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March 31, 2020

Tom Mackie  
Washington Department of Ecology  
Hazardous Waste Toxics Reduction Program  
1250 W Alder St.  
Union Gap, WA 98903-0009

Re: 2019 Annual Groundwater Monitoring Report  
Univar Solutions USA Inc.  
8201 South 212<sup>th</sup> Street, Kent Washington 98032  
Agreed Order No. DE5988

Dear Mr. Mackie,

Univar Solutions USA, Inc. (Univar Solutions) is submitting the enclosed 2019 Annual Groundwater Monitoring Report for the site referenced above. This report is submitted pursuant to the existing Agreed Order No. DE5988 between Univar Solutions (formerly Univar USA Inc.). The report provides a list of key communications in 2019, evaluates groundwater conditions following enhanced bioremediation injections in 2011, and summarizes the results of off-site groundwater sampling results at monitoring well MW-29D.

The next semi-annual groundwater sampling event is tentatively scheduled for May 2020. Any changes to the schedule as a result of travel restrictions due to the current coronavirus pandemic will be communicated to you.

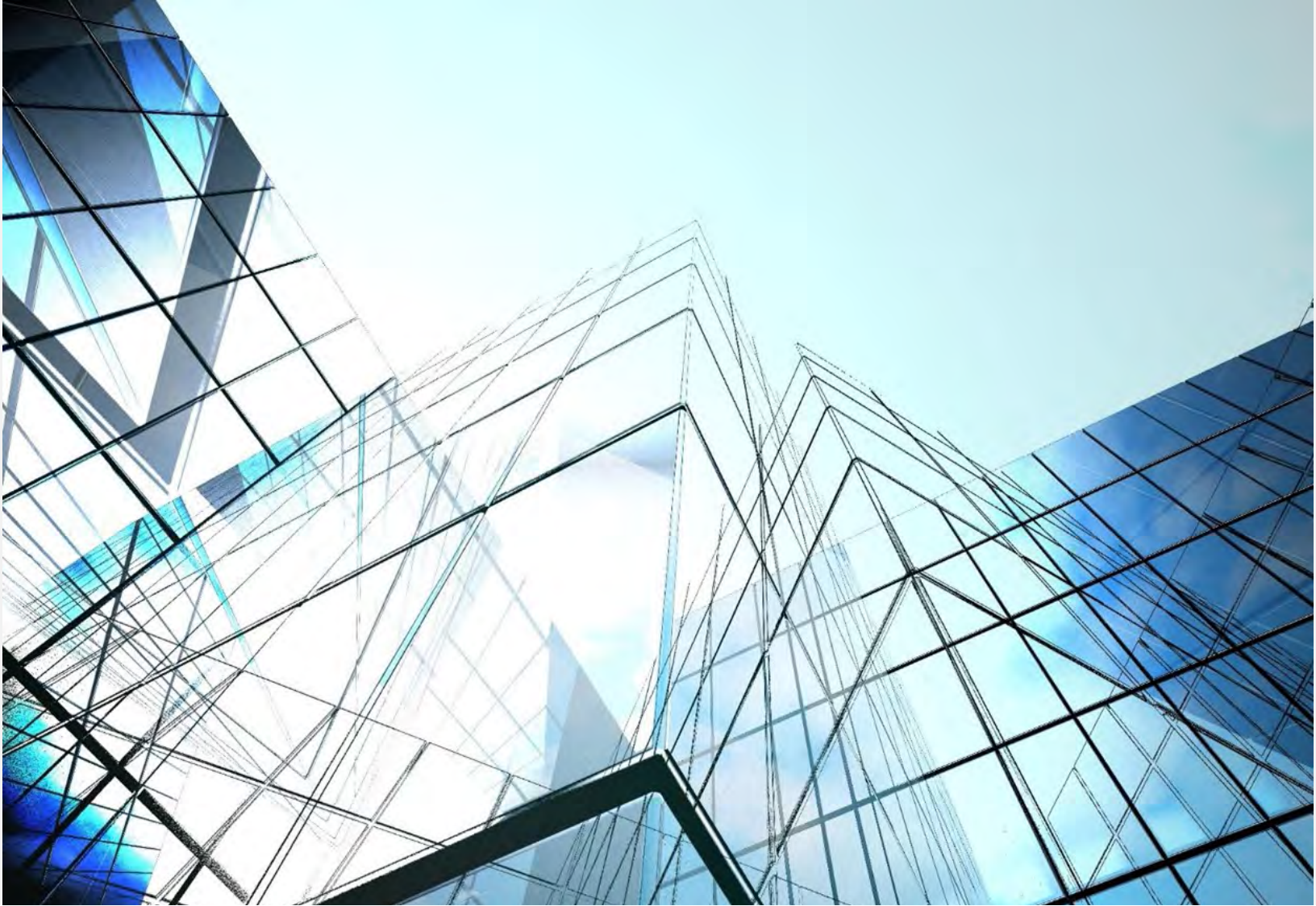
If you should have any questions, please contact our environmental consultant, Dylan Stankus of ERM at [dylan.stankus@erm.com](mailto:dylan.stankus@erm.com). Alternatively you can contact me at [michelle.stayrook@univarsolutions.com](mailto:michelle.stayrook@univarsolutions.com) or 614-477-6376.

Sincerely,

A handwritten signature in black ink that reads "Michelle Stayrook".

Michelle Stayrook  
Univar Solutions

CC: Dylan Stankus, ERM  
Attachment



Univar Solutions USA, Inc.

## 2019 Annual Groundwater Monitoring Report

8201 South 212th Street, Kent, Washington  
Agreed Order No. DE 5988

31 March 2020

Project No.: 0533246

*The business of sustainability*



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## Signature Page

31 March 2020

# 2019 Annual Groundwater Monitoring Report

8201 South 212th Street, Kent, Washington  
Agreed Order No. DE 5988



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Dylan Stankus, PE  
Project Manager



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David P. Edwards, LG  
Partner-in-Charge

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## Acronyms and Abbreviations

|                  |  |
|------------------|--|
| AO               | Agreed Order   |
| AST              | aboveground storage tank   |
| cDCE             | cis-1,2-dichloroethene   |
| CAP              | Cleanup Action Plan  |
| Cascade          | Cascade Drilling, L.P.   |
| CMP              | Compliance Monitoring Plan   |
| CUL              | cleanup level  |
| Ecology          | Washington State Department of Ecology   |
| EDR              | Engineering Design Report  |
| ERM              | ERM-West, Inc.   |
| FFS              | Focused Feasibility Study  |
| ft bgs           | feet below ground surface  |
| ft/ft            | foot/foot  |
| IHS              | indicator hazardous substance  |
| MW               | monitoring well  |
| PCE              | tetrachloroethene  |
| PES              | PES Environmental, Inc.  |
| RI               | Remedial Investigation   |
| site             | Univar Solutions facility located at 8201 South 212 <sup>th</sup> Street in Kent, Washington |
| SOW              | scope of work  |
| TCE              | trichloroethene  |
| Univar Solutions | Univar Solutions USA, Inc.   |
| UST              | underground storage tank   |
| VC               | vinyl chloride   |
| VOC              | volatile organic compound  |
| WAC              | Washington Administrative Code   |

## 1. INTRODUCTION

ERM-West, Inc. (ERM) has prepared this 2019 Annual Groundwater Monitoring Report on behalf of Univar Solutions USA, Inc. (Univar Solutions) to present monitoring results and summarize activities performed at the Univar Solutions facility located at 8201 South 212<sup>th</sup> Street in Kent, Washington (the “site”). The location of the site is shown on Figure 1. This report is being submitted pursuant to the requirements of Agreed Order No. DE 5988 (AO, [Ecology, 2008]) between Univar Solutions and the Washington State Department of Ecology (Ecology). The specific requirements for submittal of this report are in the AO Exhibit B scope of work (SOW) Task 3. This report covers the period beginning 1 January 2019 and ending 31 December 2019 (the “reporting period”).

The work performed during the reporting period included:

- Semi-Annual Groundwater Monitoring (i.e., performance monitoring);
- Transition from Quarterly to Semi-Annual Clean-up Progress Reporting;
- Submittal of 2018 Annual Report;
- Installation and development of monitoring well MW-29D; and
- Deep Groundwater Benzene Delineation.

Key communications in 2019 and early 2020 are listed below.

- Clean-up Progress Report, 4th Quarter 2019, 30 January 2019
- Conditional Approval Clean-up Progress Report, 4th Quarter 2018, 14 February 2019
- Groundwater Monitoring Well Installation Plan, 22 February 2019
- Comments Groundwater Monitoring Well Installation Plan, 1 March 2019
- Groundwater Monitoring Well Installation Plan Revision 1, 12 March 2019
- Approval Groundwater Monitoring Well Installation Plan Revision 1, 13 March 2019
- 2018 Annual Groundwater Monitoring Report, 30 March 2019
- Clean-up Progress Report, 1st Quarter 2019, 26 April 2019
- Comments 2018 Annual Groundwater Monitoring Report, 3 May 2019
- Clean-up Progress Report, 2nd Quarter 2019, 30 July 2019
- Entity Name Change, 20 August 2019
- Approval 2018 Annual Groundwater Monitoring Report, 10 October 2019
- Deep Groundwater Benzene Delineation Report, 12 November 2019
- RCRA Corrective Action Permit Renewal Applications Part A and B, Revised 16 December 2019
- Clean-up Progress Report, 3rd and 4th Quarter 2019, 29 January 2020

## 2. SITE DESCRIPTION AND HISTORY

Univar Solutions is a wholesale distributor of chemical products; it stores, packages, and distributes chemical products to meet customer needs. Univar Solutions (formerly Van Waters and Rogers and Univar USA Inc.) has operated at the site since 1974. The current site plan is shown on Figure 2.

Van Waters & Rogers historically operated one 1,500-gallon and one 6,000-gallon aboveground storage tank (AST) containing dangerous waste as well as 37 underground storage tanks (USTs) containing raw products at the site. The locations of the former ASTs and USTs are shown on Figure 2. According to PES Environmental, Inc. (PES) (2009a), the dangerous waste ASTs were taken out of service in 1982 (1,500-gallon tank) and in 1985 (6,000-gallon tank). There were no known releases from the former dangerous waste ASTs during their operating history. The 37 raw product USTs were removed in 1985 and 1986 (PES 2005). The former USTs are suspected to have impacted soil and groundwater at the site. The area previously containing the ASTs and USTs is currently covered by a concrete pad constructed in approximately 1985.

Site soil and groundwater investigations completed from 1994 to 2008 indicated that volatile organic compounds (VOCs) were present in the subsurface at concentrations above the applicable Model Toxics Control Act cleanup levels (CULs). Starting in 1998, Univar Solutions conducted environmental investigations under Ecology's Voluntary Cleanup Program; in 2008, Univar Solutions entered into negotiations with Ecology for an Agreed Order (AO) that would cover future remedial action at the site. The AO was finalized and became effective on 20 November 2008.

A combined revised Remedial Investigation (RI) addendum, Focused Feasibility Study (FFS) addendum, and draft Cleanup Action Plan (CAP) were developed in 2009 (PES 2009). The document summarized the soil and groundwater data that was collected through 2008, developed CULs for soil and groundwater indicator hazardous substances (IHSs) at the site, and recommended cleanup actions. The combined RI, FFS, and draft CAP fulfilled the requirements of the AO Exhibit B SOW Task 1.

The RI addendum identified IHSs immediately east of the warehouse building (Figure 2) in soil and groundwater zones described as follows:

- Vadose zone soil and saturated zone soil below a depth of approximately 25 feet below ground surface (ft bgs);
- Shallow groundwater in the uppermost water-bearing unit (i.e., shallow zone groundwater) is approximately 4 to 30 ft bgs; and
- Deep groundwater in the uppermost water-bearing unit (i.e., deep zone groundwater) is approximately 30 to 45 ft bgs.

Following Ecology approval of the draft CAP, a Final Engineering Design Report (EDR) was developed in 2010 (PES 2010). The EDR presented the procedures, schedule, and goals for implementation of the cleanup action. A Compliance Monitoring Plan (CMP) was included as an Appendix to the EDR to describe monitoring requirements to demonstrate the protection of workers and effectiveness of the cleanup action in accordance with Washington Administrative Code (WAC) 173-340-410 (i.e., protection monitoring, performance monitoring, and conformational monitoring). The CMP fulfilled requirements of the AO Exhibit B SOW Task 2. Univar Solutions began implementation of the cleanup action in 2011 and, in general, it included the following:

- Enhanced bioremediation injections in 2011 at targeted groundwater source areas in the shallow zone (i.e., MW-5 source area) and deep zone (i.e., MW-13/MW-21 source area);
- Monitored natural attenuation to address residual contamination in non-source areas in soil and groundwater; and

- Institutional controls to protect human health and the environment.

Implementation of the final cleanup action was documented in the Construction Report dated 12 May 2012 (PES 2012).

On 23 August 2018, a RCRA Corrective Action Permit Renewal Application Part A and B was submitted. A revised application was submitted on 16 December 2019 updating the name from Univar USA Inc. to Univar Solutions USA Inc. Approval is pending. In the interim, corrective action activities are complete in accordance with the draft CAP and subsequent monitoring and reporting schedules approved by Ecology.

### 3. SITE CLOSURE REQUIREMENTS

The IHSs and associated CULs for the site are presented in Table 1. The CULs are based on Ecology's current Cleanup Levels and Risk Calculation toxicity values (Ecology 2019). The CULs for some of the IHSs have been revised by Ecology since they were first documented in the RI addendum, FFS addendum, and draft CAP (PES 2009a) as detailed in the 2018 Annual Groundwater Monitoring Report Rev 1 (ERM 2019a).

The standard point of compliance for direct contact with soil throughout the site is from the ground surface to a depth of 15 feet. For groundwater, the standard point of compliance is the affected portion of the aquifer throughout the site; however, in a case when attaining CULs throughout the site is impractical, a conditional point of compliance for groundwater can be established at the downgradient property line (WAC 173-340-720(8)(c)).

The goals of the final cleanup action as summarized in the CAP are as follows:

- Maintain the existing asphalt and concrete cover to minimize the potential for IHSs to leach from soil to groundwater.
- Implement institutional controls for incidental ingestion of and dermal contact with soil exceeding the applicable CULs, and for inhalation of particulates and vapors from soil exceeding the applicable CULs by subsurface construction workers on site.
- Control migration of groundwater containing IHSs at concentrations exceeding the applicable CULs.
- Control incidental ingestion and dermal contact with groundwater exceeding the applicable CULs, and control inhalation of vapors from groundwater exceeding the applicable CULs by subsurface construction workers on site.

Compliance monitoring is being conducted to demonstrate protection of workers and effectiveness of the final cleanup action for soil and groundwater in accordance with the CMP (PES 2010). Compliance monitoring includes the following:

- Protection monitoring in accordance with WAC 173-340-410(1)(a), which was conducted to confirm the protection of human health and the environment during implementation of the final cleanup action, and is documented in the Construction Completion Report (PES 2012);
- Performance monitoring in accordance with WAC 173-340-410(1)(b), which consists of groundwater quality and injection performance monitoring and is currently being performed to assess the progress of the cleanup action toward attaining CULs; and
- Confirmational groundwater monitoring in accordance with WAC 173-340-410(1)(c), which will be performed following attainment of CULs to demonstrate the long-term effectiveness of the cleanup action.

Upon consistent attainment of CULs at the point of compliance for IHSs during confirmational groundwater monitoring, Univar Solutions understands that Ecology will provide written notification indicating Univar Solutions has completed the corrective actions required by AO No. DE 5988 and that the provisions of the AO will be deemed satisfied.



## 4. WORK PERFORMED IN 2019

The work performed during the reporting period included delineation of the benzene plume in deep groundwater and performance monitoring (Table 2) as described in the subsections below.

### 4.1 Delineation of Benzene in Deep Groundwater

On 29 November 2018, Ecology informed Univar Solutions and ERM that the downgradient extent of benzene in deep groundwater must be delineated to fulfill the requirements of the AO, and requested a work plan describing the investigation to delineate the downgradient extent of benzene in deep groundwater. On 12 March 2019, ERM submitted the Well Installation Plan to Ecology, which described the proposed location of a new downgradient deep monitoring well (MW-29D), the rationale for a proposed monitoring well location, and the procedures to be used to install, develop, survey and sample the new monitoring well. The well location is shown on Figure 2. The Well Installation Plan was approved by Ecology on 12 March 2019.

On 7 August 2019 Cascade Drilling, L.P. (Cascade) constructed MW-29D in accordance with WAC 173-160 and the procedures described in the Well Installation Plan. Cascade used Sonic drilling methods to advance and continuously sample the soil boring, and an ERM field geologist logged the boring and documented the well construction. Field screening for volatile organic compounds (VOCs) using a photoionization detector indicated no VOC impact. Well construction details are summarized in Table 2, and the drillers log and ERM's well construction log for MW-29D are provided as Appendix A. The well construction log was used to prepare a cross section with an updated interpretation of site hydrogeology (Figure 3).

On 26 August 2019, Cascade developed the monitoring well by surging and purging water from the well until it produced low turbidity water. On 28 August 2019, True North Land Surveying, Inc., a Washington licensed land surveyor, surveyed the location and elevation of MW-29D and other deep groundwater monitoring wells for reference. The development log and survey report for MW-29D are provided as Appendix B and Appendix C, respectively.

ERM conducted semi-annual groundwater monitoring in accordance with the Ecology-approved CMP (PES 2012) between 26 August and 30 August 2019. Groundwater monitoring results, including the delineation of benzene extent in deep groundwater, are described in Section 4.2. Well installation activities for the delineation of benzene extent are described in detail in the Groundwater Benzene Delineation Report dated 12 November 2019 (ERM 2019b).

### 4.2 Performance Groundwater Monitoring

Groundwater monitoring activities were conducted in accordance with the Ecology-approved CMP (PES 2010). This monitoring included collection of hydraulic data from the monitoring well network and sampling groundwater from monitoring wells identified for groundwater performance monitoring in the CMP (with modifications according to Ecology approval of the modified monitoring schedule presented in the 2018 Annual Groundwater Monitoring Report Rev 1 [PES 2010, ERM 2019a, Table 3]). Water levels from the monitoring well network were measured on 30 May and 29 August 2019 using an electronic water level meter.

Groundwater samples were collected from the monitoring well network from 31 May to 3 June and from 26 August to 30 August 2019. Groundwater samples were collected using standard low flow sampling techniques, a peristaltic pump, and dedicated sampling tubing. Field parameters (temperature, pH, electrical conductivity, oxidation reduction potential, and dissolved oxygen) were monitored continuously during well purging using a flow-through cell and water quality meter. Purging was considered complete when temperature, pH, and electrical conductivity had stabilized for three consecutive 3-minute intervals.

Groundwater samples were collected in laboratory-supplied sample containers, marked with identifying information, and submitted under standard chain-of-custody to SGS Laboratories for analysis of VOCs.

## 4.2.1 Groundwater Elevations

Water level measurements from the monitoring well network and the corresponding groundwater elevation data are summarized in Table 4. The monitoring well water level gauging field notes are included in Appendix B. Historical groundwater elevations are included as Table D1 in Appendix D.

### 4.2.1.1 Shallow Zone Groundwater

Twelve (12) wells were gauged in the shallow zone during each monitoring event. The shallow zone hydraulic conditions are generally described as a mound near MW-1 with groundwater flow to the north, east, and southeast. Groundwater flow direction in May 2019 was predominately to the north, with a hydraulic gradient of approximately 0.008 foot/foot (ft/ft) (Figure 4). Groundwater flow direction in August 2019 was predominately to the northeast with a hydraulic gradient of approximately 0.008 ft/ft (Figure 5). Shallow zone groundwater elevations measured in May 2019 were approximately 1.0 foot higher than August 2019 which is consistent with historic seasonal variations.

### 4.2.1.2 Deep Zone Groundwater

Fourteen (14) wells were gauged in the deep zone during the May groundwater monitoring event. The August monitoring event included the same 14 wells plus the newly installed MW-29D. The groundwater flow direction in May 2019 was to the north-northwest with a hydraulic gradient of approximately 0.0007 ft/ft (Figure 5). The groundwater flow direction in August 2019 was to the north-northwest with a hydraulic gradient of approximately 0.001 ft/ft (Figure 6). Deep zone groundwater elevations measured in May 2019 were approximately 1.9 feet higher than August 2019 which is consistent with historic seasonal variations.

### 4.2.1.3 Vertical Gradients

The differences in hydraulic head and corresponding potential vertical groundwater flow between the shallow zone groundwater and deep zone groundwater at the Site were determined by assessing the average groundwater elevations in the shallow zone and deep zone groundwater wells. Shallow zone groundwater elevations observed in May and August 2019 were approximately 0.3 feet higher than those in the deep zone, indicating a slight downward vertical hydraulic gradient. The shallow zone and deep zone groundwater elevations in 2019 are generally consistent with seasonal trends and historical observations.

## 4.2.2 Groundwater Quality Results

The groundwater sampling field notes, including all field parameter data, are presented in Appendix B. Groundwater field parameters measured immediately prior to sample collection are summarized in Table 5.

IHS concentrations from groundwater samples collected at performance monitoring locations in May and August 2019 are summarized in Table 6. A copy of the laboratory analytical data reports are included in Appendix E. IHS concentrations in groundwater were compared to the CULs. Locations where IHSs were detected at concentrations exceeding their CULs are shown on Figures 8 through 11.

The laboratory analytical data were validated consistent with Section 5.0 of the CMP (Appendix D of the EDR [PES 2010]). Laboratory report FA64743 states that sample vials for samples MW-13-05312019, MW-16-060319, MW-5-053019, MW-17-053119, MW-22-053119, and MW-20-060319 contained headspace (>6mm). For samples MW-16-060319, MW-5-053019, MW-17-053119, and MW-20-060319

only one compound was affected and those results were qualified as estimates with a low bias (J-). For samples MW-13-05312019 and MW-22-053119, the data for all compounds was affected. The data were compared to historical results for the same wells to assess consistency of detected and non-detected results. Select VOC data from these samples were rejected because of a lack of comparable historical data. Laboratory report FA67623 indicated samples MW-20-082819, MW-13-082819, MW-18-082819, DUP-02-082819, MW-17-082819, MW-16-082819, and TB-083019-02 contained headspace (>6mm). For sample MW-20-082819, only the result for chloroethane was affected and the result was qualified as an estimate with a low bias (J-). For the trip blank sample TB-083019-02, the non-detected results were rejected (R) and the detected results were qualified as estimates with a low bias (J-). For samples MW-13-082819, MW-18-082819, DUP-02-082819, MW-17-082819, and MW-16-082919, all compounds were affected and the data were compared to historical results to assess consistency of detected and non-detected results. With the exception of the rejected results, all of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. Data validation memoranda are presented in Appendix C, following the laboratory analytical data reports.

