grab	Water	08/20/21 13:10	08/20/21 15:20

Job ID: 440-287906-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-287906-1

Comments
No additional comments.

Receipt
The samples were received on 8/20/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-173395. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-174176. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS and LCSD associated with analytical batch 570-174176: Dichlorodifluoromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-173461. LCS/LCSD performed to meet QC requirement. Method 8270C

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

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

Narrative

Job Narrative
440-287906-2

Comments
No additional comments.

Receipt
The samples were received on 8/20/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-173395. A laboratory LCS/LCSD was analyzed to provide precision data.

Job ID: 440-287906-1 (Continued)

Laboratory: Eurofins Calscience Irvine (Continued)

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-174176. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS and LCSD associated with analytical batch 570-174176: Dichlorodifluoromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 570-174846 were outside control limits: (570-67494-C-1 MS) and (570-67494-C-1 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite — Lab Sample ID: 440-287906-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	1.2		1.0		mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	77	F1	20		mg/L	1		SM 5220D	Total/NA

Client Sample ID: Grab — Lab Sample ID: 440-287906-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	9.0		0.10		ug/L	1		8270C SIM ID	Total/NA
pH	8.7	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Field pH	8.60				SU	1		Field Sampling	Total/NA
Field Temperature	24.80				Celsius	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite

Lab Sample ID: 440-287906-1
Date Collected: 08/20/21 13:00
Matrix: Water
Date Received: 08/20/21 15:20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.2		1.0		mg/L			08/20/21 15:39	1
Chemical Oxygen Demand	77	F1	20		mg/L			08/25/21 16:21	1

Client Sample ID: Grab

Lab Sample ID: 440-287906-2
Date Collected: 08/20/21 13:10
Matrix: Water
Date Received: 08/20/21 15:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/21/21 19:29	1
Acrolein	ND		4.0		ug/L			08/25/21 19:21	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
Acrylonitrile	ND		5.0		ug/L			08/25/21 19:21	1
1,1-Dichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
1,1-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/21/21 19:29	1
1,2-Dibromoethane	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,3-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
2,2-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
2-Butanone	ND		5.0		ug/L			08/21/21 19:29	1
2-Chlorotoluene	ND		0.50		ug/L			08/21/21 19:29	1
2-Hexanone	ND		6.0		ug/L			08/21/21 19:29	1
4-Chlorotoluene	ND		0.50		ug/L			08/21/21 19:29	1
Acetone	ND		8.0		ug/L			08/21/21 19:29	1
Benzene	ND		0.50		ug/L			08/21/21 19:29	1
Bromobenzene	ND		0.50		ug/L			08/21/21 19:29	1
Bromochloromethane	ND		1.0		ug/L			08/21/21 19:29	1
Bromodichloromethane	ND		0.50		ug/L			08/21/21 19:29	1
Bromoform	ND		0.50		ug/L			08/21/21 19:29	1
Bromomethane	ND		1.0		ug/L			08/21/21 19:29	1
Carbon tetrachloride	ND		0.50		ug/L			08/21/21 19:29	1
Chlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
Chloroethane	ND		0.50		ug/L			08/21/21 19:29	1
Chloroform	ND		0.50		ug/L			08/21/21 19:29	1
Chloromethane	ND		1.0		ug/L			08/21/21 19:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1

Client Sample ID: Grab

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50		ug/L			08/21/21 19:29	1
Dibromomethane	ND		0.50		ug/L			08/21/21 19:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/21/21 19:29	1
Ethylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/21/21 19:29	1
Isopropanol	ND		40		ug/L			08/21/21 19:29	1
Isopropylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Methylene Chloride	ND		1.0		ug/L			08/21/21 19:29	1
n-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
N-Propylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
o-Xylene	ND		0.50		ug/L			08/21/21 19:29	1
p-Isopropyltoluene	ND		0.50		ug/L			08/21/21 19:29	1
sec-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Styrene	ND		0.50		ug/L			08/21/21 19:29	1
tert-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Tetrachloroethene	ND		0.50		ug/L			08/21/21 19:29	1
Total Volatile Organic Compounds	ND		150		ug/L			08/21/21 19:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1
Trichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
Trichlorofluoromethane	ND		0.50		ug/L			08/21/21 19:29	1
Vinyl acetate	ND		5.0		ug/L			08/21/21 19:29	1
Vinyl chloride	ND		0.50		ug/L			08/21/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*		*08/25/21 19:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 19:21*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*08/25/21 19:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 19:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 135*		*08/21/21 19:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*08/21/21 19:29*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/21/21 19:29*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*08/21/21 19:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0		ug/L			08/27/21 16:51	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/25/21 19:21	1
m,p-Xylene	ND		1.0		ug/L			08/25/21 19:21	1
Naphthalene	ND		1.0		ug/L			08/25/21 19:21	1
Toluene	ND		0.50		ug/L			08/25/21 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 135*		*08/27/21 16:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*71 - 120*		*08/27/21 16:51*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*08/27/21 16:51*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*08/27/21 16:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*		*08/25/21 19:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 19:21*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*08/25/21 19:21*	*1*

Client Sample ID: Grab

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 19:21*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**9.0**		0.10	ug/L		08/24/21 08:17	08/30/21 19:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*98*		*15 - 150*	*08/24/21 08:17*	*08/30/21 19:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*118*		*46 - 128*	*08/24/21 08:17*	*08/30/21 19:02*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,2-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,3-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,4-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1-Methylnaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4,5-Trichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4,6-Trichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dimethylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dinitrophenol	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dinitrotoluene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,6-Dichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,6-Dinitrotoluene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Chloronaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Chlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Methylnaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Nitrophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
3 & 4 Methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
3,3'-Dichlorobenzidine	ND		25	ug/L		08/23/21 08:50	08/24/21 18:38	1
3-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4,6-Dinitro-2-methylphenol	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chloro-3-methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chloroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Nitrophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Acenaphthene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Acenaphthylene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Aniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Anthracene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Azobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzidine	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Grab

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[a]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[b]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[k]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzoic acid	ND		51		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzyl alcohol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
bis (2-Chloroisopropyl) ether	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Butyl benzyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Chrysene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dibenzofuran	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Diethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dimethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Di-n-butyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Di-n-octyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Fluorene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachloroethane	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Isophorone	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Naphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Nitrobenzene	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodimethylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pentachlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Phenanthrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Phenol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pyridine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*27 - 140*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
2-Fluorobiphenyl (Surr)	*79*		*28 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
2-Fluorophenol (Surr)	*48*		*20 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
Nitrobenzene-d5 (Surr)	*83*		*31 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
Phenol-d6 (Surr)	*31*		*20 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
p-Terphenyl-d14 (Surr)	*91*		*45 - 136*	*08/23/21 08:50*	*08/24/21 18:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.7**	**HF**	0.1		SU			08/23/21 05:23	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Grab

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050		mg/L		08/23/21 13:50	08/23/21 14:55	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**8.60**				SU			08/20/21 13:10	1
Field Temperature	**24.80**				Celsius			08/20/21 13:10	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)							
		DCA	DCA	BFB	BFB	DBFM	DBFM	TOL	TOL
Lab Sample ID	Client Sample ID	(68-135)	(68-135)	(71-120)	(71-120)	(80-120)	(80-120)	(80-120)	(80-120)
440-287906-2	Grab	98	98	93	93	96	96	101	101
440-287906-2 - RA	Grab	97	97	94	94	102	102	99	99
440-287906-2 - RA	Grab	111	111	95	95	100	100	106	106
570-67494-C-1 MS	Matrix Spike	111	111	97	97	106	106	101	101
570-67494-C-1 MSD	Matrix Spike Duplicate	112	112	105	105	104	104	99	99
LCS 570-173395/3	Lab Control Sample	97	97	99	99	98	98	102	102
LCS 570-174176/3	Lab Control Sample	92	92	98	98	98	98	99	99
LCS 570-174846/3	Lab Control Sample	104	104	104	104	103	103	100	100
LCSD 570-173395/4	Lab Control Sample Dup	99	99	101	101	97	97	103	103
LCSD 570-174176/4	Lab Control Sample Dup	93	93	98	98	99	99	99	99
LCSD 570-174846/4	Lab Control Sample Dup	103	103	108	108	100	100	98	98
MB 570-173395/6	Method Blank	102	102	93	93	98	98	100	100
MB 570-174176/6	Method Blank	95	95	94	94	98	98	99	99
MB 570-174846/6	Method Blank	109	109	90	90	98	98	95	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(27-140)	(28-120)	(20-120)	(31-120)	(20-120)	(45-136)
440-287906-2	Grab	91	79	48	83	31	91
LCS 570-173461/2-A	Lab Control Sample	81	70	45	68	33	79
LCSD 570-173461/3-A	Lab Control Sample Dup	83	72	45	72	32	85
MB 570-173461/1-A	Method Blank	94	77	48	86	34	95

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-287906-2	Grab	118
440-287906-2 MS	Grab	111
440-287906-2 MSD	Grab	117
LCS 570-173856/2-A	Lab Control Sample	113
LCSD 570-173856/3-A	Lab Control Sample Dup	110

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**NBZ (46-128)**							
MB 570-173856/1-A	Method Blank	98							

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
Field Sampling	Field Sampling	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2
SM 4500 S2 B	Sulfide, Separation of Soluble and Insoluble	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite

Lab Sample ID: 440-287906-1

Date Collected: 08/20/21 13:00
Date Received: 08/20/21 15:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	655045	08/20/21 15:39	ZL7L	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	655366	08/25/21 16:21	PN8W	TAL IRV

Client Sample ID: Grab

Lab Sample ID: 440-287906-2

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	173395	08/21/21 19:29	N1A	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	174176	08/25/21 19:21	UJHB	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	174846	08/27/21 16:51	UJHB	ECL 2
Total/NA	Prep	3510C			983.9 mL	2 mL	173461	08/23/21 08:50	H1SH	ECL 1
Total/NA	Analysis	8270C		1			173935	08/24/21 18:38	N8CZ	ECL 1
Total/NA	Prep	3510C			100.0 mL	10 mL	173856	08/24/21 08:17	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			175393	08/30/21 19:02	ULLI	ECL 1
Total/NA	Analysis	SM 4500 H+ B		1			655096	08/23/21 05:23	YO8L	TAL IRV
Dissolved	Prep	SM 4500 S2 B			7.5 mL	7.5 mL	655155	08/23/21 13:50	GG0B	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1			655159	08/23/21 14:55	GG0B	TAL IRV
Total/NA	Analysis	Field Sampling		1			655175	08/20/21 13:10	P1R	TAL IRV

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-173395/6
Matrix: Water
Analysis Batch: 173395

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/21/21 16:45	1
1,2-Dibromoethane	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,3-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
2,2-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
2-Butanone	ND		5.0		ug/L			08/21/21 16:45	1
2-Chlorotoluene	ND		0.50		ug/L			08/21/21 16:45	1
2-Hexanone	ND		6.0		ug/L			08/21/21 16:45	1
4-Chlorotoluene	ND		0.50		ug/L			08/21/21 16:45	1
Acetone	ND		8.0		ug/L			08/21/21 16:45	1
Benzene	ND		0.50		ug/L			08/21/21 16:45	1
Bromobenzene	ND		0.50		ug/L			08/21/21 16:45	1
Bromochloromethane	ND		1.0		ug/L			08/21/21 16:45	1
Bromodichloromethane	ND		0.50		ug/L			08/21/21 16:45	1
Bromoform	ND		0.50		ug/L			08/21/21 16:45	1
Bromomethane	ND		1.0		ug/L			08/21/21 16:45	1
Carbon tetrachloride	ND		0.50		ug/L			08/21/21 16:45	1
Chlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
Chloroethane	ND		0.50		ug/L			08/21/21 16:45	1
Chloroform	ND		0.50		ug/L			08/21/21 16:45	1
Chloromethane	ND		1.0		ug/L			08/21/21 16:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
Dibromochloromethane	ND		0.50		ug/L			08/21/21 16:45	1
Dibromomethane	ND		0.50		ug/L			08/21/21 16:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/21/21 16:45	1
Ethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/21/21 16:45	1
Isopropanol	ND		40		ug/L			08/21/21 16:45	1
Isopropylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
m,p-Xylene	ND		1.0		ug/L			08/21/21 16:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-173395/6
Matrix: Water
Analysis Batch: 173395

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0		ug/L			08/21/21 16:45	1
Naphthalene	ND		1.0		ug/L			08/21/21 16:45	1
n-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
N-Propylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
o-Xylene	ND		0.50		ug/L			08/21/21 16:45	1
p-Isopropyltoluene	ND		0.50		ug/L			08/21/21 16:45	1
sec-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Styrene	ND		0.50		ug/L			08/21/21 16:45	1
tert-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Tetrachloroethene	ND		0.50		ug/L			08/21/21 16:45	1
Toluene	ND		0.50		ug/L			08/21/21 16:45	1
Total Volatile Organic Compounds	ND		150		ug/L			08/21/21 16:45	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
Trichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
Trichlorofluoromethane	ND		0.50		ug/L			08/21/21 16:45	1
Vinyl acetate	ND		5.0		ug/L			08/21/21 16:45	1
Vinyl chloride	ND		0.50		ug/L			08/21/21 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 135*		*08/21/21 16:45*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*08/21/21 16:45*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/21/21 16:45*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/21/21 16:45*	*1*

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.56		ug/L		96	76 - 143
1,1,1-Trichloroethane	10.0	9.64		ug/L		96	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.0		ug/L		100	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	50 - 120
1,1,2-Trichloroethane	10.0	9.70		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	9.98		ug/L		100	76 - 120
1,1-Dichloroethene	10.0	9.84		ug/L		98	72 - 120
1,1-Dichloropropene	10.0	10.3		ug/L		103	76 - 120
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125
1,2,3-Trichloropropane	10.0	9.49		ug/L		95	66 - 131
1,2,4-Trichlorobenzene	10.0	11.2		ug/L		112	80 - 123
1,2,4-Trimethylbenzene	10.0	10.3		ug/L		103	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	8.75		ug/L		87	77 - 120
1,2-Dibromoethane	10.0	9.60		ug/L		96	80 - 120
1,2-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.6		ug/L		106	80 - 120
1,3,5-Trimethylbenzene	10.0	10.3		ug/L		103	77 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123
1,4-Dichlorobenzene	10.0	9.82		ug/L		98	75 - 123
2,2-Dichloropropane	10.0	10.7		ug/L		107	78 - 133
2-Butanone	10.0	11.6		ug/L		116	32 - 133
2-Chlorotoluene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	10.0	9.38		ug/L		94	57 - 127
4-Chlorotoluene	10.0	9.88		ug/L		99	78 - 120
Acetone	10.0	12.4		ug/L		124	57 - 133
Benzene	10.0	10.4		ug/L		104	80 - 120
Bromobenzene	10.0	10.4		ug/L		104	80 - 124
Bromochloromethane	10.0	10.0		ug/L		100	76 - 125
Bromodichloromethane	10.0	9.81		ug/L		98	77 - 141
Bromoform	10.0	9.13		ug/L		91	46 - 178
Bromomethane	10.0	11.4		ug/L		114	52 - 162
Carbon tetrachloride	10.0	9.23		ug/L		92	69 - 145
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	9.97		ug/L		100	73 - 139
Chloroform	10.0	9.77		ug/L		98	80 - 120
Chloromethane	10.0	9.91		ug/L		99	35 - 159
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	80 - 122
Dibromochloromethane	10.0	9.91		ug/L		99	63 - 151
Dibromomethane	10.0	9.98		ug/L		100	80 - 121
Dichlorodifluoromethane	10.0	8.43		ug/L		84	59 - 139
Ethylbenzene	10.0	10.3		ug/L		103	80 - 120
Hexachloro-1,3-butadiene	10.0	9.92		ug/L		99	76 - 141
Isopropanol	100	102		ug/L		102	29 - 141
Isopropylbenzene	10.0	10.2		ug/L		102	80 - 124
m,p-Xylene	20.0	20.9		ug/L		104	80 - 122
Methylene Chloride	10.0	9.94		ug/L		99	70 - 120
Naphthalene	10.0	11.0		ug/L		110	75 - 120
n-Butylbenzene	10.0	10.3		ug/L		103	76 - 124
N-Propylbenzene	10.0	10.5		ug/L		105	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 122
p-Isopropyltoluene	10.0	10.1		ug/L		101	77 - 127
sec-Butylbenzene	10.0	10.1		ug/L		101	75 - 123
Styrene	10.0	10.4		ug/L		104	80 - 121
tert-Butylbenzene	10.0	9.73		ug/L		97	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	10.3		ug/L		103	80 - 120
trans-1,2-Dichloroethene	10.0	9.53		ug/L		95	67 - 123
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	78 - 140
Trichloroethene	10.0	9.87		ug/L		99	80 - 123
Trichlorofluoromethane	10.0	10.6		ug/L		106	64 - 168
Vinyl acetate	10.0	11.0		ug/L		110	75 - 144
Vinyl chloride	10.0	10.2		ug/L		102	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		68 - 135
4-Bromofluorobenzene (Surr)	99		71 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-173395/4
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.10		ug/L		91	76 - 143	5	20
1,1,1-Trichloroethane	10.0	8.86		ug/L		89	75 - 128	8	20
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	73 - 126	0	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.2		ug/L		102	50 - 120	3	20
1,1,2-Trichloroethane	10.0	9.39		ug/L		94	80 - 120	3	20
1,1-Dichloroethane	10.0	9.49		ug/L		95	76 - 120	5	20
1,1-Dichloroethene	10.0	9.10		ug/L		91	72 - 120	8	20
1,1-Dichloropropene	10.0	9.58		ug/L		96	76 - 120	7	20
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125	0	22
1,2,3-Trichloropropane	10.0	9.43		ug/L		94	66 - 131	1	20
1,2,4-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 123	2	20
1,2,4-Trimethylbenzene	10.0	10.0		ug/L		100	78 - 125	3	22
1,2-Dibromo-3-Chloropropane	10.0	9.13		ug/L		91	77 - 120	4	21
1,2-Dibromoethane	10.0	9.24		ug/L		92	80 - 120	4	20
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	2	20
1,2-Dichloroethane	10.0	9.90		ug/L		99	71 - 137	3	20
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120	4	20
1,3,5-Trimethylbenzene	10.0	9.92		ug/L		99	77 - 133	4	20
1,3-Dichlorobenzene	10.0	9.99		ug/L		100	79 - 123	1	20
1,3-Dichloropropane	10.0	10.1		ug/L		101	80 - 123	1	20
1,4-Dichlorobenzene	10.0	9.60		ug/L		96	75 - 123	2	22
2,2-Dichloropropane	10.0	9.88		ug/L		99	78 - 133	8	20
2-Butanone	10.0	9.92		ug/L		99	32 - 133	15	26
2-Chlorotoluene	10.0	9.68		ug/L		97	80 - 120	4	20
2-Hexanone	10.0	10.9		ug/L		109	57 - 127	15	21
4-Chlorotoluene	10.0	9.33		ug/L		93	78 - 120	6	21
Acetone	10.0	11.1		ug/L		111	57 - 133	11	28
Benzene	10.0	9.96		ug/L		100	80 - 120	4	20
Bromobenzene	10.0	10.1		ug/L		101	80 - 124	3	20
Bromochloromethane	10.0	9.46		ug/L		95	76 - 125	6	20
Bromodichloromethane	10.0	9.74		ug/L		97	77 - 141	1	20
Bromoform	10.0	9.16		ug/L		92	46 - 178	0	23
Bromomethane	10.0	10.1		ug/L		101	52 - 162	12	20
Carbon tetrachloride	10.0	8.69		ug/L		87	69 - 145	6	20
Chlorobenzene	10.0	9.68		ug/L		97	80 - 120	5	20
Chloroethane	10.0	9.45		ug/L		95	73 - 139	5	20
Chloroform	10.0	9.27		ug/L		93	80 - 120	5	20
Chloromethane	10.0	9.69		ug/L		97	35 - 159	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173395/4
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	10.0	9.64		ug/L		96	76 - 122	6	20
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	80 - 122	4	20
Dibromochloromethane	10.0	9.78		ug/L		98	63 - 151	1	20
Dibromomethane	10.0	10.0		ug/L		100	80 - 121	0	20
Dichlorodifluoromethane	10.0	8.41		ug/L		84	59 - 139	0	20
Ethylbenzene	10.0	9.87		ug/L		99	80 - 120	4	20
Hexachloro-1,3-butadiene	10.0	9.55		ug/L		96	76 - 141	4	23
Isopropanol	100	107		ug/L		107	29 - 141	4	22
Isopropylbenzene	10.0	9.80		ug/L		98	80 - 124	4	20
m,p-Xylene	20.0	19.8		ug/L		99	80 - 122	5	20
Methylene Chloride	10.0	9.54		ug/L		95	70 - 120	4	20
Naphthalene	10.0	11.5		ug/L		115	75 - 120	4	22
n-Butylbenzene	10.0	9.93		ug/L		99	76 - 124	4	23
N-Propylbenzene	10.0	10.1		ug/L		101	80 - 122	4	20
o-Xylene	10.0	9.89		ug/L		99	80 - 122	4	20
p-Isopropyltoluene	10.0	9.65		ug/L		97	77 - 127	4	21
sec-Butylbenzene	10.0	9.54		ug/L		95	75 - 123	5	21
Styrene	10.0	10.1		ug/L		101	80 - 121	3	20
tert-Butylbenzene	10.0	9.42		ug/L		94	72 - 128	3	22
Tetrachloroethene	10.0	9.58		ug/L		96	80 - 128	7	20
Toluene	10.0	9.97		ug/L		100	80 - 120	3	20
trans-1,2-Dichloroethene	10.0	8.69		ug/L		87	67 - 123	9	20
trans-1,3-Dichloropropene	10.0	9.90		ug/L		99	78 - 140	2	20
Trichloroethene	10.0	9.27		ug/L		93	80 - 123	6	20
Trichlorofluoromethane	10.0	10.3		ug/L		103	64 - 168	3	20
Vinyl acetate	10.0	11.4		ug/L		114	75 - 144	3	25
Vinyl chloride	10.0	9.80		ug/L		98	74 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,1-Trichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2-Trichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloroethene	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloropropene	ND		0.50	ug/L			08/25/21 11:26	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			08/25/21 11:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/25/21 11:26	1
1,2-Dibromoethane	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichloroethane	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,3-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
2,2-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
2-Butanone	ND		5.0		ug/L			08/25/21 11:26	1
2-Chlorotoluene	ND		0.50		ug/L			08/25/21 11:26	1
2-Hexanone	ND		6.0		ug/L			08/25/21 11:26	1
4-Chlorotoluene	ND		0.50		ug/L			08/25/21 11:26	1
Acetone	ND		8.0		ug/L			08/25/21 11:26	1
Benzene	ND		0.50		ug/L			08/25/21 11:26	1
Bromobenzene	ND		0.50		ug/L			08/25/21 11:26	1
Bromochloromethane	ND		1.0		ug/L			08/25/21 11:26	1
Bromodichloromethane	ND		0.50		ug/L			08/25/21 11:26	1
Bromoform	ND		0.50		ug/L			08/25/21 11:26	1
Bromomethane	ND		1.0		ug/L			08/25/21 11:26	1
Carbon tetrachloride	ND		0.50		ug/L			08/25/21 11:26	1
Chlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
Chloroethane	ND		0.50		ug/L			08/25/21 11:26	1
Chloroform	ND		0.50		ug/L			08/25/21 11:26	1
Chloromethane	ND		1.0		ug/L			08/25/21 11:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/25/21 11:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/25/21 11:26	1
Dibromochloromethane	ND		0.50		ug/L			08/25/21 11:26	1
Dibromomethane	ND		0.50		ug/L			08/25/21 11:26	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/25/21 11:26	1
Ethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/25/21 11:26	1
Isopropanol	ND		40		ug/L			08/25/21 11:26	1
Isopropylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
m,p-Xylene	ND		1.0		ug/L			08/25/21 11:26	1
Methylene Chloride	ND		1.0		ug/L			08/25/21 11:26	1
Naphthalene	ND		1.0		ug/L			08/25/21 11:26	1
n-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
N-Propylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
o-Xylene	ND		0.50		ug/L			08/25/21 11:26	1
p-Isopropyltoluene	ND		0.50		ug/L			08/25/21 11:26	1
sec-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Styrene	ND		0.50		ug/L			08/25/21 11:26	1
tert-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Tetrachloroethene	ND		0.50		ug/L			08/25/21 11:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	ug/L			08/25/21 11:26	1
Total Volatile Organic Compounds	ND		150	ug/L			08/25/21 11:26	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			08/25/21 11:26	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/25/21 11:26	1
Trichloroethene	ND		0.50	ug/L			08/25/21 11:26	1
Trichlorofluoromethane	ND		0.50	ug/L			08/25/21 11:26	1
Vinyl acetate	ND		5.0	ug/L			08/25/21 11:26	1
Vinyl chloride	ND		0.50	ug/L			08/25/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*08/25/21 11:26*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 11:26*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/25/21 11:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 11:26*	*1*

Lab Sample ID: LCS 570-174176/3
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.33		ug/L		93	76 - 143
1,1,1-Trichloroethane	10.0	9.26		ug/L		93	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.24		ug/L		92	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.6		ug/L		106	50 - 120
1,1,2-Trichloroethane	10.0	8.95		ug/L		89	80 - 120
1,1-Dichloroethane	10.0	9.47		ug/L		95	76 - 120
1,1-Dichloroethene	10.0	9.32		ug/L		93	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichlorobenzene	10.0	9.86		ug/L		99	80 - 125
1,2,3-Trichloropropane	10.0	8.02		ug/L		80	66 - 131
1,2,4-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 123
1,2,4-Trimethylbenzene	10.0	9.85		ug/L		99	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	7.82		ug/L		78	77 - 120
1,2-Dibromoethane	10.0	9.01		ug/L		90	80 - 120
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	79 - 123
1,2-Dichloroethane	10.0	8.83		ug/L		88	71 - 137
1,2-Dichloropropane	10.0	9.60		ug/L		96	80 - 120
1,3,5-Trimethylbenzene	10.0	9.89		ug/L		99	77 - 133
1,3-Dichlorobenzene	10.0	9.63		ug/L		96	79 - 123
1,3-Dichloropropane	10.0	9.33		ug/L		93	80 - 123
1,4-Dichlorobenzene	10.0	9.11		ug/L		91	75 - 123
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133
2-Butanone	10.0	7.23		ug/L		72	32 - 133
2-Chlorotoluene	10.0	9.44		ug/L		94	80 - 120
2-Hexanone	10.0	8.53		ug/L		85	57 - 127
4-Chlorotoluene	10.0	9.14		ug/L		91	78 - 120
Acetone	10.0	8.20		ug/L		82	57 - 133
Benzene	10.0	9.79		ug/L		98	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-174176/3
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	10.0	9.85		ug/L		99	80 - 124
Bromochloromethane	10.0	9.61		ug/L		96	76 - 125
Bromodichloromethane	10.0	9.21		ug/L		92	77 - 141
Bromoform	10.0	8.69		ug/L		87	46 - 178
Bromomethane	10.0	9.46		ug/L		95	52 - 162
Carbon tetrachloride	10.0	9.29		ug/L		93	69 - 145
Chlorobenzene	10.0	9.65		ug/L		97	80 - 120
Chloroethane	10.0	8.57		ug/L		86	73 - 139
Chloroform	10.0	9.34		ug/L		93	80 - 120
Chloromethane	10.0	8.29		ug/L		83	35 - 159
cis-1,2-Dichloroethene	10.0	9.78		ug/L		98	76 - 122
cis-1,3-Dichloropropene	10.0	9.31		ug/L		93	80 - 122
Dibromochloromethane	10.0	9.73		ug/L		97	63 - 151
Dibromomethane	10.0	9.31		ug/L		93	80 - 121
Dichlorodifluoromethane	10.0	5.81	*-	ug/L		58	59 - 139
Ethylbenzene	10.0	9.90		ug/L		99	80 - 120
Hexachloro-1,3-butadiene	10.0	10.0		ug/L		100	76 - 141
Isopropanol	100	90.5		ug/L		90	29 - 141
Isopropylbenzene	10.0	9.89		ug/L		99	80 - 124
m,p-Xylene	20.0	19.6		ug/L		98	80 - 122
Methylene Chloride	10.0	9.40		ug/L		94	70 - 120
Naphthalene	10.0	9.75		ug/L		97	75 - 120
n-Butylbenzene	10.0	10.1		ug/L		101	76 - 124
N-Propylbenzene	10.0	10.0		ug/L		100	80 - 122
o-Xylene	10.0	9.72		ug/L		97	80 - 122
p-Isopropyltoluene	10.0	9.62		ug/L		96	77 - 127
sec-Butylbenzene	10.0	9.44		ug/L		94	75 - 123
Styrene	10.0	9.62		ug/L		96	80 - 121
tert-Butylbenzene	10.0	9.32		ug/L		93	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	9.78		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	9.20		ug/L		92	67 - 123
trans-1,3-Dichloropropene	10.0	9.45		ug/L		94	78 - 140
Trichloroethene	10.0	9.24		ug/L		92	80 - 123
Trichlorofluoromethane	10.0	9.17		ug/L		92	64 - 168
Vinyl acetate	10.0	11.4		ug/L		114	75 - 144
Vinyl chloride	10.0	8.32		ug/L		83	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 135*
4-Bromofluorobenzene (Surr)	*98*		*71 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-174176/4
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.09		ug/L		91	76 - 143	3	20
1,1,1-Trichloroethane	10.0	8.75		ug/L		88	75 - 128	6	20
1,1,2,2-Tetrachloroethane	10.0	9.42		ug/L		94	73 - 126	2	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.60		ug/L		96	50 - 120	10	20
1,1,2-Trichloroethane	10.0	8.94		ug/L		89	80 - 120	0	20
1,1-Dichloroethane	10.0	9.15		ug/L		92	76 - 120	3	20
1,1-Dichloroethene	10.0	8.42		ug/L		84	72 - 120	10	20
1,1-Dichloropropene	10.0	9.48		ug/L		95	76 - 120	5	20
1,2,3-Trichlorobenzene	10.0	9.93		ug/L		99	80 - 125	1	22
1,2,3-Trichloropropane	10.0	8.41		ug/L		84	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 123	1	20
1,2,4-Trimethylbenzene	10.0	9.64		ug/L		96	78 - 125	2	22
1,2-Dibromo-3-Chloropropane	10.0	8.17		ug/L		82	77 - 120	4	21
1,2-Dibromoethane	10.0	8.82		ug/L		88	80 - 120	2	20
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	79 - 123	0	20
1,2-Dichloroethane	10.0	8.70		ug/L		87	71 - 137	2	20
1,2-Dichloropropane	10.0	9.40		ug/L		94	80 - 120	2	20
1,3,5-Trimethylbenzene	10.0	9.55		ug/L		95	77 - 133	4	20
1,3-Dichlorobenzene	10.0	9.63		ug/L		96	79 - 123	0	20
1,3-Dichloropropane	10.0	9.51		ug/L		95	80 - 123	2	20
1,4-Dichlorobenzene	10.0	9.11		ug/L		91	75 - 123	0	22
2,2-Dichloropropane	10.0	9.76		ug/L		98	78 - 133	6	20
2-Butanone	10.0	8.04		ug/L		80	32 - 133	11	26
2-Chlorotoluene	10.0	9.21		ug/L		92	80 - 120	2	20
2-Hexanone	10.0	8.70		ug/L		87	57 - 127	2	21
4-Chlorotoluene	10.0	9.14		ug/L		91	78 - 120	0	21
Acetone	10.0	8.12		ug/L		81	57 - 133	1	28
Benzene	10.0	9.49		ug/L		95	80 - 120	3	20
Bromobenzene	10.0	9.50		ug/L		95	80 - 124	4	20
Bromochloromethane	10.0	9.41		ug/L		94	76 - 125	2	20
Bromodichloromethane	10.0	9.04		ug/L		90	77 - 141	2	20
Bromoform	10.0	8.93		ug/L		89	46 - 178	3	23
Bromomethane	10.0	9.27		ug/L		93	52 - 162	2	20
Carbon tetrachloride	10.0	8.79		ug/L		88	69 - 145	6	20
Chlorobenzene	10.0	9.23		ug/L		92	80 - 120	4	20
Chloroethane	10.0	8.54		ug/L		85	73 - 139	0	20
Chloroform	10.0	8.95		ug/L		90	80 - 120	4	20
Chloromethane	10.0	7.64		ug/L		76	35 - 159	8	20
cis-1,2-Dichloroethene	10.0	9.55		ug/L		95	76 - 122	2	20
cis-1,3-Dichloropropene	10.0	9.28		ug/L		93	80 - 122	0	20
Dibromochloromethane	10.0	9.74		ug/L		97	63 - 151	0	20
Dibromomethane	10.0	9.33		ug/L		93	80 - 121	0	20
Dichlorodifluoromethane	10.0	5.37	*-	ug/L		54	59 - 139	8	20
Ethylbenzene	10.0	9.58		ug/L		96	80 - 120	3	20
Hexachloro-1,3-butadiene	10.0	9.95		ug/L		99	76 - 141	1	23
Isopropanol	100	85.3		ug/L		85	29 - 141	6	22
Isopropylbenzene	10.0	9.46		ug/L		95	80 - 124	4	20
m,p-Xylene	20.0	19.1		ug/L		95	80 - 122	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-174176/4
Matrix: Water
Analysis Batch: 174176

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride			10.0	8.91		ug/L		89	70 - 120	5	20
Naphthalene			10.0	10.0		ug/L		100	75 - 120	3	22
n-Butylbenzene			10.0	9.88		ug/L		99	76 - 124	2	23
N-Propylbenzene			10.0	9.49		ug/L		95	80 - 122	5	20
o-Xylene			10.0	9.28		ug/L		93	80 - 122	5	20
p-Isopropyltoluene			10.0	9.46		ug/L		95	77 - 127	2	21
sec-Butylbenzene			10.0	9.34		ug/L		93	75 - 123	1	21
Styrene			10.0	9.52		ug/L		95	80 - 121	1	20
tert-Butylbenzene			10.0	9.26		ug/L		93	72 - 128	1	22
Tetrachloroethene			10.0	9.76		ug/L		98	80 - 128	5	20
Toluene			10.0	9.42		ug/L		94	80 - 120	4	20
trans-1,2-Dichloroethene			10.0	8.73		ug/L		87	67 - 123	5	20
trans-1,3-Dichloropropene			10.0	9.37		ug/L		94	78 - 140	1	20
Trichloroethene			10.0	8.94		ug/L		89	80 - 123	3	20
Trichlorofluoromethane			10.0	8.63		ug/L		86	64 - 168	6	20
Vinyl acetate			10.0	10.8		ug/L		108	75 - 144	5	25
Vinyl chloride			10.0	7.82		ug/L		78	74 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*
4-Bromofluorobenzene (Surr)	*98*		*71 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 570-174846/6
Matrix: Water
Analysis Batch: 174846

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0		ug/L			08/27/21 12:50	1
Acrolein	ND		4.0		ug/L			08/27/21 12:50	1
Acrylonitrile	ND		5.0		ug/L			08/27/21 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 135*		*08/27/21 12:50*	*1*
4-Bromofluorobenzene (Surr)	*90*		*71 - 120*		*08/27/21 12:50*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/27/21 12:50*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*08/27/21 12:50*	*1*

Lab Sample ID: LCS 570-174846/3
Matrix: Water
Analysis Batch: 174846

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			10.0	9.20		ug/L		92	20 - 175		
Acrolein			20.0	19.6		ug/L		98	54 - 137		
Acrylonitrile			10.0	11.2		ug/L		112	58 - 123		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-174846/3
Matrix: Water
Analysis Batch: 174846

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		68 - 135
4-Bromofluorobenzene (Surr)	104		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-174846/4
Matrix: Water
Analysis Batch: 174846

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether			10.0	9.29		ug/L		93	20 - 175	1	30
Acrolein			20.0	18.6		ug/L		93	54 - 137	5	24
Acrylonitrile			10.0	10.4		ug/L		104	58 - 123	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		68 - 135
4-Bromofluorobenzene (Surr)	108		71 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 570-67494-C-1 MS
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND	F1	10.0	ND	F1	ug/L		0	20 - 151		
Acrolein	ND		20.0	29.3		ug/L		147	45 - 166		
Acrylonitrile	ND		10.0	12.6		ug/L		126	41 - 153		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		68 - 135
4-Bromofluorobenzene (Surr)	97		71 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: 570-67494-C-1 MSD
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND	F1	10.0	ND	F1	ug/L		0	20 - 151	NC	20
Acrolein	ND		20.0	28.3		ug/L		141	45 - 166	4	32
Acrylonitrile	ND		10.0	11.0		ug/L		110	41 - 153	14	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		68 - 135
4-Bromofluorobenzene (Surr)	105		71 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-67494-C-1 MSD
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-173461/1-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173461

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,2-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,3-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,4-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1-Methylnaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4,5-Trichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dimethylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dinitrophenol	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dinitrotoluene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,6-Dichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,6-Dinitrotoluene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Chloronaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Chlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Methylnaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Nitrophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
3 & 4 Methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
3,3'-Dichlorobenzidine	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
3-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chloroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Nitrophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Acenaphthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Acenaphthylene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Aniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Azobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzidine	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[a]anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[a]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-173461/1-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173461

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[k]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzoic acid	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzyl alcohol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
bis (2-Chloroisopropyl) ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Butyl benzyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Chrysene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dibenzofuran	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Diethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dimethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Di-n-butyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Di-n-octyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Fluorene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachloroethane	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Isophorone	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Naphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Nitrobenzene	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodimethylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pentachlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Phenanthrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Phenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pyridine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*27 - 140*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
2-Fluorobiphenyl (Surr)	*77*		*28 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
2-Fluorophenol (Surr)	*48*		*20 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
Nitrobenzene-d5 (Surr)	*86*		*31 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
Phenol-d6 (Surr)	*34*		*20 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
p-Terphenyl-d14 (Surr)	*95*		*45 - 136*	*08/23/21 08:50*	*08/24/21 14:21*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173461/2-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	69.3		ug/L		69	46 - 120
1,2-Dichlorobenzene	100	64.8		ug/L		65	40 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	68.6		ug/L		69	50 - 150
1,3-Dichlorobenzene	100	61.8		ug/L		62	34 - 120
1,4-Dichlorobenzene	100	63.3		ug/L		63	37 - 120
1-Methylnaphthalene	100	75.1		ug/L		75	62 - 120
2,4,5-Trichlorophenol	100	84.0		ug/L		84	60 - 120
2,4,6-Trichlorophenol	100	88.0		ug/L		88	60 - 120
2,4-Dichlorophenol	100	78.5		ug/L		79	62 - 120
2,4-Dimethylphenol	100	66.0		ug/L		66	57 - 120
2,4-Dinitrophenol	100	95.9		ug/L		96	36 - 120
2,4-Dinitrotoluene	100	83.8		ug/L		84	69 - 120
2,6-Dichlorophenol	100	75.6		ug/L		76	61 - 120
2,6-Dinitrotoluene	100	84.7		ug/L		85	70 - 120
2-Chloronaphthalene	100	76.7		ug/L		77	57 - 120
2-Chlorophenol	100	73.7		ug/L		74	56 - 120
2-Methylnaphthalene	100	72.1		ug/L		72	60 - 120
2-Methylphenol	100	67.9		ug/L		68	54 - 120
2-Nitroaniline	100	73.8		ug/L		74	52 - 120
2-Nitrophenol	100	78.5		ug/L		79	64 - 120
3 & 4 Methylphenol	200	96.2		ug/L		48	44 - 120
3,3'-Dichlorobenzidine	100	83.1		ug/L		83	66 - 120
3-Nitroaniline	100	78.6		ug/L		79	66 - 120
4,6-Dinitro-2-methylphenol	100	83.9		ug/L		84	58 - 120
4-Bromophenyl phenyl ether	100	82.0		ug/L		82	62 - 120
4-Chloro-3-methylphenol	100	70.5		ug/L		71	63 - 120
4-Chloroaniline	100	66.1		ug/L		66	59 - 120
4-Chlorophenyl phenyl ether	100	79.3		ug/L		79	61 - 120
4-Nitroaniline	100	77.2		ug/L		77	64 - 120
4-Nitrophenol	100	39.2		ug/L		39	21 - 120
Acenaphthene	100	75.9		ug/L		76	61 - 120
Acenaphthylene	100	83.5		ug/L		83	64 - 120
Aniline	100	58.6		ug/L		59	52 - 120
Anthracene	100	81.7		ug/L		82	68 - 120
Azobenzene	100	68.6		ug/L		69	52 - 120
Benzidine	100	38.2	J	ug/L		38	20 - 163
Benzo[a]anthracene	100	82.8		ug/L		83	74 - 120
Benzo[a]pyrene	100	82.9		ug/L		83	68 - 120
Benzo[b]fluoranthene	100	73.5		ug/L		73	66 - 120
Benzo[g,h,i]perylene	100	79.3		ug/L		79	66 - 120
Benzo[k]fluoranthene	100	72.7		ug/L		73	58 - 120
Benzoic acid	100	46.8	J	ug/L		47	20 - 120
Benzyl alcohol	100	71.5		ug/L		71	51 - 120
bis (2-Chloroisopropyl) ether	100	79.4		ug/L		79	46 - 127
Bis(2-chloroethoxy)methane	100	71.2		ug/L		71	60 - 120
Bis(2-chloroethyl)ether	100	76.2		ug/L		76	56 - 120
Bis(2-ethylhexyl) phthalate	100	76.0		ug/L		76	64 - 120
Butyl benzyl phthalate	100	78.7		ug/L		79	67 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173461/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 173935 — **Prep Batch: 173461**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	100	76.7		ug/L		77	66 - 120
Dibenz(a,h)anthracene	100	75.2		ug/L		75	66 - 120
Dibenzofuran	100	77.3		ug/L		77	62 - 120
Diethyl phthalate	100	75.7		ug/L		76	66 - 120
Dimethyl phthalate	100	78.2		ug/L		78	63 - 120
Di-n-butyl phthalate	100	73.8		ug/L		74	68 - 120
Di-n-octyl phthalate	100	75.2		ug/L		75	65 - 120
Fluoranthene	100	80.3		ug/L		80	68 - 120
Fluorene	100	79.0		ug/L		79	65 - 120
Hexachloro-1,3-butadiene	100	69.6		ug/L		70	27 - 120
Hexachlorobenzene	100	70.8		ug/L		71	62 - 120
Hexachlorocyclopentadiene	100	101		ug/L		101	36 - 134
Hexachloroethane	100	59.5		ug/L		60	20 - 120
Indeno[1,2,3-cd]pyrene	100	72.1		ug/L		72	65 - 120
Isophorone	100	80.2		ug/L		80	62 - 120
Naphthalene	100	65.8		ug/L		66	57 - 120
Nitrobenzene	100	70.3		ug/L		70	55 - 120
N-Nitrosodimethylamine	100	49.3		ug/L		49	34 - 120
N-Nitrosodi-n-propylamine	100	82.1		ug/L		82	55 - 120
N-Nitrosodiphenylamine	100	92.7		ug/L		93	75 - 123
Pentachlorophenol	100	70.4		ug/L		70	33 - 120
Phenanthrene	100	78.8		ug/L		79	68 - 120
Phenol	100	38.3		ug/L		38	25 - 120
Pyrene	100	79.6		ug/L		80	66 - 120
Pyridine	100	26.6		ug/L		27	26 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*81*		*27 - 140*
2-Fluorobiphenyl (Surr)	*70*		*28 - 120*
2-Fluorophenol (Surr)	*45*		*20 - 120*
Nitrobenzene-d5 (Surr)	*68*		*31 - 120*
Phenol-d6 (Surr)	*33*		*20 - 120*
p-Terphenyl-d14 (Surr)	*79*		*45 - 136*

Lab Sample ID: LCSD 570-173461/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 173935 — **Prep Batch: 173461**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	79.8		ug/L		80	46 - 120	14	20
1,2-Dichlorobenzene	100	68.0		ug/L		68	40 - 120	5	20
1,2-Diphenylhydrazine(as Azobenzene)	100	67.9		ug/L		68	50 - 150	1	30
1,3-Dichlorobenzene	100	65.4		ug/L		65	34 - 120	6	20
1,4-Dichlorobenzene	100	67.1		ug/L		67	37 - 120	6	20
1-Methylnaphthalene	100	84.8		ug/L		85	62 - 120	12	20
2,4,5-Trichlorophenol	100	85.3		ug/L		85	60 - 120	1	20
2,4,6-Trichlorophenol	100	89.0		ug/L		89	60 - 120	1	20
2,4-Dichlorophenol	100	88.7		ug/L		89	62 - 120	12	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173461/3-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dimethylphenol	100	72.3		ug/L		72	57 - 120	9	20
2,4-Dinitrophenol	100	93.1		ug/L		93	36 - 120	3	20
2,4-Dinitrotoluene	100	82.8		ug/L		83	69 - 120	1	20
2,6-Dichlorophenol	100	84.9		ug/L		85	61 - 120	12	20
2,6-Dinitrotoluene	100	88.4		ug/L		88	70 - 120	4	20
2-Chloronaphthalene	100	80.4		ug/L		80	57 - 120	5	20
2-Chlorophenol	100	77.1		ug/L		77	56 - 120	5	20
2-Methylnaphthalene	100	79.2		ug/L		79	60 - 120	9	20
2-Methylphenol	100	67.0		ug/L		67	54 - 120	1	20
2-Nitroaniline	100	68.6		ug/L		69	52 - 120	7	20
2-Nitrophenol	100	83.8		ug/L		84	64 - 120	6	20
3 & 4 Methylphenol	200	98.9		ug/L		49	44 - 120	3	20
3,3'-Dichlorobenzidine	100	87.0		ug/L		87	66 - 120	5	20
3-Nitroaniline	100	78.5		ug/L		78	66 - 120	0	20
4,6-Dinitro-2-methylphenol	100	82.6		ug/L		83	58 - 120	2	20
4-Bromophenyl phenyl ether	100	87.3		ug/L		87	62 - 120	6	20
4-Chloro-3-methylphenol	100	74.7		ug/L		75	63 - 120	6	20
4-Chloroaniline	100	73.7		ug/L		74	59 - 120	11	20
4-Chlorophenyl phenyl ether	100	83.5		ug/L		83	61 - 120	5	20
4-Nitroaniline	100	76.4		ug/L		76	64 - 120	1	20
4-Nitrophenol	100	37.1		ug/L		37	21 - 120	5	20
Acenaphthene	100	78.8		ug/L		79	61 - 120	4	20
Acenaphthylene	100	87.0		ug/L		87	64 - 120	4	20
Aniline	100	58.7		ug/L		59	52 - 120	0	20
Anthracene	100	85.5		ug/L		85	68 - 120	5	20
Azobenzene	100	67.9		ug/L		68	52 - 120	1	20
Benzidine	100	38.9	J	ug/L		39	20 - 163	2	29
Benzo[a]anthracene	100	87.5		ug/L		87	74 - 120	5	20
Benzo[a]pyrene	100	88.3		ug/L		88	68 - 120	6	20
Benzo[b]fluoranthene	100	80.2		ug/L		80	66 - 120	9	20
Benzo[g,h,i]perylene	100	82.7		ug/L		83	66 - 120	4	20
Benzo[k]fluoranthene	100	77.1		ug/L		77	58 - 120	6	20
Benzoic acid	100	46.7	J	ug/L		47	20 - 120	0	21
Benzyl alcohol	100	70.6		ug/L		71	51 - 120	1	20
bis (2-Chloroisopropyl) ether	100	77.6		ug/L		78	46 - 127	2	20
Bis(2-chloroethoxy)methane	100	73.8		ug/L		74	60 - 120	4	20
Bis(2-chloroethyl)ether	100	74.7		ug/L		75	56 - 120	2	20
Bis(2-ethylhexyl) phthalate	100	78.5		ug/L		78	64 - 120	3	20
Butyl benzyl phthalate	100	81.0		ug/L		81	67 - 120	3	20
Chrysene	100	82.7		ug/L		83	66 - 120	8	20
Dibenz(a,h)anthracene	100	79.9		ug/L		80	66 - 120	6	20
Dibenzofuran	100	80.4		ug/L		80	62 - 120	4	20
Diethyl phthalate	100	76.0		ug/L		76	66 - 120	0	20
Dimethyl phthalate	100	79.3		ug/L		79	63 - 120	1	20
Di-n-butyl phthalate	100	74.7		ug/L		75	68 - 120	1	20
Di-n-octyl phthalate	100	76.2		ug/L		76	65 - 120	1	20
Fluoranthene	100	86.2		ug/L		86	68 - 120	7	20
Fluorene	100	81.5		ug/L		81	65 - 120	3	20
Hexachloro-1,3-butadiene	100	78.9		ug/L		79	27 - 120	13	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173461/3-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173461

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobenzene			100	73.2		ug/L		73	62 - 120	3	20
Hexachlorocyclopentadiene			100	97.6		ug/L		98	36 - 134	4	20
Hexachloroethane			100	61.1		ug/L		61	20 - 120	3	20
Indeno[1,2,3-cd]pyrene			100	76.4		ug/L		76	65 - 120	6	20
Isophorone			100	82.5		ug/L		82	62 - 120	3	20
Naphthalene			100	71.6		ug/L		72	57 - 120	8	20
Nitrobenzene			100	74.8		ug/L		75	55 - 120	6	20
N-Nitrosodimethylamine			100	46.4		ug/L		46	34 - 120	6	20
N-Nitrosodi-n-propylamine			100	81.1		ug/L		81	55 - 120	1	20
N-Nitrosodiphenylamine			100	97.5		ug/L		98	75 - 123	5	20
Pentachlorophenol			100	72.8		ug/L		73	33 - 120	3	20
Phenanthrene			100	82.5		ug/L		83	68 - 120	5	20
Phenol			100	37.4		ug/L		37	25 - 120	2	20
Pyrene			100	87.0		ug/L		87	66 - 120	9	20
Pyridine			100	26.7		ug/L		27	26 - 120	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*27 - 140*
2-Fluorobiphenyl (Surr)	*72*		*28 - 120*
2-Fluorophenol (Surr)	*45*		*20 - 120*
Nitrobenzene-d5 (Surr)	*72*		*31 - 120*
Phenol-d6 (Surr)	*32*		*20 - 120*
p-Terphenyl-d14 (Surr)	*85*		*45 - 136*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-173856/1-A
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173856

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10		ug/L		08/24/21 08:17	08/30/21 17:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*102*		*15 - 150*	*08/24/21 08:17*	*08/30/21 17:42*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*98*		*46 - 128*	*08/24/21 08:17*	*08/30/21 17:42*	*1*

Lab Sample ID: LCS 570-173856/2-A
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	13.8		ug/L		69	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*85*		*15 - 150*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-173856/2-A
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173856

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	113		46 - 128

Lab Sample ID: LCSD 570-173856/3-A
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	15.0		ug/L		75	57 - 136	8	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	89		15 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	110		46 - 128

Lab Sample ID: 440-287906-2 MS
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Grab
Prep Type: Total/NA
Prep Batch: 173856

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	9.0		20.0	22.1		ug/L		65	45 - 139		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	88		15 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	111		46 - 128

Lab Sample ID: 440-287906-2 MSD
Matrix: Water
Analysis Batch: 175393

Client Sample ID: Grab
Prep Type: Total/NA
Prep Batch: 173856

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	9.0		20.0	21.8		ug/L		64	45 - 139	2	17

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	97		15 - 150

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	117		46 - 128

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-655045/1
Matrix: Water
Analysis Batch: 655045

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0		mg/L			08/20/21 15:39	1

Lab Sample ID: LCS 440-655045/2
Matrix: Water
Analysis Batch: 655045

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	1010		mg/L		101	85 - 115		

Lab Sample ID: 440-287880-A-1 DU
Matrix: Water
Analysis Batch: 655045

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	19			19.3		mg/L				0	5

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-287906-2 DU
Matrix: Water
Analysis Batch: 655096

Client Sample ID: Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.7	HF		8.7		SU				0.2	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-655155/1-A
Matrix: Water
Analysis Batch: 655159

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 655155

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050		mg/L		08/23/21 13:50	08/23/21 14:54	1

Lab Sample ID: LCS 440-655155/2-A
Matrix: Water
Analysis Batch: 655159

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 655155

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved			0.501	0.508		mg/L		101	80 - 120		

Lab Sample ID: 440-287848-B-2-B MS
Matrix: Water
Analysis Batch: 655159

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 655155

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved	ND	HF	0.501	0.510	HF	mg/L		102	70 - 130		

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: 440-287848-B-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 655159 — **Prep Batch: 655155**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.501	0.530	HF	mg/L		106	70 - 130	4	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-655366/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20		mg/L			08/25/21 16:20	1

Lab Sample ID: LCS 440-655366/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	199		mg/L		99	90 - 110		

Lab Sample ID: 440-287906-1 MS — **Client Sample ID: Composite**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	77	F1	200	245	F1	mg/L		84	90 - 110		

Lab Sample ID: 440-287906-1 MSD — **Client Sample ID: Composite**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	77	F1	200	240	F1	mg/L		81	90 - 110	2	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

GC/MS VOA

Analysis Batch: 173395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	8260B	
MB 570-173395/6	Method Blank	Total/NA	Water	8260B	
LCS 570-173395/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-173395/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 174176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2 - RA	Grab	Total/NA	Water	8260B	
440-287906-2	Grab	Total/NA	Water	8260B	
MB 570-174176/6	Method Blank	Total/NA	Water	8260B	
LCS 570-174176/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-174176/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 174846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2 - RA	Grab	Total/NA	Water	8260B	
MB 570-174846/6	Method Blank	Total/NA	Water	8260B	
LCS 570-174846/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-174846/4	Lab Control Sample Dup	Total/NA	Water	8260B	
570-67494-C-1 MS	Matrix Spike	Total/NA	Water	8260B	
570-67494-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 173461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	3510C	
MB 570-173461/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-173461/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-173461/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 173856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	3510C	
MB 570-173856/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-173856/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-173856/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-287906-2 MS	Grab	Total/NA	Water	3510C	
440-287906-2 MSD	Grab	Total/NA	Water	3510C	

Analysis Batch: 173935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	8270C	173461
MB 570-173461/1-A	Method Blank	Total/NA	Water	8270C	173461
LCS 570-173461/2-A	Lab Control Sample	Total/NA	Water	8270C	173461
LCSD 570-173461/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	173461

Analysis Batch: 175393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	8270C SIM ID	173856
MB 570-173856/1-A	Method Blank	Total/NA	Water	8270C SIM ID	173856

GC/MS Semi VOA (Continued)

Analysis Batch: 175393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-173856/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	173856
LCSD 570-173856/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	173856
440-287906-2 MS	Grab	Total/NA	Water	8270C SIM ID	173856
440-287906-2 MSD	Grab	Total/NA	Water	8270C SIM ID	173856

General Chemistry

Analysis Batch: 655045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-1	Composite	Total/NA	Water	SM 2540D	
MB 440-655045/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-655045/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-287880-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 655096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	SM 4500 H+ B	
440-287906-2 DU	Grab	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 655155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Dissolved	Water	SM 4500 S2 B	
MB 440-655155/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-655155/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
440-287848-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-287848-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 655159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Dissolved	Water	SM 4500 S2 D	655155
MB 440-655155/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	655155
LCS 440-655155/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	655155
440-287848-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	655155
440-287848-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	655155

Analysis Batch: 655366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-1	Composite	Total/NA	Water	SM 5220D	
MB 440-655366/9	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-655366/10	Lab Control Sample	Total/NA	Water	SM 5220D	
440-287906-1 MS	Composite	Total/NA	Water	SM 5220D	
440-287906-1 MSD	Composite	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 655175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab	Total/NA	Water	Field Sampling	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Laboratory: Eurofins Calscience Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2706	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-22
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone: 949-261 1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Felipa Reyes	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-189773-34724.1
Client Contact: Pamela Henriksen	Phone: 714-651-2862	E-Mail: Danielle.Roberts@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Jacob & Hefner Associates P C.	PWSID:			Job #:
Address: 15375 Barranca Parkway J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618	Compliance Project: Δ Yes Δ No			
Phone: 949-453-1045(Tel) 949-453-1047(Fax)	PO #: Omega Chemical Wastewater			
Email: phenriksen@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 44003641			
Site: California	SSOW#:			

Analysis Requested

Preservation Codes:

A HCL	M Hexane
B NaOH	N None
C Zn Acetate	O AsNaO2
D Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R Na2S2O3
G Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D COD	2540D TSS	SM4500_S2_D Dissolved Sulfide	8260B_LL VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ pH	8260B_LL A+A+2CVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	B	A	N	N	N		
Composite	8-20-21	13:00	C	Water			X	X						2	Iso Set up
Grab	8-20-21	13:10	G	Water					X	X	X	X	X	12	8-19-21 @ 12:50
															=
															8-20-21 @ 12:50
															=
															Field PH = 8.60
															Temp = 24.8°C
															Sampling Time
															4 hours

8/20/21 or

440-287906 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: [signature]	Date/Time: 8/20/21 15:20	Company: BT	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/20/21 1520	Company: EC IRV
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.		Cooler Temperature(s) °C and Other Remarks:	1289 3.7/3.7	

Ver: 06/08/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone: 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-172503.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-287906-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 8/27/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email	WO #:			
Project Name: Omega Chemical - ISCO/Monthly	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8260B_LL/5030C_UP 8260LL-2CVE, Acrolein, Acrylonitrile	8270C_SIM_ID_LL/3510C_LVI LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	8270C/3510C (MOD) Routine SVOA (Full Spike)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
Grab (440-287906-2)	8/20/21	13:10 Pacific		Water			X	X	X	X	10	Special Multiple Dils close to 1 Run in order J's Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8/20/21 1635	Company: EC-IRV	Received by:	Date/Time: 8/20/21 ~~1705~~ 1635	Company: EC
Relinquished by:	Date/Time: 8/20/21 1720	Company: EC	Received by:	Date/Time: 8/20/21 1720	Company: EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No: N/A	Cooler Temperature(s) °C and Other Remarks: 2.1/1.7 SLG

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287906-1
SDG Number: Whittier, CA

Login Number: 287906
List Number: 1
Creator: Escalante, Maria I

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287906-1
SDG Number: Whittier, CA

Login Number: 287906
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 08/20/21 07:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-287906-2	Grab	98							
440-287906-2 MS	Grab	88							
440-287906-2 MSD	Grab	97							
LCS 570-173856/2-A	Lab Control Sample	85							
LCSD 570-173856/3-A	Lab Control Sample Dup	89							
MB 570-173856/1-A	Method Blank	102							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Data Quality Assessment
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021

Sampling Event	Sampling Rationale	Frequency of Analysis	Matrix	Lab WO#	Sampling Date	Field Quality Control Samples	Data Review Level	Review of Laboratory QC Samples	Data Usability
GWTS Process Sampling									
SCAQMD Compliance									
Q3	Sampling of the influent, intermediate, and effluent sample ports of the VPGAC vessels is required monthly for the SCAQMD permit.	Monthly	Air	2107256	7/12/2021	Equipment blanks are not needed as sampling equipment is not used to collect the vapor samples. Trip blanks are not typically submitted with Summa canisters. Field duplicates are not needed for this compliance sampling.	Stage 2A	MB, LCS/LCSD, surrogates	TNMOC results were not validated. No qualification of sample results was warranted.
				2108248	8/10/2021				TNMOC results were not validated. No qualification of sample results was warranted.
				2109227	9/7/2021				TNMOC results were not validated. No qualification of sample results was warranted.
Treatment System Process Sampling									
Q3	Analysis of the influent and effluent samples (before and after the air stripper) from the GWTS are needed to assess the performance of the treatment equipment.	Monthly (monthly for the first year of operation for the influent sample, frequency may change after 1st year); monthly for effluent sample.	Water	285622	7/6/2021	Equipment blanks are not needed as sampling equipment is not used to collect these samples from the sample ports. Field duplicates are not needed for this treatment assessment sampling. Trip blanks were analyzed with these samples and all trip blank results were nondetect.	Stage 2A	MB, LCS/LCSD, MS/MSD, surrogates	The result for 1,4-dioxane in OC_SP220B_EFF_070621 was qualified as estimated (J-) with potential low bias due to low recoveries in the LCS and LCSD. Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The result was corrected to 12 µg/L. No other results required qualification as a result of this review.
				287457	8/10/2021				The result for 1,4-dioxane in OC_SP220B_EFF_081021 was qualified as estimated (J-) with potential low bias due to low recoveries in the surrogate, LCS, and LCSD. Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The result was corrected to 6.2 µg/L. No other results required qualification as a result of this review.
				288585	9/7/2021				Historically, 1,4-dioxane has been reported using the associated internal standard. To be consistent with previous sampling events, the client requested 1,4-dioxane be reported using the associated internal standard and not using isotope dilution. The result for 1,4-dioxane in OC_SP220B_EFF_090721 was corrected to 12 µg/L. No others results required qualification as a result of this review.

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7/19/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - GWCS Monthly GAC
Project #:
Workorder #: 2107256

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 7/12/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2107256

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - GWCS Monthly GAC
DATE RECEIVED:	07/12/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	07/19/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_VGAC_EFF_SP242_070621	TO-15	5.7 "Hg	10 psi
02A	OC_VGAC_INT_SP245_070621	TO-15	5.7 "Hg	10 psi
03A	OC_VGAC_INF_SP241_070621	TO-15	4.7 "Hg	10.1 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 07/19/21

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2107256

Three 1 Liter Summa Canister samples were received on July 12, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TNMOC referenced to Heptane was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_VGAC_EFF_SP242_070621

Lab ID#: 2107256-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	2.9	5.8	16
1,1-Dichloroethene	1.0	3.4	4.1	14
2-Propanol	4.1	5.9	10	14
Hexane	1.0	3.3	3.6	11
2-Butanone (Methyl Ethyl Ketone)	4.1	340	12	1000
TNMOC ref. to Heptane (MW=100)	21	980	85	4000

Client Sample ID: OC_VGAC_INT_SP245_070621

Lab ID#: 2107256-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	3.0	5.8	17
1,1-Dichloroethene	1.0	6.5	4.1	26
2-Propanol	4.1	5.5	10	14

Client Sample ID: OC_VGAC_INF_SP241_070621

Lab ID#: 2107256-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	2.0	5.6	11
Freon 113	1.0	10	7.7	80
1,1-Dichloroethene	1.0	3.9	4.0	15
Chloroform	1.0	1.1	4.9	5.2
Trichloroethene	1.0	3.4	5.4	18
Toluene	1.0	1.0	3.8	3.9
Tetrachloroethene	1.0	22	6.8	150
TNMOC ref. to Heptane (MW=100)	20	77	82	310

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Client Sample ID: OC_VGAC_EFF_SP242_070621

Lab ID#: 2107256-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071525**	**Date of Collection:**	**7/6/21 10:00:00 AM**
Dil. Factor:	**2.07**	**Date of Analysis:**	**7/16/21 02:03 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	2.9	5.8	16
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	3.4	4.1	14
2-Propanol	4.1	5.9	10	14
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	3.3	3.6	11
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	340	12	1000
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	980	85	4000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: OC_VGAC_INT_SP245_070621

Lab ID#: 2107256-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071526**	**Date of Collection:**	**7/6/21 10:01:00 AM**
Dil. Factor:	**2.07**	**Date of Analysis:**	**7/16/21 02:33 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	3.0	5.8	17
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	6.5	4.1	26
2-Propanol	4.1	5.5	10	14
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	Not Detected	85	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_VGAC_INF_SP241_070621

Lab ID#: 2107256-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071527**	**Date of Collection:**	**7/6/21 10:02:00 AM**
Dil. Factor:	**2.00**	**Date of Analysis:**	**7/16/21 03:02 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	4.9	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	2.0	5.6	11
Freon 113	1.0	10	7.7	80
1,1-Dichloroethene	1.0	3.9	4.0	15
2-Propanol	4.0	Not Detected	9.8	Not Detected
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Hexane	1.0	Not Detected	3.5	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
Chloroform	1.0	1.1	4.9	5.2
1,1,1-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.3	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.0	Not Detected
Trichloroethene	1.0	3.4	5.4	18
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	1.0	1.0	3.8	3.9
1,1,2-Trichloroethane	1.0	Not Detected	5.4	Not Detected
Tetrachloroethene	1.0	22	6.8	150
o-Xylene	1.0	Not Detected	4.3	Not Detected
TNMOC ref. to Heptane (MW=100)	20	77	82	310

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2107256-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071507d**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/15/21 02:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: CCV

Lab ID#: 2107256-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071505**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 7/15/21 01:17 PM**

Compound	%Recovery
Freon 12	98
Vinyl Chloride	75
Freon 11	100
Freon 113	101
1,1-Dichloroethene	105
2-Propanol	86
Carbon Disulfide	82
Methylene Chloride	76
Hexane	98
1,1-Dichloroethane	81
2-Butanone (Methyl Ethyl Ketone)	97
Chloroform	87
1,1,1-Trichloroethane	99
Carbon Tetrachloride	103
Benzene	77
1,2-Dichloroethane	78
Trichloroethene	82
1,4-Dioxane	99
Toluene	89
1,1,2-Trichloroethane	77
Tetrachloroethene	98
o-Xylene	117
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	126	70-130

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Client Sample ID: LCS

Lab ID#: 2107256-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/15/21 11:50 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	96	70-130
Vinyl Chloride	73	70-130
Freon 11	99	70-130
Freon 113	100	70-130
1,1-Dichloroethene	104	70-130
2-Propanol	87	70-130
Carbon Disulfide	83	70-130
Methylene Chloride	76	70-130
Hexane	96	70-130
1,1-Dichloroethane	80	70-130
2-Butanone (Methyl Ethyl Ketone)	93	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	102	70-130
Benzene	78	70-130
1,2-Dichloroethane	78	70-130
Trichloroethene	83	70-130
1,4-Dioxane	100	70-130
Toluene	89	70-130
1,1,2-Trichloroethane	77	70-130
Tetrachloroethene	99	70-130
o-Xylene	116	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	127	70-130

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Client Sample ID: LCSD

Lab ID#: 2107256-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j071504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/15/21 12:18 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	98	70-130
Vinyl Chloride	76	70-130
Freon 11	102	70-130
Freon 113	102	70-130
1,1-Dichloroethene	106	70-130
2-Propanol	88	70-130
Carbon Disulfide	85	70-130
Methylene Chloride	76	70-130
Hexane	98	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	104	70-130
Benzene	78	70-130
1,2-Dichloroethane	79	70-130
Trichloroethene	82	70-130
1,4-Dioxane	97	70-130
Toluene	89	70-130
1,1,2-Trichloroethane	77	70-130
Tetrachloroethene	98	70-130
o-Xylene	117	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	128	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

2107256

AIR CHAIN OF CUSTODY RECORD

DATE: 07/06/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - GWCS Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Dzhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1	OC_VGAC_EFF_SP242_070621	SP-EFF-GAC	Vapor	1L804	1L	25336	7/6/2021	0955	-26	7/6/2021	1000	-5	X
02A	2	OC_VGAC_INT_SP245_070621	SP-MID-GAC	Vapor	1L2930	1L	22526	7/6/2021	0956	-28	7/6/2021	1001	-5	X
03A	3	OC_VGAC_INF_SP241_070621	SP-INF-GAC	Vapor	1L3809	1L	30724	7/6/2021	0957	-27	7/6/2021	1002	-5	X
	4													
	5													
	6													
	7													
	8													
	9													
	10													
	11													
	12													
	13													
	14													
	15													

Custody Seal Intact?
Y N None Temp NA
Fedex

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		7/12/21	0915
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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8/18/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega -GWCS Monthly GAC
Project #:
Workorder #: 2108248

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 8/11/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2108248

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega -GWCS Monthly GAC
DATE RECEIVED:	08/11/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	08/18/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_VGAC_EFF_SP242_081021	TO-15	6.1 "Hg	9.8 psi
02A	OC_VGAC_INT_SP245_081021	TO-15	5.3 "Hg	10.1 psi
03A	OC_VGAC_INF_SP241_081021	TO-15	4.5 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 08/18/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2108248

Three 1 Liter Summa Canister samples were received on August 11, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A date and time were not provided by the field sampler.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_VGAC_EFF_SP242_081021

Lab ID#: 2108248-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	1.9	5.9	11
1,1-Dichloroethene	1.0	2.5	4.1	9.9
2-Propanol	4.2	5.3	10	13
Hexane	1.0	2.8	3.7	9.7
2-Butanone (Methyl Ethyl Ketone)	4.2	230	12	670
TNMOC ref. to Heptane (MW=100)	21	840	85	3400

Client Sample ID: OC_VGAC_INT_SP245_081021

Lab ID#: 2108248-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	2.3	5.8	13
1,1-Dichloroethene	1.0	5.6	4.1	22
2-Propanol	4.1	6.1	10	15

Client Sample ID: OC_VGAC_INF_SP241_081021

Lab ID#: 2108248-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.99	1.7	5.6	9.6
Freon 113	0.99	13	7.6	100
1,1-Dichloroethene	0.99	2.8	3.9	11
2-Propanol	4.0	5.1	9.7	12
Trichloroethene	0.99	2.4	5.3	13
Tetrachloroethene	0.99	22	6.7	150
TNMOC ref. to Heptane (MW=100)	20	84	81	340

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Client Sample ID: OC_VGAC_EFF_SP242_081021

Lab ID#: 2108248-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081315**	**Date of Collection:**	**8/10/21 9:14:00 AM**
Dil. Factor:	**2.09**	**Date of Analysis:**	**8/13/21 06:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	1.9	5.9	11
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	2.5	4.1	9.9
2-Propanol	4.2	5.3	10	13
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	2.8	3.7	9.7
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	230	12	670
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	840	85	3400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: OC_VGAC_INT_SP245_081021

Lab ID#: 2108248-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081317**	**Date of Collection:**	**8/10/21 9:17:00 AM**
Dil. Factor:	**2.05**	**Date of Analysis:**	**8/13/21 07:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	2.3	5.8	13
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	5.6	4.1	22
2-Propanol	4.1	6.1	10	15
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
TNMOC ref. to Heptane (MW=100)	20	Not Detected	84	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: OC_VGAC_INF_SP241_081021

Lab ID#: 2108248-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081318**	**Date of Collection:**	**8/10/21 9:17:00 AM**
Dil. Factor:	**1.98**	**Date of Analysis:**	**8/13/21 07:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.99	Not Detected	4.9	Not Detected
Vinyl Chloride	0.99	Not Detected	2.5	Not Detected
Freon 11	0.99	1.7	5.6	9.6
Freon 113	0.99	13	7.6	100
1,1-Dichloroethene	0.99	2.8	3.9	11
2-Propanol	4.0	5.1	9.7	12
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	9.9	Not Detected	34	Not Detected
Hexane	0.99	Not Detected	3.5	Not Detected
1,1-Dichloroethane	0.99	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
Chloroform	0.99	Not Detected	4.8	Not Detected
1,1,1-Trichloroethane	0.99	Not Detected	5.4	Not Detected
Carbon Tetrachloride	0.99	Not Detected	6.2	Not Detected
Benzene	0.99	Not Detected	3.2	Not Detected
1,2-Dichloroethane	0.99	Not Detected	4.0	Not Detected
Trichloroethene	0.99	2.4	5.3	13
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Toluene	0.99	Not Detected	3.7	Not Detected
1,1,2-Trichloroethane	0.99	Not Detected	5.4	Not Detected
Tetrachloroethene	0.99	22	6.7	150
o-Xylene	0.99	Not Detected	4.3	Not Detected
TNMOC ref. to Heptane (MW=100)	20	84	81	340

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2108248-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081314c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/13/21 05:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: CCV

Lab ID#: 2108248-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081311**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 8/13/21 04:00 PM**

Compound	**%Recovery**
Freon 12	86
Vinyl Chloride	86
Freon 11	89
Freon 113	93
1,1-Dichloroethene	84
2-Propanol	77
Carbon Disulfide	81
Methylene Chloride	79
Hexane	81
1,1-Dichloroethane	83
2-Butanone (Methyl Ethyl Ketone)	81
Chloroform	82
1,1,1-Trichloroethane	85
Carbon Tetrachloride	94
Benzene	86
1,2-Dichloroethane	93
Trichloroethene	95
1,4-Dioxane	94
Toluene	88
1,1,2-Trichloroethane	93
Tetrachloroethene	99
o-Xylene	96
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: LCS

Lab ID#: 2108248-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081312**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/13/21 04:25 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	83	70-130
Vinyl Chloride	84	70-130
Freon 11	87	70-130
Freon 113	92	70-130
1,1-Dichloroethene	83	70-130
2-Propanol	77	70-130
Carbon Disulfide	80	70-130
Methylene Chloride	76	70-130
Hexane	81	70-130
1,1-Dichloroethane	80	70-130
2-Butanone (Methyl Ethyl Ketone)	80	70-130
Chloroform	79	70-130
1,1,1-Trichloroethane	86	70-130
Carbon Tetrachloride	94	70-130
Benzene	86	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	95	70-130
1,4-Dioxane	92	70-130
Toluene	89	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	99	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: LCSD

Lab ID#: 2108248-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081313**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/13/21 04:50 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	82	70-130
Vinyl Chloride	83	70-130
Freon 11	85	70-130
Freon 113	91	70-130
1,1-Dichloroethene	83	70-130
2-Propanol	76	70-130
Carbon Disulfide	80	70-130
Methylene Chloride	74	70-130
Hexane	79	70-130
1,1-Dichloroethane	80	70-130
2-Butanone (Methyl Ethyl Ketone)	79	70-130
Chloroform	78	70-130
1,1,1-Trichloroethane	85	70-130
Carbon Tetrachloride	94	70-130
Benzene	86	70-130
1,2-Dichloroethane	89	70-130
Trichloroethene	95	70-130
1,4-Dioxane	94	70-130
Toluene	91	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	99	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	95	70-130

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

2108248

AIR CHAIN OF CUSTODY RECORD

DATE: 08/10/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - GWCS Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A 1	OC_VGAC_EFF_SP242_081021	SP-EFF-GAC	Vapor	3331	1L	25105	8/10/2021	0909	-25	8/10/2021	0914	-5	X
02A 2	OC_VGAC_INT_SP245_081021	SP-MID-GAC	Vapor	1L3956	1L	24594	8/10/2021	0910	-27	8/10/2021	0917	-5	X
03A 3	OC_VGAC_INF_SP241_081021	SP-INF-GAC	Vapor	1L2674	1L	25403	8/10/2021	0911	-29	8/10/2021	0917	-4	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Ed SA
Custody Seal Intact?
Y N None Temp NA

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	EXR	8.11.21	1034
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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9/15/2021
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega- GWCS Monthly GAC
Project #:
Workorder #: 2109227

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/9/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kathleen Kaneko at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kathleen Kaneko

Kathleen Kaneko

Project Manager

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WORK ORDER #: 2109227

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega- GWCS Monthly GAC
DATE RECEIVED:	09/09/2021	**CONTACT:**	Kathleen Kaneko
DATE COMPLETED:	09/15/2021		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_VGAC_EFF_SP242_090721	TO-15	6.5 "Hg	10 psi
02A	OC_VGAC_INT_SP245_090721	TO-15	5.5 "Hg	10 psi
03A	OC_VGAC_INF_SP241_090721	TO-15	6.0 "Hg	10 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 09/15/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 2109227

Three 1 Liter Summa Canister samples were received on September 09, 2021. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A date and time were not provided by the field sampler.