#### 4.2.2.1 Shallow Zone Groundwater

The following observations are provided based on performance monitoring for groundwater quality in the shallow zone:

- Field parameter data collected in June and August 2019 indicate that the shallow zone groundwater has a neutral pH, is slightly reducing, and anoxic (Table 5).
- The June 2019 results show groundwater samples from 4 of the 12 shallow zone monitoring locations either had no detectable IHSs or concentrations of IHSs were below the CULs. Groundwater samples from the other 8 shallow zone monitoring locations had reported concentrations of one or more IHS (i.e., tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [cDCE], vinyl chloride [VC], 1,1-dichloroethane, and benzene), exceeding their respective CULs (Table 6, Figure 8).
- The August 2019 results show groundwater samples from 5 of the 12 shallow zone monitoring locations had no detectable IHSs or concentrations of IHSs were below the CULs. Groundwater samples from the other 7 shallow zone monitoring locations had reported concentrations of one or more IHS (i.e., PCE, TCE, cDCE, VC, 1,1-dichloroethane, and benzene), exceeding the CULs (Table 6, Figure 9).
- No confirmed off-site migration of groundwater containing IHS concentrations exceeding the applicable CULs was evident within the shallow zone groundwater. However, concentrations of TCE slightly above the CUL were detected in one or both of the eastern site boundary wells (MW-8 and MW-9) during both 2019 monitoring events.

#### 4.2.2.2 Deep Zone Groundwater

The following observations are provided based on the groundwater monitoring in the deep zone:

- Field parameters data collected in June and August 2019 indicate that deep zone groundwater has a neutral pH, is slightly reducing, and anoxic (Table 5).
- The June 2019 results show groundwater samples from 4 of 11 deep zone monitoring locations either had no detectable IHSs or concentrations of the IHSs were below the CULs. Groundwater samples from the other 7 deep zone monitoring locations had reported concentrations of one or more IHS (i.e., 1,2-dichloroethane, benzene, ethylbenzene, and total xylenes), exceeding the CULs (Table 6, Figure 10).

- The August 2019 results show groundwater samples from 5 of the 12 deep zone monitoring locations either had no detectable IHSs or concentrations of the IHSs were below the CULs. Groundwater samples from the other 7 deep zone monitoring locations reported concentrations of one or more IHS (i.e., 1,2-dichloroethane, VC, benzene, and total xylenes), exceeding the CULs (Table 6, Figure 11).
- Groundwater containing IHSs at concentrations exceeding the applicable CULs is controlled on site with the exception of benzene and vinyl chloride, which were reported at concentrations exceeding their CULs in groundwater samples from off-site monitoring wells MW-20 and MW-27, respectively. However, were not detected in down gradient monitoring well MW-29D.

#### 4.2.2.3 Deep Groundwater Benzene Delineation

The interpreted extent of benzene in deep zone groundwater based on the August 2019 sample results is shown on Figure 11. These data show that the off-site extent of benzene in deep groundwater is horizontally and vertically bounded. In a letter dated 27 November 2019, Ecology approved the Deep Groundwater Benzene Delineation Report and indicated their agreement with these findings.

#### 4.2.3 Groundwater Quality Trends

Groundwater quality data from April 1995 through October 2010 is included in Appendix D, whereas groundwater quality data from May 2010 onward is provided in Table 6. Time versus IHS concentration trend plots have been updated to include the June and August 2019 results, and the updated trend plots are provided in Appendix F. The plots (Figures F1 through F25) include selected parent IHSs (1,1,1-trichloroethane and PCE) and their breakdown products (1,1-dichloroethane, TCE, 1,1-dichloroethene, cDCE, chloroethane, and VC). Concentration trends for benzene at select wells (MW-16, MW-17, MW-19, MW-20, and MW-29D) located within or near the benzene impacts in deep zone groundwater are displayed on Figure F26. Benzene, ethylbenzene, toluene, and total xylenes for monitoring well MW-21 are displayed on Figure F27.

##### 4.2.3.1 Shallow Zone Groundwater

Based on trend plots in Appendix F, the following IHS concentration trend observations can be made for shallow zone groundwater since approximately 2013:

- The concentrations of IHSs in shallow zone groundwater at MW-02, MW-06, and MW-10 have been either stable or decreasing at levels below the CULs.
- The concentrations of benzene, ethylbenzene, toluene, and total xylenes in shallow zone groundwater throughout the site, with one exception, have been stable or decreasing at levels below the CULs. The exception is MW-04, which has had stable or decreasing concentrations of benzene at levels exceeding its CUL.
- The concentrations of PCE and its breakdown products in shallow zone groundwater at MW-01, MW-03, MW-04, MW-05, MW-07, MW-08, MW-09, MW-12, and MW-23 have been generally stable or slightly decreasing at levels exceeding their CULs.
- The concentrations of reductive dechlorination breakdown products cDCE, chloroethane, and VC have varied in the source area wells over the project duration with some intermittent increases that are indicative of reductive dechlorination.
- IHS concentrations have been generally stable or decreasing since groundwater monitoring began and indicate the long-term effectiveness of 1) enhanced bioremediation, 2) engineering controls (i.e., maintain asphalt and concrete covering), and 3) natural attenuation at controlling migration of shallow zone groundwater containing IHSs at concentrations that exceed the applicable CULs.

#### 4.2.3.2 Deep Zone Groundwater

Based on trend plots in Appendix F, the following IHS concentration trend observations can be made for deep zone groundwater.

- Over the past 4 to 5 years (since approximately 2013 and 2014, depending on the date of well installation), the concentrations of IHSs in deep zone groundwater at MW-14, MW-18, and MW-28 (on site) have remained at levels below the CULs with the following exception:
  - The concentration of vinyl chloride in deep zone groundwater at MW-27 slightly exceeded its CUL in June 2019 before returning to levels below its CUL in August 2019.
  - During this period, the IHS concentrations were stable or decreasing at MW-18, MW-27 and MW-28, but stable or slightly increasing at MW-14.
- Over the past 4 to 5 years, the concentrations of IHSs in deep zone groundwater at MW-17, MW-19, MW-20 and MW-21 have remained at levels below the CULs with the following exceptions:
  - The concentrations of benzene exceed its CUL in deep zone groundwater at MW-17, MW-19, and MW-20 and the benzene concentrations in these wells are stable or slightly decreasing.
  - The concentrations of ethylbenzene exceed its CUL in deep zone groundwater at MW-21 and the ethylbenzene concentrations in this well are stable to decreasing.
  - The concentrations of total xylenes exceeds its CUL in deep zone groundwater at MW-21 and the total xylene concentrations in this well are increasing.

#### 4.2.4 Recommendations

Based on the 2019 groundwater monitoring results and review of historical IHS concentration data (including tabulated results and time versus concentration trend plots), the following recommendations are made:

- Performance monitoring for groundwater quality should continue at shallow zone groundwater monitoring locations to continue to document that groundwater containing IHSs at concentrations exceeding the CULs remains within the site boundary and that no off-site migration is occurring.
- Performance monitoring for groundwater quality should continue at deep zone groundwater monitoring locations to continue to assess performance of the cleanup actions against the cleanup action goals related to controlling off-site migration of groundwater containing IHSs at concentrations exceeding the CULs.
- Evaluation of performance monitoring data at select monitoring wells and trend evaluation to verify concentrations of IHSs exceeding applicable CULs are stable or decreasing at the site boundary.
- Field staff will take photo documentation of VOC sample vials for each well to document no headspace prior to shipping to the laboratory during 2020 monitoring.

### 5. WORK PLANNED FOR 2020

#### 5.1 Performance Monitoring

ERM will conduct two rounds of performance monitoring (i.e., groundwater quality) on behalf of Univar Solutions at the site. The planned activities include:

- Complete water level monitoring to support evaluation of aquifer conditions, including horizontal and vertical flow direction and gradients.



- Collect field parameters for evaluation of geochemical conditions.
- Collect groundwater samples in accordance with the performance monitoring (i.e., groundwater quality) requirements in Table 2.

## 5.2 Communications

Pursuant to the 2008 Agreed Order, Univar Solutions will provide project updates to Ecology via clean-up progress reports on a semi-annual basis. An Annual Report evaluating overall effectiveness of corrective action activities will be submitted in the first quarter of the 2021.

## 5.3 Environmental Information Management

Analytical and supporting data collected during 2020 will be submitted to Ecology in accordance with the AO Section (VIII)(G) and loaded into Ecology's Environmental Information Management (EIM) database in accordance with the Toxics Cleanup Program Policy 840 within 45 days of completion of the 2020 Annual Groundwater Monitoring Report.

Analytical and supporting data collected during 2018 and 2019 have been uploaded into Ecology's EIM database (Appendix G). Historical site data (as available) will be uploaded into Ecology's EIM data base in 2020.

## 6. REFERENCES

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- \_\_\_\_\_. 2009. Revised Remedial Investigation, Focused Feasibility Study Addendum, and Draft Cleanup Action Plan, Univar USA Inc., Kent, Washington. 13 May.
- \_\_\_\_\_. 2010. Final Engineering Design Report, Final Cleanup Action, Univar USA Inc., Kent, Washington. Prepared for Univar USA Inc. 29 October.
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## TABLES

**Table 1**  
**Cleanup Levels for IHSs in Groundwater**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Indicator Hazardous Substance        | 2019 Revised Cleanup Level (ug/L) | Rationale <sup>1</sup>           |
|--------------------------------------|-----------------------------------|----------------------------------|
| Benzene                              | 0.80                              | Method B Cancer                  |
| Toluene                              | 640                               | Method B Non-Cancer              |
| Ethylbenzene                         | 700                               | Federal MCL                      |
| Total Xylenes <sup>2</sup>           | 1,600                             | Method B Non-Cancer              |
| 1,2,4-Trimethylbenzene (1,2,4-TMB)   | 80                                | Method B Non-Cancer              |
| 1,2-Dichloropropane (1,2-DCP)        | 1.2                               | Method B Cancer                  |
| Chloroethane <sup>3</sup>            | -                                 | No Value <sup>1</sup>            |
| Chloroform                           | 1.4                               | Method B Cancer                  |
| 1,1-Dichloroethane (1,1- DCA)        | 7.7                               | Method B Cancer                  |
| 1,2-Dichloroethane (1,2-DCA)         | 0.48                              | Method B Cancer                  |
| 1,1-Dichloroethene (1,1-DCE)         | 7.0                               | Federal MCL                      |
| Cis-1,2-Dichloroethene (cis-1,2-DCE) | 16                                | Method B Non-Cancer              |
| Methylene Chloride                   | 5.0                               | Federal MCL                      |
| 1,1,1-Trichloroethane (TCA)          | 200                               | Federal MCL                      |
| Trichloroethylene (TCE)              | 0.54                              | Method B Cancer                  |
| Tetrachloroethylene (PCE)            | 5.0                               | Federal MCL                      |
| Vinyl chloride (VC)                  | 0.50                              | WAC 173-340-705; WAC 173-340-707 |

**Notes:**

<sup>1</sup> = The lower of the Method B Groundwater Cleanup level or the MCL was used unless the cleanup level was lower than the lowest method reporting limit (MRL) below the lowest MRL reported by the laboratory. Since the Method B cleanup level for vinyl chloride of 0.029 µg/L is two orders of magnitude below the laboratory MRL of 0.5 µg/L, the cleanup level has been set to 0.5 µg/L, consistent with WAC 173-340-705 and WAC 173-340-707

<sup>2</sup> = Total Xylene used xylene; *m*-, *o*-, and *p*- isomers

<sup>3</sup> = Cleanup level adjusted to "no value" based on updated toxicity values from EPA (December 2010) and based on May 2019 updates to C. µg/L= micrograms per liter

MCL = Maximum Contaminant Level

Method B Cancer = MTCA Method B standard groundwater cleanup level for carcinogenic risk

Method B Non-Cancer = MTCA Method B standard groundwater cleanup level for non-carcinogenic risk

WAC = Washington Administrative Code

**Table 2**  
**Monitoring Well Construction Summary**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA Inc.**  
**Kent, WA**

| Well Identification <sup>1</sup> | Aquifer Screened Zone | Well Completion Date | Drilling Method   | Borehole Depth (feet bgs) | Well Depth (feet bgs) | Screen Interval Depth to |                   | Screen Slot Size (inches) | Sand Pack Depth to |                   | Material Description |
|----------------------------------|-----------------------|----------------------|-------------------|---------------------------|-----------------------|--------------------------|-------------------|---------------------------|--------------------|-------------------|----------------------|
|                                  |                       |                      |                   |                           |                       | Top (feet bgs)           | Bottom (feet bgs) |                           | Top (feet bgs)     | Bottom (feet bgs) |                      |
| MW-13                            | Deep                  | 19-Mar-03            | Hollow Stem Auger | 45.3                      | 44.1                  | 39.6                     | 44.1              | 0.010                     | 37.0               | 44.6              | 10-20 CSSI Sand      |
| MW-14                            | Deep                  | 7-Oct-03             | Hollow Stem Auger | 43.0                      | 42.2                  | 32.7                     | 42.2              | 0.010                     | 30.0               | 43.0              | 10-20 CSSI Sand      |
| MW-15                            | Deep                  | 7-Oct-03             | Hollow Stem Auger | 44.0                      | 43.5                  | 33.7                     | 43.5              | 0.010                     | 31.0               | 44.0              | 10-20 CSSI Sand      |
| MW-16                            | Deep                  | 22-Oct-03            | Hollow Stem Auger | 48.0                      | 47.2                  | 37.2                     | 47.2              | 0.010                     | 35.0               | 48.0              | 10-20 CSSI Sand      |
| MW-17                            | Deep                  | 28-Oct-03            | Hollow Stem Auger | 44.3                      | 43.8                  | 34.3                     | 43.8              | 0.010                     | 32.0               | 44.3              | 10-20 CSSI Sand      |
| MW-18                            | Deep                  | 8-Oct-03             | Hollow Stem Auger | 44.0                      | 43.5                  | 34.0                     | 43.5              | 0.010                     | 31.0               | 44.0              | 10-20 CSSI Sand      |
| MW-19                            | Deep                  | 19-Jan-04            | Hollow Stem Auger | 50.0                      | 49.4                  | 39.4                     | 49.4              | 0.010                     | 37.0               | 50.0              | 10-20 CSSI Sand      |
| MW-20                            | Deep                  | 19-Jul-05            | Direct Push       | 44.5                      | 43.2                  | 33.5                     | 43.2              | 0.010                     | 31.0               | 43.2              | 10-20 CSSI Sand      |
| MW-21                            | Deep                  | 5-Sep-06             | Hollow Stem Auger | 43.0                      | 44.1                  | 34.1                     | 44.1              | 0.010                     | 29.0               | 40.0              | 10-20 CSSI Sand      |
| MW-22                            | Deep                  | 5-Sep-06             | Hollow Stem Auger | 45.0                      | 42.2                  | 32.2                     | 42.2              | 0.010                     | 32.0               | 41.0              | 10-20 CSSI Sand      |
| MW-24                            | Deep                  | 16-Mar-10            | Direct Push       | 42.0                      | 41.8                  | 21.8                     | 41.8              | 0.010                     | 21.0               | 42.0              | 10-20 CSSI Sand      |
| MW-25                            | Deep                  | 17-Mar-10            | Direct Push       | 42.0                      | 41.8                  | 21.8                     | 41.8              | 0.010                     | 21.0               | 42.0              | 10-20 CSSI Sand      |
| MW-27                            | Deep                  | 11-Sep-14            | Hollow Stem Auger | 48.0                      | 48.0                  | 38.0                     | 48.0              | 0.010                     | 35.0               | 48.0              | 10-20 CSSI Sand      |
| MW-28                            | Deep                  | 12-Sep-14            | Hollow Stem Auger | 45.0                      | 45.0                  | 35.0                     | 45.0              | 0.010                     | 32.5               | 45.0              | 10-20 CSSI Sand      |
| MW-29D                           | Deep                  | 7-Aug-19             | Sonic             | 45.0                      | 40.5                  | 30.5                     | 40.5              | 0.010                     | 27.0               | 40.5              | 10-20 CSSI Sand      |

**Notes:**

<sup>1</sup> = Each well constructed of 2-inch-diameter schedule 40 polyvinyl chloride casing and screen

bgs = Below ground surface

CSSI = Colorado Silica Sand Inc.



**Table 3**  
**Performance Monitoring Schedule**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Monitoring Well                         | Groundwater Elevation Measurement | Water Quality VOCs |
|---|-----------------------------------|--------------------|
| <b>Shallow On-Site Monitoring Wells</b> |                                   |                    |
| MW-1                                    | SA                                | SA                 |
| MW-2                                    | SA                                | SA                 |
| MW-3                                    | SA                                | SA                 |
| MW-4                                    | SA                                | SA                 |
| MW-5                                    | SA                                | SA                 |
| MW-6                                    | SA                                | SA                 |
| MW-7                                    | SA                                | SA                 |
| MW-8                                    | SA                                | SA                 |
| MW-9                                    | SA                                | SA                 |
| MW-10                                   | SA                                | SA                 |
| MW-11                                   | SA                                |                    |
| MW-12                                   | SA                                | SA                 |
| MW-23                                   | SA                                | SA                 |
| <b>Deep On-Site Monitoring Wells</b>    |                                   |                    |
| MW-13                                   | SA                                | SA                 |
| MW-14                                   | SA                                | SA                 |
| MW-16                                   | SA                                | SA                 |
| MW-17                                   | SA                                | SA                 |
| MW-18                                   | SA                                | SA                 |
| MW-19                                   | SA                                | SA                 |
| MW-21                                   | SA                                | SA                 |
| MW-22                                   | SA                                | SA                 |
| MW-24                                   | SA                                |                    |
| MW-25                                   | SA                                |                    |
| P-1                                     | SA                                |                    |
| <b>Deep Off-Site Monitoring Wells</b>   |                                   |                    |
| MW-20                                   | SA                                | SA                 |
| MW-27                                   | SA                                | SA                 |
| MW-28                                   | SA                                | SA                 |
| MW-29D                                  | SA                                | SA                 |

Notes:

SA = semiannual

VOC = volatile organic compounds

**Table 4**  
**Groundwater Elevations**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Location                                | Measuring Point Elevation (ft) | Screen Interval Depth (ft) | Screen Interval Elevation (ft) | Date                                 | Time  | Depth to Water (ft) | Water Elevation (ft) |          |       |      |       |
|---|--------------------------------|----------------------------|--------------------------------|--------------------------------------|-------|---------------------|----------------------|----------|-------|------|-------|
| <b>Shallow On-Site Monitoring Wells</b> |                                |                            |                                |                                      |       |                     |                      |          |       |      |       |
| MW-1                                    | 33.15                          | 4 to 19                    | 29.15 to 14.15                 | 03/19/18                             | 10:12 | 4.01                | 29.14                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:35 | 6.58                | 26.57                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:18 | 4.49                | 28.66                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:41  | 5.54                | 27.61                |          |       |      |       |
| MW-2                                    | 33.79                          | 4 to 19                    | 29.79 to 14.79                 | 03/19/18                             | 10:16 | 5.73                | 28.06                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:45 | 7.95                | 25.84                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 15:10 | 6.28                | 27.51                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 10:01 | 7.35                | 26.44                |          |       |      |       |
| MW-3                                    | 32.94                          | 4 to 19                    | 28.94 to 13.94                 | 03/19/18                             | 9:13  | 5.60                | 27.34                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 11:52 | 7.33                | 25.61                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:22 | 6.04                | 26.90                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:10  | 6.49                | 26.45                |          |       |      |       |
| MW-4                                    | 32.86                          | 4.5 to 14.5                | 28.36 to 18.36                 | 03/19/18                             | 9:55  | 4.38                | 28.48                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:11 | 6.82                | 26.04                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:41 | 4.87                | 27.99                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:24  | 5.93                | 26.93                |          |       |      |       |
| MW-5                                    | 32.60                          | 4.5 to 14.5                | 28.10 to 18.10                 | 03/19/18                             | 10:38 | 5.18                | 27.42                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:55 | 6.88                | 25.62                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:56 | 5.70                | 26.90                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:12  | 6.55                | 26.05                |          |       |      |       |
| MW-6                                    | 33.05                          | 4.5 to 14.5                | 28.55 to 18.55                 | 03/19/18                             | 10:23 | 4.40                | 28.65                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:42 | 7.64                | 25.41                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:38 | 5.09                | 27.96                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:58  | 6.64                | 26.41                |          |       |      |       |
| MW-7                                    | 32.96                          | 4.5 to 14.5                | 28.46 to 18.46                 | 03/19/18                             | 9:00  | 5.55                | 27.41                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:15 | 7.35                | 25.61                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:54 | 6.07                | 26.89                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:42  | 6.95                | 26.01                |          |       |      |       |
| MW-8                                    | 33.57                          | 4.5 to 14.5                | 29.07 to 19.07                 | 03/19/18                             | 10:32 | 6.12                | 27.45                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:46 | 7.96                | 25.61                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:38 | 6.64                | 26.93                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:57  | 7.56                | 26.01                |          |       |      |       |
| MW-9                                    | 33.77                          | 5 to 15                    | 28.77 to 18.77                 | 03/19/18                             | 10:27 | 6.18                | 27.59                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:52 | 8.14                | 25.63                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:50 | 6.70                | 27.07                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:59  | 7.73                | 26.04                |          |       |      |       |
| MW-10                                   | 32.89                          | 5 to 15                    | 27.89 to 17.89                 | 03/19/18                             | 8:52  | 5.41                | 27.48                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:05 | 7.21                | 25.68                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:37 | 5.95                | 26.94                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:33  | 6.83                | 26.05                |          |       |      |       |
| MW-11                                   | 32.79                          | 5 to 20                    | 27.79 to 12.79                 | 03/19/18                             | 10:37 | 5.31                | 27.48                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 12:57 | 7.12                | 25.67                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:55 | 5.82                | 26.97                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:13  | 6.72                | 26.07                |          |       |      |       |
| MW-12                                   | 32.81                          | 5 to 20                    | 27.81 to 12.81                 | 03/19/18                             | 10:40 | 5.33                | 27.48                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:00 | 7.15                | 25.66                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:54 | 5.87                | 26.94                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:17  | 6.72                | 26.09                |          |       |      |       |
| MW-23                                   | 32.78                          | 5 to 15                    | 27.78 to 17.78                 | 03/19/18                             | 8:57  | 5.33                | 27.45                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 13:58 | 7.13                | 25.65                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:52 | 5.85                | 26.93                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 8:39  | 6.73                | 26.05                |          |       |      |       |
| <b>Deep On-Site Monitoring Wells</b>    |                                |                            |                                |                                      |       |                     |                      |          |       |      |       |
| MW-13                                   | 32.81                          | 39.6 to 44.1               | -6.79 to -11.29                | 03/19/18                             | 11:59 | 5.29                | 27.52                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:54 | 7.12                | 25.69                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:23 | 6.26                | 26.53                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:29  | 6.70                | 26.11                |          |       |      |       |
| MW-14                                   | 32.60                          | 32.7 to 42.2               | -0.10 to -9.60                 | 03/19/18                             | 12:04 | 5.01                | 27.59                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:05 | 6.87                | 25.73                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:36 | 5.54                | 27.06                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 9:52  | 6.44                | 26.16                |          |       |      |       |
| MW-15                                   | 32.57                          | 33.7 to 43.5               | -1.13 to -10.93                | Well Abandoned February 16, 2016     |       |                     |                      |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 12:10 | 6.39                | 27.53                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:59 | 11.24               | 25.68                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:29 | 9.94                | 26.98                |          |       |      |       |
| MW-16                                   | 36.92                          | 37.2 to 47.2               | -0.28 to -10.28                | 08/29/19                             | 9:36  | 10.85               | 26.07                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 10:55 | 5.22                | 27.38                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:37 | 6.88                | 25.62                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:26 | 5.75                | 26.85                |          |       |      |       |
| MW-17                                   | 32.6                           | 34.3 to 43.8               | -1.70 to -11.2                 | 08/29/19                             | 8:16  | 6.66                | 25.94                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 10:53 | 5.29                | 27.44                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:39 | 7.03                | 25.70                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:42 | 5.90                | 26.93                |          |       |      |       |
| MW-18                                   | 32.73                          | 34.0 to 43.5               | -1.27 to -10.77                | 08/29/19                             | 8:30  | 6.71                | 26.02                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 10:57 | 6.12                | 27.40                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:33 | 7.85                | 25.67                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 11:58 | 6.65                | 26.87                |          |       |      |       |
| MW-19                                   | 33.52                          | 39.4 to 49.4               | -5.88 to -15.88                | 08/29/19                             | 8:23  | 7.58                | 25.94                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 12:03 | 5.32                | 27.54                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:02 | 7.18                | 25.88                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:20 | 5.85                | 27.01                |          |       |      |       |
| MW-21                                   | 32.86                          | 34.1 to 44.1               | -1.24 to -11.24                | 08/29/19                             | 9:43  | 6.71                | 26.15                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 11:56 | 5.69                | 27.49                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | NM    | NM                  | NM                   |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:58 | 6.28                | 26.90                |          |       |      |       |
| MW-22                                   | 33.18                          | 32.2 to 42.2               | 0.98 to -9.02                  | 08/29/19                             | 9:21  | 7.13                | 26.05                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 12:02 | 5.14                | 27.60                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:03 | 7.02                | 25.72                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:25 | 4.64                | 28.10                |          |       |      |       |
| MW-24                                   | 32.74                          | 21.8 to 41.8               | 10.94 to -0.06                 | 08/29/19                             | 9:32  | 6.55                | 26.19                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 11:58 | 5.25                | 27.55                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 14:53 | 7.11                | 25.69                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 13:26 | 5.66                | 27.14                |          |       |      |       |
| MW-25                                   | 32.80                          | 21.8 to 41.8               | 11.00 to -9.00                 | 08/29/19                             | 9:31  | 6.66                | 26.14                |          |       |      |       |
|   |                                |                            |                                | 03/19/18                             | 12:06 | 6.12                | 27.50                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:08 | 7.93                | 25.69                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:34 | 6.65                | 26.97                |          |       |      |       |
| P-1                                     | 33.62                          | 39.0 to 44.0               | -5.38 to -10.38                | 08/29/19                             | 9:03  | 7.56                | 26.06                |          |       |      |       |
|   |                                |                            |                                | <b>Deep Off-site Monitoring Well</b> |       |                     |                      |          |       |      |       |
|   |                                |                            |                                | MW-20                                | 33.15 | 33.5 to 43.2        | -0.35 to -10.05      | 03/19/18 | 11:14 | 5.87 | 27.28 |
|   |                                |                            |                                |                                      |       |                     |                      | 09/10/18 | 15:25 | 7.52 | 25.63 |
| 05/30/19                                | 12:05                          | 6.40                       | 26.75                          |                                      |       |                     |                      |          |       |      |       |
| 08/29/19                                | 7:49                           | 7.30                       | 25.85                          |                                      |       |                     |                      |          |       |      |       |
| MW-27                                   | 32.98                          | 38.0 to 48.0               | -5.02 to -15.02                | 03/19/18                             | 11:11 | 5.71                | 27.27                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:22 | 7.41                | 25.57                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 11:55 | 6.26                | 26.72                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 7:46  | 7.15                | 25.83                |          |       |      |       |
| MW-28                                   | 34.63                          | 35.0 to 45.0               | -0.37 to -10.37                | 03/19/18                             | 11:05 | 7.39                | 27.24                |          |       |      |       |
|   |                                |                            |                                | 09/10/18                             | 15:14 | 9.11                | 25.52                |          |       |      |       |
|   |                                |                            |                                | 05/30/19                             | 12:18 | 7.90                | 26.73                |          |       |      |       |
|   |                                |                            |                                | 08/29/19                             | 7:58  | 8.80                | 25.63                |          |       |      |       |
| MW-29D                                  | 30.83                          | 30.5 to 40.5               | 0.33 to -9.67                  | 08/30/19                             | 12:00 | 6.36                | 24.47                |          |       |      |       |

Notes:  
 Depth = depth in feet to water relative to the top of PVC  
 Elevation = elevation in feet relative to NAVD 88  
 NM = not measured

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location  | Date Collected | pH   | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|--|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| <b>Shallow On-Site Monitoring and Pilot Test Wells</b> |                |      |                              |                  |                 |                         |                                    |
| MW-1   | 03/29/10       | 6.97 | 842                          | 11.4             | --              | 0.30                    | -8                                 |
|  | 09/30/10       | 7.26 | 937                          | 17.2             | --              | 0.24                    | -10                                |
|  | 03/03/11       | 7.49 | 510                          | 9.2              | 7.0             | 0.23                    | -13                                |
|  | 09/23/11       | 6.61 | 523                          | 18.0             | 3.0             | 0.10                    | -106                               |
|  | 03/08/12       | 6.99 | 494                          | 8.2              | 7.9             | 0.22                    | -44                                |
|  | 10/01/12       | 6.56 | 507                          | 15.5             | 5.7             | 0.22                    | 349 <sup>a</sup>                   |
|  | 03/06/13       | 6.84 | 820                          | 9.6              | 14.5            | 0.20                    | -7                                 |
|  | 09/24/13       | 6.78 | 496                          | 18.5             | 55.3            | 0.20                    | -84                                |
|  | 03/26/14       | 7.21 | 991                          | 10.5             | 1.2             | 0.00                    | -129                               |
|  | 09/23/14       | 6.49 | 698                          | 19.7             | 2.3             | 0.55                    | -126                               |
|  | 03/17/15       | 6.05 | 438                          | 10.5             | 0.0             | 0.00                    | -227                               |
|  | 09/16/15       | 6.37 | 700                          | 17.6             | 0.0             | 0.00                    | -121                               |
|  | 03/16/16       | 7.86 | 888                          | 10.1             | 0.0             | 0.00                    | -128                               |
|  | 09/13/16       | 6.74 | 530                          | 17.5             | 1.5             | 0.70                    | -96.4                              |
|  | 03/07/17       | 7.04 | 955                          | 8.7              | 7.2             | 0.00                    | -94                                |
|  | 09/21/17       | 7.00 | 832                          | 17.3             | 0.0             | 0.00                    | 52                                 |
|  | 03/20/18       | 6.76 | 701                          | 10.8             | 2.6             | 0.42                    | -2.6                               |
|  | 09/13/18       | 6.77 | 768                          | 18.5             | 0.7             | 1.50                    | -84.9                              |
|  | 05/31/19       | 6.78 | 1,211                        | 16.6             | 3.7             | 0.06                    | -46.8                              |
|  | 08/27/19       | 6.35 | 1,144                        | 24.7             | 2.1             | 0.37                    | -121.9                             |
| MW-2   | 03/26/10       | 6.49 | 390                          | 12.6             | --              | 0.82                    | 7                                  |
|  | 09/30/10       | 6.68 | 556                          | 16.4             | --              | 0.28                    | 27                                 |
|  | 03/08/11       | 6.87 | 441                          | 12.7             | 85.0            | 0.17                    | 8                                  |
|  | 09/21/11       | 6.30 | 443                          | 18.0             | 9.8             | 0.09                    | -91                                |
|  | 03/06/12       | 6.56 | 396                          | 11.2             | --              | 0.67                    | -65                                |
|  | 09/28/12       | 6.45 | 382                          | 17.2             | --              | 0.29                    | 342 <sup>a</sup>                   |
|  | 03/07/13       | 6.48 | 480                          | 12.4             | --              | 0.15                    | 20                                 |
|  | 09/24/13       | 6.63 | 349                          | 16.8             | 90.7            | 0.20                    | -50                                |
|  | 03/26/14       | 6.99 | 495                          | 13.8             | 7.2             | 0.00                    | -106                               |
|  | 09/24/14       | 6.32 | 547                          | 17.4             | 4.3             | 0.00                    | -119                               |
|  | 03/17/15       | 6.36 | 253                          | 15.5             | 0.0             | 0.00                    | -153                               |
|  | 09/17/15       | 6.47 | 619                          | 16.6             | 0.0             | 0.00                    | -70                                |
|  | 03/15/16       | 7.10 | 525                          | 12.3             | 0.0             | 0.00                    | -67                                |
|  | 09/13/16       | 6.48 | 481                          | 17.4             | 5.1             | 0.50                    | -88.9                              |
|  | 03/08/17       | 6.13 | 394                          | 9.4              | 7.0             | 0.00                    | -70                                |
|  | 09/20/17       | 6.62 | 714                          | 14.5             | 0.0             | 0.00                    | -19                                |
|  | 03/21/18       | 6.35 | 762                          | 14.4             | 0.0             | 0.00                    | -3.6                               |
|  | 09/13/18       | 6.61 | 453                          | 14.8             | 2.9             | 1.67                    | -57                                |
|  | 06/03/19       | 6.28 | 446                          | 15.1             | 2.4             | 0.13                    | -48.1                              |
|  | 08/29/19       | 6.11 | 573                          | 20.2             | 3.1             | 0.40                    | -67.8                              |
| MW-3   | 03/30/10       | 6.85 | 601                          | 11.6             | --              | 0.99                    | -5                                 |
|  | 09/28/10       | 6.98 | 647                          | 15.6             | --              | 0.28                    | 8                                  |
|  | 03/07/11       | 7.33 | 426                          | 12.1             | 2.0             | 0.20                    | 32                                 |
|  | 09/21/11       | 6.71 | 556                          | 16.3             | 1.4             | 0.03                    | -127                               |
|  | 03/06/12       | 6.97 | 497                          | 10.7             | --              | 0.11                    | -1                                 |
|  | 10/01/12       | 6.81 | 519                          | 16.2             | --              | 0.20                    | 308 <sup>a</sup>                   |
|  | 03/07/13       | 6.87 | 662                          | 11.7             | --              | 0.19                    | 102                                |
|  | 09/24/13       | 7.03 | 404                          | 13.6             | 57.2            | 0.40                    | -97                                |
|  | 03/27/14       | 7.29 | 616                          | 12.4             | 0.0             | 0.00                    | -154                               |
|  | 09/25/14       | 6.82 | 681                          | 15.1             | 14.6            | 0.00                    | -135                               |
|  | 03/19/15       | 6.06 | 318                          | 11.6             | 0.0             | 0.00                    | -226                               |
|  | 09/16/15       | 7.13 | 618                          | 17.4             | 0.0             | 0.00                    | -125                               |
|  | 03/14/16       | 7.67 | 1,980                        | 10.8             | 0.0             | 0.00                    | -142                               |
|  | 09/14/16       | 6.79 | 529                          | 16.1             | 0.7             | 0.06                    | -98                                |
|  | 03/08/17       | 7.06 | 680                          | 11.6             | 6.5             | 0.00                    | -70                                |
|  | 09/21/17       | 7.26 | 807                          | 15.0             | 0.0             | 14.91 <sup>b</sup>      | -46                                |
|  | 03/19/18       | 7.02 | 466                          | 12.6             | 1.5             | 0.96                    | -79                                |
|  | 09/13/18       | 6.98 | 504                          | 13.1             | 3.4             | 0.97                    | -110.9                             |
|  | 05/31/19       | 6.76 | 563                          | 14.0             | 1.6             | 0.16                    | -48.6                              |
|  | 08/26/19       | 6.32 | 612                          | 18.4             | 2.6             | 0.29                    | -122.3                             |
| MW-4   | 03/29/10       | 6.71 | 1,094                        | 9.9              | --              | 0.58                    | -8                                 |
|  | 10/01/10       | 6.89 | 1,054                        | 16.7             | --              | 0.55                    | 10                                 |
|  | 03/04/11       | 7.48 | 906                          | 9.4              | 7.0             | 0.17                    | -8                                 |
|  | 09/23/11       | 6.46 | 1,091                        | 22.1             | 1.6             | 0.15                    | -64                                |
|  | 03/08/12       | 6.67 | 1,100                        | 9.6              | --              | 0.36                    | -16                                |
|  | 10/01/12       | 6.56 | 1,109                        | 16.8             | --              | 0.18                    | 355 <sup>a</sup>                   |
|  | 03/06/13       | 6.73 | 1,436                        | 9.7              | 4.3             | 0.22                    | 24                                 |
|  | 09/24/13       | 6.82 | 823                          | 17.8             | 63.8            | 0.00                    | -63                                |
|  | 03/25/14       | 7.26 | 1,510                        | 13.9             | 0.0             | 0.00                    | -141                               |
|  | 09/23/14       | 6.49 | 1,210                        | 19.2             | 0.5             | 0.00                    | -107                               |
|  | 03/17/15       | 6.10 | 730                          | 10.5             | 0.0             | 0.00                    | -225                               |

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected | pH       | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |    |
|-----------------|----------------|----------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|----|
|                 | 09/17/15       | 6.25     | 1,150                        | 17.3             | 0.0             | 0.00                    | -104                               |    |
|                 | 03/14/16       | 7.82     | 1,600                        | 9.6              | 0.0             | 0.00                    | -93                                |    |
|                 | 09/14/16       | 6.57     | 959                          | 17.9             | --              | 6.60                    | -66                                |    |
|                 | 03/09/17       | 7.37     | 1,470                        | 6.9              | 37.6            | 0.00                    | -97                                |    |
|                 | 09/21/17       | 6.80     | 1,090                        | 17.2             | 1.4             | 0.00                    | -27                                |    |
|                 | 03/21/18       | 7.05     | 890                          | 10.4             | 2.3             | 0.88                    | 39                                 |    |
|                 | 09/13/18       | 6.72     | 836                          | 15.3             | 4.9             | 2.61                    | -46.3                              |    |
|                 | 05/31/19       | 6.80     | 958                          | 15.8             | --              | 0.11                    | -47.5                              |    |
| 08/27/19        | 6.28           | 1,078    | 21.0                         | --               | 0.41            | -79.4                   |                                    |    |
| MW-5            | 04/01/10       | 6.39     | 287                          | 12.5             | 16.0            | 0.49                    | 27                                 |    |
|                 | 04/09/10       | --       | 340                          | --               | 3.0             | --                      | --                                 |    |
|                 | 04/16/10       | 6.38     | 342                          | 13.4             | 8.0             | 0.70                    | 26                                 |    |
|                 | 05/06/10       | 6.52     | 297                          | 12.7             | 6.0             | 2.35                    | 23                                 |    |
|                 | 06/09/10       | 6.44     | 283                          | 14.1             | 14.0            | 1.61                    | 24                                 |    |
|                 | 09/28/10       | 6.55     | 262                          | 18.4             | --              | 1.06                    | 26                                 |    |
|                 | 03/03/11       | 6.76     | 203                          | 11.6             | 6.0             | 0.55                    | 12                                 |    |
|                 | 06/22/11       | 6.36     | 200                          | 17.0             | 14.5            | 0.11                    | -7                                 |    |
|                 | 09/22/11       | 6.19     | 226                          | 17.3             | 5.1             | 0.38                    | 63                                 |    |
|                 | 10/21/11       | 6.11     | 267                          | 15.8             | 9.0             | 0.41                    | 34                                 |    |
|                 | 12/07/11       | 6.36     | 207                          | 14.0             | --              | 0.15                    | 73                                 |    |
|                 | 03/07/12       | 6.39     | 216                          | 12.3             | --              | 0.29                    | 53                                 |    |
|                 | 06/26/12       | 6.35     | 233                          | 17.1             | 4.2             | 0.19                    | 29                                 |    |
|                 | 09/27/12       | 6.14     | 266                          | 18.5             | 0.8             | 0.25                    | 346 <sup>a</sup>                   |    |
|                 | 12/19/12       | 6.17     | 362                          | 13.0             | 23.0            | 0.34                    | -29                                |    |
|                 | 03/06/13       | 6.25     | 360                          | 11.2             | 4.4             | 0.18                    | 76                                 |    |
|                 | 06/06/13       | 6.63     | 379                          | 17.9             | 17.0            | 0.63                    | 23                                 |    |
|                 | 09/24/13       | 6.45     | 302                          | 14.8             | 54.6            | 0.03                    | 20                                 |    |
|                 | 03/25/14       | 5.81     | 404                          | 14.7             | 0.0             | 0.00                    | -141                               |    |
|                 | 09/23/14       | 6.14     | 380                          | 16.6             | 2.1             | 0.00                    | -49                                |    |
|                 | 03/16/15       | 6.21     | 199                          | 16.1             | 0.0             | 0.00                    | -100                               |    |
|                 | 09/15/15       | 5.95     | 342                          | 16.3             | 0.0             | 0.00                    | -34                                |    |
|                 | 03/15/16       | 6.60     | 318                          | 11.7             | 0.0             | 0.00                    | 105                                |    |
|                 | 09/14/16       | 6.29     | 263                          | 17.0             | 9.7             | 1.05                    | 38                                 |    |
|                 | 03/06/17       | 6.00     | 199                          | 11.3             | 9.3             | 0.00                    | 111                                |    |
|                 | 09/20/17       | 6.54     | 289                          | 14.6             | 0.0             | 13.06 <sup>b</sup>      | -4                                 |    |
|                 | 03/20/18       | 6.03     | 162                          | 12.0             | 4.3             | 0.62                    | 45                                 |    |
|                 | 09/11/18       | 6.37     | 200                          | 15.0             | 9.3             | 0.54                    | -55.6                              |    |
|                 | 05/30/19       | 6.12     | 200                          | 17.0             | 3.9             | 0.13                    | -41.3                              |    |
|                 | 08/27/19       | 6.69     | 223                          | 17.9             | 2.7             | 0.41                    | 130.1                              |    |
|                 | MW-6           | 03/30/10 | 6.53                         | 533              | 11.5            | --                      | 0.61                               | 14 |
|                 |                | 09/30/10 | 6.55                         | 936              | 15.9            | --                      | 0.35                               | 30 |
| 03/04/11        |                | 6.84     | 331                          | 10.6             | 4.0             | 0.21                    | 11                                 |    |
| 09/21/11        |                | 6.23     | 723                          | 17.9             | 3.9             | 0.13                    | -68                                |    |
| 03/06/12        |                | 6.53     | 341                          | 10.5             | --              | 0.25                    | -12                                |    |
| 09/28/12        |                | 6.21     | 717                          | 15.3             | --              | 0.27                    | 315 <sup>b</sup>                   |    |
| 03/07/13        |                | 6.49     | 511                          | 11.1             | --              | 0.21                    | 76                                 |    |
| 09/24/13        |                | 6.50     | 634                          | 14.3             | 106.0           | 0.00                    | -52                                |    |
| 03/26/14        |                | 6.70     | 420                          | 13.1             | 7.3             | 0.00                    | -60                                |    |
| 09/24/14        |                | 6.18     | 887                          | 15.7             | 3.2             | 0.00                    | -94                                |    |
| 03/17/15        |                | 5.39     | 270                          | 11.9             | 0.0             | 0.00                    | -155                               |    |
| 09/17/15        |                | 6.32     | 1,040                        | 16.4             | 1.1             | 0.00                    | -62                                |    |
| 03/15/16        |                | 6.90     | 628                          | 11.8             | 36.7            | 0.05                    | -39                                |    |
| 09/14/16        |                | 6.27     | 760                          | 15.3             | 2.6             | 1.95                    | -78                                |    |
| 03/07/17        |                | 6.44     | 549                          | 9.1              | 7.9             | 0.00                    | -35                                |    |
| 09/20/17        |                | 6.47     | 885                          | 15.2             | 17.8            | 0.00                    | -46                                |    |
| 03/20/18        |                | 6.30     | 862                          | 12.8             | 0.0             | 0.00                    | -16                                |    |
| 09/13/18        |                | 6.30     | 563                          | 17.4             | 1.5             | 0.70                    | -81.2                              |    |
| 06/03/19        |                | 6.27     | 542                          | 15.4             | 6.1             | 0.23                    | -47.5                              |    |
| 08/29/19        |                | 6.09     | 741                          | 22.1             | 5.6             | 0.42                    | -67.1                              |    |
| MW-7            |                | 04/01/10 | 6.81                         | 255              | 12.4            | --                      | 1.48                               | 6  |
|                 | 09/28/10       | 6.71     | 318                          | 17.4             | --              | 0.27                    | 17                                 |    |
|                 | 03/02/11       | 6.48     | 235                          | 11.4             | 10.0            | 5.72                    | 3                                  |    |
|                 | 06/22/11       | 6.33     | 193                          | 19.0             | 38.1            | 0.33                    | 109                                |    |
|                 | 09/22/11       | 6.33     | 248                          | 16.6             | 1.9             | 0.19                    | 158                                |    |
|                 | 10/20/11       | 6.28     | 389                          | 16.1             | 13.0            | 0.30                    | 88                                 |    |
|                 | 12/07/11       | 6.55     | 273                          | 13.4             | --              | 0.57                    | 139                                |    |
|                 | 03/07/12       | 6.54     | 200                          | 12.3             | --              | 1.31                    | 95                                 |    |
|                 | 06/26/12       | 6.47     | 196                          | 16.1             | 5.7             | 0.18                    | 43                                 |    |
|                 | 07/12/12       | 6.54     | 197                          | 15.8             | --              | 0.23                    | -22                                |    |
|                 | 09/27/12       | 6.26     | 245                          | 18.2             | 1.8             | 0.30                    | 383 <sup>a</sup>                   |    |
|                 | 12/19/12       | 6.42     | 641                          | 13.0             | 7.0             | 0.46                    | 8                                  |    |
|                 | 03/05/13       | 6.32     | 374                          | 12.6             | 16.6            | 0.17                    | 19                                 |    |
|                 | 06/06/13       | 6.74     | 328                          | 16.7             | 9.3             | 0.24                    | 81                                 |    |

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected | pH   | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 09/24/13       | 5.97 | 427                          | 17.7             | 0.0             | 0.00                    | 45                                 |
|                 | 03/26/14       | 6.48 | 340                          | 14.2             | 0.0             | 0.00                    | 132                                |
|                 | 09/25/14       | 6.36 | 402                          | 17.5             | 0.0             | 0.00                    | 116                                |
|                 | 03/18/15       | 6.25 | 162                          | 17.0             | 0.0             | 2.87                    | -2                                 |
|                 | 09/14/15       | 6.68 | 433                          | 17.8             | 0.4             | 0.00                    | 76                                 |
|                 | 03/15/16       | 7.01 | 321                          | 12.0             | 0.0             | 2.78                    | 96                                 |
|                 | 09/14/16       | 6.31 | 351                          | 18.6             | 0.5             | 0.40                    | 72                                 |
|                 | 03/08/17       | 6.59 | 270                          | 10.3             | 7.4             | 0.00                    | -14                                |
|                 | 09/19/17       | 6.50 | 341                          | 17.9             | 0.0             | 0.00                    | 86                                 |
|                 | 03/21/18       | 6.43 | 184                          | 12.3             | 2.5             | 3.19                    | 41                                 |
|                 | 09/11/18       | 6.31 | 288                          | 17.5             | 3.0             | 1.38                    | 101.5                              |
| 05/31/19        | 6.29           | 238  | 14.3                         | 1.3              | 0.14            | -45.2                   |                                    |
| 08/26/19        | 5.91           | 318  | 21.8                         | 3.2              | 0.43            | 129.5                   |                                    |
| MW-8            | 04/01/10       | 6.29 | 949                          | 11.9             | --              | 0.79                    | 29                                 |
|                 | 09/28/10       | 6.44 | 1,217                        | 18.1             | --              | 0.28                    | 32                                 |
|                 | 03/04/11       | 6.81 | 1,317                        | 11.0             | 2.0             | 0.50                    | 13                                 |
|                 | 09/26/11       | 6.15 | 1,137                        | 14.4             | 0.3             | 0.32                    | 270                                |
|                 | 03/06/12       | 6.55 | 1,106                        | 11.6             | --              | 0.50                    | 14                                 |
|                 | 09/28/12       | 6.27 | 1,101                        | 17.1             | --              | 0.32                    | 305 <sup>a</sup>                   |
|                 | 03/08/13       | 6.45 | 1,271                        | 12.3             | --              | 0.23                    | 136                                |
|                 | 09/24/13       | 6.43 | 854                          | 15.9             | 57.0            | 0.69                    | 57                                 |
|                 | 03/26/14       | 6.76 | 994                          | 13.4             | 5.0             | 0.00                    | 109                                |
|                 | 09/23/14       | 6.27 | 1120                         | 16.9             | 1.5             | 0.00                    | 112                                |
|                 | 03/16/15       | 6.40 | 486                          | 15.8             | 0.0             | 0.00                    | -2                                 |
|                 | 09/16/15       | 6.52 | 1,190                        | 14.1             | 0.0             | 0.00                    | 126                                |
|                 | 03/15/16       | 6.89 | 766                          | 11.4             | 11.0            | 0.53                    | 98                                 |
|                 | 09/14/16       | 6.38 | 834                          | 16.7             | 2.4             | 0.48                    | 30                                 |
|                 | 03/07/17       | 6.04 | 582                          | 9.3              | 2.0             | 0.00                    | 51                                 |
|                 | 09/21/17       | 6.59 | 849                          | 15.3             | 0.0             | 0.00                    | -11                                |
|                 | 03/20/18       | 6.20 | 542                          | 11.6             | 0.7             | 1.00                    | 59                                 |
|                 | 09/13/18       | 6.34 | 635                          | 16.4             | 0.8             | 1.16                    | -35.1                              |
|                 | 05/30/19       | 6.10 | 411                          | 15.8             | 2.1             | 0.51                    | -42.3                              |
| 08/27/19        | 5.52           | 443  | 16.3                         | 2.5              | 0.48            | 143                     |                                    |
| MW-9            | 03/30/10       | 6.58 | 559                          | 11.9             | --              | 0.72                    | 17                                 |
|                 | 09/28/10       | 6.52 | 651                          | 17.3             | --              | 0.24                    | 27                                 |
|                 | 03/04/11       | 6.89 | 505                          | 12.0             | 4.0             | 0.24                    | 10                                 |
|                 | 09/26/11       | 6.41 | 544                          | 13.4             | 85.4            | 0.12                    | -90                                |
|                 | 03/06/12       | 6.37 | 392                          | 11.3             | --              | 0.30                    | 32                                 |
|                 | 09/28/12       | 6.57 | 641                          | 15.3             | --              | 0.16                    | 272 <sup>a</sup>                   |
|                 | 03/08/13       | 6.47 | 557                          | 11.9             | --              | 0.16                    | 95                                 |
|                 | 09/24/13       | 6.87 | 365                          | 15.1             | 128.0           | 0.00                    | -67                                |
|                 | 03/26/14       | 6.42 | 388                          | 15.0             | 0.0             | 0.00                    | 67                                 |
|                 | 09/24/14       | 6.45 | 472                          | 17.1             | 21.2            | 0.00                    | -93                                |
|                 | 03/17/15       | 6.09 | 239                          | 15.7             | 70.4            | 0.94                    | -40                                |
|                 | 09/16/15       | 6.54 | 769                          | 15.9             | 20.7            | 0.00                    | -146                               |
|                 | 03/15/16       | 6.69 | 490                          | 11.5             | 56.3            | 0.00                    | 49                                 |
|                 | 09/14/16       | 6.83 | 592                          | 16.5             | 28.2            | 0.52                    | -112                               |
|                 | 03/07/17       | 5.73 | 300                          | 10.4             | 36.8            | 0.00                    | 119                                |
|                 | 09/21/17       | 7.19 | 812                          | 14.4             | 0.0             | 0.00                    | -20                                |
|                 | 03/20/18       | 6.00 | 255                          | 13.7             | 7.4             | 0.68                    | 37                                 |
|                 | 09/13/18       | 6.66 | 495                          | 16.9             | 11.2            | 0.93                    | -113.1                             |
|                 | 05/31/19       | 6.79 | 357                          | 15.7             | 24.7            | 0.04                    | -46                                |
| 08/27/19        | 5.82           | 559  | 17.9                         | 7.7              | 0.37            | -80.5                   |                                    |
| MW-10           | 03/30/10       | 6.96 | 201                          | 11.1             | --              | 1.33                    | -8                                 |
|                 | 09/28/10       | 6.98 | 185                          | 17.7             | --              | 0.20                    | 3                                  |
|                 | 03/04/11       | 7.24 | 160                          | 10.7             | 7.0             | 0.15                    | -2                                 |
|                 | 09/26/11       | 6.61 | 152                          | 14.9             | 37.8            | 0.32                    | -58                                |
|                 | 03/07/12       | 6.86 | 141                          | 11.2             | --              | 0.24                    | -7                                 |
|                 | 09/28/12       | 6.67 | 136                          | 18.9             | --              | 0.21                    | 292 <sup>a</sup>                   |
|                 | 03/05/13       | 6.54 | 164                          | 11.4             | --              | 0.16                    | 2                                  |
|                 | 09/24/13       | 7.11 | 106                          | 17.4             | 72.5            | 0.00                    | -72                                |
|                 | 03/27/14       | 7.03 | 176                          | 13.2             | 0.0             | 0.00                    | -88                                |
|                 | 09/24/14       | 6.66 | 201                          | 17.2             | 12.9            | 0.00                    | -94                                |
|                 | 03/18/15       | 6.32 | 57                           | 14.8             | 50.2            | 0.00                    | -56                                |
|                 | 09/14/15       | 6.51 | 145                          | 17.6             | 29.1            | 0.00                    | -110                               |
|                 | 03/15/16       | 7.39 | 176                          | 11.0             | 411             | 0.00                    | -78                                |
|                 | 09/15/16       | 6.64 | 140                          | 17.2             | 6.2             | 0.15                    | -80                                |
|                 | 03/08/17       | 6.54 | 139                          | 10.5             | 10.9            | 0.00                    | -51                                |
|                 | 09/19/17       | 7.01 | 159                          | 16.3             | 0.0             | 0.00                    | -70                                |
|                 | 03/21/18       | 6.74 | 130                          | 11.2             | 17.9            | 0.78                    | 29                                 |
|                 | 09/12/18       | 6.64 | 152                          | 17.7             | 4.6             | 0.65                    | -65.4                              |
|                 | 05/30/19       | 6.65 | 175                          | 17.8             | 13.0            | 1.12                    | -43.3                              |
| 08/26/19        | 6.21           | 214  | 19.9                         | 7.7              | 0.27            | -78.4                   |                                    |



**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                                     | Date Collected | pH   | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|---|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| MW-11   | 04/01/10       | 6.40 | 286                          | 12.0             | 13.0            | 0.46                    | 23                                 |
|   | 04/09/10       | --   | 330                          | --               | 3.0             | --                      | --                                 |
|   | 04/16/10       | 6.41 | 326                          | 13.6             | 21.0            | 0.12                    | 26                                 |
|   | 05/06/10       | 6.55 | 285                          | 13.0             | 13.0            | 0.30                    | 24                                 |
|   | 06/09/10       | 6.43 | 278                          | 14.3             | 13.0            | 0.65                    | 25                                 |
| MW-12   | 04/01/10       | 6.56 | 347                          | 13.0             | --              | 0.87                    | 27                                 |
|   | 09/28/10       | 6.52 | 322                          | 18.6             | --              | 0.35                    | 26                                 |
|   | 03/03/11       | 6.75 | 244                          | 11.1             | 28.0            | 0.22                    | 12                                 |
|   | 06/22/11       | 6.87 | 348                          | 16.1             | 41.2            | 0.04                    | -188                               |
|   | 09/22/11       | 6.51 | 359                          | 16.4             | 12.4            | 0.05                    | -122                               |
|   | 10/21/11       | 6.41 | 411                          | 15.0             | 35.0            | 0.38                    | 11                                 |
|   | 12/07/11       | 6.58 | 293                          | 12.2             | --              | 0.20                    | -87                                |
|   | 03/07/12       | 6.38 | 316                          | 12.9             | --              | 0.30                    | 59                                 |
|   | 06/27/12       | 6.44 | 533                          | 15.5             | 18.4            | 0.22                    | 32                                 |
|   | 07/12/12       | 6.44 | 312                          | 15.5             | --              | 0.14                    | 16                                 |
|   | 10/02/12       | 6.41 | 324                          | 16.3             | 7.9             | 3.60 <sup>a</sup>       | 275 <sup>a</sup>                   |
|   | 12/19/12       | 6.29 | 444                          | 13.1             | 11.0            | 0.37                    | 15                                 |
|   | 03/06/13       | 6.37 | 436                          | 12.2             | 18.1            | 0.15                    | 47                                 |
|   | 06/06/13       | 6.61 | 431                          | 20.4             | 33.4            | 0.25                    | -40                                |
|   | 09/24/13       | 6.79 | 417                          | 14.9             | 54.4            | 0.00                    | -117                               |
|   | 03/25/14       | 5.90 | 413                          | 15.4             | 0.0             | 0.00                    | -45                                |
|   | 09/23/14       | 6.27 | 424                          | 16.8             | 3.1             | 0.70                    | -108                               |
|   | 03/16/15       | 6.21 | 196                          | 16.9             | 2.7             | 0.00                    | -82                                |
|   | 09/15/15       | 6.61 | 423                          | 16.0             | 0.0             | 0.00                    | -41                                |
|   | 03/15/16       | 6.84 | 436                          | 13.1             | 0.0             | 0.00                    | 101                                |
| 09/14/16  | 6.38           | 312  | 16.8                         | 3.7              | 0.69            | 9                       |                                    |
| 03/06/17  | 6.48           | 399  | 11.7                         | 10.6             | 0.00            | 102                     |                                    |
| 09/20/17  | 6.78           | 364  | 14.7                         | 0.0              | 0.00            | -39                     |                                    |
| 03/20/18  | 6.28           | 396  | 11.8                         | 3.5              | 0.00            | 119                     |                                    |
| 09/11/18  | 6.58           | 239  | 15.5                         | 5.0              | 0.75            | 33.2                    |                                    |
| 06/03/19  | 6.24           | 269  | 15.1                         | 4.5              | 0.23            | -44                     |                                    |
| 08/27/19  | 5.84           | 278  | 18.0                         | 4.3              | 0.36            | 135.5                   |                                    |
| MW-23   | 04/01/10       | 6.57 | 428                          | 13.0             | --              | 0.66                    | 16                                 |
|   | 09/28/10       | 6.67 | 495                          | 19.0             | --              | 0.19                    | 19                                 |
|   | 03/02/11       | 6.25 | 399                          | 11.8             | 5.0             | 0.25                    | 16                                 |
|   | 06/22/11       | 6.27 | 320                          | 15.3             | 26.1            | 0.19                    | 70                                 |
|   | 09/23/11       | 6.35 | 431                          | 17.8             | 7.8             | 0.14                    | 82                                 |
|   | 10/20/11       | 6.51 | 512                          | 16.7             | 3.0             | 0.36                    | 70                                 |
|   | 12/07/11       | 6.57 | 356                          | 13.7             | --              | 0.18                    | 102                                |
|   | 03/07/12       | 6.59 | 386                          | 13.1             | 5.2             | 0.18                    | 58                                 |
|   | 06/26/12       | 6.54 | 460                          | 16.9             | 7.3             | 0.20                    | 46                                 |
|   | 07/12/12       | 6.54 | 465                          | 15.8             | --              | 0.17                    | -18                                |
|   | 09/27/12       | 6.52 | 409                          | 17.1             | 5.2             | 0.26                    | 340 <sup>a</sup>                   |
|   | 12/19/12       | 6.51 | 430                          | 13.5             | 64.0            | 0.34                    | 65                                 |
|   | 03/05/13       | 6.50 | 528                          | 12.6             | 7.1             | 0.16                    | -15                                |
|   | 06/06/13       | 6.91 | 690                          | 16.8             | 9.2             | 0.26                    | 43                                 |
|   | 09/24/13       | 6.72 | 364                          | 17.0             | 52.4            | 2.17                    | 67                                 |
|   | 03/26/14       | 6.80 | 616                          | 13.5             | 4.1             | 0.00                    | 147                                |
|   | 09/25/14       | 6.53 | 652                          | 17.5             | 0.7             | 0.00                    | 107                                |
|   | 03/18/15       | 6.50 | 326                          | 16.0             | 1.5             | 0.00                    | -39                                |
|   | 09/14/15       | 6.05 | 650                          | 18.7             | 0.4             | 0.00                    | 35                                 |
|   | 03/15/16       | 7.47 | 729                          | 11.0             | 9.8             | 0.00                    | 1                                  |
| 09/14/16  | 6.45           | 584  | 19.0                         | 2.0              | 0.17            | 70                      |                                    |
| 03/08/17  | 6.23           | 482  | 11.3                         | 7.3              | 0.00            | 15                      |                                    |
| 09/19/17  | 6.85           | 597  | 18.0                         | 0.0              | 0.00            | -28                     |                                    |
| 03/21/18  | 6.50           | 642  | 11.6                         | 6.4              | 0.00            | -4                      |                                    |
| 09/12/18  | 6.50           | 553  | 18.0                         | 2.7              | 0.62            | -53.6                   |                                    |
| 05/31/19  | 6.37           | 600  | 14.7                         | 7.8              | 0.13            | -45.8                   |                                    |
| 08/26/19  | 6.05           | 39   | 20.9                         | 5.6              | 0.43            | 80.6                    |                                    |
| MW-26   | 04/01/10       | 6.44 | 269                          | 12.7             | 34.0            | 0.74                    | 19                                 |
|   | 04/09/10       | --   | 290                          | --               | 4.0             | --                      | --                                 |
|   | 04/16/10       | 6.49 | 270                          | 13.6             | 21.0            | 0.19                    | 23                                 |
|   | 05/06/10       | 6.67 | 218                          | 12.6             | 18.0            | 0.31                    | 28                                 |
|   | 06/09/10       | 6.47 | 207                          | 14.9             | 41.7            | 0.76                    | 28                                 |
| <b>Deep On-Site Monitoring Wells and Piezometer</b> |                |      |                              |                  |                 |                         |                                    |
|   | 03/29/10       | 6.53 | 639                          | 12.4             | 15.0            | 0.58                    | 18                                 |
|   | 04/07/10       | --   | 720                          | --               | 2.0             | --                      | --                                 |
|   | 04/16/10       | 6.67 | 682                          | 14.2             | 9.0             | 0.49                    | 24                                 |
|   | 05/06/10       | 6.56 | 722                          | 13.9             | 6.0             | 0.31                    | 25                                 |
|   | 06/09/10       | 6.52 | 753                          | 15.7             | 4.0             | 0.20                    | 22                                 |
|   | 09/30/10       | 6.58 | 695                          | 17.2             | --              | 0.14                    | 17                                 |
|   | 03/03/11       | 6.76 | 552                          | 12.9             | 1.0             | 0.20                    | 9                                  |
|   | 06/23/11       | 6.09 | 365                          | 14.4             | 9.2             | 0.16                    | -61                                |

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected                   | pH   | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------------------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| MW-13           | 09/22/11                         | 6.26 | 680                          | 19.7             | 13.3            | 0.02                    | -86                                |
|                 | 10/20/11                         | 6.27 | 882                          | 16.3             | 17.0            | 0.35                    | -28                                |
|                 | 12/07/11                         | 6.45 | 566                          | 12.7             | --              | 0.21                    | -89                                |
|                 | 03/07/12                         | 6.49 | 564                          | 12.2             | --              | 0.27                    | -13                                |
|                 | 06/27/12                         | 6.44 | 533                          | 15.5             | 18.4            | 0.22                    | 32                                 |
|                 | 07/12/12                         | 6.47 | 571                          | 18.5             | --              | 0.16                    | -7                                 |
|                 | 10/02/12                         | 6.39 | 541                          | 16.9             | 6.4             | 0.20                    | 221 <sup>a</sup>                   |
|                 | 12/19/12                         | 6.33 | 694                          | 13.1             | 26.0            | 0.31                    | -91                                |
|                 | 03/07/13                         | 6.43 | 688                          | 12.9             | 4.4             | 0.16                    | 11                                 |
|                 | 06/06/13                         | 6.70 | 713                          | 19.9             | 26.7            | 0.18                    | -95                                |
|                 | 09/24/13                         | 7.02 | 489                          | 15.7             | 82.5            | 6.22                    | -92                                |
|                 | 03/26/14                         | 6.78 | 610                          | 14.1             | 1.7             | 0.00                    | -99                                |
|                 | 09/23/14                         | 6.41 | 803                          | 17.7             | 29.2            | 0.00                    | -129                               |
|                 | 03/17/15                         | 6.25 | 65                           | 12.4             | 0.0             | 0.00                    | -45                                |
|                 | 09/15/15                         | 6.34 | 485                          | 17.8             | 0.0             | 0.00                    | -106                               |
|                 | 03/14/16                         | 7.44 | 260                          | 11.8             | 0.0             | 0.00                    | -20                                |
|                 | 09/15/16                         | 6.44 | 456                          | 16.2             | 9.5             | 0.32                    | -38                                |
|                 | 03/07/17                         | 5.96 | 610                          | 9.4              | 5.3             | 0.00                    | -63                                |
| 09/20/17        | 6.65                             | 777  | 16.2                         | 0.0              | 0.00            | -59                     |                                    |
| 03/21/18        | 6.47                             | 669  | 15.2                         | 4.9              | 0.32            | 8.6                     |                                    |
| 09/11/18        | 6.30                             | 522  | 18.0                         | 4.4              | 0.71            | -54.7                   |                                    |
| 05/31/19        | 6.27                             | 736  | 16.9                         | 9.1              | 0.54            | -46.9                   |                                    |
| 08/28/19        | 6.04                             | 809  | 25.6                         | 6.5              | 0.43            | -87.2                   |                                    |
| MW-14           | 03/30/10                         | 6.58 | 360                          | 13.2             | --              | 0.73                    | 15                                 |
|                 | 09/30/10                         | 6.72 | 555                          | 17.4             | --              | 0.34                    | 18                                 |
|                 | 03/04/11                         | 6.96 | 316                          | 12.0             | 6.0             | 0.15                    | 9                                  |
|                 | 09/21/11                         | 6.39 | 392                          | 16.7             | 7.6             | 0.04                    | -72                                |
|                 | 03/06/12                         | 6.58 | 337                          | 12.0             | --              | 0.27                    | 0                                  |
|                 | 09/28/12                         | 6.42 | 366                          | 16.3             | --              | 0.28                    | 294 <sup>a</sup>                   |
|                 | 03/07/13                         | 6.50 | 451                          | 12.4             | --              | 0.18                    | 49                                 |
|                 | 09/24/13                         | 6.57 | 313                          | 14.0             | 65.5            | 0.00                    | -23                                |
|                 | 03/26/14                         | 6.74 | 444                          | 16.3             | 0.0             | 0.00                    | -86                                |
|                 | 09/24/14                         | 6.39 | 496                          | 15.7             | 2.4             | 0.00                    | -89                                |
|                 | 03/17/15                         | 6.41 | 282                          | 15.4             | 0.0             | 7.23                    | -144                               |
|                 | 09/16/15                         | 6.71 | 593                          | 14.6             | 0.0             | 0.00                    | -69                                |
|                 | 03/16/16                         | 7.06 | 493                          | 11.4             | 11.4            | 0.00                    | -50                                |
|                 | 09/15/16                         | 6.50 | 387                          | 14.1             | 23.3            | 0.28                    | -51                                |
|                 | 03/08/17                         | 6.66 | 540                          | 12.3             | 4.3             | 0.00                    | -54                                |
|                 | 09/20/17                         | 6.72 | 552                          | 15.1             | 0.0             | 0.00                    | -61                                |
|                 | 03/20/18                         | 6.42 | 541                          | 13.5             | 0.0             | 0.00                    | -17.3                              |
|                 | 09/13/18                         | 6.64 | 470                          | 14.0             | 2.0             | 1.19                    | -64.6                              |
| 06/03/19        | 6.35                             | 573  | 15.2                         | --               | 0.15            | -47.6                   |                                    |
| 08/28/19        | 5.84                             | 664  | 18.4                         | 0.8              | 0.40            | -57.2                   |                                    |
| MW-15           | 03/30/10                         | 6.61 | 409                          | 13.3             | --              | 0.77                    | 14                                 |
|                 | 09/30/10                         | 6.57 | 506                          | 17.0             | --              | 0.38                    | 19                                 |
|                 | 03/08/11                         | 6.91 | 449                          | 13.7             | 4.0             | 0.17                    | 8                                  |
|                 | 09/21/11                         | 6.42 | 462                          | 17.2             | 3.0             | 0.06                    | -83                                |
|                 | 03/06/12                         | 6.57 | 403                          | 11.3             | --              | 0.30                    | -32                                |
|                 | 10/01/12                         | 6.43 | 414                          | 14.7             | --              | 0.31                    | 370 <sup>a</sup>                   |
|                 | 03/07/13                         | 6.50 | 530                          | 12.9             | --              | 0.17                    | 30                                 |
|                 | 09/24/13                         | 6.61 | 357                          | 14.4             | 131.0           | 0.00                    | -48                                |
|                 | 03/26/14                         | 6.73 | 487                          | 16.5             | 0.0             | 0.00                    | -94                                |
|                 | 09/24/14                         | 6.40 | 482                          | 16.1             | 3.5             | 0.00                    | -94                                |
|                 | 03/17/15                         | 5.58 | 237                          | 13.7             | 0.0             | 0.00                    | -174                               |
|                 | 09/17/15                         | 5.69 | 509                          | 15.1             | 0.0             | 0.00                    | -46                                |
|                 | Well Abandoned February 16, 2016 |      |                              |                  |                 |                         |                                    |
| MW-16           | 04/02/10                         | 6.45 | 691                          | 11.5             | --              | 0.59                    | 24                                 |
|                 | 10/10/10                         | 6.62 | 801                          | 14.2             | --              | 0.39                    | 21                                 |
|                 | 03/08/11                         | 6.76 | 639                          | 12.3             | 6.0             | 0.19                    | 7                                  |
|                 | 09/26/11                         | 6.29 | 681                          | 13.5             | 0.6             | 0.20                    | -71                                |
|                 | 03/08/12                         | 6.42 | 666                          | 11.8             | --              | 0.26                    | 7                                  |
|                 | 10/01/12                         | 6.28 | 678                          | 13.7             | --              | 0.29                    | 358 <sup>a</sup>                   |
|                 | 03/08/13                         | 6.54 | 607                          | 11.2             | --              | 0.21                    | 110                                |
|                 | 09/24/13                         | 6.59 | 428                          | 12.9             | 62.1            | 0.00                    | -23                                |
|                 | 03/27/14                         | 6.67 | 889                          | 13.3             | 25.4            | 0.00                    | -98                                |
|                 | 09/25/14                         | 6.30 | 901                          | 14.9             | 98.7            | 0.00                    | -84                                |
|                 | 03/18/15                         | 6.30 | 480                          | 15.2             | 3.1             | 0.00                    | -156                               |
|                 | 09/17/15                         | 6.08 | 999                          | 13.7             | 4.8             | 0.00                    | -116                               |
|                 | 03/16/16                         | 6.87 | 908                          | 10.9             | 16.5            | 0.00                    | -65                                |
|                 | 09/15/16                         | 6.43 | 616                          | 12.8             | 7.3             | 0.38                    | -65                                |
|                 | 03/07/17                         | 6.51 | 924                          | 10.6             | 8.1             | 0.00                    | -74                                |
| 09/21/17        | 6.59                             | 928  | 13.7                         | 9.4              | 0.00            | -53                     |                                    |