Analytical Notes

The TVOC (Total Volatile Organic Compounds) concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_VGAC_EFF_SP242_090721

Lab ID#: 2109227-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	2.6	6.0	14
1,1-Dichloroethene	1.1	3.9	4.2	16
2-Propanol	4.3	25	10	62
Hexane	1.1	3.1	3.8	11
2-Butanone (Methyl Ethyl Ketone)	4.3	240	13	710
TNMOC ref. to Heptane (MW=100)	21	1100	88	4500

Client Sample ID: OC_VGAC_INT_SP245_090721

Lab ID#: 2109227-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.0	2.0	5.8	11
1,1-Dichloroethene	1.0	5.4	4.1	21
2-Propanol	4.1	6.0	10	15
TNMOC ref. to Heptane (MW=100)	21	33	84	130

Client Sample ID: OC_VGAC_INF_SP241_090721

Lab ID#: 2109227-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.0	4.8	8.0	37
2-Propanol	4.2	12	10	31
Tetrachloroethene	1.0	7.9	7.1	53

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Client Sample ID: OC_VGAC_EFF_SP242_090721

Lab ID#: 2109227-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091406**	**Date of Collection:**	**9/7/21 10:00:00 AM**
Dil. Factor:	**2.14**	**Date of Analysis:**	**9/14/21 01:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
Freon 11	1.1	2.6	6.0	14
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	3.9	4.2	16
2-Propanol	4.3	25	10	62
Carbon Disulfide	4.3	Not Detected	13	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Hexane	1.1	3.1	3.8	11
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.3	240	13	710
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
TNMOC ref. to Heptane (MW=100)	21	1100	88	4500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: OC_VGAC_INT_SP245_090721

Lab ID#: 2109227-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091407**	**Date of Collection:**	**9/7/21 10:04:00 AM**
Dil. Factor:	**2.06**	**Date of Analysis:**	**9/14/21 02:25 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Freon 11	1.0	2.0	5.8	11
Freon 113	1.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	1.0	5.4	4.1	21
2-Propanol	4.1	6.0	10	15
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	3.9	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected
o-Xylene	1.0	Not Detected	4.5	Not Detected
TNMOC ref. to Heptane (MW=100)	21	33	84	130

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: OC_VGAC_INF_SP241_090721

Lab ID#: 2109227-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091408**	**Date of Collection:**	**9/7/21 10:06:00 AM**
Dil. Factor:	**2.10**	**Date of Analysis:**	**9/14/21 02:51 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Freon 113	1.0	4.8	8.0	37
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
2-Propanol	4.2	12	10	31
Carbon Disulfide	4.2	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Hexane	1.0	Not Detected	3.7	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.2	Not Detected	12	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
Benzene	1.0	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Toluene	1.0	Not Detected	4.0	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	7.9	7.1	53
o-Xylene	1.0	Not Detected	4.6	Not Detected
TNMOC ref. to Heptane (MW=100)	21	Not Detected	86	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2109227-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091405c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/14/21 12:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: CCV

Lab ID#: 2109227-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091402**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/14/21 10:19 AM**

Compound	**%Recovery**
Freon 12	78
Vinyl Chloride	86
Freon 11	83
Freon 113	89
1,1-Dichloroethene	83
2-Propanol	74
Carbon Disulfide	82
Methylene Chloride	76
Hexane	84
1,1-Dichloroethane	82
2-Butanone (Methyl Ethyl Ketone)	84
Chloroform	80
1,1,1-Trichloroethane	83
Carbon Tetrachloride	92
Benzene	90
1,2-Dichloroethane	85
Trichloroethene	96
1,4-Dioxane	100
Toluene	95
1,1,2-Trichloroethane	94
Tetrachloroethene	99
o-Xylene	100
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: LCS

Lab ID#: 2109227-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/14/21 10:43 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	81	70-130
Vinyl Chloride	89	70-130
Freon 11	84	70-130
Freon 113	92	70-130
1,1-Dichloroethene	87	70-130
2-Propanol	78	70-130
Carbon Disulfide	85	70-130
Methylene Chloride	79	70-130
Hexane	87	70-130
1,1-Dichloroethane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	85	70-130
Carbon Tetrachloride	92	70-130
Benzene	93	70-130
1,2-Dichloroethane	88	70-130
Trichloroethene	100	70-130
1,4-Dioxane	98	70-130
Toluene	96	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	99	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: LCSD

Lab ID#: 2109227-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/14/21 11:08 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	80	70-130
Vinyl Chloride	89	70-130
Freon 11	83	70-130
Freon 113	91	70-130
1,1-Dichloroethene	86	70-130
2-Propanol	77	70-130
Carbon Disulfide	85	70-130
Methylene Chloride	78	70-130
Hexane	87	70-130
1,1-Dichloroethane	83	70-130
2-Butanone (Methyl Ethyl Ketone)	86	70-130
Chloroform	82	70-130
1,1,1-Trichloroethane	85	70-130
Carbon Tetrachloride	92	70-130
Benzene	93	70-130
1,2-Dichloroethane	87	70-130
Trichloroethene	100	70-130
1,4-Dioxane	98	70-130
Toluene	95	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	99	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	95	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

2109227

AIR CHAIN OF CUSTODY RECORD

DATE: 09/07/21
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - GWCS Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azha

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1	OC_VGAC_EFF_SP242_090721	SP-EFF-GAC	Vapor	112729	1L	22500	9/7/2021	0953	-27	9/7/2021	1000	-5	X
02A	2	OC_VGAC_INT_SP245_090721	SP-MID-GAC	Vapor	112648	1L	22581	9/7/2021	0958	-29.5	9/7/2021	1004	-5	X
03A	3	OC_VGAC_INF_SP241_090721	SP-INF-GAC	Vapor	112994	1L	22535	9/7/2021	1003	-26	9/7/2021	1006	-4	X
	4													
	5													
	6													
	7													
	8													
	9													
	10													
	11													
	12													
	13													
	14													
	15													

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	9/9/21		
Relinquished by: (Signature)	Received by: (Signature)	Date: 9/9/21	Time: 1050
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Custody Seal Intact?
Y N None Temp

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-285622-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical - GWCS Monthly

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
7/15/2021 12:15:37 PM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-285622-1	OC_SP220B_EFF_070621	Water	07/06/21 08:35	07/07/21 10:39	
440-285622-2	OC_SP210_INF_070621	Water	07/06/21 08:45	07/07/21 10:39	
440-285622-3	OC_TB_070621	Water	07/06/21 08:30	07/07/21 10:39	

Job ID: 440-285622-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-285622-1

Comments
No additional comments.

Receipt
The samples were received on 7/7/2021 10:39 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-163841. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-164012 recovered outside control limits for the following analyte: Isopropanol.

Method 8260B: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 570-164012 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The continuing calibration verification (CCV) associated with batch 570-164012 recovered above the upper control limit for Chloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-164012. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The lot test of the laboratory trip blank water associated with 440-285622-A-3 indicated a detection above the reporting limit (RL) for Methylene Chloride. The associated samples were non-detects for Methylene Chloride; therefore, the data have been reported.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_070621 — Lab Sample ID: 440-285622-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	13		0.10		ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_SP210_INF_070621 — Lab Sample ID: 440-285622-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	67		1.0		ug/L	2		8260B	Total/NA
1,1-Dichloroethene	14		1.0		ug/L	2		8260B	Total/NA
1,2-Dichloroethane	1.0		1.0		ug/L	2		8260B	Total/NA
Chloroform	5.6		1.0		ug/L	2		8260B	Total/NA
Tetrachloroethene	120		1.0		ug/L	2		8260B	Total/NA
Trichloroethene	15		1.0		ug/L	2		8260B	Total/NA
Trichlorofluoromethane	9.9		1.0		ug/L	2		8260B	Total/NA

Client Sample ID: OC_TB_070621 — Lab Sample ID: 440-285622-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.0		1.0		ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_070621

Lab Sample ID: 440-285622-1

Date Collected: 07/06/21 08:35
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1-Dichloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,1-Dichloroethene	ND		0.50		ug/L			07/14/21 13:03	1
1,1-Dichloropropene	ND		0.50		ug/L			07/14/21 13:03	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/14/21 13:03	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/14/21 13:03	1
1,2-Dibromoethane	ND		0.50		ug/L			07/14/21 13:03	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,2-Dichloroethane	ND		0.50		ug/L			07/14/21 13:03	1
1,2-Dichloropropane	ND		0.50		ug/L			07/14/21 13:03	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
1,3-Dichloropropane	ND		0.50		ug/L			07/14/21 13:03	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
2,2-Dichloropropane	ND		0.50		ug/L			07/14/21 13:03	1
2-Butanone	ND		5.0		ug/L			07/14/21 13:03	1
2-Chlorotoluene	ND		0.50		ug/L			07/14/21 13:03	1
2-Hexanone	ND		6.0		ug/L			07/14/21 13:03	1
4-Chlorotoluene	ND		0.50		ug/L			07/14/21 13:03	1
Acetone	ND		8.0		ug/L			07/14/21 13:03	1
Benzene	ND		0.50		ug/L			07/14/21 13:03	1
Bromobenzene	ND		0.50		ug/L			07/14/21 13:03	1
Bromochloromethane	ND		1.0		ug/L			07/14/21 13:03	1
Bromodichloromethane	ND		0.50		ug/L			07/14/21 13:03	1
Bromoform	ND		0.50		ug/L			07/14/21 13:03	1
Bromomethane	ND		1.0		ug/L			07/14/21 13:03	1
Carbon tetrachloride	ND		0.50		ug/L			07/14/21 13:03	1
Chlorobenzene	ND		0.50		ug/L			07/14/21 13:03	1
Chloroethane	ND		0.50		ug/L			07/14/21 13:03	1
Chloroform	ND		0.50		ug/L			07/14/21 13:03	1
Chloromethane	ND		1.0		ug/L			07/14/21 13:03	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 13:03	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 13:03	1
Dibromochloromethane	ND		0.50		ug/L			07/14/21 13:03	1
Dibromomethane	ND		0.50		ug/L			07/14/21 13:03	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/14/21 13:03	1
Ethylbenzene	ND		0.50		ug/L			07/14/21 13:03	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/14/21 13:03	1
Isopropanol	ND		40		ug/L			07/14/21 13:03	1
Isopropylbenzene	ND		0.50		ug/L			07/14/21 13:03	1
m,p-Xylene	ND		1.0		ug/L			07/14/21 13:03	1
Methylene Chloride	ND		1.0		ug/L			07/14/21 13:03	1

Client Sample ID: OC_SP220B_EFF_070621

Lab Sample ID: 440-285622-1

Date Collected: 07/06/21 08:35
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	ug/L			07/14/21 13:03	1
n-Butylbenzene	ND		0.50	ug/L			07/14/21 13:03	1
N-Propylbenzene	ND		0.50	ug/L			07/14/21 13:03	1
o-Xylene	ND		0.50	ug/L			07/14/21 13:03	1
p-Isopropyltoluene	ND		0.50	ug/L			07/14/21 13:03	1
sec-Butylbenzene	ND		0.50	ug/L			07/14/21 13:03	1
Styrene	ND		0.50	ug/L			07/14/21 13:03	1
tert-Butylbenzene	ND		0.50	ug/L			07/14/21 13:03	1
Tetrachloroethene	ND		0.50	ug/L			07/14/21 13:03	1
Toluene	ND		0.50	ug/L			07/14/21 13:03	1
Total Volatile Organic Compounds	ND		150	ug/L			07/14/21 13:03	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			07/14/21 13:03	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			07/14/21 13:03	1
Trichloroethene	ND		0.50	ug/L			07/14/21 13:03	1
Trichlorofluoromethane	ND		0.50	ug/L			07/14/21 13:03	1
Vinyl acetate	ND		5.0	ug/L			07/14/21 13:03	1
Vinyl chloride	ND		0.50	ug/L			07/14/21 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*68 - 135*		*07/14/21 13:03*	*1*
4-Bromofluorobenzene (Surr)	*92*		*71 - 120*		*07/14/21 13:03*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*07/14/21 13:03*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/14/21 13:03*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**13**		0.10	ug/L		07/08/21 07:05	07/08/21 18:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*41*		*15 - 150*	*07/08/21 07:05*	*07/08/21 18:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*59*		*46 - 128*	*07/08/21 07:05*	*07/08/21 18:01*	*1*

Client Sample ID: OC_SP210_INF_070621

Lab Sample ID: 440-285622-2

Date Collected: 07/06/21 08:45
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			07/15/21 00:05	2
1,1,1-Trichloroethane	ND		1.0	ug/L			07/15/21 00:05	2
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			07/15/21 00:05	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**67**		1.0	ug/L			07/15/21 00:05	2
1,1,2-Trichloroethane	ND		1.0	ug/L			07/15/21 00:05	2
1,1-Dichloroethane	ND		1.0	ug/L			07/15/21 00:05	2
1,1-Dichloroethene	**14**		1.0	ug/L			07/15/21 00:05	2
1,1-Dichloropropene	ND		1.0	ug/L			07/15/21 00:05	2
1,2,3-Trichlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2
1,2,3-Trichloropropane	ND		1.0	ug/L			07/15/21 00:05	2
1,2,4-Trichlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Client Sample ID: OC_SP210_INF_070621

Lab Sample ID: 440-285622-2

Date Collected: 07/06/21 08:45
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L			07/15/21 00:05	2
1,2-Dibromoethane	ND		1.0	ug/L			07/15/21 00:05	2
1,2-Dichlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2
1,2-Dichloroethane	**1.0**		1.0	ug/L			07/15/21 00:05	2
1,2-Dichloropropane	ND		1.0	ug/L			07/15/21 00:05	2
1,3,5-Trimethylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
1,3-Dichlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2
1,3-Dichloropropane	ND		1.0	ug/L			07/15/21 00:05	2
1,4-Dichlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2
2,2-Dichloropropane	ND		1.0	ug/L			07/15/21 00:05	2
2-Butanone	ND		10	ug/L			07/15/21 00:05	2
2-Chlorotoluene	ND		1.0	ug/L			07/15/21 00:05	2
2-Hexanone	ND		12	ug/L			07/15/21 00:05	2
4-Chlorotoluene	ND		1.0	ug/L			07/15/21 00:05	2
Acetone	ND		16	ug/L			07/15/21 00:05	2
Benzene	ND		1.0	ug/L			07/15/21 00:05	2
Bromobenzene	ND		1.0	ug/L			07/15/21 00:05	2
Bromochloromethane	ND		2.0	ug/L			07/15/21 00:05	2
Bromodichloromethane	ND		1.0	ug/L			07/15/21 00:05	2
Bromoform	ND		1.0	ug/L			07/15/21 00:05	2
Bromomethane	ND		2.0	ug/L			07/15/21 00:05	2
Carbon tetrachloride	ND		1.0	ug/L			07/15/21 00:05	2
Chlorobenzene	ND		1.0	ug/L			07/15/21 00:05	2
Chloroethane	ND		1.0	ug/L			07/15/21 00:05	2
Chloroform	**5.6**		1.0	ug/L			07/15/21 00:05	2
Chloromethane	ND	*+	2.0	ug/L			07/15/21 00:05	2
cis-1,2-Dichloroethene	ND		1.0	ug/L			07/15/21 00:05	2
cis-1,3-Dichloropropene	ND		1.0	ug/L			07/15/21 00:05	2
Dibromochloromethane	ND		1.0	ug/L			07/15/21 00:05	2
Dibromomethane	ND		1.0	ug/L			07/15/21 00:05	2
Dichlorodifluoromethane	ND		2.0	ug/L			07/15/21 00:05	2
Ethylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
Hexachloro-1,3-butadiene	ND		2.0	ug/L			07/15/21 00:05	2
Isopropanol	ND	*1	80	ug/L			07/15/21 00:05	2
Isopropylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
m,p-Xylene	ND		2.0	ug/L			07/15/21 00:05	2
Methylene Chloride	ND		2.0	ug/L			07/15/21 00:05	2
Naphthalene	ND		2.0	ug/L			07/15/21 00:05	2
n-Butylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
N-Propylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
o-Xylene	ND		1.0	ug/L			07/15/21 00:05	2
p-Isopropyltoluene	ND		1.0	ug/L			07/15/21 00:05	2
sec-Butylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
Styrene	ND		1.0	ug/L			07/15/21 00:05	2
tert-Butylbenzene	ND		1.0	ug/L			07/15/21 00:05	2
Tetrachloroethene	**120**		1.0	ug/L			07/15/21 00:05	2
Toluene	ND		1.0	ug/L			07/15/21 00:05	2
Total Volatile Organic Compounds	ND		300	ug/L			07/15/21 00:05	2

Client Sample ID: OC_SP210_INF_070621

Lab Sample ID: 440-285622-2

Date Collected: 07/06/21 08:45
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/15/21 00:05	2
trans-1,3-Dichloropropene	ND		1.0		ug/L			07/15/21 00:05	2
Trichloroethene	**15**		1.0		ug/L			07/15/21 00:05	2
Trichlorofluoromethane	**9.9**		1.0		ug/L			07/15/21 00:05	2
Vinyl acetate	ND		10		ug/L			07/15/21 00:05	2
Vinyl chloride	ND		1.0		ug/L			07/15/21 00:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*68 - 135*		*07/15/21 00:05*	*2*
4-Bromofluorobenzene (Surr)	*87*		*71 - 120*		*07/15/21 00:05*	*2*
Dibromofluoromethane (Surr)	*113*		*80 - 120*		*07/15/21 00:05*	*2*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/15/21 00:05*	*2*

Client Sample ID: OC_TB_070621

Lab Sample ID: 440-285622-3

Date Collected: 07/06/21 08:30
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1-Dichloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,1-Dichloroethene	ND		0.50		ug/L			07/14/21 12:04	1
1,1-Dichloropropene	ND		0.50		ug/L			07/14/21 12:04	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/14/21 12:04	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/14/21 12:04	1
1,2-Dibromoethane	ND		0.50		ug/L			07/14/21 12:04	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,2-Dichloroethane	ND		0.50		ug/L			07/14/21 12:04	1
1,2-Dichloropropane	ND		0.50		ug/L			07/14/21 12:04	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
1,3-Dichloropropane	ND		0.50		ug/L			07/14/21 12:04	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
2,2-Dichloropropane	ND		0.50		ug/L			07/14/21 12:04	1
2-Butanone	ND		5.0		ug/L			07/14/21 12:04	1
2-Chlorotoluene	ND		0.50		ug/L			07/14/21 12:04	1
2-Hexanone	ND		6.0		ug/L			07/14/21 12:04	1
4-Chlorotoluene	ND		0.50		ug/L			07/14/21 12:04	1
Acetone	ND		8.0		ug/L			07/14/21 12:04	1
Benzene	ND		0.50		ug/L			07/14/21 12:04	1
Bromobenzene	ND		0.50		ug/L			07/14/21 12:04	1
Bromochloromethane	ND		1.0		ug/L			07/14/21 12:04	1
Bromodichloromethane	ND		0.50		ug/L			07/14/21 12:04	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Client Sample ID: OC_TB_070621

Lab Sample ID: 440-285622-3

Date Collected: 07/06/21 08:30
Matrix: Water
Date Received: 07/07/21 10:39

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		0.50		ug/L			07/14/21 12:04	1
Bromomethane	ND		1.0		ug/L			07/14/21 12:04	1
Carbon tetrachloride	ND		0.50		ug/L			07/14/21 12:04	1
Chlorobenzene	ND		0.50		ug/L			07/14/21 12:04	1
Chloroethane	ND		0.50		ug/L			07/14/21 12:04	1
Chloroform	ND		0.50		ug/L			07/14/21 12:04	1
Chloromethane	ND		1.0		ug/L			07/14/21 12:04	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 12:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 12:04	1
Dibromochloromethane	ND		0.50		ug/L			07/14/21 12:04	1
Dibromomethane	ND		0.50		ug/L			07/14/21 12:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/14/21 12:04	1
Ethylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/14/21 12:04	1
Isopropanol	ND		40		ug/L			07/14/21 12:04	1
Isopropylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
m,p-Xylene	ND		1.0		ug/L			07/14/21 12:04	1
Methylene Chloride	**1.0**		1.0		ug/L			07/14/21 12:04	1
Naphthalene	ND		1.0		ug/L			07/14/21 12:04	1
n-Butylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
N-Propylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
o-Xylene	ND		0.50		ug/L			07/14/21 12:04	1
p-Isopropyltoluene	ND		0.50		ug/L			07/14/21 12:04	1
sec-Butylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
Styrene	ND		0.50		ug/L			07/14/21 12:04	1
tert-Butylbenzene	ND		0.50		ug/L			07/14/21 12:04	1
Tetrachloroethene	ND		0.50		ug/L			07/14/21 12:04	1
Toluene	ND		0.50		ug/L			07/14/21 12:04	1
Total Volatile Organic Compounds	ND		150		ug/L			07/14/21 12:04	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 12:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 12:04	1
Trichloroethene	ND		0.50		ug/L			07/14/21 12:04	1
Trichlorofluoromethane	ND		0.50		ug/L			07/14/21 12:04	1
Vinyl acetate	ND		5.0		ug/L			07/14/21 12:04	1
Vinyl chloride	ND		0.50		ug/L			07/14/21 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*68 - 135*		*07/14/21 12:04*	*1*
4-Bromofluorobenzene (Surr)	*91*		*71 - 120*		*07/14/21 12:04*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*07/14/21 12:04*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*07/14/21 12:04*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(68-135)**	**(71-120)**	**(80-120)**	**(80-120)**
440-285622-1	OC_SP220B_EFF_070621	91	92	98	97
440-285622-2	OC_SP210_INF_070621	117	87	113	101
440-285622-3	OC_TB_070621	89	91	100	97
LCS 570-163841/3	Lab Control Sample	93	93	97	97
LCS 570-164012/3	Lab Control Sample	103	100	108	100
LCSD 570-163841/4	Lab Control Sample Dup	94	95	99	95
LCSD 570-164012/4	Lab Control Sample Dup	104	101	104	102
MB 570-163841/6	Method Blank	93	94	102	100
MB 570-164012/6	Method Blank	112	83	110	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	**Client Sample ID**	**(46-128)**
440-285622-1	OC_SP220B_EFF_070621	59
440-285622-1 MS	OC_SP220B_EFF_070621	82
440-285622-1 MSD	OC_SP220B_EFF_070621	65
LCS 570-162595/2-A	Lab Control Sample	90
LCSD 570-162595/3-A	Lab Control Sample Dup	78
MB 570-162595/1-A	Method Blank	91

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_070621 — Lab Sample ID: 440-285622-1

Date Collected: 07/06/21 08:35 — **Matrix: Water**
Date Received: 07/07/21 10:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	163841	07/14/21 13:03	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	162595	07/08/21 07:05	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			162776	07/08/21 18:01	ULLI	ECL 1

Client Sample ID: OC_SP210_INF_070621 — Lab Sample ID: 440-285622-2

Date Collected: 07/06/21 08:45 — **Matrix: Water**
Date Received: 07/07/21 10:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	164012	07/15/21 00:05	A1W	ECL 2

Client Sample ID: OC_TB_070621 — Lab Sample ID: 440-285622-3

Date Collected: 07/06/21 08:30 — **Matrix: Water**
Date Received: 07/07/21 10:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	163841	07/14/21 12:04	OH1	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-163841/6
Matrix: Water
Analysis Batch: 163841

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1,1-Trichloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1,2-Trichloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1-Dichloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,1-Dichloroethene	ND		0.50		ug/L			07/14/21 11:34	1
1,1-Dichloropropene	ND		0.50		ug/L			07/14/21 11:34	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,2,3-Trichloropropane	ND		0.50		ug/L			07/14/21 11:34	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/14/21 11:34	1
1,2-Dibromoethane	ND		0.50		ug/L			07/14/21 11:34	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,2-Dichloroethane	ND		0.50		ug/L			07/14/21 11:34	1
1,2-Dichloropropane	ND		0.50		ug/L			07/14/21 11:34	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
1,3-Dichloropropane	ND		0.50		ug/L			07/14/21 11:34	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
2,2-Dichloropropane	ND		0.50		ug/L			07/14/21 11:34	1
2-Butanone	ND		5.0		ug/L			07/14/21 11:34	1
2-Chlorotoluene	ND		0.50		ug/L			07/14/21 11:34	1
2-Hexanone	ND		6.0		ug/L			07/14/21 11:34	1
4-Chlorotoluene	ND		0.50		ug/L			07/14/21 11:34	1
Acetone	ND		8.0		ug/L			07/14/21 11:34	1
Benzene	ND		0.50		ug/L			07/14/21 11:34	1
Bromobenzene	ND		0.50		ug/L			07/14/21 11:34	1
Bromochloromethane	ND		1.0		ug/L			07/14/21 11:34	1
Bromodichloromethane	ND		0.50		ug/L			07/14/21 11:34	1
Bromoform	ND		0.50		ug/L			07/14/21 11:34	1
Bromomethane	ND		1.0		ug/L			07/14/21 11:34	1
Carbon tetrachloride	ND		0.50		ug/L			07/14/21 11:34	1
Chlorobenzene	ND		0.50		ug/L			07/14/21 11:34	1
Chloroethane	ND		0.50		ug/L			07/14/21 11:34	1
Chloroform	ND		0.50		ug/L			07/14/21 11:34	1
Chloromethane	ND		1.0		ug/L			07/14/21 11:34	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 11:34	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 11:34	1
Dibromochloromethane	ND		0.50		ug/L			07/14/21 11:34	1
Dibromomethane	ND		0.50		ug/L			07/14/21 11:34	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/14/21 11:34	1
Ethylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/14/21 11:34	1
Isopropanol	ND		40		ug/L			07/14/21 11:34	1
Isopropylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
m,p-Xylene	ND		1.0		ug/L			07/14/21 11:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-163841/6
Matrix: Water
Analysis Batch: 163841

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0		ug/L			07/14/21 11:34	1
Naphthalene	ND		1.0		ug/L			07/14/21 11:34	1
n-Butylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
N-Propylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
o-Xylene	ND		0.50		ug/L			07/14/21 11:34	1
p-Isopropyltoluene	ND		0.50		ug/L			07/14/21 11:34	1
sec-Butylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
Styrene	ND		0.50		ug/L			07/14/21 11:34	1
tert-Butylbenzene	ND		0.50		ug/L			07/14/21 11:34	1
Tetrachloroethene	ND		0.50		ug/L			07/14/21 11:34	1
Toluene	ND		0.50		ug/L			07/14/21 11:34	1
Total Volatile Organic Compounds	ND		150		ug/L			07/14/21 11:34	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 11:34	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 11:34	1
Trichloroethene	ND		0.50		ug/L			07/14/21 11:34	1
Trichlorofluoromethane	ND		0.50		ug/L			07/14/21 11:34	1
Vinyl acetate	ND		5.0		ug/L			07/14/21 11:34	1
Vinyl chloride	ND		0.50		ug/L			07/14/21 11:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*		*07/14/21 11:34*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*07/14/21 11:34*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*07/14/21 11:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/14/21 11:34*	*1*

Lab Sample ID: LCS 570-163841/3
Matrix: Water
Analysis Batch: 163841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	76 - 143
1,1,1-Trichloroethane	10.0	9.66		ug/L		97	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.50		ug/L		95	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.3		ug/L		103	50 - 120
1,1,2-Trichloroethane	10.0	9.42		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	9.16		ug/L		92	76 - 120
1,1-Dichloroethene	10.0	9.68		ug/L		97	72 - 120
1,1-Dichloropropene	10.0	9.18		ug/L		92	76 - 120
1,2,3-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 125
1,2,3-Trichloropropane	10.0	8.54		ug/L		85	66 - 131
1,2,4-Trichlorobenzene	10.0	11.3		ug/L		113	80 - 123
1,2,4-Trimethylbenzene	10.0	9.36		ug/L		94	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	77 - 120
1,2-Dibromoethane	10.0	10.1		ug/L		101	80 - 120
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,2-Dichloroethane	10.0	9.61		ug/L		96	71 - 137
1,2-Dichloropropane	10.0	8.98		ug/L		90	80 - 120
1,3,5-Trimethylbenzene	10.0	9.71		ug/L		97	77 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-163841/3
Matrix: Water
Analysis Batch: 163841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	10.0		ug/L		100	79 - 123
1,3-Dichloropropane	10.0	9.62		ug/L		96	80 - 123
1,4-Dichlorobenzene	10.0	10.0		ug/L		100	75 - 123
2,2-Dichloropropane	10.0	11.5		ug/L		115	78 - 133
2-Butanone	10.0	6.52		ug/L		65	32 - 133
2-Chlorotoluene	10.0	9.08		ug/L		91	80 - 120
2-Hexanone	10.0	7.89		ug/L		79	57 - 127
4-Chlorotoluene	10.0	8.82		ug/L		88	78 - 120
Acetone	10.0	12.7		ug/L		127	57 - 133
Benzene	10.0	9.02		ug/L		90	80 - 120
Bromobenzene	10.0	10.7		ug/L		107	80 - 124
Bromochloromethane	10.0	10.5		ug/L		105	76 - 125
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141
Bromoform	10.0	12.1		ug/L		121	46 - 178
Bromomethane	10.0	9.97		ug/L		100	52 - 162
Carbon tetrachloride	10.0	10.3		ug/L		103	69 - 145
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
Chloroethane	10.0	8.93		ug/L		89	73 - 139
Chloroform	10.0	9.64		ug/L		96	80 - 120
Chloromethane	10.0	7.98		ug/L		80	35 - 159
cis-1,2-Dichloroethene	10.0	9.59		ug/L		96	76 - 122
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	80 - 122
Dibromochloromethane	10.0	11.9		ug/L		119	63 - 151
Dibromomethane	10.0	10.2		ug/L		102	80 - 121
Dichlorodifluoromethane	10.0	8.45		ug/L		84	59 - 139
Ethylbenzene	10.0	9.32		ug/L		93	80 - 120
Hexachloro-1,3-butadiene	10.0	11.0		ug/L		110	76 - 141
Isopropanol	100	84.2		ug/L		84	29 - 141
Isopropylbenzene	10.0	9.91		ug/L		99	80 - 124
m,p-Xylene	20.0	19.1		ug/L		95	80 - 122
Methylene Chloride	10.0	10.4		ug/L		104	70 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
n-Butylbenzene	10.0	9.46		ug/L		95	76 - 124
N-Propylbenzene	10.0	9.49		ug/L		95	80 - 122
o-Xylene	10.0	9.31		ug/L		93	80 - 122
p-Isopropyltoluene	10.0	9.98		ug/L		100	77 - 127
sec-Butylbenzene	10.0	9.44		ug/L		94	75 - 123
Styrene	10.0	9.67		ug/L		97	80 - 121
tert-Butylbenzene	10.0	9.87		ug/L		99	72 - 128
Tetrachloroethene	10.0	10.5		ug/L		105	80 - 128
Toluene	10.0	9.38		ug/L		94	80 - 120
trans-1,2-Dichloroethene	10.0	9.43		ug/L		94	67 - 123
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	78 - 140
Trichloroethene	10.0	10.0		ug/L		100	80 - 123
Trichlorofluoromethane	10.0	11.0		ug/L		110	64 - 168
Vinyl acetate	10.0	9.00		ug/L		90	75 - 144
Vinyl chloride	10.0	8.79		ug/L		88	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-163841/3
Matrix: Water
Analysis Batch: 163841

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*

Lab Sample ID: LCSD 570-163841/4
Matrix: Water
Analysis Batch: 163841

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	11.0		ug/L		110	76 - 143	1	20
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	75 - 128	7	20
1,1,2,2-Tetrachloroethane	10.0	9.64		ug/L		96	73 - 126	1	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.1		ug/L		111	50 - 120	8	20
1,1,2-Trichloroethane	10.0	9.78		ug/L		98	80 - 120	4	20
1,1-Dichloroethane	10.0	9.69		ug/L		97	76 - 120	6	20
1,1-Dichloroethene	10.0	10.6		ug/L		106	72 - 120	9	20
1,1-Dichloropropene	10.0	9.69		ug/L		97	76 - 120	5	20
1,2,3-Trichlorobenzene	10.0	11.7		ug/L		117	80 - 125	5	22
1,2,3-Trichloropropane	10.0	8.99		ug/L		90	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	12.0		ug/L		120	80 - 123	6	20
1,2,4-Trimethylbenzene	10.0	10.3		ug/L		103	78 - 125	9	22
1,2-Dibromo-3-Chloropropane	10.0	9.90		ug/L		99	77 - 120	2	21
1,2-Dibromoethane	10.0	10.5		ug/L		105	80 - 120	4	20
1,2-Dichlorobenzene	10.0	10.8		ug/L		108	79 - 123	6	20
1,2-Dichloroethane	10.0	9.89		ug/L		99	71 - 137	3	20
1,2-Dichloropropane	10.0	9.11		ug/L		91	80 - 120	1	20
1,3,5-Trimethylbenzene	10.0	10.3		ug/L		103	77 - 133	6	20
1,3-Dichlorobenzene	10.0	10.7		ug/L		107	79 - 123	6	20
1,3-Dichloropropane	10.0	9.62		ug/L		96	80 - 123	0	20
1,4-Dichlorobenzene	10.0	10.6		ug/L		106	75 - 123	6	22
2,2-Dichloropropane	10.0	12.1		ug/L		121	78 - 133	5	20
2-Butanone	10.0	6.65		ug/L		66	32 - 133	2	26
2-Chlorotoluene	10.0	9.68		ug/L		97	80 - 120	6	20
2-Hexanone	10.0	8.53		ug/L		85	57 - 127	8	21
4-Chlorotoluene	10.0	9.58		ug/L		96	78 - 120	8	21
Acetone	10.0	13.1		ug/L		131	57 - 133	3	28
Benzene	10.0	9.51		ug/L		95	80 - 120	5	20
Bromobenzene	10.0	10.9		ug/L		109	80 - 124	3	20
Bromochloromethane	10.0	11.0		ug/L		110	76 - 125	5	20
Bromodichloromethane	10.0	10.6		ug/L		106	77 - 141	4	20
Bromoform	10.0	13.0		ug/L		130	46 - 178	7	23
Bromomethane	10.0	10.4		ug/L		104	52 - 162	4	20
Carbon tetrachloride	10.0	11.2		ug/L		112	69 - 145	8	20
Chlorobenzene	10.0	10.8		ug/L		108	80 - 120	6	20
Chloroethane	10.0	9.99		ug/L		100	73 - 139	11	20
Chloroform	10.0	9.89		ug/L		99	80 - 120	3	20
Chloromethane	10.0	9.09		ug/L		91	35 - 159	13	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-163841/4
Matrix: Water
Analysis Batch: 163841

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	10.0	9.73		ug/L		97	76 - 122	1	20
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122	1	20
Dibromochloromethane	10.0	11.9		ug/L		119	63 - 151	0	20
Dibromomethane	10.0	10.5		ug/L		105	80 - 121	2	20
Dichlorodifluoromethane	10.0	9.26		ug/L		93	59 - 139	9	20
Ethylbenzene	10.0	9.94		ug/L		99	80 - 120	6	20
Hexachloro-1,3-butadiene	10.0	12.0		ug/L		120	76 - 141	9	23
Isopropanol	100	81.5		ug/L		81	29 - 141	3	22
Isopropylbenzene	10.0	10.6		ug/L		106	80 - 124	7	20
m,p-Xylene	20.0	20.5		ug/L		102	80 - 122	7	20
Methylene Chloride	10.0	10.9		ug/L		109	70 - 120	4	20
Naphthalene	10.0	10.5		ug/L		105	75 - 120	3	22
n-Butylbenzene	10.0	10.2		ug/L		102	76 - 124	7	23
N-Propylbenzene	10.0	10.2		ug/L		102	80 - 122	7	20
o-Xylene	10.0	9.87		ug/L		99	80 - 122	6	20
p-Isopropyltoluene	10.0	10.8		ug/L		108	77 - 127	8	21
sec-Butylbenzene	10.0	10.1		ug/L		101	75 - 123	7	21
Styrene	10.0	10.3		ug/L		103	80 - 121	7	20
tert-Butylbenzene	10.0	10.9		ug/L		109	72 - 128	10	22
Tetrachloroethene	10.0	11.6		ug/L		116	80 - 128	10	20
Toluene	10.0	9.71		ug/L		97	80 - 120	3	20
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123	11	20
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	78 - 140	5	20
Trichloroethene	10.0	10.2		ug/L		102	80 - 123	2	20
Trichlorofluoromethane	10.0	12.0		ug/L		120	64 - 168	9	20
Vinyl acetate	10.0	8.47		ug/L		85	75 - 144	6	25
Vinyl chloride	10.0	9.68		ug/L		97	74 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*68 - 135*
4-Bromofluorobenzene (Surr)	*95*		*71 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: MB 570-164012/6
Matrix: Water
Analysis Batch: 164012

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1,1-Trichloroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1,2-Trichloroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1-Dichloroethane	ND		0.50	ug/L			07/14/21 23:09	1
1,1-Dichloroethene	ND		0.50	ug/L			07/14/21 23:09	1
1,1-Dichloropropene	ND		0.50	ug/L			07/14/21 23:09	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			07/14/21 23:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-164012/6
Matrix: Water
Analysis Batch: 164012

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50		ug/L			07/14/21 23:09	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			07/14/21 23:09	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			07/14/21 23:09	1
1,2-Dibromoethane	ND		0.50		ug/L			07/14/21 23:09	1
1,2-Dichlorobenzene	ND		0.50		ug/L			07/14/21 23:09	1
1,2-Dichloroethane	ND		0.50		ug/L			07/14/21 23:09	1
1,2-Dichloropropane	ND		0.50		ug/L			07/14/21 23:09	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
1,3-Dichlorobenzene	ND		0.50		ug/L			07/14/21 23:09	1
1,3-Dichloropropane	ND		0.50		ug/L			07/14/21 23:09	1
1,4-Dichlorobenzene	ND		0.50		ug/L			07/14/21 23:09	1
2,2-Dichloropropane	ND		0.50		ug/L			07/14/21 23:09	1
2-Butanone	ND		5.0		ug/L			07/14/21 23:09	1
2-Chlorotoluene	ND		0.50		ug/L			07/14/21 23:09	1
2-Hexanone	ND		6.0		ug/L			07/14/21 23:09	1
4-Chlorotoluene	ND		0.50		ug/L			07/14/21 23:09	1
Acetone	ND		8.0		ug/L			07/14/21 23:09	1
Benzene	ND		0.50		ug/L			07/14/21 23:09	1
Bromobenzene	ND		0.50		ug/L			07/14/21 23:09	1
Bromochloromethane	ND		1.0		ug/L			07/14/21 23:09	1
Bromodichloromethane	ND		0.50		ug/L			07/14/21 23:09	1
Bromoform	ND		0.50		ug/L			07/14/21 23:09	1
Bromomethane	ND		1.0		ug/L			07/14/21 23:09	1
Carbon tetrachloride	ND		0.50		ug/L			07/14/21 23:09	1
Chlorobenzene	ND		0.50		ug/L			07/14/21 23:09	1
Chloroethane	ND		0.50		ug/L			07/14/21 23:09	1
Chloroform	ND		0.50		ug/L			07/14/21 23:09	1
Chloromethane	ND		1.0		ug/L			07/14/21 23:09	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 23:09	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 23:09	1
Dibromochloromethane	ND		0.50		ug/L			07/14/21 23:09	1
Dibromomethane	ND		0.50		ug/L			07/14/21 23:09	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/14/21 23:09	1
Ethylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			07/14/21 23:09	1
Isopropanol	ND		40		ug/L			07/14/21 23:09	1
Isopropylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
m,p-Xylene	ND		1.0		ug/L			07/14/21 23:09	1
Methylene Chloride	ND		1.0		ug/L			07/14/21 23:09	1
Naphthalene	ND		1.0		ug/L			07/14/21 23:09	1
n-Butylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
N-Propylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
o-Xylene	ND		0.50		ug/L			07/14/21 23:09	1
p-Isopropyltoluene	ND		0.50		ug/L			07/14/21 23:09	1
sec-Butylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
Styrene	ND		0.50		ug/L			07/14/21 23:09	1
tert-Butylbenzene	ND		0.50		ug/L			07/14/21 23:09	1
Tetrachloroethene	ND		0.50		ug/L			07/14/21 23:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-164012/6
Matrix: Water
Analysis Batch: 164012

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50		ug/L			07/14/21 23:09	1
Total Volatile Organic Compounds	ND		150		ug/L			07/14/21 23:09	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			07/14/21 23:09	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			07/14/21 23:09	1
Trichloroethene	ND		0.50		ug/L			07/14/21 23:09	1
Trichlorofluoromethane	ND		0.50		ug/L			07/14/21 23:09	1
Vinyl acetate	ND		5.0		ug/L			07/14/21 23:09	1
Vinyl chloride	ND		0.50		ug/L			07/14/21 23:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*68 - 135*		*07/14/21 23:09*	*1*
4-Bromofluorobenzene (Surr)	*83*		*71 - 120*		*07/14/21 23:09*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*07/14/21 23:09*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/14/21 23:09*	*1*

Lab Sample ID: LCS 570-164012/3
Matrix: Water
Analysis Batch: 164012

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.3		ug/L		103	76 - 143
1,1,1-Trichloroethane	10.0	9.94		ug/L		99	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.13		ug/L		91	50 - 120
1,1,2-Trichloroethane	10.0	10.6		ug/L		106	80 - 120
1,1-Dichloroethane	10.0	10.4		ug/L		104	76 - 120
1,1-Dichloroethene	10.0	9.31		ug/L		93	72 - 120
1,1-Dichloropropene	10.0	9.64		ug/L		96	76 - 120
1,2,3-Trichlorobenzene	10.0	10.0		ug/L		100	80 - 125
1,2,3-Trichloropropane	10.0	10.0		ug/L		100	66 - 131
1,2,4-Trichlorobenzene	10.0	9.42		ug/L		94	80 - 123
1,2,4-Trimethylbenzene	10.0	9.82		ug/L		98	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	8.06		ug/L		81	77 - 120
1,2-Dibromoethane	10.0	10.0		ug/L		100	80 - 120
1,2-Dichlorobenzene	10.0	9.73		ug/L		97	79 - 123
1,2-Dichloroethane	10.0	9.96		ug/L		100	71 - 137
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120
1,3,5-Trimethylbenzene	10.0	9.70		ug/L		97	77 - 133
1,3-Dichlorobenzene	10.0	9.97		ug/L		100	79 - 123
1,3-Dichloropropane	10.0	10.1		ug/L		101	80 - 123
1,4-Dichlorobenzene	10.0	9.66		ug/L		97	75 - 123
2,2-Dichloropropane	10.0	9.88		ug/L		99	78 - 133
2-Butanone	10.0	7.55		ug/L		76	32 - 133
2-Chlorotoluene	10.0	9.69		ug/L		97	80 - 120
2-Hexanone	10.0	8.46		ug/L		85	57 - 127
4-Chlorotoluene	10.0	9.58		ug/L		96	78 - 120
Acetone	10.0	10.0		ug/L		100	57 - 133
Benzene	10.0	10.1		ug/L		101	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-164012/3
Matrix: Water
Analysis Batch: 164012

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	10.0	10.2		ug/L		102	80 - 124
Bromochloromethane	10.0	10.1		ug/L		101	76 - 125
Bromodichloromethane	10.0	10.6		ug/L		106	77 - 141
Bromoform	10.0	10.9		ug/L		109	46 - 178
Bromomethane	10.0	10.8		ug/L		108	52 - 162
Carbon tetrachloride	10.0	10.2		ug/L		102	69 - 145
Chlorobenzene	10.0	10.0		ug/L		100	80 - 120
Chloroethane	10.0	8.94		ug/L		89	73 - 139
Chloroform	10.0	10.4		ug/L		104	80 - 120
Chloromethane	10.0	18.7	*+	ug/L		187	35 - 159
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	76 - 122
cis-1,3-Dichloropropene	10.0	9.48		ug/L		95	80 - 122
Dibromochloromethane	10.0	11.1		ug/L		111	63 - 151
Dibromomethane	10.0	10.0		ug/L		100	80 - 121
Dichlorodifluoromethane	10.0	8.79		ug/L		88	59 - 139
Ethylbenzene	10.0	9.95		ug/L		100	80 - 120
Hexachloro-1,3-butadiene	10.0	9.75		ug/L		97	76 - 141
Isopropanol	100	92.4		ug/L		92	29 - 141
Isopropylbenzene	10.0	9.86		ug/L		99	80 - 124
m,p-Xylene	20.0	19.4		ug/L		97	80 - 122
Methylene Chloride	10.0	10.6		ug/L		106	70 - 120
Naphthalene	10.0	9.20		ug/L		92	75 - 120
n-Butylbenzene	10.0	9.91		ug/L		99	76 - 124
N-Propylbenzene	10.0	10.1		ug/L		101	80 - 122
o-Xylene	10.0	9.90		ug/L		99	80 - 122
p-Isopropyltoluene	10.0	9.60		ug/L		96	77 - 127
sec-Butylbenzene	10.0	9.63		ug/L		96	75 - 123
Styrene	10.0	9.87		ug/L		99	80 - 121
tert-Butylbenzene	10.0	9.51		ug/L		95	72 - 128
Tetrachloroethene	10.0	9.88		ug/L		99	80 - 128
Toluene	10.0	9.70		ug/L		97	80 - 120
trans-1,2-Dichloroethene	10.0	9.84		ug/L		98	67 - 123
trans-1,3-Dichloropropene	10.0	9.59		ug/L		96	78 - 140
Trichloroethene	10.0	9.83		ug/L		98	80 - 123
Trichlorofluoromethane	10.0	9.23		ug/L		92	64 - 168
Vinyl acetate	10.0	7.86		ug/L		79	75 - 144
Vinyl chloride	10.0	9.50		ug/L		95	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 135*
4-Bromofluorobenzene (Surr)	*100*		*71 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-164012/4
Matrix: Water
Analysis Batch: 164012

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	76 - 143	1	20
1,1,1-Trichloroethane	10.0	9.76		ug/L		98	75 - 128	2	20
1,1,2,2-Tetrachloroethane	10.0	11.1		ug/L		111	73 - 126	7	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.92		ug/L		89	50 - 120	2	20
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 120	2	20
1,1-Dichloroethane	10.0	10.5		ug/L		105	76 - 120	0	20
1,1-Dichloroethene	10.0	9.19		ug/L		92	72 - 120	1	20
1,1-Dichloropropene	10.0	9.54		ug/L		95	76 - 120	1	20
1,2,3-Trichlorobenzene	10.0	10.2		ug/L		102	80 - 125	2	22
1,2,3-Trichloropropane	10.0	10.2		ug/L		102	66 - 131	2	20
1,2,4-Trichlorobenzene	10.0	9.88		ug/L		99	80 - 123	5	20
1,2,4-Trimethylbenzene	10.0	9.75		ug/L		97	78 - 125	1	22
1,2-Dibromo-3-Chloropropane	10.0	9.91		ug/L		99	77 - 120	21	21
1,2-Dibromoethane	10.0	10.2		ug/L		102	80 - 120	2	20
1,2-Dichlorobenzene	10.0	10.3		ug/L		103	79 - 123	6	20
1,2-Dichloroethane	10.0	9.87		ug/L		99	71 - 137	1	20
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120	1	20
1,3,5-Trimethylbenzene	10.0	9.52		ug/L		95	77 - 133	2	20
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123	1	20
1,3-Dichloropropane	10.0	10.4		ug/L		104	80 - 123	3	20
1,4-Dichlorobenzene	10.0	9.72		ug/L		97	75 - 123	1	22
2,2-Dichloropropane	10.0	9.38		ug/L		94	78 - 133	5	20
2-Butanone	10.0	7.53		ug/L		75	32 - 133	0	26
2-Chlorotoluene	10.0	9.52		ug/L		95	80 - 120	2	20
2-Hexanone	10.0	8.57		ug/L		86	57 - 127	1	21
4-Chlorotoluene	10.0	9.38		ug/L		94	78 - 120	2	21
Acetone	10.0	10.1		ug/L		101	57 - 133	0	28
Benzene	10.0	10.0		ug/L		100	80 - 120	1	20
Bromobenzene	10.0	10.1		ug/L		101	80 - 124	2	20
Bromochloromethane	10.0	10.4		ug/L		104	76 - 125	3	20
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141	2	20
Bromoform	10.0	11.4		ug/L		114	46 - 178	4	23
Bromomethane	10.0	10.4		ug/L		104	52 - 162	3	20
Carbon tetrachloride	10.0	10.2		ug/L		102	69 - 145	1	20
Chlorobenzene	10.0	9.96		ug/L		100	80 - 120	0	20
Chloroethane	10.0	8.72		ug/L		87	73 - 139	3	20
Chloroform	10.0	10.4		ug/L		104	80 - 120	1	20
Chloromethane	10.0	17.9	*+	ug/L		179	35 - 159	4	20
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	76 - 122	1	20
cis-1,3-Dichloropropene	10.0	9.53		ug/L		95	80 - 122	1	20
Dibromochloromethane	10.0	11.3		ug/L		113	63 - 151	2	20
Dibromomethane	10.0	10.7		ug/L		107	80 - 121	6	20
Dichlorodifluoromethane	10.0	8.65		ug/L		86	59 - 139	2	20
Ethylbenzene	10.0	9.75		ug/L		97	80 - 120	2	20
Hexachloro-1,3-butadiene	10.0	9.43		ug/L		94	76 - 141	3	23
Isopropanol	100	118	*1	ug/L		118	29 - 141	24	22
Isopropylbenzene	10.0	9.66		ug/L		97	80 - 124	2	20
m,p-Xylene	20.0	18.7		ug/L		94	80 - 122	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-164012/4
Matrix: Water
Analysis Batch: 164012

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride			10.0	10.6		ug/L		106	70 - 120	0	20
Naphthalene			10.0	9.76		ug/L		98	75 - 120	6	22
n-Butylbenzene			10.0	9.69		ug/L		97	76 - 124	2	23
N-Propylbenzene			10.0	9.94		ug/L		99	80 - 122	2	20
o-Xylene			10.0	9.74		ug/L		97	80 - 122	2	20
p-Isopropyltoluene			10.0	9.53		ug/L		95	77 - 127	1	21
sec-Butylbenzene			10.0	9.58		ug/L		96	75 - 123	1	21
Styrene			10.0	9.79		ug/L		98	80 - 121	1	20
tert-Butylbenzene			10.0	9.38		ug/L		94	72 - 128	1	22
Tetrachloroethene			10.0	9.85		ug/L		99	80 - 128	0	20
Toluene			10.0	9.82		ug/L		98	80 - 120	1	20
trans-1,2-Dichloroethene			10.0	9.72		ug/L		97	67 - 123	1	20
trans-1,3-Dichloropropene			10.0	9.92		ug/L		99	78 - 140	3	20
Trichloroethene			10.0	9.97		ug/L		100	80 - 123	1	20
Trichlorofluoromethane			10.0	9.05		ug/L		91	64 - 168	2	20
Vinyl acetate			10.0	8.95		ug/L		89	75 - 144	13	25
Vinyl chloride			10.0	9.39		ug/L		94	74 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-162595/1-A
Matrix: Water
Analysis Batch: 162776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 162595

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10		ug/L		07/08/21 07:04	07/08/21 16:42	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*40*		*15 - 150*	*07/08/21 07:04*	*07/08/21 16:42*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*46 - 128*	*07/08/21 07:04*	*07/08/21 16:42*	*1*

Lab Sample ID: LCS 570-162595/2-A
Matrix: Water
Analysis Batch: 162776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 162595

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	19.9		ug/L		99	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*35*		*15 - 150*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-162595/2-A
Matrix: Water
Analysis Batch: 162776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 162595

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	90		46 - 128

Lab Sample ID: LCSD 570-162595/3-A
Matrix: Water
Analysis Batch: 162776

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 162595

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	22.9		ug/L		115	57 - 136	14	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	35		15 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	78		46 - 128

Lab Sample ID: 440-285622-1 MS
Matrix: Water
Analysis Batch: 162776

Client Sample ID: OC_SP220B_EFF_070621
Prep Type: Total/NA
Prep Batch: 162595

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	13		20.0	33.4		ug/L		101	45 - 139		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	38		15 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	82		46 - 128

Lab Sample ID: 440-285622-1 MSD
Matrix: Water
Analysis Batch: 162776

Client Sample ID: OC_SP220B_EFF_070621
Prep Type: Total/NA
Prep Batch: 162595

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	13		20.0	36.8		ug/L		118	45 - 139	10	17

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	39		15 - 150

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	65		46 - 128

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 163841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-285622-1	OC_SP220B_EFF_070621	Total/NA	Water	8260B	
440-285622-3	OC_TB_070621	Total/NA	Water	8260B	
MB 570-163841/6	Method Blank	Total/NA	Water	8260B	
LCS 570-163841/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-163841/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 164012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-285622-2	OC_SP210_INF_070621	Total/NA	Water	8260B	
MB 570-164012/6	Method Blank	Total/NA	Water	8260B	
LCS 570-164012/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-164012/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 162595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-285622-1	OC_SP220B_EFF_070621	Total/NA	Water	3510C	
MB 570-162595/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-162595/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-162595/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-285622-1 MS	OC_SP220B_EFF_070621	Total/NA	Water	3510C	
440-285622-1 MSD	OC_SP220B_EFF_070621	Total/NA	Water	3510C	

Analysis Batch: 162776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-285622-1	OC_SP220B_EFF_070621	Total/NA	Water	8270C SIM ID	162595
MB 570-162595/1-A	Method Blank	Total/NA	Water	8270C SIM ID	162595
LCS 570-162595/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	162595
LCSD 570-162595/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	162595
440-285622-1 MS	OC_SP220B_EFF_070621	Total/NA	Water	8270C SIM ID	162595
440-285622-1 MSD	OC_SP220B_EFF_070621	Total/NA	Water	8270C SIM ID	162595

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-21
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other:

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/6/2021	COC No:
De Maximis - Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☑ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - GWCS Monthly	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #:	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4-Dioxane	Sample Specific Notes: JLL 7/7/21
OC_SP220B_EFF_070621	7/6/2021	0835	Grab	GW	5			x	x	
OC_SP210_INF_070621	7/6/2021	0845	Grab	GW	3			x		
OC_TB_070621	7/6/2021	0830		H2O	2			x		

440-285622 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 3.4 Corr'd: 3.6 Therm ID No.: 93

Relinquished by:	Company: JLA	Date/Time: 7/7/21 1039	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EC IRV	Date/Time: 7/7/21 1039

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

7/15/2021

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-171137 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-285622-1
Address: 7440 Lincoln Way	Due Date Requested: 7/14/2021			
City: Garden Grove	TAT Requested (days):			
State Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Monthly/Annual GW	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_SP220B_EFF_070621 (440-285622-1)	7/6/21	08 35 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_SP210_INF_070621 (440-285622-2)	7/6/21	08 45 Pacific		Water			X		3	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_TB_070621 (440-285622-3)	7/6/21	08 30 Pacific		Water			X		2	Special Multiple Dils close to 1 Run in order J's Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	7/7/21 17:30	EC-TAU	[signature]	7/7/21 17:30	EC
[signature]	7/7/21 18:30	EC	[signature]	7/7/21 18:30	EC1
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No. N/A

Cooler Temperature(s) °C and Other Remarks: 2.5 / 2.1 >C6

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-285622-1
SDG Number: Omega Chemical

Login Number: 285622
List Number: 1
Creator: Lagunas, Jorge L

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-285622-1
SDG Number: Omega Chemical

Login Number: 285622
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 07/07/21 08:13 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-285622-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-285622-1	OC_SP220B_EFF_070621	41							
440-285622-1 MS	OC_SP220B_EFF_070621	38							
440-285622-1 MSD	OC_SP220B_EFF_070621	39							
LCS 570-162595/2-A	Lab Control Sample	35							
LCSD 570-162595/3-A	Lab Control Sample Dup	35							
MB 570-162595/1-A	Method Blank	40							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-287457-1
Client Project/Site: Omega Chemical - GWCS/Monthly

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/20/2021 8:21:19 AM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

Review your project results through TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-287457-1	OC_SP220B_EFF_081021	Water	08/10/21 09:24	08/11/21 17:37
440-287457-2	OC_SP210_INF_081021	Water	08/10/21 09:30	08/11/21 17:37
440-287457-3	OC_TB_081021	Water	08/10/21 09:00	08/11/21 17:37

Job ID: 440-287457-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-287457-1

Comments
No additional comments.

Receipt
The samples were received on 8/11/2021 5:37 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.7º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-172101. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Client Sample ID: OC_SP220B_EFF_081021 — Lab Sample ID: 440-287457-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	12		0.10		ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_SP210_INF_081021 — Lab Sample ID: 440-287457-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	8.6		1.0		ug/L	2		8260B	Total/NA
Chloroform	4.0		1.0		ug/L	2		8260B	Total/NA
Tetrachloroethene	100		1.0		ug/L	2		8260B	Total/NA
Trichloroethene	11		1.0		ug/L	2		8260B	Total/NA
Trichlorofluoromethane	5.2		1.0		ug/L	2		8260B	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane - DL	42		2.0		ug/L	4		8260B	Total/NA

Client Sample ID: OC_TB_081021 — Lab Sample ID: 440-287457-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Client Sample ID: OC_SP220B_EFF_081021

Lab Sample ID: 440-287457-1

Date Collected: 08/10/21 09:24
Matrix: Water
Date Received: 08/11/21 17:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1-Dichloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,1-Dichloroethene	ND		0.50		ug/L			08/17/21 05:33	1
1,1-Dichloropropene	ND		0.50		ug/L			08/17/21 05:33	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/17/21 05:33	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/17/21 05:33	1
1,2-Dibromoethane	ND		0.50		ug/L			08/17/21 05:33	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,2-Dichloroethane	ND		0.50		ug/L			08/17/21 05:33	1
1,2-Dichloropropane	ND		0.50		ug/L			08/17/21 05:33	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
1,3-Dichloropropane	ND		0.50		ug/L			08/17/21 05:33	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
2,2-Dichloropropane	ND		0.50		ug/L			08/17/21 05:33	1
2-Butanone	ND		5.0		ug/L			08/17/21 05:33	1
2-Chlorotoluene	ND		0.50		ug/L			08/17/21 05:33	1
2-Hexanone	ND		6.0		ug/L			08/17/21 05:33	1
4-Chlorotoluene	ND		0.50		ug/L			08/17/21 05:33	1
Acetone	ND		8.0		ug/L			08/17/21 05:33	1
Benzene	ND		0.50		ug/L			08/17/21 05:33	1
Bromobenzene	ND		0.50		ug/L			08/17/21 05:33	1
Bromochloromethane	ND		1.0		ug/L			08/17/21 05:33	1
Bromodichloromethane	ND		0.50		ug/L			08/17/21 05:33	1
Bromoform	ND		0.50		ug/L			08/17/21 05:33	1
Bromomethane	ND		1.0		ug/L			08/17/21 05:33	1
Carbon tetrachloride	ND		0.50		ug/L			08/17/21 05:33	1
Chlorobenzene	ND		0.50		ug/L			08/17/21 05:33	1
Chloroethane	ND		0.50		ug/L			08/17/21 05:33	1
Chloroform	ND		0.50		ug/L			08/17/21 05:33	1
Chloromethane	ND		1.0		ug/L			08/17/21 05:33	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/17/21 05:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/17/21 05:33	1
Dibromochloromethane	ND		0.50		ug/L			08/17/21 05:33	1
Dibromomethane	ND		0.50		ug/L			08/17/21 05:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/17/21 05:33	1
Ethylbenzene	ND		0.50		ug/L			08/17/21 05:33	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/17/21 05:33	1
Isopropanol	ND		40		ug/L			08/17/21 05:33	1
Isopropylbenzene	ND		0.50		ug/L			08/17/21 05:33	1
m,p-Xylene	ND		1.0		ug/L			08/17/21 05:33	1
Methylene Chloride	ND		1.0		ug/L			08/17/21 05:33	1

Client Sample ID: OC_SP220B_EFF_081021

Lab Sample ID: 440-287457-1

Date Collected: 08/10/21 09:24

Matrix: Water

Date Received: 08/11/21 17:37

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	ug/L			08/17/21 05:33	1
n-Butylbenzene	ND		0.50	ug/L			08/17/21 05:33	1
N-Propylbenzene	ND		0.50	ug/L			08/17/21 05:33	1
o-Xylene	ND		0.50	ug/L			08/17/21 05:33	1
p-Isopropyltoluene	ND		0.50	ug/L			08/17/21 05:33	1
sec-Butylbenzene	ND		0.50	ug/L			08/17/21 05:33	1
Styrene	ND		0.50	ug/L			08/17/21 05:33	1
tert-Butylbenzene	ND		0.50	ug/L			08/17/21 05:33	1
Tetrachloroethene	ND		0.50	ug/L			08/17/21 05:33	1
Toluene	ND		0.50	ug/L			08/17/21 05:33	1
Total Volatile Organic Compounds	ND		150	ug/L			08/17/21 05:33	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			08/17/21 05:33	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/17/21 05:33	1
Trichloroethene	ND		0.50	ug/L			08/17/21 05:33	1
Trichlorofluoromethane	ND		0.50	ug/L			08/17/21 05:33	1
Vinyl acetate	ND		5.0	ug/L			08/17/21 05:33	1
Vinyl chloride	ND		0.50	ug/L			08/17/21 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 135*		*08/17/21 05:33*	*1*
4-Bromofluorobenzene (Surr)	*88*		*71 - 120*		*08/17/21 05:33*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*08/17/21 05:33*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/17/21 05:33*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**12**		0.10	ug/L		08/16/21 08:16	08/17/21 14:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*52*		*15 - 150*	*08/16/21 08:16*	*08/17/21 14:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*123*		*46 - 128*	*08/16/21 08:16*	*08/17/21 14:25*	*1*

Client Sample ID: OC_SP210_INF_081021

Lab Sample ID: 440-287457-2

Date Collected: 08/10/21 09:30

Matrix: Water

Date Received: 08/11/21 17:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/18/21 03:33	2
1,1,1-Trichloroethane	ND		1.0	ug/L			08/18/21 03:33	2
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/18/21 03:33	2
1,1,2-Trichloroethane	ND		1.0	ug/L			08/18/21 03:33	2
1,1-Dichloroethane	ND		1.0	ug/L			08/18/21 03:33	2
1,1-Dichloroethene	**8.6**		1.0	ug/L			08/18/21 03:33	2
1,1-Dichloropropene	ND		1.0	ug/L			08/18/21 03:33	2
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/18/21 03:33	2
1,2,3-Trichloropropane	ND		1.0	ug/L			08/18/21 03:33	2
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/18/21 03:33	2
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/18/21 03:33	2

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Client Sample ID: OC_SP210_INF_081021
Date Collected: 08/10/21 09:30
Date Received: 08/11/21 17:37

Lab Sample ID: 440-287457-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			08/18/21 03:33	2
1,2-Dibromoethane	ND		1.0		ug/L			08/18/21 03:33	2
1,2-Dichlorobenzene	ND		1.0		ug/L			08/18/21 03:33	2
1,2-Dichloroethane	ND		1.0		ug/L			08/18/21 03:33	2
1,2-Dichloropropane	ND		1.0		ug/L			08/18/21 03:33	2
1,3,5-Trimethylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
1,3-Dichlorobenzene	ND		1.0		ug/L			08/18/21 03:33	2
1,3-Dichloropropane	ND		1.0		ug/L			08/18/21 03:33	2
1,4-Dichlorobenzene	ND		1.0		ug/L			08/18/21 03:33	2
2,2-Dichloropropane	ND		1.0		ug/L			08/18/21 03:33	2
2-Butanone	ND		10		ug/L			08/18/21 03:33	2
2-Chlorotoluene	ND		1.0		ug/L			08/18/21 03:33	2
2-Hexanone	ND		12		ug/L			08/18/21 03:33	2
4-Chlorotoluene	ND		1.0		ug/L			08/18/21 03:33	2
Acetone	ND		16		ug/L			08/18/21 03:33	2
Benzene	ND		1.0		ug/L			08/18/21 03:33	2
Bromobenzene	ND		1.0		ug/L			08/18/21 03:33	2
Bromochloromethane	ND		2.0		ug/L			08/18/21 03:33	2
Bromodichloromethane	ND		1.0		ug/L			08/18/21 03:33	2
Bromoform	ND		1.0		ug/L			08/18/21 03:33	2
Bromomethane	ND		2.0		ug/L			08/18/21 03:33	2
Carbon tetrachloride	ND		1.0		ug/L			08/18/21 03:33	2
Chlorobenzene	ND		1.0		ug/L			08/18/21 03:33	2
Chloroethane	ND		1.0		ug/L			08/18/21 03:33	2
Chloroform	**4.0**		1.0		ug/L			08/18/21 03:33	2
Chloromethane	ND		2.0		ug/L			08/18/21 03:33	2
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/18/21 03:33	2
cis-1,3-Dichloropropene	ND		1.0		ug/L			08/18/21 03:33	2
Dibromochloromethane	ND		1.0		ug/L			08/18/21 03:33	2
Dibromomethane	ND		1.0		ug/L			08/18/21 03:33	2
Dichlorodifluoromethane	ND		2.0		ug/L			08/18/21 03:33	2
Ethylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
Hexachloro-1,3-butadiene	ND		2.0		ug/L			08/18/21 03:33	2
Isopropanol	ND		80		ug/L			08/18/21 03:33	2
Isopropylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
m,p-Xylene	ND		2.0		ug/L			08/18/21 03:33	2
Methylene Chloride	ND		2.0		ug/L			08/18/21 03:33	2
Naphthalene	ND		2.0		ug/L			08/18/21 03:33	2
n-Butylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
N-Propylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
o-Xylene	ND		1.0		ug/L			08/18/21 03:33	2
p-Isopropyltoluene	ND		1.0		ug/L			08/18/21 03:33	2
sec-Butylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
Styrene	ND		1.0		ug/L			08/18/21 03:33	2
tert-Butylbenzene	ND		1.0		ug/L			08/18/21 03:33	2
Tetrachloroethene	**100**		1.0		ug/L			08/18/21 03:33	2
Toluene	ND		1.0		ug/L			08/18/21 03:33	2
Total Volatile Organic Compounds	ND		300		ug/L			08/18/21 03:33	2
trans-1,2-Dichloroethene	ND		1.0		ug/L			08/18/21 03:33	2

Client Sample ID: OC_SP210_INF_081021

Lab Sample ID: 440-287457-2

Date Collected: 08/10/21 09:30

Matrix: Water

Date Received: 08/11/21 17:37

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0	ug/L			08/18/21 03:33	2
Trichloroethene	**11**		1.0	ug/L			08/18/21 03:33	2
Trichlorofluoromethane	**5.2**		1.0	ug/L			08/18/21 03:33	2
Vinyl acetate	ND		10	ug/L			08/18/21 03:33	2
Vinyl chloride	ND		1.0	ug/L			08/18/21 03:33	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*68 - 135*		*08/18/21 03:33*	*2*
4-Bromofluorobenzene (Surr)	*95*		*71 - 120*		*08/18/21 03:33*	*2*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*08/18/21 03:33*	*2*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/18/21 03:33*	*2*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**42**		2.0	ug/L			08/17/21 05:59	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 135*		*08/17/21 05:59*	*4*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*08/17/21 05:59*	*4*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*08/17/21 05:59*	*4*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/17/21 05:59*	*4*

Client Sample ID: OC_TB_081021

Lab Sample ID: 440-287457-3

Date Collected: 08/10/21 09:00

Matrix: Water

Date Received: 08/11/21 17:37

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1,1-Trichloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1,2-Trichloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1-Dichloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,1-Dichloroethene	ND		0.50	ug/L			08/16/21 23:09	1
1,1-Dichloropropene	ND		0.50	ug/L			08/16/21 23:09	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,2,3-Trichloropropane	ND		0.50	ug/L			08/16/21 23:09	1
1,2,4-Trichlorobenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,2,4-Trimethylbenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	ug/L			08/16/21 23:09	1
1,2-Dibromoethane	ND		0.50	ug/L			08/16/21 23:09	1
1,2-Dichlorobenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,2-Dichloroethane	ND		0.50	ug/L			08/16/21 23:09	1
1,2-Dichloropropane	ND		0.50	ug/L			08/16/21 23:09	1
1,3,5-Trimethylbenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,3-Dichlorobenzene	ND		0.50	ug/L			08/16/21 23:09	1
1,3-Dichloropropane	ND		0.50	ug/L			08/16/21 23:09	1
1,4-Dichlorobenzene	ND		0.50	ug/L			08/16/21 23:09	1
2,2-Dichloropropane	ND		0.50	ug/L			08/16/21 23:09	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Client Sample ID: OC_TB_081021

Date Collected: 08/10/21 09:00
Date Received: 08/11/21 17:37

Lab Sample ID: 440-287457-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		5.0		ug/L			08/16/21 23:09	1
2-Chlorotoluene	ND		0.50		ug/L			08/16/21 23:09	1
2-Hexanone	ND		6.0		ug/L			08/16/21 23:09	1
4-Chlorotoluene	ND		0.50		ug/L			08/16/21 23:09	1
Acetone	ND		8.0		ug/L			08/16/21 23:09	1
Benzene	ND		0.50		ug/L			08/16/21 23:09	1
Bromobenzene	ND		0.50		ug/L			08/16/21 23:09	1
Bromochloromethane	ND		1.0		ug/L			08/16/21 23:09	1
Bromodichloromethane	ND		0.50		ug/L			08/16/21 23:09	1
Bromoform	ND		0.50		ug/L			08/16/21 23:09	1
Bromomethane	ND		1.0		ug/L			08/16/21 23:09	1
Carbon tetrachloride	ND		0.50		ug/L			08/16/21 23:09	1
Chlorobenzene	ND		0.50		ug/L			08/16/21 23:09	1
Chloroethane	ND		0.50		ug/L			08/16/21 23:09	1
Chloroform	ND		0.50		ug/L			08/16/21 23:09	1
Chloromethane	ND		1.0		ug/L			08/16/21 23:09	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/16/21 23:09	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/16/21 23:09	1
Dibromochloromethane	ND		0.50		ug/L			08/16/21 23:09	1
Dibromomethane	ND		0.50		ug/L			08/16/21 23:09	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/16/21 23:09	1
Ethylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/16/21 23:09	1
Isopropanol	ND		40		ug/L			08/16/21 23:09	1
Isopropylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
m,p-Xylene	ND		1.0		ug/L			08/16/21 23:09	1
Methylene Chloride	ND		1.0		ug/L			08/16/21 23:09	1
Naphthalene	ND		1.0		ug/L			08/16/21 23:09	1
n-Butylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
N-Propylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
o-Xylene	ND		0.50		ug/L			08/16/21 23:09	1
p-Isopropyltoluene	ND		0.50		ug/L			08/16/21 23:09	1
sec-Butylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
Styrene	ND		0.50		ug/L			08/16/21 23:09	1
tert-Butylbenzene	ND		0.50		ug/L			08/16/21 23:09	1
Tetrachloroethene	ND		0.50		ug/L			08/16/21 23:09	1
Toluene	ND		0.50		ug/L			08/16/21 23:09	1
Total Volatile Organic Compounds	ND		150		ug/L			08/16/21 23:09	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/16/21 23:09	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/16/21 23:09	1
Trichloroethene	ND		0.50		ug/L			08/16/21 23:09	1
Trichlorofluoromethane	ND		0.50		ug/L			08/16/21 23:09	1
Vinyl acetate	ND		5.0		ug/L			08/16/21 23:09	1
Vinyl chloride	ND		0.50		ug/L			08/16/21 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 135*		*08/16/21 23:09*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/16/21 23:09*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*08/16/21 23:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/16/21 23:09*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(68-135)	(71-120)	(80-120)	(80-120)
440-287457-1	OC_SP220B_EFF_081021	108	88	103	102
440-287457-2 - DL	OC_SP210_INF_081021	102	93	102	100
440-287457-2	OC_SP210_INF_081021	91	95	92	98
440-287457-3	OC_TB_081021	100	94	95	99
LCS 570-171758/3	Lab Control Sample	91	101	98	99
LCS 570-172101/3	Lab Control Sample	98	102	101	101
LCSD 570-171758/4	Lab Control Sample Dup	92	102	95	101
LCSD 570-172101/4	Lab Control Sample Dup	97	103	101	101
MB 570-171758/6	Method Blank	97	94	93	98
MB 570-172101/6	Method Blank	102	92	98	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-287457-1	OC_SP220B_EFF_081021	123
440-287457-1 MS	OC_SP220B_EFF_081021	87
440-287457-1 MSD	OC_SP220B_EFF_081021	116
LCS 570-171517/2-A	Lab Control Sample	99
LCSD 570-171517/3-A	Lab Control Sample Dup	122
MB 570-171517/1-A	Method Blank	117

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Client Sample ID: OC_SP220B_EFF_081021

Lab Sample ID: 440-287457-1

Date Collected: 08/10/21 09:24
Matrix: Water
Date Received: 08/11/21 17:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	171758	08/17/21 05:33	A1W	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	171517	08/16/21 08:16	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			171996	08/17/21 14:25	AJ2Q	ECL 1

Client Sample ID: OC_SP210_INF_081021

Lab Sample ID: 440-287457-2

Date Collected: 08/10/21 09:30
Matrix: Water
Date Received: 08/11/21 17:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	4	20 mL	20 mL	171758	08/17/21 05:59	A1W	ECL 2
Total/NA	Analysis	8260B		2	20 mL	20 mL	172101	08/18/21 03:33	A1W	ECL 2

Client Sample ID: OC_TB_081021

Lab Sample ID: 440-287457-3

Date Collected: 08/10/21 09:00
Matrix: Water
Date Received: 08/11/21 17:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	171758	08/16/21 23:09	A1W	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-171758/6
Matrix: Water
Analysis Batch: 171758

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1-Dichloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,1-Dichloroethene	ND		0.50		ug/L			08/16/21 21:52	1
1,1-Dichloropropene	ND		0.50		ug/L			08/16/21 21:52	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/16/21 21:52	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/16/21 21:52	1
1,2-Dibromoethane	ND		0.50		ug/L			08/16/21 21:52	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,2-Dichloroethane	ND		0.50		ug/L			08/16/21 21:52	1
1,2-Dichloropropane	ND		0.50		ug/L			08/16/21 21:52	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
1,3-Dichloropropane	ND		0.50		ug/L			08/16/21 21:52	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
2,2-Dichloropropane	ND		0.50		ug/L			08/16/21 21:52	1
2-Butanone	ND		5.0		ug/L			08/16/21 21:52	1
2-Chlorotoluene	ND		0.50		ug/L			08/16/21 21:52	1
2-Hexanone	ND		6.0		ug/L			08/16/21 21:52	1
4-Chlorotoluene	ND		0.50		ug/L			08/16/21 21:52	1
Acetone	ND		8.0		ug/L			08/16/21 21:52	1
Benzene	ND		0.50		ug/L			08/16/21 21:52	1
Bromobenzene	ND		0.50		ug/L			08/16/21 21:52	1
Bromochloromethane	ND		1.0		ug/L			08/16/21 21:52	1
Bromodichloromethane	ND		0.50		ug/L			08/16/21 21:52	1
Bromoform	ND		0.50		ug/L			08/16/21 21:52	1
Bromomethane	ND		1.0		ug/L			08/16/21 21:52	1
Carbon tetrachloride	ND		0.50		ug/L			08/16/21 21:52	1
Chlorobenzene	ND		0.50		ug/L			08/16/21 21:52	1
Chloroethane	ND		0.50		ug/L			08/16/21 21:52	1
Chloroform	ND		0.50		ug/L			08/16/21 21:52	1
Chloromethane	ND		1.0		ug/L			08/16/21 21:52	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/16/21 21:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/16/21 21:52	1
Dibromochloromethane	ND		0.50		ug/L			08/16/21 21:52	1
Dibromomethane	ND		0.50		ug/L			08/16/21 21:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/16/21 21:52	1
Ethylbenzene	ND		0.50		ug/L			08/16/21 21:52	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/16/21 21:52	1
Isopropanol	ND		40		ug/L			08/16/21 21:52	1
Isopropylbenzene	ND		0.50		ug/L			08/16/21 21:52	1
m,p-Xylene	ND		1.0		ug/L			08/16/21 21:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-171758/6
Matrix: Water
Analysis Batch: 171758