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**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected | pH    | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|-------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/21/18       | 6.34  | 615                          | 12.5             | 40.9            | 0.89                    | 19.8                               |
|                 | 09/13/18       | 6.50  | 647                          | 12.5             | 6.9             | 0.40                    | -63.5                              |
|                 | 06/03/19       | 6.21  | 817                          | 13.8             | 6.0             | 0.18                    | -48.6                              |
|                 | 08/29/19       | 5.84  | 920                          | 15.1             | 5.1             | 0.47                    | -64.5                              |
| MW-17           | 03/30/10       | 6.37  | 667                          | 10.1             | --              | 1.28                    | 12                                 |
|                 | 10/01/10       | 6.68  | 1,111                        | 14.2             | --              | 0.31                    | 23                                 |
|                 | 03/07/11       | 6.88  | 564                          | 11.6             | 5.0             | 0.15                    | 8                                  |
|                 | 06/23/11       | 6.27  | 415                          | 14.6             | 7.1             | 0.08                    | -40                                |
|                 | 09/23/11       | 6.37  | 927                          | 16.2             | 1.4             | 0.10                    | -60                                |
|                 | 03/08/12       | 6.57  | 911                          | 11.9             | --              | 0.23                    | -28                                |
|                 | 06/27/12       | 6.57  | 936                          | 15.3             | 14.8            | 0.12                    | -24                                |
|                 | 07/12/12       | 6.53  | 1,033                        | 15.9             | --              | 0.23                    | -26                                |
|                 | 10/01/12       | 6.36  | 918                          | 13.6             | 77.2            | 0.23                    | 346 <sup>a</sup>                   |
|                 | 12/19/12       | 6.35  | 1,349                        | 10.9             | 16.0            | 0.39                    | -100                               |
|                 | 03/07/12       | 6.47  | 1,128                        | 11.4             | 4.4             | 0.18                    | 21                                 |
|                 | 06/06/13       | 6.88  | 1,269                        | 15.0             | 21.6            | 0.28                    | -89                                |
|                 | 09/24/13       | 6.07  | 792                          | 12.4             | 90.1            | 0.00                    | -55                                |
|                 | 03/26/14       | 6.67  | 665                          | 12.7             | 8.0             | 0.00                    | 4                                  |
|                 | 09/25/14       | 6.49  | 914                          | 14.6             | 43.1            | 0.00                    | -68                                |
|                 | 03/19/15       | 6.50  | 499                          | 12.3             | 44.3            | 0.00                    | -101                               |
|                 | 09/17/15       | 6.57  | 1,100                        | 14.5             | 5.5             | 0.00                    | -32                                |
|                 | 03/14/16       | 7.22  | 3,590                        | 10.9             | 0.00            | 0.00                    | -79                                |
|                 | 09/14/16       | 6.36  | 720                          | 14.8             | 0.90            | 0.14                    | -23                                |
|                 | 03/08/17       | 6.13  | 835                          | 9.4              | 19.9            | 0.00                    | -22                                |
|                 | 09/19/17       | 6.96  | 1,150                        | 13.6             | 0.96            | 0.00                    | -23                                |
|                 | 03/19/18       | 6.57  | 826                          | 11.4             | NM              | 7.57                    | -50                                |
|                 | 09/12/18       | 6.63  | 803                          | 12.2             | 9.1             | 1.21                    | -79.8                              |
| 05/31/19        | 6.38           | 1,009 | 13.3                         | 4.2              | 0.07            | -48                     |                                    |
| 08/28/19        | 6.11           | 1,123 | 23.1                         | 10.1             | 0.40            | -86.1                   |                                    |
| MW-18           | 03/30/10       | 6.62  | 494                          | 12.0             | --              | 1.57                    | 13                                 |
|                 | 09/28/10       | 6.68  | 616                          | 16.6             | --              | 0.24                    | 21                                 |
|                 | 03/04/11       | 6.95  | 464                          | 12.3             | 3.0             | 0.18                    | 7                                  |
|                 | 06/23/11       | 6.32  | 312                          | 15.3             | 9.6             | 0.14                    | -7                                 |
|                 | 09/23/11       | 6.37  | 532                          | 16.9             | 3.8             | 0.07                    | -70                                |
|                 | 03/07/12       | 6.54  | 484                          | 13.0             | 6.0             | 0.18                    | 15                                 |
|                 | 06/27/12       | 6.55  | 554                          | 17.4             | 4.9             | 0.20                    | -18                                |
|                 | 07/12/12       | 6.54  | 567                          | 14.8             | --              | 0.19                    | -41                                |
|                 | 10/01/12       | 6.48  | 321                          | 17.7             | 2.8             | 2.42 <sup>a</sup>       | 353 <sup>a</sup>                   |
|                 | 12/19/12       | 6.44  | 697                          | 12.3             | 9.0             | 0.42                    | -92                                |
|                 | 03/05/13       | 6.40  | 657                          | 12.7             | 6.7             | 0.17                    | 9                                  |
|                 | 06/06/13       | 6.87  | 741                          | 16.6             | 16.1            | 0.26                    | -84                                |
|                 | 09/24/13       | 6.67  | 439                          | 15.0             | 58.9            | 0.08                    | -60                                |
|                 | 03/26/14       | 7.76  | 99                           | 13.9             | 0.0             | 3.32                    | 115                                |
|                 | 09/24/14       | 6.38  | 579                          | 16.7             | 7.1             | 0.00                    | -59                                |
|                 | 03/18/15       | 5.55  | 378                          | 14.2             | 0.0             | 0.00                    | -178                               |
|                 | 09/14/15       | 6.47  | 617                          | 16.0             | 0.0             | 0.00                    | -82                                |
|                 | 03/15/16       | 7.11  | 792                          | 12.8             | 0.0             | 0.00                    | -76                                |
|                 | 09/15/16       | 6.32  | 558                          | 15.0             | 1.1             | 0.37                    | -24                                |
|                 | 03/09/17       | 6.09  | 523                          | 11.6             | 11.0            | 0.00                    | 1                                  |
|                 | 09/19/17       | 6.71  | 677                          | 14.8             | 0.0             | 0.00                    | -54                                |
|                 | 03/21/18       | 6.39  | 632                          | 12.1             | 0.0             | 0.00                    | -16                                |
|                 | 09/12/18       | 6.50  | 582                          | 15.7             | 0.9             | 0.90                    | -27.2                              |
| 05/30/19        | 6.45           | 712   | 18.0                         | 7.1              | 4.94            | -182.1                  |                                    |
| 08/28/19        | 6.04           | 781   | 20.6                         | 5.0              | 0.34            | -76.7                   |                                    |
| MW-19           | 03/30/10       | 6.33  | 528                          | 11.9             | --              | 0.98                    | 14                                 |
|                 | 09/28/10       | 6.53  | 722                          | 16.4             | --              | 0.36                    | 29                                 |
|                 | 03/03/11       | 6.92  | 413                          | 13.5             | 4.0             | 0.15                    | 10                                 |
|                 | 09/21/11       | 6.38  | 530                          | 16.6             | 0.0             | 0.14                    | -103                               |
|                 | 12/07/11       | 6.53  | 556                          | 13.3             | --              | 0.26                    | -77                                |
|                 | 03/08/12       | 5.65  | 596                          | 15.0             | --              | 0.19                    | -29                                |
|                 | 06/27/12       | 6.57  | 430                          | 16.6             | 0.8             | 0.16                    | -22                                |
|                 | 07/12/12       | 6.51  | 466                          | 15.4             | --              | 0.23                    | 21                                 |
|                 | 09/28/12       | 6.35  | 406                          | 17.6             | --              | 0.28                    | 322 <sup>a</sup>                   |
|                 | 12/19/12       | 6.42  | 560                          | 13.7             | 14.0            | 0.40                    | -93                                |
|                 | 03/05/13       | 6.39  | 727                          | 13.3             | 1.6             | 0.14                    | -31                                |
|                 | 06/06/13       | 6.84  | 766                          | 16.3             | 9.8             | 0.86                    | -72                                |
|                 | 09/24/13       | 6.72  | 486                          | 14.0             | 64.0            | 0.00                    | -98                                |
|                 | 03/27/14       | 6.83  | 564                          | 14.7             | 52.9            | 0.00                    | -90                                |
|                 | 09/25/14       | 6.47  | 689                          | 18.5             | 5.7             | 0.00                    | -87                                |
|                 | 03/19/15       | 6.56  | 440                          | 13.4             | 5.5             | 0.00                    | -138                               |
|                 | 09/15/15       | 6.37  | 797                          | 16.4             | 1.5             | 0.00                    | -119                               |
|                 | 03/14/16       | 7.03  | 663                          | 13.2             | 7.7             | 0.00                    | -93                                |
|                 | 09/13/16       | 6.50  | 625                          | 18.1             | 1.3             | 0.28                    | -83                                |

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected | pH       | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |    |
|-----------------|----------------|----------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|----|
|                 | 03/09/17       | 6.06     | 555                          | 11.9             | 35.8            | 0.00                    | -19                                |    |
|                 | 09/19/17       | 6.79     | 820                          | 17.4             | 0.0             | 0.00                    | -51                                |    |
|                 | 03/19/18       | 6.36     | 514                          | 15.8             | 1.9             | 0.53                    | 40                                 |    |
|                 | 09/12/18       | 6.65     | 553                          | 15.3             | 5.2             | 4.56                    | -72.9                              |    |
|                 | 05/30/19       | 6.50     | 717                          | 16.5             | 13.1            | 4.92                    | -154.1                             |    |
|                 | 08/26/19       | 5.75     | 665                          | 20.0             | 14.1            | 0.39                    | -62                                |    |
|                 | 03/26/10       | 6.31     | 664                          | 13.2             | 10.0            | 0.68                    | 19                                 |    |
|                 | 04/16/10       | 6.54     | 702                          | 13.6             | 19.0            | 0.90                    | 22                                 |    |
| MW-21           | 05/06/10       | 6.50     | 716                          | 13.9             | 30.0            | 0.20                    | 29                                 |    |
|                 | 06/09/10       | 6.21     | 741                          | 15.0             | 131.0           | 0.16                    | 38                                 |    |
|                 | 09/30/10       | 5.90     | 965                          | 16.9             | --              | 0.34                    | 56                                 |    |
|                 | 03/02/11       | 6.13     | 779                          | 11.4             | 2.0             | 0.31                    | 24                                 |    |
|                 | 06/23/11       | 5.74     | 407                          | 13.9             | 7.2             | 0.12                    | -46                                |    |
|                 | 09/22/11       | 5.75     | 951                          | 17.5             | 1.5             | 0.07                    | -21                                |    |
|                 | 09/27/11       | 5.70     | 907                          | 15.1             | 5.2             | 0.35                    | 20                                 |    |
|                 | 10/20/11       | 6.67     | 1,205                        | 15.0             | 11.0            | 0.31                    | -17                                |    |
|                 | 12/07/11       | 5.88     | 845                          | 12.6             | --              | 0.21                    | -49                                |    |
|                 | 03/08/12       | 6.00     | 880                          | 13.1             | --              | 0.19                    | 20                                 |    |
|                 | 06/26/12       | 5.99     | 846                          | 14.4             | 74.5            | 0.22                    | 7                                  |    |
|                 | 07/12/12       | 6.03     | 887                          | 15.6             | --              | 0.15                    | 42                                 |    |
|                 | 10/02/12       | 5.94     | 876                          | 14.5             | >1000           | 1.41 <sup>a</sup>       | 238 <sup>a</sup>                   |    |
|                 | 12/20/12       | 5.95     | 1,128                        | 11.4             | 96.0            | 0.29                    | -50                                |    |
|                 | 03/06/13       | 6.16     | 1,125                        | 11.0             | 68.0            | 0.22                    | 27                                 |    |
|                 | 06/06/13       | 6.61     | 1,120                        | 18.8             | 52.6            | 0.25                    | -89                                |    |
|                 | 09/24/13       | 6.28     | 714                          | 14.6             | 102.0           | 0.00                    | -56                                |    |
|                 | 03/26/14       | 6.50     | 785                          | 15.1             | 0.0             | 0.00                    | -110                               |    |
|                 | 09/24/14       | 6.25     | 829                          | 16.1             | 31.0            | 0.00                    | -88                                |    |
|                 | 03/17/15       | 5.35     | 405                          | 13.5             | 17.5            | 0.00                    | -172                               |    |
|                 | 09/15/15       | 6.50     | 851                          | 15.4             | 0.0             | 0.00                    | -85                                |    |
|                 | 03/16/16       | 6.93     | 845                          | 13.7             | 0.0             | 0.00                    | -76                                |    |
|                 | 09/15/16       | 6.40     | 630                          | 14.2             | 81.1            | 0.49                    | -81                                |    |
|                 | 03/07/17       | 5.88     | 650                          | 9.2              | 119             | 0.00                    | -83                                |    |
|                 | 09/20/17       | 6.60     | 778                          | 15.1             | 0.0             | 0.00                    | -63                                |    |
|                 | 03/20/18       | 6.29     | 712                          | 13.6             | 0.0             | 0.00                    | 16                                 |    |
|                 | 09/11/18       | 6.26     | 598                          | 16.4             | 6.9             | 0.71                    | -75.5                              |    |
|                 | 05/31/19       | 6.27     | 628                          | 15.5             | 3.9             | 0.14                    | -47.4                              |    |
|                 | 08/29/19       | 6.04     | 676                          | 18.1             | 5.3             | 0.47                    | -71.5                              |    |
|                 | MW-22          | 03/29/10 | 6.20                         | 665              | 12.0            | --                      | 0.85                               | 22 |
|                 |                | 09/30/10 | 6.57                         | 821              | 17.6            | --                      | 0.56                               | 13 |
|                 |                | 03/04/11 | 6.77                         | 543              | 12.2            | 45.0                    | 0.15                               | 12 |
| 06/23/11        |                | 6.20     | 366                          | 13.2             | 2.1             | 0.13                    | -30                                |    |
| 09/23/11        |                | 6.27     | 684                          | 16.3             | 206.7           | 0.00                    | -85                                |    |
| 10/21/11        |                | 6.26     | 827                          | 14.1             | 4.0             | 0.34                    | 31                                 |    |
| 12/07/11        |                | 6.27     | 583                          | 12.5             | --              | 0.24                    | -50                                |    |
| 03/08/12        |                | 6.49     | 502                          | 10.7             | 20.5            | 0.23                    | -17                                |    |
| 06/26/12        |                | 6.44     | 549                          | 14.4             | 8.8             | 0.16                    | -33                                |    |
| 07/12/12        |                | 6.35     | 570                          | 16.4             | --              | 0.20                    | 15                                 |    |
| 10/02/12        |                | 6.32     | 617                          | 15.1             | 2.8             | 0.20                    | 251 <sup>a</sup>                   |    |
| 12/19/12        |                | 6.26     | 800                          | 12.0             | 17.0            | 0.31                    | -96                                |    |
| 03/06/13        |                | 6.40     | 823                          | 10.9             | 5.7             | 0.22                    | 165                                |    |
| 06/06/13        |                | 6.79     | 881                          | 15.9             | 11.6            | 0.32                    | -91                                |    |
| 09/25/13        |                | 6.53     | 564                          | 13.7             | 89.1            | 0.00                    | -75                                |    |
| 03/26/14        |                | 6.59     | 769                          | 15.0             | 0.0             | 0.00                    | -102                               |    |
| 09/24/14        |                | 6.22     | 769                          | 14.9             | 12.2            | 0.00                    | -100                               |    |
| 03/17/15        |                | 6.16     | 430                          | 11.9             | 0.0             | 0.00                    | -149                               |    |
| 09/15/15        |                | 6.64     | 833                          | 17.4             | 0.8             | 0.00                    | -85                                |    |
| 03/16/16        |                | 6.82     | 904                          | 11.6             | 0.0             | 0.00                    | -63                                |    |
| 09/15/16        |                | 6.33     | 753                          | 13.8             | 8.7             | 0.55                    | -58                                |    |
| 03/07/17        |                | 6.46     | 1,010                        | 10.7             | 7.2             | 0.00                    | -65                                |    |
| 09/20/17        |                | 6.60     | 1,070                        | 13.9             | 0.0             | 0.00                    | -14                                |    |
| 03/21/18        |                | 6.19     | 132                          | 11.6             | 0.0             | 0.00                    | 1                                  |    |
| 09/11/18        |                | 6.24     | 739                          | 15.8             | 3.5             | 0.95                    | -58.7                              |    |
| 05/31/19        |                | 6.20     | 840                          | 14.8             | 0.9             | 0.06                    | -47.9                              |    |
| 08/28/19        |                | 5.94     | 846                          | 18.1             | 3.9             | 0.40                    | -47.7                              |    |
| MW-24           |                | 03/26/10 | 6.39                         | 651              | 13.4            | 153.0                   | 0.31                               | 17 |
|                 | 04/16/10       | 6.59     | 671                          | 14.0             | 13.0            | 0.36                    | 21                                 |    |
|                 | 05/06/10       | 6.47     | 670                          | 15.1             | 2.0             | 0.20                    | 28                                 |    |
|                 | 06/09/10       | 6.52     | 799                          | 15.9             | 10.0            | 0.19                    | 24                                 |    |
| MW-25           | 03/29/10       | 6.56     | 703                          | 12.2             | 57.0            | 0.67                    | 12                                 |    |
|                 | 04/07/10       | --       | 720                          | --               | 2.0             | --                      | --                                 |    |
|                 | 04/16/10       | 6.51     | 687                          | 14.2             | 2.0             | 0.22                    | 24                                 |    |
|                 | 05/06/10       | 6.62     | 744                          | 14.0             | 2.0             | 0.31                    | 26                                 |    |
|                 | 06/09/10       | 6.52     | 896                          | 15.8             | 7.0             | 0.27                    | 25                                 |    |