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	ug/L			08/16/21 21:52	1
Naphthalene	ND		1.0	ug/L			08/16/21 21:52	1
n-Butylbenzene	ND		0.50	ug/L			08/16/21 21:52	1
N-Propylbenzene	ND		0.50	ug/L			08/16/21 21:52	1
o-Xylene	ND		0.50	ug/L			08/16/21 21:52	1
p-Isopropyltoluene	ND		0.50	ug/L			08/16/21 21:52	1
sec-Butylbenzene	ND		0.50	ug/L			08/16/21 21:52	1
Styrene	ND		0.50	ug/L			08/16/21 21:52	1
tert-Butylbenzene	ND		0.50	ug/L			08/16/21 21:52	1
Tetrachloroethene	ND		0.50	ug/L			08/16/21 21:52	1
Toluene	ND		0.50	ug/L			08/16/21 21:52	1
Total Volatile Organic Compounds	ND		150	ug/L			08/16/21 21:52	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			08/16/21 21:52	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/16/21 21:52	1
Trichloroethene	ND		0.50	ug/L			08/16/21 21:52	1
Trichlorofluoromethane	ND		0.50	ug/L			08/16/21 21:52	1
Vinyl acetate	ND		5.0	ug/L			08/16/21 21:52	1
Vinyl chloride	ND		0.50	ug/L			08/16/21 21:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*		*08/16/21 21:52*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/16/21 21:52*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*08/16/21 21:52*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/16/21 21:52*	*1*

Lab Sample ID: LCS 570-171758/3
Matrix: Water
Analysis Batch: 171758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	76 - 143
1,1,1-Trichloroethane	10.0	10.8		ug/L		108	75 - 128
1,1,2,2-Tetrachloroethane	10.0	11.0		ug/L		110	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.7		ug/L		107	50 - 120
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120
1,1-Dichloroethane	10.0	10.5		ug/L		105	76 - 120
1,1-Dichloroethene	10.0	10.9		ug/L		109	72 - 120
1,1-Dichloropropene	10.0	11.0		ug/L		110	76 - 120
1,2,3-Trichlorobenzene	10.0	12.1		ug/L		121	80 - 125
1,2,3-Trichloropropane	10.0	10.4		ug/L		104	66 - 131
1,2,4-Trichlorobenzene	10.0	11.8		ug/L		118	80 - 123
1,2,4-Trimethylbenzene	10.0	11.5		ug/L		115	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.0		ug/L		100	77 - 120
1,2-Dibromoethane	10.0	10.6		ug/L		106	80 - 120
1,2-Dichlorobenzene	10.0	10.8		ug/L		108	79 - 123
1,2-Dichloroethane	10.0	10.4		ug/L		104	71 - 137
1,2-Dichloropropane	10.0	10.6		ug/L		106	80 - 120
1,3,5-Trimethylbenzene	10.0	11.5		ug/L		115	77 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-171758/3
Matrix: Water
Analysis Batch: 171758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	10.9		ug/L		109	79 - 123
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123
1,4-Dichlorobenzene	10.0	10.3		ug/L		103	75 - 123
2,2-Dichloropropane	10.0	11.7		ug/L		117	78 - 133
2-Butanone	10.0	11.5		ug/L		115	32 - 133
2-Chlorotoluene	10.0	11.0		ug/L		110	80 - 120
2-Hexanone	10.0	11.1		ug/L		111	57 - 127
4-Chlorotoluene	10.0	11.0		ug/L		110	78 - 120
Acetone	10.0	7.52	J	ug/L		75	57 - 133
Benzene	10.0	10.9		ug/L		109	80 - 120
Bromobenzene	10.0	10.9		ug/L		109	80 - 124
Bromochloromethane	10.0	10.5		ug/L		105	76 - 125
Bromodichloromethane	10.0	10.8		ug/L		108	77 - 141
Bromoform	10.0	10.9		ug/L		109	46 - 178
Bromomethane	10.0	9.72		ug/L		97	52 - 162
Carbon tetrachloride	10.0	11.2		ug/L		112	69 - 145
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
Chloroethane	10.0	10.9		ug/L		109	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	8.02		ug/L		80	35 - 159
cis-1,2-Dichloroethene	10.0	11.1		ug/L		111	76 - 122
cis-1,3-Dichloropropene	10.0	11.2		ug/L		112	80 - 122
Dibromochloromethane	10.0	11.3		ug/L		113	63 - 151
Dibromomethane	10.0	10.6		ug/L		106	80 - 121
Dichlorodifluoromethane	10.0	7.39		ug/L		74	59 - 139
Ethylbenzene	10.0	11.3		ug/L		113	80 - 120
Hexachloro-1,3-butadiene	10.0	12.0		ug/L		120	76 - 141
Isopropanol	100	85.5		ug/L		86	29 - 141
Isopropylbenzene	10.0	12.0		ug/L		120	80 - 124
m,p-Xylene	20.0	22.6		ug/L		113	80 - 122
Methylene Chloride	10.0	11.3		ug/L		113	70 - 120
Naphthalene	10.0	11.2		ug/L		112	75 - 120
n-Butylbenzene	10.0	12.0		ug/L		120	76 - 124
N-Propylbenzene	10.0	11.8		ug/L		118	80 - 122
o-Xylene	10.0	11.5		ug/L		115	80 - 122
p-Isopropyltoluene	10.0	11.9		ug/L		119	77 - 127
sec-Butylbenzene	10.0	11.9		ug/L		119	75 - 123
Styrene	10.0	11.5		ug/L		115	80 - 121
tert-Butylbenzene	10.0	11.8		ug/L		118	72 - 128
Tetrachloroethene	10.0	11.5		ug/L		115	80 - 128
Toluene	10.0	11.0		ug/L		110	80 - 120
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	67 - 123
trans-1,3-Dichloropropene	10.0	11.0		ug/L		110	78 - 140
Trichloroethene	10.0	10.8		ug/L		108	80 - 123
Trichlorofluoromethane	10.0	9.70		ug/L		97	64 - 168
Vinyl acetate	10.0	13.8		ug/L		138	75 - 144
Vinyl chloride	10.0	8.75		ug/L		87	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-171758/3
Matrix: Water
Analysis Batch: 171758

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		68 - 135
4-Bromofluorobenzene (Surr)	101		71 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 570-171758/4
Matrix: Water
Analysis Batch: 171758

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.55		ug/L		95	76 - 143	13	20
1,1,1-Trichloroethane	10.0	9.65		ug/L		96	75 - 128	12	20
1,1,2,2-Tetrachloroethane	10.0	9.71		ug/L		97	73 - 126	12	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.54		ug/L		95	50 - 120	11	20
1,1,2-Trichloroethane	10.0	9.24		ug/L		92	80 - 120	12	20
1,1-Dichloroethane	10.0	9.21		ug/L		92	76 - 120	13	20
1,1-Dichloroethene	10.0	9.72		ug/L		97	72 - 120	12	20
1,1-Dichloropropene	10.0	9.93		ug/L		99	76 - 120	10	20
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125	13	22
1,2,3-Trichloropropane	10.0	9.27		ug/L		93	66 - 131	11	20
1,2,4-Trichlorobenzene	10.0	10.2		ug/L		102	80 - 123	14	20
1,2,4-Trimethylbenzene	10.0	10.0		ug/L		100	78 - 125	14	22
1,2-Dibromo-3-Chloropropane	10.0	8.74		ug/L		87	77 - 120	13	21
1,2-Dibromoethane	10.0	9.31		ug/L		93	80 - 120	13	20
1,2-Dichlorobenzene	10.0	9.59		ug/L		96	79 - 123	12	20
1,2-Dichloroethane	10.0	9.30		ug/L		93	71 - 137	11	20
1,2-Dichloropropane	10.0	9.59		ug/L		96	80 - 120	10	20
1,3,5-Trimethylbenzene	10.0	10.0		ug/L		100	77 - 133	13	20
1,3-Dichlorobenzene	10.0	9.48		ug/L		95	79 - 123	13	20
1,3-Dichloropropane	10.0	9.39		ug/L		94	80 - 123	10	20
1,4-Dichlorobenzene	10.0	9.15		ug/L		91	75 - 123	12	22
2,2-Dichloropropane	10.0	10.4		ug/L		104	78 - 133	12	20
2-Butanone	10.0	10.2		ug/L		102	32 - 133	12	26
2-Chlorotoluene	10.0	9.53		ug/L		95	80 - 120	14	20
2-Hexanone	10.0	9.59		ug/L		96	57 - 127	14	21
4-Chlorotoluene	10.0	9.59		ug/L		96	78 - 120	13	21
Acetone	10.0	7.58	J	ug/L		76	57 - 133	1	28
Benzene	10.0	9.72		ug/L		97	80 - 120	11	20
Bromobenzene	10.0	9.56		ug/L		96	80 - 124	13	20
Bromochloromethane	10.0	9.52		ug/L		95	76 - 125	10	20
Bromodichloromethane	10.0	9.75		ug/L		97	77 - 141	10	20
Bromoform	10.0	9.76		ug/L		98	46 - 178	11	23
Bromomethane	10.0	8.94		ug/L		89	52 - 162	8	20
Carbon tetrachloride	10.0	10.0		ug/L		100	69 - 145	11	20
Chlorobenzene	10.0	9.38		ug/L		94	80 - 120	12	20
Chloroethane	10.0	10.4		ug/L		104	73 - 139	5	20
Chloroform	10.0	9.39		ug/L		94	80 - 120	11	20
Chloromethane	10.0	7.50		ug/L		75	35 - 159	7	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-171758/4
Matrix: Water
Analysis Batch: 171758

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	10.0	9.90		ug/L		99	76 - 122	12	20
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	80 - 122	11	20
Dibromochloromethane	10.0	10.0		ug/L		100	63 - 151	12	20
Dibromomethane	10.0	9.63		ug/L		96	80 - 121	10	20
Dichlorodifluoromethane	10.0	6.90		ug/L		69	59 - 139	7	20
Ethylbenzene	10.0	9.96		ug/L		100	80 - 120	12	20
Hexachloro-1,3-butadiene	10.0	10.5		ug/L		105	76 - 141	13	23
Isopropanol	100	105		ug/L		105	29 - 141	20	22
Isopropylbenzene	10.0	10.5		ug/L		105	80 - 124	13	20
m,p-Xylene	20.0	20.2		ug/L		101	80 - 122	12	20
Methylene Chloride	10.0	10.2		ug/L		102	70 - 120	10	20
Naphthalene	10.0	9.85		ug/L		98	75 - 120	13	22
n-Butylbenzene	10.0	10.6		ug/L		106	76 - 124	13	23
N-Propylbenzene	10.0	10.3		ug/L		103	80 - 122	13	20
o-Xylene	10.0	10.1		ug/L		101	80 - 122	13	20
p-Isopropyltoluene	10.0	10.3		ug/L		103	77 - 127	14	21
sec-Butylbenzene	10.0	10.3		ug/L		103	75 - 123	14	21
Styrene	10.0	10.2		ug/L		102	80 - 121	12	20
tert-Butylbenzene	10.0	10.3		ug/L		103	72 - 128	14	22
Tetrachloroethene	10.0	10.1		ug/L		101	80 - 128	13	20
Toluene	10.0	9.78		ug/L		98	80 - 120	11	20
trans-1,2-Dichloroethene	10.0	9.65		ug/L		97	67 - 123	10	20
trans-1,3-Dichloropropene	10.0	9.87		ug/L		99	78 - 140	11	20
Trichloroethene	10.0	9.54		ug/L		95	80 - 123	12	20
Trichlorofluoromethane	10.0	9.39		ug/L		94	64 - 168	3	20
Vinyl acetate	10.0	11.2		ug/L		112	75 - 144	21	25
Vinyl chloride	10.0	8.25		ug/L		83	74 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 135*
4-Bromofluorobenzene (Surr)	*102*		*71 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 570-172101/6
Matrix: Water
Analysis Batch: 172101

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1,1-Trichloroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1,2-Trichloroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1-Dichloroethane	ND		0.50	ug/L			08/17/21 21:35	1
1,1-Dichloroethene	ND		0.50	ug/L			08/17/21 21:35	1
1,1-Dichloropropene	ND		0.50	ug/L			08/17/21 21:35	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			08/17/21 21:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-172101/6
Matrix: Water
Analysis Batch: 172101

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50		ug/L			08/17/21 21:35	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/17/21 21:35	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/17/21 21:35	1
1,2-Dibromoethane	ND		0.50		ug/L			08/17/21 21:35	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/17/21 21:35	1
1,2-Dichloroethane	ND		0.50		ug/L			08/17/21 21:35	1
1,2-Dichloropropane	ND		0.50		ug/L			08/17/21 21:35	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/17/21 21:35	1
1,3-Dichloropropane	ND		0.50		ug/L			08/17/21 21:35	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/17/21 21:35	1
2,2-Dichloropropane	ND		0.50		ug/L			08/17/21 21:35	1
2-Butanone	ND		5.0		ug/L			08/17/21 21:35	1
2-Chlorotoluene	ND		0.50		ug/L			08/17/21 21:35	1
2-Hexanone	ND		6.0		ug/L			08/17/21 21:35	1
4-Chlorotoluene	ND		0.50		ug/L			08/17/21 21:35	1
Acetone	ND		8.0		ug/L			08/17/21 21:35	1
Benzene	ND		0.50		ug/L			08/17/21 21:35	1
Bromobenzene	ND		0.50		ug/L			08/17/21 21:35	1
Bromochloromethane	ND		1.0		ug/L			08/17/21 21:35	1
Bromodichloromethane	ND		0.50		ug/L			08/17/21 21:35	1
Bromoform	ND		0.50		ug/L			08/17/21 21:35	1
Bromomethane	ND		1.0		ug/L			08/17/21 21:35	1
Carbon tetrachloride	ND		0.50		ug/L			08/17/21 21:35	1
Chlorobenzene	ND		0.50		ug/L			08/17/21 21:35	1
Chloroethane	ND		0.50		ug/L			08/17/21 21:35	1
Chloroform	ND		0.50		ug/L			08/17/21 21:35	1
Chloromethane	ND		1.0		ug/L			08/17/21 21:35	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/17/21 21:35	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/17/21 21:35	1
Dibromochloromethane	ND		0.50		ug/L			08/17/21 21:35	1
Dibromomethane	ND		0.50		ug/L			08/17/21 21:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/17/21 21:35	1
Ethylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/17/21 21:35	1
Isopropanol	ND		40		ug/L			08/17/21 21:35	1
Isopropylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
m,p-Xylene	ND		1.0		ug/L			08/17/21 21:35	1
Methylene Chloride	ND		1.0		ug/L			08/17/21 21:35	1
Naphthalene	ND		1.0		ug/L			08/17/21 21:35	1
n-Butylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
N-Propylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
o-Xylene	ND		0.50		ug/L			08/17/21 21:35	1
p-Isopropyltoluene	ND		0.50		ug/L			08/17/21 21:35	1
sec-Butylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
Styrene	ND		0.50		ug/L			08/17/21 21:35	1
tert-Butylbenzene	ND		0.50		ug/L			08/17/21 21:35	1
Tetrachloroethene	ND		0.50		ug/L			08/17/21 21:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-172101/6
Matrix: Water
Analysis Batch: 172101

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	ug/L			08/17/21 21:35	1
Total Volatile Organic Compounds	ND		150	ug/L			08/17/21 21:35	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			08/17/21 21:35	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/17/21 21:35	1
Trichloroethene	ND		0.50	ug/L			08/17/21 21:35	1
Trichlorofluoromethane	ND		0.50	ug/L			08/17/21 21:35	1
Vinyl acetate	ND		5.0	ug/L			08/17/21 21:35	1
Vinyl chloride	ND		0.50	ug/L			08/17/21 21:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 135*		*08/17/21 21:35*	*1*
4-Bromofluorobenzene (Surr)	*92*		*71 - 120*		*08/17/21 21:35*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/17/21 21:35*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/17/21 21:35*	*1*

Lab Sample ID: LCS 570-172101/3
Matrix: Water
Analysis Batch: 172101

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.5		ug/L		105	76 - 143
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.0		ug/L		100	50 - 120
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120
1,1-Dichloroethane	10.0	10.6		ug/L		106	76 - 120
1,1-Dichloroethene	10.0	10.5		ug/L		105	72 - 120
1,1-Dichloropropene	10.0	11.0		ug/L		110	76 - 120
1,2,3-Trichlorobenzene	10.0	11.4		ug/L		114	80 - 125
1,2,3-Trichloropropane	10.0	10.2		ug/L		102	66 - 131
1,2,4-Trichlorobenzene	10.0	10.9		ug/L		109	80 - 123
1,2,4-Trimethylbenzene	10.0	11.1		ug/L		111	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	9.59		ug/L		96	77 - 120
1,2-Dibromoethane	10.0	10.3		ug/L		103	80 - 120
1,2-Dichlorobenzene	10.0	10.5		ug/L		105	79 - 123
1,2-Dichloroethane	10.0	10.5		ug/L		105	71 - 137
1,2-Dichloropropane	10.0	10.4		ug/L		104	80 - 120
1,3,5-Trimethylbenzene	10.0	11.1		ug/L		111	77 - 133
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123
1,3-Dichloropropane	10.0	10.1		ug/L		101	80 - 123
1,4-Dichlorobenzene	10.0	9.89		ug/L		99	75 - 123
2,2-Dichloropropane	10.0	11.2		ug/L		112	78 - 133
2-Butanone	10.0	11.9		ug/L		119	32 - 133
2-Chlorotoluene	10.0	10.6		ug/L		106	80 - 120
2-Hexanone	10.0	11.0		ug/L		110	57 - 127
4-Chlorotoluene	10.0	10.6		ug/L		106	78 - 120
Acetone	10.0	8.65		ug/L		86	57 - 133
Benzene	10.0	10.6		ug/L		106	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-172101/3
Matrix: Water
Analysis Batch: 172101

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	10.0	10.5		ug/L		105	80 - 124
Bromochloromethane	10.0	10.5		ug/L		105	76 - 125
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141
Bromoform	10.0	10.5		ug/L		105	46 - 178
Bromomethane	10.0	11.6		ug/L		116	52 - 162
Carbon tetrachloride	10.0	11.0		ug/L		110	69 - 145
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
Chloroethane	10.0	12.3		ug/L		123	73 - 139
Chloroform	10.0	10.5		ug/L		105	80 - 120
Chloromethane	10.0	10.3		ug/L		103	35 - 159
cis-1,2-Dichloroethene	10.0	11.0		ug/L		110	76 - 122
cis-1,3-Dichloropropene	10.0	10.7		ug/L		107	80 - 122
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 151
Dibromomethane	10.0	10.6		ug/L		106	80 - 121
Dichlorodifluoromethane	10.0	11.3		ug/L		113	59 - 139
Ethylbenzene	10.0	10.9		ug/L		109	80 - 120
Hexachloro-1,3-butadiene	10.0	11.3		ug/L		113	76 - 141
Isopropanol	100	86.0		ug/L		86	29 - 141
Isopropylbenzene	10.0	11.3		ug/L		113	80 - 124
m,p-Xylene	20.0	22.1		ug/L		111	80 - 122
Methylene Chloride	10.0	11.0		ug/L		110	70 - 120
Naphthalene	10.0	10.1		ug/L		101	75 - 120
n-Butylbenzene	10.0	11.4		ug/L		114	76 - 124
N-Propylbenzene	10.0	11.3		ug/L		113	80 - 122
o-Xylene	10.0	11.3		ug/L		113	80 - 122
p-Isopropyltoluene	10.0	11.3		ug/L		113	77 - 127
sec-Butylbenzene	10.0	11.2		ug/L		112	75 - 123
Styrene	10.0	11.2		ug/L		112	80 - 121
tert-Butylbenzene	10.0	11.1		ug/L		111	72 - 128
Tetrachloroethene	10.0	11.4		ug/L		114	80 - 128
Toluene	10.0	10.7		ug/L		107	80 - 120
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	78 - 140
Trichloroethene	10.0	10.3		ug/L		103	80 - 123
Trichlorofluoromethane	10.0	11.2		ug/L		112	64 - 168
Vinyl acetate	10.0	12.8		ug/L		128	75 - 144
Vinyl chloride	10.0	10.8		ug/L		108	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 135*
4-Bromofluorobenzene (Surr)	*102*		*71 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-172101/4
Matrix: Water
Analysis Batch: 172101

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.62		ug/L		96	76 - 143	9	20
1,1,1-Trichloroethane	10.0	9.94		ug/L		99	75 - 128	8	20
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	73 - 126	5	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.80		ug/L		98	50 - 120	2	20
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	80 - 120	4	20
1,1-Dichloroethane	10.0	9.87		ug/L		99	76 - 120	7	20
1,1-Dichloroethene	10.0	10.0		ug/L		100	72 - 120	4	20
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120	9	20
1,2,3-Trichlorobenzene	10.0	10.8		ug/L		108	80 - 125	5	22
1,2,3-Trichloropropane	10.0	9.69		ug/L		97	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 123	5	20
1,2,4-Trimethylbenzene	10.0	10.4		ug/L		104	78 - 125	6	22
1,2-Dibromo-3-Chloropropane	10.0	9.14		ug/L		91	77 - 120	5	21
1,2-Dibromoethane	10.0	9.75		ug/L		98	80 - 120	6	20
1,2-Dichlorobenzene	10.0	9.85		ug/L		98	79 - 123	6	20
1,2-Dichloroethane	10.0	9.92		ug/L		99	71 - 137	5	20
1,2-Dichloropropane	10.0	9.92		ug/L		99	80 - 120	4	20
1,3,5-Trimethylbenzene	10.0	10.4		ug/L		104	77 - 133	6	20
1,3-Dichlorobenzene	10.0	9.80		ug/L		98	79 - 123	6	20
1,3-Dichloropropane	10.0	9.79		ug/L		98	80 - 123	3	20
1,4-Dichlorobenzene	10.0	9.53		ug/L		95	75 - 123	4	22
2,2-Dichloropropane	10.0	10.4		ug/L		104	78 - 133	7	20
2-Butanone	10.0	9.82		ug/L		98	32 - 133	19	26
2-Chlorotoluene	10.0	9.92		ug/L		99	80 - 120	6	20
2-Hexanone	10.0	10.7		ug/L		107	57 - 127	2	21
4-Chlorotoluene	10.0	9.78		ug/L		98	78 - 120	8	21
Acetone	10.0	9.45		ug/L		94	57 - 133	9	28
Benzene	10.0	10.0		ug/L		100	80 - 120	6	20
Bromobenzene	10.0	9.87		ug/L		99	80 - 124	7	20
Bromochloromethane	10.0	10.0		ug/L		100	76 - 125	5	20
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141	5	20
Bromoform	10.0	10.0		ug/L		100	46 - 178	5	23
Bromomethane	10.0	10.7		ug/L		107	52 - 162	8	20
Carbon tetrachloride	10.0	10.2		ug/L		102	69 - 145	7	20
Chlorobenzene	10.0	9.67		ug/L		97	80 - 120	6	20
Chloroethane	10.0	11.9		ug/L		119	73 - 139	3	20
Chloroform	10.0	9.85		ug/L		98	80 - 120	7	20
Chloromethane	10.0	10.0		ug/L		100	35 - 159	2	20
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	76 - 122	7	20
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	80 - 122	4	20
Dibromochloromethane	10.0	10.4		ug/L		104	63 - 151	5	20
Dibromomethane	10.0	10.2		ug/L		102	80 - 121	4	20
Dichlorodifluoromethane	10.0	10.8		ug/L		108	59 - 139	4	20
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120	8	20
Hexachloro-1,3-butadiene	10.0	10.3		ug/L		103	76 - 141	9	23
Isopropanol	100	92.9		ug/L		93	29 - 141	8	22
Isopropylbenzene	10.0	10.6		ug/L		106	80 - 124	7	20
m,p-Xylene	20.0	20.4		ug/L		102	80 - 122	8	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-172101/4
Matrix: Water
Analysis Batch: 172101

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride			10.0	10.8		ug/L		108	70 - 120	2	20
Naphthalene			10.0	10.0		ug/L		100	75 - 120	1	22
n-Butylbenzene			10.0	10.6		ug/L		106	76 - 124	7	23
N-Propylbenzene			10.0	10.5		ug/L		105	80 - 122	7	20
o-Xylene			10.0	10.4		ug/L		104	80 - 122	8	20
p-Isopropyltoluene			10.0	10.5		ug/L		105	77 - 127	8	21
sec-Butylbenzene			10.0	10.3		ug/L		103	75 - 123	8	21
Styrene			10.0	10.5		ug/L		105	80 - 121	6	20
tert-Butylbenzene			10.0	10.4		ug/L		104	72 - 128	7	22
Tetrachloroethene			10.0	10.5		ug/L		105	80 - 128	8	20
Toluene			10.0	9.90		ug/L		99	80 - 120	8	20
trans-1,2-Dichloroethene			10.0	9.82		ug/L		98	67 - 123	7	20
trans-1,3-Dichloropropene			10.0	10.1		ug/L		101	78 - 140	5	20
Trichloroethene			10.0	9.78		ug/L		98	80 - 123	5	20
Trichlorofluoromethane			10.0	10.8		ug/L		108	64 - 168	3	20
Vinyl acetate			10.0	12.5		ug/L		125	75 - 144	2	25
Vinyl chloride			10.0	10.3		ug/L		103	74 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*
4-Bromofluorobenzene (Surr)	*103*		*71 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-171517/1-A
Matrix: Water
Analysis Batch: 171996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 171517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10		ug/L		08/16/21 08:15	08/17/21 13:05	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*58*		*15 - 150*	*08/16/21 08:15*	*08/17/21 13:05*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*117*		*46 - 128*	*08/16/21 08:15*	*08/17/21 13:05*	*1*

Lab Sample ID: LCS 570-171517/2-A
Matrix: Water
Analysis Batch: 171996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171517

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	20.9		ug/L		105	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*48*		*15 - 150*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-171517/2-A
Matrix: Water
Analysis Batch: 171996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 171517

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	99		46 - 128

Lab Sample ID: LCSD 570-171517/3-A
Matrix: Water
Analysis Batch: 171996

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 171517

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	21.0		ug/L		105	57 - 136	0	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	53		15 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	122		46 - 128

Lab Sample ID: 440-287457-1 MS
Matrix: Water
Analysis Batch: 171996

Client Sample ID: OC_SP220B_EFF_081021
Prep Type: Total/NA
Prep Batch: 171517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	12		20.0	32.4		ug/L		104	45 - 139		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	47		15 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	87		46 - 128

Lab Sample ID: 440-287457-1 MSD
Matrix: Water
Analysis Batch: 171996

Client Sample ID: OC_SP220B_EFF_081021
Prep Type: Total/NA
Prep Batch: 171517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	12		20.0	31.2		ug/L		98	45 - 139	4	17

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	60		15 - 150

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	116		46 - 128

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

GC/MS VOA

Analysis Batch: 171758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287457-1	OC_SP220B_EFF_081021	Total/NA	Water	8260B	
440-287457-2 - DL	OC_SP210_INF_081021	Total/NA	Water	8260B	
440-287457-3	OC_TB_081021	Total/NA	Water	8260B	
MB 570-171758/6	Method Blank	Total/NA	Water	8260B	
LCS 570-171758/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-171758/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 172101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287457-2	OC_SP210_INF_081021	Total/NA	Water	8260B	
MB 570-172101/6	Method Blank	Total/NA	Water	8260B	
LCS 570-172101/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-172101/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 171517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287457-1	OC_SP220B_EFF_081021	Total/NA	Water	3510C	
MB 570-171517/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-171517/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-171517/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-287457-1 MS	OC_SP220B_EFF_081021	Total/NA	Water	3510C	
440-287457-1 MSD	OC_SP220B_EFF_081021	Total/NA	Water	3510C	

Analysis Batch: 171996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287457-1	OC_SP220B_EFF_081021	Total/NA	Water	8270C SIM ID	171517
MB 570-171517/1-A	Method Blank	Total/NA	Water	8270C SIM ID	171517
LCS 570-171517/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	171517
LCSD 570-171517/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	171517
440-287457-1 MS	OC_SP220B_EFF_081021	Total/NA	Water	8270C SIM ID	171517
440-287457-1 MSD	OC_SP220B_EFF_081021	Total/NA	Water	8270C SIM ID	171517

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-22
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261 1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/10/2021	COC No:
De Maximis Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St. Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only: Walk-in Client:
(562) 756-8149	TAT if different from Below STD			Lab Sampling:
Project Name: Omega Chemical GWCS Monthly	☑ 2 weeks			
Site: Omega Chemical	☐ 1 week			Job / SDG No.
P O #:	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B VOCs + Freons	EPA 8270C 1,4-Dioxane	Sample Specific Notes.
OC_SP220B_EFF_081021	8/10/2021	0924	Grab	GW	5			x	x	
OC_SP210_INF_081021	8/10/2021	0930	Grab	GW	3			x		
OC_TB_081021	8/10/2021	0900		H2O	2			x		

440-287457 Chain of Custody

8/12/21
DC

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification.
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No. | Cooler Temp. (°C). Obs'd: .7 Corr'd: .7 | Therm ID No.: IR-B9

Relinquished by:	Company: JEA	Date/Time: 8/11/21 1737	Received by: Jorge Laguna	Company: EC JQV	Date/Time: 8/11/21 1737
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-172165 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-287457-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 8/18/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Monthly	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8270C_SIM_ID_LL/3510C LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
OC_SP220B_EFF_081021 (440-287457-1)	8/10/21	09:24 Pacific		Water			X	X	5	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene
OC_SP210_INF_081021 (440-287457-2)	8/10/21	09.30 Pacific		Water			X		3	Special Multiple Dils close to 1 Run in order J's Maybe high chlorobenzene
OC_TB_081021 (440-287457-3)	8/10/21	09:00 Pacific		Water			X		2	Special Multiple Dils close to 1 Run in order J's.Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

	Date/Time:	Company		Date/Time:	Company
Relinquished by:	8/12/21 1820	ECI KW	Received by:	08/12/21 1820	ECI
Relinquished by:	08/12/21 1920	ECI	Received by:	8/12/21 1920	ECI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No. N/A | Cooler Temperature(s) °C and Other Remarks: 2.2/1.8 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287457-1

Login Number: 287457
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287457-1

Login Number: 287457
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 08/12/21 09:13 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS/Monthly

Job ID: 440-287457-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-287457-1	OC_SP220B_EFF_081021	52							
440-287457-1 MS	OC_SP220B_EFF_081021	47							
440-287457-1 MSD	OC_SP220B_EFF_081021	60							
LCS 570-171517/2-A	Lab Control Sample	48							
LCSD 570-171517/3-A	Lab Control Sample Dup	53							
MB 570-171517/1-A	Method Blank	58							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-288585-1
Laboratory Sample Delivery Group: Omega Chemical
Client Project/Site: Omega Chemical - GWCS Monthly

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
9/22/2021 9:44:23 AM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-288585-1	OC_SP220B_EFF_090721	Water	09/07/21 10:20	09/08/21 11:20
440-288585-2	OC_SP210_INF_090721	Water	09/07/21 10:25	09/08/21 11:20
440-288585-3	OC_TB_090721	Water	09/07/21 10:00	09/08/21 11:20

Job ID: 440-288585-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-288585-1

Comments
No additional comments.

Receipt
The samples were received on 9/8/2021 11:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8º C.

GC/MS VOA
Method 8260B: Surrogate recovery for the following sample was outside the upper control limit: OC_SP220B_EFF_090721 (440-288585-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS associated with analytical batch 570-179844: Vinyl acetate, N-Propylbenzene and Xylenes, Total. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B:
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-179844. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The following analyte(s) recovered outside control limits for the LCSD associated with analytical batch 570-179844: Vinyl acetate. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-180638. A laboratory LCS/LCSD was analyzed to provide precision data.

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

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

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

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_090721 — Lab Sample ID: 440-288585-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	7.9		0.10		ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: OC_SP210_INF_090721 — Lab Sample ID: 440-288585-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	81		1.0		ug/L	2		8260B	Total/NA
1,1-Dichloroethene	8.9		1.0		ug/L	2		8260B	Total/NA
Chloroform	3.4		1.0		ug/L	2		8260B	Total/NA
Tetrachloroethene	100		1.0		ug/L	2		8260B	Total/NA
Trichloroethene	9.4		1.0		ug/L	2		8260B	Total/NA
Trichlorofluoromethane	7.5		1.0		ug/L	2		8260B	Total/NA

Client Sample ID: OC_TB_090721 — Lab Sample ID: 440-288585-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_090721

Lab Sample ID: 440-288585-1

Date Collected: 09/07/21 10:20
Matrix: Water
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1-Dichloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,1-Dichloroethene	ND		0.50		ug/L			09/17/21 17:58	1
1,1-Dichloropropene	ND		0.50		ug/L			09/17/21 17:58	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,2,3-Trichloropropane	ND		0.50		ug/L			09/17/21 17:58	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/17/21 17:58	1
1,2-Dibromoethane	ND		0.50		ug/L			09/17/21 17:58	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,2-Dichloroethane	ND		0.50		ug/L			09/17/21 17:58	1
1,2-Dichloropropane	ND		0.50		ug/L			09/17/21 17:58	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
1,3-Dichloropropane	ND		0.50		ug/L			09/17/21 17:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
2,2-Dichloropropane	ND		0.50		ug/L			09/17/21 17:58	1
2-Butanone	ND		5.0		ug/L			09/17/21 17:58	1
2-Chlorotoluene	ND		0.50		ug/L			09/17/21 17:58	1
2-Hexanone	ND		6.0		ug/L			09/17/21 17:58	1
4-Chlorotoluene	ND		0.50		ug/L			09/17/21 17:58	1
Acetone	ND		8.0		ug/L			09/17/21 17:58	1
Benzene	ND		0.50		ug/L			09/17/21 17:58	1
Bromobenzene	ND		0.50		ug/L			09/17/21 17:58	1
Bromochloromethane	ND		1.0		ug/L			09/17/21 17:58	1
Bromodichloromethane	ND		0.50		ug/L			09/17/21 17:58	1
Bromoform	ND		0.50		ug/L			09/17/21 17:58	1
Bromomethane	ND		1.0		ug/L			09/17/21 17:58	1
Carbon tetrachloride	ND		0.50		ug/L			09/17/21 17:58	1
Chlorobenzene	ND		0.50		ug/L			09/17/21 17:58	1
Chloroethane	ND		0.50		ug/L			09/17/21 17:58	1
Chloroform	ND		0.50		ug/L			09/17/21 17:58	1
Chloromethane	ND		1.0		ug/L			09/17/21 17:58	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/17/21 17:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/17/21 17:58	1
Dibromochloromethane	ND		0.50		ug/L			09/17/21 17:58	1
Dibromomethane	ND		0.50		ug/L			09/17/21 17:58	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/21 17:58	1
Ethylbenzene	ND		0.50		ug/L			09/17/21 17:58	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			09/17/21 17:58	1
Isopropanol	ND		40		ug/L			09/17/21 17:58	1
Isopropylbenzene	ND		0.50		ug/L			09/17/21 17:58	1
m,p-Xylene	ND		1.0		ug/L			09/17/21 17:58	1
Methylene Chloride	ND		1.0		ug/L			09/17/21 17:58	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_090721

Lab Sample ID: 440-288585-1
Matrix: Water

Date Collected: 09/07/21 10:20
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	ug/L			09/17/21 17:58	1
n-Butylbenzene	ND		0.50	ug/L			09/17/21 17:58	1
N-Propylbenzene	ND	*+	0.50	ug/L			09/17/21 17:58	1
o-Xylene	ND		0.50	ug/L			09/17/21 17:58	1
p-Isopropyltoluene	ND		0.50	ug/L			09/17/21 17:58	1
sec-Butylbenzene	ND		0.50	ug/L			09/17/21 17:58	1
Styrene	ND		0.50	ug/L			09/17/21 17:58	1
tert-Butylbenzene	ND		0.50	ug/L			09/17/21 17:58	1
Tetrachloroethene	ND		0.50	ug/L			09/17/21 17:58	1
Toluene	ND		0.50	ug/L			09/17/21 17:58	1
Total Volatile Organic Compounds	ND		150	ug/L			09/17/21 17:58	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			09/17/21 17:58	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			09/17/21 17:58	1
Trichloroethene	ND		0.50	ug/L			09/17/21 17:58	1
Trichlorofluoromethane	ND		0.50	ug/L			09/17/21 17:58	1
Vinyl acetate	ND	*-	5.0	ug/L			09/17/21 17:58	1
Vinyl chloride	ND		0.50	ug/L			09/17/21 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*128*		*68 - 135*		*09/17/21 17:58*	*1*
4-Bromofluorobenzene (Surr)	*81*		*71 - 120*		*09/17/21 17:58*	*1*
Dibromofluoromethane (Surr)	*121*	*S1+*	*80 - 120*		*09/17/21 17:58*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/17/21 17:58*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**7.9**		0.10	ug/L		09/13/21 07:24	09/14/21 13:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*75*		*15 - 150*	*09/13/21 07:24*	*09/14/21 13:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*46 - 128*	*09/13/21 07:24*	*09/14/21 13:12*	*1*

Client Sample ID: OC_SP210_INF_090721

Lab Sample ID: 440-288585-2
Matrix: Water

Date Collected: 09/07/21 10:25
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			09/21/21 15:05	2
1,1,1-Trichloroethane	ND		1.0	ug/L			09/21/21 15:05	2
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			09/21/21 15:05	2
1,1,2-Trichloro-1,2,2-trifluoroethane	**81**		1.0	ug/L			09/21/21 15:05	2
1,1,2-Trichloroethane	ND		1.0	ug/L			09/21/21 15:05	2
1,1-Dichloroethane	ND		1.0	ug/L			09/21/21 15:05	2
1,1-Dichloroethene	**8.9**		1.0	ug/L			09/21/21 15:05	2
1,1-Dichloropropene	ND		1.0	ug/L			09/21/21 15:05	2
1,2,3-Trichlorobenzene	ND		1.0	ug/L			09/21/21 15:05	2
1,2,3-Trichloropropane	ND		1.0	ug/L			09/21/21 15:05	2
1,2,4-Trichlorobenzene	ND		1.0	ug/L			09/21/21 15:05	2

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_SP210_INF_090721

Lab Sample ID: 440-288585-2
Date Collected: 09/07/21 10:25
Matrix: Water
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/21/21 15:05	2
1,2-Dibromoethane	ND		1.0		ug/L			09/21/21 15:05	2
1,2-Dichlorobenzene	ND		1.0		ug/L			09/21/21 15:05	2
1,2-Dichloroethane	ND		1.0		ug/L			09/21/21 15:05	2
1,2-Dichloropropane	ND		1.0		ug/L			09/21/21 15:05	2
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
1,3-Dichlorobenzene	ND		1.0		ug/L			09/21/21 15:05	2
1,3-Dichloropropane	ND		1.0		ug/L			09/21/21 15:05	2
1,4-Dichlorobenzene	ND		1.0		ug/L			09/21/21 15:05	2
2,2-Dichloropropane	ND		1.0		ug/L			09/21/21 15:05	2
2-Butanone	ND		10		ug/L			09/21/21 15:05	2
2-Chlorotoluene	ND		1.0		ug/L			09/21/21 15:05	2
2-Hexanone	ND		12		ug/L			09/21/21 15:05	2
4-Chlorotoluene	ND		1.0		ug/L			09/21/21 15:05	2
Acetone	ND		16		ug/L			09/21/21 15:05	2
Benzene	ND		1.0		ug/L			09/21/21 15:05	2
Bromobenzene	ND		1.0		ug/L			09/21/21 15:05	2
Bromochloromethane	ND		2.0		ug/L			09/21/21 15:05	2
Bromodichloromethane	ND		1.0		ug/L			09/21/21 15:05	2
Bromoform	ND		1.0		ug/L			09/21/21 15:05	2
Bromomethane	ND		2.0		ug/L			09/21/21 15:05	2
Carbon tetrachloride	ND		1.0		ug/L			09/21/21 15:05	2
Chlorobenzene	ND		1.0		ug/L			09/21/21 15:05	2
Chloroethane	ND		1.0		ug/L			09/21/21 15:05	2
Chloroform	**3.4**		1.0		ug/L			09/21/21 15:05	2
Chloromethane	ND		2.0		ug/L			09/21/21 15:05	2
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/21/21 15:05	2
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/21/21 15:05	2
Dibromochloromethane	ND		1.0		ug/L			09/21/21 15:05	2
Dibromomethane	ND		1.0		ug/L			09/21/21 15:05	2
Dichlorodifluoromethane	ND		2.0		ug/L			09/21/21 15:05	2
Ethylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
Hexachloro-1,3-butadiene	ND		2.0		ug/L			09/21/21 15:05	2
Isopropanol	ND		80		ug/L			09/21/21 15:05	2
Isopropylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
m,p-Xylene	ND		2.0		ug/L			09/21/21 15:05	2
Methylene Chloride	ND		2.0		ug/L			09/21/21 15:05	2
Naphthalene	ND		2.0		ug/L			09/21/21 15:05	2
n-Butylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
N-Propylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
o-Xylene	ND		1.0		ug/L			09/21/21 15:05	2
p-Isopropyltoluene	ND		1.0		ug/L			09/21/21 15:05	2
sec-Butylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
Styrene	ND		1.0		ug/L			09/21/21 15:05	2
tert-Butylbenzene	ND		1.0		ug/L			09/21/21 15:05	2
Tetrachloroethene	**100**		1.0		ug/L			09/21/21 15:05	2
Toluene	ND		1.0		ug/L			09/21/21 15:05	2
Total Volatile Organic Compounds	ND		300		ug/L			09/21/21 15:05	2

Client Sample ID: OC_SP210_INF_090721

Lab Sample ID: 440-288585-2

Date Collected: 09/07/21 10:25
Matrix: Water
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/21/21 15:05	2
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/21/21 15:05	2
Trichloroethene	**9.4**		1.0		ug/L			09/21/21 15:05	2
Trichlorofluoromethane	**7.5**		1.0		ug/L			09/21/21 15:05	2
Vinyl acetate	ND		10		ug/L			09/21/21 15:05	2
Vinyl chloride	ND		1.0		ug/L			09/21/21 15:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*09/21/21 15:05*	*2*
4-Bromofluorobenzene (Surr)	*89*		*71 - 120*		*09/21/21 15:05*	*2*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*09/21/21 15:05*	*2*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/21/21 15:05*	*2*

Client Sample ID: OC_TB_090721

Lab Sample ID: 440-288585-3

Date Collected: 09/07/21 10:00
Matrix: Water
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1-Dichloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,1-Dichloroethene	ND		0.50		ug/L			09/17/21 12:35	1
1,1-Dichloropropene	ND		0.50		ug/L			09/17/21 12:35	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,2,3-Trichloropropane	ND		0.50		ug/L			09/17/21 12:35	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/17/21 12:35	1
1,2-Dibromoethane	ND		0.50		ug/L			09/17/21 12:35	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,2-Dichloroethane	ND		0.50		ug/L			09/17/21 12:35	1
1,2-Dichloropropane	ND		0.50		ug/L			09/17/21 12:35	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
1,3-Dichloropropane	ND		0.50		ug/L			09/17/21 12:35	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
2,2-Dichloropropane	ND		0.50		ug/L			09/17/21 12:35	1
2-Butanone	ND		5.0		ug/L			09/17/21 12:35	1
2-Chlorotoluene	ND		0.50		ug/L			09/17/21 12:35	1
2-Hexanone	ND		6.0		ug/L			09/17/21 12:35	1
4-Chlorotoluene	ND		0.50		ug/L			09/17/21 12:35	1
Acetone	ND		8.0		ug/L			09/17/21 12:35	1
Benzene	ND		0.50		ug/L			09/17/21 12:35	1
Bromobenzene	ND		0.50		ug/L			09/17/21 12:35	1
Bromochloromethane	ND		1.0		ug/L			09/17/21 12:35	1
Bromodichloromethane	ND		0.50		ug/L			09/17/21 12:35	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_TB_090721

Lab Sample ID: 440-288585-3

Date Collected: 09/07/21 10:00
Matrix: Water
Date Received: 09/08/21 11:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		0.50		ug/L			09/17/21 12:35	1
Bromomethane	ND		1.0		ug/L			09/17/21 12:35	1
Carbon tetrachloride	ND		0.50		ug/L			09/17/21 12:35	1
Chlorobenzene	ND		0.50		ug/L			09/17/21 12:35	1
Chloroethane	ND		0.50		ug/L			09/17/21 12:35	1
Chloroform	ND		0.50		ug/L			09/17/21 12:35	1
Chloromethane	ND		1.0		ug/L			09/17/21 12:35	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/17/21 12:35	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/17/21 12:35	1
Dibromochloromethane	ND		0.50		ug/L			09/17/21 12:35	1
Dibromomethane	ND		0.50		ug/L			09/17/21 12:35	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/21 12:35	1
Ethylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			09/17/21 12:35	1
Isopropanol	ND		40		ug/L			09/17/21 12:35	1
Isopropylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
m,p-Xylene	ND		1.0		ug/L			09/17/21 12:35	1
Methylene Chloride	ND		1.0		ug/L			09/17/21 12:35	1
Naphthalene	ND		1.0		ug/L			09/17/21 12:35	1
n-Butylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
N-Propylbenzene	ND	*+	0.50		ug/L			09/17/21 12:35	1
o-Xylene	ND		0.50		ug/L			09/17/21 12:35	1
p-Isopropyltoluene	ND		0.50		ug/L			09/17/21 12:35	1
sec-Butylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
Styrene	ND		0.50		ug/L			09/17/21 12:35	1
tert-Butylbenzene	ND		0.50		ug/L			09/17/21 12:35	1
Tetrachloroethene	ND		0.50		ug/L			09/17/21 12:35	1
Toluene	ND		0.50		ug/L			09/17/21 12:35	1
Total Volatile Organic Compounds	ND		150		ug/L			09/17/21 12:35	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/17/21 12:35	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/17/21 12:35	1
Trichloroethene	ND		0.50		ug/L			09/17/21 12:35	1
Trichlorofluoromethane	ND		0.50		ug/L			09/17/21 12:35	1
Vinyl acetate	ND	*-	5.0		ug/L			09/17/21 12:35	1
Vinyl chloride	ND		0.50		ug/L			09/17/21 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*68 - 135*		*09/17/21 12:35*	*1*
4-Bromofluorobenzene (Surr)	*82*		*71 - 120*		*09/17/21 12:35*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 120*		*09/17/21 12:35*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/17/21 12:35*	*1*

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	**Client Sample ID**	**(68-135)**	**(71-120)**	**(80-120)**	**(80-120)**
440-288585-1	OC_SP220B_EFF_090721	128	81	121 S1+	100
440-288585-2	OC_SP210_INF_090721	106	89	103	100
440-288585-3	OC_TB_090721	113	82	109	98
LCS 570-179844/3	Lab Control Sample	93	99	98	99
LCS 570-180638/3	Lab Control Sample	101	103	100	101
LCSD 570-179844/4	Lab Control Sample Dup	95	101	99	100
LCSD 570-180638/6	Lab Control Sample Dup	108	102	103	101
MB 570-179844/7	Method Blank	112	81	112	100
MB 570-180638/8	Method Blank	106	92	102	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	**Client Sample ID**	**(46-128)**
440-288585-1	OC_SP220B_EFF_090721	93
440-288585-1 MS	OC_SP220B_EFF_090721	105
440-288585-1 MSD	OC_SP220B_EFF_090721	102
LCS 570-178559/2-A	Lab Control Sample	107
LCSD 570-178559/3-A	Lab Control Sample Dup	101
MB 570-178559/1-A	Method Blank	98

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

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

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Client Sample ID: OC_SP220B_EFF_090721 — Lab Sample ID: 440-288585-1

Date Collected: 09/07/21 10:20
Date Received: 09/08/21 11:20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	179844	09/17/21 17:58	OH1	ECL 2
Total/NA	Prep	3510C			100.0 mL	10 mL	178559	09/13/21 07:24	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			179017	09/14/21 13:12	AJ2Q	ECL 1

Client Sample ID: OC_SP210_INF_090721 — Lab Sample ID: 440-288585-2

Date Collected: 09/07/21 10:25
Date Received: 09/08/21 11:20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	20 mL	20 mL	180638	09/21/21 15:05	UJHB	ECL 2

Client Sample ID: OC_TB_090721 — Lab Sample ID: 440-288585-3

Date Collected: 09/07/21 10:00
Date Received: 09/08/21 11:20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	179844	09/17/21 12:35	OH1	ECL 2

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-179844/7
Matrix: Water
Analysis Batch: 179844

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1,1-Trichloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1,2-Trichloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1-Dichloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,1-Dichloroethene	ND		0.50		ug/L			09/17/21 12:08	1
1,1-Dichloropropene	ND		0.50		ug/L			09/17/21 12:08	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,2,3-Trichloropropane	ND		0.50		ug/L			09/17/21 12:08	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/17/21 12:08	1
1,2-Dibromoethane	ND		0.50		ug/L			09/17/21 12:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,2-Dichloroethane	ND		0.50		ug/L			09/17/21 12:08	1
1,2-Dichloropropane	ND		0.50		ug/L			09/17/21 12:08	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
1,3-Dichloropropane	ND		0.50		ug/L			09/17/21 12:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
2,2-Dichloropropane	ND		0.50		ug/L			09/17/21 12:08	1
2-Butanone	ND		5.0		ug/L			09/17/21 12:08	1
2-Chlorotoluene	ND		0.50		ug/L			09/17/21 12:08	1
2-Hexanone	ND		6.0		ug/L			09/17/21 12:08	1
4-Chlorotoluene	ND		0.50		ug/L			09/17/21 12:08	1
Acetone	ND		8.0		ug/L			09/17/21 12:08	1
Benzene	ND		0.50		ug/L			09/17/21 12:08	1
Bromobenzene	ND		0.50		ug/L			09/17/21 12:08	1
Bromochloromethane	ND		1.0		ug/L			09/17/21 12:08	1
Bromodichloromethane	ND		0.50		ug/L			09/17/21 12:08	1
Bromoform	ND		0.50		ug/L			09/17/21 12:08	1
Bromomethane	ND		1.0		ug/L			09/17/21 12:08	1
Carbon tetrachloride	ND		0.50		ug/L			09/17/21 12:08	1
Chlorobenzene	ND		0.50		ug/L			09/17/21 12:08	1
Chloroethane	ND		0.50		ug/L			09/17/21 12:08	1
Chloroform	ND		0.50		ug/L			09/17/21 12:08	1
Chloromethane	ND		1.0		ug/L			09/17/21 12:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/17/21 12:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/17/21 12:08	1
Dibromochloromethane	ND		0.50		ug/L			09/17/21 12:08	1
Dibromomethane	ND		0.50		ug/L			09/17/21 12:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/21 12:08	1
Ethylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			09/17/21 12:08	1
Isopropanol	ND		40		ug/L			09/17/21 12:08	1
Isopropylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
m,p-Xylene	ND		1.0		ug/L			09/17/21 12:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-179844/7
Matrix: Water
Analysis Batch: 179844

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0		ug/L			09/17/21 12:08	1
Naphthalene	ND		1.0		ug/L			09/17/21 12:08	1
n-Butylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
N-Propylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
o-Xylene	ND		0.50		ug/L			09/17/21 12:08	1
p-Isopropyltoluene	ND		0.50		ug/L			09/17/21 12:08	1
sec-Butylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
Styrene	ND		0.50		ug/L			09/17/21 12:08	1
tert-Butylbenzene	ND		0.50		ug/L			09/17/21 12:08	1
Tetrachloroethene	ND		0.50		ug/L			09/17/21 12:08	1
Toluene	ND		0.50		ug/L			09/17/21 12:08	1
Total Volatile Organic Compounds	ND		150		ug/L			09/17/21 12:08	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			09/17/21 12:08	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			09/17/21 12:08	1
Trichloroethene	ND		0.50		ug/L			09/17/21 12:08	1
Trichlorofluoromethane	ND		0.50		ug/L			09/17/21 12:08	1
Vinyl chloride	ND		0.50		ug/L			09/17/21 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*68 - 135*		*09/17/21 12:08*	*1*
4-Bromofluorobenzene (Surr)	*81*		*71 - 120*		*09/17/21 12:08*	*1*
Dibromofluoromethane (Surr)	*112*		*80 - 120*		*09/17/21 12:08*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/17/21 12:08*	*1*

Lab Sample ID: LCS 570-179844/3
Matrix: Water
Analysis Batch: 179844

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	11.1		ug/L		111	76 - 143
1,1,1-Trichloroethane	10.0	11.0		ug/L		110	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.56		ug/L		96	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	11.8		ug/L		118	50 - 120
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120
1,1-Dichloroethane	10.0	10.7		ug/L		107	76 - 120
1,1-Dichloroethene	10.0	10.8		ug/L		108	72 - 120
1,1-Dichloropropene	10.0	10.9		ug/L		109	76 - 120
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125
1,2,3-Trichloropropane	10.0	9.63		ug/L		96	66 - 131
1,2,4-Trichlorobenzene	10.0	10.4		ug/L		104	80 - 123
1,2,4-Trimethylbenzene	10.0	12.1		ug/L		121	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	8.32		ug/L		83	77 - 120
1,2-Dibromoethane	10.0	9.87		ug/L		99	80 - 120
1,2-Dichlorobenzene	10.0	11.1		ug/L		111	79 - 123
1,2-Dichloroethane	10.0	10.3		ug/L		103	71 - 137
1,2-Dichloropropane	10.0	10.9		ug/L		109	80 - 120
1,3,5-Trimethylbenzene	10.0	12.5		ug/L		125	77 - 133
1,3-Dichlorobenzene	10.0	10.9		ug/L		109	79 - 123

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-179844/3
Matrix: Water
Analysis Batch: 179844

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	10.0	10.4		ug/L		104	80 - 123
1,4-Dichlorobenzene	10.0	10.8		ug/L		108	75 - 123
2,2-Dichloropropane	10.0	12.8		ug/L		128	78 - 133
2-Butanone	10.0	8.49		ug/L		85	32 - 133
2-Chlorotoluene	10.0	11.6		ug/L		116	80 - 120
2-Hexanone	10.0	9.15		ug/L		92	57 - 127
4-Chlorotoluene	10.0	11.4		ug/L		114	78 - 120
Acetone	10.0	8.67		ug/L		87	57 - 133
Benzene	10.0	11.0		ug/L		110	80 - 120
Bromobenzene	10.0	10.9		ug/L		109	80 - 124
Bromochloromethane	10.0	10.2		ug/L		102	76 - 125
Bromodichloromethane	10.0	11.1		ug/L		111	77 - 141
Bromoform	10.0	10.2		ug/L		102	46 - 178
Bromomethane	10.0	10.9		ug/L		109	52 - 162
Carbon tetrachloride	10.0	11.4		ug/L		114	69 - 145
Chlorobenzene	10.0	10.9		ug/L		109	80 - 120
Chloroethane	10.0	11.2		ug/L		112	73 - 139
Chloroform	10.0	10.7		ug/L		107	80 - 120
Chloromethane	10.0	10.5		ug/L		105	35 - 159
cis-1,2-Dichloroethene	10.0	11.0		ug/L		110	76 - 122
cis-1,3-Dichloropropene	10.0	10.9		ug/L		109	80 - 122
Dibromochloromethane	10.0	11.2		ug/L		112	63 - 151
Dibromomethane	10.0	10.2		ug/L		102	80 - 121
Dichlorodifluoromethane	10.0	12.0		ug/L		120	59 - 139
Ethylbenzene	10.0	12.0		ug/L		120	80 - 120
Hexachloro-1,3-butadiene	10.0	12.1		ug/L		121	76 - 141
Isopropanol	100	83.1		ug/L		83	29 - 141
Isopropylbenzene	10.0	11.4		ug/L		114	80 - 124
m,p-Xylene	20.0	24.4		ug/L		122	80 - 122
Methylene Chloride	10.0	10.7		ug/L		107	70 - 120
Naphthalene	10.0	9.41		ug/L		94	75 - 120
n-Butylbenzene	10.0	11.7		ug/L		117	76 - 124
N-Propylbenzene	10.0	12.6	*+	ug/L		126	80 - 122
o-Xylene	10.0	12.0		ug/L		120	80 - 122
p-Isopropyltoluene	10.0	12.4		ug/L		124	77 - 127
sec-Butylbenzene	10.0	12.2		ug/L		122	75 - 123
Styrene	10.0	11.2		ug/L		112	80 - 121
tert-Butylbenzene	10.0	11.8		ug/L		118	72 - 128
Tetrachloroethene	10.0	11.6		ug/L		116	80 - 128
Toluene	10.0	10.9		ug/L		109	80 - 120
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	67 - 123
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	78 - 140
Trichloroethene	10.0	10.8		ug/L		108	80 - 123
Trichlorofluoromethane	10.0	13.8		ug/L		138	64 - 168
Vinyl acetate	10.0	7.23	*-	ug/L		72	75 - 144
Vinyl chloride	10.0	10.7		ug/L		107	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-179844/3
Matrix: Water
Analysis Batch: 179844

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*
4-Bromofluorobenzene (Surr)	*99*		*71 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 570-179844/4
Matrix: Water
Analysis Batch: 179844

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	10.7		ug/L		107	76 - 143	3	20
1,1,1-Trichloroethane	10.0	10.5		ug/L		105	75 - 128	5	20
1,1,2,2-Tetrachloroethane	10.0	9.44		ug/L		94	73 - 126	1	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.9		ug/L		109	50 - 120	8	20
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	80 - 120	3	20
1,1-Dichloroethane	10.0	10.3		ug/L		103	76 - 120	4	20
1,1-Dichloroethene	10.0	10.4		ug/L		104	72 - 120	4	20
1,1-Dichloropropene	10.0	10.4		ug/L		104	76 - 120	4	20
1,2,3-Trichlorobenzene	10.0	10.5		ug/L		105	80 - 125	1	22
1,2,3-Trichloropropane	10.0	9.46		ug/L		95	66 - 131	2	20
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	80 - 123	2	20
1,2,4-Trimethylbenzene	10.0	11.6		ug/L		116	78 - 125	4	22
1,2-Dibromo-3-Chloropropane	10.0	8.70		ug/L		87	77 - 120	5	21
1,2-Dibromoethane	10.0	9.82		ug/L		98	80 - 120	1	20
1,2-Dichlorobenzene	10.0	10.6		ug/L		106	79 - 123	4	20
1,2-Dichloroethane	10.0	9.91		ug/L		99	71 - 137	4	20
1,2-Dichloropropane	10.0	10.3		ug/L		103	80 - 120	5	20
1,3,5-Trimethylbenzene	10.0	11.9		ug/L		119	77 - 133	5	20
1,3-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123	5	20
1,3-Dichloropropane	10.0	10.1		ug/L		101	80 - 123	3	20
1,4-Dichlorobenzene	10.0	10.1		ug/L		101	75 - 123	6	22
2,2-Dichloropropane	10.0	12.0		ug/L		120	78 - 133	7	20
2-Butanone	10.0	10.3		ug/L		103	32 - 133	20	26
2-Chlorotoluene	10.0	11.0		ug/L		110	80 - 120	6	20
2-Hexanone	10.0	9.09		ug/L		91	57 - 127	1	21
4-Chlorotoluene	10.0	10.8		ug/L		108	78 - 120	6	21
Acetone	10.0	9.38		ug/L		94	57 - 133	8	28
Benzene	10.0	10.5		ug/L		105	80 - 120	5	20
Bromobenzene	10.0	10.7		ug/L		107	80 - 124	2	20
Bromochloromethane	10.0	9.72		ug/L		97	76 - 125	5	20
Bromodichloromethane	10.0	10.7		ug/L		107	77 - 141	4	20
Bromoform	10.0	10.0		ug/L		100	46 - 178	1	23
Bromomethane	10.0	10.7		ug/L		107	52 - 162	2	20
Carbon tetrachloride	10.0	11.0		ug/L		110	69 - 145	3	20
Chlorobenzene	10.0	10.4		ug/L		104	80 - 120	4	20
Chloroethane	10.0	10.7		ug/L		107	73 - 139	4	20
Chloroform	10.0	10.1		ug/L		101	80 - 120	6	20
Chloromethane	10.0	10.1		ug/L		101	35 - 159	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-179844/4
Matrix: Water
Analysis Batch: 179844

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	76 - 122	5	20
cis-1,3-Dichloropropene	10.0	10.4		ug/L		104	80 - 122	5	20
Dibromochloromethane	10.0	10.9		ug/L		109	63 - 151	2	20
Dibromomethane	10.0	10.0		ug/L		100	80 - 121	2	20
Dichlorodifluoromethane	10.0	10.3		ug/L		103	59 - 139	15	20
Ethylbenzene	10.0	11.3		ug/L		113	80 - 120	6	20
Hexachloro-1,3-butadiene	10.0	11.3		ug/L		113	76 - 141	7	23
Isopropanol	100	77.3		ug/L		77	29 - 141	7	22
Isopropylbenzene	10.0	10.9		ug/L		109	80 - 124	5	20
m,p-Xylene	20.0	23.2		ug/L		116	80 - 122	5	20
Methylene Chloride	10.0	10.3		ug/L		103	70 - 120	4	20
Naphthalene	10.0	9.20		ug/L		92	75 - 120	2	22
n-Butylbenzene	10.0	10.8		ug/L		108	76 - 124	8	23
N-Propylbenzene	10.0	11.8		ug/L		118	80 - 122	6	20
o-Xylene	10.0	11.4		ug/L		114	80 - 122	5	20
p-Isopropyltoluene	10.0	11.6		ug/L		116	77 - 127	7	21
sec-Butylbenzene	10.0	11.5		ug/L		115	75 - 123	6	21
Styrene	10.0	10.7		ug/L		107	80 - 121	4	20
tert-Butylbenzene	10.0	11.1		ug/L		111	72 - 128	6	22
Tetrachloroethene	10.0	10.8		ug/L		108	80 - 128	7	20
Toluene	10.0	10.5		ug/L		105	80 - 120	5	20
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	67 - 123	4	20
trans-1,3-Dichloropropene	10.0	10.9		ug/L		109	78 - 140	1	20
Trichloroethene	10.0	10.5		ug/L		105	80 - 123	3	20
Trichlorofluoromethane	10.0	12.7		ug/L		127	64 - 168	8	20
Vinyl acetate	10.0	6.88	*-	ug/L		69	75 - 144	5	25
Vinyl chloride	10.0	10.4		ug/L		104	74 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 570-180638/8
Matrix: Water
Analysis Batch: 180638

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1,1-Trichloroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1,2-Trichloroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1-Dichloroethane	ND		0.50	ug/L			09/21/21 13:08	1
1,1-Dichloroethene	ND		0.50	ug/L			09/21/21 13:08	1
1,1-Dichloropropene	ND		0.50	ug/L			09/21/21 13:08	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			09/21/21 13:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-180638/8
Matrix: Water
Analysis Batch: 180638

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50		ug/L			09/21/21 13:08	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			09/21/21 13:08	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			09/21/21 13:08	1
1,2-Dibromoethane	ND		0.50		ug/L			09/21/21 13:08	1
1,2-Dichlorobenzene	ND		0.50		ug/L			09/21/21 13:08	1
1,2-Dichloroethane	ND		0.50		ug/L			09/21/21 13:08	1
1,2-Dichloropropane	ND		0.50		ug/L			09/21/21 13:08	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
1,3-Dichlorobenzene	ND		0.50		ug/L			09/21/21 13:08	1
1,3-Dichloropropane	ND		0.50		ug/L			09/21/21 13:08	1
1,4-Dichlorobenzene	ND		0.50		ug/L			09/21/21 13:08	1
2,2-Dichloropropane	ND		0.50		ug/L			09/21/21 13:08	1
2-Butanone	ND		5.0		ug/L			09/21/21 13:08	1
2-Chlorotoluene	ND		0.50		ug/L			09/21/21 13:08	1
2-Hexanone	ND		6.0		ug/L			09/21/21 13:08	1
4-Chlorotoluene	ND		0.50		ug/L			09/21/21 13:08	1
Acetone	ND		8.0		ug/L			09/21/21 13:08	1
Benzene	ND		0.50		ug/L			09/21/21 13:08	1
Bromobenzene	ND		0.50		ug/L			09/21/21 13:08	1
Bromochloromethane	ND		1.0		ug/L			09/21/21 13:08	1
Bromodichloromethane	ND		0.50		ug/L			09/21/21 13:08	1
Bromoform	ND		0.50		ug/L			09/21/21 13:08	1
Bromomethane	ND		1.0		ug/L			09/21/21 13:08	1
Carbon tetrachloride	ND		0.50		ug/L			09/21/21 13:08	1
Chlorobenzene	ND		0.50		ug/L			09/21/21 13:08	1
Chloroethane	ND		0.50		ug/L			09/21/21 13:08	1
Chloroform	ND		0.50		ug/L			09/21/21 13:08	1
Chloromethane	ND		1.0		ug/L			09/21/21 13:08	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			09/21/21 13:08	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			09/21/21 13:08	1
Dibromochloromethane	ND		0.50		ug/L			09/21/21 13:08	1
Dibromomethane	ND		0.50		ug/L			09/21/21 13:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			09/21/21 13:08	1
Ethylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			09/21/21 13:08	1
Isopropanol	ND		40		ug/L			09/21/21 13:08	1
Isopropylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
m,p-Xylene	ND		1.0		ug/L			09/21/21 13:08	1
Methylene Chloride	ND		1.0		ug/L			09/21/21 13:08	1
Naphthalene	ND		1.0		ug/L			09/21/21 13:08	1
n-Butylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
N-Propylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
o-Xylene	ND		0.50		ug/L			09/21/21 13:08	1
p-Isopropyltoluene	ND		0.50		ug/L			09/21/21 13:08	1
sec-Butylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
Styrene	ND		0.50		ug/L			09/21/21 13:08	1
tert-Butylbenzene	ND		0.50		ug/L			09/21/21 13:08	1
Tetrachloroethene	ND		0.50		ug/L			09/21/21 13:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-180638/8
Matrix: Water
Analysis Batch: 180638

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50	ug/L			09/21/21 13:08	1
Total Volatile Organic Compounds	ND		150	ug/L			09/21/21 13:08	1
trans-1,2-Dichloroethene	ND		0.50	ug/L			09/21/21 13:08	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			09/21/21 13:08	1
Trichloroethene	ND		0.50	ug/L			09/21/21 13:08	1
Trichlorofluoromethane	ND		0.50	ug/L			09/21/21 13:08	1
Vinyl acetate	ND		5.0	ug/L			09/21/21 13:08	1
Vinyl chloride	ND		0.50	ug/L			09/21/21 13:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 135*		*09/21/21 13:08*	*1*
4-Bromofluorobenzene (Surr)	*92*		*71 - 120*		*09/21/21 13:08*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*09/21/21 13:08*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/21/21 13:08*	*1*

Lab Sample ID: LCS 570-180638/3
Matrix: Water
Analysis Batch: 180638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.92		ug/L		99	76 - 143
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.9		ug/L		109	50 - 120
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	80 - 120
1,1-Dichloroethane	10.0	9.77		ug/L		98	76 - 120
1,1-Dichloroethene	10.0	10.5		ug/L		105	72 - 120
1,1-Dichloropropene	10.0	10.5		ug/L		105	76 - 120
1,2,3-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 125
1,2,3-Trichloropropane	10.0	11.4		ug/L		114	66 - 131
1,2,4-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 123
1,2,4-Trimethylbenzene	10.0	10.6		ug/L		106	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	10.5		ug/L		105	77 - 120
1,2-Dibromoethane	10.0	10.4		ug/L		104	80 - 120
1,2-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123
1,2-Dichloroethane	10.0	9.91		ug/L		99	71 - 137
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120
1,3,5-Trimethylbenzene	10.0	10.7		ug/L		107	77 - 133
1,3-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123
1,3-Dichloropropane	10.0	9.98		ug/L		100	80 - 123
1,4-Dichlorobenzene	10.0	9.83		ug/L		98	75 - 123
2,2-Dichloropropane	10.0	11.7		ug/L		117	78 - 133
2-Butanone	10.0	9.01		ug/L		90	32 - 133
2-Chlorotoluene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	10.0	9.88		ug/L		99	57 - 127
4-Chlorotoluene	10.0	9.90		ug/L		99	78 - 120
Acetone	10.0	9.81		ug/L		98	57 - 133
Benzene	10.0	10.2		ug/L		102	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-180638/3
Matrix: Water
Analysis Batch: 180638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	10.0	10.1		ug/L		101	80 - 124
Bromochloromethane	10.0	9.57		ug/L		96	76 - 125
Bromodichloromethane	10.0	10.5		ug/L		105	77 - 141
Bromoform	10.0	10.4		ug/L		104	46 - 178
Bromomethane	10.0	10.9		ug/L		109	52 - 162
Carbon tetrachloride	10.0	10.8		ug/L		108	69 - 145
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	9.87		ug/L		99	73 - 139
Chloroform	10.0	9.89		ug/L		99	80 - 120
Chloromethane	10.0	9.72		ug/L		97	35 - 159
cis-1,2-Dichloroethene	10.0	9.84		ug/L		98	76 - 122
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	80 - 122
Dibromochloromethane	10.0	10.6		ug/L		106	63 - 151
Dibromomethane	10.0	10.0		ug/L		100	80 - 121
Dichlorodifluoromethane	10.0	9.21		ug/L		92	59 - 139
Ethylbenzene	10.0	10.5		ug/L		105	80 - 120
Hexachloro-1,3-butadiene	10.0	10.8		ug/L		108	76 - 141
Isopropanol	100	120		ug/L		120	29 - 141
Isopropylbenzene	10.0	10.9		ug/L		109	80 - 124
m,p-Xylene	20.0	20.4		ug/L		102	80 - 122
Methylene Chloride	10.0	9.84		ug/L		98	70 - 120
Naphthalene	10.0	10.9		ug/L		109	75 - 120
n-Butylbenzene	10.0	11.6		ug/L		116	76 - 124
N-Propylbenzene	10.0	11.2		ug/L		112	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 122
p-Isopropyltoluene	10.0	10.9		ug/L		109	77 - 127
sec-Butylbenzene	10.0	11.0		ug/L		110	75 - 123
Styrene	10.0	10.5		ug/L		105	80 - 121
tert-Butylbenzene	10.0	10.7		ug/L		107	72 - 128
Tetrachloroethene	10.0	10.6		ug/L		106	80 - 128
Toluene	10.0	10.4		ug/L		104	80 - 120
trans-1,2-Dichloroethene	10.0	9.96		ug/L		100	67 - 123
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	78 - 140
Trichloroethene	10.0	10.1		ug/L		101	80 - 123
Trichlorofluoromethane	10.0	10.3		ug/L		103	64 - 168
Vinyl acetate	10.0	12.5		ug/L		125	75 - 144
Vinyl chloride	10.0	10.2		ug/L		102	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 135*
4-Bromofluorobenzene (Surr)	*103*		*71 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-180638/6
Matrix: Water
Analysis Batch: 180638

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.80		ug/L		98	76 - 143	1	20
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	75 - 128	2	20
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	73 - 126	1	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.6		ug/L		106	50 - 120	3	20
1,1,2-Trichloroethane	10.0	10.0		ug/L		100	80 - 120	2	20
1,1-Dichloroethane	10.0	9.99		ug/L		100	76 - 120	2	20
1,1-Dichloroethene	10.0	10.5		ug/L		105	72 - 120	0	20
1,1-Dichloropropene	10.0	10.3		ug/L		103	76 - 120	2	20
1,2,3-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 125	3	22
1,2,3-Trichloropropane	10.0	11.1		ug/L		111	66 - 131	3	20
1,2,4-Trichlorobenzene	10.0	10.2		ug/L		102	80 - 123	5	20
1,2,4-Trimethylbenzene	10.0	10.4		ug/L		104	78 - 125	2	22
1,2-Dibromo-3-Chloropropane	10.0	9.92		ug/L		99	77 - 120	6	21
1,2-Dibromoethane	10.0	10.1		ug/L		101	80 - 120	3	20
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	2	20
1,2-Dichloroethane	10.0	10.1		ug/L		101	71 - 137	1	20
1,2-Dichloropropane	10.0	10.0		ug/L		100	80 - 120	2	20
1,3,5-Trimethylbenzene	10.0	10.4		ug/L		104	77 - 133	3	20
1,3-Dichlorobenzene	10.0	9.91		ug/L		99	79 - 123	3	20
1,3-Dichloropropane	10.0	9.93		ug/L		99	80 - 123	0	20
1,4-Dichlorobenzene	10.0	9.75		ug/L		98	75 - 123	1	22
2,2-Dichloropropane	10.0	10.9		ug/L		109	78 - 133	6	20
2-Butanone	10.0	9.07		ug/L		91	32 - 133	1	26
2-Chlorotoluene	10.0	9.83		ug/L		98	80 - 120	3	20
2-Hexanone	10.0	9.68		ug/L		97	57 - 127	2	21
4-Chlorotoluene	10.0	9.59		ug/L		96	78 - 120	3	21
Acetone	10.0	9.66		ug/L		97	57 - 133	2	28
Benzene	10.0	9.91		ug/L		99	80 - 120	3	20
Bromobenzene	10.0	9.91		ug/L		99	80 - 124	2	20
Bromochloromethane	10.0	9.59		ug/L		96	76 - 125	0	20
Bromodichloromethane	10.0	10.2		ug/L		102	77 - 141	3	20
Bromoform	10.0	10.1		ug/L		101	46 - 178	3	23
Bromomethane	10.0	10.6		ug/L		106	52 - 162	3	20
Carbon tetrachloride	10.0	10.8		ug/L		108	69 - 145	1	20
Chlorobenzene	10.0	9.89		ug/L		99	80 - 120	2	20
Chloroethane	10.0	9.79		ug/L		98	73 - 139	1	20
Chloroform	10.0	9.87		ug/L		99	80 - 120	0	20
Chloromethane	10.0	9.41		ug/L		94	35 - 159	3	20
cis-1,2-Dichloroethene	10.0	9.95		ug/L		99	76 - 122	1	20
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 122	1	20
Dibromochloromethane	10.0	10.5		ug/L		105	63 - 151	1	20
Dibromomethane	10.0	9.89		ug/L		99	80 - 121	1	20
Dichlorodifluoromethane	10.0	9.14		ug/L		91	59 - 139	1	20
Ethylbenzene	10.0	10.3		ug/L		103	80 - 120	2	20
Hexachloro-1,3-butadiene	10.0	10.4		ug/L		104	76 - 141	4	23
Isopropanol	100	107		ug/L		107	29 - 141	12	22
Isopropylbenzene	10.0	10.6		ug/L		106	80 - 124	3	20
m,p-Xylene	20.0	20.1		ug/L		101	80 - 122	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-180638/6
Matrix: Water
Analysis Batch: 180638