**Table 5**  
**Groundwater Field Parameters**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                      | Date Collected | pH    | Specific Conductance (µS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|--------------------------------------|----------------|-------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| P-1                                  | 09/24/04       | 6.54  | 401                          | 15.4             | --              | 0.24                    | 33                                 |
| <b>Deep Off-Site Monitoring Well</b> |                |       |                              |                  |                 |                         |                                    |
| MW-20                                | 03/29/10       | 6.33  | 922                          | 13.2             | --              | 0.48                    | 17                                 |
|                                      | 10/01/10       | 6.69  | 1,013                        | 15.8             | --              | 0.40                    | 21                                 |
|                                      | 03/02/11       | 6.35  | 1,147                        | 12.6             | 8.0             | 0.13                    | 9                                  |
|                                      | 09/26/11       | 6.36  | 930                          | 16.6             | 33.0            | 0.29                    | -80                                |
|                                      | 03/08/12       | 6.53  | 946                          | 14.0             | --              | 0.25                    | -5                                 |
|                                      | 10/01/12       | 6.37  | 903                          | 16.8             | --              | 0.14                    | 321 <sup>a</sup>                   |
|                                      | 03/08/13       | 6.45  | 180                          | 11.4             | --              | 0.19                    | 97                                 |
|                                      | 06/06/13       | 6.67  | 898                          | 17.0             | 30.8            | 0.21                    | -75                                |
|                                      | 09/24/13       | 6.64  | 761                          | 15.6             | 96.6            | 0.00                    | -68                                |
|                                      | 03/27/14       | 6.85  | 166                          | 15.8             | 0.0             | 0.00                    | -32                                |
|                                      | 09/25/14       | 6.42  | 1,010                        | 17.8             | 62.3            | 0.00                    | -84                                |
|                                      | 03/18/15       | 6.33  | 589                          | 14.4             | 0.0             | 0.00                    | -154                               |
|                                      | 09/16/15       | 6.27  | 1,090                        | 19.5             | 2.0             | 0.00                    | 130                                |
|                                      | 03/15/16       | 6.97  | 1,310                        | 11.8             | 0.2             | 0.00                    | -98                                |
|                                      | 09/15/16       | 6.33  | 943                          | 17.5             | 2.4             | 0.09                    | -97                                |
|                                      | 03/08/17       | 6.11  | 957                          | 12.3             | 0.1             | 0.00                    | -81                                |
|                                      | 09/19/17       | 6.67  | 1,170                        | 15.8             | 2.7             | 0.00                    | -78                                |
|                                      | 03/20/18       | 6.26  | 952                          | 14.4             | 9.1             | 0.14                    | -2                                 |
| 09/12/18                             | 6.56           | 892   | 14.5                         | 5.8              | 0.48            | -101.2                  |                                    |
| 06/03/19                             | 6.31           | 1,070 | 15.6                         | 8.7              | 0.03            | -46.9                   |                                    |
| 08/28/19                             | 5.61           | 1,144 | 17.5                         | 5.4              | 0.43            | -77.2                   |                                    |
| MW-27                                | 09/24/14       | 6.38  | 566                          | 16.2             | 64.3            | 0.00                    | -80                                |
|                                      | 03/18/15       | 6.22  | 339                          | 13.5             | 17.8            | 0.00                    | -122                               |
|                                      | 09/16/15       | 6.75  | 631                          | 19.5             | 2.2             | 0.00                    | -79                                |
|                                      | 03/15/16       | 6.91  | 699                          | 12.7             | 0.0             | 0.00                    | -74                                |
|                                      | 09/15/16       | 6.36  | 522                          | 16.7             | 1.5             | 0.12                    | -82                                |
|                                      | 03/08/17       | 6.64  | 700                          | 9.7              | 300             | 0.00                    | -49                                |
|                                      | 09/18/17       | 6.56  | 620                          | 16.8             | 0.0             | 0.00                    | -61                                |
|                                      | 03/20/18       | 6.37  | 657                          | 15.3             | 0.0             | 0.00                    | 0                                  |
|                                      | 09/12/18       | 6.36  | 520                          | 17.2             | 1.5             | 0.60                    | -60                                |
|                                      | 06/03/19       | 6.31  | 560                          | 18.6             | 9.0             | 0.12                    | -44.5                              |
| 08/28/19                             | 5.87           | 648   | 17.3                         | 2.3              | 0.41            | -67.2                   |                                    |
| MW-28                                | 09/25/14       | 6.56  | 1,010                        | 14.6             | 257             | 0.00                    | -95                                |
|                                      | 03/19/15       | 5.72  | 575                          | 11.4             | 127             | 0.00                    | -204                               |
|                                      | 09/17/15       | 6.32  | 985                          | 16.2             | 11.7            | 0.00                    | -125                               |
|                                      | 03/16/16       | 7.30  | 1,200                        | 12.2             | 0.0             | 0.00                    | -99                                |
|                                      | 09/15/16       | 6.41  | 749                          | 14.6             | 9.1             | 0.22                    | -94                                |
|                                      | 03/09/17       | 6.70  | 1,010                        | 11.0             | 18.6            | 0.00                    | -44                                |
|                                      | 09/18/17       | 7.05  | 957                          | 15.7             | 45.2            | 0.00                    | -43                                |
|                                      | 03/19/18       | 6.40  | 687                          | 13.2             | 4.7             | 0.36                    | 13                                 |
|                                      | 09/12/18       | 6.70  | 679                          | 13.2             | 7.0             | 0.40                    | -99                                |
|                                      | 06/03/19       | 6.45  | 846                          | 15.4             | 23.0            | 0.07                    | -48.4                              |
| 08/28/19                             | 5.98           | 899   | 16.0                         | --               | 0.46            | -94.9                   |                                    |
| MW-29D                               | 08/30/19       | 6.41  | 414                          | 19.7             | 11.8            | 0.32                    | -64                                |

**Notes:**  
mS/cm - millisiemens per centimeter  
°C - degrees Celsius  
NTU - Nephelometric turbidity units  
mg/L - milligram per liter  
mV - millivolts  
-- Not Measured  
<sup>a</sup> Likely meter malfunction  
<sup>b</sup> Anomalous result

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                         | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloro-ethane <sup>1</sup> | Chloro-form | cis-1,2-DCE | Ethyl-benzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE      | Toluene   | Total Xylenes | Vinyl Chloride |     |
|---|------------------------------|----------|----------|-----------|---------|---------------------|----------|----------------------------|-------------|-------------|---------------|--------------------|---------|-----------|----------|-----------|---------------|----------------|-----|
|   | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                    | 7.9E+06     | 4E+06       | 1.69E+05      | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1.E+06 | 5.26.E+05 | 1.71E+05      | 2.76E+06       |     |
|   | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                          | 1.4         | 16          | 700           | 5.0                | 5.0     | 200       | 0.54     | 640       | 1,600         | 0.50           |     |
| <b>Shallow On-Site Monitoring Wells</b> |                              |          |          |           |         |                     |          |                            |             |             |               |                    |         |           |          |           |               |                |     |
| MW-1                                    | 03/29/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 9.6 J                      | 20 U        | 15          | 48            | 0.5 U              | 0.5 U   | 63        | 7.8 J    | 27        | 170           | 4.4            |     |
|   | 09/30/10                     | 339      | 0.5 U    | 18.1      | 0.5 U   | 0.5 U               | 0.5 U    | 46.5                       | 1.0 U       | 28.3        | 70.2          | 1.41 J             | 0.5 U   | 173       | 3.16     | 144       | 301           | 9.51           |     |
|   | 03/03/11                     | 168      | 4.52     | 20.5      | 0.5 U   | 0.5 U               | 0.5 U    | 18.9                       | 1.00        | 23.6        | 43.8          | 0.5 U              | 2.18    | 211       | 5.82     | 140       | 416           | 3.10           |     |
|   | 09/23/11                     | 138      | 1.96     | 16.0      | 0.5 U   | 0.5 U               | 0.700    | 174                        | 1.0 U       | 13.5        | 124           | 1.20               | 0.830   | 38.5      | 3.44     | 1,620     | 949           | 5.74           |     |
|   | 03/08/12                     | 132      | 2.41     | 15.8      | 0.500 U | 0.500 U             | 0.500 U  | 54.7                       | 1.00 U      | 20.4        | 47.0          | 0.860              | 1.35    | 80.7      | 2.29     | 248       | 668           | 10.1           |     |
|   | 10/01/12 (DUP)               | 88.0     | 0.720    | 23.8      | 0.500 U | 0.500 U             | 0.500 U  | 82.0                       | 1.00 U      | 15.0        | 19.1          | 0.760              | 0.630 J | 13.4      | 2.94     | 198       | 461           | 6.10           |     |
|   | 10/01/12                     | 83.0     | 0.790    | 24.7      | 0.500 U | 0.500 U             | 0.500 U  | 89.5                       | 1.00 U      | 14.3        | 19.2          | 0.900              | 0.640 J | 13.1      | 2.80     | 194       | 443           | 5.78           |     |
|   | 03/06/13                     | 252      | 2.26     | 22.5      | 0.5 U   | 0.5 U               | 0.540    | 79.8                       | 1.00 U      | 25.2        | 46.6          | 2.08               | 1.13    | 49.4      | 1.86     | 186       | 556           | 22.3 J         |     |
|   | 09/25/13                     | 132      | 0.900    | 28.3      | 0.500 U | 0.500 U             | 0.750    | 145                        | 1.00 U      | 21.5        | 42.1          | 1.58               | 0.780   | 16.2      | 3.34     | 362       | 629           | 18.7           |     |
|   | 03/26/14                     | 303      | 4.02     | 25.2      | 0.500 U | 0.500 U             | 0.781    | 228                        | 1.00 U      | 45.2        | 43.2          | 1.23               | 1.11    | 65.2      | 3.02     | 183       | 323           | 67.1           |     |
|   | 09/23/14                     | 95.0     | 0.500 U  | 20.8      | 0.500 U | 0.500 U             | 0.500 U  | 225                        | 1.00 U      | 10.1        | 25.9          | 0.893              | 1.41    | 7.45      | 2.75     | 448       | 285.1         | 13.4           |     |
|   | 03/17/15                     | 36.9     | 2.5 U    | 24.5      | 1.3 U   | 1.3 U               | 1.3 U    | 80.3                       | 2.5 U       | 1.4 J       | 38.1          | 13 U               | 1.3 U   | 3.7       | 0.95 J   | 32.7      | 129.8         | 1.1 J          |     |
|   | 09/16/15                     | 51.7     | 1.0 U    | 18.1      | 0.50 U  | 0.50 U              | 0.52     | 212                        | 1.0 U       | 5.2         | 16.9          | 5.0 U              | 0.76    | 11.1      | 2.3      | 175       | 214.5         | 7.0            |     |
|   | 03/16/16                     | 33.6     | 1.0 U    | 14.6      | 0.50 U  | 0.50 U              | 0.34 J   | 112                        | 1.0 U       | 1.2         | 44.4          | 5.0 U              | 0.32 J  | 7.7       | 1.2      | 83.8      | 201.1         | 0.66 J         |     |
|   | 09/13/16                     | 26.3     | 2.5 U    | 16.9      | 1.3 U   | 1.3 U               | 0.55 J   | 183                        | 2.5 U       | 4.1         | 8.7           | 13 U               | 1.3 U   | 0.81 J    | 2.1 J    | 38.6      | 156           | 0.98 J         |     |
|   | 03/07/17                     | 10.1     | 2.5 U    | 8.4       | 2.5 U   | 2.5 U               | 2.5 U    | 58.5                       | 2.5 U       | 2.5 U       | 22.1          | 10 U               | 2.5 U   | 1.5 J     | 2.5 U    | 2.6       | 67.3          | 2.5 U          |     |
|   | 09/21/17                     | 35.7     | 0.50 U   | 12.2      | 0.50 U  | 0.50 U              | 0.35 J   | 98.9                       | 0.50 U      | 4.4         | 0.67          | 1.8 J              | 0.76    | 2.0       | 0.50 U   | 3.9       | 39.9          | 0.91           |     |
|   | 03/20/18                     | 16.4 J-  | 0.50 UJ  | 17.6 J-   | 0.50 UJ | 0.50 UJ             | 0.19 J-  | 38.5 J-                    | 0.50 UJ     | 0.77 J-     | 1.4 J-        | 2.0 UJ             | 0.26 J- | 2.6 J-    | 0.83 J-  | 0.98 J-   | 26.5 J-       | 0.34 J-        |     |
|   | 09/13/18                     | 38.5     | 0.50 U   | 5.3       | 0.50 U  | 0.50 U              | 0.28 J   | 113                        | 0.50 U      | 3.3         | 0.50          | 1.9 J              | 0.81    | 1.1       | 2.2      | 0.87      | 13.8          | 1.2            |     |
|   | 05/31/19                     | 35.3     | 0.50 U   | 2.9       | 0.50 U  | 0.50 U              | 0.18 J   | 32.9                       | 0.31 J      | 1.1         | 0.78          | 1.9 J              | 0.34 J  | 1.8       | 2.0      | 0.17 J    | 5.58          | 0.66           |     |
| 08/27/19                                | 46.7                         | 0.50 U   | 4.4      | 0.50 U    | 0.50 U  | 0.19 J              | 52.7     | 0.50 U                     | 2.0         | 0.31 J      | 1.7 J         | 0.45 J             | 0.71    | 2.5       | 0.50 U   | 4.84      | 0.79          |                |     |
| 03/29/10                                | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 0.5         | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.5 U          | 0.7 |
| 03/29/10 (LAB DUP)                      | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 0.6         | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.5 U          | 0.7 |
| 09/30/10                                | 0.61                         | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 1.07        | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 UJ         |     |
| 03/07/11                                | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 0.690       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 U          |     |
| 09/21/11                                | 0.5                          | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 0.920       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 U          |     |
| 03/06/12                                | 0.520                        | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.640       | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.290          |     |
| 09/28/12                                | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.50 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.2 U          |     |
| 03/07/13                                | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.50 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.2 U          |     |
| 09/26/13                                | 0.590                        | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.500 U     | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 03/26/14                                | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.786       | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 09/24/14                                | 0.517                        | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.528       | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 03/17/15                                | 0.36 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 0.72 J      | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.50 U         |     |
| 09/17/15                                | 0.47 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 0.37 J      | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.50 U         |     |
| 03/15/16                                | 0.26 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 0.47 J      | 1.0 U       | 5.0 U         | 0.33 J             | 1.0 U   | 0.36 J    | 1.0 U    | 1.0 U     | 1.0 U         | 0.22 J         |     |
| 09/13/16                                | 0.44 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 0.80 J      | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.50 U         |     |
| 03/08/17                                | 0.32 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.43 J      | 1.0 U       | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.20 J         |     |
| 09/20/17                                | 0.46 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 1.1         | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |     |
| 03/21/18                                | 0.36 J-                      | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.50 UJ                    | 0.50 J-     | 0.50 UJ     | 2.0 UJ        | 0.50 UJ            | 0.50 UJ | 0.50 UJ   | 0.50 UJ  | 0.50 UJ   | 1.0 UJ        | 0.19 J-        |     |
| 09/13/18                                | 0.37 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.60        | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |     |
| 06/03/19                                | 0.32 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.61        | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.15 J    | 0.50 U   | 0.50 U    | 1.0 U         | 0.16 J         |     |
| 08/29/19                                | 0.36 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.40 J      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |     |
| 03/30/10                                | 16                           | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 1.9         | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.30           |     |
| 09/28/10                                | 8.47                         | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.33 J   | 0.5 U                      | 1.49        | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 UJ         |     |
| 03/07/11                                | 9.50                         | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 1.39        | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 U          |     |
| 09/21/11                                | 7.07                         | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                      | 1.41        | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 0.5 U     | 0.5 U         | 0.2 U          |     |
| 03/06/12                                | 5.06                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 1.14        | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 10/01/12                                | 7.24                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 1.45        | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 03/07/13                                | 4.75                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 1.03        | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 09/27/13                                | 3.76                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.900       | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 03/27/14                                | 2.51                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 0.500 U     | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 09/25/14                                | 5.38                         | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                     | 1.21        | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |     |
| 03/19/15                                | 2.2                          | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.25 J              | 1.0 U    | 1.0 U                      | 0.61 J      | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.23 J         |     |
| 09/16/15                                | 20 U                         | 20 U     | 40 U     | 10 U      | 10 U    | 10 U                | 20 U     | 20 U                       | 20 U        | 100 U       | 10 U          | 20 U               | 20 U    | 20 U      | 20 U     | 20 U      | 20 U          | 10 U           |     |
| 03/14/16                                | 1.6 J                        | 5.0 U    | 10 U     | 2.5 U     | 2.5 U   | 2.5 U               | 5.0 U    | 5.0 U                      | 5.0 U       | 5.0 U       | 25 U          | 2.5 U              | 5.0 U   | 5.0 U     | 1.5 J    | 5.0 U     | 5.0 U         | 2.5 U          |     |
| 09/14/16                                | 3.0 J                        | 5.0 U    | 10 U     | 2.5 U     | 2.5 U   | 2.5 U               | 5.0 U    | 5.0 U                      | 1.3 J       | 5.0 U       | 25 U          | 2.5 U              |         |           |          |           |               |                |     |







**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloroethane <sup>1</sup> | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |         |
|-----------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|---------------------------|------------|-------------|--------------|--------------------|---------|-----------|---------|----------|---------------|----------------|---------|
|                 | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                   | 7.9E+06    | 4E+06       | 1.69E+05     | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |         |
|                 | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                         | 1.4        | 16          | 700          | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |         |
| MW-10           | 09/28/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |
|                 | 03/04/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 0.630      | 1.0 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |
|                 | 09/26/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |
|                 | 03/07/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 3.02         | 0.500 U            | 0.500 U | 0.610     | 0.500 U | 1.39     | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 09/28/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 03/05/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 09/26/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 03/27/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 09/24/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 0.500 U    | 1.00 U      | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                 | 03/18/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 1.0 U        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                 | 09/14/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 1.0 U        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                 | 03/15/16                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 1.0 U        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                 | 09/15/16                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 1.0 U        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                 | 03/08/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
|                 | 09/19/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
|                 | 03/21/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
|                 | 09/12/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
|                 | 05/30/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
|                 | 08/26/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |
| MW-11           | 04/01/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 16          | 0.5 U        | 0.5 U              | 290     | 0.5 U     | 44      | 0.5 U    | 0.5 U         | 0.2 U          |         |
|                 | 04/09/10                     | 10 U     | 10 U     | 10 U      | 10 U    | 10 U                | 10 U     | 10 U                      | 20 U       | 10 U        | 10 U         | 10 U               | 850     | 10 U      | 35      | 10 U     | 10 U          | 4.0 U          |         |
|                 | 04/16/10                     | 10 U     | 10 U     | 10 U      | 10 U    | 10 U                | 10 U     | 10 U                      | 20 U       | 22          | 10 U         | 10 U               | 500     | 10 U      | 66      | 10 U     | 10 U          | 4.0 U          |         |
|                 | 05/06/10                     | 10 U     | 5.0 U    | 10 U      | 10 U    | 10 U                | 10 U     | 10 U                      | 20 U       | 24          | 10 U         | 10 U               | 530     | 10 U      | 43      | 10 U     | 10 U          | 1.0 J          |         |
|                 | 06/09/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 11          | 0.5 U        | 0.5 U              | 680     | 0.5 U     | 33      | 0.5 U    | 0.5 U         | 0.28           |         |
|                 | 06/09/10 (LAB DUP)           | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 9.3         | 0.5 U        | 0.5 U              | 580     | 0.5 U     | 31      | 0.5 U    | 0.5 U         | 0.21           |         |
|                 | 07/06/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 19          | 0.5 U        | 0.5 U              | 470     | 0.5 U     | 34      | 0.5 U    | 0.5 U         | 0.2 U          |         |
| MW-12           | 04/01/10                     | 0.5 U    | 1.0 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 260         | 0.5 U        | 0.5 U              | 400     | 0.5 U     | 170     | 0.5 U    | 0.5 U         | 9.4            |         |
|                 | 09/28/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 334         | 0.5 U        | 0.5 U              | 377     | 0.5 U     | 232     | 0.5 U    | 0.5 U         | 17.2           |         |
|                 | 03/03/11                     | 0.5 U    | 0.730    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 239         | 0.5 U        | 0.5 U              | 856     | 0.5 U     | 257     | 0.5 U    | 0.5 U         | 8.93           |         |
|                 | 06/22/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 314         | 0.5 U        | 0.5 U              | 429     | 0.5 U     | 215     | 0.5 U    | 0.5 U         | 11.7           |         |
|                 | 09/22/11                     | 0.5 U    | 2.33     | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 747         | 0.5 U        | 0.5 U              | 128 J   | 0.5 U     | 461     | 0.5 U    | 0.5 U         | 94.6           |         |
|                 | 09/22/11 (DUP)               | 0.5 U    | 2.11     | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 680         | 0.5 U        | 0.5 U              | 200 J   | 0.5 U     | 529     | 0.5 U    | 0.5 U         | 93.3           |         |
|                 | 12/07/11                     | 0.5 U    | 1.35     | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 478         | 0.5 U        | 0.5 U              | 461     | 0.5 U     | 409     | 0.5 U    | 0.5 U         | 47.5           |         |
|                 | 03/07/12                     | 0.500 U  | 1.32     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 579         | 0.500 U      | 0.500 U            | 337     | 0.500 U   | 155     | 0.500 U  | 0.500 U       | 26.3           |         |
|                 | 03/07/12 (DUP)               | 0.500 U  | 1.37     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 589         | 0.500 U      | 0.500 U            | 332     | 0.500 U   | 164     | 0.500 U  | 0.500 U       | 26.2           |         |
|                 | 06/26/12                     | 0.500 U  | 1.31     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.47       | 1.00 U      | 636          | 0.500 U            | 0.500 U | 407       | 0.500 U | 218      | 0.500 U       | 0.500 U        | 35.2    |
|                 | 10/02/12                     | 0.500 U  | 2.71     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 961         | 0.500 U      | 0.500 U            | 47.6    | 0.500 U   | 217     | 0.500 U  | 0.500 U       | 100            |         |
|                 | 12/19/12                     | 0.500 U  | 2.36     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.35       | 1.00 U      | 676          | 0.500 U            | 0.500 U | 151       | 0.500 U | 225      | 0.500 U       | 0.500 U        | 41.1    |
|                 | 03/06/13                     | 0.500 U  | 2.01     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 901         | 0.500 U      | 0.500 U            | 64.2    | 0.500 U   | 131     | 0.500 U  | 0.500 U       | 36.1           |         |
|                 | 06/06/13                     | 0.500 U  | 1.34     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 576         | 0.500 U      | 0.500 U            | 293     | 0.500 U   | 312     | 0.500 U  | 0.500 U       | 34.7           |         |
|                 | 09/25/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 78.4        | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 43.8           |         |
|                 | 03/25/14                     | 0.500 U  | 1.61     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 693         | 0.500 U      | 0.500 U            | 140     | 0.500 U   | 211     | 0.500 U  | 0.500 U       | 24.8           |         |
|                 | 03/25/14 (DUP)               | 0.500 U  | 1.61     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 633         | 0.500 U      | 0.500 U            | 144     | 0.500 U   | 226     | 0.500 U  | 0.500 U       | 24.6           |         |
|                 | 09/23/14                     | 0.500 U  | 1.27     | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 996         | 0.500 U      | 0.500 U            | 9.99    | 0.500 U   | 40.0    | 0.500 U  | 0.500 U       | 74.0           |         |
|                 | 03/16/15                     | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 464          | 10 U               | 50 U    | 24.7      | 10 U    | 38.1     | 10 U          | 10 U           | 12.9    |
|                 | 03/16/15 (DUP)               | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 468          | 10 U               | 50 U    | 21.9      | 10 U    | 36.3     | 10 U          | 10 U           | 16.2    |
|                 | 09/15/15                     | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 581          | 10 U               | 50 U    | 6.2       | 10 U    | 14.7     | 10 U          | 10 U           | 35.7    |
|                 | 09/15/15 (DUP)               | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 595          | 10 U               | 50 U    | 10        | 10 U    | 15.9     | 10 U          | 10 U           | 41.0    |
|                 | 03/15/16                     | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 134          | 10 U               | 50 U    | 97.1      | 10 U    | 32.7     | 10 U          | 10 U           | 4.4 J   |
|                 | 03/15/16 (DUP)               | 1.0 U    | 0.24 J   | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 136 J        | 1.0 U              | 5.0 U   | 116 J     | 1.0 U   | 40.5     | 1.0 U         | 1.0 U          | 7.0     |
|                 | 09/14/16                     | 10 U     | 10 U     | 20 U      | 5.0 U   | 5.0 U               | 5.0 U    | 5.0 U                     | 10 U       | 10 U        | 613          | 10 U               | 50 U    | 11.3      | 10 U    | 16.3     | 10 U          | 10 U           | 38.0    |
|                 | 09/14/16 (DUP)               | 1.0 U    | 1.1      | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 1.0 U      | 1.0 U       | 610          | 1.0 U              | 5.0 U   | 4.2       | 1.0 U   | 12.8     | 1.0 U         | 1.0 U          | 49.5    |
|                 | 03/06/17                     | 2.5 U    | 2.5 U    | 2.5 U     | 2.5 U   | 2.5 U               | 2.5 U    | 2.5 U                     | 2.5 U      | 2.5 U       | 23.2         | 2.5 U              | 10 U    | 72.5      | 2.5 U   | 21.8     | 2.5 U         | 5.0 U          | 1.2 J   |
|                 | 03/06/17 (DUP)               | 2.5 U    | 2.5 U    | 2.5 U     | 2.5 U   | 2.5 U               | 2.5 U    | 2.5 U                     | 2.5 U      | 2.5 U       | 23.5         | 2.5 U              | 10 U    | 72.4      | 2.5 U   | 21.5     | 2.5 U         | 5.0 U          | 1.2 J   |
|                 | 09/20/17                     | 0.50 U   | 0.74 J   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 444 J        | 0.50 U             | 2.0 U   | 20.9 J    | 0.50 U  | 33.4 J   | 0.50 U        | 1.0 U          | 16.7    |
|                 | 9/20/2017 (DUP)              | 0.50 U   | 0.74     | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 502          | 0.50 U             | 2.0 U   | 20.4      | 0.50 U  | 32.3     | 0.50 U        | 1.0 U          | 16.8    |
|                 | 03/20/18                     | 0.50 U   | 0.16 J-  | 0.50 U    | 0.50 U  | 0.50 U              | 0        |                           |            |             |              |                    |         |           |         |          |               |                |         |