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride			10.0	9.85		ug/L		99	70 - 120	0	20
Naphthalene			10.0	10.4		ug/L		104	75 - 120	5	22
n-Butylbenzene			10.0	11.1		ug/L		111	76 - 124	4	23
N-Propylbenzene			10.0	11.0		ug/L		110	80 - 122	2	20
o-Xylene			10.0	10.0		ug/L		100	80 - 122	2	20
p-Isopropyltoluene			10.0	10.6		ug/L		106	77 - 127	3	21
sec-Butylbenzene			10.0	10.7		ug/L		107	75 - 123	3	21
Styrene			10.0	10.1		ug/L		101	80 - 121	3	20
tert-Butylbenzene			10.0	10.2		ug/L		102	72 - 128	4	22
Tetrachloroethene			10.0	10.2		ug/L		102	80 - 128	4	20
Toluene			10.0	10.0		ug/L		100	80 - 120	3	20
trans-1,2-Dichloroethene			10.0	9.69		ug/L		97	67 - 123	3	20
trans-1,3-Dichloropropene			10.0	10.4		ug/L		104	78 - 140	0	20
Trichloroethene			10.0	9.91		ug/L		99	80 - 123	2	20
Trichlorofluoromethane			10.0	10.4		ug/L		104	64 - 168	0	20
Vinyl acetate			10.0	10.7		ug/L		107	75 - 144	15	25
Vinyl chloride			10.0	10.1		ug/L		101	74 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 135*
4-Bromofluorobenzene (Surr)	*102*		*71 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-178559/1-A
Matrix: Water
Analysis Batch: 179017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 178559

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.10		ug/L		09/13/21 07:24	09/14/21 13:44	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*58*		*15 - 150*	*09/13/21 07:24*	*09/14/21 13:44*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*98*		*46 - 128*	*09/13/21 07:24*	*09/14/21 13:44*	*1*

Lab Sample ID: LCS 570-178559/2-A
Matrix: Water
Analysis Batch: 179017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 178559

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	18.9		ug/L		95	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*57*		*15 - 150*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-178559/2-A
Matrix: Water
Analysis Batch: 179017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 178559

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	107		46 - 128

Lab Sample ID: LCSD 570-178559/3-A
Matrix: Water
Analysis Batch: 179017

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 178559

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	20.3		ug/L		101	57 - 136	7	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8	58		15 - 150

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	101		46 - 128

Lab Sample ID: 440-288585-1 MS
Matrix: Water
Analysis Batch: 179017

Client Sample ID: OC_SP220B_EFF_090721
Prep Type: Total/NA
Prep Batch: 178559

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	7.9		20.0	28.9		ug/L		105	45 - 139		

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
1,4-Dioxane-d8	55		15 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	105		46 - 128

Lab Sample ID: 440-288585-1 MSD
Matrix: Water
Analysis Batch: 179017

Client Sample ID: OC_SP220B_EFF_090721
Prep Type: Total/NA
Prep Batch: 178559

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	7.9		20.0	29.4		ug/L		107	45 - 139	2	17

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
1,4-Dioxane-d8	52		15 - 150

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	102		46 - 128

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

GC/MS VOA

Analysis Batch: 179844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-288585-1	OC_SP220B_EFF_090721	Total/NA	Water	8260B	
440-288585-3	OC_TB_090721	Total/NA	Water	8260B	
MB 570-179844/7	Method Blank	Total/NA	Water	8260B	
LCS 570-179844/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-179844/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 180638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-288585-2	OC_SP210_INF_090721	Total/NA	Water	8260B	
MB 570-180638/8	Method Blank	Total/NA	Water	8260B	
LCS 570-180638/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-180638/6	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 178559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-288585-1	OC_SP220B_EFF_090721	Total/NA	Water	3510C	
MB 570-178559/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-178559/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-178559/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
440-288585-1 MS	OC_SP220B_EFF_090721	Total/NA	Water	3510C	
440-288585-1 MSD	OC_SP220B_EFF_090721	Total/NA	Water	3510C	

Analysis Batch: 179017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-288585-1	OC_SP220B_EFF_090721	Total/NA	Water	8270C SIM ID	178559
MB 570-178559/1-A	Method Blank	Total/NA	Water	8270C SIM ID	178559
LCS 570-178559/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	178559
LCSD 570-178559/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	178559
440-288585-1 MS	OC_SP220B_EFF_090721	Total/NA	Water	8270C SIM ID	178559
440-288585-1 MSD	OC_SP220B_EFF_090721	Total/NA	Water	8270C SIM ID	178559

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-22
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261 1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 9/7/2021	COC No:
De Maximis Jaime Dinello	Tel/Fax: (949) 453-1045 / (949) 453-1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St. Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☑ 2 weeks			Lab Sampling:
Project Name: Omega Chemical GWCS Monthly	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.
P O #:	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B VOCs + Freons	EPA 8270C 1,4-Dioxane	Sample Specific Notes:
OC_SP220B_EFF_090721	9/7/2021	1020	Grab	GW	5			x	x	
OC_SP210_INF_090721	9/7/2021	1025	Grab	GW	3			x		
OC_TB_090721	9/7/2021	1000		H2O	2			x		

440-288585 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No. | Cooler Temp. (°C) Obs'd: 4.6 Corr'd: 4.8 | Therm ID No.: IR 89

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	TWA	9/8/21 1120	[signature]	EL + EV	9/8/21 1120
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-288585-1
SDG Number: Omega Chemical

Login Number: 288585
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-288585-1
SDG Number: Omega Chemical

Login Number: 288585
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 09/08/21 08:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWCS Monthly

Job ID: 440-288585-1
SDG: Omega Chemical

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**							
440-288585-1	OC_SP220B_EFF_090721	75							
440-288585-1 MS	OC_SP220B_EFF_090721	55							
440-288585-1 MSD	OC_SP220B_EFF_090721	52							
LCS 570-178559/2-A	Lab Control Sample	57							
LCSD 570-178559/3-A	Lab Control Sample Dup	58							
MB 570-178559/1-A	Method Blank	58							

Surrogate Legend

DXE = 1,4-Dioxane-d8

ATTACHMENT D

Sanitation Districts of Los Angeles County
Industrial Wastewater Self-Monitoring Report

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

ROBERT C. FERRANTE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

Permit Number: 20039
Facility ID: 2113183

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 07/01/2021 To: 09/30/2021 Report Due No Later Than : 10/15/2021

Company Name: **Omega Chemical Site PRP Group LLC**
Wastewater Discharge Address: **12520 WHITTIER Blvd Whittier, CA, 90602**
Sample Location: **20039A**
Mailing Address: **1322 Scott Street # 104 San Diego, CA, 92106**
Industrial Wastewater Contact Name and Phone Number: **Mr. Ravi Subramanian** **949-752-5452 x277 - Business**

Has Ownership or Occupancy Changed Since the Last Report? ☐ Yes ■ No

(Print) Name of Company Collecting Wastewater Sample: Test America

(Print) Sample Date: 8/20/2021

Daily Wastewater Discharge for Reporting Period
Average: 4,022 GPD
Maximum: 7,196 GPD

Method For Determining Wastewater Flow for Sampling Day
■ Direct Measurement
☐ Adjusted Metered Water Supply
☐ No Discharge During Reporting Period

Type of Composite Sample
■ Time Composite
☐ Flow Proportioned Composite

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow			14.1		gpm	
Z01 Sample Day Total Flow			7,196		GPD	
101 pH	GRAB	Federal Daily Minimum 5.0 S.U. Local Daily Minimum 6.0 S.U.	8.7		S.U.	10256
151 Solids, Suspended	COMPOSITE		1.2		mg/L	10256
252 Sulfide, Soluble	GRAB	Local At Any Time 0.1 mg/L	ND	0.050	mg/L	10256
403 COD, Total	COMPOSITE		77		mg/L	10256
696 1,4-Dioxane	GRAB		9.0		ug/L	10256
T09 TTO, Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	
601 Methylene Chloride	GRAB		ND	1.0	ug/L	10256
602 Chloroform	GRAB		ND	0.50	ug/L	10256
603 1,1,1-Trichloroethane	GRAB		ND	0.50	ug/L	10256
604 Carbon Tetrachloride	GRAB		ND	0.50	ug/L	10256
605 1,1-Dichloroethene	GRAB		ND	0.50	ug/L	10256
606 Trichloroethylene	GRAB		ND	0.50	ug/L	10256
607 Tetrachloroethylene	GRAB		ND	0.50	ug/L	10256
608 Bromodichloromethane	GRAB		ND	0.50	ug/L	10256
609 Dibromochloromethane	GRAB		ND	0.50	ug/L	10256
610 Bromoform	GRAB		ND	0.50	ug/L	10256
611 Chlorobenzene	GRAB		ND	0.50	ug/L	10256
612 Vinyl Chloride	GRAB		ND	0.50	ug/L	10256

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

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INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/15/2021

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2021** To: **09/30/2021**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
613 o-Dichlorobenzene	GRAB		ND	0.50	ug/L	10256
614 m-Dichlorobenzene	GRAB		ND	0.50	ug/L	10256
615 p-Dichlorobenzene	GRAB		ND	0.50	ug/L	10256
616 1,1-Dichloroethane	GRAB		ND	0.50	ug/L	10256
618 1,1,2-Trichloroethane	GRAB		ND	0.50	ug/L	10256
619 1,2-Dichloroethane	GRAB		ND	0.50	ug/L	10256
620 Benzene	GRAB		ND	0.50	ug/L	10256
621 Toluene	GRAB		ND	0.50	ug/L	10256
624 Ethyl Benzene	GRAB		ND	0.50	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB		ND	0.50	ug/L	10256
646 Bromomethane	GRAB		ND	1.0	ug/L	10256
647 Chloroethane	GRAB		ND	0.50	ug/L	10256
648 2-Chloroethylvinylether	GRAB		ND	5.0	ug/L	10256
649 Chloromethane	GRAB		ND	1.0	ug/L	10256
650 1,2-Dichloropropane	GRAB		ND	0.50	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB		ND	0.50	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB		ND	0.50	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB		ND	0.50	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	
800 Acenaphthene	GRAB		ND	10	ug/L	10256
801 Acenaphthylene	GRAB		ND	10	ug/L	10256
802 Anthracene	GRAB		ND	10	ug/L	10256
803 Benzidine	GRAB		ND	51	ug/L	10256
804 Benzo(a)anthracene	GRAB		ND	10	ug/L	10256
805 Benzo(a)pyrene	GRAB		ND	10	ug/L	10256
806 Benzo(b)fluoranthene	GRAB		ND	10	ug/L	10256
807 Benzo(g,h,i,)perylene	GRAB		ND	10	ug/L	10256
808 Benzo(k)fluoranthene	GRAB		ND	10	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB		ND	10	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB		ND	25	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB		ND	10	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB		ND	10	ug/L	10256
813 4-bromophenyl Phenylether	GRAB		ND	10	ug/L	10256
814 butylbenzyl Phthalate	GRAB		ND	10	ug/L	10256
815 2-Chloronaphthalene	GRAB		ND	10	ug/L	10256
816 4-Chlorophenylphenylether	GRAB		ND	10	ug/L	10256
817 Chrysene	GRAB		ND	10	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/15/2021

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2021** To: **09/30/2021**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
818 dibenzo(a,h)Anthracene	GRAB		ND	10	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB		ND	25	ug/L	10256
823 diethyl Phthalate	GRAB		ND	10	ug/L	10256
824 dimethyl Phthalate	GRAB		ND	10	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	10	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	10	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	10	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	10	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	10	ug/L	10256
830 Fluoranthene	GRAB		ND	10	ug/L	10256
831 Fluorene	GRAB		ND	10	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	10	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	10	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	25	ug/L	10256
835 Hexachloroethane	GRAB		ND	10	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	10	ug/L	10256
837 Isophorone	GRAB		ND	10	ug/L	10256
838 Naphthalene	GRAB		ND	10	ug/L	10256
839 Nitrobenzene	GRAB		ND	25	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	10	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	10	ug/L	10256
842 Phenanthrene	GRAB		ND	10	ug/L	10256
843 Pyrene	GRAB		ND	10	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	10	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	51	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	51	ug/L	10256
851 2-Nitrophenol	GRAB		ND	10	ug/L	10256
852 4-Nitrophenol	GRAB		ND	10	ug/L	10256
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	10	ug/L	10256
855 Phenol	GRAB		ND	10	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/15/2021

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2021** To: **09/30/2021**

Parameter (1)	Sample Method (2)	Permit Limit (3)	**Test Results (4)**	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
856 2,4,6-Trichlorophenol	GRAB		ND	10	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	10	ug/L	10256

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the self-monitoring report form.
(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.
(3) Permit limits are included on this form for convenience. For a full list of all applicable permit limits, refer to your Permit Data Sheet.
(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.
(5) If the test result is "ND", enter the reporting limit, otherwise leave blank. The reporting limit can be found in your laboratory test sheet.
(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.
(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: _____ Date: 10/15/2021

Print name of official: Nicole Bradley Title: Project Manager on Behalf of OPOG

LACSD USE ONLY Monitoring ID: 558553

Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

ROBERT C. FERRANTE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Jyoti Banaji
(562) 699-7411 Ext. 2906

Page _____ of _____
Permit Number:
20039
Facility ID:
2113183

SUPPLEMENTAL MONITORING DATA (OPTIONAL)

It is not mandatory to perform supplemental monitoring of your facility's wastewater discharge. However, if you choose to perform additional testing, you must report the results of all analyses using this form. Supplemental monitoring data should not include results used in Self-Monitoring Reports.

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2021** To: **09/30/2021**

(Print) Name of Company Collecting Wastewater Sample:

Comments:

Parameter (1)	Sample Date	Sample Method (2)	**Test Results (3)**	Reporting Limit (4)	Unit	Lab ID Code (5)	LACSD Split (6)

(1) Include all laboratory test sheets for each reported parameter.
(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.
(3) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.
(4) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.
(5) Indicate the appropriate laboratory certification I.D. code for each testing parameter.
(6) If the results are from a split sample that was collected by the Sanitation Districts, write "Yes", otherwise, leave blank.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: _____ Date: _____

Print name of official: _____ Title: _____

LACSD USE ONLY - Non-Permit SMR
Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-287906-1
Laboratory Sample Delivery Group: Whittier, CA
Client Project/Site: Omega Chemical Wastewater
Revision: 1

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
9/22/2021 9:20:31 AM

Danielle Roberts, Senior Project Manager
(949)260-3249
Danielle.Roberts@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-287906-1	Composite-08202021	Water	08/20/21 13:00	08/20/21 15:20
440-287906-2	Grab- 08202021	Water	08/20/21 13:10	08/20/21 15:20

Job ID: 440-287906-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-287906-1

Comments
This revised report is due to: Revised sampleID's and updated Chain of Custody.

No additional comments.

Receipt
The samples were received on 8/20/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-173395. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-174176. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS and LCSD associated with analytical batch 570-174176: Dichlorodifluoromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-173461. LCS/LCSD performed to meet QC requirement. Method 8270C

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

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

Narrative

Job Narrative
440-287906-2

Comments
This revised report is due to: Revised sampleID's and updated Chain of Custody.

No additional comments.

Receipt
The samples were received on 8/20/2021 3:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

Job ID: 440-287906-1 (Continued)

Laboratory: Eurofins Calscience Irvine (Continued)

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-173395. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-174176. A laboratory LCS/LCSD was analyzed to provide precision data.

Method 8260B: The following analyte(s) recovered outside control limits for the LCS and LCSD associated with analytical batch 570-174176: Dichlorodifluoromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 570-174846 were outside control limits: (570-67494-C-1 MS) and (570-67494-C-1 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

VOA Prep

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

Detection Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite-08202021 — Lab Sample ID: 440-287906-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	1.2		1.0		mg/L	1		SM 2540D	Total/NA
Chemical Oxygen Demand	77	F1	20		mg/L	1		SM 5220D	Total/NA

Client Sample ID: Grab- 08202021 — Lab Sample ID: 440-287906-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	9.0		0.10		ug/L	1		8270C SIM ID	Total/NA
pH	8.7	HF	0.1		SU	1		SM 4500 H+ B	Total/NA
Field pH	8.60				SU	1		Field Sampling	Total/NA
Field Temperature	24.80				Celsius	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite-08202021

Lab Sample ID: 440-287906-1
Date Collected: 08/20/21 13:00
Matrix: Water
Date Received: 08/20/21 15:20

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	1.2		1.0		mg/L			08/20/21 15:39	1
Chemical Oxygen Demand	77	F1	20		mg/L			08/25/21 16:21	1

Client Sample ID: Grab- 08202021

Lab Sample ID: 440-287906-2
Date Collected: 08/20/21 13:10
Matrix: Water
Date Received: 08/20/21 15:20

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/21/21 19:29	1
Acrolein	ND		4.0		ug/L			08/25/21 19:21	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
Acrylonitrile	ND		5.0		ug/L			08/25/21 19:21	1
1,1-Dichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,1-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
1,1-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/21/21 19:29	1
1,2-Dibromoethane	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichloroethane	ND		0.50		ug/L			08/21/21 19:29	1
1,2-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
1,3-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
2,2-Dichloropropane	ND		0.50		ug/L			08/21/21 19:29	1
2-Butanone	ND		5.0		ug/L			08/21/21 19:29	1
2-Chlorotoluene	ND		0.50		ug/L			08/21/21 19:29	1
2-Hexanone	ND		6.0		ug/L			08/21/21 19:29	1
4-Chlorotoluene	ND		0.50		ug/L			08/21/21 19:29	1
Acetone	ND		8.0		ug/L			08/21/21 19:29	1
Benzene	ND		0.50		ug/L			08/21/21 19:29	1
Bromobenzene	ND		0.50		ug/L			08/21/21 19:29	1
Bromochloromethane	ND		1.0		ug/L			08/21/21 19:29	1
Bromodichloromethane	ND		0.50		ug/L			08/21/21 19:29	1
Bromoform	ND		0.50		ug/L			08/21/21 19:29	1
Bromomethane	ND		1.0		ug/L			08/21/21 19:29	1
Carbon tetrachloride	ND		0.50		ug/L			08/21/21 19:29	1
Chlorobenzene	ND		0.50		ug/L			08/21/21 19:29	1
Chloroethane	ND		0.50		ug/L			08/21/21 19:29	1
Chloroform	ND		0.50		ug/L			08/21/21 19:29	1
Chloromethane	ND		1.0		ug/L			08/21/21 19:29	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1

Client Sample ID: Grab- 08202021

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50		ug/L			08/21/21 19:29	1
Dibromomethane	ND		0.50		ug/L			08/21/21 19:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/21/21 19:29	1
Ethylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/21/21 19:29	1
Isopropanol	ND		40		ug/L			08/21/21 19:29	1
Isopropylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Methylene Chloride	ND		1.0		ug/L			08/21/21 19:29	1
n-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
N-Propylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
o-Xylene	ND		0.50		ug/L			08/21/21 19:29	1
p-Isopropyltoluene	ND		0.50		ug/L			08/21/21 19:29	1
sec-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Styrene	ND		0.50		ug/L			08/21/21 19:29	1
tert-Butylbenzene	ND		0.50		ug/L			08/21/21 19:29	1
Tetrachloroethene	ND		0.50		ug/L			08/21/21 19:29	1
Total Volatile Organic Compounds	ND		150		ug/L			08/21/21 19:29	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 19:29	1
Trichloroethene	ND		0.50		ug/L			08/21/21 19:29	1
Trichlorofluoromethane	ND		0.50		ug/L			08/21/21 19:29	1
Vinyl acetate	ND		5.0		ug/L			08/21/21 19:29	1
Vinyl chloride	ND		0.50		ug/L			08/21/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*		*08/25/21 19:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 19:21*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*08/25/21 19:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 19:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 135*		*08/21/21 19:29*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*08/21/21 19:29*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*08/21/21 19:29*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*08/21/21 19:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0		ug/L			08/27/21 16:51	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/25/21 19:21	1
m,p-Xylene	ND		1.0		ug/L			08/25/21 19:21	1
Naphthalene	ND		1.0		ug/L			08/25/21 19:21	1
Toluene	ND		0.50		ug/L			08/25/21 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 135*		*08/27/21 16:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*71 - 120*		*08/27/21 16:51*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*08/27/21 16:51*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*08/27/21 16:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 135*		*08/25/21 19:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 19:21*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*08/25/21 19:21*	*1*

Client Sample ID: Grab- 08202021

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 19:21*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**9.0**		0.10	ug/L		08/24/21 08:17	08/30/21 19:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*98*		*15 - 150*	*08/24/21 08:17*	*08/30/21 19:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*118*		*46 - 128*	*08/24/21 08:17*	*08/30/21 19:02*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,2-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,3-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1,4-Dichlorobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
1-Methylnaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4,5-Trichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4,6-Trichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dimethylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dinitrophenol	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,4-Dinitrotoluene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,6-Dichlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2,6-Dinitrotoluene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Chloronaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Chlorophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Methylnaphthalene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
2-Nitrophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
3 & 4 Methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
3,3'-Dichlorobenzidine	ND		25	ug/L		08/23/21 08:50	08/24/21 18:38	1
3-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4,6-Dinitro-2-methylphenol	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chloro-3-methylphenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chloroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Nitroaniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
4-Nitrophenol	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Acenaphthene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Acenaphthylene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Aniline	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Anthracene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Azobenzene	ND		10	ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzidine	ND		51	ug/L		08/23/21 08:50	08/24/21 18:38	1

Client Sample ID: Grab- 08202021

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[a]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[b]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzo[k]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzoic acid	ND		51		ug/L		08/23/21 08:50	08/24/21 18:38	1
Benzyl alcohol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
bis (2-Chloroisopropyl) ether	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Butyl benzyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Chrysene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dibenzofuran	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Diethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Dimethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Di-n-butyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Di-n-octyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Fluorene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
Hexachloroethane	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Isophorone	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Naphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Nitrobenzene	ND		25		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodimethylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pentachlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Phenanthrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Phenol	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1
Pyridine	ND		10		ug/L		08/23/21 08:50	08/24/21 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*27 - 140*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
2-Fluorobiphenyl (Surr)	*79*		*28 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
2-Fluorophenol (Surr)	*48*		*20 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
Nitrobenzene-d5 (Surr)	*83*		*31 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
Phenol-d6 (Surr)	*31*		*20 - 120*	*08/23/21 08:50*	*08/24/21 18:38*	*1*
p-Terphenyl-d14 (Surr)	*91*		*45 - 136*	*08/23/21 08:50*	*08/24/21 18:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.7**	**HF**	0.1		SU			08/23/21 05:23	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Grab- 08202021

Date Collected: 08/20/21 13:10
Date Received: 08/20/21 15:20

Lab Sample ID: 440-287906-2

Matrix: Water

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050		mg/L		08/23/21 13:50	08/23/21 14:55	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**8.60**				SU			08/20/21 13:10	1
Field Temperature	**24.80**				Celsius			08/20/21 13:10	1

Surrogate Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: 8260B - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)							
		DCA	DCA	BFB	BFB	DBFM	DBFM	TOL	TOL
Lab Sample ID	Client Sample ID	(68-135)	(68-135)	(71-120)	(71-120)	(80-120)	(80-120)	(80-120)	(80-120)
440-287906-2	Grab- 08202021	98	98	93	93	96	96	101	101
440-287906-2 - RA	Grab- 08202021	97	97	94	94	102	102	99	99
440-287906-2 - RA	Grab- 08202021	111	111	95	95	100	100	106	106
570-67494-C-1 MS	Matrix Spike	111	111	97	97	106	106	101	101
570-67494-C-1 MSD	Matrix Spike Duplicate	112	112	105	105	104	104	99	99
LCS 570-173395/3	Lab Control Sample	97	97	99	99	98	98	102	102
LCS 570-174176/3	Lab Control Sample	92	92	98	98	98	98	99	99
LCS 570-174846/3	Lab Control Sample	104	104	104	104	103	103	100	100
LCSD 570-173395/4	Lab Control Sample Dup	99	99	101	101	97	97	103	103
LCSD 570-174176/4	Lab Control Sample Dup	93	93	98	98	99	99	99	99
LCSD 570-174846/4	Lab Control Sample Dup	103	103	108	108	100	100	98	98
MB 570-173395/6	Method Blank	102	102	93	93	98	98	100	100
MB 570-174176/6	Method Blank	95	95	94	94	98	98	99	99
MB 570-174846/6	Method Blank	109	109	90	90	98	98	95	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(27-140)	(28-120)	(20-120)	(31-120)	(20-120)	(45-136)
440-287906-2	Grab- 08202021	91	79	48	83	31	91
LCS 570-173461/2-A	Lab Control Sample	81	70	45	68	33	79
LCSD 570-173461/3-A	Lab Control Sample Dup	83	72	45	72	32	85
MB 570-173461/1-A	Method Blank	94	77	48	86	34	95

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
440-287906-2	Grab- 08202021	118

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	ECL 1
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV
Field Sampling	Field Sampling	EPA	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2
SM 4500 S2 B	Sulfide, Separation of Soluble and Insoluble	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Client Sample ID: Composite-08202021

Lab Sample ID: 440-287906-1

Date Collected: 08/20/21 13:00
Matrix: Water
Date Received: 08/20/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	655045	08/20/21 15:39	ZL7L	TAL IRV
Total/NA	Analysis	SM 5220D		1	2 mL	2 mL	655366	08/25/21 16:21	PN8W	TAL IRV

Client Sample ID: Grab- 08202021

Lab Sample ID: 440-287906-2

Date Collected: 08/20/21 13:10
Matrix: Water
Date Received: 08/20/21 15:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	173395	08/21/21 19:29	N1A	ECL 2
Total/NA	Analysis	8260B		1	20 mL	20 mL	174176	08/25/21 19:21	UJHB	ECL 2
Total/NA	Analysis	8260B	RA	1	20 mL	20 mL	174846	08/27/21 16:51	UJHB	ECL 2
Total/NA	Prep	3510C			983.9 mL	2 mL	173461	08/23/21 08:50	H1SH	ECL 1
Total/NA	Analysis	8270C		1			173935	08/24/21 18:38	N8CZ	ECL 1
Total/NA	Prep	3510C			100.0 mL	10 mL	173856	08/24/21 08:17	PQS1	ECL 1
Total/NA	Analysis	8270C SIM ID		1			175393	08/30/21 19:02	ULLI	ECL 1
Total/NA	Analysis	SM 4500 H+ B		1			655096	08/23/21 05:23	YO8L	TAL IRV
Dissolved	Prep	SM 4500 S2 B			7.5 mL	7.5 mL	655155	08/23/21 13:50	GG0B	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1			655159	08/23/21 14:55	GG0B	TAL IRV
Total/NA	Analysis	Field Sampling		1			655175	08/20/21 13:10	P1R	TAL IRV

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-173395/6
Matrix: Water
Analysis Batch: 173395

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,1-Trichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1,2-Trichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
1,1-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,3-Trichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,3-Trichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/21/21 16:45	1
1,2-Dibromoethane	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichloroethane	ND		0.50		ug/L			08/21/21 16:45	1
1,2-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
1,3-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
2,2-Dichloropropane	ND		0.50		ug/L			08/21/21 16:45	1
2-Butanone	ND		5.0		ug/L			08/21/21 16:45	1
2-Chlorotoluene	ND		0.50		ug/L			08/21/21 16:45	1
2-Hexanone	ND		6.0		ug/L			08/21/21 16:45	1
4-Chlorotoluene	ND		0.50		ug/L			08/21/21 16:45	1
Acetone	ND		8.0		ug/L			08/21/21 16:45	1
Benzene	ND		0.50		ug/L			08/21/21 16:45	1
Bromobenzene	ND		0.50		ug/L			08/21/21 16:45	1
Bromochloromethane	ND		1.0		ug/L			08/21/21 16:45	1
Bromodichloromethane	ND		0.50		ug/L			08/21/21 16:45	1
Bromoform	ND		0.50		ug/L			08/21/21 16:45	1
Bromomethane	ND		1.0		ug/L			08/21/21 16:45	1
Carbon tetrachloride	ND		0.50		ug/L			08/21/21 16:45	1
Chlorobenzene	ND		0.50		ug/L			08/21/21 16:45	1
Chloroethane	ND		0.50		ug/L			08/21/21 16:45	1
Chloroform	ND		0.50		ug/L			08/21/21 16:45	1
Chloromethane	ND		1.0		ug/L			08/21/21 16:45	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
Dibromochloromethane	ND		0.50		ug/L			08/21/21 16:45	1
Dibromomethane	ND		0.50		ug/L			08/21/21 16:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/21/21 16:45	1
Ethylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/21/21 16:45	1
Isopropanol	ND		40		ug/L			08/21/21 16:45	1
Isopropylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
m,p-Xylene	ND		1.0		ug/L			08/21/21 16:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-173395/6
Matrix: Water
Analysis Batch: 173395

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0		ug/L			08/21/21 16:45	1
Naphthalene	ND		1.0		ug/L			08/21/21 16:45	1
n-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
N-Propylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
o-Xylene	ND		0.50		ug/L			08/21/21 16:45	1
p-Isopropyltoluene	ND		0.50		ug/L			08/21/21 16:45	1
sec-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Styrene	ND		0.50		ug/L			08/21/21 16:45	1
tert-Butylbenzene	ND		0.50		ug/L			08/21/21 16:45	1
Tetrachloroethene	ND		0.50		ug/L			08/21/21 16:45	1
Toluene	ND		0.50		ug/L			08/21/21 16:45	1
Total Volatile Organic Compounds	ND		150		ug/L			08/21/21 16:45	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/21/21 16:45	1
Trichloroethene	ND		0.50		ug/L			08/21/21 16:45	1
Trichlorofluoromethane	ND		0.50		ug/L			08/21/21 16:45	1
Vinyl acetate	ND		5.0		ug/L			08/21/21 16:45	1
Vinyl chloride	ND		0.50		ug/L			08/21/21 16:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 135*		*08/21/21 16:45*	*1*
4-Bromofluorobenzene (Surr)	*93*		*71 - 120*		*08/21/21 16:45*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/21/21 16:45*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/21/21 16:45*	*1*

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.56		ug/L		96	76 - 143
1,1,1-Trichloroethane	10.0	9.64		ug/L		96	75 - 128
1,1,2,2-Tetrachloroethane	10.0	10.0		ug/L		100	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.5		ug/L		105	50 - 120
1,1,2-Trichloroethane	10.0	9.70		ug/L		97	80 - 120
1,1-Dichloroethane	10.0	9.98		ug/L		100	76 - 120
1,1-Dichloroethene	10.0	9.84		ug/L		98	72 - 120
1,1-Dichloropropene	10.0	10.3		ug/L		103	76 - 120
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125
1,2,3-Trichloropropane	10.0	9.49		ug/L		95	66 - 131
1,2,4-Trichlorobenzene	10.0	11.2		ug/L		112	80 - 123
1,2,4-Trimethylbenzene	10.0	10.3		ug/L		103	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	8.75		ug/L		87	77 - 120
1,2-Dibromoethane	10.0	9.60		ug/L		96	80 - 120
1,2-Dichlorobenzene	10.0	10.4		ug/L		104	79 - 123
1,2-Dichloroethane	10.0	10.2		ug/L		102	71 - 137
1,2-Dichloropropane	10.0	10.6		ug/L		106	80 - 120
1,3,5-Trimethylbenzene	10.0	10.3		ug/L		103	77 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	79 - 123
1,3-Dichloropropane	10.0	10.3		ug/L		103	80 - 123
1,4-Dichlorobenzene	10.0	9.82		ug/L		98	75 - 123
2,2-Dichloropropane	10.0	10.7		ug/L		107	78 - 133
2-Butanone	10.0	11.6		ug/L		116	32 - 133
2-Chlorotoluene	10.0	10.1		ug/L		101	80 - 120
2-Hexanone	10.0	9.38		ug/L		94	57 - 127
4-Chlorotoluene	10.0	9.88		ug/L		99	78 - 120
Acetone	10.0	12.4		ug/L		124	57 - 133
Benzene	10.0	10.4		ug/L		104	80 - 120
Bromobenzene	10.0	10.4		ug/L		104	80 - 124
Bromochloromethane	10.0	10.0		ug/L		100	76 - 125
Bromodichloromethane	10.0	9.81		ug/L		98	77 - 141
Bromoform	10.0	9.13		ug/L		91	46 - 178
Bromomethane	10.0	11.4		ug/L		114	52 - 162
Carbon tetrachloride	10.0	9.23		ug/L		92	69 - 145
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroethane	10.0	9.97		ug/L		100	73 - 139
Chloroform	10.0	9.77		ug/L		98	80 - 120
Chloromethane	10.0	9.91		ug/L		99	35 - 159
cis-1,2-Dichloroethene	10.0	10.3		ug/L		103	76 - 122
cis-1,3-Dichloropropene	10.0	10.1		ug/L		101	80 - 122
Dibromochloromethane	10.0	9.91		ug/L		99	63 - 151
Dibromomethane	10.0	9.98		ug/L		100	80 - 121
Dichlorodifluoromethane	10.0	8.43		ug/L		84	59 - 139
Ethylbenzene	10.0	10.3		ug/L		103	80 - 120
Hexachloro-1,3-butadiene	10.0	9.92		ug/L		99	76 - 141
Isopropanol	100	102		ug/L		102	29 - 141
Isopropylbenzene	10.0	10.2		ug/L		102	80 - 124
m,p-Xylene	20.0	20.9		ug/L		104	80 - 122
Methylene Chloride	10.0	9.94		ug/L		99	70 - 120
Naphthalene	10.0	11.0		ug/L		110	75 - 120
n-Butylbenzene	10.0	10.3		ug/L		103	76 - 124
N-Propylbenzene	10.0	10.5		ug/L		105	80 - 122
o-Xylene	10.0	10.3		ug/L		103	80 - 122
p-Isopropyltoluene	10.0	10.1		ug/L		101	77 - 127
sec-Butylbenzene	10.0	10.1		ug/L		101	75 - 123
Styrene	10.0	10.4		ug/L		104	80 - 121
tert-Butylbenzene	10.0	9.73		ug/L		97	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	10.3		ug/L		103	80 - 120
trans-1,2-Dichloroethene	10.0	9.53		ug/L		95	67 - 123
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	78 - 140
Trichloroethene	10.0	9.87		ug/L		99	80 - 123
Trichlorofluoromethane	10.0	10.6		ug/L		106	64 - 168
Vinyl acetate	10.0	11.0		ug/L		110	75 - 144
Vinyl chloride	10.0	10.2		ug/L		102	74 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173395/3
Matrix: Water
Analysis Batch: 173395

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		68 - 135
4-Bromofluorobenzene (Surr)	99		71 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-173395/4
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.10		ug/L		91	76 - 143	5	20
1,1,1-Trichloroethane	10.0	8.86		ug/L		89	75 - 128	8	20
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	73 - 126	0	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.2		ug/L		102	50 - 120	3	20
1,1,2-Trichloroethane	10.0	9.39		ug/L		94	80 - 120	3	20
1,1-Dichloroethane	10.0	9.49		ug/L		95	76 - 120	5	20
1,1-Dichloroethene	10.0	9.10		ug/L		91	72 - 120	8	20
1,1-Dichloropropene	10.0	9.58		ug/L		96	76 - 120	7	20
1,2,3-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 125	0	22
1,2,3-Trichloropropane	10.0	9.43		ug/L		94	66 - 131	1	20
1,2,4-Trichlorobenzene	10.0	11.1		ug/L		111	80 - 123	2	20
1,2,4-Trimethylbenzene	10.0	10.0		ug/L		100	78 - 125	3	22
1,2-Dibromo-3-Chloropropane	10.0	9.13		ug/L		91	77 - 120	4	21
1,2-Dibromoethane	10.0	9.24		ug/L		92	80 - 120	4	20
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	79 - 123	2	20
1,2-Dichloroethane	10.0	9.90		ug/L		99	71 - 137	3	20
1,2-Dichloropropane	10.0	10.2		ug/L		102	80 - 120	4	20
1,3,5-Trimethylbenzene	10.0	9.92		ug/L		99	77 - 133	4	20
1,3-Dichlorobenzene	10.0	9.99		ug/L		100	79 - 123	1	20
1,3-Dichloropropane	10.0	10.1		ug/L		101	80 - 123	1	20
1,4-Dichlorobenzene	10.0	9.60		ug/L		96	75 - 123	2	22
2,2-Dichloropropane	10.0	9.88		ug/L		99	78 - 133	8	20
2-Butanone	10.0	9.92		ug/L		99	32 - 133	15	26
2-Chlorotoluene	10.0	9.68		ug/L		97	80 - 120	4	20
2-Hexanone	10.0	10.9		ug/L		109	57 - 127	15	21
4-Chlorotoluene	10.0	9.33		ug/L		93	78 - 120	6	21
Acetone	10.0	11.1		ug/L		111	57 - 133	11	28
Benzene	10.0	9.96		ug/L		100	80 - 120	4	20
Bromobenzene	10.0	10.1		ug/L		101	80 - 124	3	20
Bromochloromethane	10.0	9.46		ug/L		95	76 - 125	6	20
Bromodichloromethane	10.0	9.74		ug/L		97	77 - 141	1	20
Bromoform	10.0	9.16		ug/L		92	46 - 178	0	23
Bromomethane	10.0	10.1		ug/L		101	52 - 162	12	20
Carbon tetrachloride	10.0	8.69		ug/L		87	69 - 145	6	20
Chlorobenzene	10.0	9.68		ug/L		97	80 - 120	5	20
Chloroethane	10.0	9.45		ug/L		95	73 - 139	5	20
Chloroform	10.0	9.27		ug/L		93	80 - 120	5	20
Chloromethane	10.0	9.69		ug/L		97	35 - 159	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173395/4
Matrix: Water
Analysis Batch: 173395

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	10.0	9.64		ug/L		96	76 - 122	6	20
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	80 - 122	4	20
Dibromochloromethane	10.0	9.78		ug/L		98	63 - 151	1	20
Dibromomethane	10.0	10.0		ug/L		100	80 - 121	0	20
Dichlorodifluoromethane	10.0	8.41		ug/L		84	59 - 139	0	20
Ethylbenzene	10.0	9.87		ug/L		99	80 - 120	4	20
Hexachloro-1,3-butadiene	10.0	9.55		ug/L		96	76 - 141	4	23
Isopropanol	100	107		ug/L		107	29 - 141	4	22
Isopropylbenzene	10.0	9.80		ug/L		98	80 - 124	4	20
m,p-Xylene	20.0	19.8		ug/L		99	80 - 122	5	20
Methylene Chloride	10.0	9.54		ug/L		95	70 - 120	4	20
Naphthalene	10.0	11.5		ug/L		115	75 - 120	4	22
n-Butylbenzene	10.0	9.93		ug/L		99	76 - 124	4	23
N-Propylbenzene	10.0	10.1		ug/L		101	80 - 122	4	20
o-Xylene	10.0	9.89		ug/L		99	80 - 122	4	20
p-Isopropyltoluene	10.0	9.65		ug/L		97	77 - 127	4	21
sec-Butylbenzene	10.0	9.54		ug/L		95	75 - 123	5	21
Styrene	10.0	10.1		ug/L		101	80 - 121	3	20
tert-Butylbenzene	10.0	9.42		ug/L		94	72 - 128	3	22
Tetrachloroethene	10.0	9.58		ug/L		96	80 - 128	7	20
Toluene	10.0	9.97		ug/L		100	80 - 120	3	20
trans-1,2-Dichloroethene	10.0	8.69		ug/L		87	67 - 123	9	20
trans-1,3-Dichloropropene	10.0	9.90		ug/L		99	78 - 140	2	20
Trichloroethene	10.0	9.27		ug/L		93	80 - 123	6	20
Trichlorofluoromethane	10.0	10.3		ug/L		103	64 - 168	3	20
Vinyl acetate	10.0	11.4		ug/L		114	75 - 144	3	25
Vinyl chloride	10.0	9.80		ug/L		98	74 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 135*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,1-Trichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1,2-Trichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloroethane	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloroethene	ND		0.50	ug/L			08/25/21 11:26	1
1,1-Dichloropropene	ND		0.50	ug/L			08/25/21 11:26	1
1,2,3-Trichlorobenzene	ND		0.50	ug/L			08/25/21 11:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,2,4-Trichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			08/25/21 11:26	1
1,2-Dibromoethane	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichloroethane	ND		0.50		ug/L			08/25/21 11:26	1
1,2-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,3-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
1,3-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
2,2-Dichloropropane	ND		0.50		ug/L			08/25/21 11:26	1
2-Butanone	ND		5.0		ug/L			08/25/21 11:26	1
2-Chlorotoluene	ND		0.50		ug/L			08/25/21 11:26	1
2-Hexanone	ND		6.0		ug/L			08/25/21 11:26	1
4-Chlorotoluene	ND		0.50		ug/L			08/25/21 11:26	1
Acetone	ND		8.0		ug/L			08/25/21 11:26	1
Benzene	ND		0.50		ug/L			08/25/21 11:26	1
Bromobenzene	ND		0.50		ug/L			08/25/21 11:26	1
Bromochloromethane	ND		1.0		ug/L			08/25/21 11:26	1
Bromodichloromethane	ND		0.50		ug/L			08/25/21 11:26	1
Bromoform	ND		0.50		ug/L			08/25/21 11:26	1
Bromomethane	ND		1.0		ug/L			08/25/21 11:26	1
Carbon tetrachloride	ND		0.50		ug/L			08/25/21 11:26	1
Chlorobenzene	ND		0.50		ug/L			08/25/21 11:26	1
Chloroethane	ND		0.50		ug/L			08/25/21 11:26	1
Chloroform	ND		0.50		ug/L			08/25/21 11:26	1
Chloromethane	ND		1.0		ug/L			08/25/21 11:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			08/25/21 11:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/25/21 11:26	1
Dibromochloromethane	ND		0.50		ug/L			08/25/21 11:26	1
Dibromomethane	ND		0.50		ug/L			08/25/21 11:26	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/25/21 11:26	1
Ethylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Hexachloro-1,3-butadiene	ND		1.0		ug/L			08/25/21 11:26	1
Isopropanol	ND		40		ug/L			08/25/21 11:26	1
Isopropylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
m,p-Xylene	ND		1.0		ug/L			08/25/21 11:26	1
Methylene Chloride	ND		1.0		ug/L			08/25/21 11:26	1
Naphthalene	ND		1.0		ug/L			08/25/21 11:26	1
n-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
N-Propylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
o-Xylene	ND		0.50		ug/L			08/25/21 11:26	1
p-Isopropyltoluene	ND		0.50		ug/L			08/25/21 11:26	1
sec-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Styrene	ND		0.50		ug/L			08/25/21 11:26	1
tert-Butylbenzene	ND		0.50		ug/L			08/25/21 11:26	1
Tetrachloroethene	ND		0.50		ug/L			08/25/21 11:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-174176/6
Matrix: Water
Analysis Batch: 174176

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.50		ug/L			08/25/21 11:26	1
Total Volatile Organic Compounds	ND		150		ug/L			08/25/21 11:26	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			08/25/21 11:26	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			08/25/21 11:26	1
Trichloroethene	ND		0.50		ug/L			08/25/21 11:26	1
Trichlorofluoromethane	ND		0.50		ug/L			08/25/21 11:26	1
Vinyl acetate	ND		5.0		ug/L			08/25/21 11:26	1
Vinyl chloride	ND		0.50		ug/L			08/25/21 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 135*		*08/25/21 11:26*	*1*
4-Bromofluorobenzene (Surr)	*94*		*71 - 120*		*08/25/21 11:26*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/25/21 11:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/25/21 11:26*	*1*

Lab Sample ID: LCS 570-174176/3
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	9.33		ug/L		93	76 - 143
1,1,1-Trichloroethane	10.0	9.26		ug/L		93	75 - 128
1,1,2,2-Tetrachloroethane	10.0	9.24		ug/L		92	73 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	10.6		ug/L		106	50 - 120
1,1,2-Trichloroethane	10.0	8.95		ug/L		89	80 - 120
1,1-Dichloroethane	10.0	9.47		ug/L		95	76 - 120
1,1-Dichloroethene	10.0	9.32		ug/L		93	72 - 120
1,1-Dichloropropene	10.0	10.0		ug/L		100	76 - 120
1,2,3-Trichlorobenzene	10.0	9.86		ug/L		99	80 - 125
1,2,3-Trichloropropane	10.0	8.02		ug/L		80	66 - 131
1,2,4-Trichlorobenzene	10.0	10.6		ug/L		106	80 - 123
1,2,4-Trimethylbenzene	10.0	9.85		ug/L		99	78 - 125
1,2-Dibromo-3-Chloropropane	10.0	7.82		ug/L		78	77 - 120
1,2-Dibromoethane	10.0	9.01		ug/L		90	80 - 120
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	79 - 123
1,2-Dichloroethane	10.0	8.83		ug/L		88	71 - 137
1,2-Dichloropropane	10.0	9.60		ug/L		96	80 - 120
1,3,5-Trimethylbenzene	10.0	9.89		ug/L		99	77 - 133
1,3-Dichlorobenzene	10.0	9.63		ug/L		96	79 - 123
1,3-Dichloropropane	10.0	9.33		ug/L		93	80 - 123
1,4-Dichlorobenzene	10.0	9.11		ug/L		91	75 - 123
2,2-Dichloropropane	10.0	10.3		ug/L		103	78 - 133
2-Butanone	10.0	7.23		ug/L		72	32 - 133
2-Chlorotoluene	10.0	9.44		ug/L		94	80 - 120
2-Hexanone	10.0	8.53		ug/L		85	57 - 127
4-Chlorotoluene	10.0	9.14		ug/L		91	78 - 120
Acetone	10.0	8.20		ug/L		82	57 - 133
Benzene	10.0	9.79		ug/L		98	80 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-174176/3
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromobenzene	10.0	9.85		ug/L		99	80 - 124
Bromochloromethane	10.0	9.61		ug/L		96	76 - 125
Bromodichloromethane	10.0	9.21		ug/L		92	77 - 141
Bromoform	10.0	8.69		ug/L		87	46 - 178
Bromomethane	10.0	9.46		ug/L		95	52 - 162
Carbon tetrachloride	10.0	9.29		ug/L		93	69 - 145
Chlorobenzene	10.0	9.65		ug/L		97	80 - 120
Chloroethane	10.0	8.57		ug/L		86	73 - 139
Chloroform	10.0	9.34		ug/L		93	80 - 120
Chloromethane	10.0	8.29		ug/L		83	35 - 159
cis-1,2-Dichloroethene	10.0	9.78		ug/L		98	76 - 122
cis-1,3-Dichloropropene	10.0	9.31		ug/L		93	80 - 122
Dibromochloromethane	10.0	9.73		ug/L		97	63 - 151
Dibromomethane	10.0	9.31		ug/L		93	80 - 121
Dichlorodifluoromethane	10.0	5.81	*-	ug/L		58	59 - 139
Ethylbenzene	10.0	9.90		ug/L		99	80 - 120
Hexachloro-1,3-butadiene	10.0	10.0		ug/L		100	76 - 141
Isopropanol	100	90.5		ug/L		90	29 - 141
Isopropylbenzene	10.0	9.89		ug/L		99	80 - 124
m,p-Xylene	20.0	19.6		ug/L		98	80 - 122
Methylene Chloride	10.0	9.40		ug/L		94	70 - 120
Naphthalene	10.0	9.75		ug/L		97	75 - 120
n-Butylbenzene	10.0	10.1		ug/L		101	76 - 124
N-Propylbenzene	10.0	10.0		ug/L		100	80 - 122
o-Xylene	10.0	9.72		ug/L		97	80 - 122
p-Isopropyltoluene	10.0	9.62		ug/L		96	77 - 127
sec-Butylbenzene	10.0	9.44		ug/L		94	75 - 123
Styrene	10.0	9.62		ug/L		96	80 - 121
tert-Butylbenzene	10.0	9.32		ug/L		93	72 - 128
Tetrachloroethene	10.0	10.2		ug/L		102	80 - 128
Toluene	10.0	9.78		ug/L		98	80 - 120
trans-1,2-Dichloroethene	10.0	9.20		ug/L		92	67 - 123
trans-1,3-Dichloropropene	10.0	9.45		ug/L		94	78 - 140
Trichloroethene	10.0	9.24		ug/L		92	80 - 123
Trichlorofluoromethane	10.0	9.17		ug/L		92	64 - 168
Vinyl acetate	10.0	11.4		ug/L		114	75 - 144
Vinyl chloride	10.0	8.32		ug/L		83	74 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 135*
4-Bromofluorobenzene (Surr)	*98*		*71 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-174176/4
Matrix: Water
Analysis Batch: 174176

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.09		ug/L		91	76 - 143	3	20
1,1,1-Trichloroethane	10.0	8.75		ug/L		88	75 - 128	6	20
1,1,2,2-Tetrachloroethane	10.0	9.42		ug/L		94	73 - 126	2	21
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.60		ug/L		96	50 - 120	10	20
1,1,2-Trichloroethane	10.0	8.94		ug/L		89	80 - 120	0	20
1,1-Dichloroethane	10.0	9.15		ug/L		92	76 - 120	3	20
1,1-Dichloroethene	10.0	8.42		ug/L		84	72 - 120	10	20
1,1-Dichloropropene	10.0	9.48		ug/L		95	76 - 120	5	20
1,2,3-Trichlorobenzene	10.0	9.93		ug/L		99	80 - 125	1	22
1,2,3-Trichloropropane	10.0	8.41		ug/L		84	66 - 131	5	20
1,2,4-Trichlorobenzene	10.0	10.7		ug/L		107	80 - 123	1	20
1,2,4-Trimethylbenzene	10.0	9.64		ug/L		96	78 - 125	2	22
1,2-Dibromo-3-Chloropropane	10.0	8.17		ug/L		82	77 - 120	4	21
1,2-Dibromoethane	10.0	8.82		ug/L		88	80 - 120	2	20
1,2-Dichlorobenzene	10.0	9.66		ug/L		97	79 - 123	0	20
1,2-Dichloroethane	10.0	8.70		ug/L		87	71 - 137	2	20
1,2-Dichloropropane	10.0	9.40		ug/L		94	80 - 120	2	20
1,3,5-Trimethylbenzene	10.0	9.55		ug/L		95	77 - 133	4	20
1,3-Dichlorobenzene	10.0	9.63		ug/L		96	79 - 123	0	20
1,3-Dichloropropane	10.0	9.51		ug/L		95	80 - 123	2	20
1,4-Dichlorobenzene	10.0	9.11		ug/L		91	75 - 123	0	22
2,2-Dichloropropane	10.0	9.76		ug/L		98	78 - 133	6	20
2-Butanone	10.0	8.04		ug/L		80	32 - 133	11	26
2-Chlorotoluene	10.0	9.21		ug/L		92	80 - 120	2	20
2-Hexanone	10.0	8.70		ug/L		87	57 - 127	2	21
4-Chlorotoluene	10.0	9.14		ug/L		91	78 - 120	0	21
Acetone	10.0	8.12		ug/L		81	57 - 133	1	28
Benzene	10.0	9.49		ug/L		95	80 - 120	3	20
Bromobenzene	10.0	9.50		ug/L		95	80 - 124	4	20
Bromochloromethane	10.0	9.41		ug/L		94	76 - 125	2	20
Bromodichloromethane	10.0	9.04		ug/L		90	77 - 141	2	20
Bromoform	10.0	8.93		ug/L		89	46 - 178	3	23
Bromomethane	10.0	9.27		ug/L		93	52 - 162	2	20
Carbon tetrachloride	10.0	8.79		ug/L		88	69 - 145	6	20
Chlorobenzene	10.0	9.23		ug/L		92	80 - 120	4	20
Chloroethane	10.0	8.54		ug/L		85	73 - 139	0	20
Chloroform	10.0	8.95		ug/L		90	80 - 120	4	20
Chloromethane	10.0	7.64		ug/L		76	35 - 159	8	20
cis-1,2-Dichloroethene	10.0	9.55		ug/L		95	76 - 122	2	20
cis-1,3-Dichloropropene	10.0	9.28		ug/L		93	80 - 122	0	20
Dibromochloromethane	10.0	9.74		ug/L		97	63 - 151	0	20
Dibromomethane	10.0	9.33		ug/L		93	80 - 121	0	20
Dichlorodifluoromethane	10.0	5.37	*-	ug/L		54	59 - 139	8	20
Ethylbenzene	10.0	9.58		ug/L		96	80 - 120	3	20
Hexachloro-1,3-butadiene	10.0	9.95		ug/L		99	76 - 141	1	23
Isopropanol	100	85.3		ug/L		85	29 - 141	6	22
Isopropylbenzene	10.0	9.46		ug/L		95	80 - 124	4	20
m,p-Xylene	20.0	19.1		ug/L		95	80 - 122	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-174176/4
Matrix: Water
Analysis Batch: 174176

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride			10.0	8.91		ug/L		89	70 - 120	5	20
Naphthalene			10.0	10.0		ug/L		100	75 - 120	3	22
n-Butylbenzene			10.0	9.88		ug/L		99	76 - 124	2	23
N-Propylbenzene			10.0	9.49		ug/L		95	80 - 122	5	20
o-Xylene			10.0	9.28		ug/L		93	80 - 122	5	20
p-Isopropyltoluene			10.0	9.46		ug/L		95	77 - 127	2	21
sec-Butylbenzene			10.0	9.34		ug/L		93	75 - 123	1	21
Styrene			10.0	9.52		ug/L		95	80 - 121	1	20
tert-Butylbenzene			10.0	9.26		ug/L		93	72 - 128	1	22
Tetrachloroethene			10.0	9.76		ug/L		98	80 - 128	5	20
Toluene			10.0	9.42		ug/L		94	80 - 120	4	20
trans-1,2-Dichloroethene			10.0	8.73		ug/L		87	67 - 123	5	20
trans-1,3-Dichloropropene			10.0	9.37		ug/L		94	78 - 140	1	20
Trichloroethene			10.0	8.94		ug/L		89	80 - 123	3	20
Trichlorofluoromethane			10.0	8.63		ug/L		86	64 - 168	6	20
Vinyl acetate			10.0	10.8		ug/L		108	75 - 144	5	25
Vinyl chloride			10.0	7.82		ug/L		78	74 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*68 - 135*
4-Bromofluorobenzene (Surr)	*98*		*71 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 570-174846/6
Matrix: Water
Analysis Batch: 174846

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0		ug/L			08/27/21 12:50	1
Acrolein	ND		4.0		ug/L			08/27/21 12:50	1
Acrylonitrile	ND		5.0		ug/L			08/27/21 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 135*		*08/27/21 12:50*	*1*
4-Bromofluorobenzene (Surr)	*90*		*71 - 120*		*08/27/21 12:50*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*08/27/21 12:50*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*08/27/21 12:50*	*1*

Lab Sample ID: LCS 570-174846/3
Matrix: Water
Analysis Batch: 174846

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			10.0	9.20		ug/L		92	20 - 175		
Acrolein			20.0	19.6		ug/L		98	54 - 137		
Acrylonitrile			10.0	11.2		ug/L		112	58 - 123		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-174846/3
Matrix: Water
Analysis Batch: 174846

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		68 - 135
4-Bromofluorobenzene (Surr)	104		71 - 120
Dibromofluoromethane (Surr)	103		80 - 120
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-174846/4
Matrix: Water
Analysis Batch: 174846

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether			10.0	9.29		ug/L		93	20 - 175	1	30
Acrolein			20.0	18.6		ug/L		93	54 - 137	5	24
Acrylonitrile			10.0	10.4		ug/L		104	58 - 123	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		68 - 135
4-Bromofluorobenzene (Surr)	108		71 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: 570-67494-C-1 MS
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND	F1	10.0	ND	F1	ug/L		0	20 - 151		
Acrolein	ND		20.0	29.3		ug/L		147	45 - 166		
Acrylonitrile	ND		10.0	12.6		ug/L		126	41 - 153		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	111		68 - 135
4-Bromofluorobenzene (Surr)	97		71 - 120
Dibromofluoromethane (Surr)	106		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: 570-67494-C-1 MSD
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND	F1	10.0	ND	F1	ug/L		0	20 - 151	NC	20
Acrolein	ND		20.0	28.3		ug/L		141	45 - 166	4	32
Acrylonitrile	ND		10.0	11.0		ug/L		110	41 - 153	14	40

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		68 - 135
4-Bromofluorobenzene (Surr)	105		71 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-67494-C-1 MSD
Matrix: Water
Analysis Batch: 174846

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	104		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-173461/1-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173461

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,2-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,3-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1,4-Dichlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
1-Methylnaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4,5-Trichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4,6-Trichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dimethylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dinitrophenol	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,4-Dinitrotoluene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,6-Dichlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2,6-Dinitrotoluene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Chloronaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Chlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Methylnaphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
2-Nitrophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
3 & 4 Methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
3,3'-Dichlorobenzidine	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
3-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4,6-Dinitro-2-methylphenol	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chloro-3-methylphenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chloroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Nitroaniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
4-Nitrophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Acenaphthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Acenaphthylene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Aniline	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Azobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzidine	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[a]anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[a]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-173461/1-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173461

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzo[k]fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzoic acid	ND		50		ug/L		08/23/21 08:50	08/24/21 14:21	1
Benzyl alcohol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
bis (2-Chloroisopropyl) ether	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-chloroethyl)ether	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
Bis(2-ethylhexyl) phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Butyl benzyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Chrysene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dibenz(a,h)anthracene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dibenzofuran	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Diethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Dimethyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Di-n-butyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Di-n-octyl phthalate	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Fluoranthene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Fluorene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachloro-1,3-butadiene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachlorobenzene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachlorocyclopentadiene	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
Hexachloroethane	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Indeno[1,2,3-cd]pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Isophorone	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Naphthalene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Nitrobenzene	ND		25		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodimethylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pentachlorophenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Phenanthrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Phenol	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pyrene	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1
Pyridine	ND		10		ug/L		08/23/21 08:50	08/24/21 14:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*94*		*27 - 140*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
2-Fluorobiphenyl (Surr)	*77*		*28 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
2-Fluorophenol (Surr)	*48*		*20 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
Nitrobenzene-d5 (Surr)	*86*		*31 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
Phenol-d6 (Surr)	*34*		*20 - 120*	*08/23/21 08:50*	*08/24/21 14:21*	*1*
p-Terphenyl-d14 (Surr)	*95*		*45 - 136*	*08/23/21 08:50*	*08/24/21 14:21*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173461/2-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	69.3		ug/L		69	46 - 120
1,2-Dichlorobenzene	100	64.8		ug/L		65	40 - 120
1,2-Diphenylhydrazine(as Azobenzene)	100	68.6		ug/L		69	50 - 150
1,3-Dichlorobenzene	100	61.8		ug/L		62	34 - 120
1,4-Dichlorobenzene	100	63.3		ug/L		63	37 - 120
1-Methylnaphthalene	100	75.1		ug/L		75	62 - 120
2,4,5-Trichlorophenol	100	84.0		ug/L		84	60 - 120
2,4,6-Trichlorophenol	100	88.0		ug/L		88	60 - 120
2,4-Dichlorophenol	100	78.5		ug/L		79	62 - 120
2,4-Dimethylphenol	100	66.0		ug/L		66	57 - 120
2,4-Dinitrophenol	100	95.9		ug/L		96	36 - 120
2,4-Dinitrotoluene	100	83.8		ug/L		84	69 - 120
2,6-Dichlorophenol	100	75.6		ug/L		76	61 - 120
2,6-Dinitrotoluene	100	84.7		ug/L		85	70 - 120
2-Chloronaphthalene	100	76.7		ug/L		77	57 - 120
2-Chlorophenol	100	73.7		ug/L		74	56 - 120
2-Methylnaphthalene	100	72.1		ug/L		72	60 - 120
2-Methylphenol	100	67.9		ug/L		68	54 - 120
2-Nitroaniline	100	73.8		ug/L		74	52 - 120
2-Nitrophenol	100	78.5		ug/L		79	64 - 120
3 & 4 Methylphenol	200	96.2		ug/L		48	44 - 120
3,3'-Dichlorobenzidine	100	83.1		ug/L		83	66 - 120
3-Nitroaniline	100	78.6		ug/L		79	66 - 120
4,6-Dinitro-2-methylphenol	100	83.9		ug/L		84	58 - 120
4-Bromophenyl phenyl ether	100	82.0		ug/L		82	62 - 120
4-Chloro-3-methylphenol	100	70.5		ug/L		71	63 - 120
4-Chloroaniline	100	66.1		ug/L		66	59 - 120
4-Chlorophenyl phenyl ether	100	79.3		ug/L		79	61 - 120
4-Nitroaniline	100	77.2		ug/L		77	64 - 120
4-Nitrophenol	100	39.2		ug/L		39	21 - 120
Acenaphthene	100	75.9		ug/L		76	61 - 120
Acenaphthylene	100	83.5		ug/L		83	64 - 120
Aniline	100	58.6		ug/L		59	52 - 120
Anthracene	100	81.7		ug/L		82	68 - 120
Azobenzene	100	68.6		ug/L		69	52 - 120
Benzidine	100	38.2	J	ug/L		38	20 - 163
Benzo[a]anthracene	100	82.8		ug/L		83	74 - 120
Benzo[a]pyrene	100	82.9		ug/L		83	68 - 120
Benzo[b]fluoranthene	100	73.5		ug/L		73	66 - 120
Benzo[g,h,i]perylene	100	79.3		ug/L		79	66 - 120
Benzo[k]fluoranthene	100	72.7		ug/L		73	58 - 120
Benzoic acid	100	46.8	J	ug/L		47	20 - 120
Benzyl alcohol	100	71.5		ug/L		71	51 - 120
bis (2-Chloroisopropyl) ether	100	79.4		ug/L		79	46 - 127
Bis(2-chloroethoxy)methane	100	71.2		ug/L		71	60 - 120
Bis(2-chloroethyl)ether	100	76.2		ug/L		76	56 - 120
Bis(2-ethylhexyl) phthalate	100	76.0		ug/L		76	64 - 120
Butyl benzyl phthalate	100	78.7		ug/L		79	67 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-173461/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 173935 — **Prep Batch: 173461**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	100	76.7		ug/L		77	66 - 120
Dibenz(a,h)anthracene	100	75.2		ug/L		75	66 - 120
Dibenzofuran	100	77.3		ug/L		77	62 - 120
Diethyl phthalate	100	75.7		ug/L		76	66 - 120
Dimethyl phthalate	100	78.2		ug/L		78	63 - 120
Di-n-butyl phthalate	100	73.8		ug/L		74	68 - 120
Di-n-octyl phthalate	100	75.2		ug/L		75	65 - 120
Fluoranthene	100	80.3		ug/L		80	68 - 120
Fluorene	100	79.0		ug/L		79	65 - 120
Hexachloro-1,3-butadiene	100	69.6		ug/L		70	27 - 120
Hexachlorobenzene	100	70.8		ug/L		71	62 - 120
Hexachlorocyclopentadiene	100	101		ug/L		101	36 - 134
Hexachloroethane	100	59.5		ug/L		60	20 - 120
Indeno[1,2,3-cd]pyrene	100	72.1		ug/L		72	65 - 120
Isophorone	100	80.2		ug/L		80	62 - 120
Naphthalene	100	65.8		ug/L		66	57 - 120
Nitrobenzene	100	70.3		ug/L		70	55 - 120
N-Nitrosodimethylamine	100	49.3		ug/L		49	34 - 120
N-Nitrosodi-n-propylamine	100	82.1		ug/L		82	55 - 120
N-Nitrosodiphenylamine	100	92.7		ug/L		93	75 - 123
Pentachlorophenol	100	70.4		ug/L		70	33 - 120
Phenanthrene	100	78.8		ug/L		79	68 - 120
Phenol	100	38.3		ug/L		38	25 - 120
Pyrene	100	79.6		ug/L		80	66 - 120
Pyridine	100	26.6		ug/L		27	26 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*81*		*27 - 140*
2-Fluorobiphenyl (Surr)	*70*		*28 - 120*
2-Fluorophenol (Surr)	*45*		*20 - 120*
Nitrobenzene-d5 (Surr)	*68*		*31 - 120*
Phenol-d6 (Surr)	*33*		*20 - 120*
p-Terphenyl-d14 (Surr)	*79*		*45 - 136*

Lab Sample ID: LCSD 570-173461/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 173935 — **Prep Batch: 173461**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	79.8		ug/L		80	46 - 120	14	20
1,2-Dichlorobenzene	100	68.0		ug/L		68	40 - 120	5	20
1,2-Diphenylhydrazine(as Azobenzene)	100	67.9		ug/L		68	50 - 150	1	30
1,3-Dichlorobenzene	100	65.4		ug/L		65	34 - 120	6	20
1,4-Dichlorobenzene	100	67.1		ug/L		67	37 - 120	6	20
1-Methylnaphthalene	100	84.8		ug/L		85	62 - 120	12	20
2,4,5-Trichlorophenol	100	85.3		ug/L		85	60 - 120	1	20
2,4,6-Trichlorophenol	100	89.0		ug/L		89	60 - 120	1	20
2,4-Dichlorophenol	100	88.7		ug/L		89	62 - 120	12	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173461/3-A
Matrix: Water
Analysis Batch: 173935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dimethylphenol	100	72.3		ug/L		72	57 - 120	9	20
2,4-Dinitrophenol	100	93.1		ug/L		93	36 - 120	3	20
2,4-Dinitrotoluene	100	82.8		ug/L		83	69 - 120	1	20
2,6-Dichlorophenol	100	84.9		ug/L		85	61 - 120	12	20
2,6-Dinitrotoluene	100	88.4		ug/L		88	70 - 120	4	20
2-Chloronaphthalene	100	80.4		ug/L		80	57 - 120	5	20
2-Chlorophenol	100	77.1		ug/L		77	56 - 120	5	20
2-Methylnaphthalene	100	79.2		ug/L		79	60 - 120	9	20
2-Methylphenol	100	67.0		ug/L		67	54 - 120	1	20
2-Nitroaniline	100	68.6		ug/L		69	52 - 120	7	20
2-Nitrophenol	100	83.8		ug/L		84	64 - 120	6	20
3 & 4 Methylphenol	200	98.9		ug/L		49	44 - 120	3	20
3,3'-Dichlorobenzidine	100	87.0		ug/L		87	66 - 120	5	20
3-Nitroaniline	100	78.5		ug/L		78	66 - 120	0	20
4,6-Dinitro-2-methylphenol	100	82.6		ug/L		83	58 - 120	2	20
4-Bromophenyl phenyl ether	100	87.3		ug/L		87	62 - 120	6	20
4-Chloro-3-methylphenol	100	74.7		ug/L		75	63 - 120	6	20
4-Chloroaniline	100	73.7		ug/L		74	59 - 120	11	20
4-Chlorophenyl phenyl ether	100	83.5		ug/L		83	61 - 120	5	20
4-Nitroaniline	100	76.4		ug/L		76	64 - 120	1	20
4-Nitrophenol	100	37.1		ug/L		37	21 - 120	5	20
Acenaphthene	100	78.8		ug/L		79	61 - 120	4	20
Acenaphthylene	100	87.0		ug/L		87	64 - 120	4	20
Aniline	100	58.7		ug/L		59	52 - 120	0	20
Anthracene	100	85.5		ug/L		85	68 - 120	5	20
Azobenzene	100	67.9		ug/L		68	52 - 120	1	20
Benzidine	100	38.9	J	ug/L		39	20 - 163	2	29
Benzo[a]anthracene	100	87.5		ug/L		87	74 - 120	5	20
Benzo[a]pyrene	100	88.3		ug/L		88	68 - 120	6	20
Benzo[b]fluoranthene	100	80.2		ug/L		80	66 - 120	9	20
Benzo[g,h,i]perylene	100	82.7		ug/L		83	66 - 120	4	20
Benzo[k]fluoranthene	100	77.1		ug/L		77	58 - 120	6	20
Benzoic acid	100	46.7	J	ug/L		47	20 - 120	0	21
Benzyl alcohol	100	70.6		ug/L		71	51 - 120	1	20
bis (2-Chloroisopropyl) ether	100	77.6		ug/L		78	46 - 127	2	20
Bis(2-chloroethoxy)methane	100	73.8		ug/L		74	60 - 120	4	20
Bis(2-chloroethyl)ether	100	74.7		ug/L		75	56 - 120	2	20
Bis(2-ethylhexyl) phthalate	100	78.5		ug/L		78	64 - 120	3	20
Butyl benzyl phthalate	100	81.0		ug/L		81	67 - 120	3	20
Chrysene	100	82.7		ug/L		83	66 - 120	8	20
Dibenz(a,h)anthracene	100	79.9		ug/L		80	66 - 120	6	20
Dibenzofuran	100	80.4		ug/L		80	62 - 120	4	20
Diethyl phthalate	100	76.0		ug/L		76	66 - 120	0	20
Dimethyl phthalate	100	79.3		ug/L		79	63 - 120	1	20
Di-n-butyl phthalate	100	74.7		ug/L		75	68 - 120	1	20
Di-n-octyl phthalate	100	76.2		ug/L		76	65 - 120	1	20
Fluoranthene	100	86.2		ug/L		86	68 - 120	7	20
Fluorene	100	81.5		ug/L		81	65 - 120	3	20
Hexachloro-1,3-butadiene	100	78.9		ug/L		79	27 - 120	13	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-173461/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 173935 — **Prep Batch: 173461**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobenzene			100	73.2		ug/L		73	62 - 120	3	20
Hexachlorocyclopentadiene			100	97.6		ug/L		98	36 - 134	4	20
Hexachloroethane			100	61.1		ug/L		61	20 - 120	3	20
Indeno[1,2,3-cd]pyrene			100	76.4		ug/L		76	65 - 120	6	20
Isophorone			100	82.5		ug/L		82	62 - 120	3	20
Naphthalene			100	71.6		ug/L		72	57 - 120	8	20
Nitrobenzene			100	74.8		ug/L		75	55 - 120	6	20
N-Nitrosodimethylamine			100	46.4		ug/L		46	34 - 120	6	20
N-Nitrosodi-n-propylamine			100	81.1		ug/L		81	55 - 120	1	20
N-Nitrosodiphenylamine			100	97.5		ug/L		98	75 - 123	5	20
Pentachlorophenol			100	72.8		ug/L		73	33 - 120	3	20
Phenanthrene			100	82.5		ug/L		83	68 - 120	5	20
Phenol			100	37.4		ug/L		37	25 - 120	2	20
Pyrene			100	87.0		ug/L		87	66 - 120	9	20
Pyridine			100	26.7		ug/L		27	26 - 120	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*27 - 140*
2-Fluorobiphenyl (Surr)	*72*		*28 - 120*
2-Fluorophenol (Surr)	*45*		*20 - 120*
Nitrobenzene-d5 (Surr)	*72*		*31 - 120*
Phenol-d6 (Surr)	*32*		*20 - 120*
p-Terphenyl-d14 (Surr)	*85*		*45 - 136*

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-655045/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655045

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0		mg/L			08/20/21 15:39	1

Lab Sample ID: LCS 440-655045/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655045

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	1010		mg/L		101	85 - 115		

Lab Sample ID: 440-287880-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655045

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	19			19.3		mg/L				0	5

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-287906-2 DU — **Client Sample ID: Grab- 08202021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655096

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.7	HF		8.7		SU				0.2	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-655155/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 655159 — **Prep Batch: 655155**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050		mg/L		08/23/21 13:50	08/23/21 14:54	1

Lab Sample ID: LCS 440-655155/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 655159 — **Prep Batch: 655155**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved			0.501	0.508		mg/L		101	80 - 120		

Lab Sample ID: 440-287848-B-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 655159 — **Prep Batch: 655155**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved	ND	HF	0.501	0.510	HF	mg/L		102	70 - 130		

Lab Sample ID: 440-287848-B-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 655159 — **Prep Batch: 655155**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.501	0.530	HF	mg/L		106	70 - 130	4	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-655366/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20		mg/L			08/25/21 16:20	1

Lab Sample ID: LCS 440-655366/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	199		mg/L		99	90 - 110		

Method: SM 5220D - COD (Continued)

Lab Sample ID: 440-287906-1 MS — **Client Sample ID: Composite-08202021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	77	F1	200	245	F1	mg/L		84	90 - 110		

Lab Sample ID: 440-287906-1 MSD — **Client Sample ID: Composite-08202021**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 655366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	77	F1	200	240	F1	mg/L		81	90 - 110	2	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

GC/MS VOA

Analysis Batch: 173395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	8260B	
MB 570-173395/6	Method Blank	Total/NA	Water	8260B	
LCS 570-173395/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-173395/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 174176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	8260B	
440-287906-2 - RA	Grab- 08202021	Total/NA	Water	8260B	
MB 570-174176/6	Method Blank	Total/NA	Water	8260B	
LCS 570-174176/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-174176/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 174846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2 - RA	Grab- 08202021	Total/NA	Water	8260B	
MB 570-174846/6	Method Blank	Total/NA	Water	8260B	
LCS 570-174846/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-174846/4	Lab Control Sample Dup	Total/NA	Water	8260B	
570-67494-C-1 MS	Matrix Spike	Total/NA	Water	8260B	
570-67494-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 173461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	3510C	
MB 570-173461/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-173461/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-173461/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 173856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	3510C	

Analysis Batch: 173935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	8270C	173461
MB 570-173461/1-A	Method Blank	Total/NA	Water	8270C	173461
LCS 570-173461/2-A	Lab Control Sample	Total/NA	Water	8270C	173461
LCSD 570-173461/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	173461

Analysis Batch: 175393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	8270C SIM ID	173856

General Chemistry

Analysis Batch: 655045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-1	Composite-08202021	Total/NA	Water	SM 2540D	
MB 440-655045/1	Method Blank	Total/NA	Water	SM 2540D	

General Chemistry (Continued)

Analysis Batch: 655045 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-655045/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-287880-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 655096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	SM 4500 H+ B	
440-287906-2 DU	Grab- 08202021	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 655155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Dissolved	Water	SM 4500 S2 B	
MB 440-655155/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-655155/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
440-287848-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-287848-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 655159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Dissolved	Water	SM 4500 S2 D	655155
MB 440-655155/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	655155
LCS 440-655155/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	655155
440-287848-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	655155
440-287848-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	655155

Analysis Batch: 655366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-1	Composite-08202021	Total/NA	Water	SM 5220D	
MB 440-655366/9	Method Blank	Total/NA	Water	SM 5220D	
LCS 440-655366/10	Lab Control Sample	Total/NA	Water	SM 5220D	
440-287906-1 MS	Composite-08202021	Total/NA	Water	SM 5220D	
440-287906-1 MSD	Composite-08202021	Total/NA	Water	SM 5220D	

Field Service / Mobile Lab

Analysis Batch: 655175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-287906-2	Grab- 08202021	Total/NA	Water	Field Sampling	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Laboratory: Eurofins Calscience Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2706	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0161	11-19-21
California	Los Angeles County Sanitation Districts	10109	09-30-21
California	SCAQMD LAP	17LA0919	11-30-21
California	State	2944	09-30-21
Guam	State	21-003R	06-22-22
Nevada	State	CA00111	07-31-22
Oregon	NELAP	CA300001	01-30-22
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-21

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Phone (949) 260-3297

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-189773-34724.1
Client Contact: Trent Henderson	Phone:	E-Mail: Danielle.Roberts@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Jacob & Hefner Associates P.C.	PWSID:			Job #:
Address: 15375 Barranca Parkway, J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618	Compliance Project: Δ Yes Δ No			
Phone: 949-453-1045(Tel) 949-453-1047(Fax)	PO #: Omega Chemical Wastewater			
Email: thenderson@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 44003641			
Site: California	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D - COD	2540D - TSS	SM4500_S2_D - Dissolved Sulfide	8260B_LL - VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ - pH	8260B_LL - A+A+2CVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	B	A	N	N	N		
Composite- 8-20-2021	8/20/21	1300	G	Water			1	1							ISCO Start
Grab- 8-20-2021	8/20/00	1310	G	Water					1	3	4	1	3		ISCO End
															Flow Start
															Flow End
															Field pH
															Field Temp
															8260LL Preserved Voa Vials(3 containers)
															8260LL Unpre Voa Vials (3 containers)
															8270C 1L amber (2 containers)
															8270 SIM 1L amber (2 containers)
															SM4500 Dissolved 1 pre poly, pH 1unpre poly

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8/20/21 15:21	Company B-T	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

9/22/2021 (Rev. 1)

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone: 949-261 1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Felipe Rayos	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-189773-34724.1
Client Contact: Pamela Henriksen	Phone: 714-651-2862	E-Mail: Danielle.Roberts@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Jacob & Hefner Associates P C.	PWSID:			Job #:
Address: 15375 Barranca Parkway J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618	Compliance Project: Δ Yes Δ No			
Phone: 949-453-1045(Tel) 949-453-1047(Fax)	PO #: Omega Chemical Wastewater			
Email: phenriksen@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 44003641			
Site: California	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D COD	2540D TSS	SM4500_S2_D Dissolved Sulfide	8260B_LL VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ pH	8260B_LL A+A+2CVE							Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	B	A	N	N	N								
Composite	8-20-21	1300	C	Water			X	X												2	Isco Set up
Grab	8-20-21	13:10	G	Water					X	X	X	X	X							12	8-19-21 @ 1250
																					=
																					8-20-21 @ 12:50
																					=
													8/20/21								
																					Field PH= 8.60
																					Temp = 24.8°C
																					Sampling Time 4 hours

440-287906 Chain of Custody

Preservation Codes:

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I II III IV Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/20/21 15:20	BT			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/20/21 1520	Company: EC IRV

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 1289 3.7/3.7

Ver: 06/08/2021

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone: 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-172503.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Danielle Roberts@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Calscience LLC		Accreditations Required (See note): State Program - California		Job #: 440-287906-1
Address: 7440 Lincoln Way, ,	Due Date Requested: 8/27/2021			
City: Garden Grove	TAT Requested (days):			
State, Zip: CA, 92841				
Phone: 714-895-5494(Tel) 714-894-7501(Fax)	PO #:			
Email	WO #:			
Project Name: Omega Chemical - ISCO/Monthly	Project #: 44003641			
Site: Omega Whittier Wastewater	SSOW#:			

Preservation Codes

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B_LL/5030C (MOD) 8260 Mult Dil Montrose+Fr113,CyHx,	8260B_LL/5030C_UP 8260LL-2CVE, Acrolein, Acrylonitrile	8270C_SIM_ID_LL/3510C_LVI LL 1,4-Dioxane by GC/MS SIM Isoptope Dil	8270C/3510C (MOD) Routine SVOA (Full Spike)	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
Grab (440-287906-2)	8/20/21	13:10 Pacific		Water			X	X	X	X	10	Special Multiple Dils close to 1 Run in order J's Maybe high chlorobenzene

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Calscience attention immediately If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III, IV, Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date.	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 8/20/21 1635	Company: EC-IRV	Received by:	Date/Time: 8/20/21 ~~1705~~ 1635	Company: EC
Relinquished by:	Date/Time: 8/20/21 1720	Company: EC	Received by:	Date/Time: 8/20/21 1720	Company: EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No: N/A		Cooler Temperature(s) °C and Other Remarks: 2.1/1.7 SLG		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287906-1
SDG Number: Whittier, CA

Login Number: 287906
List Number: 1
Creator: Escalante, Maria I

List Source: Eurofins Calscience Irvine

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

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-287906-1
SDG Number: Whittier, CA

Login Number: 287906
List Number: 2
Creator: Ortiz-Luis, Michael

List Source: Eurofins Calscience LLC
List Creation: 08/20/21 07:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

Job ID: 440-287906-1
SDG: Whittier, CA

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

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

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	**Client Sample ID**	**DXE (15-150)**								
440-287906-2	Grab- 08202021	98								

Surrogate Legend

DXE = 1,4-Dioxane-d8

ATTACHMENT E

PSVP Piezometric and Water Quality Data

Attachment E, Table E-1
Piezometric Monitoring Data
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021

Well No.	Top of Casing Elevation (feet MSL)	Screen Interval (feet MSL)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
EW-1	198.96	111.96 - 126.96	7/13/2021	86.40	112.56
EW-2	197.87	110.87 - 125.87	7/13/2021	82.74	115.13
EW-3	196.78	111.78 - 126.78	7/14/2021	82.40	114.38
EW-4	195.79	109.79 - 124.79	7/14/2021	80.47	115.32
EW-5	194.19	109.19 - 124.19	7/14/2021	80.97	113.22
PZ-1	200.26	112.26 - 132.26	7/13/2021	85.02	115.24
PZ-2	201.48	117.48 - 137.48	7/13/2021	Dry	Dry
PZ-3	203.72	113.92 - 133.92	7/13/2021	Dry	Dry
PZ-4	196.26	106.26 - 126.26	7/13/2021	71.87	124.39
OW1A	212.53	135.03 - 150.03	7/16/2021	Dry	Dry
OW1B	204.98	84.98 - 94.98	7/14/2021	95.51	109.47
OW2	200.10	120.10 - 140.10	7/13/2021	Dry	Dry
OW3A	196.33	113.33 - 133.33	7/13/2021	80.58	115.75
OW3B	195.14	73.14 - 83.14	7/16/2021	97.10	98.04
OW7	212.01	121.11 - 141.11	7/13/2021	Dry	Dry
OW8A	198.42	118.42 - 138.02	7/15/2021	Dry	Dry
OW8B	200.84	74.84 - 84.84	7/16/2021	100.35	100.49
OW9	198.07	108.07 - 128.07	7/23/2021	85.03	113.04
OW10	195.54	106.04 - 126.04	7/15/2021	77.07	118.47
OW12	208.42	108.42 - 128.42	7/14/2021	90.31	118.11

Notes:
Elevation data per California Coordinate System NADV88
btoc = below top of casing
Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well
MSL = mean sea level

Attachment E, Table E-2
PSVP Groundwater Analytical Summary
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Third Quarter 2021

Well ID / Screen Interval[1]	Sample Date	Sample Type	PCE	TCE	1,4DIOX[2]	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
EW-1 (72 - 87)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EW-2 (72 - 87)	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS
EW-3 (70 - 85)	7/14/2021	ORIG	5.5	0.88	0.4 J-	0.50 U	5.7	0.50 U	2.7	2.0	1.0 U
EW-4 (71 - 86)	7/14/2021	ORIG	1.4	0.50 U	0.41 J-	0.50 U	0.42 J	0.50 U	0.50 U	0.50 U	1.0 U
EW-5 (70 - 85)	7/14/2021	ORIG	6.5	0.55	0.10 UJ	0.50 U	6.4	0.50 U	7.3	5.8	1.0 U
OW1A (62.5 - 77.5)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW1B (110 - 120)	7/15/2021	ORIG	7.6	0.32 J	0.74 J-	0.50 U	0.50 U	0.50 U	14	6.2	1.0 U
OW2 (60 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW3A (63 - 83)	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS	Dry - NS
OW3B (112 - 122)	7/16/2021	ORIG	12	0.50 U	0.10 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
OW7 (70.9 - 90.9)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW8A (60.4 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW8B (116 - 126)	7/16/2021	ORIG	25	0.50 U	0.10 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
	7/16/2021	DUP	25	0.50 U	0.10 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U
OW9 (70 - 90)	7/15/2021	ORIG	1800	84	400 J-	2.5 U	94	31	81	28	5.0 U
OW10 (69.5 - 89.5)	7/16/2021	ORIG	12	0.81	0.10 UJ	0.50 U	1.0	0.50 U	1.9	1.5	1.0 U
OW12 (80 - 100)	7/15/2021	ORIG	340	21	4.1 J	6.1	6.3	0.24 J	400	6.4	1.0 U
	7/15/2021	DUP	350	21	1.6 J	5.9	6.2	0.24 J	380	6.0	1.0 U

Notes:

1. The screen interval units are feet below top of casing.

2. 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

All results are in micrograms per liter (ug/L)

U = not detected above reporting limit listed

UJ = The analyte was analyzed for but was not detected.