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                      | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloroethane <sup>1</sup> | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |         |
|--------------------------------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|---------------------------|------------|-------------|--------------|--------------------|---------|-----------|---------|----------|---------------|----------------|---------|
|                                      | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                   | 7.9E+06    | 4E+06       | 1.69E+05     | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |         |
|                                      | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                         | 1.4        | 16          | 700          | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |         |
| MW-23                                | 12/07/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 3.56    | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.20 U  |
|                                      | 03/07/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 2.04    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 06/26/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 4.86    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 09/27/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 2.64    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 12/19/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 1.83    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 03/05/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 1.42        | 1.08         | 0.500 U            | 1.85    | 0.500 U   | 1.03    | 0.650    | 1.68          | 0.200 U        |         |
|                                      | 06/06/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 5.46    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.200 U        |         |
|                                      | 09/24/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 1.26        | 0.500 U      | 0.500 U            | 2.17    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.920          | 0.200 U |
|                                      | 03/26/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 7.36    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 09/25/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 3.32    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 09/25/14 (DUP)               | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                   | 1.00 U     | 0.500 U     | 0.500 U      | 0.500 U            | 3.23    | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |
|                                      | 03/18/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 6.4     | 1.0 U     | 0.33 J  | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 09/14/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 5.1     | 1.0 U     | 0.27 J  | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 03/15/16                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 4.5     | 1.0 U     | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 09/14/16                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 4.7     | 1.0 U     | 0.36 J  | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 03/08/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 2.0 U              | 6.9     | 0.50 U    | 0.32 J  | 0.50 U   | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 09/19/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.49 J      | 0.50 U       | 2.0 U              | 2.5     | 0.50 U    | 0.30 J  | 0.50 U   | 1.0 U         | 1.0 U          | 0.41 J  |
|                                      | 03/21/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.22 J      | 0.50 U       | 2.0 U              | 5.9 J   | 0.50 U    | 0.45 J  | 0.50 U   | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 09/12/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.17 J      | 0.50 U       | 2.0 U              | 4.3     | 0.50 U    | 0.37 J  | 0.50 U   | 1.0 U         | 1.0 U          | 0.50 U  |
|                                      | 05/31/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.15 J      | 0.50 U       | 2.0 U              | 11.3    | 0.50 U    | 1.0     | 0.50 U   | 1.0 U         | 1.0 U          | 0.50 U  |
| 08/26/19                             | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.22 J     | 0.50 U      | 2.0 U        | 7.9                | 0.50 U  | 0.89      | 0.50 U  | 1.0 U    | 1.0 U         | 0.13 J         |         |
| <b>Deep On-Site Monitoring Wells</b> |                              |          |          |           |         |                     |          |                           |            |             |              |                    |         |           |         |          |               |                |         |
| MW-13                                | 03/29/10                     | 180      | 10       | 86        | 10      | 10                  | 10       | 280                       | 20         | 500         | 710          | 10                 | 10      | 10        | 10      | 2,200    | 1,700         | 900            |         |
|                                      | 03/29/10 (LAB DUP)           | 200      | 10       | 110       | 10      | 10                  | 10       | 310                       | 20         | 580         | 810          | 10                 | 10      | 10        | 10      | 2,400    | 1,900         | 890            |         |
|                                      | 04/07/10                     | 480      | 10       | 540       | 10      | 10                  | 10       | 480                       | 20         | 1,800       | 2,100        | 10                 | 10      | 10        | 10      | 4,600    | 4,200         | 2,700          |         |
|                                      | 04/16/10                     | 1,100    | 20       | 640       | 10      | 10                  | 10       | 840                       | 20         | 3,300       | 2,800        | 10                 | 10      | 10        | 10      | 5,400    | 5,800         | 4,000          |         |
|                                      | 05/06/10                     | 820      | 11       | 340       | 10      | 10                  | 10       | 640                       | 20         | 1,900       | 2,000        | 10                 | 5.0 U   | 10        | 5.0 U   | 6,200    | 4,900         | 3,100          |         |
|                                      | 06/09/10                     | 720      | 11       | 280       | 10      | 10                  | 10       | 1,200                     | 20         | 1,500       | 1,800        | 10                 | 20      | 10        | 5.0 U   | 5,600    | 3,900         | 4,700          |         |
|                                      | 07/06/10                     | 510      | 9.5      | 280       | 10      | 10                  | 10       | 1,400                     | 20         | 1,300       | 1,700        | 10                 | 5.0 U   | 10        | 5.0 U   | 8,300    | 3,500         | 6,500          |         |
|                                      | 09/30/10                     | 71.0     | 10 U     | 130       | 10      | 10                  | 10       | 820                       | 20         | 56.8        | 1,010        | 10.8               | 5.0 U   | 10        | 5.0 U   | 4,180    | 2,560         | 221            |         |
|                                      | 03/03/11                     | 97.4     | 1.27     | 143       | 0.5 U   | 0.5 U               | 0.720    | 435                       | 1.0 U      | 245         | 521          | 0.5 U              | 1.14    | 0.5 U     | 0.5 U   | 2,870    | 3,320         | 533            |         |
|                                      | 06/23/11                     | 25.6     | 0.5 U    | 105       | 0.5 U   | 0.610 J             | 0.500    | 216                       | 1.0 U      | 18.0        | 619          | 0.84               | 0.5 U   | 0.5 U     | 0.5 U   | 1,170    | 2,405         | 99.3           |         |
|                                      | 09/22/11                     | 47.5     | 0.5 U    | 143       | 0.5 U   | 0.5 U               | 0.680    | 0.5 U                     | 1.0 U      | 64.7        | 1,110        | 2.39               | 0.5 U   | 0.5 U     | 0.5 U   | 4,100    | 4,480         | 302            |         |
|                                      | 12/07/11                     | 30.2     | 0.5 U    | 218       | 0.5 U   | 0.5 U               | 0.630    | 518                       | 1.0 U      | 44.2        | 1,270        | 1.72               | 0.680   | 0.5 U     | 0.5 U   | 3,690    | 5,170         | 285            |         |
|                                      | 12/07/11 (DUP)               | 30.4     | 0.5 U    | 212       | 0.5 U   | 0.5 U               | 0.630    | 521                       | 1.0 U      | 42.0        | 1,090        | 1.83               | 0.700   | 0.5 U     | 0.5 U   | 3,360    | 4,820         | 270            |         |
|                                      | 03/07/12                     | 14.2     | 0.500 U  | 192       | 0.500 U | 0.500 U             | 0.600    | 313                       | 1.00 U     | 14.7        | 921          | 0.870              | 0.500 U | 0.500 U   | 0.500 U | 1,230    | 3,862         | 93.0           |         |
|                                      | 06/27/12                     | 22.7     | 0.500 U  | 102       | 0.500 U | 0.500 U             | 0.590    | 318                       | 1.00 U     | 19.1        | 606          | 0.800              | 0.500 U | 0.500 U   | 0.500 U | 574      | 2,437         | 103            |         |
|                                      | 10/02/12                     | 3.0      | 0.500 U  | 100       | 0.500 U | 0.500 U             | 0.730    | 256                       | 1.00 U     | 1.91        | 438          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 26.4     | 1,748         | 2.11           |         |
|                                      | 12/19/12                     | 2.4      | 0.500 U  | 120       | 0.500 U | 0.500 U             | 0.500 U  | 233                       | 1.00 U     | 0.500 U     | 464          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 94.0     | 1,827         | 1.88           |         |
|                                      | 03/07/13                     | 0.500 U  | 0.500 U  | 113 J     | 0.500 U | 0.770               | 0.860    | 278                       | 1.00 U     | 0.500 U     | 648 J        | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 19.2     | 2,628 J       | 0.960 J        |         |
|                                      | 06/06/13                     | 1.12     | 0.500 U  | 97.0      | 0.500 U | 0.500 U             | 0.680    | 291                       | 1.00 U     | 0.930       | 388          | 0.560              | 0.500 U | 0.500 U   | 0.500 U | 64.0     | 1,409         | 1.81           |         |
|                                      | 09/25/13                     | 2.50     | 0.500 U  | 205       | 0.500 U | 0.840               | 0.530    | 250                       | 1.00 U     | 0.500 U     | 611          | 0.690              | 0.500 U | 0.500 U   | 0.500 U | 289      | 2,250         | 0.200 U        |         |
|                                      | 03/26/14                     | 0.500 U  | 0.500 U  | 74.2      | 0.500 U | 0.500 U             | 0.500 U  | 147                       | 1.00 U     | 1.04        | 205          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 1.71     | 504.67        | 0.200 U        |         |
|                                      | 09/23/14                     | 1.07     | 0.500 U  | 133       | 0.500 U | 0.500 U             | 0.500 U  | 162                       | 1.00 U     | 0.500 U     | 475          | 0.500 U            | 0.549   | 0.500 U   | 0.500 U | 40.9     | 1,873         | 0.200 U        |         |
|                                      | 03/17/15                     | 0.21 J   | 1.0 U    | 11.1      | 0.50 U  | 0.50 U              | 0.50 U   | 6.0                       | 1.0 U      | 1.3         | 32.3         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.8      | 89.1          | 0.50 U         |         |
|                                      | 09/15/15                     | 0.37 J   | 1.0 U    | 38.7      | 0.50 U  | 0.50 U              | 0.25 J   | 41.4                      | 1.0 U      | 0.65 J      | 94.6         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 2.7      | 197.2         | 0.79           |         |
|                                      | 03/14/16                     | 0.41 J   | 1.0 U    | 5.5       | 0.50 U  | 0.50 U              | 0.50 U   | 13.0                      | 1.0 U      | 2.9         | 38.8         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 8.3      | 99.1          | 1.7            |         |
|                                      | 09/15/16                     | 0.58 J   | 1.0 U    | 67.8      | 0.50 U  | 0.50 U              | 0.42 J   | 59.8                      | 1.0 U      | 0.55 J      | 49.5         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.5      | 273.9         | 0.57           |         |
|                                      | 03/07/17                     | 5.0 U    | 5.0 U    | 98.3      | 5.0 U   | 5.0 U               | 5.0 U    | 50.5                      | 5.0 U      | 5.0 U       | 82.2         | 10.2 J             | 5.0 U   | 5.0 U     | 5.0 U   | 2.6 J    | 666.4         | 5.0 U          |         |
|                                      | 09/20/17                     | 0.35 J   | 0.50 U   | 135       | 0.50 U  | 0.50 U              | 0.71     | 66.8                      | 0.50 U     | 0.30 J      | 44.0         | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 1.6      | 612           | 0.26 J         |         |
|                                      | 03/21/18                     | 0.30 J   | 0.50 U   | 88.7 J    | 0.16 J  | 0.50 U              | 0.60 J   | 51.9 J                    | 0.50 U     | 0.26 J      | 18.2 J       | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.99 J   | 287 J         | 0.42 J         |         |
|                                      | 09/11/18                     | 0.34 J   | 1.3 U    | 69.0      | 1.3 U   | 1.3 U               | 0.43 J   | 57.4                      | 1.3 U      | 0.58 J      | 6.7          | 5.0 U              | 1.3 U   | 1.3 U     | 1.3 U   | 1.7      | 176.61 J      | 0.76 J         |         |
| 05/31/19                             | 1.3 U                        | 1.3 U    | 59.1 J   | 1.3 U     | 1.3 U   | 0.40 J              | 32.1 J   | 1.3 U                     | 1.3 U      | 9.6 J       | 5.0 U        | 1.3 U              | 1.3 U   | 1.3 U     | 0.53 J  | 171.5 J  | 1.3 U         |                |         |
| 08/28/19                             | 0.26 J                       | 0.50 U   | 44.7 J   | 0.20 J    | 0.50 U  | 0.52 J              | 33.7 J   | 0.24 J                    | 0.83 J     | 4.3 J       | 2.0 U        | 0.50 U             | 0.50 U  | 0.50 U    | 0.82 J  | 73.91 J  | 0.59 J        |                |         |
| MW-14                                | 03/30/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.2 U          |         |
|                                      | 09/30/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.2 U          |         |
|                                      | 09/30/10 (LAB DUP)           | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.2 U          |         |
|                                      | 03/04/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.640                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              |         |           |         |          |               |                |         |

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location    | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloroethane <sup>1</sup> | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |         |        |
|--------------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|---------------------------|------------|-------------|--------------|--------------------|---------|-----------|---------|----------|---------------|----------------|---------|--------|
|                    | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                   | 7.9E+06    | 4E+06       | 1.69E+05     | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |         |        |
|                    | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                         | 1.4        | 16          | 700          | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |         |        |
| MW-10              | 03/08/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |        |
|                    | 09/20/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |        |
|                    | 03/20/18                     | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.50 UJ                   | 0.50 UJ    | 0.50 UJ     | 0.50 UJ      | 0.50 UJ            | 2.0 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ  | 0.50 UJ       | 1.0 UJ         | 0.50 UJ |        |
|                    | 09/13/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |        |
|                    | 06/03/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.50 U     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |        |
|                    | 08/28/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                    | 0.33 J     | 0.50 U      | 0.50 U       | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |        |
|                    | 03/30/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.5 U   | 0.2 U  |
|                    | 03/30/10 (DUP)               | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.5 U   | 0.2 U  |
|                    | 09/30/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.5 U   | 0.2 UJ |
|                    | 03/07/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                     | 1.0 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.5 U   | 0.2 U  |
| 03/07/11 (LAB DUP) | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |        |
| 09/21/11           | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |        |
| 03/06/12           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.240 U |        |
| 10/01/12           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 03/07/13           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 09/27/13           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 03/26/14           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 09/24/14           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 03/17/15           | 1.0 U                        | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 0.61 J   | 1.0 U         | 0.50 U         |         |        |
| 09/17/15           | 1.0 U                        | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 0.28 J   | 1.0 U         | 0.50 U         |         |        |
| 04/02/10           | 0.5 U                        | 0.5 U    | 0.9 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 2.6 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 6.6 U    | 7.9 U         | 0.9 U          |         |        |
| 10/01/10           | 0.42 J                       | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 UJ  |        |
| 10/01/10 (DUP)     | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.66 J  |        |
| 03/07/11           | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |        |
| 09/26/11           | 0.5 U                        | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.650 U |        |
| 03/08/12           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.520 U |        |
| 10/01/12           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.510 U |        |
| 03/08/13           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 09/27/13           | 0.500 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 03/27/14           | 0.880 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.700 U |        |
| 09/25/14           | 0.568 U                      | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.500 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.200 U |        |
| 03/18/15           | 0.55 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 0.45 J   | 1.0 U         | 0.46 J         |         |        |
| 09/17/15           | 5.0 U                        | 5.0 U    | 10 U     | 2.5 U     | 2.5 U   | 2.5 U               | 2.5 U    | 5.0 U                     | 5.0 U      | 1.8 J       | 5.0 U        | 25 U               | 2.5 U   | 5.0 U     | 2.5 J   | 5.0 U    | 5.0 U         | 2.5 U          |         |        |
| 03/16/16           | 5.0 U                        | 5.0 U    | 10 U     | 2.5 U     | 2.5 U   | 2.5 U               | 2.5 U    | 5.0 U                     | 5.0 U      | 5.0 U       | 5.0 U        | 25 U               | 2.5 U   | 5.0 U     | 5.0 U   | 5.0 U    | 5.0 U         | 2.5 U          |         |        |
| 09/15/16           | 0.61 J                       | 1.0 U    | 2.0 U    | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 1.0 U      | 1.0 U       | 1.0 U        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 1.0 U         | 0.51 U         |         |        |
| 03/07/17           | 0.74 J                       | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.50 UJ                   | 0.50 UJ    | 0.50 UJ     | 0.50 UJ      | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 UJ  | 0.50 UJ       | 1.0 UJ         | 0.47 J  |        |
| 09/21/17           | 1.2 U                        | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                     | 0.50 U     | 0.50 U      | 0.50 U       | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 1.0 U         | 0.65 U         |         |        |
| 03/21/18           | 0.42 J-                      | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.50 UJ                   | 0.50 UJ    | 0.50 UJ     | 0.50 UJ      | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 UJ  | 0.50 UJ       | 1.0 UJ         | 0.31 J- |        |
| 09/13/18           | 0.34 J                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.36 J                    | 0.50 U     | 0.50 U      | 0.50 U       | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 1.0 U         | 0.87 U         |         |        |
| 06/03/19           | 0.42 J                       | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.63 J-                   | 0.50 UJ    | 0.50 UJ     | 0.50 UJ      | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 UJ  | 0.22 J        | 1.0 U          | 0.72 U  |        |
| 08/29/19           | 0.44 J-                      | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.75 J-                   | 0.50 UJ    | 0.50 UJ     | 0.50 UJ      | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 UJ  | 0.50 UJ       | 1.0 UJ         | 0.62 J- |        |
| 03/30/10           | 1.7 U                        | 0.5 U    | 7.7 U    | 1.3 U     | 0.5 U   | 9.0 U               | 110 U    | 1.0 U                     | 0.5 U      | 0.5 U       | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 75 U           | 0.2 U   |        |
| 10/01/10           | 1.79 U                       | 0.5 U    | 8.82 U   | 0.5 U     | 0.5 U   | 5.84 U              | 54.6 U   | 1.0 U                     | 0.5 U      | 0.55 U      | 0.57 J       | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.76 U   | 68.7 U        | 0.2 UJ         |         |        |
| 03/07/11           | 2.00 U                       | 0.5 U    | 10.5 U   | 1.67 U    | 0.5 U   | 8.85 U              | 61.7 U   | 1.0 U                     | 0.5 U      | 2.10 U      | 0.5 U        | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.950 U  | 60.2 U        | 0.2 U          |         |        |
| 06/23/11           | 1.63 U                       | 0.5 U    | 1.0 U    | 2.56 U    | 0.5 UJ  | 18.5 U              | 240 U    | 1.0 U                     | 0.5 U      | 4.50 U      | 1.13 U       | 0.5 U              | 0.5 U   | 0.5 U     | 1.20 U  | 34.2 U   | 0.420 U       |                |         |        |
| 09/23/11           | 1.91 U                       | 0.5 U    | 12.9 U   | 3.19 U    | 0.5 U   | 22.2 U              | 0.5 U    | 1.0 U                     | 0.5 U      | 9.81 U      | 1.84 U       | 0.5 U              | 0.5 U   | 0.5 U     | 1.63 U  | 80.7 U   | 0.460 U       |                |         |        |
| 03/08/12           | 1.67 U                       | 0.500 U  | 12.8 U   | 3.23 U    | 0.500 U | 22.9 U              | 421 U    | 1.00 U                    | 0.500 U    | 0.690 U     | 2.69 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.810 U | 22.8 U   | 0.200 U       |                |         |        |
| 06/27/12           | 1.95 U                       | 0.500 U  | 11.1 U   | 3.02 U    | 0.500 U | 20.0 U              | 319 U    | 1.00 U                    | 0.500 U    | 0.540 U     | 1.39 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.730 U | 12.0 U   | 0.200 U       |                |         |        |
| 10/01/12           | 2.11 U                       | 0.500 U  | 17.8 U   | 0.500 U   | 0.500 U | 27.9 U              | 574 U    | 1.00 U                    | 0.500 U    | 1.02 U      | 2.26 U       | 0.500 UJ           | 0.500 U | 0.500 U   | 0.910 U | 19.3 U   | 0.200 U       |                |         |        |
| 12/19/12           | 1.86 U                       | 0.500 U  | 14.9 U   | 0.500 U   | 0.500 U | 19.6 U              | 331 U    | 1.00 U                    | 0.500 U    | 0.710 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.940 U | 17.2 U   | 0.200 U       |                |         |        |
| 03/07/13           | 0.500 U                      | 0.500 U  | 0.5 U    | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 1.00 U                    | 0.500 U    | 0.710 U     | 0.500 U      | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 17.2 U         | 0.200 U |        |
| 06/06/13           | 1.69 U                       | 0.500 U  | 13.2 U   | 0.500 U   | 0.500 U | 24.5 U              | 552 U    | 1.00 U                    | 0.500 U    | 0.500 U     | 2.55 U       | 0.500 U            | 0.500 U | 0.500 U   |         |          |               |                |         |        |