The reported quantitation limit may be higher than reported.

J = results are qualified as estimated

J- = result is an estimated quantity, but the result may be biased low

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene;

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane; Freon 11 = Trichlorofluoromethane;

Freon 12 = Dichlorodifluoromethane; DCA = Dichloroethane; 1,4DIOX = 1,4-dioxane

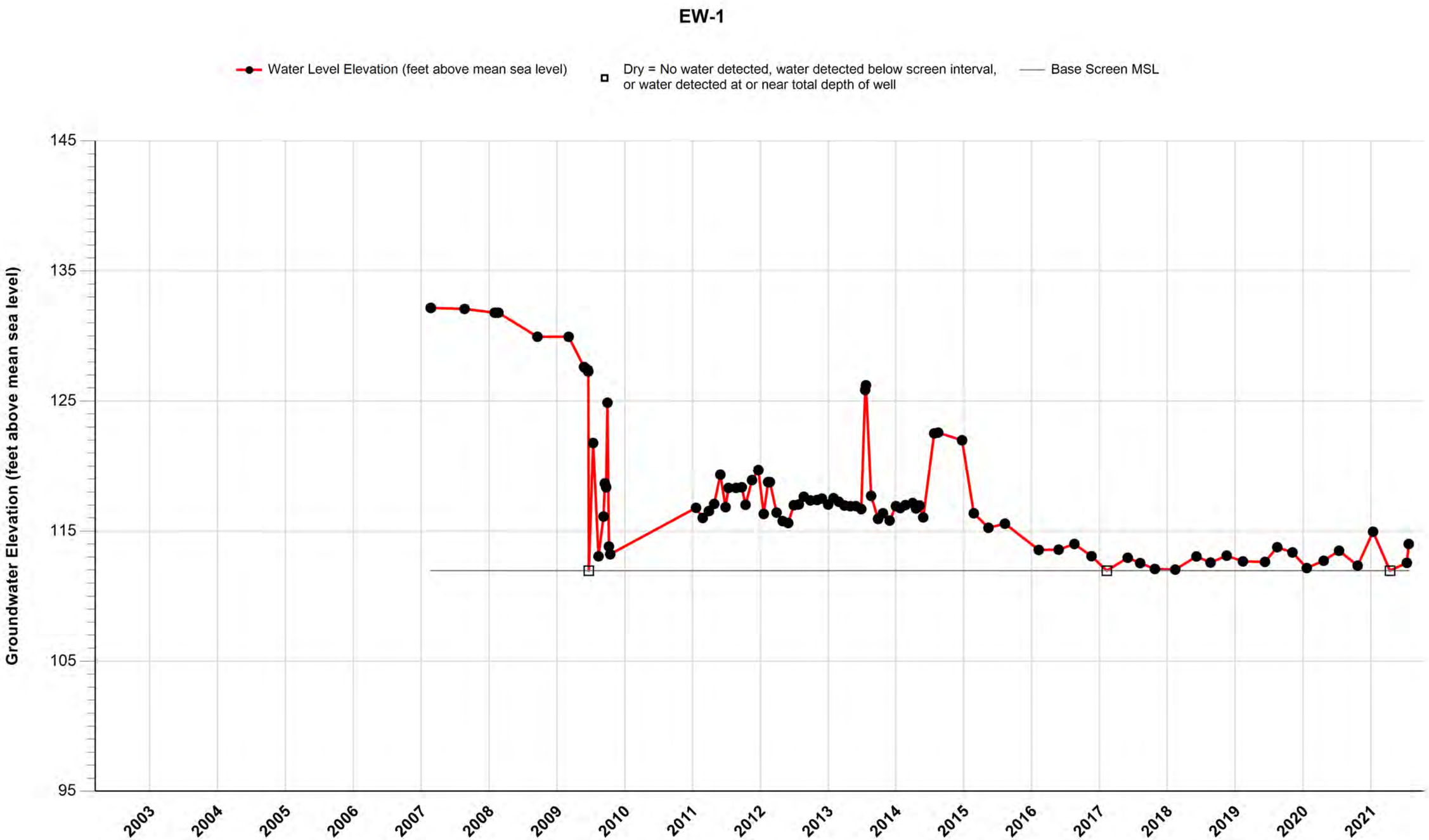
Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well

Dry - NS = insufficient water to sample

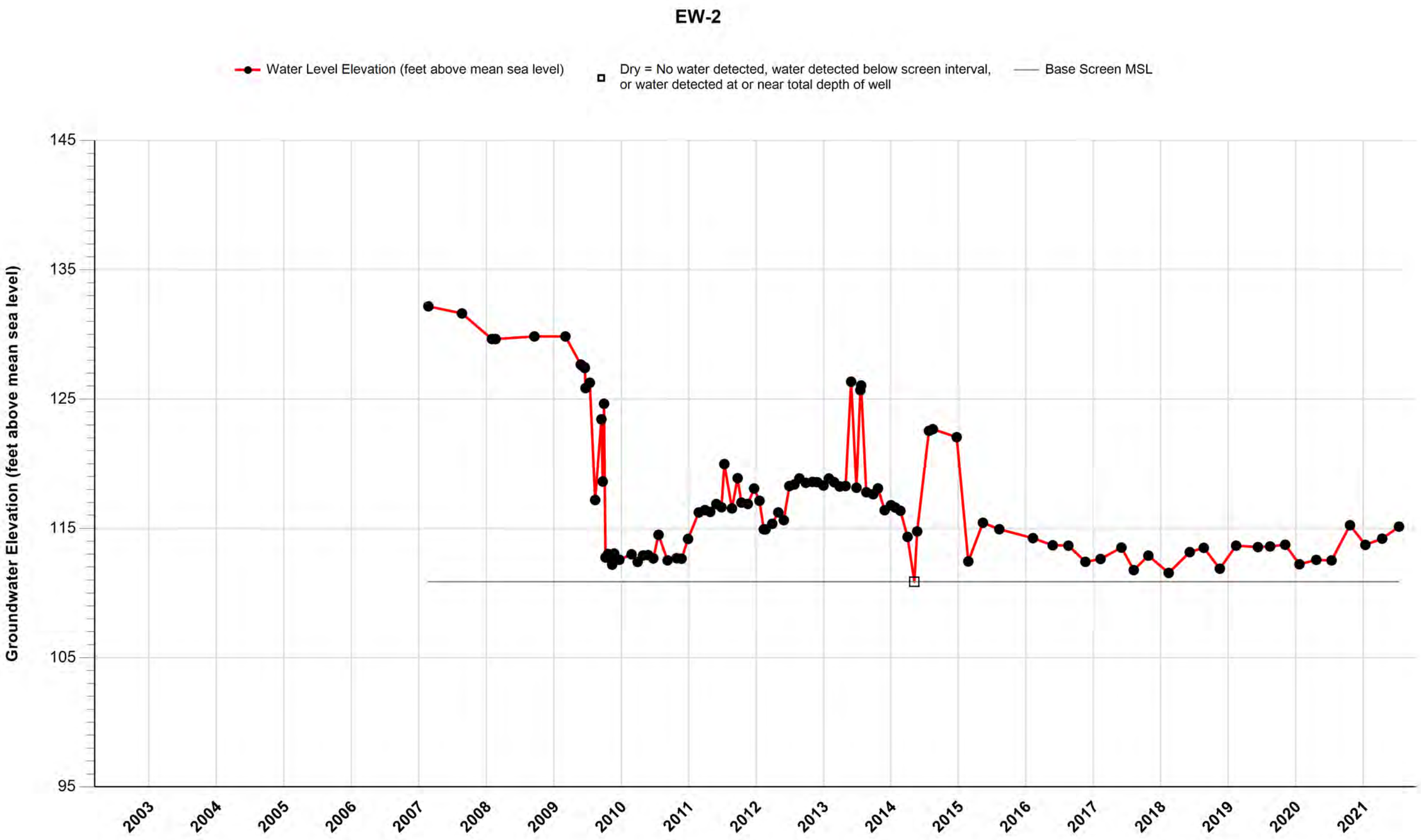
ORIG = primary sample

DUP = duplicate sample

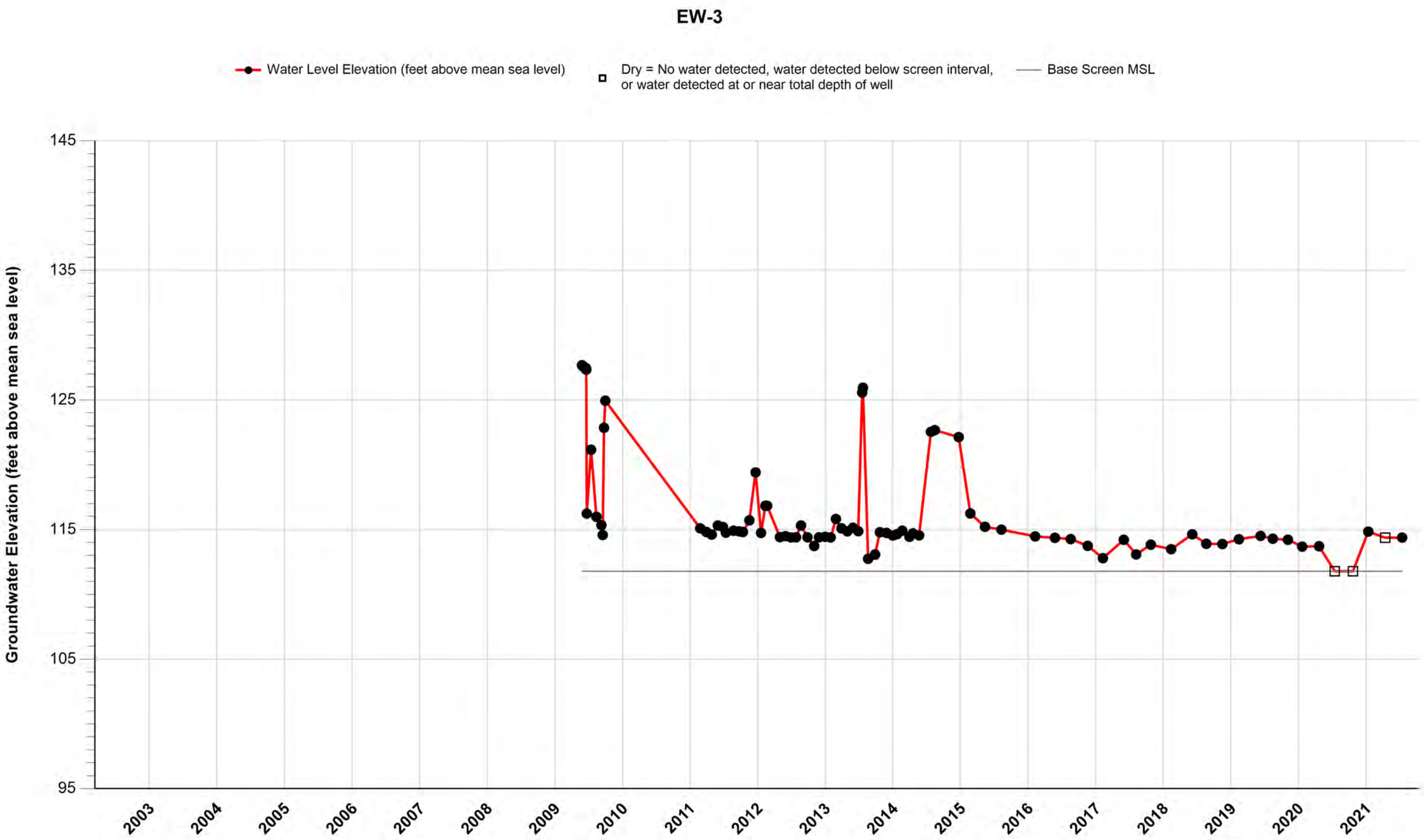
Attachment E, Figure E-1
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



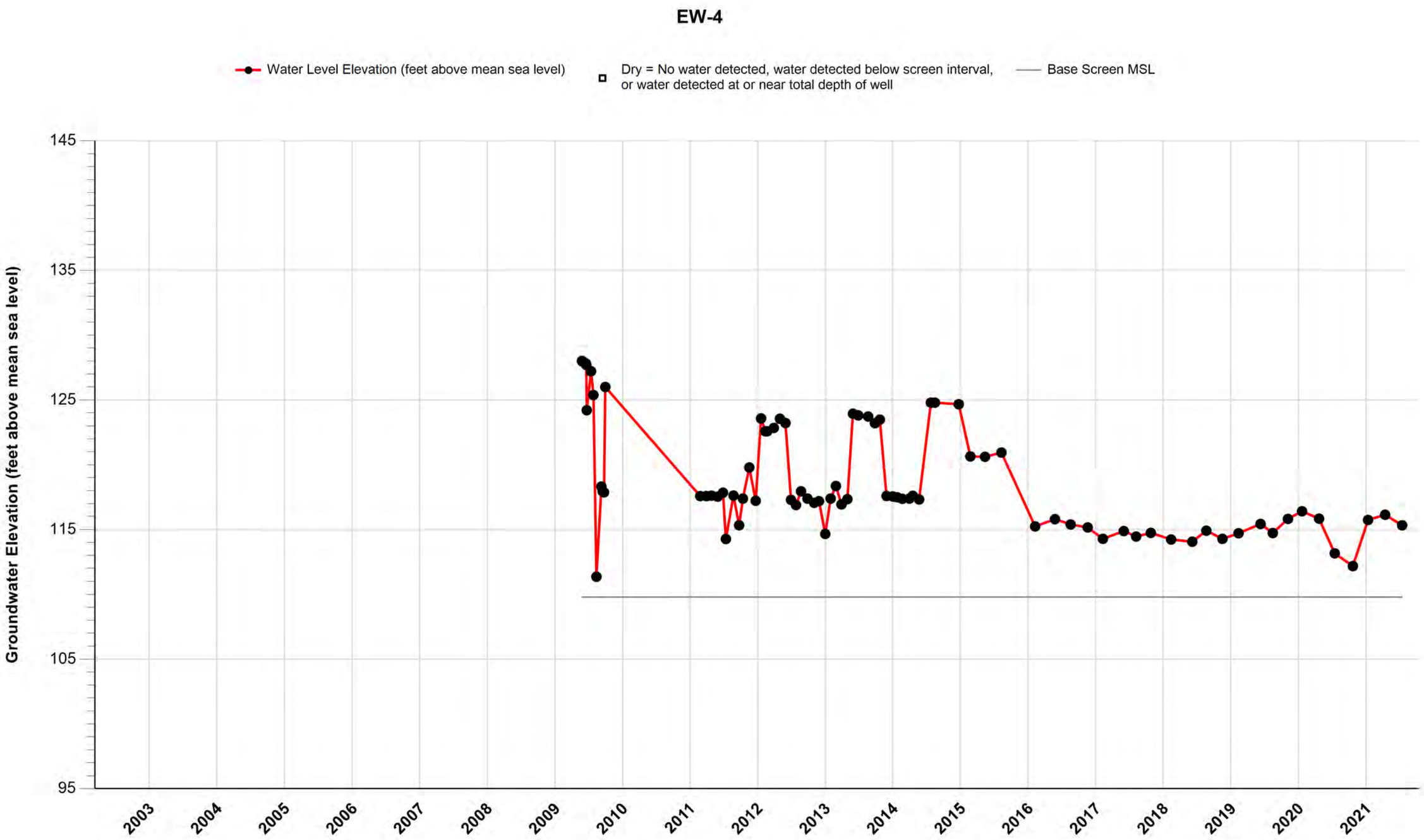
Attachment E, Figure E-2
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



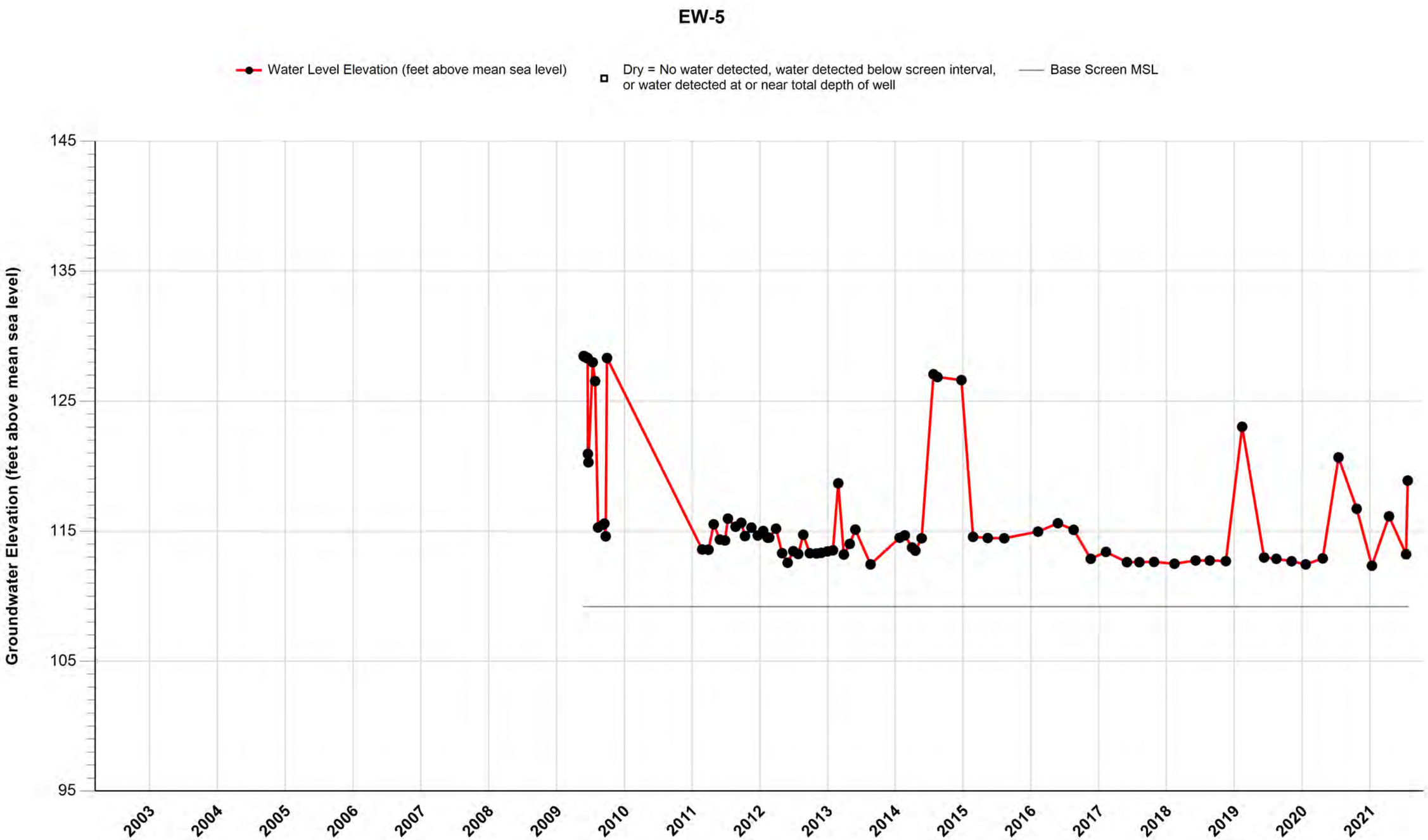
Attachment E, Figure E-3
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



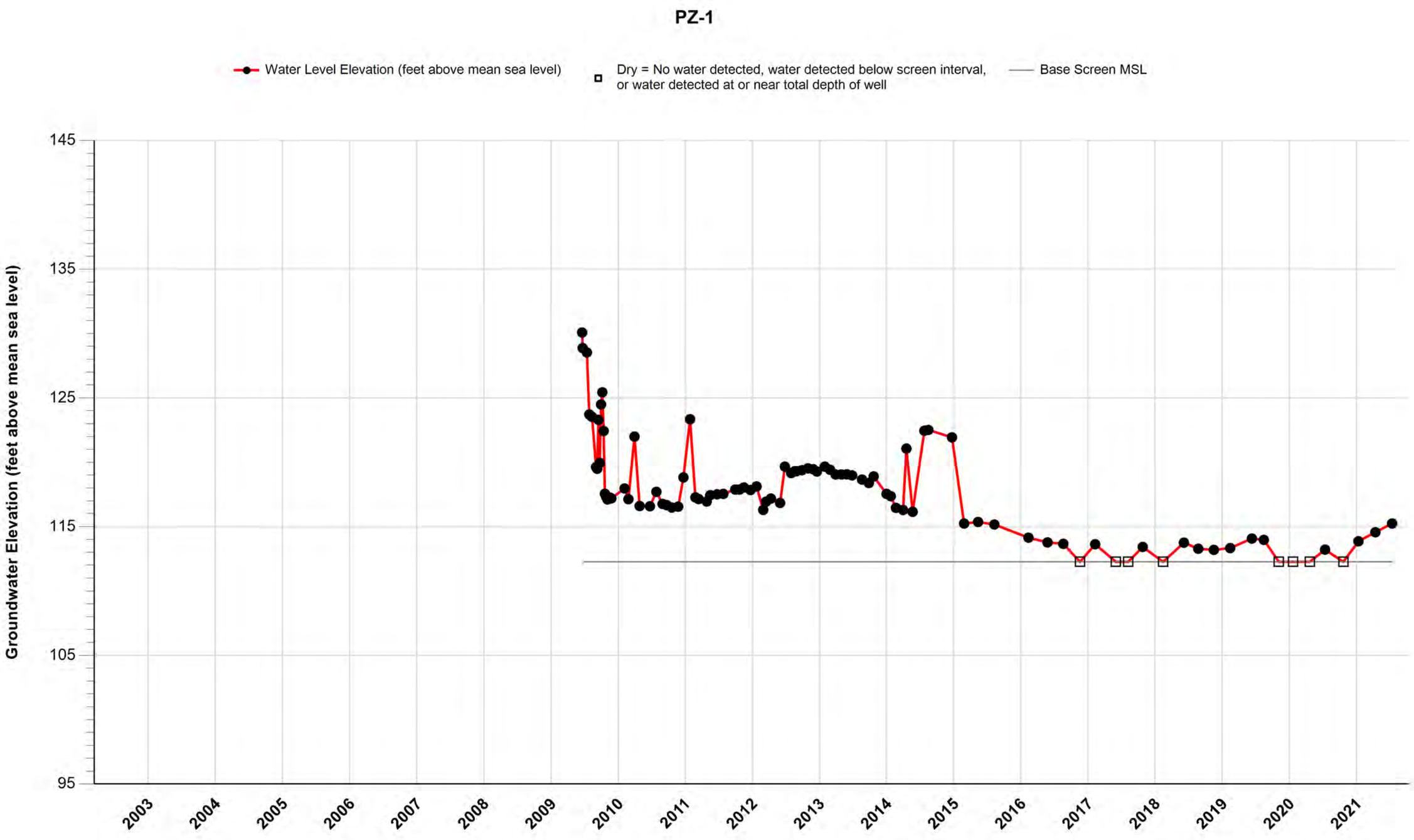
Attachment E, Figure E-4
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



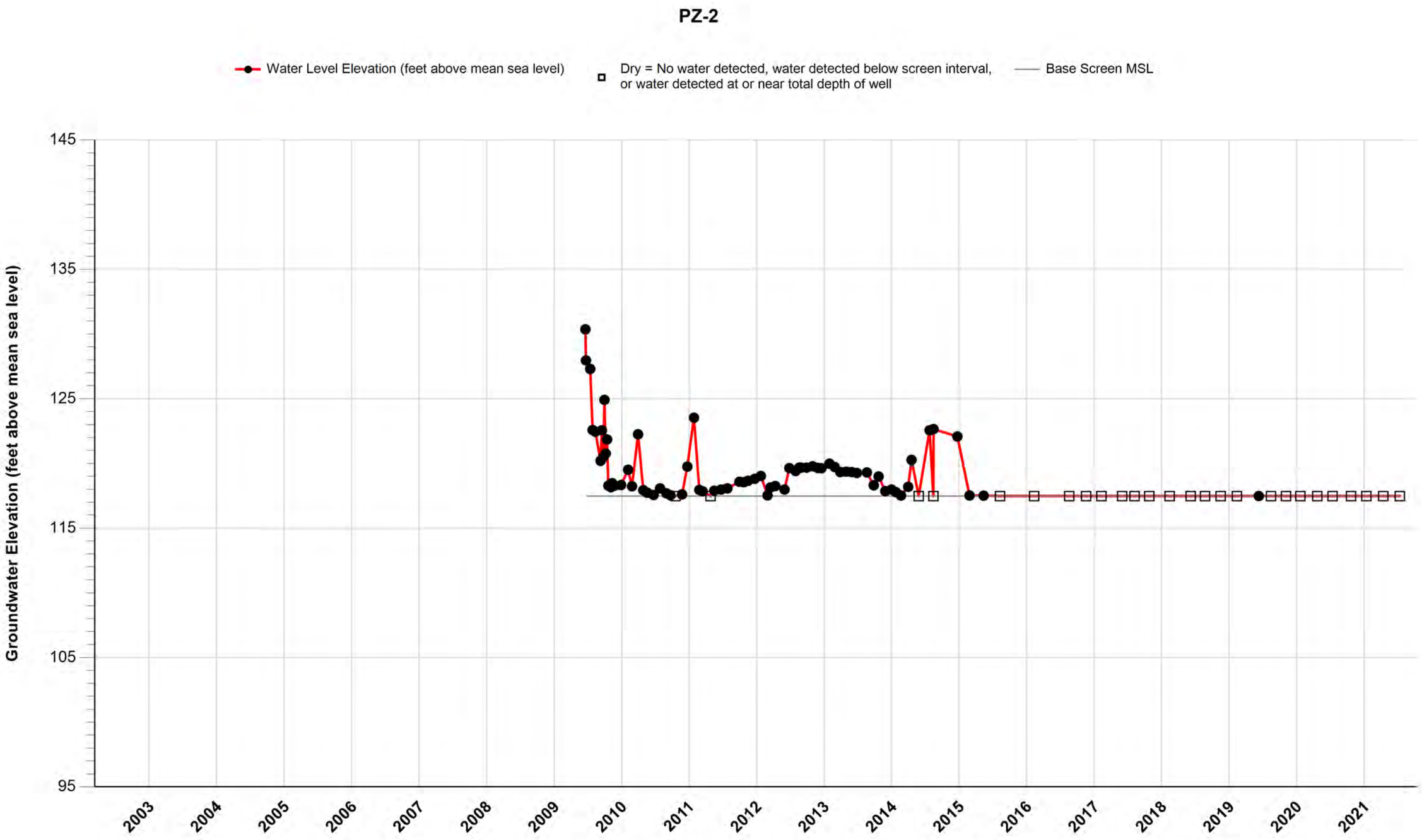
Attachment E, Figure E-5
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



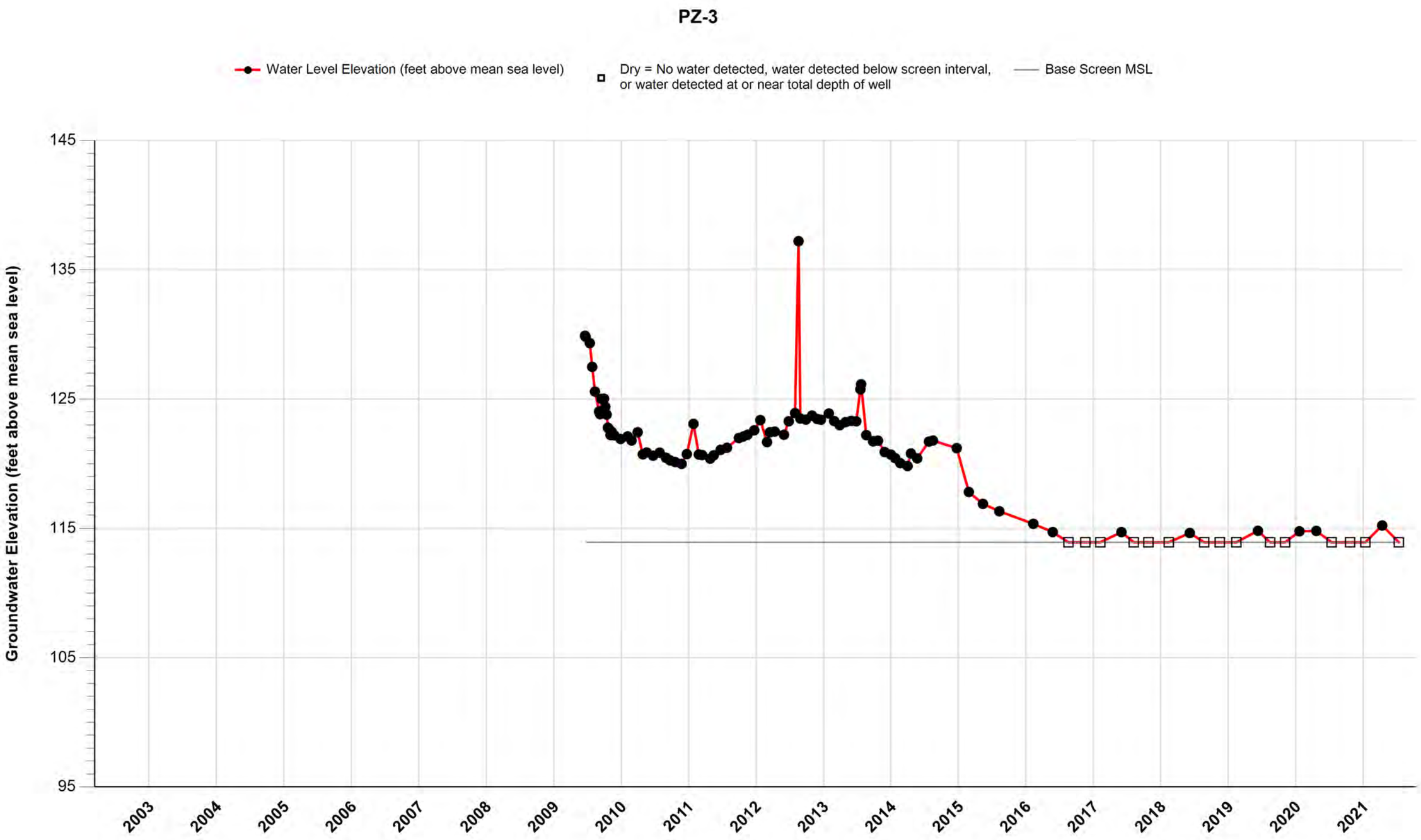
Attachment E, Figure E-6
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



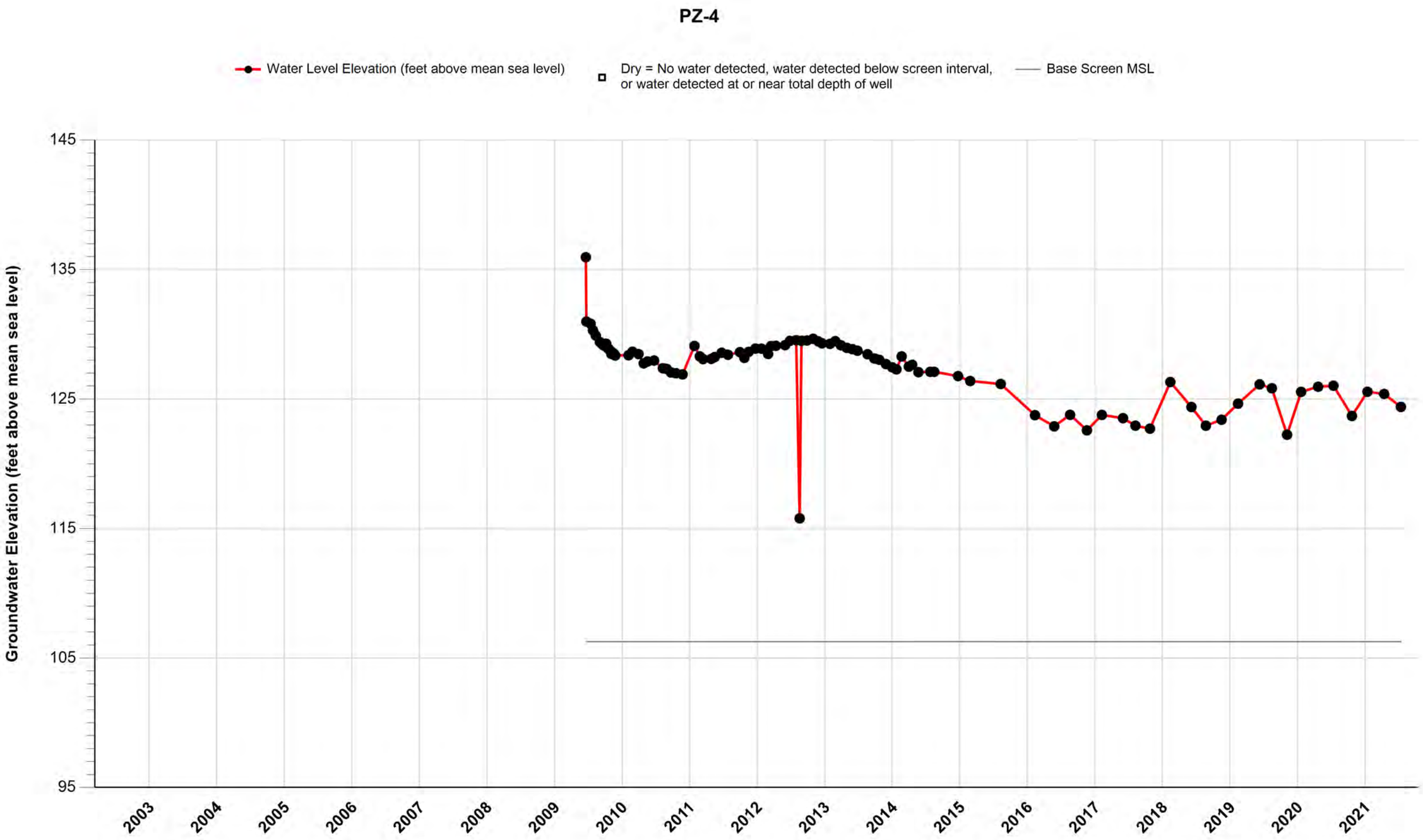
Attachment E, Figure E-7
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



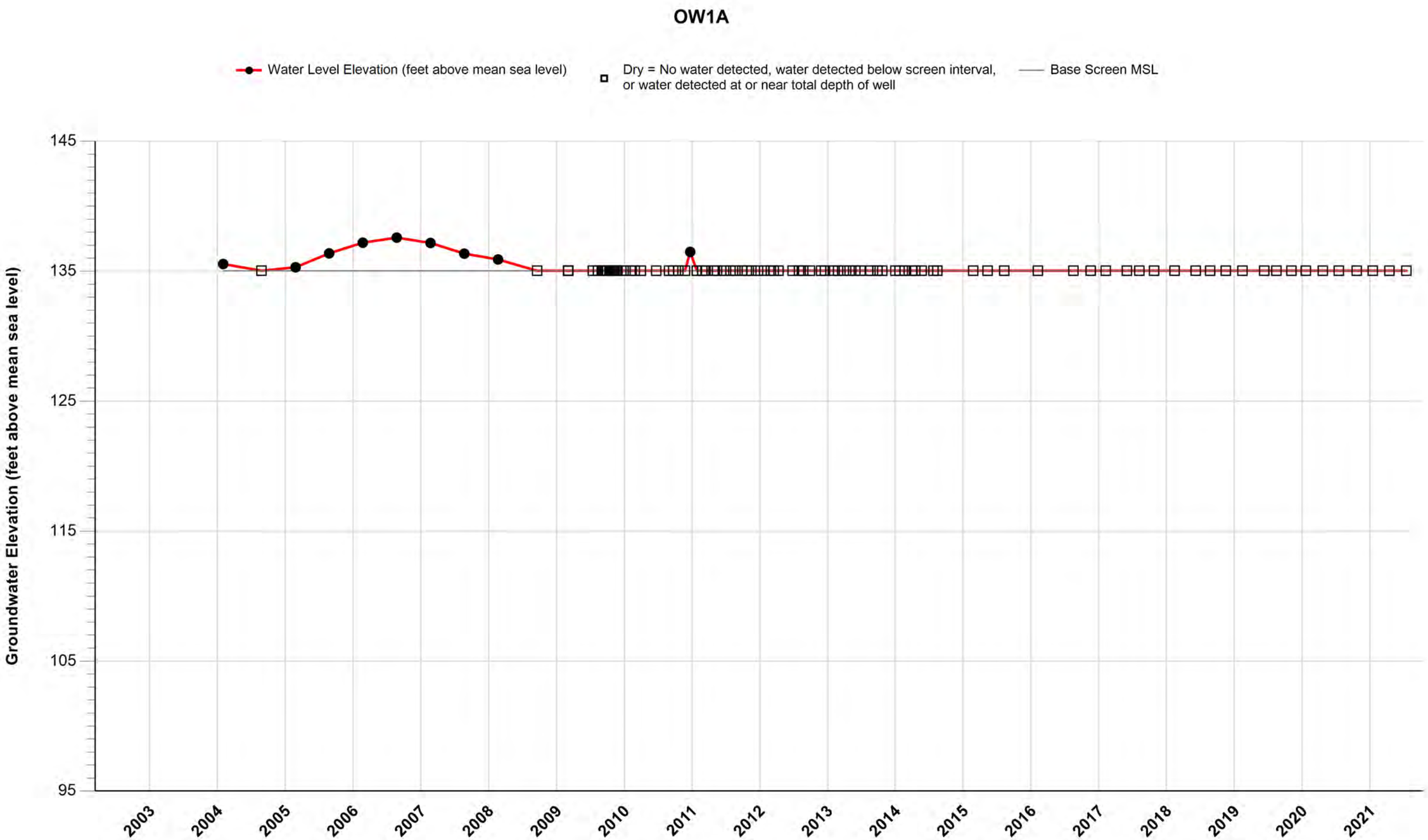
Attachment E, Figure E-8
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



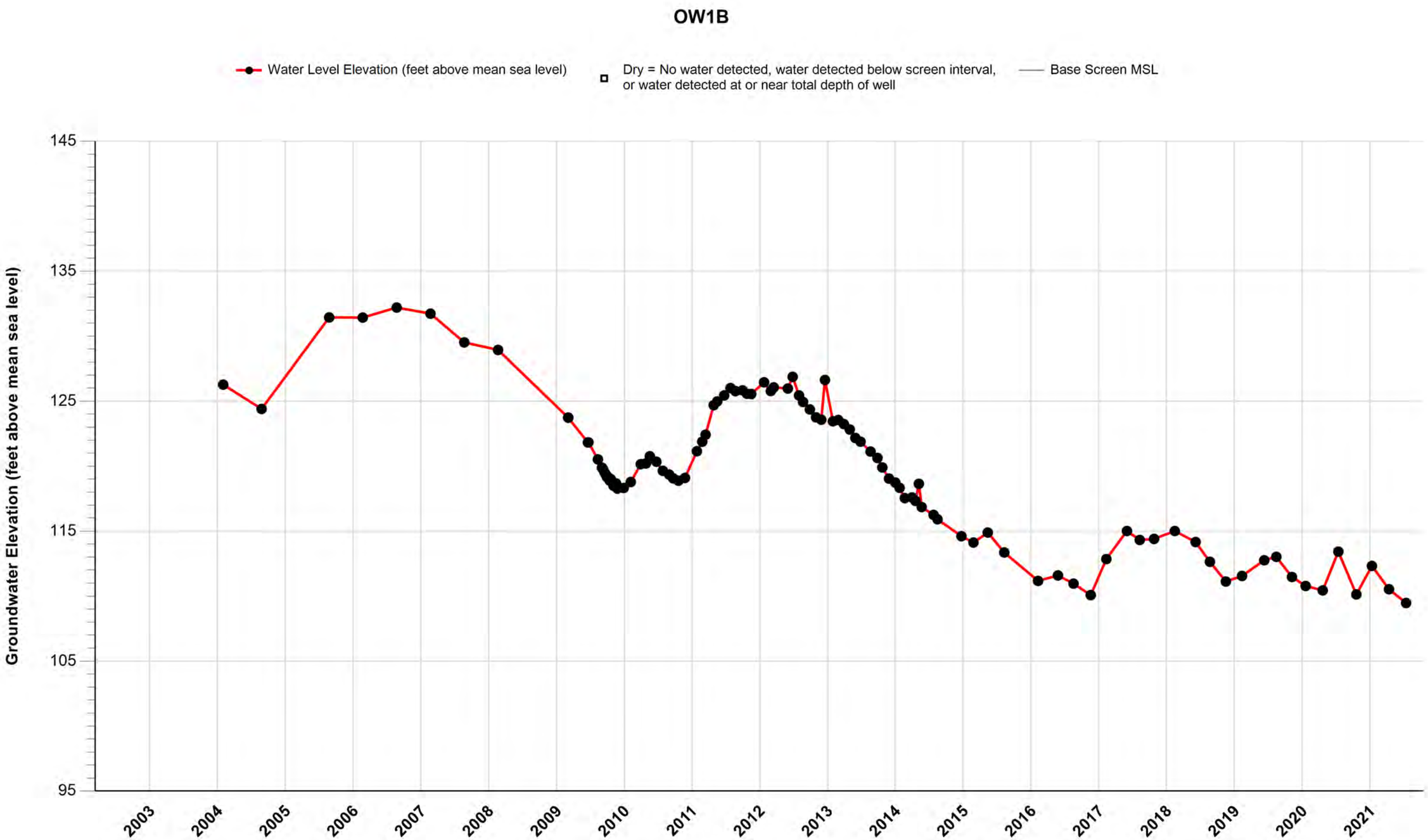
Attachment E, Figure E-9
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



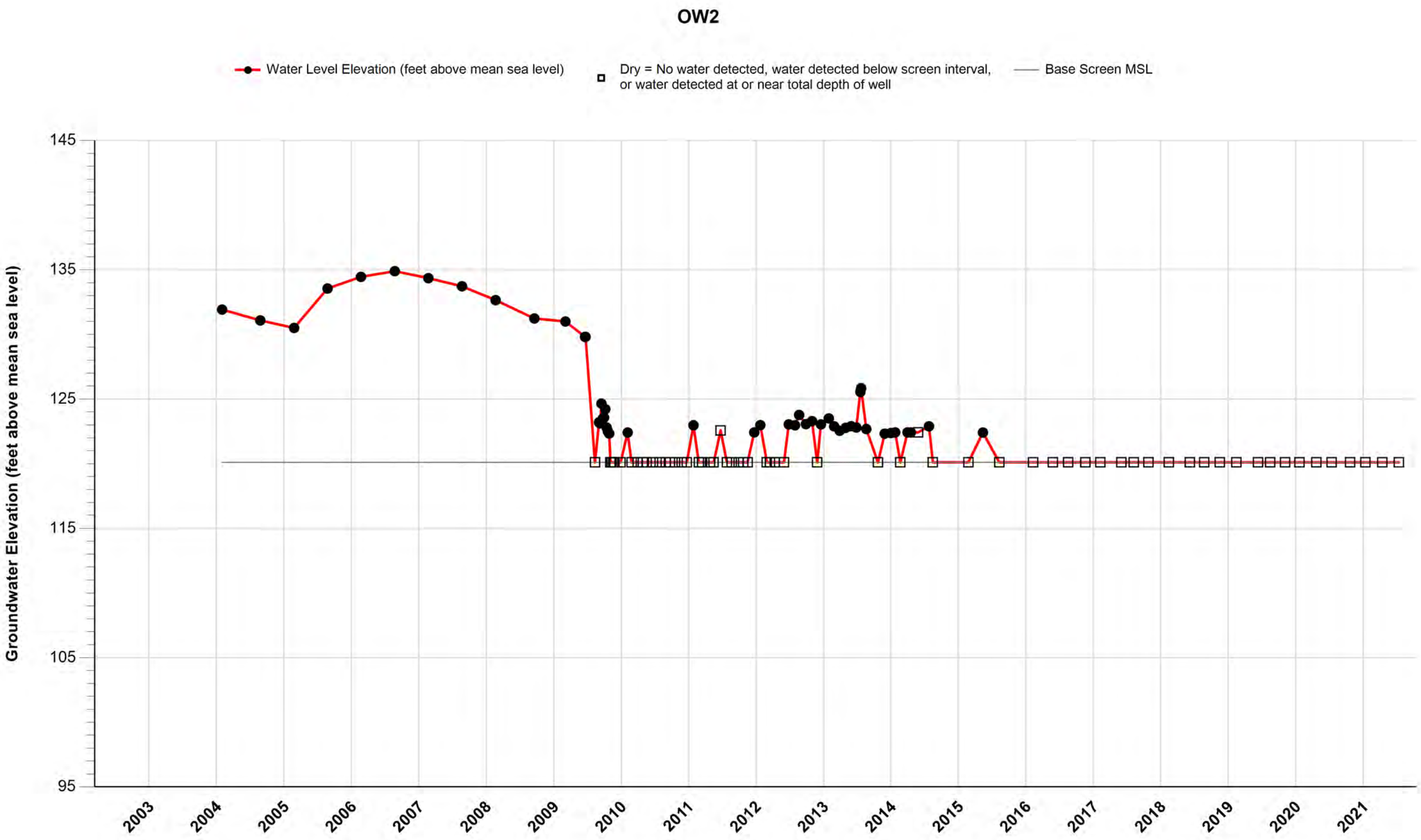
Attachment E, Figure E-10
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



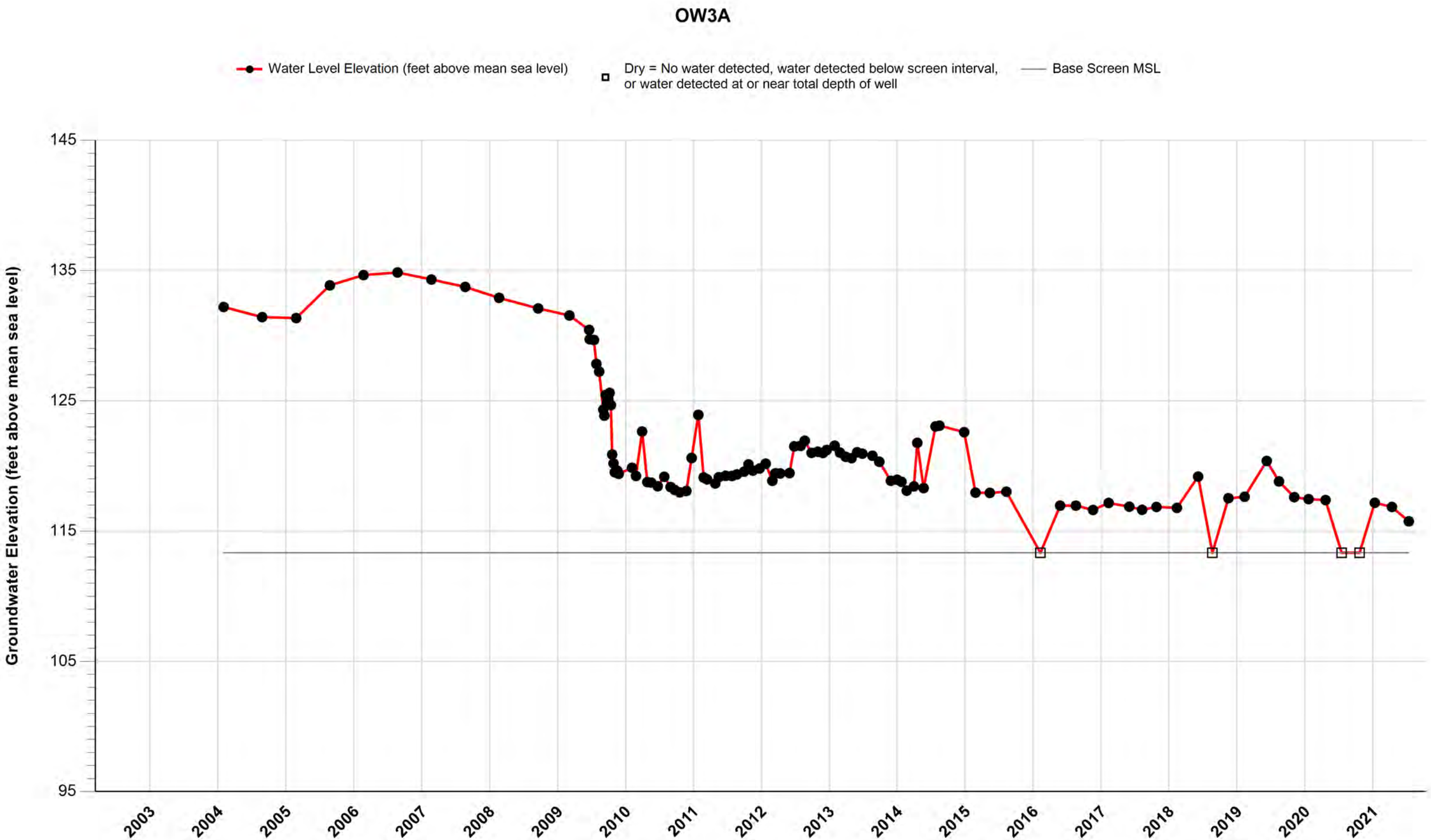
Attachment E, Figure E-11
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



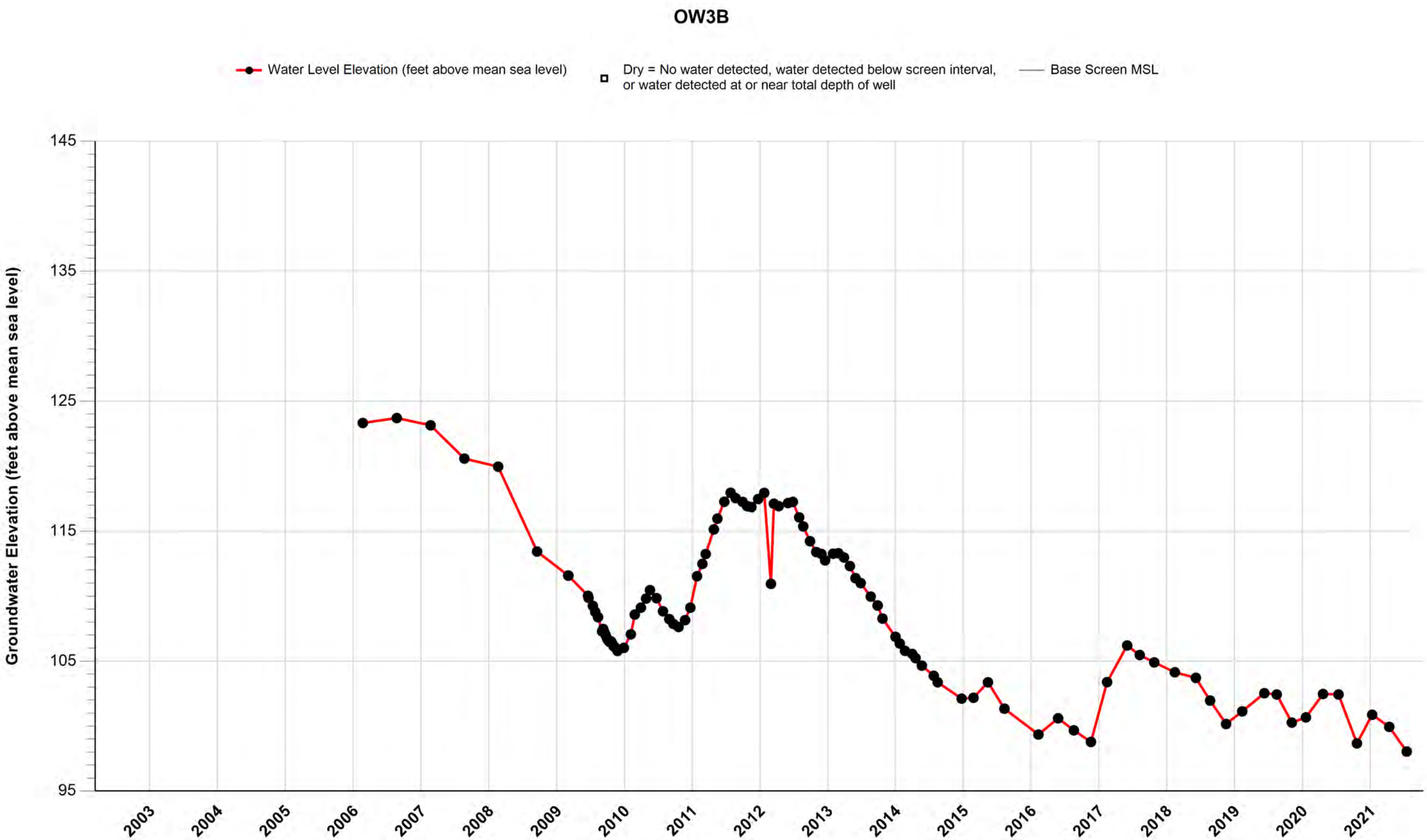
Attachment E, Figure E-12
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



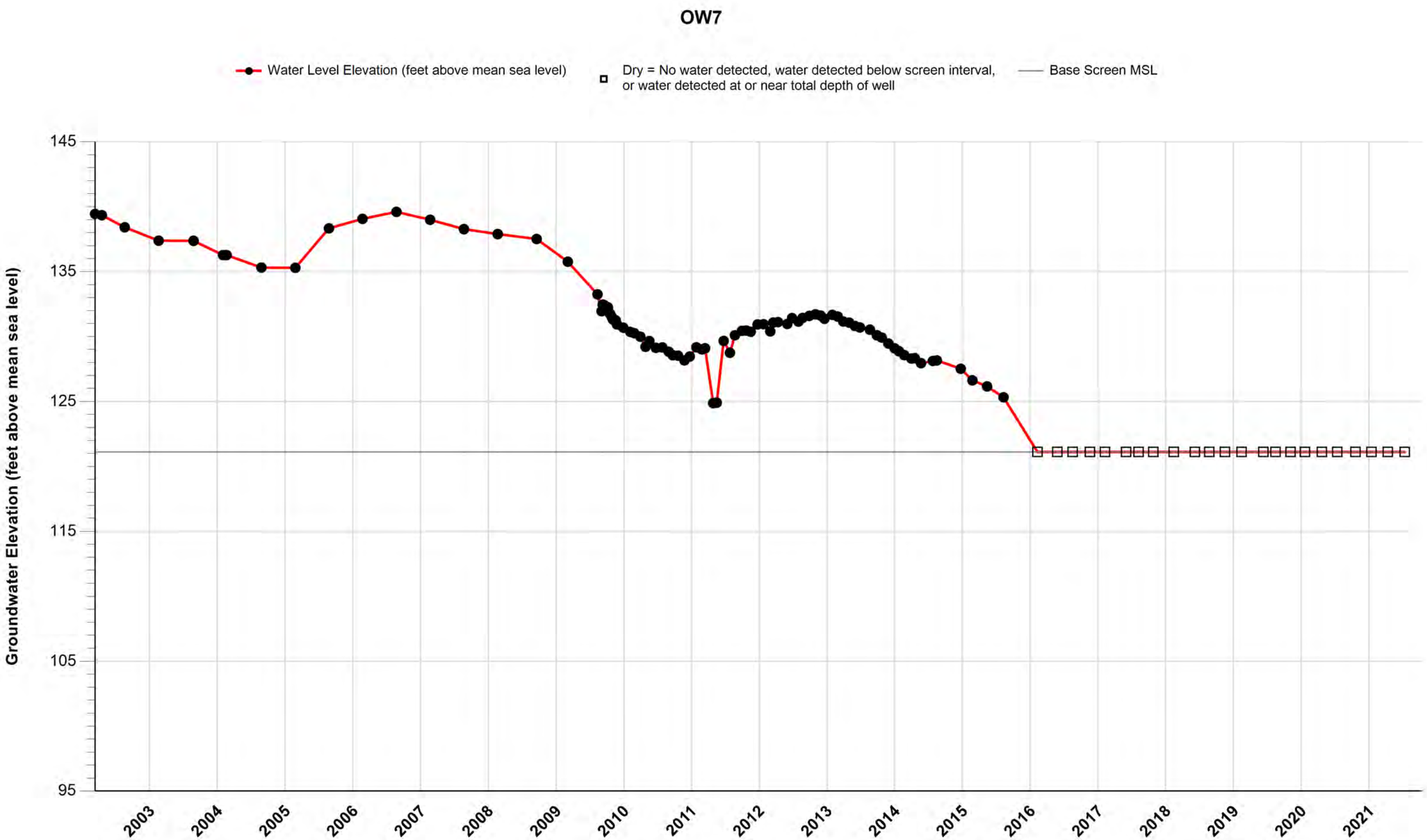
Attachment E, Figure E-13
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



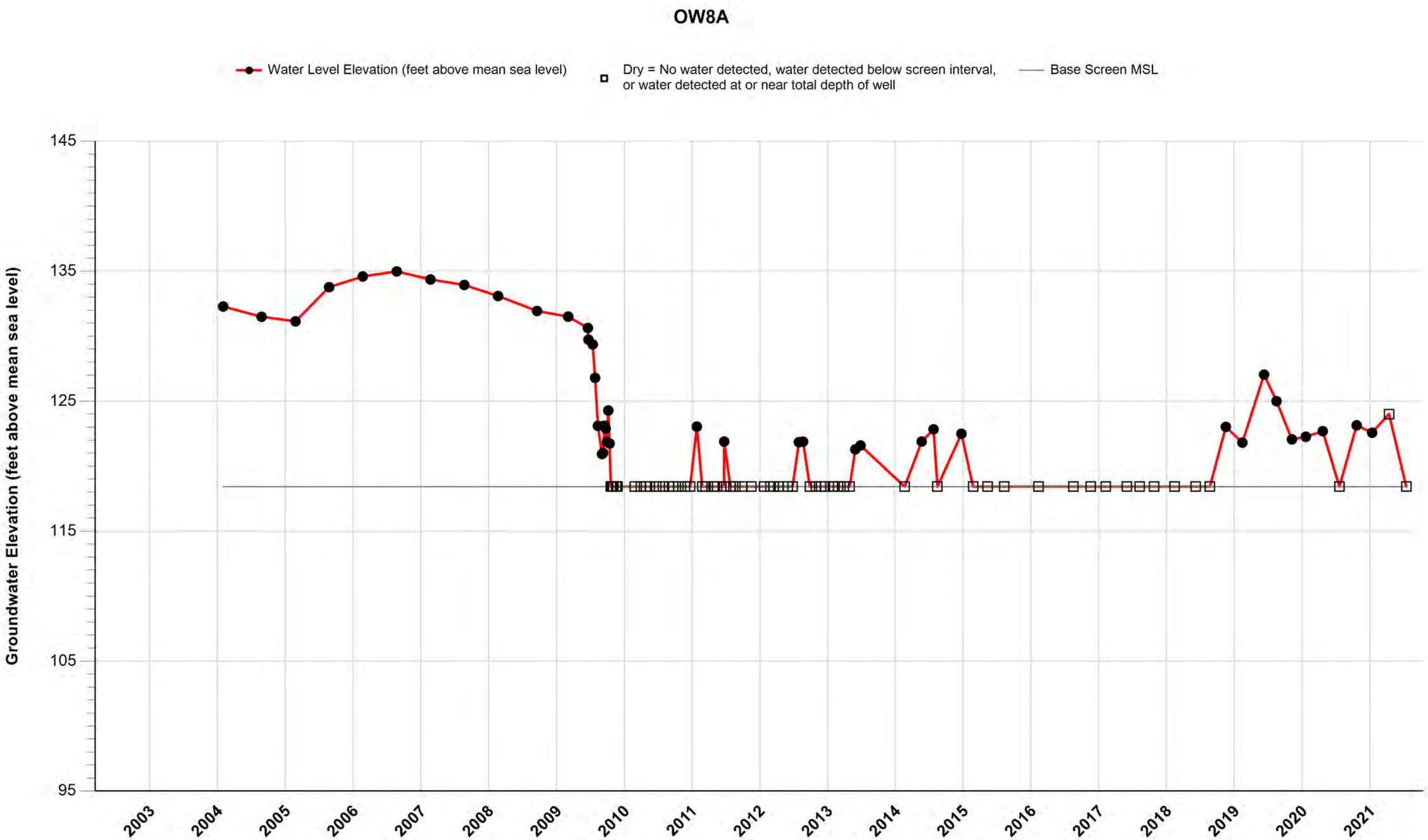
Attachment E, Figure E-14
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



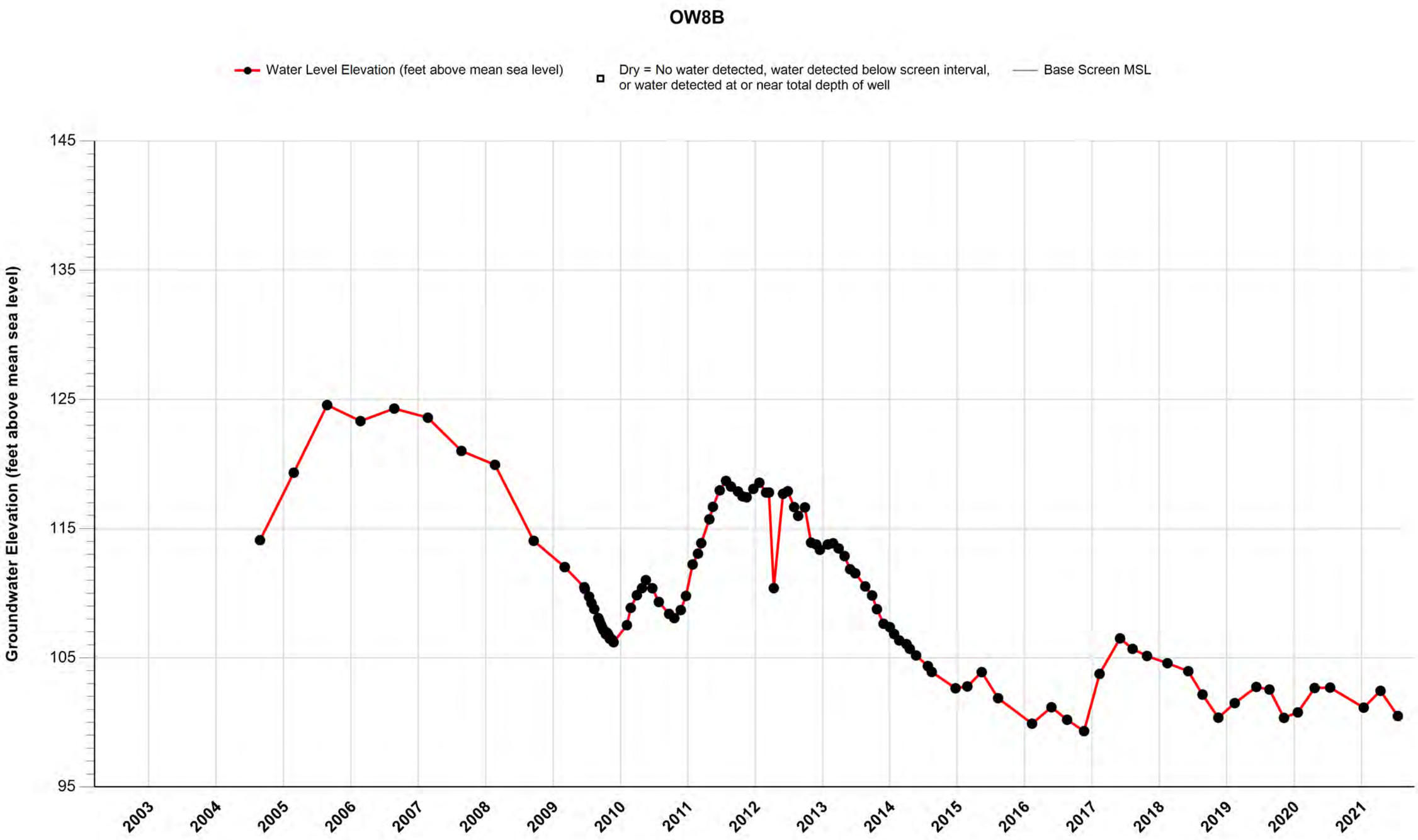
Attachment E, Figure E-15
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



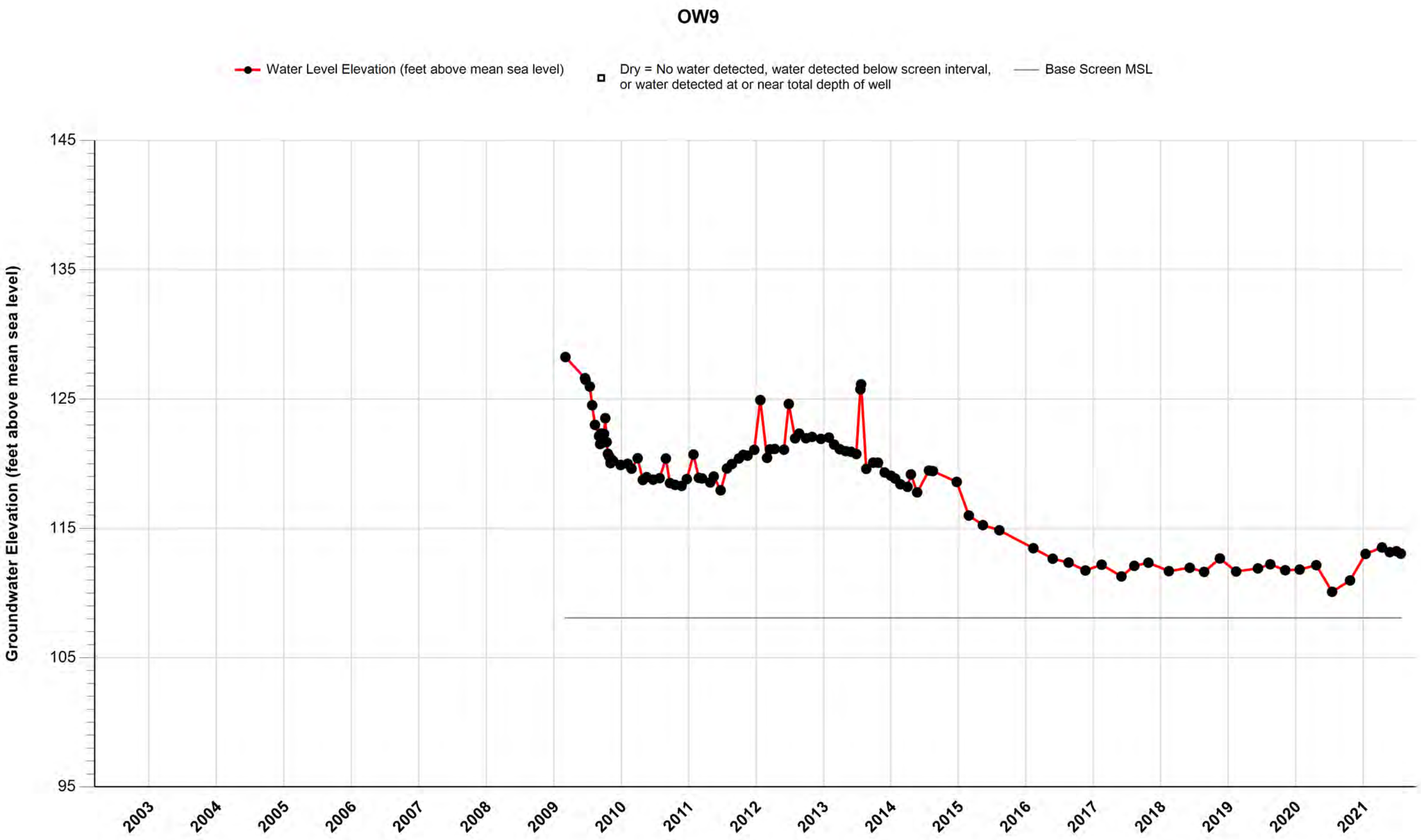
Attachment E, Figure E-16
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



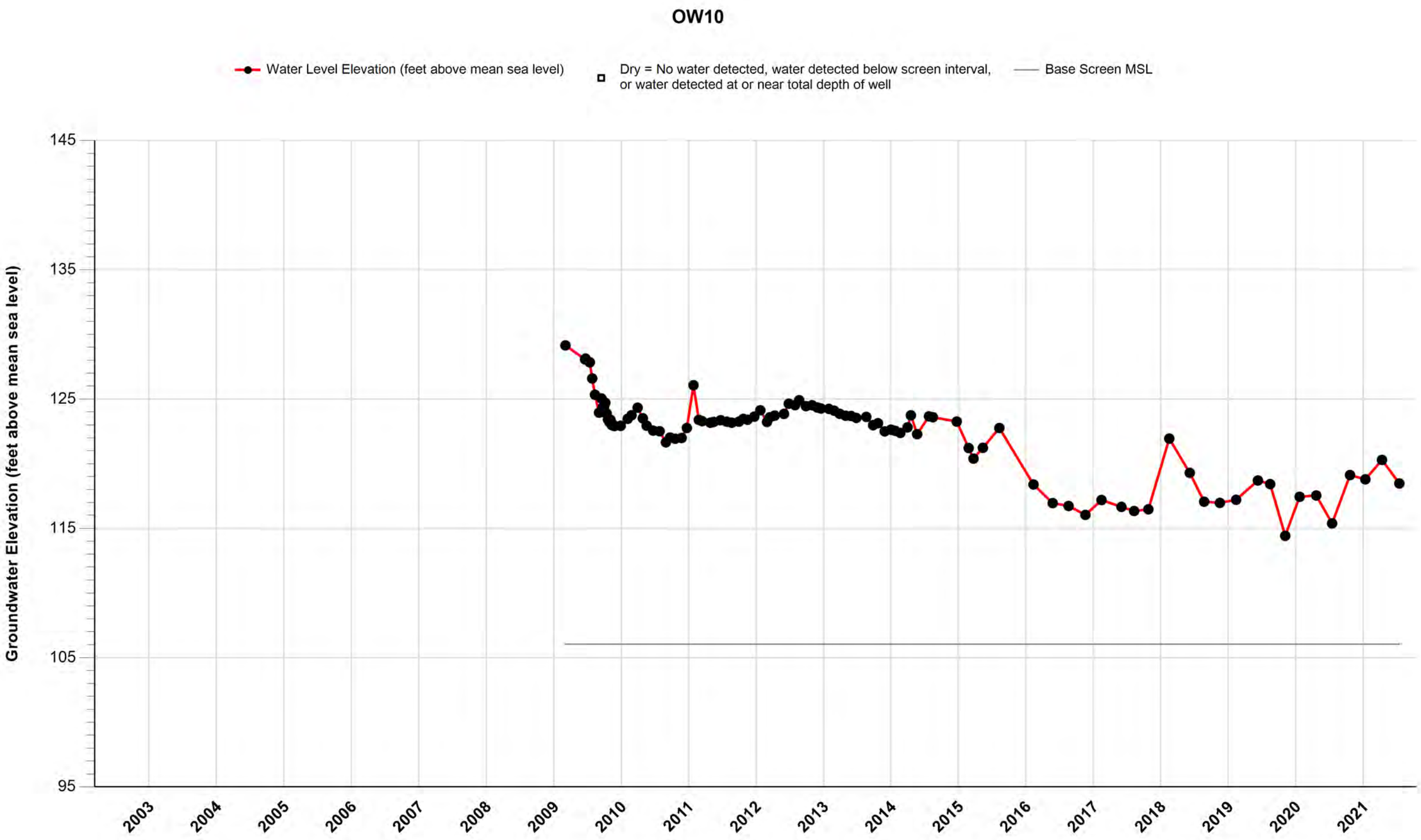
Attachment E, Figure E-17
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



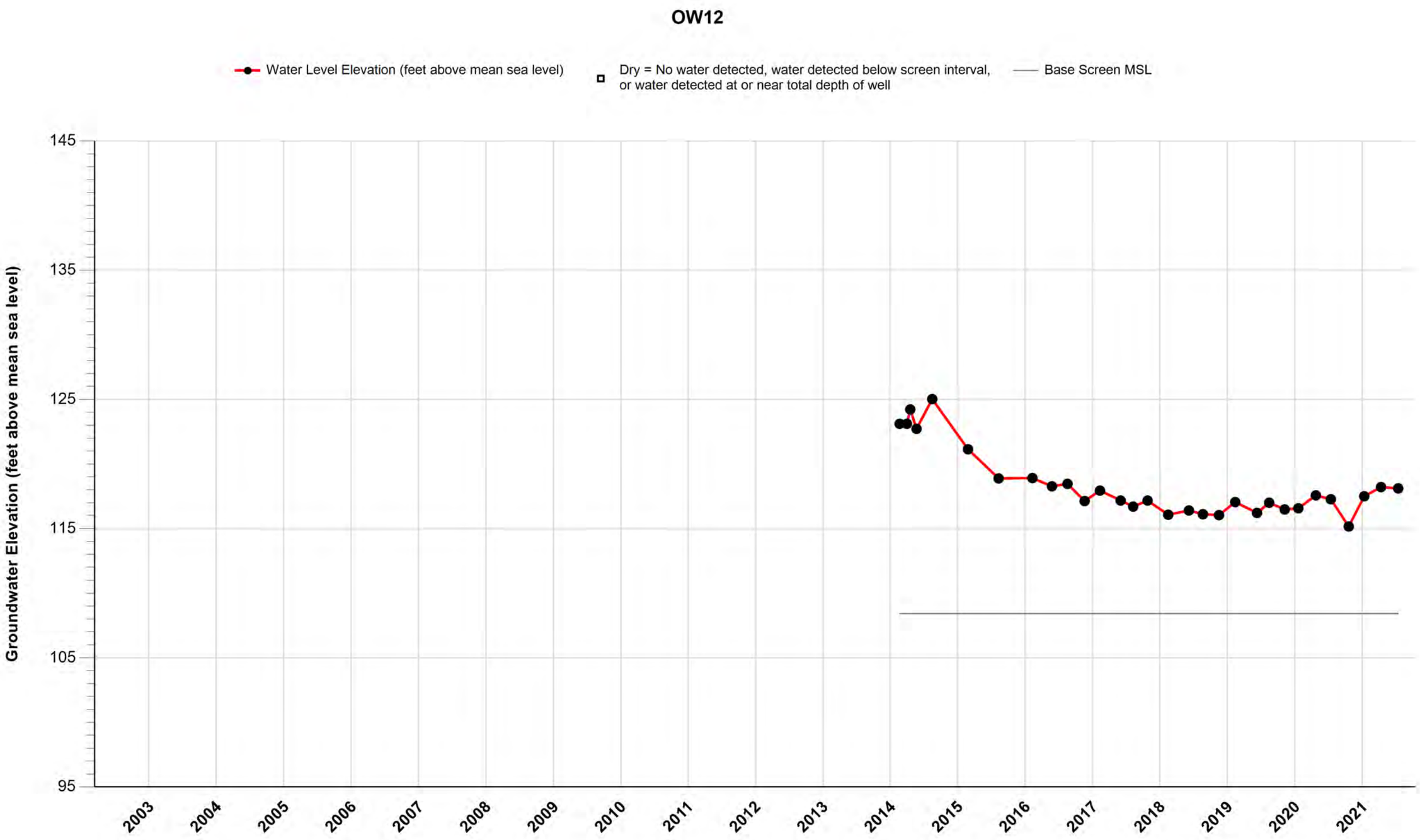
Attachment E, Figure E-18
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



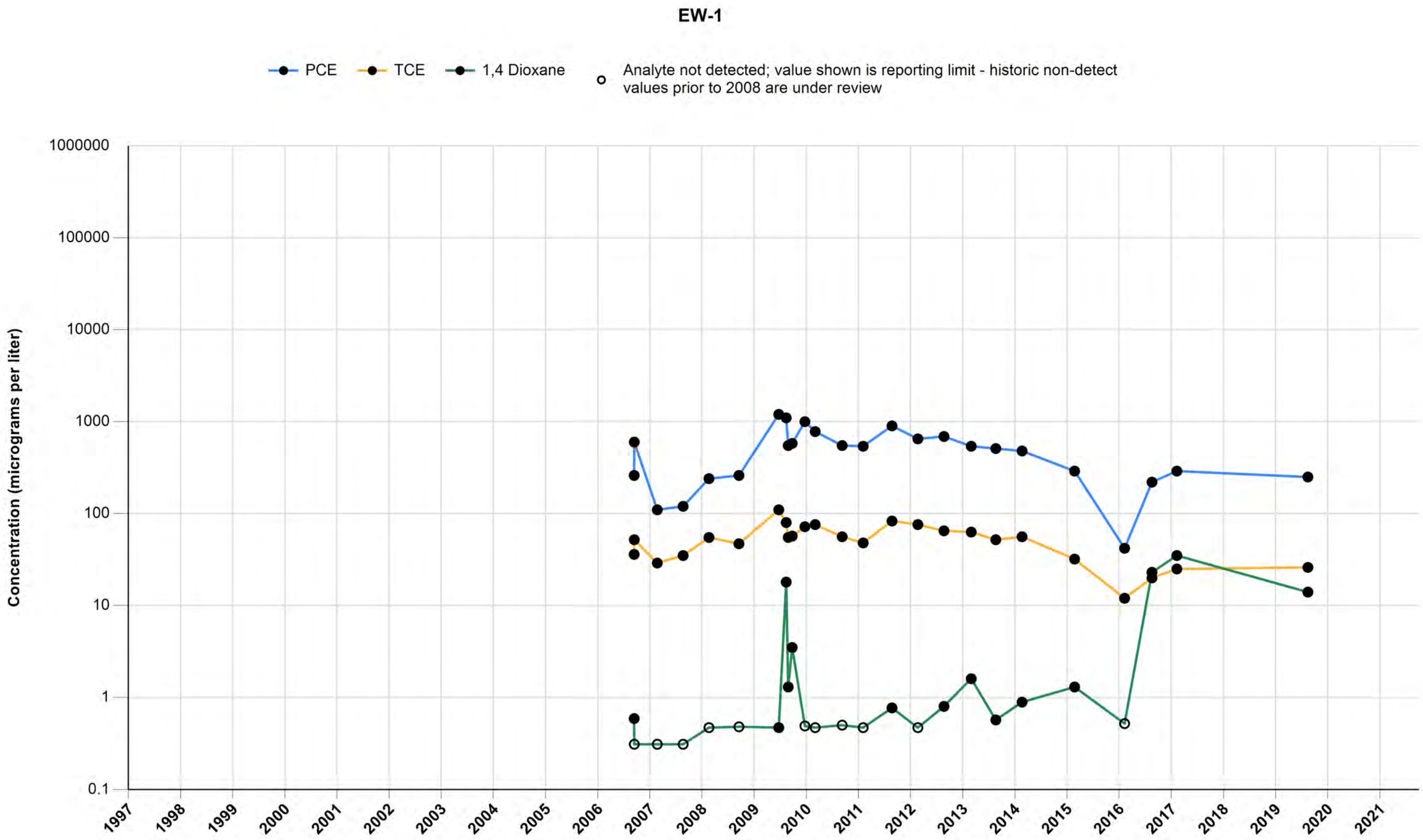
Attachment E, Figure E-19
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



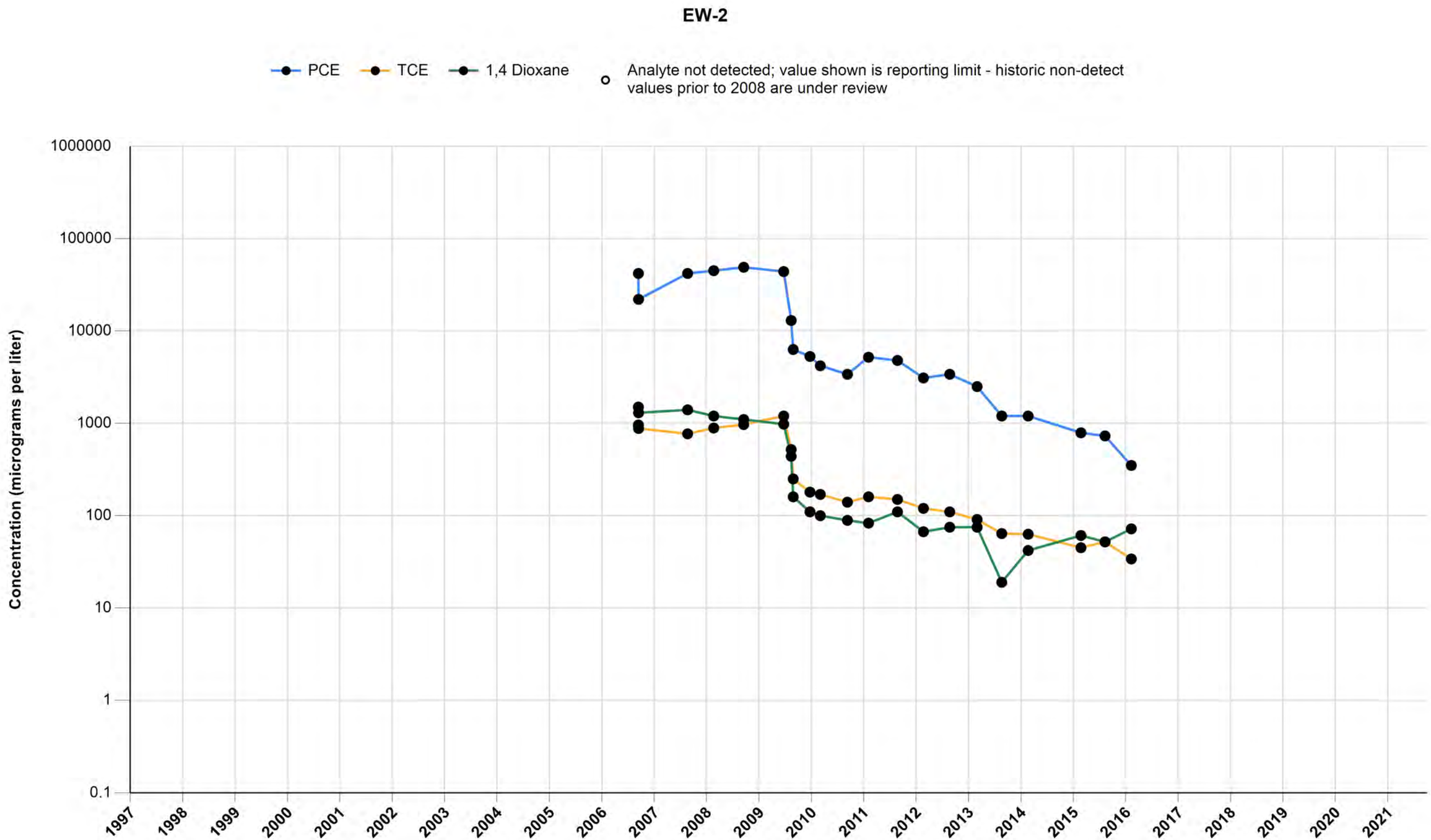
Attachment E, Figure E-20
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
PSVP Piezometric Data



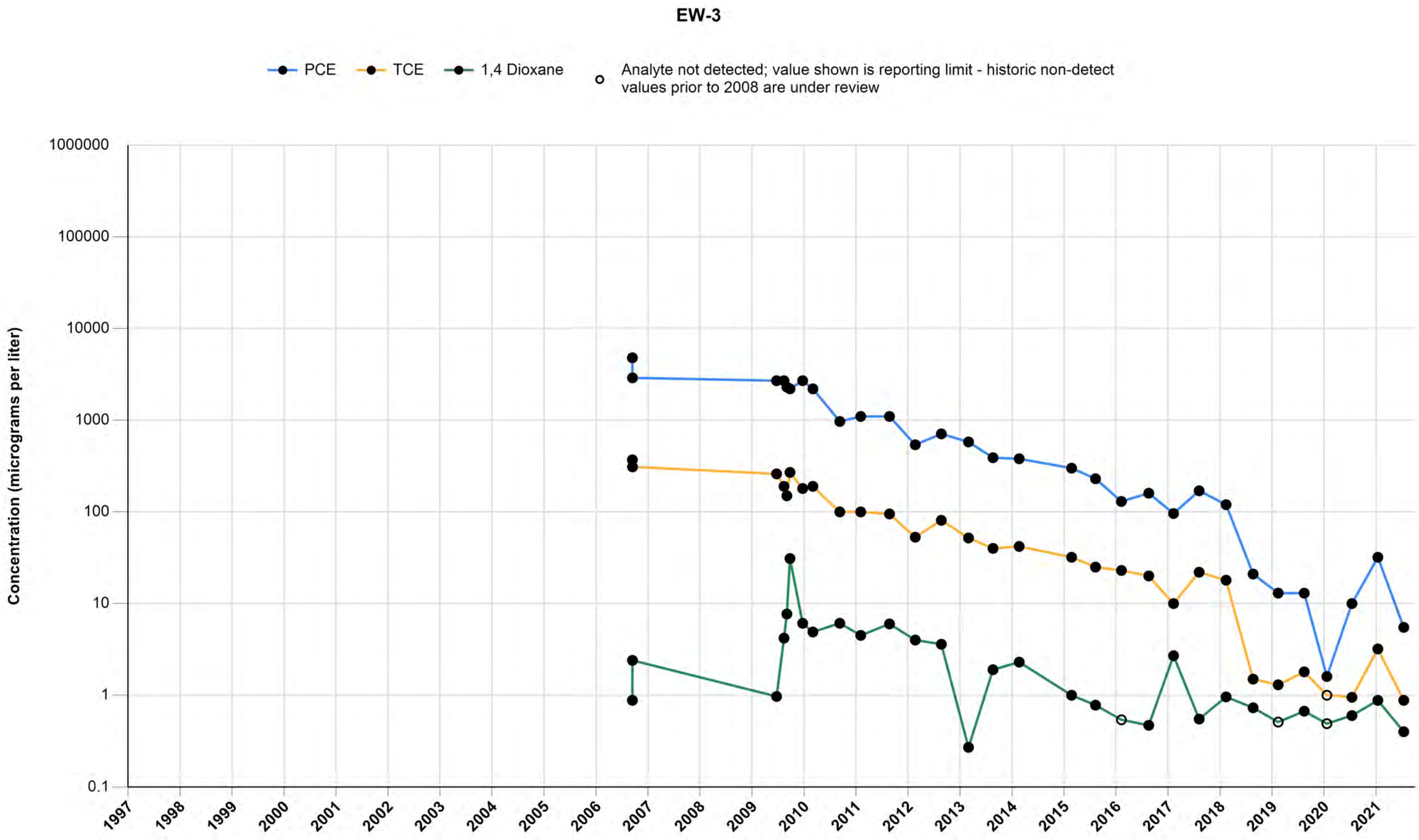
Attachment E, Figure E-21
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



Attachment E, Figure E-22
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

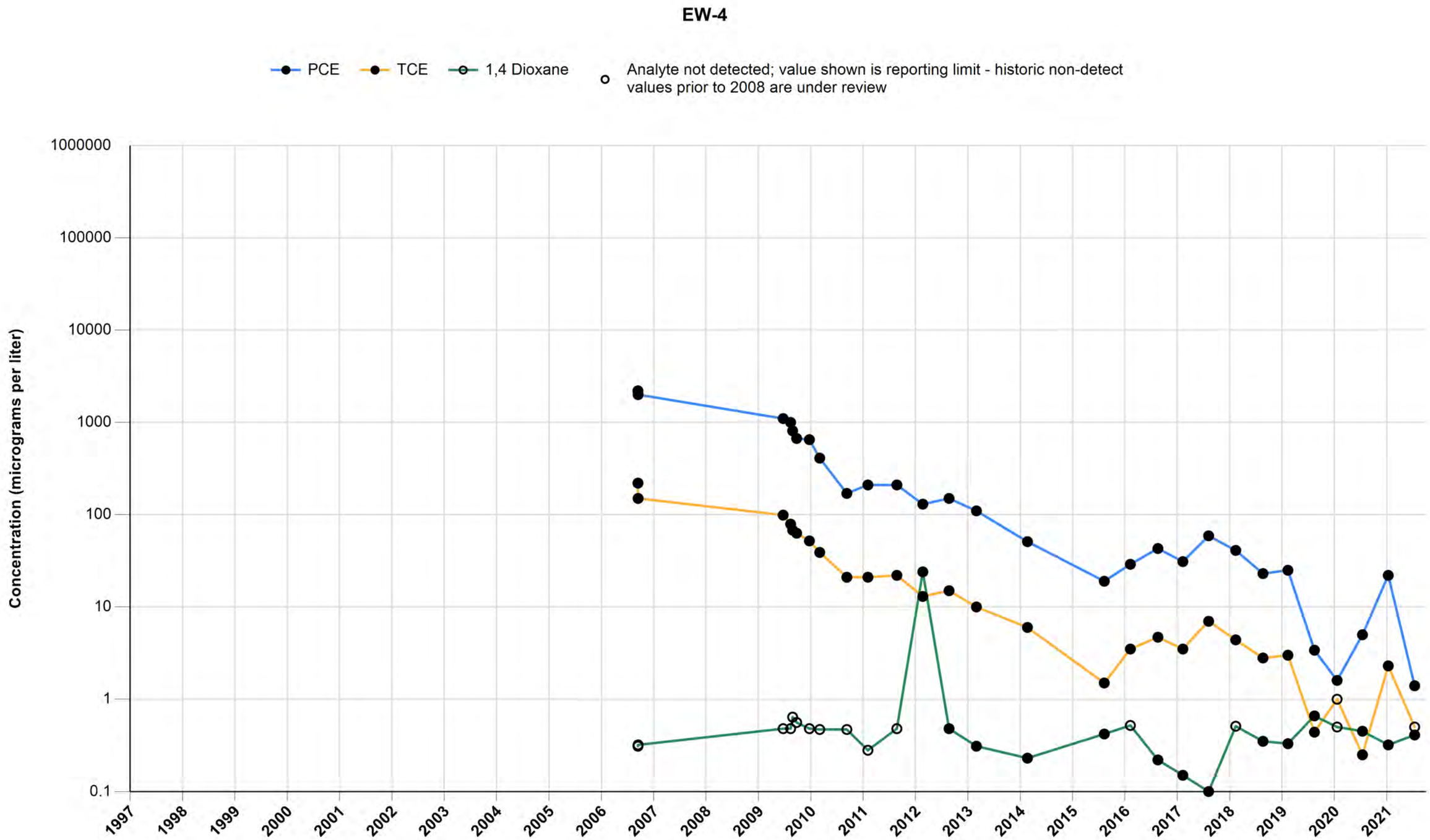


Attachment E, Figure E-23
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



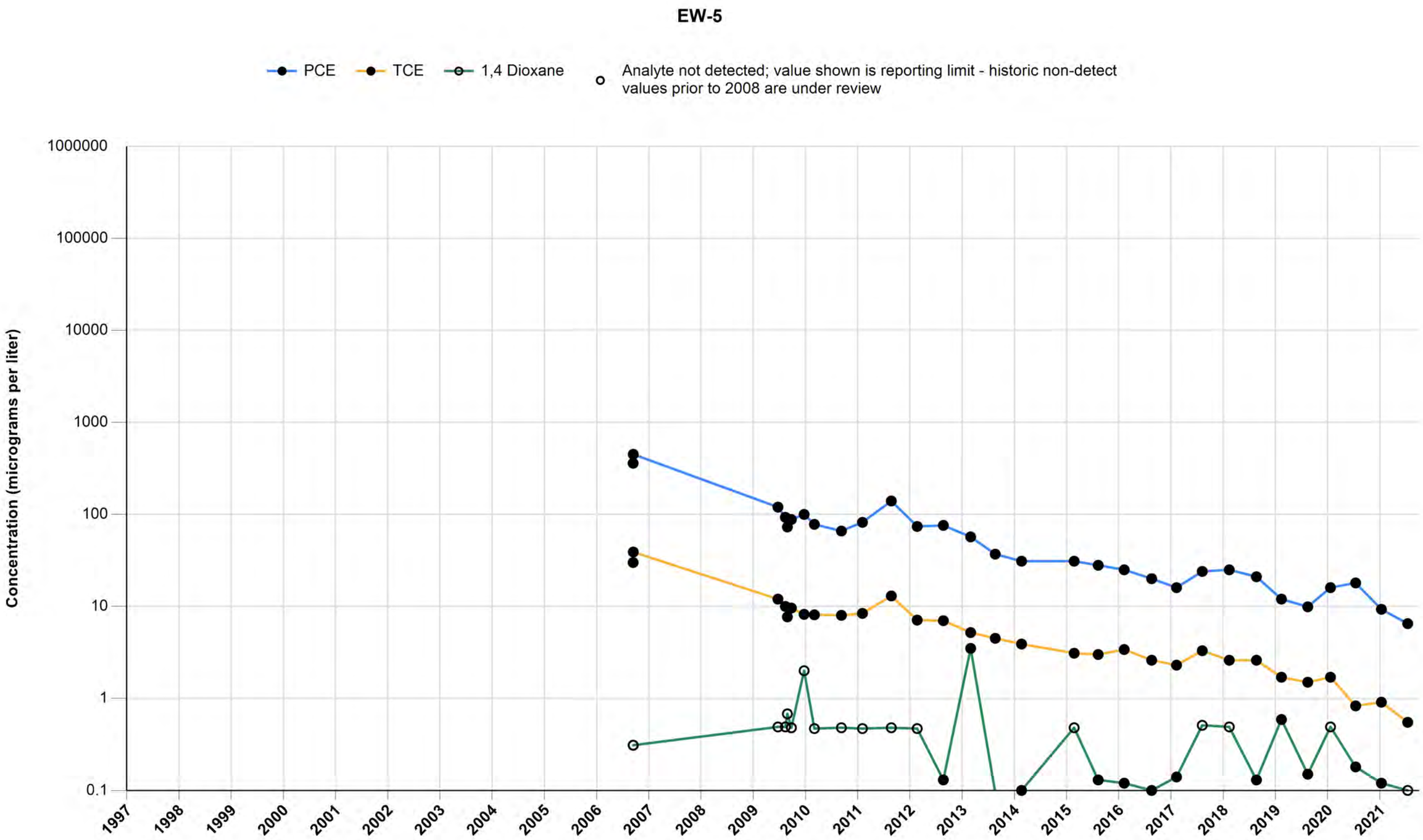
Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-24
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



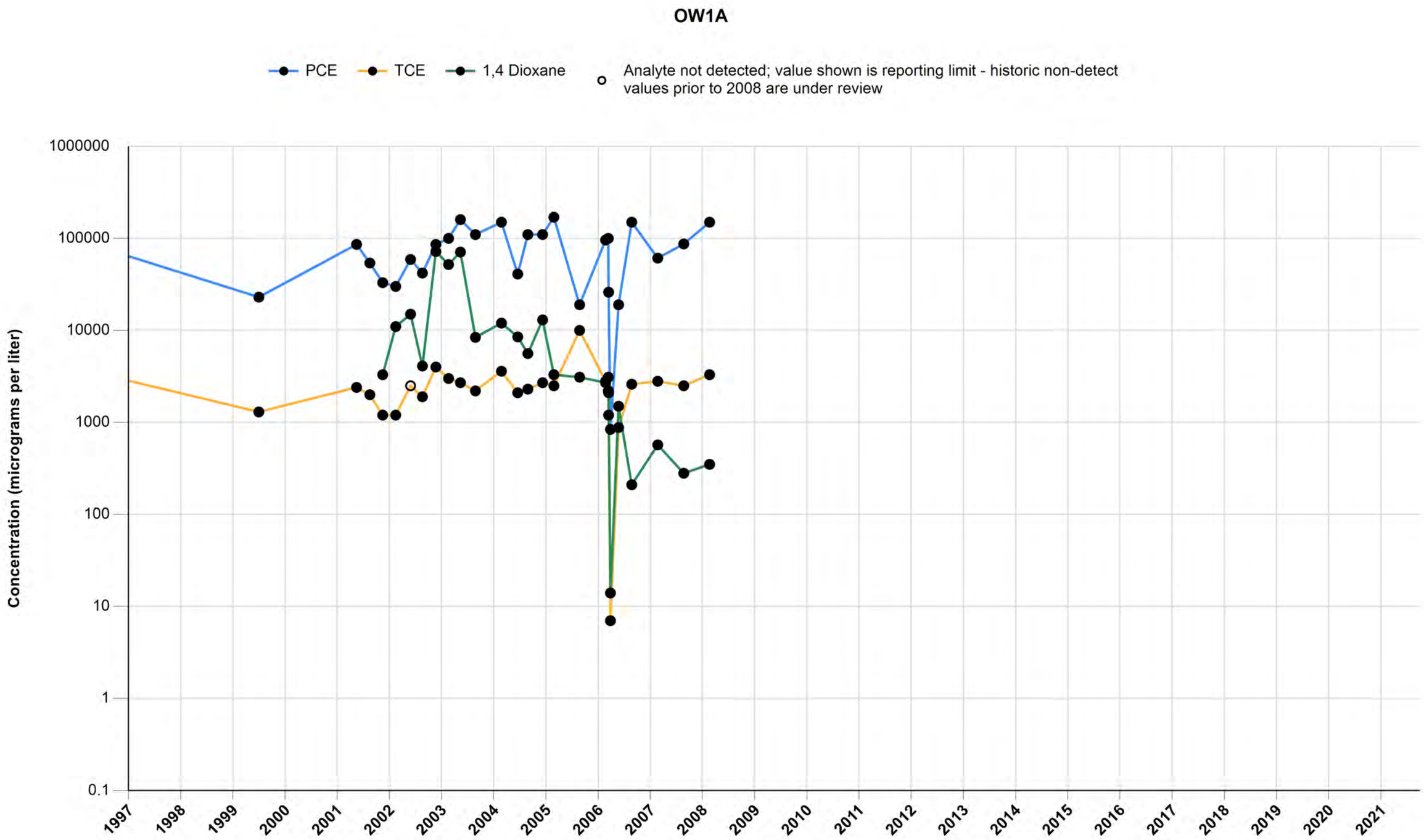
Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-25
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

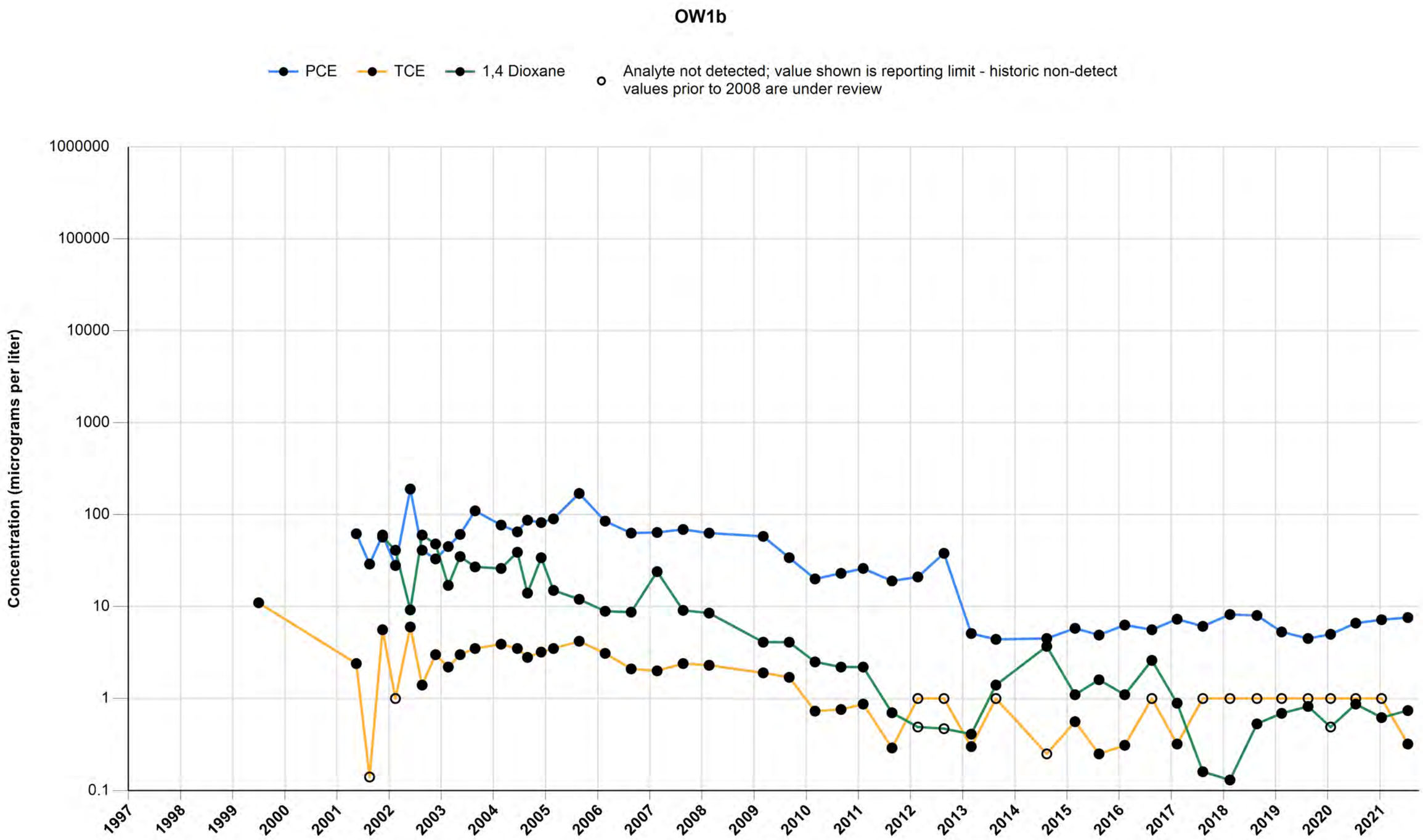


Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-26
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

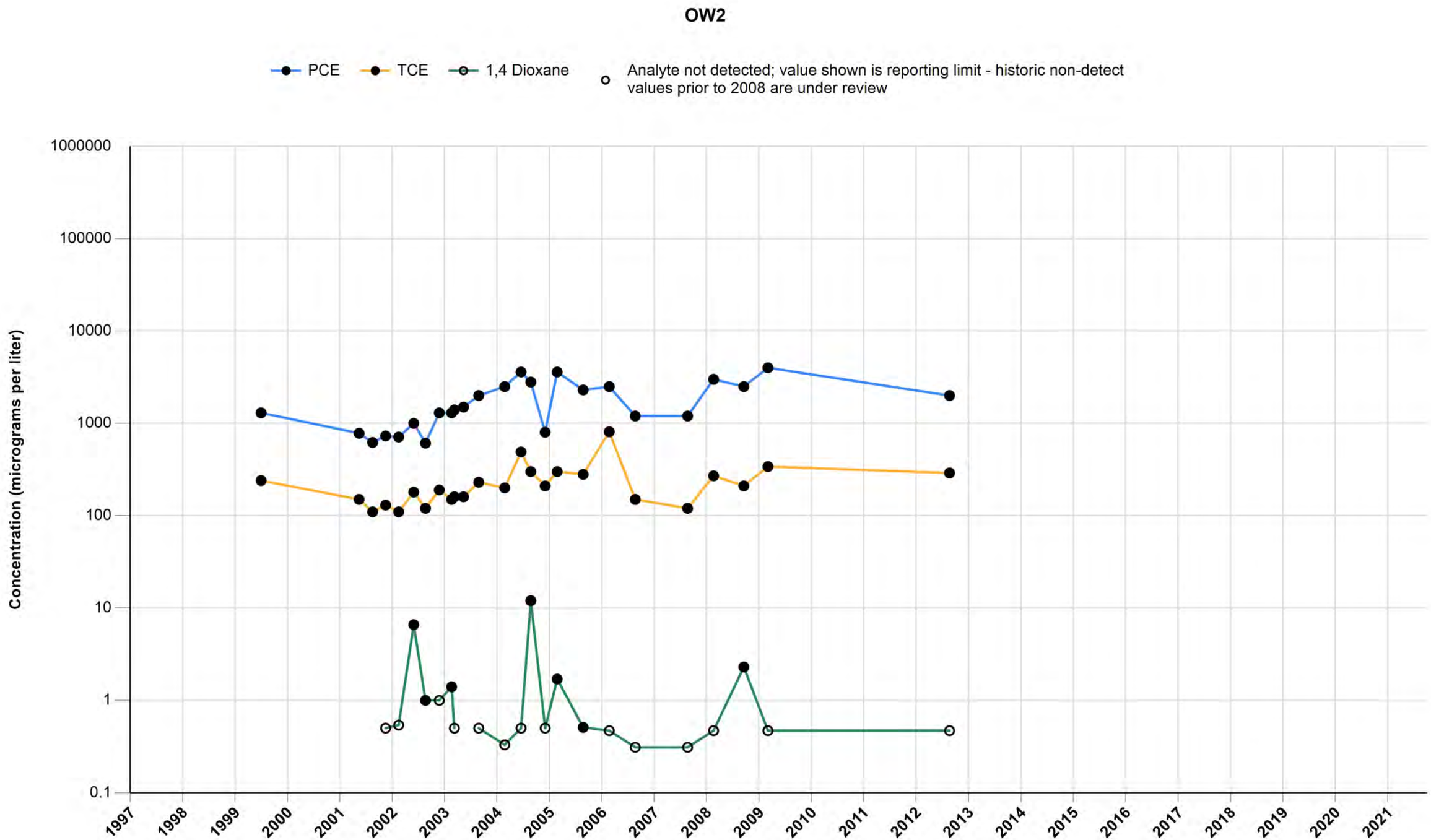


Attachment E, Figure E-27
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

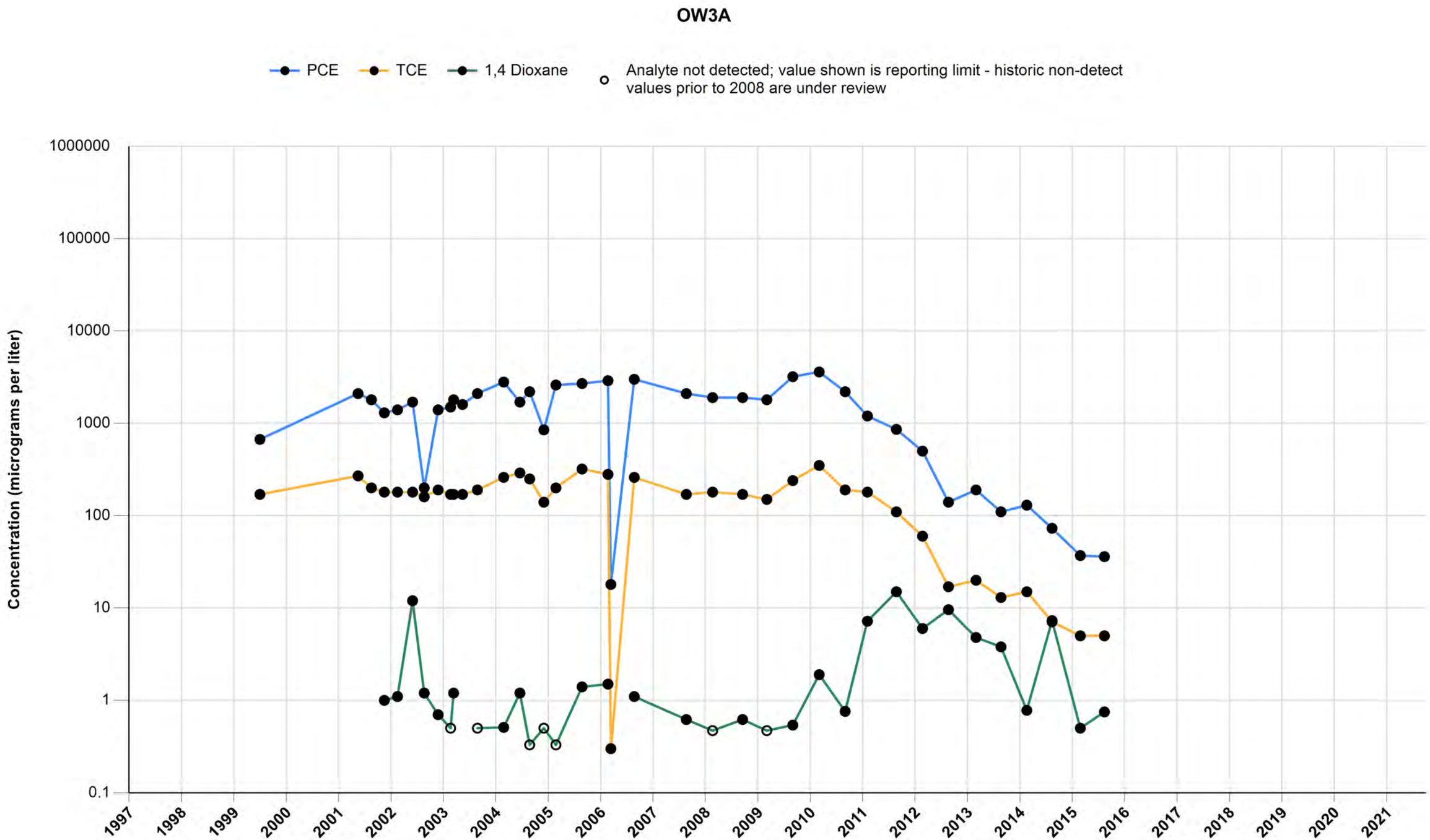


Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

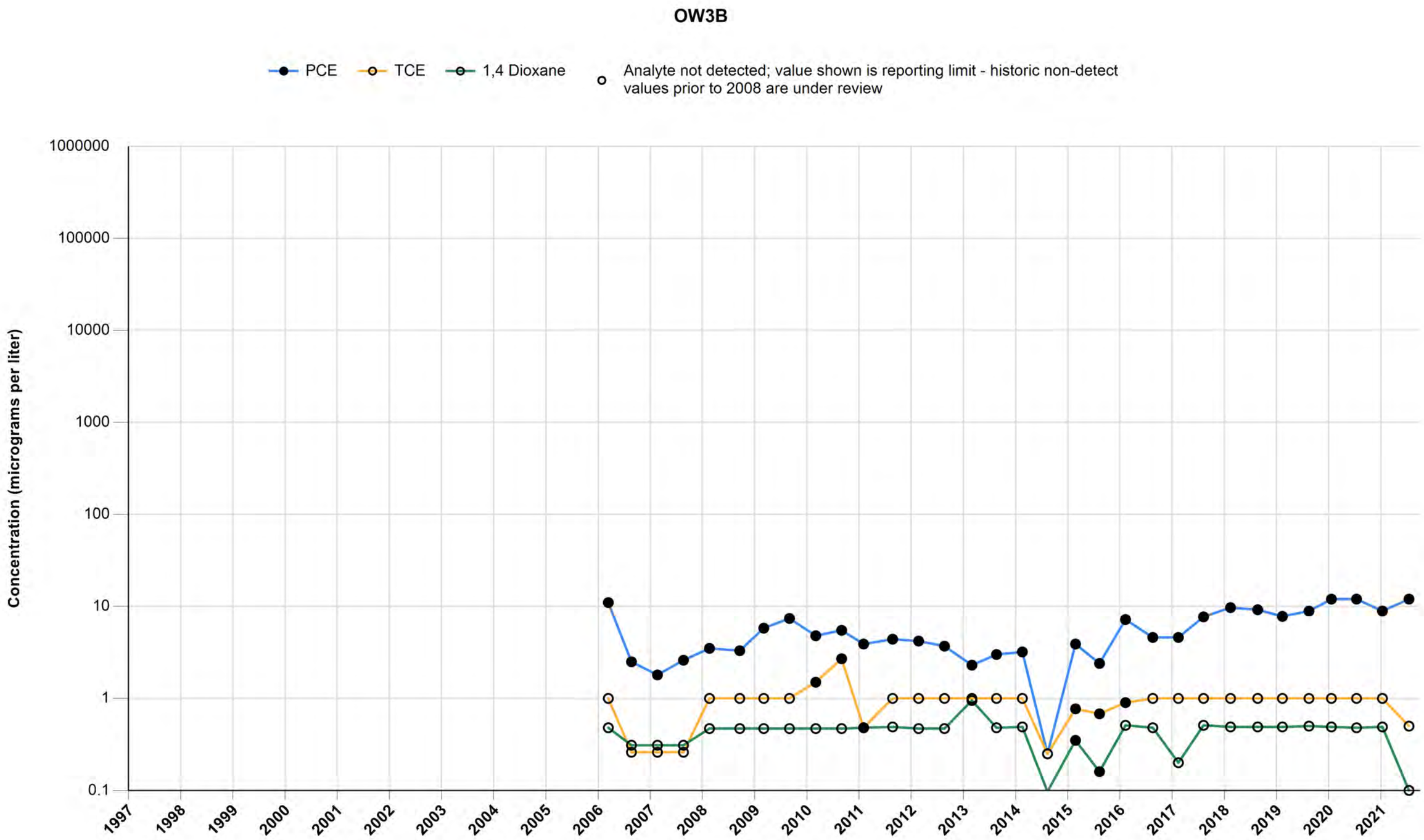
Attachment E, Figure E-28
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



Attachment E, Figure E-29
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

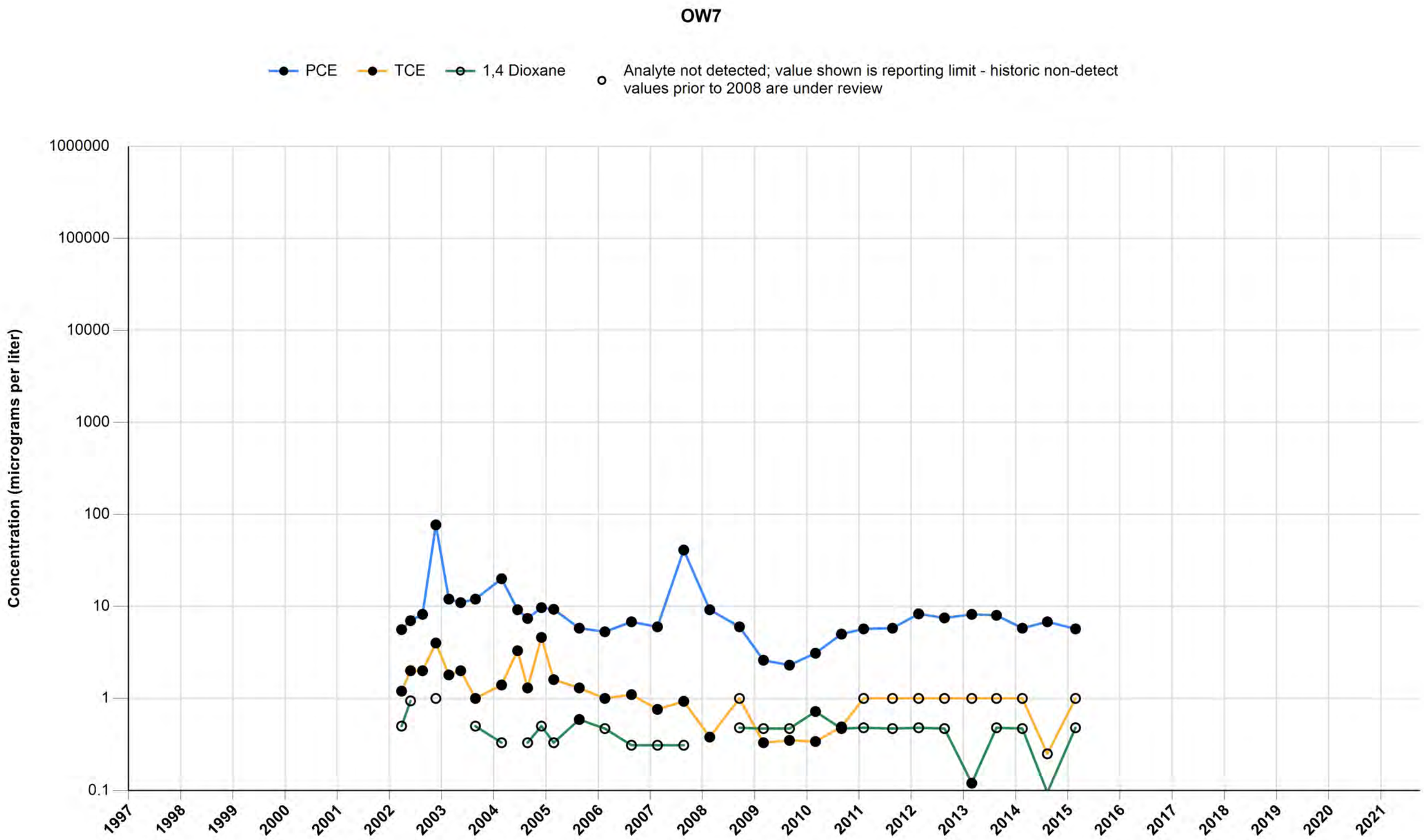


Attachment E, Figure E-30
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

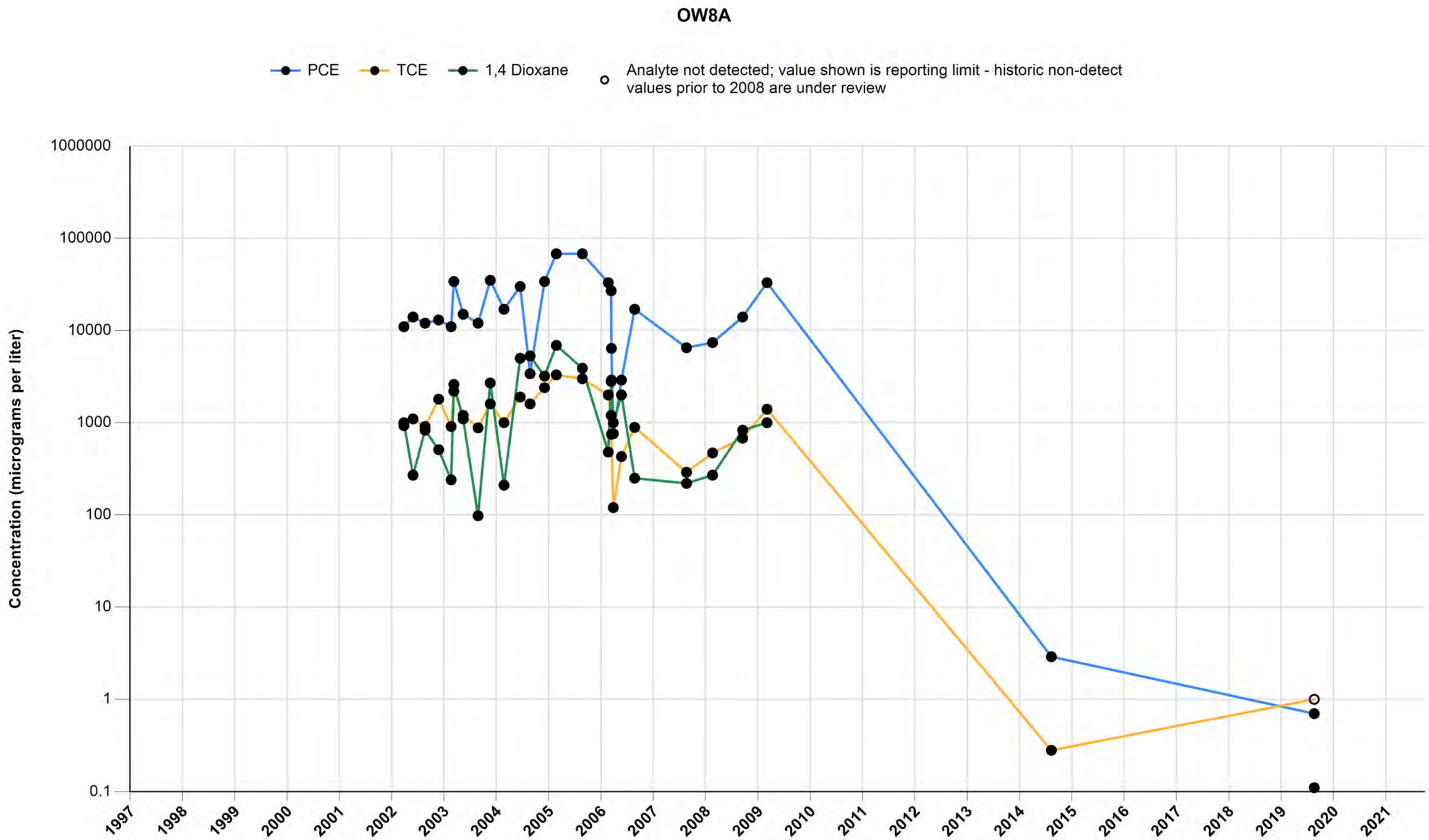


Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

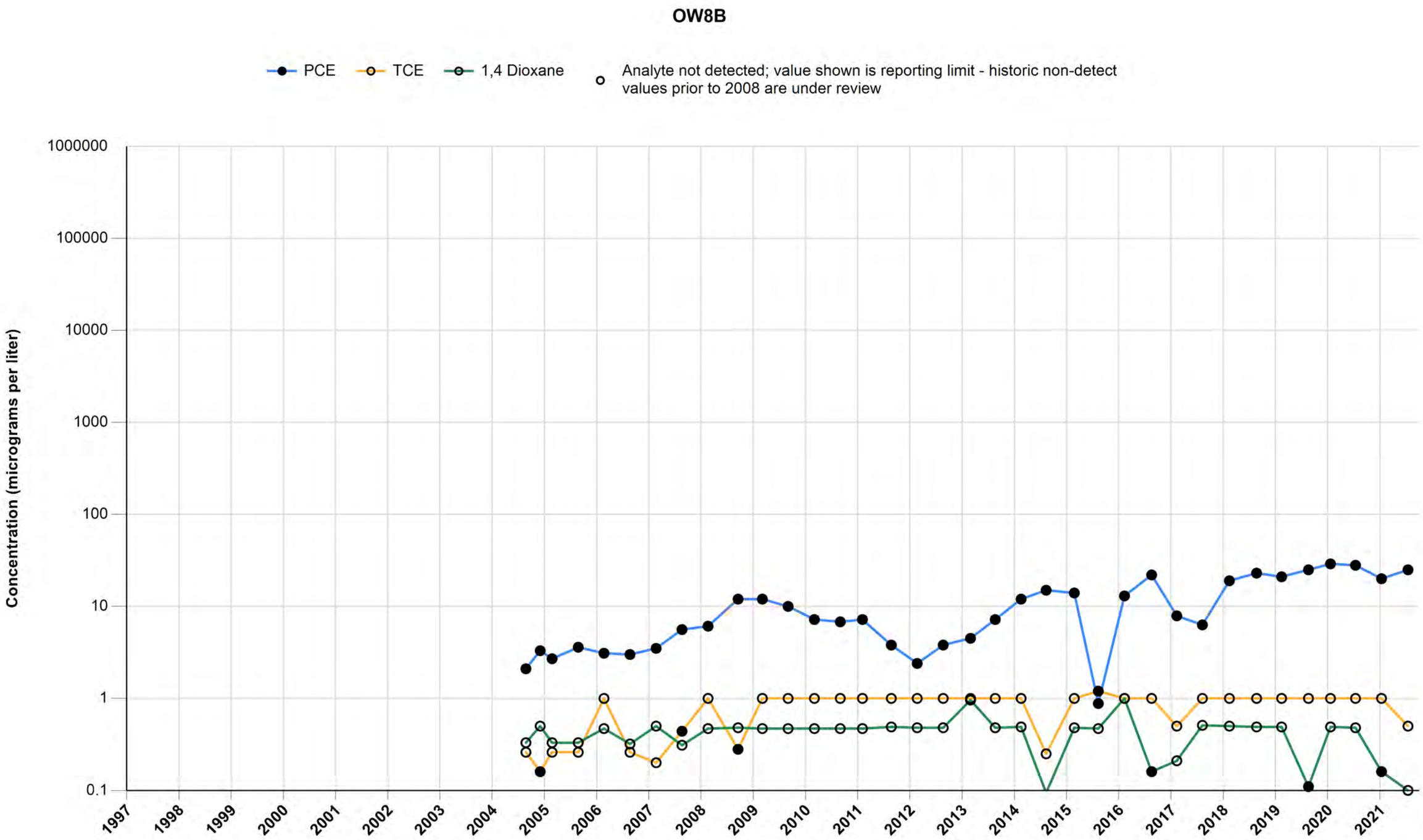
Attachment E, Figure E-31
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



Attachment E, Figure E-32
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

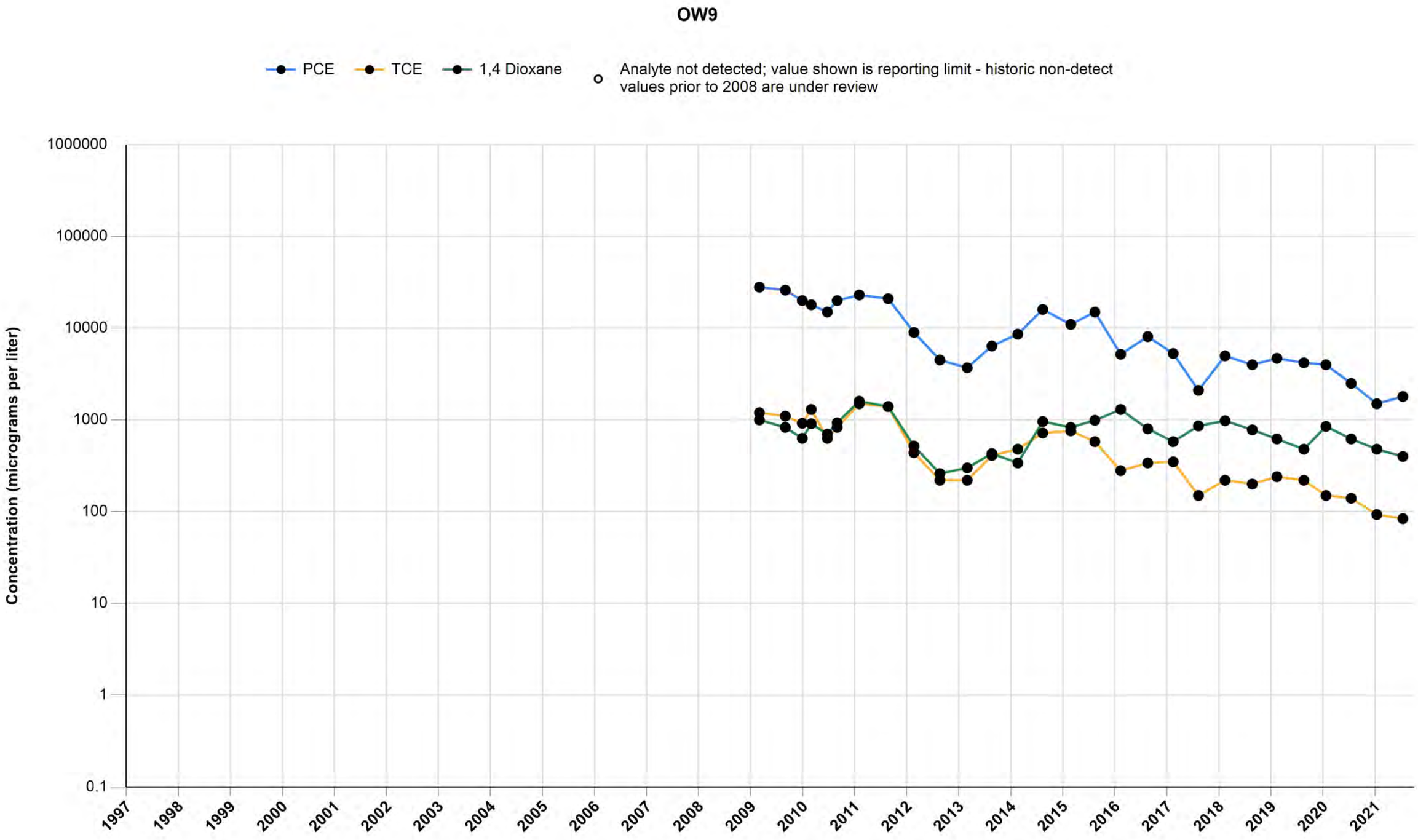


Attachment E, Figure E-33
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



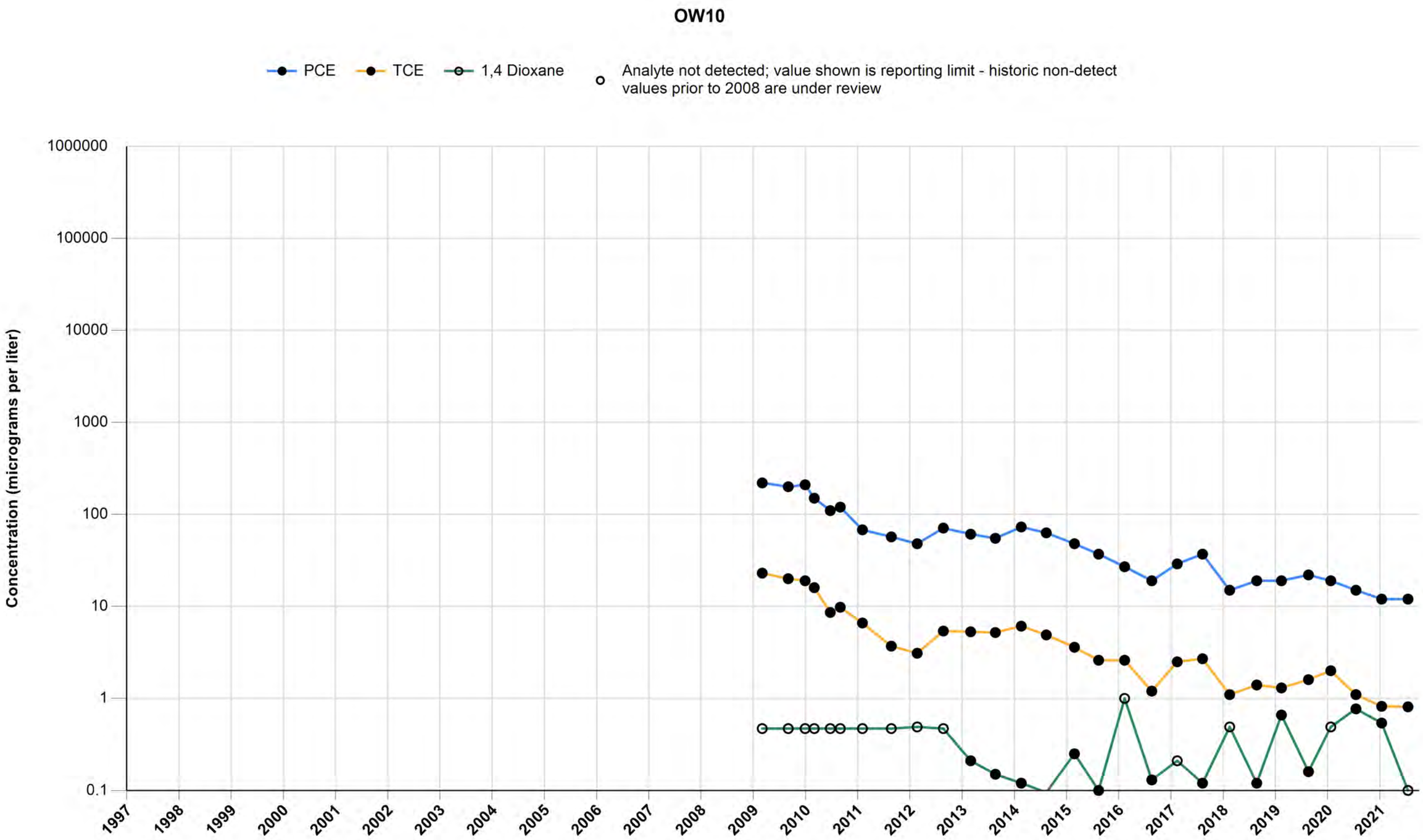
Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-34
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



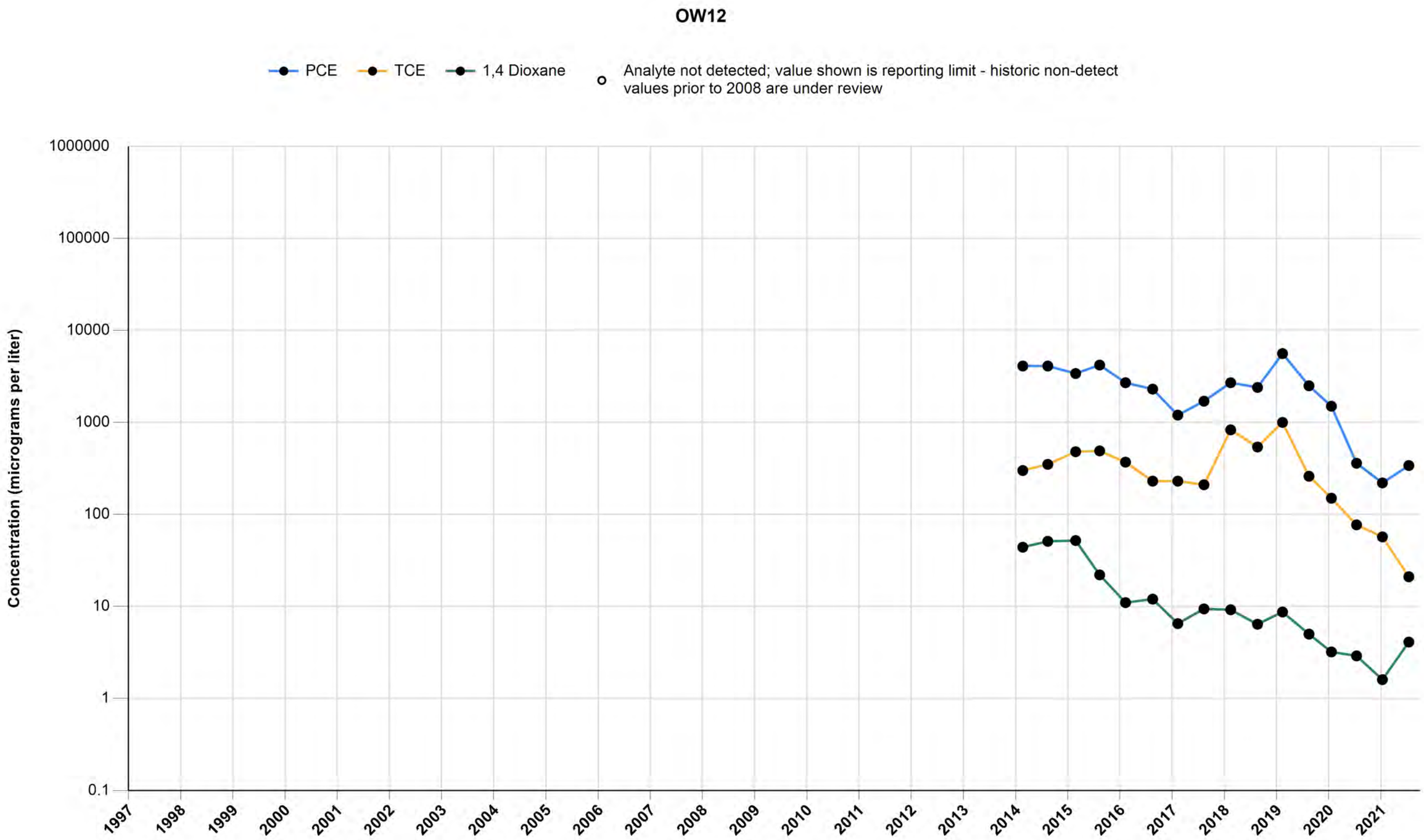
Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-35
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

Attachment E, Figure E-36
OU-1 Groundwater Containment Remedy, Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)



Note: For 3Q2021, 1,4-dioxane results have been updated from the isotope dilution method reported on by the laboratory to ensure consistency with past reporting efforts. Please see validation reports for additional details.

ATTACHMENT F

Quarterly Groundwater Containment Review

Memorandum

To: *Jaime Dinello, de maximis, inc.*

From: *Matt Gamache, CDM Smith*

Date: *October 8, 2021*

Subject: *Omega Operable Unit 1 EE/CA Remedy*
Quarterly Groundwater Containment Review – July 13 - 23, 2021

This memorandum provides and discusses the third quarter 2021 (3Q2021) groundwater elevation contours based on the July 13 - 23, 2021 groundwater monitoring activities, and the response of the local groundwater table to the Omega Operable Unit (OU)-1 Groundwater Containment Remedy (GCR) operation, which was installed and began operating in 2009. The primary goal of the GCR is to contain the highest levels of contamination dissolved in groundwater within OU-1, so that the contamination does not migrate and contribute to the downgradient regional groundwater plume.

Extraction wells (EWs) located along Putman Street are designed to provide a hydraulic barrier at the down-gradient boundary of OU-1 (Figure F-1). In addition to operation of the GCR hydraulic containment extraction wells, other groundwater extraction is occurring within OU-1. Six dual-phase extraction (DPE) wells are currently operating and extracting groundwater within OU-1. These DPE wells were constructed in June through December 2014 as part of the Full Scale On-Site (OU-1) Soil Remedy under the 2010 Consent Decree between the USEPA and OPOG and are also shown on Figure F-1. Although installed as part of the OU-1 soil remedy to increase subsurface vapor removal, the DPE wells are currently extracting the majority of the water treated by the GCR groundwater treatment plant.

Between July 13 - 23, 2021, in accordance with the approved Performance Standards Verification Plan (PSVP; CDM, 2007), water level elevations were measured manually for the purposes of demonstrating hydraulic containment of groundwater within OU-1. The majority of the monitoring points used in this evaluation lie within the boundaries of OU-1. However, selected monitoring points immediately adjacent to OU-1 (e.g. PZ-3, OW-9, and OW-11) are also used to assess the performance of the OU-1 groundwater remedy. All PSVP-required locations were measured manually during 3Q2021. These data are plotted along with interpreted water level elevation contours (1-foot interval) on Figure F-1 and demonstrate that OU-1 groundwater is contained.

The water-level contour map (Figure F-1) for the measurement dates (July 13 - 23, 2021) demonstrates that flow from the former Omega Chemical property located at 12504 and 12515

Whittier Blvd. Whittier, California (property) is primarily converging along Putnam Street, around the OU-1 Soil Remedy well DPE-9 and west of Putnam Street around the OU-1 Soil Remedy well VE-10D. The total average extraction rate pumped in 3Q2021 was 2.8 gpm. Containment is similar between 2Q2021 and 3Q2021.

Horizontal gradients within OU-1 are variable, at approximately 0.04 ft/ft from the property toward Putnam Street. The horizontal gradients between OW-3A and DPE-9 and between OW-9 and VE-10D (along and to the west of Putnam Street) were 0.06 ft/ft and 0.08 ft/ft, respectively.

Vertical gradients are examined at one well triplet and two well pairs: OW-1A/OW-12/OW-1B, OW-3A/OW-3B, and OW-8A/OW-8B, the locations of which are shown on Figure F-2. For each set of wells, the 'A' well is screened in the A-zone and the 'B' well is screened in the B-zone. OW-12 is also screened in the A-zone in-between OW-1A and OW-1B. The A-zone, essentially the water table aquifer, is currently being pumped by the GCR EWs and the OU-1 Soil Remedy DPE wells. The A-zone is the principal zone impacted by VOCs at the site.

The A and B-zones show minimal hydraulic connection as evidenced by the significant difference in head between them. The lithologic data demonstrate the presence of a 30-foot thick layer of clayey silt or silty clay that underlies the A-zone and acts as a confining unit between these zones, as shown on cross sections A-A' and B-B', further illustrating this hydraulic and physical vertical separation. The locations of both sections are shown in Figure F-3 and the cross sections themselves are shown in Figures F-4 (A-A') and F-5 (B-B'). In Figure F-4, the well screens of OW-3B and OW-8B are shown to be below the confining unit that underlies the A-zone. In Figure F-5, the lithology around OW-1A, OW-12, and OW-1B varies from what is observed at the other well pairs. In this instance, OW-1A is partially screened within a sand layer, but the area around the OW-12 and OW-1B well screens has been classified as clayey silt or silty clay. Since there are no lithological markers differentiating the two lower-screened wells (OW-12 and OW-1B), the groundwater elevations must be used to infer the degree of hydraulic connection/separation. Hydrographs of the water levels over time at these three wells are shown in Figure F-6. Although OW-1A has been dry for most of the OW-12 data collection period, vertical (downward) gradients can be seen between these two wells in the few instances where water was found at OW-1A since 2013. Vertical (downward) gradients between OW-12 and OW-1B are also present for all synoptic rounds of data except for August 2017, when groundwater elevations are approximately 117 feet above mean sea level (AMSL) at both wells. Despite these similar elevations in August 2017 and again on February 2018, the units screened by these two wells are still considered to be hydraulically separated. This is similar to what has been observed at OW-3A/OW-3B (Figure F-7) and OW-8A/OW-8B (Figure F-8).

The area covered by the cone of depression in 3Q2021 is similar to what was observed and documented in 2Q2021 (CDM Smith, 2021). The combination of GCR extraction, OU-1 Soil Remedy extraction, and the regional drought conditions has essentially dewatered the A-Zone aquifer. As demonstrated on Figure F-1, containment of the OU-1 groundwater is attained.

Discussions with USEPA have been on-going regarding the potentially inconsistent flow and water level data observed at a subset of groundwater extraction wells. All wells were shut off on September 17, 2021 in anticipation of a system-wide aquifer performance test (APT). At the conclusion of the APT in October 2021 (4Q2021), and prior to the system turning back on, VE-10D will be redeveloped.

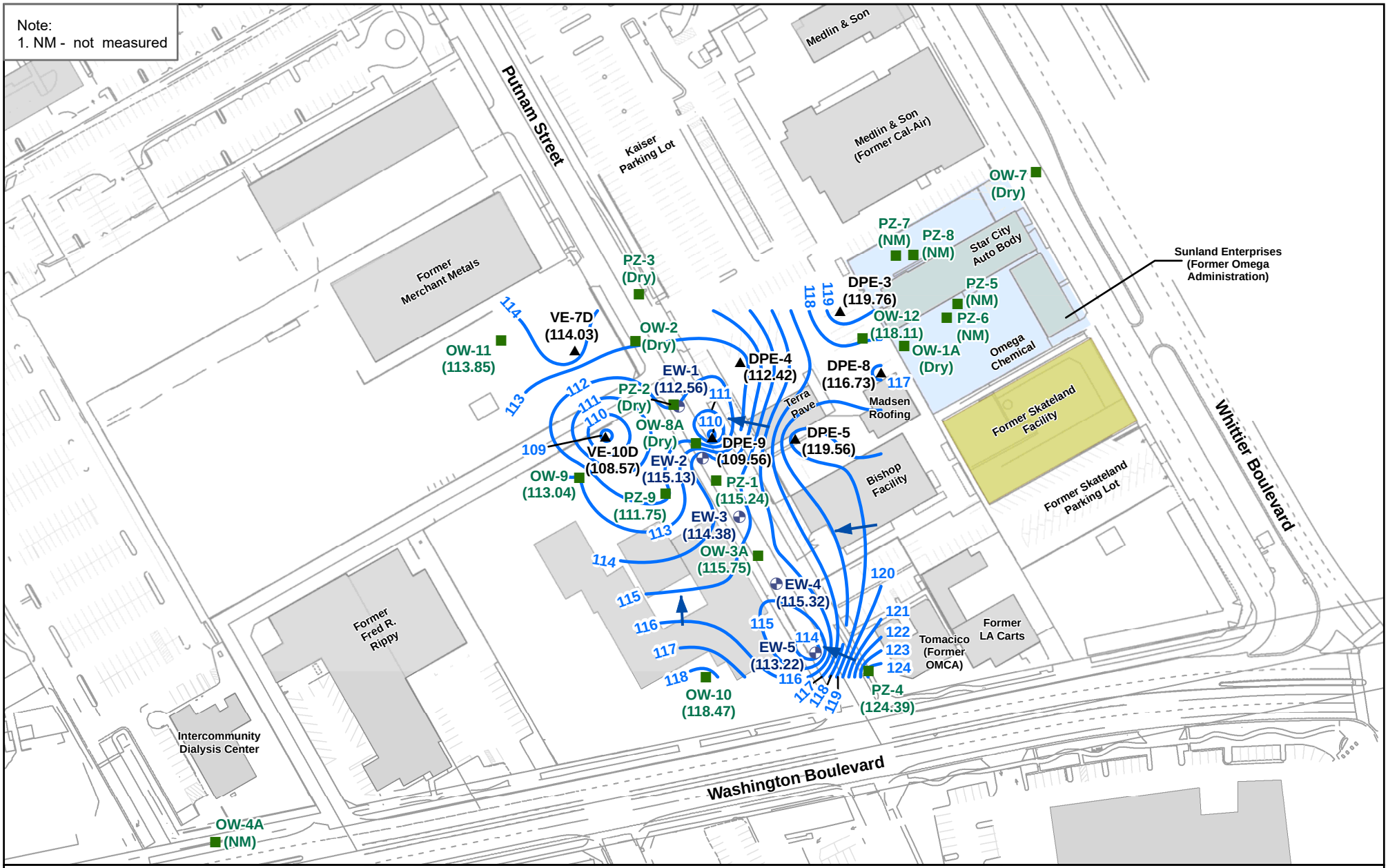
References

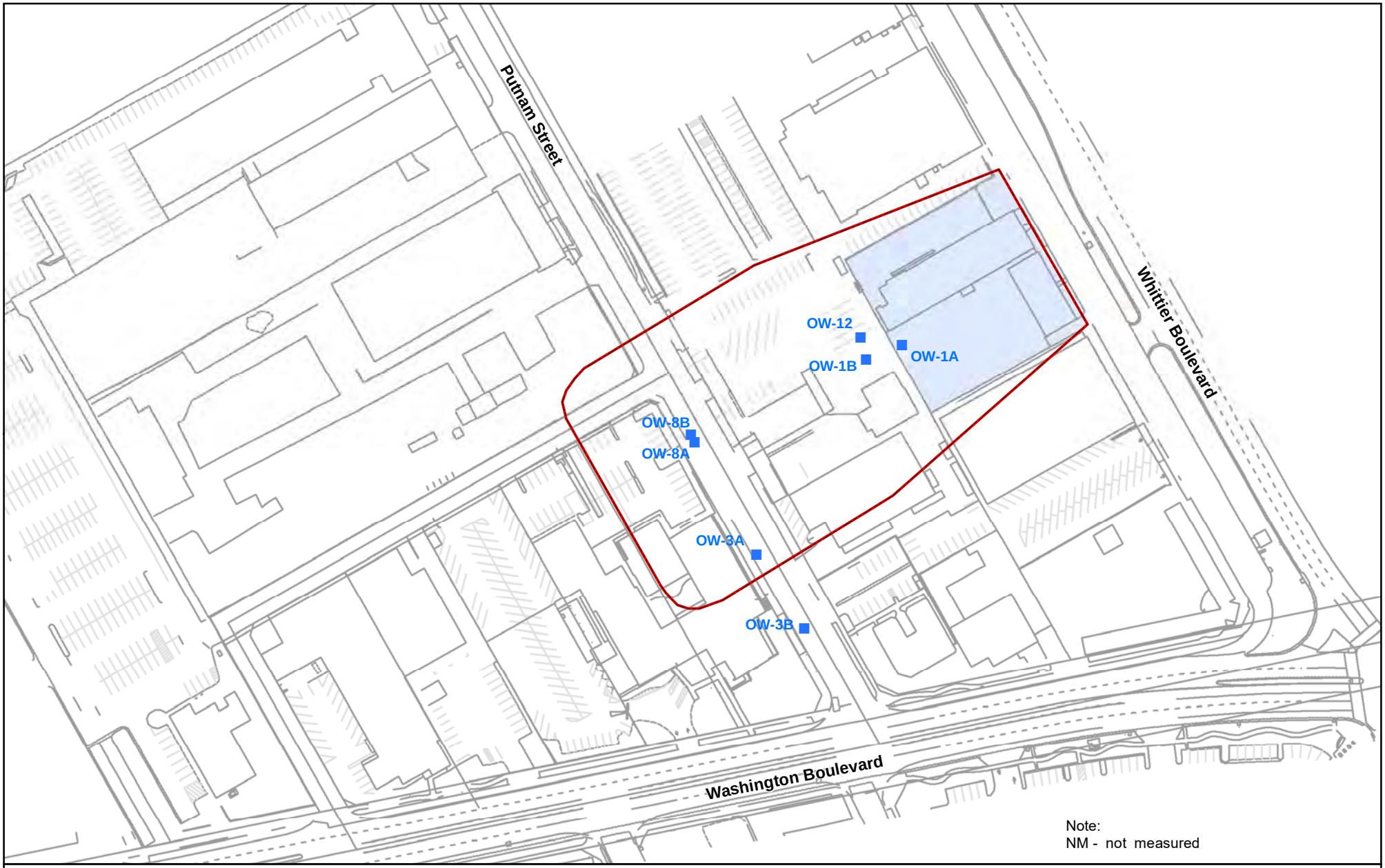
CDM, 2007. *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System*. April 19, 2007.

CDM Smith, 2021. *Omega Operable Unit 1 EE/CA Remedy Quarterly Groundwater Containment Review* – April 12-23*, 2021*. July 2, 2021.

cc: Ed Modiano, de maximis, inc.

David Chamberlin, CDM Smith


Note:
1. NM - not measured
Putnam Street
Kaiser Parking Lot
Medlin & Son
Medlin & Son (Former Cal-Air)
Former Merchant Metals
Star City Auto Body
Sunland Enterprises (Former Omega Administration)
Omega Chemical
Former Skateland Facility
Former Skateland Parking Lot
Whittier Boulevard
Madsen Roofing
Terra Pave
Bishop Facility
Former Fred R. Rippy
Tomacico (Former OMCA)
Former LA Carts
Intercommunity Dialysis Center
Washington Boulevard
OW-7 (Dry)
PZ-7 (NM)
PZ-8 (NM)
PZ-5 (NM)
PZ-6 (NM)
OW-12 (118.11)
OW-1A (Dry)
DPE-3 (119.76)
DPE-8 (116.73)
DPE-4 (112.42)
DPE-5 (119.56)
DPE-9 (109.56)
PZ-3 (Dry)
OW-2 (Dry)
VE-7D (114.03)
OW-11 (113.85)
EW-1 (112.56)
PZ-2 (Dry)
OW-8A (Dry)
VE-10D (108.57)
EW-2 (115.13)
OW-9 (113.04)
PZ-9 (111.75)
PZ-1 (115.24)
EW-3 (114.38)
OW-3A (115.75)
EW-4 (115.32)
EW-5 (113.22)
OW-10 (118.47)
PZ-4 (124.39)
OW-4A (NM)
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
Legend
Phase Ia Area
Former Omega Chemical Property
Existing Building
Former Building
Groundwater Elevation Contour - Dashed where Inferred (Feet above mean sea level)
Groundwater Flow Direction
Extraction Well
Shallow Observation Well / Piezometer
Dual Phase Extraction Well Location
N
75 0 75
Feet
CDM Smith
Omega Chemical
Shallow Zone
Groundwater Contour Map
July 13 - 23, 2021
Figure F-1



Note:
NM - not measured

Legend

- Phase Ia Area
- Former Omega Chemical Property
- Observation Well Pair (A-zone/B-zone)

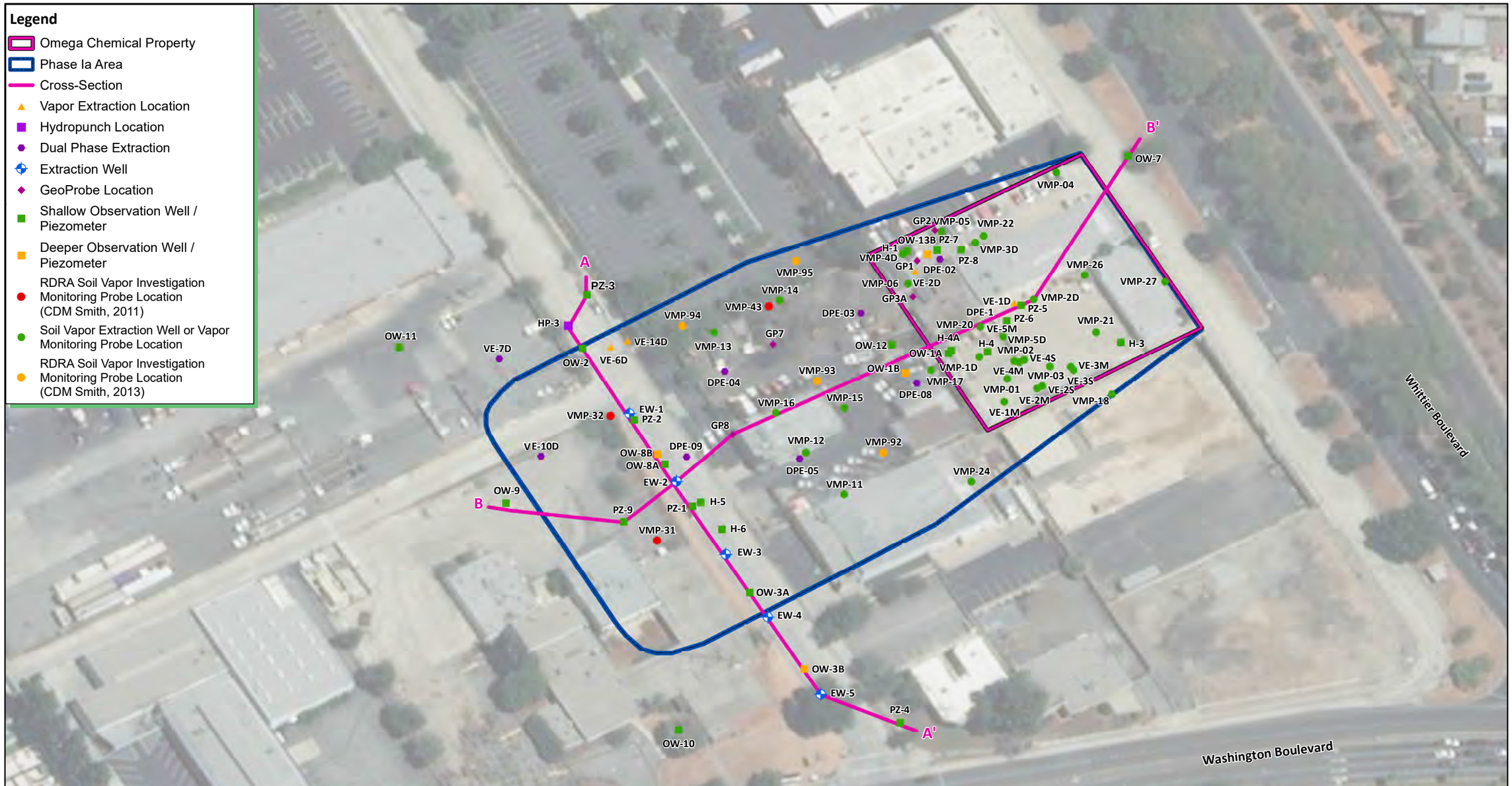
N

75 0 75
Feet

Omega Chemical
A-zone/B-zone Well Pairs

Figure F-2

CDM Smith



N

125 0 125

Feet

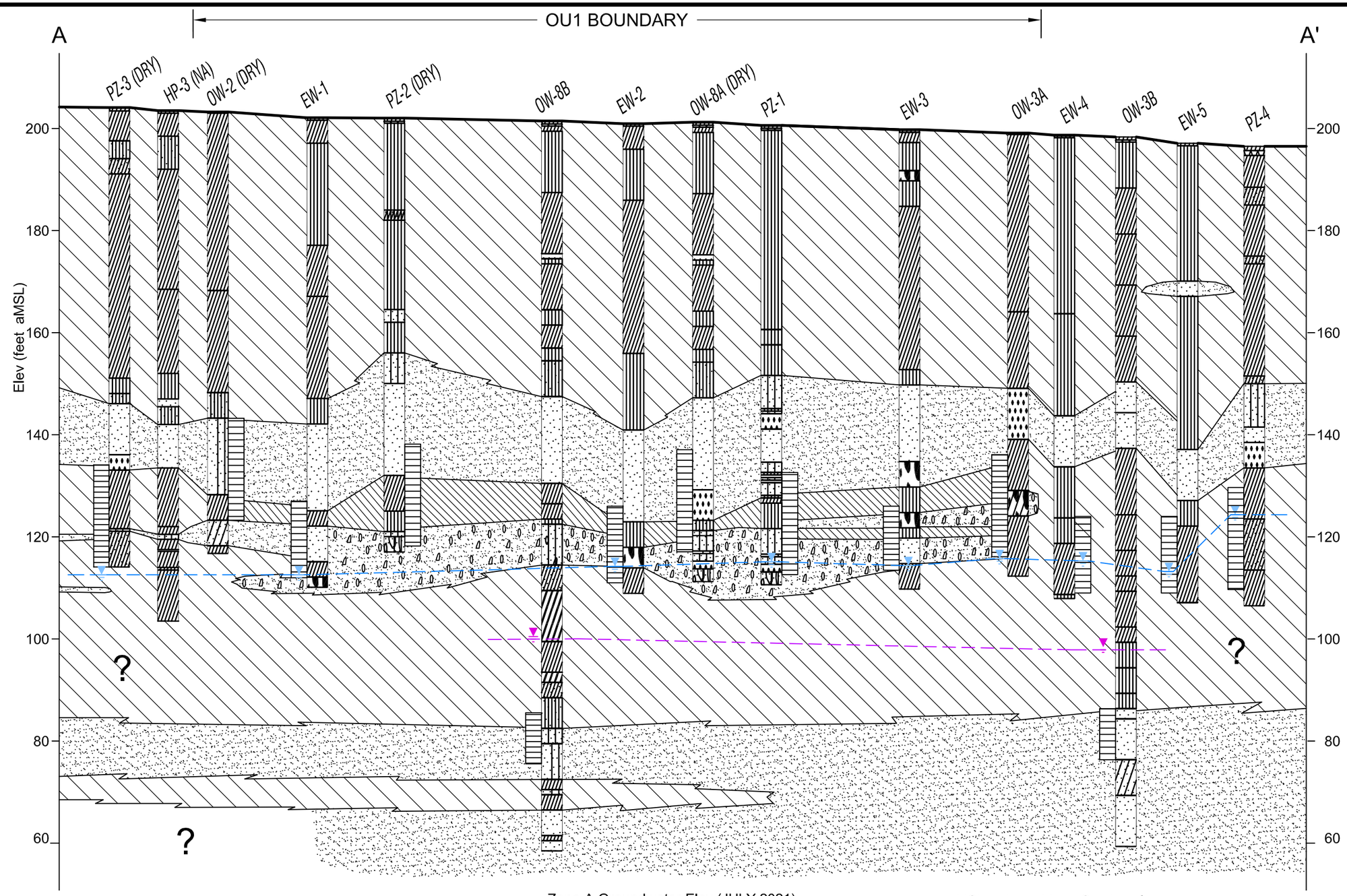
Omega Chemical

Cross-Section Plan View

Figure F-3

CDM Smith

Schellerka G:\GIS\10500_Omega\2018\ASSIST\Miscellaneous\FigureA-3_Cross-SectionPlanView.mxd 5/3/2018



1" = 20'

10 0 20

Zone A Groundwater Elev (JULY 2021)

Zone B Groundwater Elev (JULY 2021)

aMSL - above Mean Sea Level

NA - Not analyzed

CDM Smith
46 Discovery, Suite 250
Irvine, California 92618
Tel (949) 752-5452
Fax (949) 725-3790

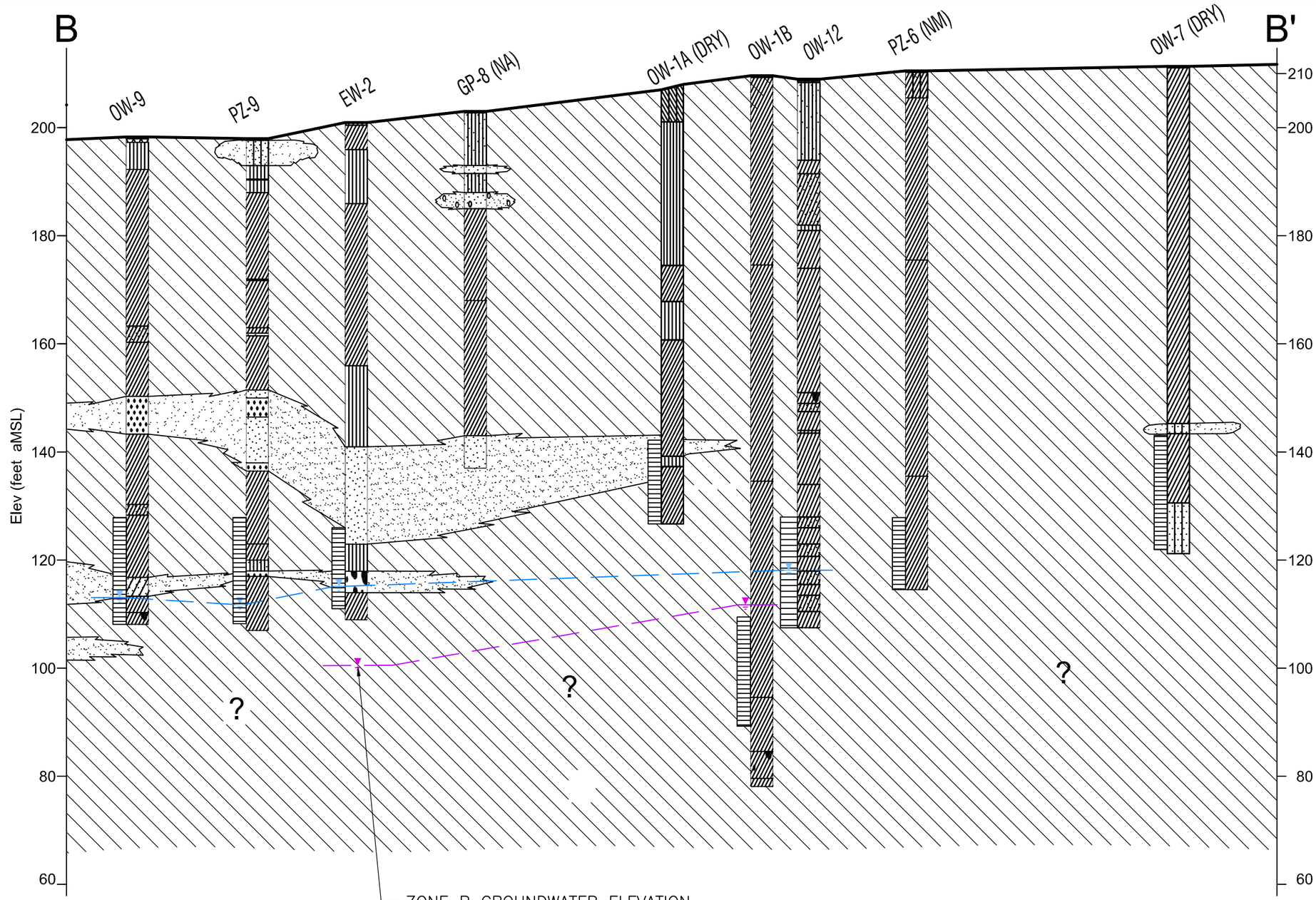
LEGEND

Gravel
Clayey Gravel
Poorly Graded Sand
Silt
Silty Sand
Clayey Silt or Silty Clay
Gravelly Clay
Clay
Well Graded Sand
Gravelly Sand
Clayey Sand
Well Screen

Zone A Water Level (JULY 2021)

Zone B Water Level (JULY 2021)

OMEGA
LITHOLOGIC CROSS-SECTION
A TO A'
Figure F-4



1" = 20'

10 0 20

Zone A Groundwater Elev (JULY 2021)

Zone B Groundwater Elev (JULY 2021)

aMSL - above Mean Sea Level

NA - Not analyzed

CDM Smith
46 Discovery, Suite 250
Irvine, California 92618
Tel (949) 752-5452
Fax (949) 725-3790

LEGEND

Gravel
Clayey Gravel
Poorly Graded Sand
Silt
Silty Sand
Clayey Silt or Silty Clay
Gravelly Clay
Clay
Well Graded Sand
Gravelly Sand
Clayey Sand
Well Screen
Zone A Water Level (JULY 2021)
Zone B Water Level (JULY 2021)

OMEGA
LITHOLOGIC CROSS-SECTION
B TO B'
Figure F-5

Figure F-6
Omega Chemical Superfund Site
OW-1A, OW-1B, and OW-12 Well Hydrographs
2004 to 2021

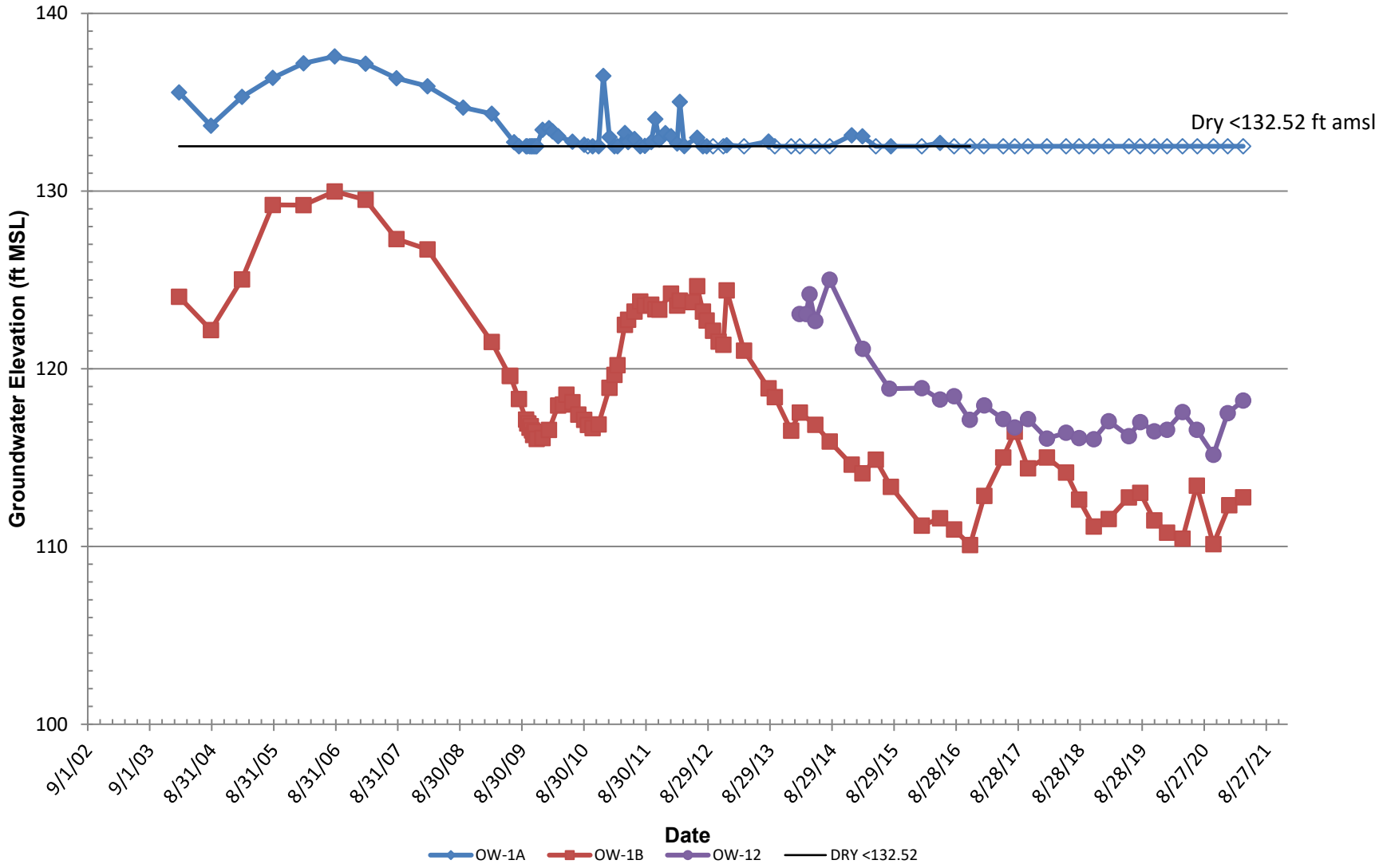


Figure F-7
Omega Chemical Superfund Site
OW-3A and OW-3B Well Hydrographs
2004 to 2021

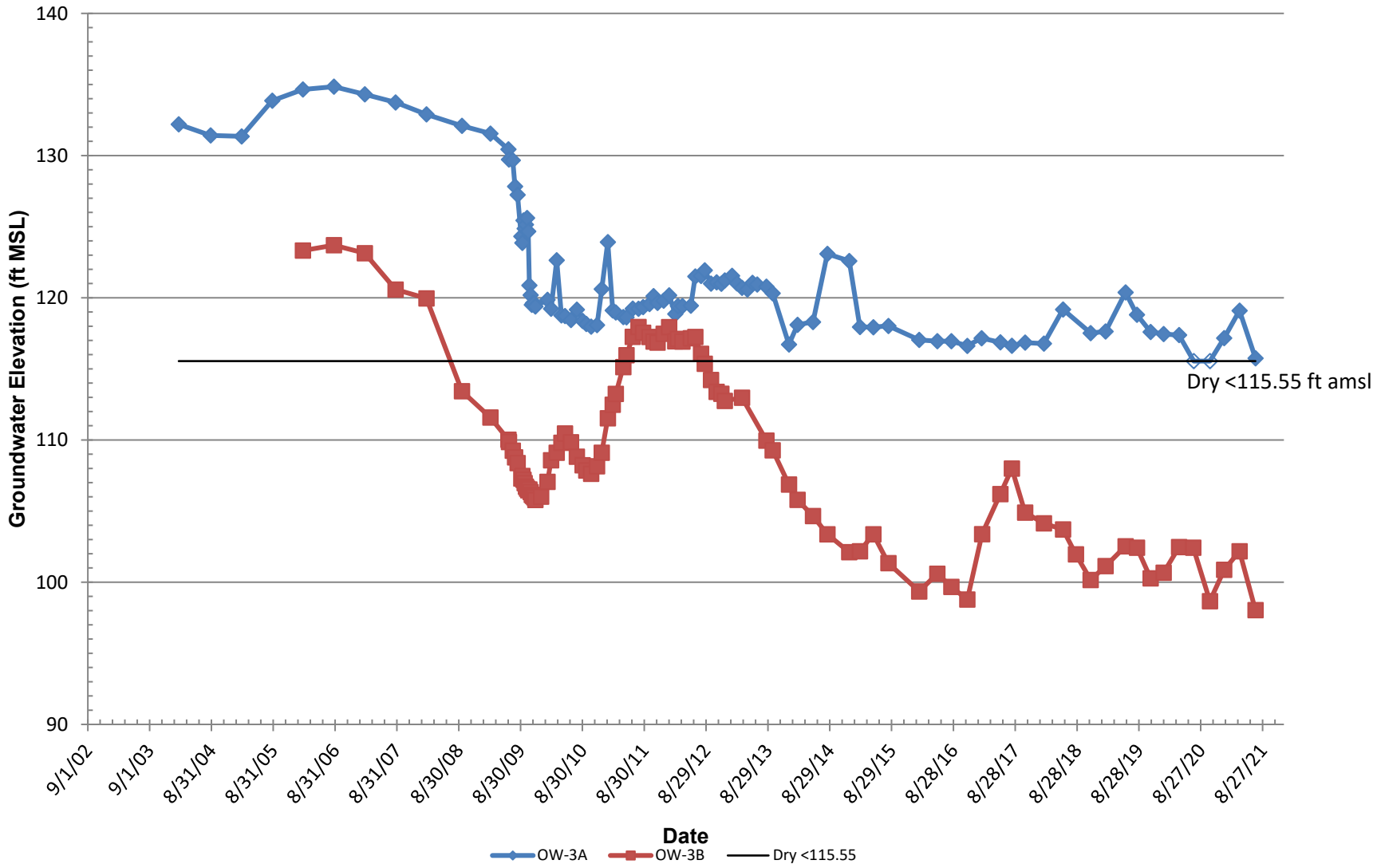
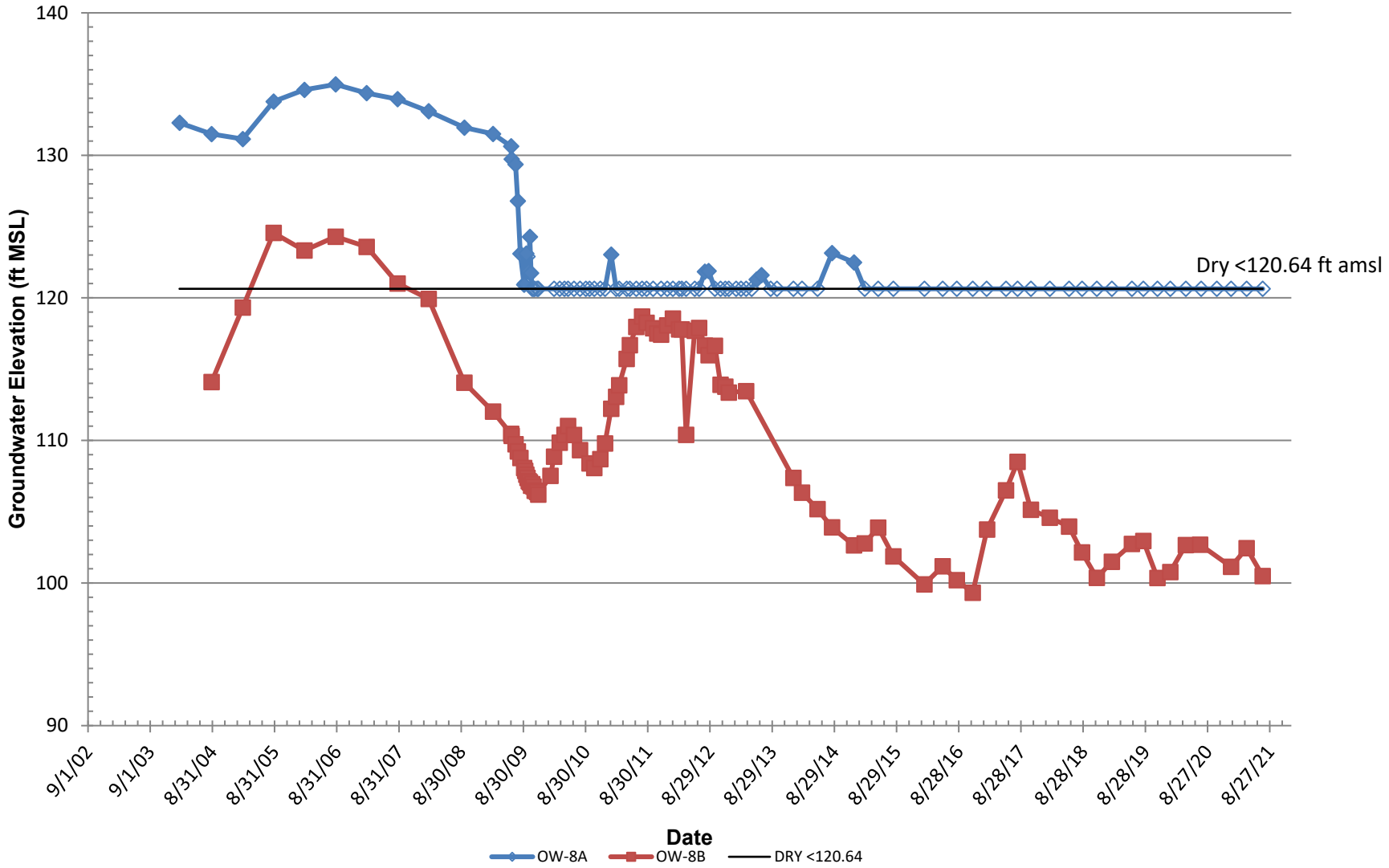


Figure F-8
Omega Chemical Superfund Site
OW-8A and OW-8B Well Hydrographs
2004 to 2021



ATTACHMENT G

Field Forms

GROUNDWATER MONITORING FORM

Omega - GW Monitoring Q3

Date: 7/13, 7/14, 7/15, 7/16

Technician: K. Dzhar

Well ID	Well Diameter	Sample Grouping	Take Sample? (Y/N)	Date & Time (hh:mm)	PID (ppm)	Depth to Water (ft btoc)	Previous Depth to Water (ft btoc)	Total Depth (ft btoc)	Previous Total Depth (ft btoc)	Screen Interval (ft btoc)	HMI (ft btoc)
EW-1	6	OU-1 EECA Wells	Y	7/13/21 0833	Ø	86.40	84.01	-	NM	72 - 87	86.28
EW-2	6	OU-1 EECA Wells	Y	7/13/21 0836	Ø	82.74	84.15	-	NM	72 - 87	82.89
EW-3	6	OU-1 EECA Wells	Y	7/14/21 1110	Ø	82.40	81.94	-	NM	70 - 85	82.40
EW-4	6	OU-1 EECA Wells	Y	7/14/21 1133	Ø	80.47	80.05	-	NM	71 - 86	80.01
EW-5	6	OU-1 EECA Wells	Y	7/14/21 1148	Ø	80.97	81.85	-	NM	70 - 85	80.38
PZ-1	2		N	7/13/21 0840	Ø	85.02	86.4	87.25	87.3	68 - 88	
PZ-2	2		N	7/13/21 0845	Ø	DRY	84.05	84.35	84.3	64 - 84	
PZ-3	2	Other Groundwater Wells	Y	7/13/21 0821	Ø	DRY	DRY	89.05	89.05	69.8 - 89.8	
PZ-4	2		N	7/13/21 0816	Ø	71.87	70.7	88.95	89	70 - 90	
PZ-9	2	Other Groundwater Wells	Y	7/15/21 1112	0.018	83.50	84.31	89.85	89.95	70 - 90	
OW1A	4	OU-1 GCR Monitoring Wells	Y	7/16/21 1005	0.113	DRY	DRY	82.60	82.58	62.5 - 77.5	
OW1B	4	OU-1 GCR Monitoring Wells	Y	7/14/21 0950	0.187	95.51	94.9	117.95	118.15	110 - 120	
OW2	4	OU-1 GCR Monitoring Wells	Y	7/13/21 0825	Ø	DRY	DRY	79.30	79.5	60 - 80	

OW3A	4	OU-1 GCR Monitoring Wells	Y	7/13/21 0852	0.068	80.58	81.41	81.48	81.82	63 - 83	
OW3B	4	OU-1 GCR Monitoring Wells	Y	7/16/21 1256	0.185	97.10	96.51	121.95	121.95	112 - 122	
OW7	4	OU-1 GCR Monitoring Wells	Y	7/13/21 0810	Ø	DRY	DRY	89.00	89.1	70.9 - 90.9	
OW8A	4	OU-1 GCR Monitoring Wells	Y	7/15/21 1201	Ø	DRY	78.09	79.10	79.1	60.4 - 80	
OW8B	4	OU-1 GCR Monitoring Wells	Y	7/16/21 0727	Ø	100.35	99.7	126.00	126	116 - 126	
OW9	4	OU-1 GCR Monitoring Wells	Y	7/15/21 0842	0.078	84.80	85.05	89.75	89.8	70 - 90	
OW10	4	OU-1 GCR Monitoring Wells	Y	7/15/21 0752	0.123	77.07	76.75	89.10	89.2	69.5 - 89.5	
OW11	4	Other Groundwater Wells	Y	7/16/21 1118	0.873	86.21	86.17	98.75	98.73	80 - 100	
OW12	4	OU-1 GCR Monitoring Wells	Y	7/14/21 0820	Ø	90.31	90.92	100.00	100	80 - 100	
DPE-3	4	OU-1 SVE Wells	Y	7/14/21 0707	-	87.00	89.18	-	100	40 - 100	89.51
DPE-4	4	OU-1 SVE Wells	Y	7/14/21 0725	-	90.55	89.44	-	100	40 - 100	90.70
DPE-5	4	OU-1 SVE Wells	Y	7/14/21 0830	-	82.21	86.83	-	100	40 - 100	91.08
DPE-8	4	OU-1 SVE Wells	Y	7/14/21 0747	-	88.14	86.48	-	100	40 - 100	90.60
DPE-9	4	OU-1 SVE Wells	Y	7/14/21 0905	-	89.50	90.43	-	100	40 - 100	90.01

VE-7D	4	OU-1 SVE Wells	Y	7/15/21 1208	Ø	85.94	85.99		100	40 - 100	** NA
VE-10D	4	OU-1 SVE Wells	Y	7/15/21 1122	Ø	85.10	94.3	–	100	40 - 100	* NA
OW13B	4	Other Groundwater Wells	Y	7/16/21 0923	136	99.45	97.62	140.30	140.3	130 - 140	

* Transducer reading not available due to red boxes around parameters on HMI screen.

** DPE-7D transducer is not functioning properly.

DPE-10D totalizer = 2596534 gal. @ 1147

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	PZ-3	**Date:**	7/13/21	**Site:**	Omega	**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	89.05'	**Sampling Event:**	2021 July GWM	**Client Nam**	De Maximis		
Well Diameter:	2"	**Purge Equip:**	-	**Project #:**	E742	Pump Information :	
Screen Interval:	69.8-89.8'	**Purging Method:**	-	**Consultant:**	JHA Env. Inc.	**Pump Model:**	-
Pump Depth:	-	**Sampling Equipment:**	-	**Sampler:**	-	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	89.05	DRY	-	Well Dia	0.75"	2"	4"	6"	-	-
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0821				WELL IS	DRY						

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
-	-	-	-	-	-	-	**Pump Speed:** -	**Typ Flow:** -
							Primary Sample ID= -	
							Primary Sample Time: (hh:mm) -	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: PZ-9		**Date:** 7/15/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 89.85'		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 2"		**Purge Equip:** 2" bailer		**Project #:**	E742	Pump Information:	
Screen Interval: 70-90'		**Purging Method:** 3 vol purge		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: –		**Sampling Equipment:** bailer		**Sampler:** KA, CW		**Single System Volume:**	–

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	GALLONS PER FOOT *Includes filter pack volume					D ONE CASING VOLUME C X D = E	E THREE CASING VOLUMES E X 3
–	–	–	89.85	83.50	6.35 ~~89.85~~	Well Dia	0.75"	2"	4"	6"	2	6
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1115	2"		2	84.12	27.52	7.03	1.64	4.02	599	186	
1135			4	89.71	24.92	7.08	1.59	5.53	491	186	
1145			~~6~~ 4.5	WENT DRY							

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
1114	1145	–	~4.5	>2	~~88.93~~	~~84.7~~	Pump Speed: –	Typ Flow: –
					84.77	83.65	Primary Sample ID= OC-GW-PZ-9-20210716	
							Primary Sample Time: (hh:mm) 0845	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Page: 1 of

Well Information		Purging Information		Project Information		Well Information	
Well ID #: OW-11		Date: 7/16/21		Site: Omega		Survey Monitoring Point (MP); TOC (N)	
Well Total Depth: 98.75'		Sampling Event: ~~2021~~ July 2021		Client Name: De Maximis			
Well Diameter: 4"		Purge Equip: 2" Grundfos Rec. Flo		Project #:	E742	Pump Information:	
Screen Interval: 80-100'		Purging Method: 3 vol. purge		Consultant: JHA Env. Inc.		Pump Model:	—
Pump Depth: 98'		Sampling Equipment: -		Sampler: KA, JS		Single System Volume:	—

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	98.75	86.21	12.54	Well Dia	0.75"	2"	4"	16.3	49
						Gals/ft*	0.04	0.32	1.30	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1143	-	~1.0	15	95.08	27.14	7.15	1.20	11.13	589	147	
1158	-	~1.0	30	96.18	28.62	7.09	1.22	4.84	263	165	
1213	-	~1.0	45	97.20	28.44	7.04	1.24	4.64	156	151	
1217	-	~1.0	49	97.22	27.23	7.04	1.25	4.46	~~134~~ 165	134	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
1128	1225	1.0	~50	3	-	97.22	Pump Speed: 232	Typ Flow: ~1.0
							Primary Sample ID= OC-GW-OW-11-20210716	
							Primary Sample Time: (hh:mm) 1220	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: OW-13B		**Date:** 7/16/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:		**Sampling Event:** 2021 July GWM		**Client Name:** De Maximis			
Well Diameter: 4"		**Purge Equip:** 2" Grundfos RediFlo		**Project #:**	E742	Pump Information:	
Screen Interval: 130-140'		**Purging Method:** 3 vol. purge		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: 125'		**Sampling Equipment:**	–	**Sampler:** KA, JJ		**Single System Volume:** –	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	140.30	99.45	40.88	Well Dia	0.75"	2"	4"	6"	53	159
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0953	–	~2.0	40	120.10	24.69	7.19	1.08	3.23	0.0	145	
1013	–	~2.0	80	126.59	24.45	7.27	1.09	3.42	0.0	146	
1033	–	~2.0	120	126.91	24.16	7.24	1.09	3.64	0.0	160	
1053	–	~2.0	160	127.26	24.23	7.11	1.10	4.51	0.0	152	
			~~160~~								

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: 274	Typ Flow: 2.0
0933	1105	2.0	~161	3	–	127.26	Primary Sample ID= OC_GW_OW-13B_20210716, OC_GW_OW-13B_20210716K	
							Primary Sample Time: (hh:mm) 1056	1056

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: DPE-3	**Date:** 7/14/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 100'	**Sampling Event:** 2021 July GWM	**Client Name:** De Maximis	
Well Diameter: 4"	**Purge Equip:** Dedicated Pump	**Project #:** E742	Pump Information :
Screen Interval: 40-100'	**Purging Method:** Grab	**Consultant:** JHA Env. Inc.	**Pump Model:** -
Pump Depth: -	**Sampling Equipment:** -	**Sampler:** KA, JS	**Single System Volume:** -

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	-	87.00 89.51 (HM)		Well Dia	0.75"	2"	4"	6"		
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0714	-	~3.0	-	87.00	23.49	6.13	1.37	5.75	2.9	298	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0715	0719	3.0	~1	-	-	87.00	Pump Speed: -	Typ Flow: -
							Primary Sample ID= OC_GW_DPE-3_20210714	
							Primary Sample Time: (hh:mm) 0715	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: DPE-4		**Date:** 7/14/		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 100		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 4"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information :	
Screen Interval: 90-100'		**Purging Method:** Grab		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: –		**Sampling Equipment:** –		**Sampler:** KA, JS		**Single System Volume:**	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	–	90.55 90.70 (HMI)		Well Dia	0.75"	2"	4"	6"	–	–
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0725	–	24.0	–	90.55	23.51	6.57	1.26	6.38	0.0	228	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0725	0733	4.0	~1.0	–	–	90.55	Pump Speed: –	Typ Flow: –
							Primary Sample ID= DC-GW-DPE-4_20210714	
							Primary Sample Time: (hh:mm) 0730	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: DPE-5		**Date:** 7/14/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 100		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 4"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information :	
Screen Interval: 40-100'		**Purging Method:** Grab		**Consultant:** JHA Env. Inc.		**Pump Model:**	-
Pump Depth:		**Sampling Equipment:** -		**Sampler:** KD, JS		**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-		82.21		Well Dia	0.75"	2"	4"	6"		
				91.08 (HMI)		Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0830	-	~3	-	82.21	24.30	7.04	1.24	4.26	0.0	202	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0830	0833	3	~1	-	-	82.21	Pump Speed: -	Typ Flow: -
							Primary Sample ID= OC_GW-PPE-5_20210714	
							Primary Sample Time: (hh:mm) 0830	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: DRE-8	**Date:** 7/14/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 100'	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 4"	**Purge Equip:** Dedicated Pump	**Project #:** E742	Pump Information :
Screen Interval: 40-100'	**Purging Method:** Grab	**Consultant:** JHA Env. Inc.	**Pump Model:** –
Pump Depth: –	**Sampling Equipment:** –	**Sampler:** KA, JS	**Single System Volume:** –

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	GALLONS PER FOOT *Includes filter pack volume					D ONE CASING VOLUME C X D = E	E THREE CASING VOLUMES E X 3
–	–	–	–	88.14 90.60 (HMI)		Well Dia	0.75"	2"	4"	6"		
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0747	–	2.5	–	88.14	23.88	6.81	1.17	6.52	0.0	199	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: –	Typ Flow: –
0747	0755	2.5	~1.0	–	–	88.14	Primary Sample ID= OC_GW_DRE-8_20210714	
							Primary Sample Time: (hh:mm) 0753	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: DPE-9		**Date:** 7/19/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 100'		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 4"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information :	
Screen Interval: 40-100'		**Purging Method:** Grab		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: –		**Sampling Equipment:** –		**Sampler:** KA, JJ		**Single System Volume:** –	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	89.50			Well Dia	0.75"	2"	4"	6"	
			90.01 (HMI)			Gals/ft*	0.04	0.32	1.30	2.94	N/A N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0905	–	4.0	–	89.50	24.12	7.20	1.15	6.35	18.1	190	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: –	Typ Flow: –
0905	0908	4.0	~1	–	–	89.50	Primary Sample ID= OC_GW_DPE-9_20210714	
							Primary Sample Time: (hh:mm) 0905	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	DPE-7D	**Date:**	7/15/21	**Site: Omega**		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	100'	**Sampling Event:**	2021 ~~Gw~~ July GWM	**Client Nam**	**De Maximis**		
Well Diameter:	4"	**Purge Equip:**	Dedicated Pump	**Project #:**	**E742**	Pump Information :	
Screen Interval:	40-100'	**Purging Method:**	-	**Consultant: JHA Env. Inc.**		**Pump Model:**	-
Pump Depth:	-	**Sampling Equipment:**	-	**Sampler:**	KA, LW	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	GALLONS PER FOOT					D ONE CASING VOLUME C X D = E	E THREE CASING VOLUMES E X 3
-	-	-	-	85.94 HMI-NA	-	Well Dia	0.75"	2"	4"	6"	-	-
						Gals/ft	0.02	0.16	0.65	1.47	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1208			Cannot control pump due to comm.								
			issues between DOC panel and Gwes PLC								

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: -	**Typ Flow:** -
-	-	-	-	-	-	-	Primary Sample ID=	-
							Primary Sample Time: (hh:mm)	-

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

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Well Information		Purging Information		Project Information		Well Information	
Well ID #: DPE-10D		Date: 7/15/21		Site: Omega		Survey Monitoring Point (MP); TOC (N)	
Well Total Depth: –		Sampling Event: 2021 July GWM		Client Name: De Maximis			
Well Diameter: 4"		Purge Equip: Dedicated Pump		Project #:	E742	Pump Information:	
Screen Interval: 40-100		Purging Method: Grab		Consultant: JHA Env. Inc.		Pump Model:	–
Pump Depth: –		Sampling Equipment: –		Sampler: KA, LW		Single System Volume: –	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	–	85.10		Well Dia	0.75"	2"	4"	6"		
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1148	–	~3.0	–	85.10	26.07	7.10	1.33	8.89	91.0	188	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
1127	1148	~3	~1	–	–	85.10	Pump Speed: –	Typ Flow: –
							Primary Sample ID= DL GW_DPE-10D_20210715	
							Primary Sample Time: (hh:mm) 1132	

will have to wait for pump to cycle a few times since there are no pump controls due to red boxes around control buttons on HMI.

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: EW-1	**Date:** 7/13/24	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: -	**Sampling Event:** 2021 July GWM	**Client Name:** De Maximis	
Well Diameter: 6"	**Purge Equip:** -	**Project #:** E742	Pump Information:
Screen Interval: 72-67'	**Purging Method:** -	**Consultant:** JHA Env. Inc.	**Pump Model:** -
Pump Depth: -	**Sampling Equipment:** -	**Sampler:** KD, JS	**Single System Volume:** -

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	-	86.40 86.28 (HMI)		Well Dia	0.75"	2"	4"	6"		
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0833				WELL IS DRY							

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
-	-	-	-	-	-	-	Pump Speed: -	Typ Flow: -
							Primary Sample ID= -	
							Primary Sample Time: (hh:mm) -	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: EW-2		**Date:** 7/13/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: -		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 6"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information :	
Screen Interval: 72-87'		**Purging Method:** -		**Consultant:** JHA Env. Inc.		**Pump Model:**	-
Pump Depth: -		**Sampling Equipment:** -		**Sampler:** KA, JS		**Single System Volume:** -	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	GALLONS PER FOOT					D ONE CASING VOLUME C X D = E	E THREE CASING VOLUMES E X 3
-	-	-	-	82.74	-	Well Dia	0.75"	2"	4"	6"	-	-
				82.89 (UMI)		Gals/ft	0.02	0.16	0.65	1.47	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0836				Insufficient amount of water in well							

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
-	-	-	-	-	-	-	Pump Speed: -	Typ Flow: -
							Primary Sample ID= -	
							Primary Sample Time: (hh:mm) -	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: EW-3	**Date:** 7/14/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: –	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 6"	**Purge Equip:** Dedicated Pump	**Project #:** E742	Pump Information :
Screen Interval: 70-85	**Purging Method:** Grab	**Consultant:** JHA Env. Inc.	**Pump Model:**
Pump Depth: –	**Sampling Equipment:** –	**Sampler:** KA, JS	**Single System Volume:**

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	82.90 →		–	Well Dia	0.75"	2"	4"	6"	–	–
			82.90 (HMI) →			Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1114	–	2.0	–	82.90	29.06	7.29	0.722	5.79	10.2	148	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: –	Typ Flow: –
1114	1117	1.0	~1	–	–	82.90	Primary Sample ID= OC_GW_EW-3_20210714	
							Primary Sample Time: (hh:mm) 1116	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: EW-4		**Date:** 7/14/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: –		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 6"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information :	
Screen Interval: 71-86'		**Purging Method:** Grab		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: –		**Sampling Equipment:** –		**Sampler:** KA, JS		**Single System Volume:**	–

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	–	80.47	–	Well Dia	0.75"	2"	4"	6"	–	–
				80.01	(MM)	Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1134	–	4.0	–	80.47	29.52	7.50	1.01	6.79	0.0	186	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: –	Typ Flow: –
1134	1136	4.0	~1	–	–	80.47	Primary Sample ID= DC-GW-EW-4-20210714	
							Primary Sample Time: (hh:mm) 1135	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

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Well Information		Purging Information		Project Information		Well Information	
Well ID #: EW-5		**Date:** 7/14/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: -		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 6"		**Purge Equip:** Dedicated Pump		**Project #:**	E742	Pump Information:	
Screen Interval: 70-85		**Purging Method:** Grab		**Consultant:** JHA Env. Inc.		**Pump Model:**	-
Pump Depth: -		**Sampling Equipment:** -		**Sampler:** KA, JS		**Single System Volume:**	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	-	80.97 80.38 (HMI)		Well Dia	0.75"	2"	4"	6"	-	-
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1145	-	4.0	-	80.97	28.35	7.30	1.14	5.80	51.0	199	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: -	Typ Flow: -
1145	1151	4.0	~1	-	-	80.97	Primary Sample ID= OC_GW_EW-5_20210714	
							Primary Sample Time: (hh:mm) 1150	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	OW-1	**Date:**	7/16/21	**Site:**	Omega	**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	82.60'	**Sampling Event:**	2021 July GWM	**Client Nam**	De Maximis		
Well Diameter:	4"	**Purge Equip:**	-	**Project #:**	E742	Pump Information:	
Screen Interval:	62.5-77.5'	**Purging Method:**	-	**Consultant:**	JHA Env. Inc.	**Pump Model:**	-
Pump Depth:	-	**Sampling Equipment:**	-	**Sampler:**	KA	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	GALLONS PER FOOT					D ONE CASING VOLUME C X D = E	E THREE CASING VOLUMES E X 3
-	-	-	82.60	DRY	-	Well Dia	0.75"	2"	4"	6"	-	-
						Gals/ft	0.02	0.16	0.65	1.47	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1005				WELL	IS	DRY					

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: -	Typ Flow: -
-	-	-	-	-	-	-	Primary Sample ID=	-
							Primary Sample Time: (hh:mm)	-

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: OW-1B	**Date:** 7/14/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 117.95'	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 4"	**Purge Equip:** 2" Grundfos Redi flo	**Project #:** E742	Pump Information :
Screen Interval: 110-120'	**Purging Method:** 3 vol. purge	**Consultant:** JHA Env. Inc.	**Pump Model:** –
Pump Depth: 116.95	**Sampling Equipment:** –	**Sampler:** KA, JS	**Single System Volume:** –

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	117.95	95.51	22.4	Well Dia	0.75"	2"	4"	6"	29.2	87.6
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
1003	–	~2.0	20	116.05	26.52	7.25	0.510	2.39	18.9	-22	
1008	–	–	40	WELL WENT DRY							
			60								
			87								

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0953	1008	2.0	~20	1	100.3	95.74	Pump Speed: –	Typ Flow: 2.0
							Primary Sample ID= OC_GW-OW-1B_20210715	
							Primary Sample Time: (hh:mm) 0730	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	OW-2	**Date:**	7/13/21	**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	79.30'	**Sampling Event:**	2021 July GWM	**Client Nam**	De Maximis		
Well Diameter:	4"	**Purge Equip:**	-	**Project #:**	E742	Pump Information :	
Screen Interval:	60-80'	**Purging Method:**	-	**Consultant:** JHA Env. Inc.		**Pump Model:**	—
Pump Depth:	-	**Sampling Equipment:**	-	**Sampler:**	KP, JS	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
						Well Dia	0.75"	2"	4"	6"	
-	-	-	79.30	DRY	-	Gals/ft	0.02	0.16	0.65	1.47	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0825				WELL	IS	DRY					

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: -	Typ Flow: -
-	-	-	-	-	-	-	Primary Sample ID= -	
							Primary Sample Time: (hh:mm) -	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	OW-3A	**Date:**	7/13/21	**Site: Omega**		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	81.48'	**Sampling Event:**	2021 July GWM	**Client Nam**	**De Maximis**		
Well Diameter:	4"	**Purge Equip:**	2" Bailer	**Project #:**	**E742**	Pump Information :	
Screen Interval:	62-83'	**Purging Method:**	3 vol. purge	**Consultant: JHA Env. Inc.**		**Pump Model:**	-
Pump Depth:	-	**Sampling Equipment:**	-	**Sampler:**	ISA,	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
						Well Dia	0.75"	2"	4"	6"		
-	-	-	81.48	80.58	-	Gals/ft	0.02	0.16	0.65	1.47	-	-
											N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0852				Not enough water to remove w/ pump.							
				Very silty bottom and large particles. Bailer							
				will not hold water.							

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: -	**Typ Flow:** -
-	-	-	-	-	-	-	Primary Sample ID=	-
							Primary Sample Time: (hh:mm)	-

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

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Well Information		Purging Information		Project Information		Well Information	
Well ID #: OW-3B		**Date:** 7/16/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 121.95'		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 4"		**Purge Equip:** 2" Grundfos Redi-flo		**Project #:**	E742	Pump Information:	
Screen Interval: 112-122'		**Purging Method:** 3 vol. purge		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: 121'		**Sampling Equipment:** –		**Sampler:** KA, JS		**Single System Volume:** –	

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	121.95	97.10	24.9	Well Dia	0.75"	2"	4"	6"	32.3	97
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
~~1349~~ 1349	–	~2.0	20	102.35	31.52	7.29	1.14	2.96	0.0	142	
~~1359~~ 1359	–	~2.0	40	102.96	29.09	7.35	1.15	2.90	0.0	153	
1409	–	~2.0	60	102.98	27.79	7.01	1.16	3.95	0.0	188	
1419	–	~2.0	80	103.12	27.43	6.80	1.18	3.80	0.0	203	
1429	–	~2.0	100	103.24	26.02	6.77	1.18	3.34	0.0	197	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed: 270	Typ Flow: 2.0
1329	1434	2.0	~101	3	–	103.24	Primary Sample ID= OC_GW_OW-3B_20210716	
							Primary Sample Time: (hh:mm) 1431	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	OW-2	**Date:**	7/13/21	**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	89.00'	**Sampling Event:**	2021 July GWM	**Client Nam**	**De Maximis**		
Well Diameter:	4"	**Purge Equip:**	–	**Project #:**	**E742**	Pump Information :	
Screen Interval:	70.9 - 90.9'	**Purging Method:**	–	**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth:	–	**Sampling Equipment:**	–	**Sampler:**	KP	**Single System Volume:**	–

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	89.00	DRY	–	Well Dia	0.75"	2"	4"	6"	–	–
						Gals/ft	0.02	0.16	0.65	1.47	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0810				WELL	IS	DRY					

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
–	–	–	–	–	–	–	Pump Speed: –	Typ Flow: –
							Primary Sample ID= –	
							Primary Sample Time: (hh:mm) –	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: OW-8A	**Date:** 7/15/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 79.10'	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 4"	**Purge Equip:** –	**Project #:** E742	Pump Information :
Screen Interval: 60.4 – 80'	**Purging Method:** –	**Consultant:** JHA Env. Inc.	**Pump Model:** –
Pump Depth: –	**Sampling Equipment:** –	**Sampler:** KA, LW	**Single System Volume:** –

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	79.10	DRY		Well Dia	0.75"	2"	4"	6"	
						Gals/ft*	0.04	0.32	1.30	2.94	N/A N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
				WELL	IS	DRY					

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
–	–	–	–	–	–	–	**Pump Speed:** –	**Typ Flow:** –
							Primary Sample ID= –	
							Primary Sample Time: (hh:mm) –	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

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Well Information	Purging Information	Project Information	Well Information
Well ID #: OW-8B	**Date:** 7/16/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 126.00	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 4"	**Purge Equip:** 2" Grundfos Rediflo	**Project #:** E742	Pump Information :
Screen Interval: 116-126'	**Purging Method:** 3 vol. purge	**Consultant:** JHA Env. Inc.	**Pump Model:** –
Pump Depth: 125'	**Sampling Equipment:** –	**Sampler:** KD, JS	**Single System Volume:** –

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume				E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	126.00	100.35	25.65	Well Dia	0.75"	2"	4"	6"	33.35	100.0
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0741	–	~2.0	20	101.61	22.81	6.52	1.12	7.40	0.0	199	
0751	–	~2.0	40	101.62	23.20	6.75	1.11	4.65	0.0	159	
0801	–	~2.0	60	101.62	23.81	6.84	1.10	4.87	0.0	109	
0811	–	~2.0	80	101.63	23.70	7.00	1.11	4.11	0.0	73	
0821	–	~2.0	100	101.63	23.77	7.04	1.12	4.00	0.0	82	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level
0731	0830	2.0	~101	3	–	101.63

Control Box Settings

Pump Speed:	Typ Flow:
–	2.0

Primary Sample ID= OC-GW-OW-8B-20210716, OC-GW-OW-8B-20210716K

Primary Sample Time: (hh:mm) 0825 0825

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information	Purging Information	Project Information	Well Information
Well ID #: OW-9	**Date:** 7/15/21	**Site:** Omega	**Survey Monitoring Point (MP); TOC (N)**
Well Total Depth: 89.75'	**Sampling Event:** 2021 July GWM	**Client Nam** De Maximis	
Well Diameter: 4"	**Purge Equip:** 2" Hand bail	**Project #:** E742	Pump Information :
Screen Interval: 70-90'	**Purging Method:** 3 vol. purge	**Consultant:** JHA Env. Inc.	**Pump Model:** –
Pump Depth: –	**Sampling Equipment:** bailer	**Sampler:** KA, LW	**Single System Volume:** –

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	89.75	84.80	4.95	Well Dia	0.75"	2"	4"	6"	6.4	19.2
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0857	–	–	5	85.39	23.79	6.82	1.23	3.30	309	158	
0910	–	–	10	86.11	23.94	6.99	1.24	3.20	297	164	
0923	–	–	15	86.56	23.90	6.98	1.28	2.82	0.0	173	
0940	–	–	20	87.78	23.68	6.97	1.29	3.58	0.0	175	

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0850	1000	–	~21	3	–	87.78	Pump Speed: –	Typ Flow: –
							Primary Sample ID= OC_GW_OW-9_202107	
							Primary Sample Time: (hh:mm) 0956	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #:	OW-10	**Date:**	7/15/21	**Site:**	Omega	**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth:	89.10'	**Sampling Event:**	2021	**Client Name:**	De Maximis		
Well Diameter:	4"	**Purge Equip:**	2" Grundfos Rediflo	**Project #:**	E742	Pump Information:	
Screen Interval:	69.5 - 89.5	**Purging Method:**	3 vol. purge	**Consultant:**	JHA Env. Inc.	**Pump Model:**	-
Pump Depth:	~88.5'	**Sampling Equipment:**	-	**Sampler:**	KA, LW	**Single System Volume:**	-

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
-	-	-	89.10	77.07	12.03	Well Dia	0.75"	2"	4"	6"	15.6	~~[illegible]~~ 46.8
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0805	-	~1.0	5	82.35	23.17	5.91	1.72	3.78	170	68	
0810	-	~1.0	10	88.40	23.43	6.40	1.39	3.19	265	23	
0811	-	-	15	WELL WENT DRY							
			~~[illegible]~~								

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
0800	0811	~1	~11	<1	79.48	77.10	Pump Speed: 233	Typ Flow: 1.0
							Primary Sample ID= DC-GW-OW-10-20210716	
							Primary Sample Time: (hh:mm) 0815	

JHA ENVIRONMENTAL

Groundwater Monitoring Data Form

Well Information		Purging Information		Project Information		Well Information	
Well ID #: OW-12		**Date:** 7/14/21		**Site:** Omega		**Survey Monitoring Point (MP); TOC (N)**	
Well Total Depth: 100'		**Sampling Event:** 2021 July GWM		**Client Nam** De Maximis			
Well Diameter: 4"		**Purge Equip:** 3 hol. purge		**Project #:**	E742	Pump Information:	
Screen Interval: 80-100'		**Purging Method:** 2" Grundfos Rediflo		**Consultant:** JHA Env. Inc.		**Pump Model:**	–
Pump Depth: 99'		**Sampling Equipment:** –		**Sampler:** KA, JJ		**Single System Volume:**	–

LNAPL PRESENT?	NAPL THICKNESS	DEPTH TO LNAPL (ft)	A DEPTH TO BOTTOM (ft)	B DEPTH TO WATER (ft)	C HEIGHT OF WATER COLUMN A-B=C	D GALLONS PER FOOT *Includes filter pack volume					E ONE CASING VOLUME C X D = E	THREE CASING VOLUMES E X 3
–	–	–	100.00	90.31	9.69	Well Dia	0.75"	2"	4"	6"	12.6	37.8
						Gals/ft*	0.04	0.32	1.30	2.94	N/A	N/A

TIME (HH:MM)	Casing/ Screen	Flow Rate (gpm)	VOLUME (gallons)	DEPTH TO WATER (FT-BMP)	TEMP (deg C)	pH	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0825	–	~1.0	10	98.70	24.51	6.67	0.770	3.92	18.3	144	
0832	–	–	20	WELL	WENT	DRY					
			30								
			338								

TOC N = Top Of Casing North Side
FT-BMP = Feet Below Measuring Point

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery DTW	Sampling Water Level	Control Box Settings	
							Pump Speed:	Typ Flow: ~1.0
0815	0832	1.0	~17	>1	92.25	90.91	Primary Sample ID= OC-GW-OW-12-20210715	
							Primary Sample Time: (hh:mm) 0715	

Mann-Kendall Analysis
Omega Chemical Superfund Site
Third Quarter – 2021

Introduction

This memo summarizes the results from a Mann-Kendall test that was performed on groundwater data from two groundwater observation wells at the Omega Chemical Superfund Site, Whittier, California (the Site). In accordance with site-specific USEPA requirements, a groundwater containment remedy (GCR) was installed at the Site to prevent groundwater containing high concentrations of volatile organic compounds from migrating down-gradient of the Site. Groundwater concentrations are monitored twice per year in accordance with the USEPA approved Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System (PSVP) (CDM, 2007). This Mann-Kendall test was conducted on the concentrations of Tetrachloroethene (PCE), Trichloroethene (TCE) and 1,4-Dioxane (14DIOX) measured in OW9 and OW10 to determine if a trend in the data is present.

According to the Interstate Technology Regulatory Council (ITRC),

"The Mann Kendall statistic (S) is calculated through pair-wise comparisons of each data point with all preceding data points, and determining the number of increases, decreases, and ties. Pairs of non-detects below the reporting limit are "ties" that do not increase or decrease the value of S. A positive value for S implies an upward or increasing temporal trend, whereas a negative value implies a downward or decreasing trend. A value of S near zero suggests there is no significant upward or downward trend. The magnitude of S measures the "strength" of the trend. A statistically significant trend is reported if the absolute value of S is greater than the "critical value" of S (obtained from a table)" (ITRC, 2013).

Data

Two data sets are prepared for this assessment; a comprehensive historical data set[1], using data from 2009-2021 (sample size, n=28[1]) and the most recent three years of data, during which time samples were collected biannually (n=6).

The data sets used in this assessment are provided in Table 1. The data were assessed with regard to seasonality; no seasonal correlation was identified. Concentrations that were not detected above the analytical method detection limit are included in the test at the half the reporting limit value. These data points are indicated in Table 1 with the label "(U)". No field-duplicate data were included in the test.

Method

The test was conducted using the software package "R" which is an open source software package used for statistical interpretation. Statistical confidence is set by the user-defined "alpha" variable. After calculating the "S" value, the probability (p-value) is calculated and is compared to the confidence

[1] Historical concentrations of 1,4-Dioxane at OW10 contained non-detect (ND) values at concentrations that exceeded more recent ND concentrations as a result of improved laboratory instrument precision over time. As these historical ND data did not reflect the true sample population, the values were removed from the data set prior to analysis. This only impacts ND samples collected at OW10 prior to August 22nd, 2012.

interval ("alpha") to determine whether to accept or reject the null hypothesis (the null hypothesis is that there is no trend). The p-value is a probabilistic function and in this test is acquired through calculation utilizing the before mentioned statistical software. If the p-value is less than the corresponding alpha, then the test is considered statistically significant.

Results

A summary of the results of this study are presented below. Supporting time series charts are also provided as Attachment A (pages 1-20) in which the data sets are fitted with a least squared regression line as well as separate summary that shows the Theil Sen slope estimate and corresponding confidence intervals (dotted lines) at the 95th percentile. Test statistics are provided in Table 2.

Historically Comprehensive Data Set

Compound	Location	Kendall Score (S)	Alpha Value	p-Value
PCE	OW10	-308	95% (0.05)	1.19957E-09
PCE	OW9	-261	95% (0.05)	2.75170E-07
TCE	OW10	-310	95% (0.05)	1.01427E-09
TCE	OW9	-255	95% (0.05)	4.96527E-07
14DIOX	OW10	31	95% (0.05)	0.254221916
14DIOX	OW9	-73	95% (0.05)	0.154648319

Most Recent Three-Year Data Set

Compound	Location	Kendall Score (S)	Alpha Value	p-Value
PCE	OW10	-11	95% (0.05)	0.051330127
PCE	OW9	-13	95% (0.05)	0.024170551
TCE	OW10	-9	95% (0.05)	0.132854968
TCE	OW9	-15	95% (0.05)	0.008534921
14DIOX	OW10	-3	95% (0.05)	0.70711422
14DIOX	OW9	-7	95% (0.05)	0.24231267

Discussion

A discussion of analyzed data sets is provided below:

Historically Comprehensive Data Set

Both OW9 and OW10 exhibit negative Kendall Scores (S) for all assessed compounds, signifying decreasing concentration trends, with the exception of 1,4-Dioxane at OW10. The strength of the trend is determined by the magnitude of S. In this case, concentrations at OW9 and OW10 show strong decreasing trends for all modeled compounds, except for 1,4-Dioxane at OW9 and OW10 where the trend is considered weaker. The result is statistically significant when the p-value is less than the corresponding alpha value. In this case, under the user-defined conditions shown in the table above, all trends are considered statistically significant, with the exception of OW9 – 1,4-Dioxane, which exhibits a weak downward trend with low confidence and OW10 – 1,4-Dioxane, which exhibits a weak upward trend with low confidence. For these instances, the p values are greater than our user defined alpha (the user-defined confidence in the result is shown by the alpha number; the lower the alpha, and consequent higher confidence interval, the higher the confidence in the estimation), thus we fail to reject the null hypothesis at the 95% confidence interval and cannot accept the hypothesis that there is a

statistically significant trend for 1,4-Dioxane at OW9 and OW10. However, the S value and the application of additional methodologies for robust fitting of linear trends (Theil-Sen Estimate – Table 2), both recognize a weak downward trend for OW9 and no trend for OW10, therefore, the result is being considered low confidence, but exhibiting a weak downward trend to stable/no trend.

The lower confidence in the trend for 1,4-Dioxane at OW9 likely results from wide variability in the data at that location. The lower confidence at OW10 likely results from a) the reduced sample population (n=14 vs n=24) as well as, b) the proximity to the detectable instrument precision.

Most Recent Three-Year Data Set

Both OW9 and OW10 exhibit negative Kendall Scores (S) for most assessed compounds, signifying decreasing concentration trends. The strength of the trend is determined by the magnitude of S. In this case, concentrations at OW9 and OW10 show weak to no trends for all modeled compounds.

The result is statistically significant when the p-value is less than the corresponding alpha value. In this case, under the user-defined conditions shown in the table above, trends are considered statistically significant only at OW9 for PCE and TCE.OW10 - TCE is not statistically significant but should be considered stable, and OW10 – PCE has a p-Value <0.1 and > 0.5 and is probably decreasing.

OW9 – 1,4-Dioxane, which exhibits a downward trend with low confidence and OW10 – 1,4-Dioxane, which exhibits a weak downward trend with low confidence. For these instances, the p values are greater than our user defined alpha (the user-defined confidence in the result is shown by the alpha number; the lower the alpha, and consequent higher confidence interval, the higher the confidence in the estimation), thus we fail to reject the null hypothesis at the 95% confidence interval and cannot accept the hypothesis that there is a statistically significant trend for 1,4-Dioxane at OW9 and OW10. However, the S value and the application of additional methodologies for robust fitting of linear trends (Theil-Sen Estimate – Table 2), both recognize a downward trend for OW9 and weak trend for OW10, therefore, the result is being considered low confidence, but exhibiting a weak downward trend to downward trend.

The lower confidence in the trend for 1,4-Dioxane at OW9 likely results from wide variability in the data at that location. The lower confidence at OW10 likely results from a) the reduced sample population (n=14 vs n=24) as well as, b) the proximity to the detectable instrument precision.

Observations

Summarizing the discussion above, the following are observed:

- Historical concentrations of PCE and TCE at OW9 and OW10 display strong downward trends, with a high degree of confidence when assessed. The most recent three-year data set indicates a weak downward trend for OW9 and stable/no trend for OW10 with low confidence.

- Concentrations of 1,4-Dioxane at OW10 under the Historically Comprehensive Data Set and the most recent three-year data set are stable/no trend with a low degree of confidence.

- Historical concentrations of 1,4-Dioxane at OW9 display a weak downward trend with a low degree of confidence. Variability in the 1,4-Dioxane data at this location are likely resulting in the weak downward trend. Utilizing the most recent three-year data set, the trend is observed to be weakly downward with low confidence.

Conclusions

The statistical significance of the Mann Kendall method increases with sample size. Results of the analysis indicate decreasing trends in concentration for both PCE and TCE using the full historical data record at the 95% confidence level. The historical 1,4-Dioxane data for both OW9 and OW10 is inconclusive of a trend at the 95% confidence level (stable/no trend). Results of the trend analysis combining the Mann Kendall Analysis and Theil Sen Estimate for the most recent three years of data indicate a weak downward trend to stable/no trend for PCE, TCE, and 1,4-Dioxane at OW9 and OW10 but fails to achieve a 95% confidence level. Therefore, the conclusion for the most recent three years of data is that concentrations based on the Mann Kendall analysis are stable/no trend.

As concentrations for analytes approach far reduced concentrations from historical records, monitoring of trends largely reflects the natural variation in sample concentrations and not necessarily any consistent trend in the data set. It is therefore concluded that the trend for OW9 – OW10 for all compounds should be considered slightly downward to stable/no trend.

In accordance with the objective stated in the PSVP, decreasing to stable / no trending concentrations are observed at down-gradient wells OW9 and OW10 (CDM, 2007).

References

CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System.*

ITRC. (2013). *Groundwater Statistics and Monitoring Compliance, Statistical Tools for the Project Life Cycle.* Washington D.C.: https://connect.itrcweb.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=e215cc5e-3ad1-4626-b1e5-981a324958ab&forceDialog=0

US EPA (2016) *CADDIS Volume 4 – Data Analysis*: https://www.epa.gov/caddis-vol4

Table 1
Omega Chemical Superfund Site
Mann-Kendall Data Set - Third Quarter 2021

Historically Comprehensive Data Set

Sample Location	Date	TCE - ug/l
OW10	3/4/2009	23
OW10	9/2/2009	20
OW10	12/29/2009	19
OW10	3/3/2010	16
OW10	6/23/2010	8.6
OW10	9/1/2010	9.8
OW10	2/3/2011	6.6
OW10	8/24/2011	3.7
OW10	2/21/2012	3.1
OW10	8/22/2012	5.4
OW10	3/1/2013	5.3
OW10	8/21/2013	5.2
OW10	2/18/2014	6.1
OW10	8/12/2014	4.9
OW10	2/25/2015	3.6
OW10	8/13/2015	2.6
OW10	2/11/2016	2.6
OW10	8/19/2016	1.2
OW10	2/13/2017	2.5
OW10	8/9/2017	2.7
OW10	2/15/2018	1.1
OW10	8/23/2018	1.4
OW10	2/12/2019	1.3
OW10	8/20/2019	1.6
OW10	1/23/2020	2
OW10	7/17/2020	1.1
OW10	1/13/2021	0.82
OW10	7/16/2021	0.81

Sample Location	Date	TCE - ug/l
OW9	3/3/2009	1200
OW9	9/1/2009	1100
OW9	12/29/2009	920
OW9	3/2/2010	1300
OW9	6/23/2010	630
OW9	8/31/2010	830
OW9	2/2/2011	1500
OW9	8/24/2011	1400
OW9	2/21/2012	440
OW9	8/21/2012	220
OW9	3/1/2013	220
OW9	8/21/2013	410
OW9	2/19/2014	480
OW9	8/13/2014	720
OW9	2/26/2015	760
OW9	8/14/2015	580
OW9	2/11/2016	280
OW9	8/19/2016	340
OW9	2/14/2017	350
OW9	8/10/2017	150
OW9	2/13/2018	220
OW9	8/23/2018	200
OW9	2/12/2019	240
OW9	8/20/2019	220
OW9	1/22/2020	150
OW9	7/17/2020	140
OW9	1/13/2021	93
OW9	7/15/2021	84

Sample Location	Date	PCE - ug/l
OW10	3/4/2009	220
OW10	9/2/2009	200
OW10	12/29/2009	210
OW10	3/3/2010	150
OW10	6/23/2010	110
OW10	9/1/2010	120
OW10	2/3/2011	68
OW10	8/24/2011	57
OW10	2/21/2012	48
OW10	8/22/2012	71
OW10	3/1/2013	61
OW10	8/21/2013	55
OW10	2/18/2014	73
OW10	8/12/2014	63
OW10	2/25/2015	48
OW10	8/13/2015	37
OW10	2/11/2016	27
OW10	8/19/2016	19
OW10	2/13/2017	29
OW10	8/9/2017	37
OW10	2/15/2018	15
OW10	8/23/2018	19
OW10	2/12/2019	19
OW10	8/20/2019	22
OW10	1/23/2020	19
OW10	7/17/2020	15
OW10	1/13/2021	12
OW10	7/16/2021	12

Sample Location	Date	PCE - ug/l
OW9	3/3/2009	28000
OW9	9/1/2009	26000
OW9	12/29/2009	20000
OW9	3/2/2010	18000
OW9	6/23/2010	15000
OW9	8/31/2010	20000
OW9	2/2/2011	23000
OW9	8/24/2011	21000
OW9	2/21/2012	9000
OW9	8/21/2012	4500
OW9	3/1/2013	3700
OW9	8/21/2013	6400
OW9	2/19/2014	8600
OW9	8/13/2014	16000
OW9	2/26/2015	11000
OW9	8/14/2015	15000
OW9	2/11/2016	5200
OW9	8/19/2016	8100
OW9	2/14/2017	5300
OW9	8/10/2017	2100
OW9	2/13/2018	5000
OW9	8/23/2018	4000
OW9	2/12/2019	4700
OW9	8/20/2019	4200
OW9	1/22/2020	4000
OW9	7/17/2020	2500
OW9	1/13/2021	1500
OW9	7/15/2021	1800

Sample Location	Date	1,4-Dioxane - ug/l
OW10	3/1/2013	0.21
OW10	8/21/2013	0.15
OW10	2/18/2014	0.12
OW10	8/12/2014	0.095 U
OW10	2/25/2015	0.25
OW10	8/13/2015	0.1
OW10	2/11/2016	1 U
OW10	8/19/2016	0.13
OW10	2/13/2017	0.21 U
OW10	8/9/2017	0.12
OW10	2/15/2018	0.49 U
OW10	8/23/2018	0.12
OW10	2/12/2019	0.66
OW10	8/20/2019	0.16
OW10	1/23/2020	0.49 U
OW10	7/17/2020	0.77
OW10	1/13/2021	0.54
OW10	7/16/2021	0.1 U

Sample Location	Date	1,4-Dioxane - ug/l
OW9	3/3/2009	1000
OW9	9/1/2009	830
OW9	12/29/2009	630
OW9	3/2/2010	910
OW9	6/23/2010	700
OW9	8/31/2010	930
OW9	2/2/2011	1600
OW9	8/24/2011	1400
OW9	2/21/2012	520
OW9	8/21/2012	260
OW9	3/1/2013	300
OW9	8/21/2013	430
OW9	2/19/2014	340
OW9	8/13/2014	960
OW9	2/26/2015	830
OW9	8/14/2015	990
OW9	2/11/2016	1300
OW9	8/19/2016	800
OW9	2/14/2017	580
OW9	8/10/2017	860
OW9	2/13/2018	980
OW9	8/23/2018	780
OW9	2/12/2019	620
OW9	8/20/2019	480
OW9	1/22/2020	850
OW9	7/17/2020	620
OW9	1/13/2021	480
OW9	7/15/2021	400

Most Recent Three Year Data Set

Sample Location	Date	TCE - ug/l
OW10	2/12/2019	1.3
OW10	8/20/2019	1.6
OW10	1/23/2020	2.0
OW10	7/17/2020	1.1
OW10	1/13/2021	0.82
OW10	7/16/2021	0.81

Sample Location	Date	TCE - ug/l
OW9	2/12/2019	240
OW9	8/20/2019	220
OW9	1/22/2020	150
OW9	7/17/2020	140
OW9	1/13/2021	93
OW9	7/15/2021	84

Sample Location	Date	PCE - ug/l
OW10	2/12/2019	19
OW10	8/20/2019	22
OW10	1/23/2020	19
OW10	7/17/2020	15
OW10	1/13/2021	12
OW10	7/16/2021	12

Sample Location	Date	PCE - ug/l
OW9	2/12/2019	4700
OW9	8/20/2019	4200
OW9	1/22/2020	4000
OW9	7/17/2020	2500
OW9	1/13/2021	1500
OW9	7/15/2021	1800

Sample Location	Date	1,4-Dioxane - ug/l
OW10	2/12/2019	0.66
OW10	8/20/2019	0.16
OW10	1/23/2020	0.49 U
OW10	7/17/2020	0.77
OW10	1/13/2021	0.54
OW10	7/16/2021	0.1 U

Sample Location	Date	1,4-Dioxane - ug/l
OW9	2/12/2019	620
OW9	8/20/2019	480
OW9	1/22/2020	850
OW9	7/17/2020	620
OW9	1/13/2021	480
OW9	7/15/2021	400

Table 2 - Mann-Kendall Summary - Omega Chemical Superfund Site -Third Quarter 2021

Historically Comprehensive

Summary Statistics

Parameter	Location	n	Mean	Standard Deviation	Median	Trimmed Mean	Median Absolute Deviation	Minimum	Maximum	Range	Skew	Kurtosis	Standard Error
PCE	OW10	28	65.571	61.358	48.000	57.583	40.772	12	220	208	1.354	0.657	11.596
PCE	OW9	28	10485.714	8087.197	7250.000	9845.833	6301.050	1500	28000	26500	0.688	-0.965	1528.337
TCE	OW10	28	5.787	6.225	3.350	4.892	3.039	1	23	22	1.542	1.156	1.176
TCE	OW9	28	542.036	428.962	380.000	504.167	340.998	84	1500	1416	0.855	-0.616	81.066
14DIOX	OW10	18	0.251	0.216	0.155	0.232	0.107	0	1	1	1.175	-0.030	0.051
14DIOX	OW9	28	763.571	326.011	790.000	742.500	289.107	260	1600	1340	0.605	-0.033	61.610

Mann Kendall Analysis

Parameter	Location	Kendall Score (S)	Denominator	Tau	Var(score)	2-sided p value	Theil Sen Estimate
PCE	OW10	-308	372.9665	-0.825811386	2549.3333	1.19957E-09	-9.33
PCE	OW9	-261	376.4970	-0.693232596	2559	2.75170E-07	-1667.6
TCE	OW10	-310	376.9987	-0.822284043	2560	1.01427E-09	-0.8
TCE	OW9	-255	374.4836	-0.680937648	2552.3333	4.96527E-07	−75.43
14DIOX	OW10	31	150.9868	0.205316022	692.33331	0.254221916	0.01
14DIOX	OW9	-73	376.4970	-0.193892643	2559	0.154648319	-20.53

Most Recent Three Years

Summary Statistics

Parameter	Location	n	Mean	Standard Deviation	Median	Trimmed Mean	Median Absolute Deviation	Minimum	Maximum	Range	Skew	Kurtosis	Standard Error
PCE	OW10	6	16.500	4.135	17.000	16.500	5.189	12	22	10	0.028	-1.964	1.688
PCE	OW9	6	3116.667	1355.606	3250.000	3116.667	1779.120	1500	4700	3200	-0.054	-2.099	553.424
TCE	OW10	6	1.272	0.466	1.200	1.272	0.571	1	2	1	0.373	-1.653	0.190
TCE	OW9	6	154.500	64.162	145.000	154.500	83.767	84	240	156	0.202	-1.909	26.194
14DIOX	OW10	6	0.404	0.293	0.393	0.404	0.371	0	1	1	0.035	-2.035	0.119
14DIOX	OW9	6	575.000	160.219	550.000	575.000	103.782	400	850	450	0.563	-1.273	65.409

Mann Kendall Analysis

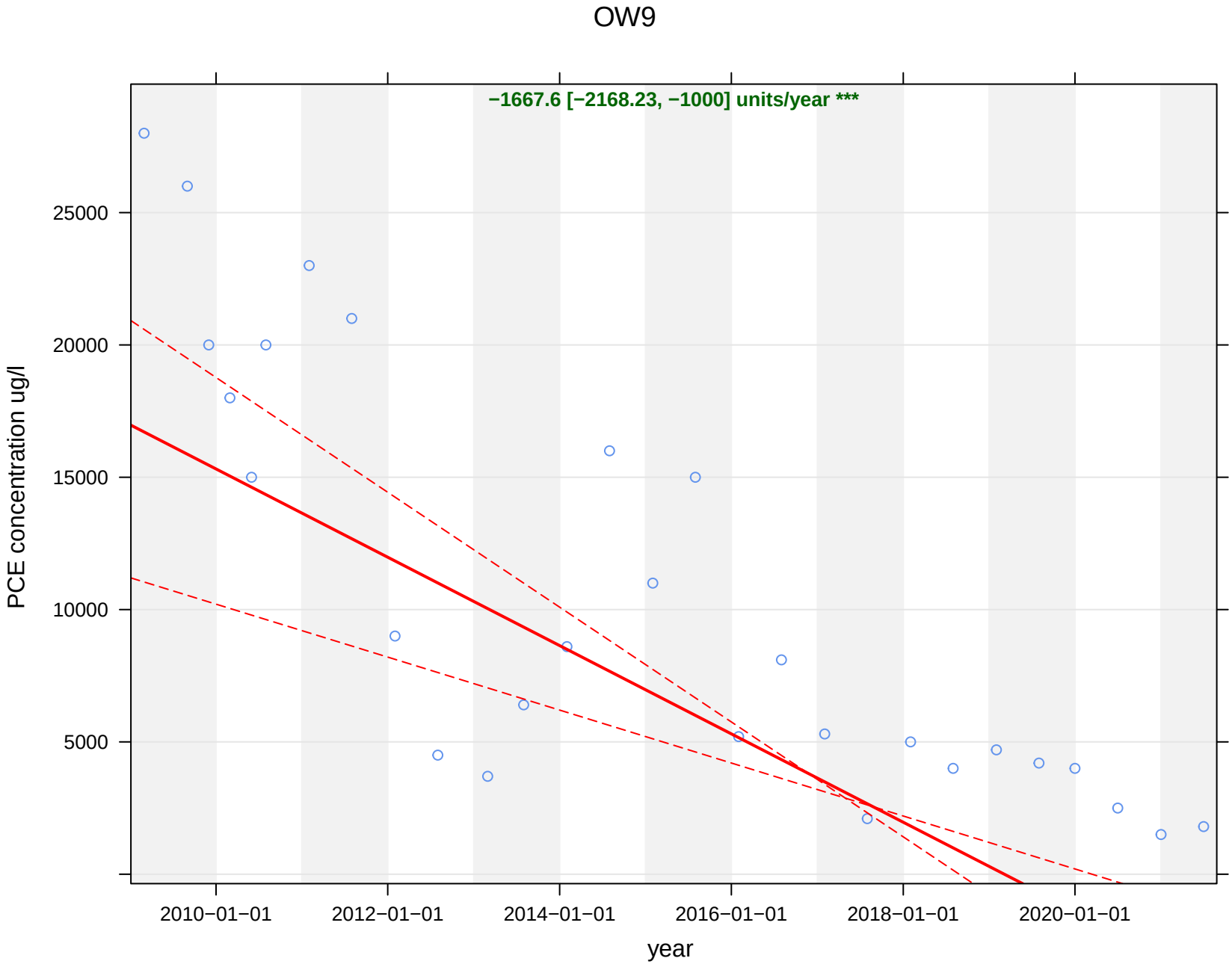
Parameter	Location	Kendall Score (S)	Denominator	Tau	Var(score)	2-sided p value	Theil Sen Estimate	
PCE	OW10	-11	13.9642	-0.787726343	26.333334	0.051330127	-4.73	-0.00133
PCE	OW9	-13	15.0000	-0.866666615	28.333334	0.024170551	-1487.04	0.025829
TCE	OW10	-9	15.0000	-0.599999964	28.333334	0.132854968	-0.29	-0.08285
TCE	OW9	-15	15.0000	-0.99999994	28.333334	0.008534921	-70.06	0.041465
14DIOX	OW10	-3	15.0000	-0.199999988	28.333334	0.70711422	-0.06	-0.65711
14DIOX	OW9	-7	13.9642	-0.501280427	26.333334	0.24231267	-90.84	-0.19231

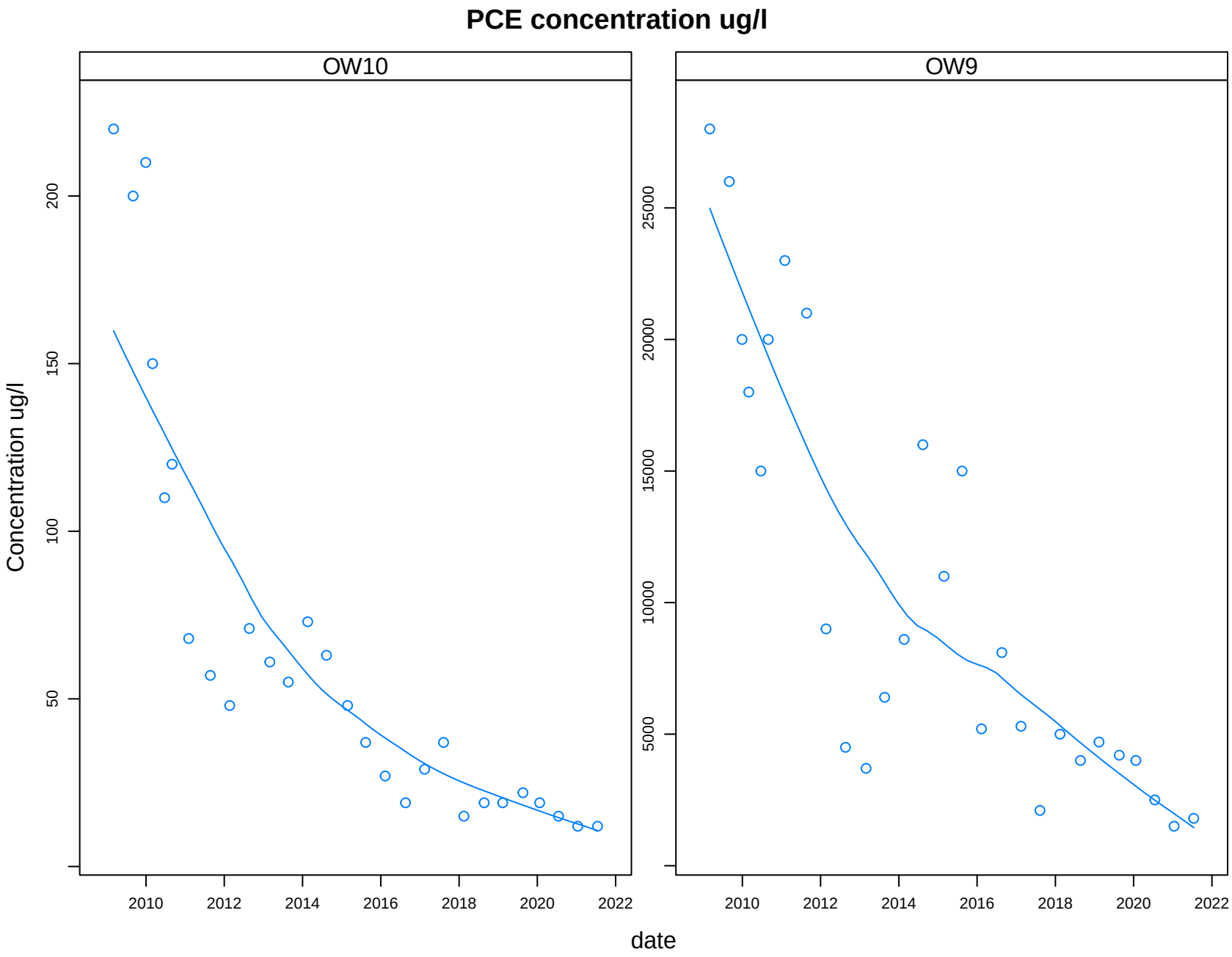
n = number of discrete samples in dataset.
Mean =A central value of a discrete set of numbers.
Standard Deviation = A measure of how spread out numbers are and is equal to square root of the variance.
Median = Is the value separating the higher half of a dataset.
Trimmed Mean = A method of averaging that removes a small designated percentage of the largest and smallest values before calculating the mean.
Median Absolute Deviation = A robust measure of the variability of a univariate sample of quantitative data.
Minimum = The minimum value in the dataset.
Maximum = The maximum value in the dataset.
Range = The difference between the lowest and highest values.
Skew = A measure of the asymmetry of the probability distribution of a real-valued random variable about its mean.
Kurtosis = A statistical measure that's used to describe the distribution, or skewness, of observed data around the mean.
Standard Error = The standard deviation of the sampling distribution of the mean.
Kendall Score - (S) = Kendall Score.
Denominator = The maximum possible value of S.
Tau = Kendall Tau Statistic (Kendall Score / Denominator).
Var(score) = Variance in Kendall Score (S).
2-sided p-value = The probability of finding the observed, or more extreme, results when the null hypothesis (H 0) of a study question is true.
Theil Sen Estimate = A method for robustly fitting a line to a set of points (simple linear regression) that chooses the median of the slopes of all lines through pairs of two-dimensional sample points.

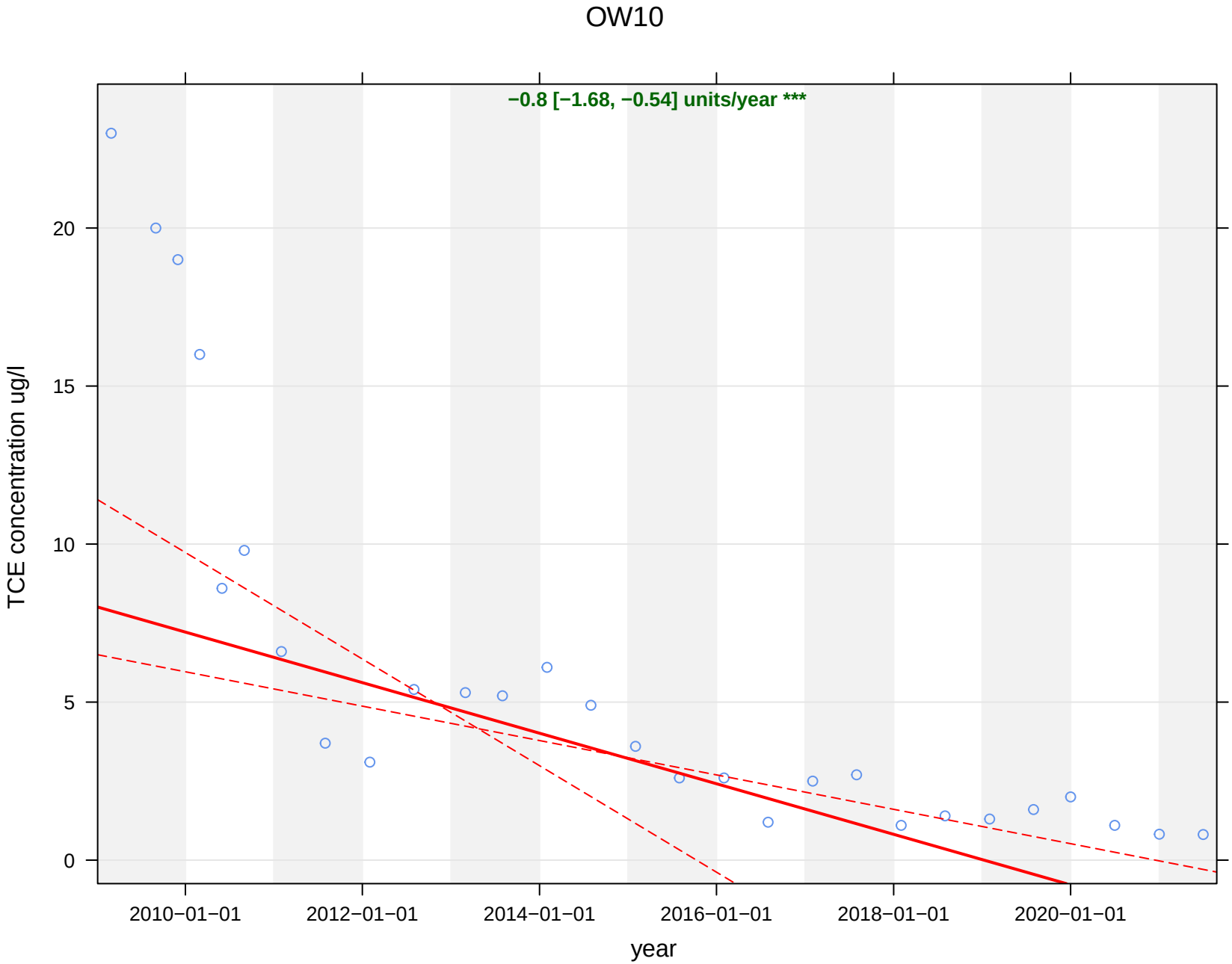
ATTACHMENT A

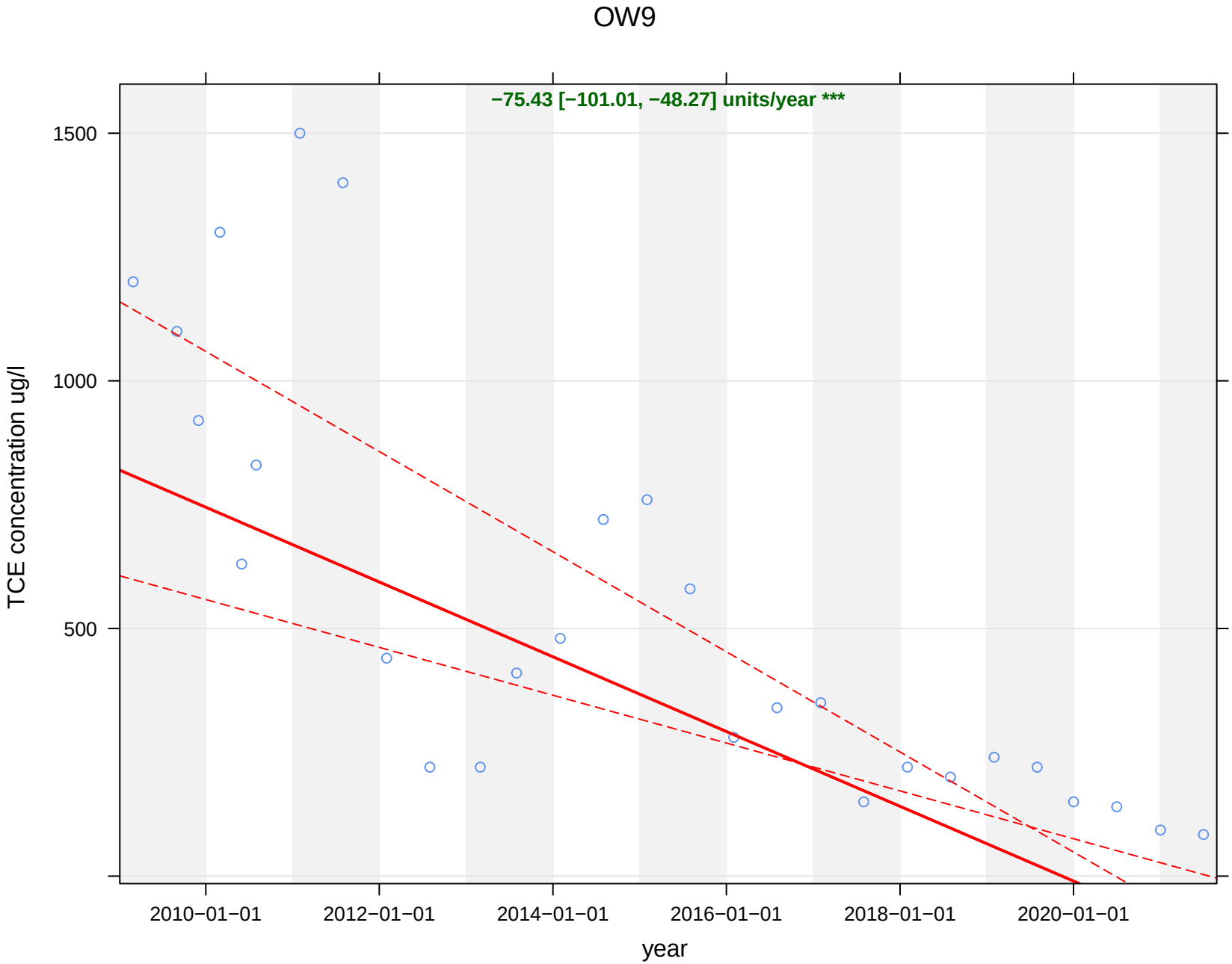
Historically Comprehensive Analysis

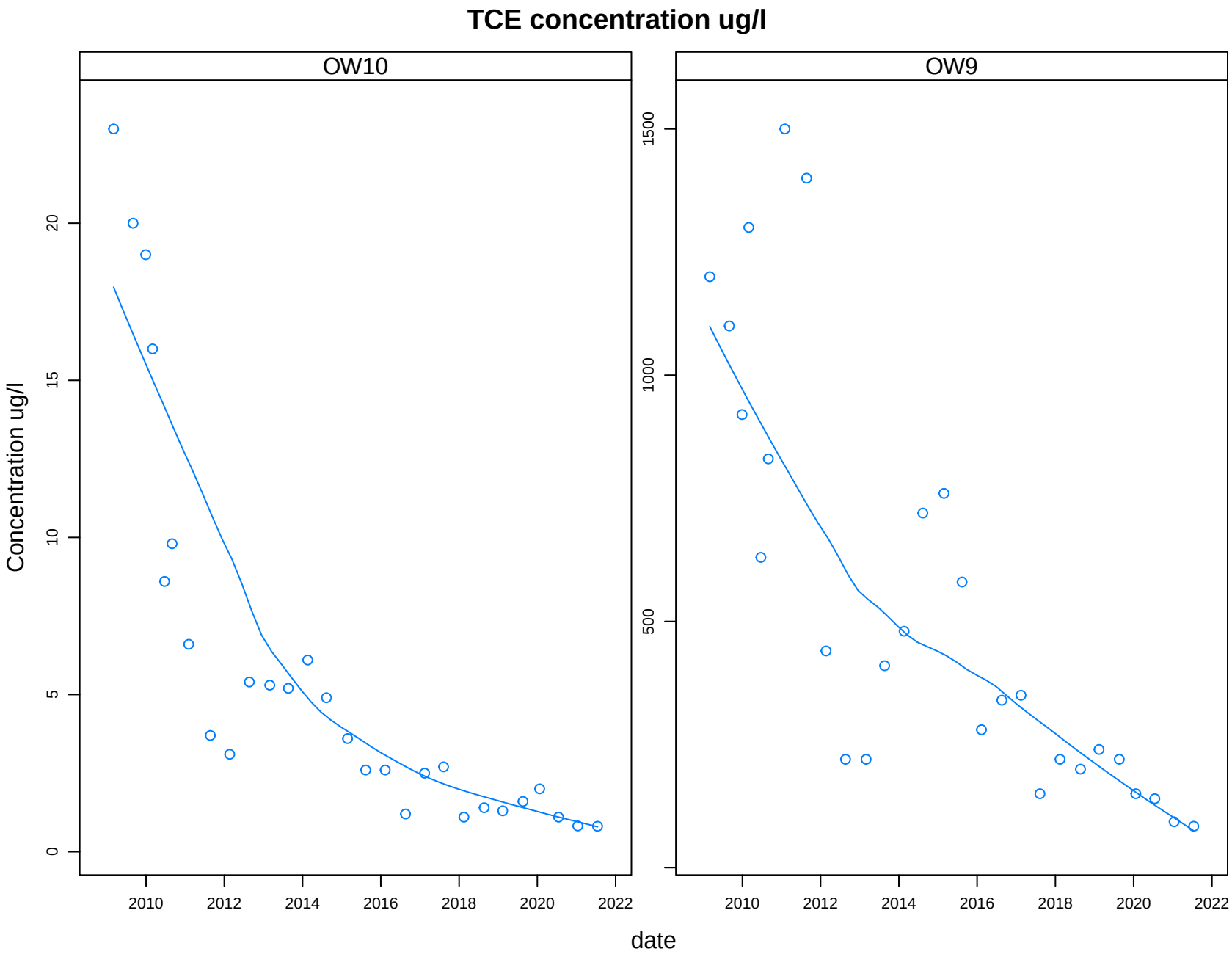
OW10
−9.33 [−17.15, −6.12] units/year ***
PCE concentration ug/l
200
150
100
50
2010−01−01
2012−01−01
2014−01−01
2016−01−01
2018−01−01
2020−01−01
year

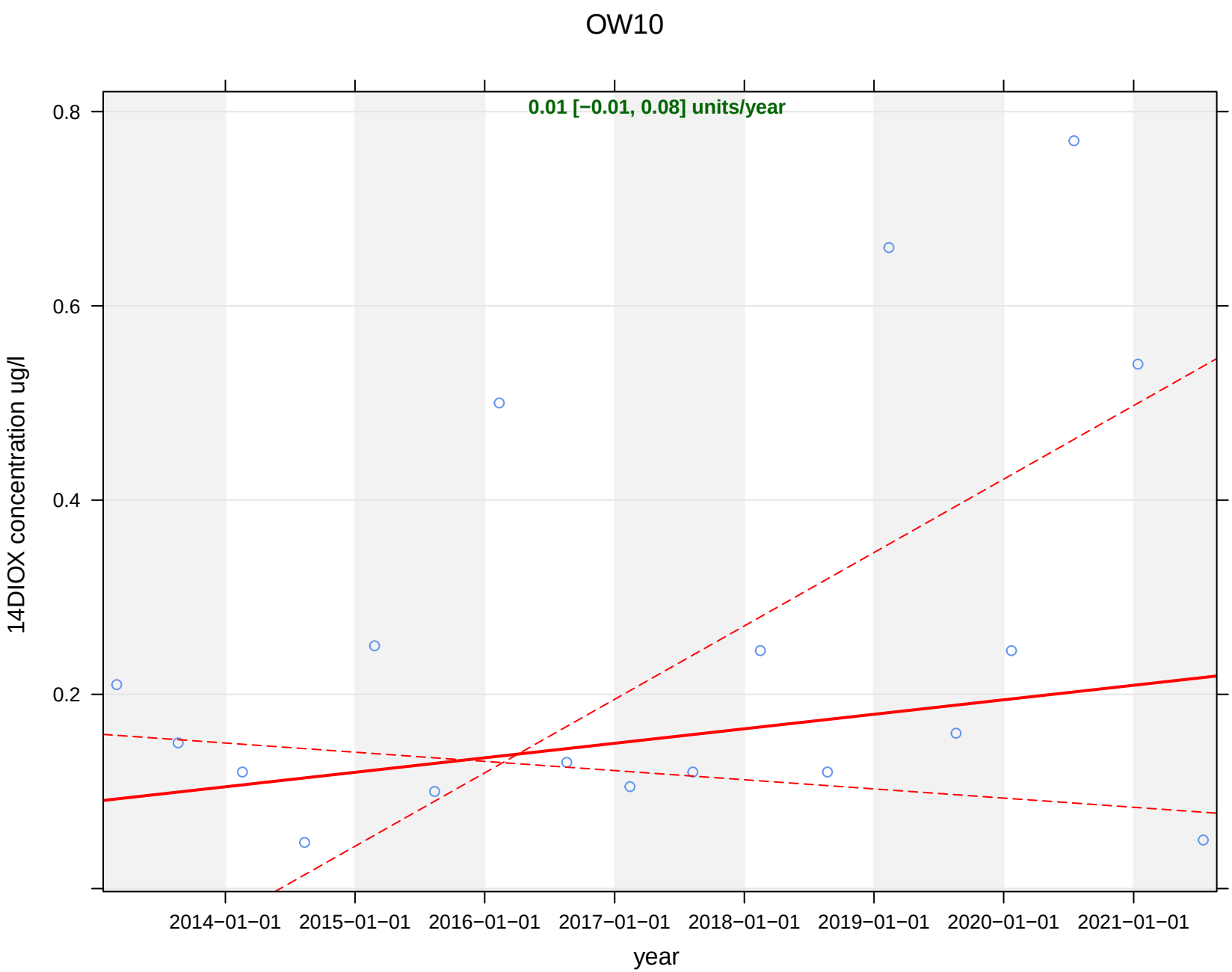

OW9
−1667.6 [−2168.23, −1000] units/year ***
PCE concentration ug/l
25000
20000
15000
10000
5000
2010−01−01
2012−01−01
2014−01−01
2016−01−01
2018−01−01
2020−01−01
year

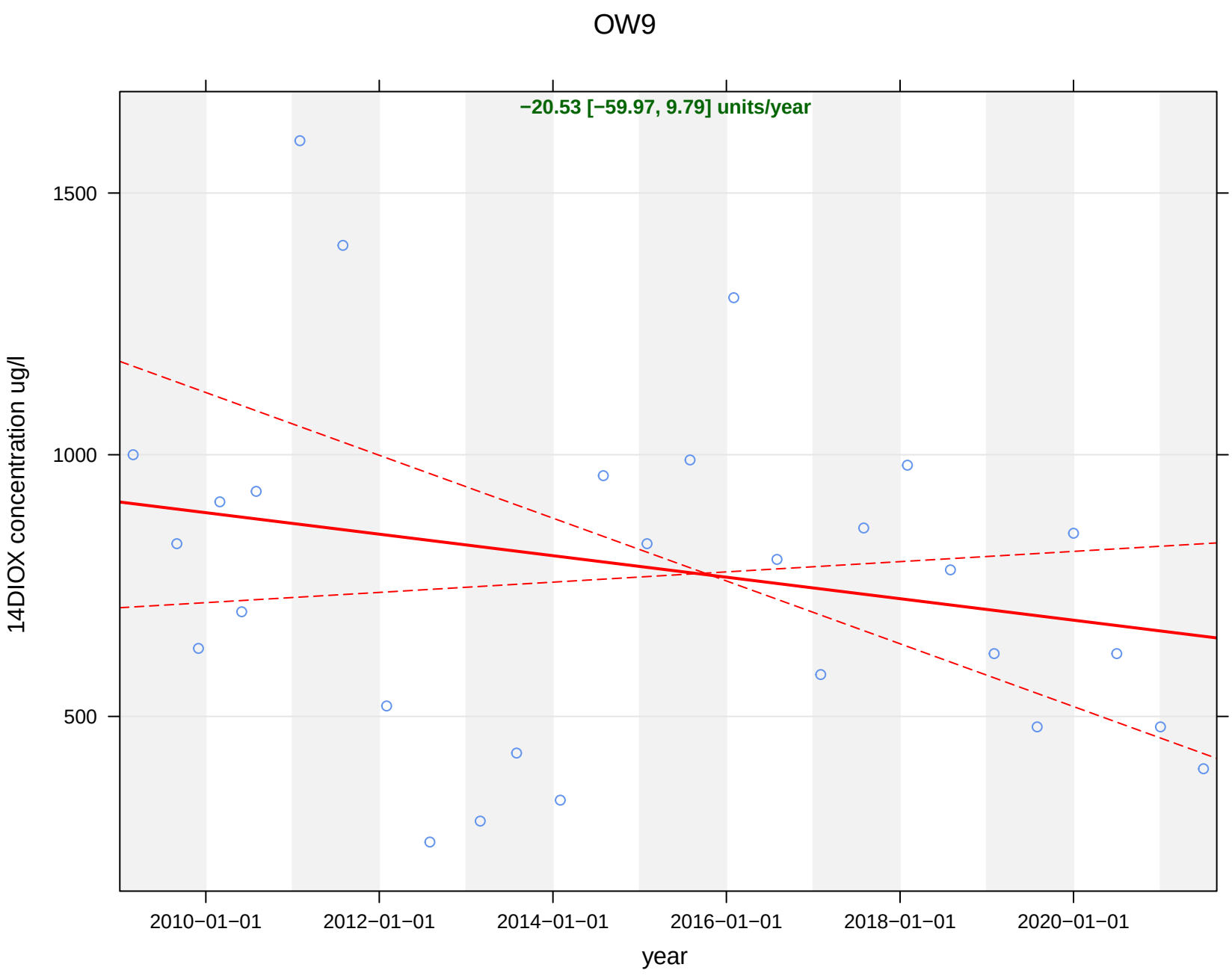

PCE concentration ug/l
OW10
OW9
Concentration ug/l
200
150
100
50
25000
20000
15000
10000
5000
2010
2012
2014
2016
2018
2020
2022
date

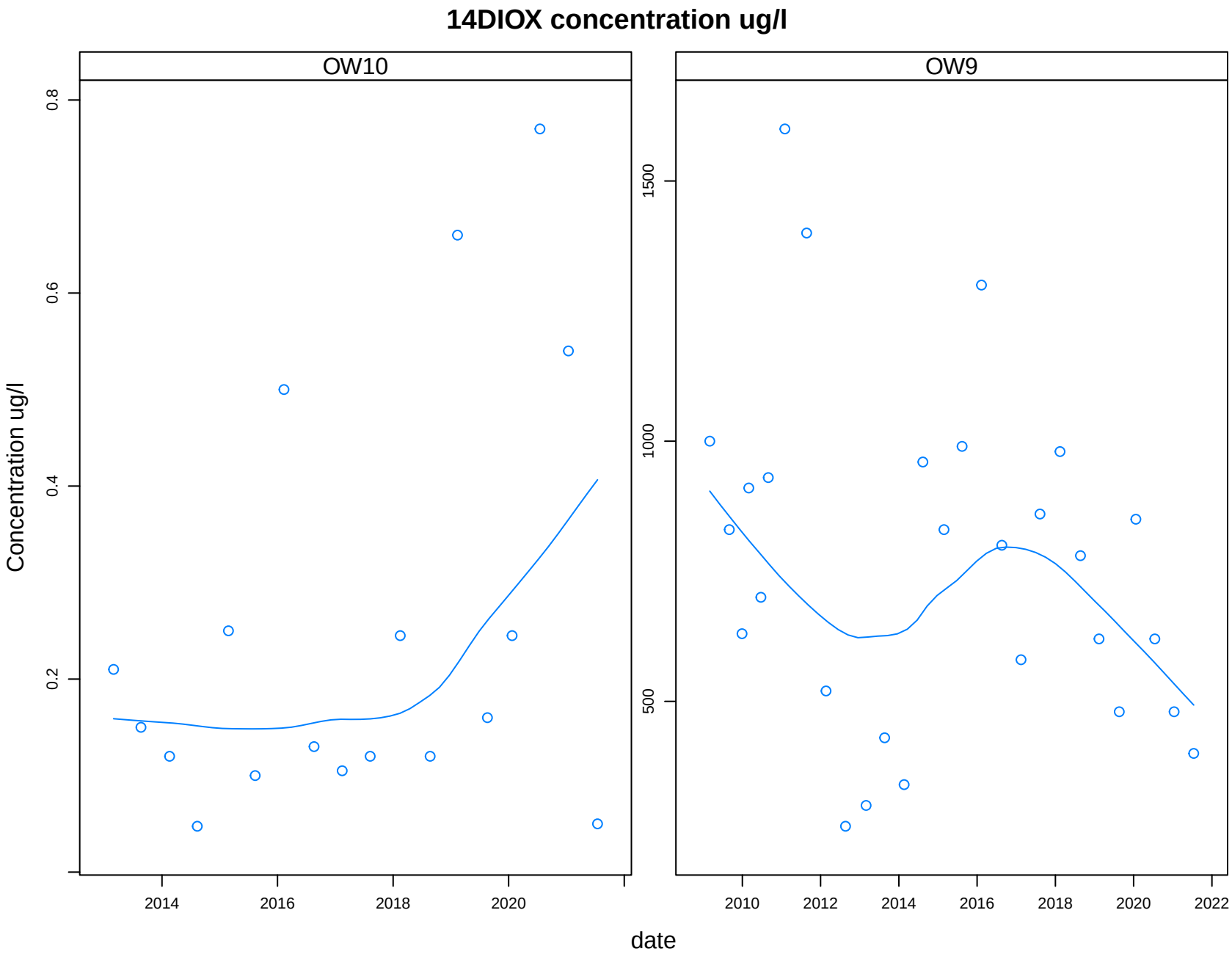

OW10
−0.8 [−1.68, −0.54] units/year ***
TCE concentration ug/l
0
5
10
15
20
2010−01−01
2012−01−01
2014−01−01
2016−01−01
2018−01−01
2020−01−01
year


OW9
−75.43 [−101.01, −48.27] units/year ***
1500
1000
500
TCE concentration ug/l
2010−01−01
2012−01−01
2014−01−01
2016−01−01
2018−01−01
2020−01−01
year

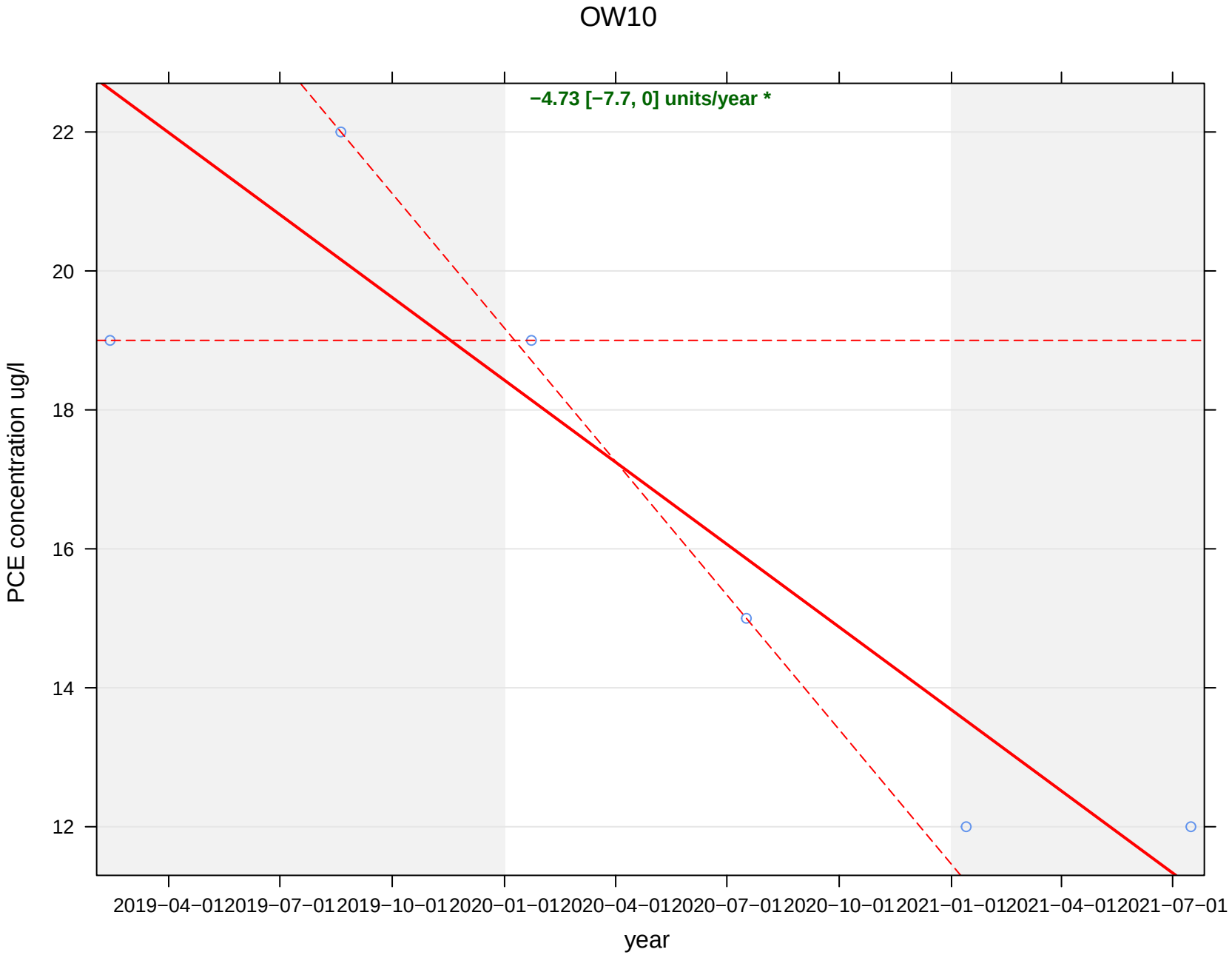

TCE concentration ug/l
OW10
OW9
Concentration ug/l
date
0
5
10
15
20
500
1000
1500
2010
2012
2014
2016
2018
2020
2022

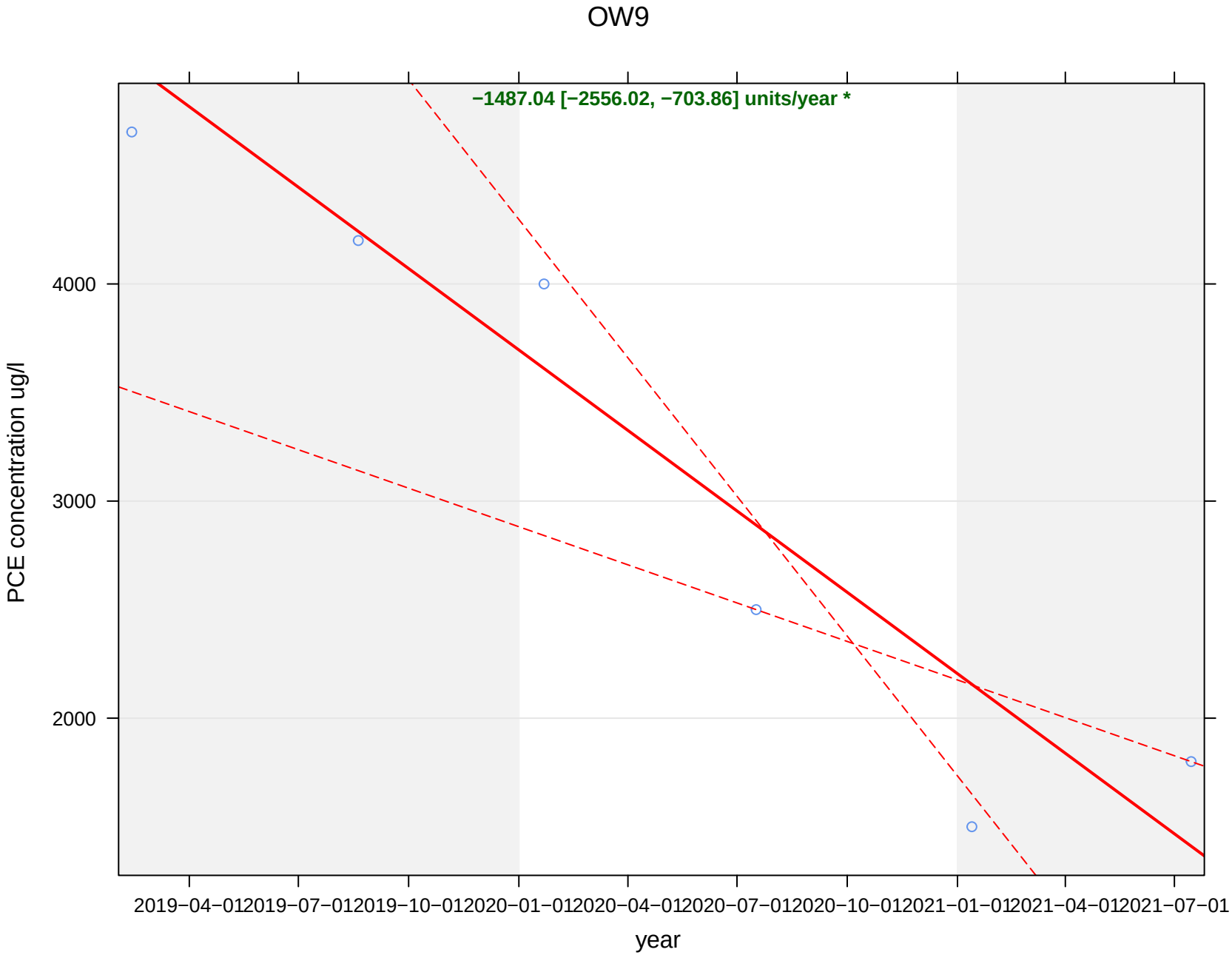

OW10
0.01 [−0.01, 0.08] units/year
14DIOX concentration ug/l
0.8
0.6
0.4
0.2
2014−01−01
2015−01−01
2016−01−01
2017−01−01
2018−01−01
2019−01−01
2020−01−01
2021−01−01
year

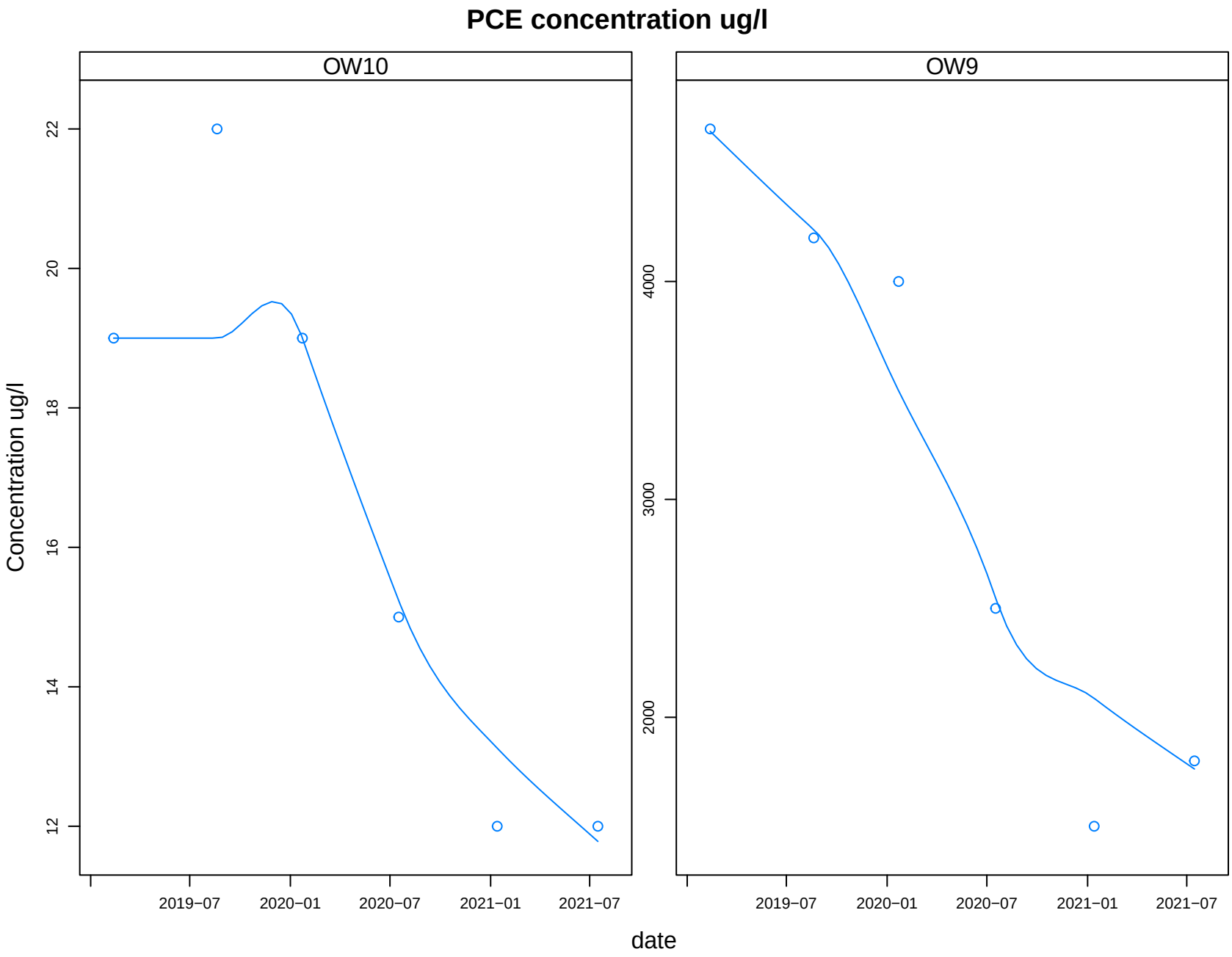

OW9
−20.53 [−59.97, 9.79] units/year
1500
1000
500
14DIOX concentration ug/l
2010−01−01
2012−01−01
2014−01−01
2016−01−01
2018−01−01
2020−01−01
year

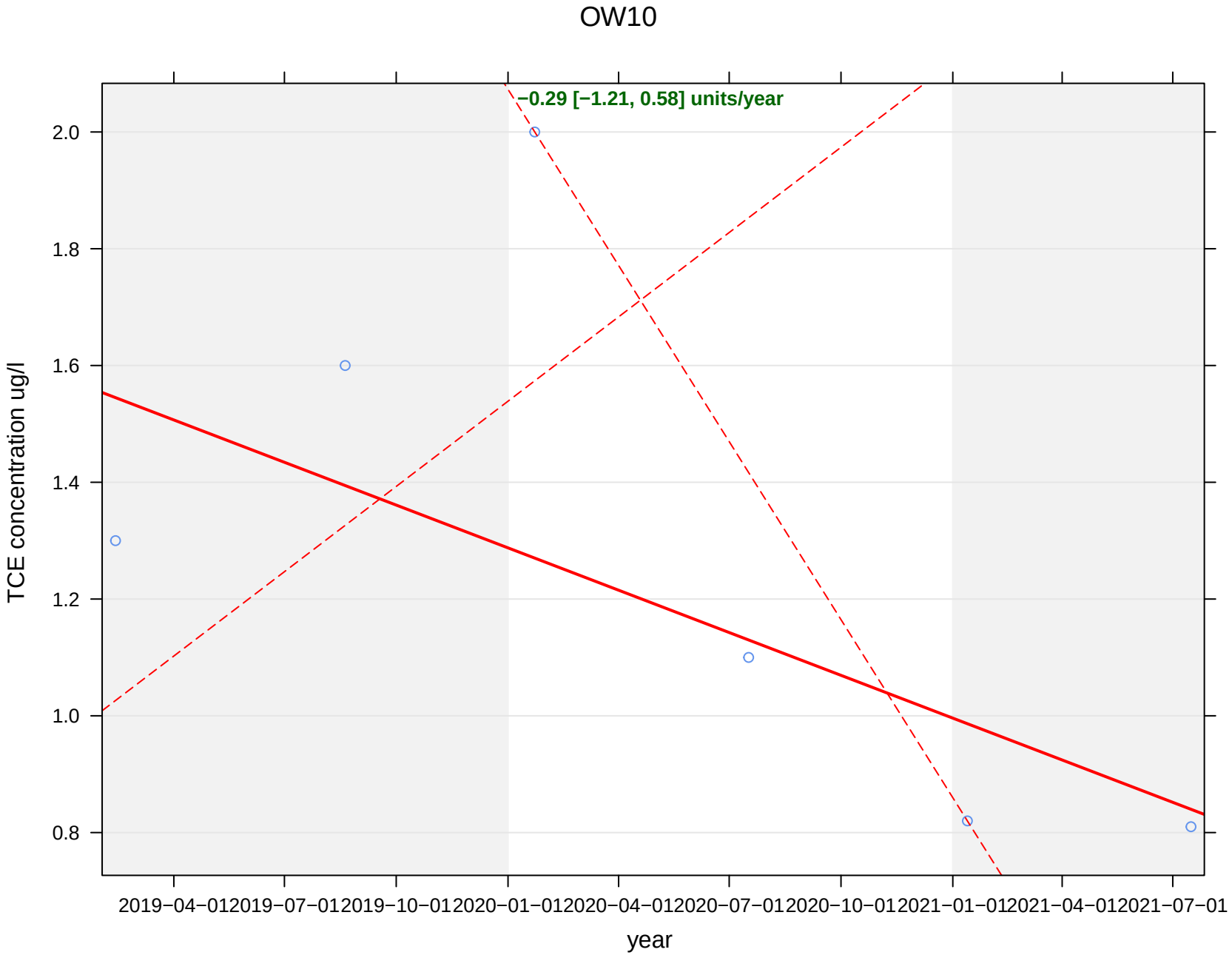

14DIOX concentration ug/l
OW10
OW9
Concentration ug/l
0.2
0.4
0.6
0.8
500
1000
1500
2014
2016
2018
2020
2010
2012
2014
2016
2018
2020
2022
date

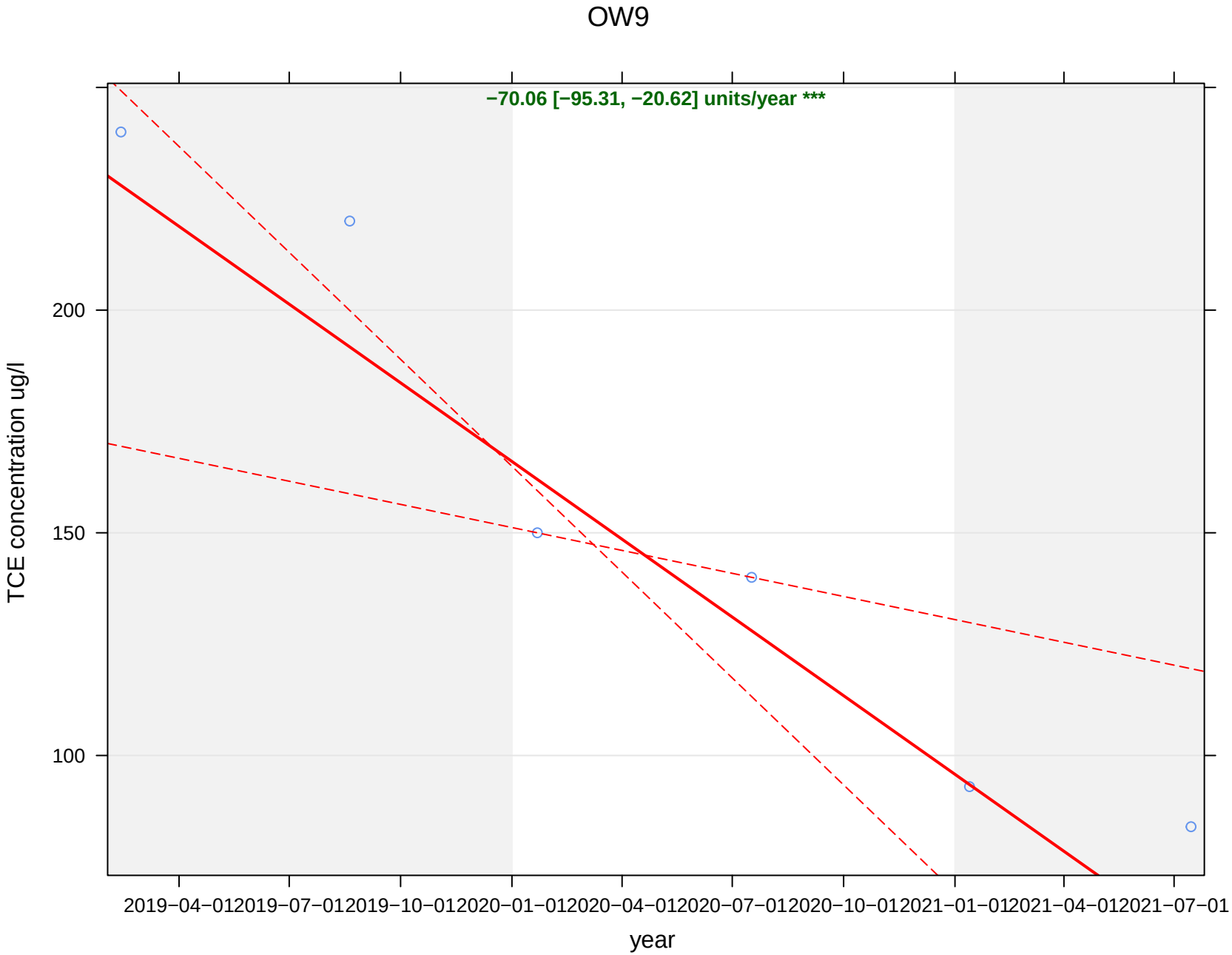
Most Recent Three-Year Analysis

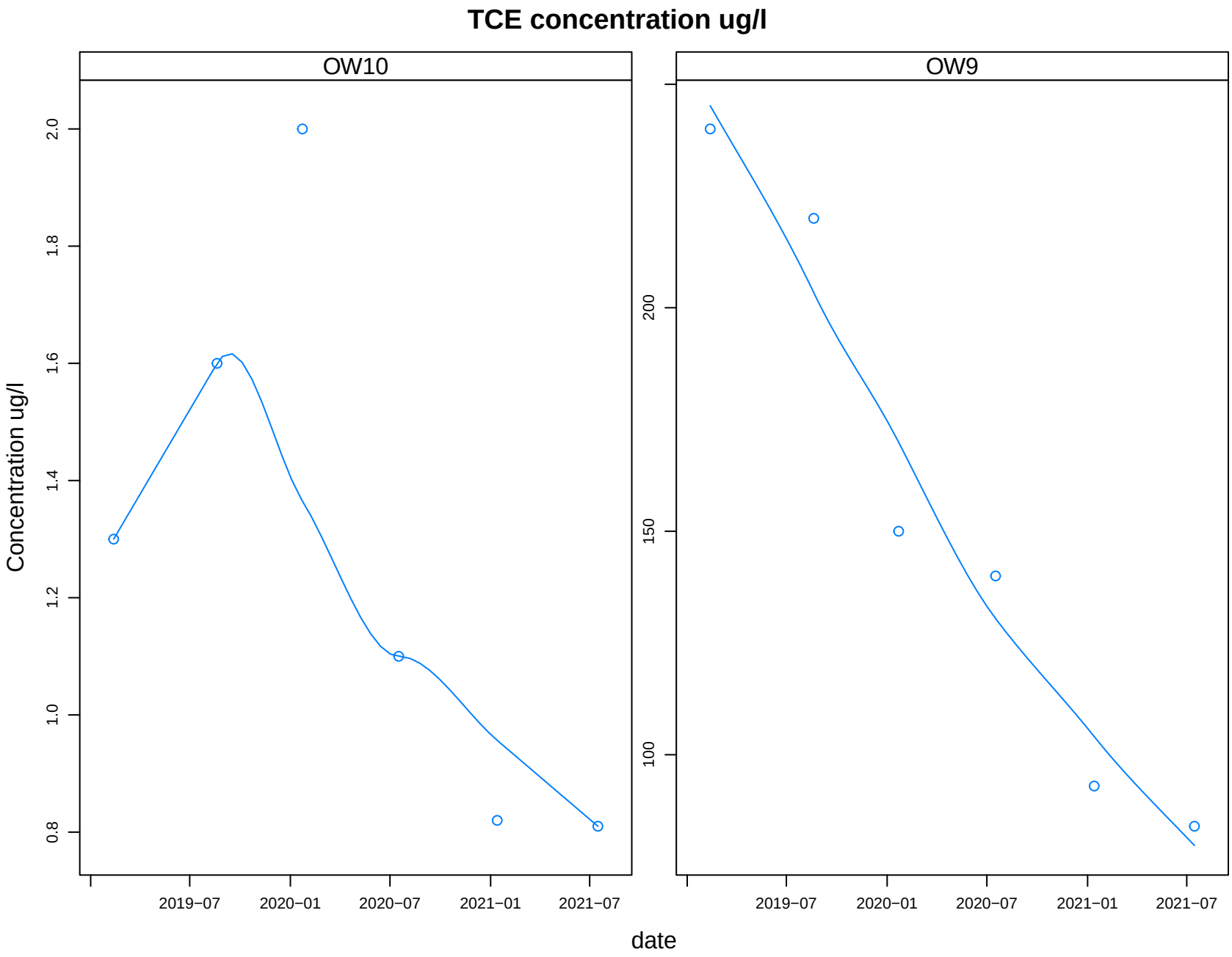

OW10
−4.73 [−7.7, 0] units/year *
PCE concentration ug/l
22
20
18
16
14
12
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year

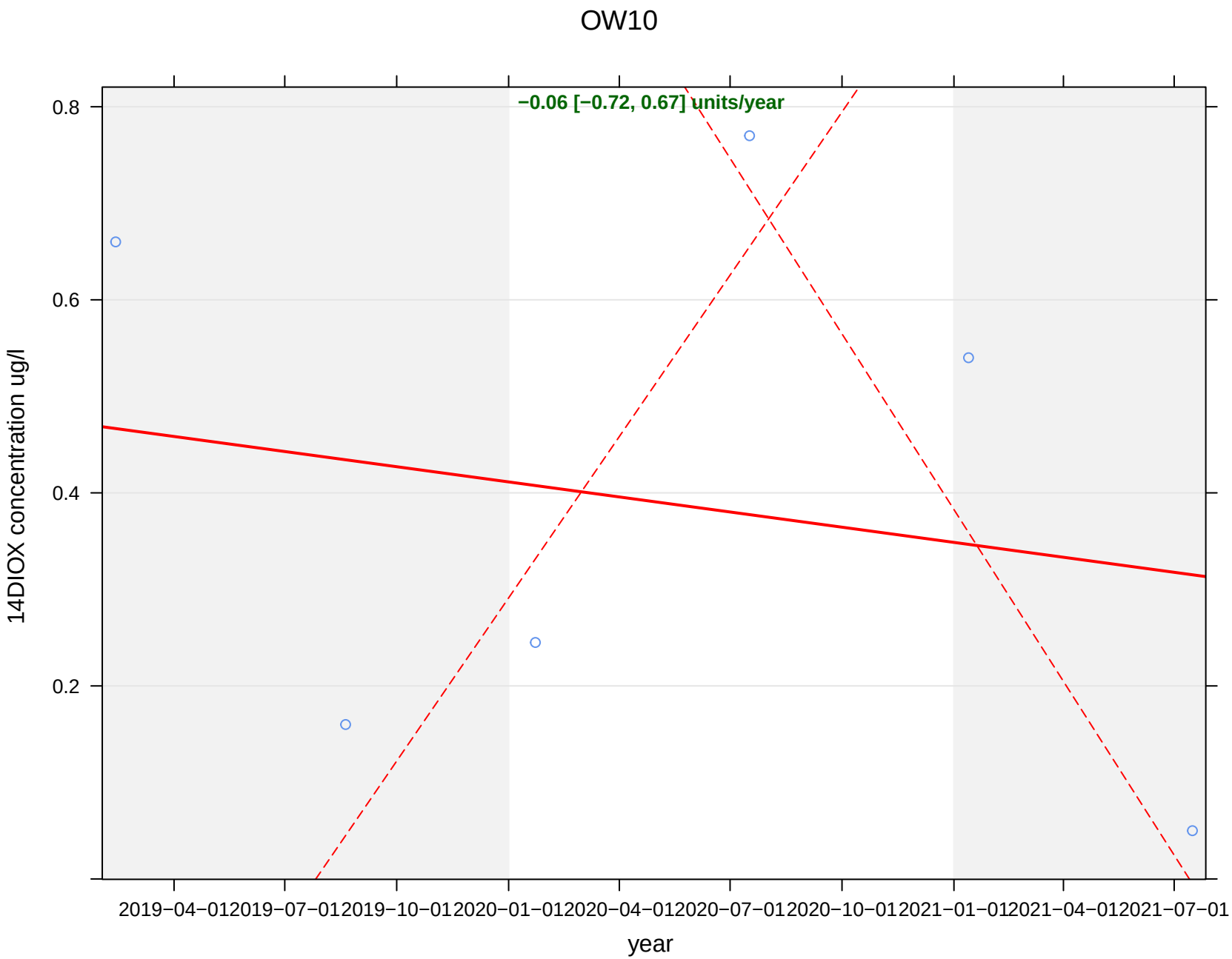

OW9
−1487.04 [−2556.02, −703.86] units/year *
PCE concentration ug/l
4000
3000
2000
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year

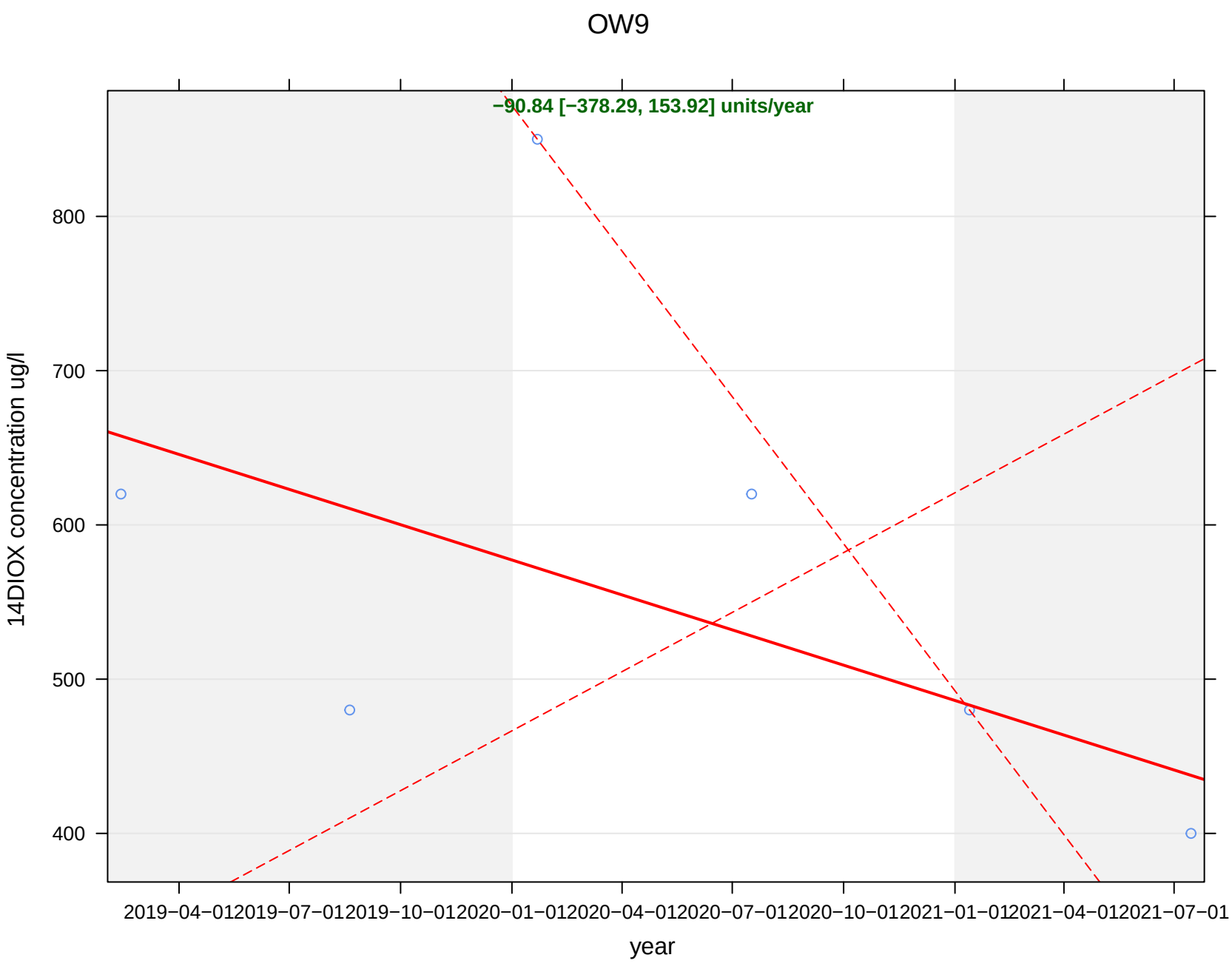

PCE concentration ug/l
OW10
OW9
Concentration ug/l
22
20
18
16
14
12
4000
3000
2000
2019−07
2020−01
2020−07
2021−01
2021−07
date

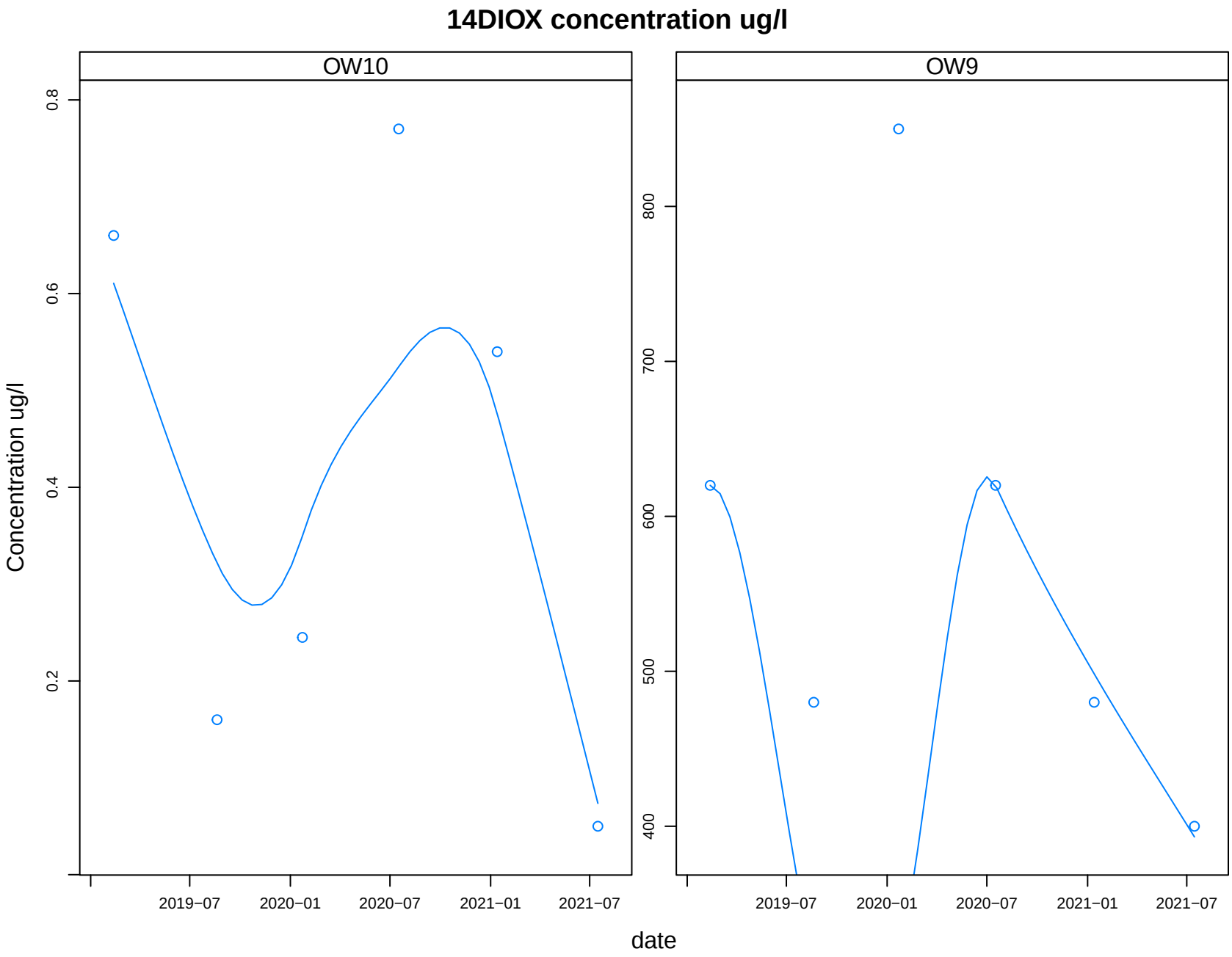

OW10
−0.29 [−1.21, 0.58] units/year
TCE concentration ug/l
2.0
1.8
1.6
1.4
1.2
1.0
0.8
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year


OW9
−70.06 [−95.31, −20.62] units/year ***
TCE concentration ug/l
200
150
100
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year


TCE concentration ug/l
OW10
OW9
Concentration ug/l
0.8
1.0
1.2
1.4
1.6
1.8
2.0
100
150
200
2019−07
2020−01
2020−07
2021−01
2021−07
date


OW10
−0.06 [−0.72, 0.67] units/year
14DIOX concentration ug/l
0.8
0.6
0.4
0.2
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year


OW9
−90.84 [−378.29, 153.92] units/year
14DIOX concentration ug/l
800
700
600
500
400
2019−04−01
2019−07−01
2019−10−01
2020−01−01
2020−04−01
2020−07−01
2020−10−01
2021−01−01
2021−04−01
2021−07−01
year


14DIOX concentration ug/l
OW10
OW9
Concentration ug/l
0.2
0.4
0.6
0.8
400
500
600
700
800
2019−07
2020−01
2020−07
2021−01
2021−07
date