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloro-ethane <sup>1</sup> | Chloro-form | cis-1,2-DCE | Ethyl-benzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |         |         |      |
|-----------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|----------------------------|-------------|-------------|---------------|--------------------|---------|-----------|---------|----------|---------------|----------------|---------|---------|------|
|                 | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                    | 7.9E+06     | 4E+06       | 1.69E+05      | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |         |         |      |
|                 | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                          | 1.4         | 16          | 700           | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |         |         |      |
| MW-18           | 03/04/11 (LAB DUP)           | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 3.21                       | 1.0 U       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 1.42           | 0.2 U   |         |      |
|                 | 06/23/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.99                       | 1.0 U       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 1.37           | 0.590   |         |      |
|                 | 09/22/11                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                      | 1.0 U       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 0.5 U          | 0.2 U   |         |      |
|                 | 03/07/12                     | 0.56     | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.95        | 1.00 U      | 213           | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.86    | 0.770   | 115  |
|                 | 06/27/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.81        | 1.00 U      | 4.48          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 1.08    | 1.090   | 5.34 |
|                 | 10/01/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.81        | 1.00 U      | 14.8          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 1.13    | 0.500 U | 22.7 |
|                 | 12/19/12                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.58        | 1.00 U      | 0.91          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.810   | 1.08    |      |
|                 | 12/19/12 (DUP)               | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.70        | 1.00 U      | 1.25          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.840   | 0.95    |      |
|                 | 03/05/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 0.570       | 1.00 U      | 0.690         | 0.930              | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.790   | 0.590 J |      |
|                 | 06/06/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.42        | 1.00 U      | 0.900         | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.520   | 1.20    |      |
|                 | 09/26/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 2.85        | 1.00 U      | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.500   | 0.200 U |      |
|                 | 03/26/14                     | 0.500 U  | 0.500 U  | 0.504     | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.34        | 1.00 U      | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.970   | 0.200 U |      |
|                 | 09/24/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.46        | 1.00 U      | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.500 U | 0.200 U |      |
|                 | 08/28/19                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.46        | 1.00 U      | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.500 U        | 0.500 U | 0.200 U |      |
|                 | 03/18/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 1.6         | 1.0 U       | 0.23 J        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 0.47 J        | 1.0 U          | 0.25 J  |         |      |
|                 | 09/14/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.26 J      | 1.0 U       | 1.0 U         | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.22 J  |         |      |
|                 | 03/15/16                     | 1.0 U    | 1.0 U    | 0.42 J    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 1.5         | 1.0 U       | 1.0 U         | 0.43 J             | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 0.59 J         | 0.50 U  |         |      |
|                 | 09/15/16                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 1.1 J       | 1.0 U       | 0.24 J        | 1.0 U              | 5.0 U   | 0.50 U    | 1.0 U   | 1.0 U    | 1.0 U         | 1.0 U          | 0.50 U  |         |      |
|                 | 03/09/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.76        | 0.50 U      | 0.14 J        | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 0.50 U         | 0.20 J  | 0.50 U  |      |
|                 | 09/19/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.47 J      | 0.50 U      | 0.21 J        | 0.50 U             | 2.0 U   | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 0.50 U         | 0.16 J  | 0.50 U  |      |
| 03/21/18        | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.96 J                     | 0.50 U      | 0.20 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.18 J  |         |      |
| 09/12/18        | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.67                       | 0.50 U      | 0.16 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.15 J  |         |      |
| 05/30/19        | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.50 U      | 0.50 U      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.50 U  |         |      |
| 08/28/19        | 0.50 U                       | 0.50 U   | 0.15 J   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 J                      | 0.50 U      | 0.21 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 0.50 U        | 1.0 U          | 0.21 J  |         |      |
| MW-19           | 03/30/10                     | 0.8      | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.7                        | 2.4         | 1.0 U       | 1.1           | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 1.2            | 5.0     |         |      |
|                 | 03/30/10 (LAB DUP)           | 0.9      | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.7                        | 2.4         | 1.0 U       | 1.2           | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 0.5 U         | 1.2            | 5.0     |         |      |
|                 | 09/28/10                     | 1.06     | 0.5 U    | 2.00      | 0.5 U   | 0.5 U               | 0.93     | 10.4                       | 1.0 U       | 24.0        | 2.08          | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 6.43          | 8.11           | 97.2    |         |      |
|                 | 03/07/11                     | 0.5 U    | 0.5 U    | 3.37      | 0.5 U   | 0.5 U               | 0.890    | 2.33                       | 1.0 U       | 99.0        | 9.55          | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 7.30          | 31.6           | 64.8    |         |      |
|                 | 09/21/11                     | 2.71     | 3.26     | 1.96      | 0.5 U   | 0.5 U               | 1.01     | 6.56                       | 1.0 U       | 1,330       | 6.29          | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 16.8          | 13.27          | 633     |         |      |
|                 | 12/07/11                     | 4.99     | 1.06     | 5.02      | 0.5 U   | 0.5 U               | 1.22     | 16.0                       | 1.0 U       | 833         | 17.9          | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U   | 0.5 U    | 54.2          | 53.5           | 1,360   |         |      |
|                 | 03/08/12                     | 4.70     | 0.500 U  | 6.48      | 0.500 U | 0.500 U             | 1.42     | 11.1                       | 1.00 U      | 324         | 30.5          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 64.3          | 85.2           | 572     |         |      |
|                 | 06/27/12                     | 0.73     | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 0.500 U     | 116         | 1.26          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.85           | 3.11    | 118     |      |
|                 | 09/28/12                     | 1.45     | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 0.76        | 1.00 U      | 73.0          | 2.42               | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 1.14           | 4.73    | 81      |      |
|                 | 12/19/12                     | 1.80     | 0.500 U  | 1.11      | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 2.97        | 1.00 U      | 128           | 3.76               | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 3.02           | 4.83    | 342     |      |
|                 | 03/05/13                     | 10.4     | 4.33     | 8.80      | 0.500 U | 0.500 U             | 2.31     | 0.500 U                    | 1.00 U      | 1,890       | 43.0          | 0.750              | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 54.3           | 93.1    | 1,420   |      |
|                 | 06/06/13                     | 6.35 J   | 3.58     | 9.91      | 0.500 U | 0.500 U             | 1.95     | 43.6                       | 1.00 U      | 2,560 J     | 45.8          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 63.3           | 85.3    | 2,240 J |      |
|                 | 06/06/13 (DUP)               | 8.65 J   | 4.68     | 11.3      | 0.500 U | 0.500 U             | 2.46     | 59.0                       | 1.00 U      | 4,300 J     | 52.5          | 0.570              | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 75.8           | 97.2    | 3,620 J |      |
|                 | 09/25/13                     | 4.88     | 0.500 U  | 10.3      | 0.500 U | 0.500 U             | 1.41     | 20.9                       | 1.00 U      | 285         | 36.8          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 42.3           | 66.8    | 664     |      |
|                 | 03/27/14                     | 0.500 U  | 0.500 U  | 1.05      | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 0.850       | 1.00 U      | 1.79          | 3.28               | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 1.91           | 6.81    | 4.63    |      |
|                 | 03/27/14 (DUP)               | 0.960    | 0.500 U  | 1.93      | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 0.880       | 1.00 U      | 1.86          | 3.37               | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 1.92           | 6.97    | 4.87    |      |
|                 | 09/25/14                     | 2.17     | 0.500 U  | 11.2      | 0.500 U | 0.500 U             | 0.688    | 5.47                       | 1.00 U      | 0.620       | 9.91          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 0.500 U  | 0.500 U       | 0.648          | 35.82   | 0.200 U |      |
|                 | 03/19/15                     | 2.3      | 1.0 U    | 16.6      | 0.50 U  | 0.50 U              | 1.1      | 2.9                        | 1.0 U       | 0.30 J      | 1.9           | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 0.73 J        | 7.52           | 0.34 J  |         |      |
|                 | 03/19/15 (DUP)               | 2.1      | 1.0 U    | 13.8      | 0.50 U  | 0.50 U              | 1.0      | 2.4                        | 1.0 U       | 0.28 J      | 1.3           | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 0.68 J        | 6.53           | 0.31 J  |         |      |
|                 | 09/15/15                     | 1.3 J    | 1.0 U    | 16.3 J    | 0.50 U  | 0.50 U              | 1.0 J    | 14.5 J                     | 1.0 U       | 0.31 J      | 11.7 J        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 6.8 J         | 15.1 J         | 0.48 J  |         |      |
|                 | 09/15/15 (DUP)               | 1.2 J    | 1.0 U    | 14.9 J    | 0.50 U  | 0.50 U              | 1.0 J    | 12.9 J                     | 1.0 U       | 0.30 J      | 10.4 J        | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 5.9 J         | 13.4 J         | 0.42 J  |         |      |
|                 | 03/14/16                     | 5.0 U    | 5.0 U    | 2.3 J     | 2.5 U   | 2.5 U               | 2.5 U    | 5.0 U                      | 5.0 U       | 5.0 U       | 3.6 J         | 25 U               | 2.5 U   | 5.0 U     | 5.0 U   | 5.0 U    | 2.2 J         | 5.0 U          | 2.5 U   |         |      |
|                 | 03/14/16 (DUP)               | 0.49 J   | 1.0 U    | 4.5       | 0.50 U  | 0.50 U              | 0.55     | 1.2                        | 1.0 U       | 1.0 U       | 5.6           | 5.0 U              | 5.0 U   | 1.0 U     | 1.0 U   | 1.0 U    | 0.35 J        | 1.95           | 0.50 U  |         |      |
|                 | 09/13/16                     | 1.4      | 1.0 U    | 9.7       | 0.50 U  | 0.50 U              | 0.93     | 8.9                        | 1.0 U       | 18.1        | 11.1          | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 8.8           | 14.5           | 74.8    |         |      |
|                 | 09/13/16 (DUP)               | 1.4      | 1.0 U    | 10.2      | 0.50 U  | 0.50 U              | 0.96     | 9.2                        | 1.0 U       | 18.7        | 11.5          | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 1.0 U    | 9.2           | 15.1           | 89.2    |         |      |
|                 | 03/09/17                     | 0.98     | 0.50 U   | 13.1      | 0.14 J  | 0.50 U              | 1.1      | 2.2                        | 0.50 U      | 0.50 U      | 19.3          | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 3.4           | 16.2           | 0.27 J  |         |      |
|                 | 03/09/17 (DUP)               | 1.1      | 0.50 U   | 13.2      | 0.14 J  | 0.50 U              | 1.2      | 2.7                        | 0.50 U      | 0.15 J      | 20.6          | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 3.5           | 17.1           | 0.32 J  |         |      |
|                 | 09/19/17                     | 0.37 J   | 0.50 U   | 11.1      | 0.50 U  | 0.50 U              | 0.82     | 3.8 J                      | 0.50 U      | 0.34 J      | 13.6 J        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.50 U   | 4.2 J         | 12.9 J         | 0.73    |         |      |
|                 | 9/19/17 (DUP)                | 0.42 J   | 0.50 U   |           |         |                     |          |                            |             |             |               |                    |         |           |         |          |               |                |         |         |      |

Table 6  
 Concentration of VOCs in Groundwater  
 Deep Groundwater Well Installation and Benzene Delineation Report  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloroethane <sup>1</sup> | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |        |
|-----------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|---------------------------|------------|-------------|--------------|--------------------|---------|-----------|---------|----------|---------------|----------------|--------|
|                 | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                   | 7.9E+06    | 4E+06       | 1.69E+05     | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |        |
|                 | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                         | 1.4        | 16          | 700          | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |        |
| MW-21           | 06/23/11                     | 219      | 9.72     | 171       | 0.5 U   | 1.15 J              | 0.790    | 921                       | 1.0 U      | 2,560       | 983          | 3.04               | 0.780   | 51.2      | 1.44    | 3,630    | 3,720         | 1,290          |        |
|                 | 06/23/11 (DUP)               | 243      | 9.83     | 200       | 0.5 U   | 0.5 UJ              | 0.800    | 983                       | 1.0 U      | 2,630       | 1,050        | 3.06               | 0.630   | 48.9      | 1.38    | 3,760    | 4,020         | 1,350          |        |
|                 | 09/22/11                     | 112      | 2.72     | 134       | 0.5 U   | 0.5 U               | 0.790    | 0.5 U                     | 1.0 U      | 842         | 926          | 4.92               | 0.740   | 5.26      | 0.940   | 6,060    | 3,822         | 1,010          |        |
|                 | 12/07/11                     | 115      | 5.62     | 185       | 0.5 U   | 0.5 U               | 0.770    | 1,190                     | 1.0 U      | 1,890       | 1,350        | 3.82               | 1.12    | 8.73      | 1.15    | 6,720    | 5,520         | 1,460          |        |
|                 | 03/08/12                     | 70.6     | 2.44     | 128       | 0.500 U | 0.500 U             | 0.660    | 913                       | 1.00 U     | 979         | 1,050        | 2.91               | 1.02    | 4.64      | 0.710   | 5,250    | 4,430         | 801            |        |
|                 | 06/26/12                     | 96.0     | 5.01     | 158       | 0.500 U | 0.500 U             | 0.810    | 962                       | 1.00 U     | 2,000       | 1,460        | 2.24               | 1.86    | 7.19      | 0.940   | 5,940    | 5,930         | 1,040 J        |        |
|                 | 10/02/12                     | 73.5     | 4.27     | 156       | 0.500 U | 0.500 U             | 0.970    | 1,170                     | 1.00 U     | 1,530       | 1,560        | 2.76               | 1.19    | 4.37      | 1.59    | 6,710    | 6,540         | 1,610          |        |
|                 | 10/02/12 (DUP)               | 76.0     | 4.26     | 154       | 0.500 U | 0.500 U             | 0.960    | 1,130                     | 1.00 U     | 1,500       | 1,540        | 2.68               | 1.07    | 4.04      | 0.810   | 6,280    | 6,340         | 1,590          |        |
|                 | 12/20/12                     | 76.0     | 3.17     | 154       | 0.500 U | 0.500 U             | 0.880    | 825                       | 1.00 U     | 1,070       | 1,490        | 1.35               | 0.86    | 0.500 U   | 0.500 U | 5,600    | 6,200         | 1,210          |        |
|                 | 03/06/13                     | 72.5     | 2.85     | 82.0      | 0.500 U | 0.500 U             | 0.530    | 615                       | 1.00 U     | 1,240       | 1,470        | 2.27               | 1.55    | 1.42      | 1.26    | 4,360    | 6,450         | 1,120          |        |
|                 | 06/06/13                     | 89.0     | 0.500 U  | 121       | 0.500 U | 0.500 U             | 0.810    | 928                       | 1.00 U     | 988         | 1,290        | 2.27               | 1.17    | 2.81      | 0.500   | 4,520    | 5,310         | 663            |        |
|                 | 09/25/13                     | 82.6     | 1.80     | 297       | 0.500 U | 0.500 U             | 0.770    | 579                       | 1.00 U     | 712         | 2,060        | 1.99               | 0.500 U | 3.02      | 0.500 U | 5,290    | 8,710         | 666            |        |
|                 | 03/28/14                     | 58.9     | 0.500 U  | 237       | 0.500 U | 0.500 U             | 0.810    | 615                       | 1.00 U     | 227         | 1,380        | 0.880              | 1.17    | 0.500 U   | 0.500 U | 2,650    | 5,840         | 449            |        |
|                 | 09/24/14                     | 60.0 J   | 0.500 U  | 317 J     | 0.500 U | 2.29 J              | 0.810 J  | 477 J                     | 1.00 UJ    | 57.9 J      | 1,670 J      | 1.36 J             | 0.500 U | 0.500 U   | 0.500 U | 1,480 J  | 7,900 J       | 184 J          |        |
|                 | 03/17/15                     | 30.8 J   | 50 U     | 163       | 25 U    | 25 U                | 25 U     | 317                       | 50 U       | 50 U        | 1,120        | 250 U              | 25 U    | 50 U      | 50 U    | 270      | 4,922         | 13.1 J         |        |
|                 | 09/15/15                     | 25 U     | 25 U     | 207       | 13 U    | 13 U                | 13 U     | 350                       | 25 U       | 6.7 J       | 951          | 130 U              | 13 U    | 25 U      | 25 U    | 189      | 5,257         | 13.4           |        |
|                 | 03/16/16                     | 8.4      | 5.0 U    | 157       | 2.5 U   | 2.5 U               | 2.5 U    | 288                       | 5.0 U      | 21.9        | 1,530        | 25 U               | 2.5 U   | 5.0 U     | 5.0 U   | 263      | 8,490         | 23.5           |        |
|                 | 09/15/16                     | 8.8 J    | 10 U     | 371       | 5.0 U   | 5.0 U               | 5.0 U    | 350                       | 10 U       | 4.1 J       | 1,450        | 50 U               | 5.0 U   | 10 U      | 10 U    | 285      | 8,620         | 5.8            |        |
|                 | 03/07/17                     | 50 U     | 50 U     | 261       | 50 U    | 50 U                | 50 U     | 270                       | 50 U       | 50 U        | 1,010        | 200 U              | 50 U    | 50 U      | 50 U    | 238      | 8,500         | 50 U           |        |
|                 | 09/20/17                     | 6.2      | 0.50 U   | 344       | 0.50 U  | 0.50 U              | 0.95     | 370                       | 0.50 U     | 3.0         | 703          | 2.0 U              | 0.50 U  | 0.54      | 0.50 U  | 52.2 J   | 10,300        | 1.3            |        |
|                 | 03/20/18                     | 50 UJ    | 50 UJ    | 212 J     | 50 UJ   | 50 UJ               | 50 UJ    | 240 J                     | 50 UJ      | 50 UJ       | 740 J        | 200 UJ             | 50 UJ   | 50 UJ     | 50 UJ   | 118 J    | 5,663 J       | 50 UJ          |        |
|                 | 09/11/18                     | 25 U     | 25 U     | 306       | 25 U    | 25 U                | 25 U     | 330                       | 25 U       | 25 U        | 267          | 100 U              | 25 U    | 25 U      | 25 U    | 8.3 J    | 6,764         | 25 U           |        |
|                 | 05/31/19                     | 23.8 J   | 25 U     | 368       | 25 U    | 25 U                | 25 U     | 281                       | 25 U       | 25 U        | 1040         | 100 U              | 25 U    | 25 U      | 25 U    | 136      | 7,069         | 15.4 J         |        |
|                 | 08/29/19                     | 25 U     | 25 U     | 202       | 25 U    | 25 U                | 25 U     | 323                       | 25 U       | 25 U        | 765          | 100 U              | 25 U    | 25 U      | 25 U    | 36.5     | 4,768         | 25 U           |        |
|                 | MW-22                        | 03/29/10 | 24       | 0.5 U     | 44      | 0.5 U               | 0.5 U    | 0.5 U                     | 480        | 1.0 U       | 0.5 U        | 650                | 10 U    | 25 U      | 0.5 U   | 0.5 U    | 840           | 1,500          | 7.4    |
| 09/30/10        |                              | 10 U     | 0.5 U    | 45.2      | 10 U    | 10 U                | 10 U     | 611                       | 20 U       | 2.6 J       | 296          | 10.8               | 5.0 U   | 10 U      | 5.0 U   | 24.4     | 751           | 2.0 UJ         |        |
| 03/04/11        |                              | 26.9     | 0.780    | 161       | 0.540   | 0.5 U               | 1.20     | 531                       | 1.0 U      | 184         | 531          | 0.5 U              | 0.500   | 0.5 U     | 16.7    | 596      | 2,750         | 74.1           |        |
| 06/23/11        |                              | 3.98     | 0.660    | 45.9      | 0.5 U   | 0.5 UJ              | 0.64     | 173                       | 1.0 U      | 2.27        | 148          | 0.580              | 0.5 U   | 0.5 U     | 0.5 U   | 55.4     | 1,008         | 1.13           |        |
| 09/23/11        |                              | 7.40     | 0.5 U    | 74.2      | 0.5 U   | 0.5 U               | 0.920    | 0.5 U                     | 1.0 U      | 2.10        | 422          | 1.19               | 0.5 U   | 0.5 U     | 0.5 U   | 79.0     | 1,828         | 9.27           |        |
| 12/07/11        |                              | 13.1     | 0.5 U    | 137       | 0.5 U   | 0.5 U               | 0.550    | 272                       | 1.0 U      | 10.1        | 760          | 0.770              | 0.5 U   | 0.5 U     | 0.5 U   | 1,390    | 3,081         | 32.4           |        |
| 03/08/12        |                              | 13.1     | 0.500 U  | 169       | 0.500 U | 0.500 U             | 0.500 U  | 286                       | 1.00 U     | 1.15        | 815          | 0.520              | 0.500 U | 0.500 U   | 0.500 U | 1,630    | 3,388         | 6.8            |        |
| 06/26/12        |                              | 38.9     | 0.560    | 166       | 0.500 U | 0.500 U             | 0.730    | 280                       | 1.00 U     | 1,300       | 807          | 0.510              | 0.500 U | 2.06      | 0.500 U | 1,910    | 3,336         | 1,750 J        |        |
| 06/26/12 (DUP)  |                              | 38.3     | 0.500 U  | 178       | 0.500 U | 0.500 U             | 0.720    | 282                       | 1.00 U     | 1,030       | 743          | 0.500 U            | 0.500 U | 1.93      | 0.500 U | 1,750    | 3,002         | 1,230 J        |        |
| 10/02/12        |                              | 30.4     | 0.500 U  | 136       | 0.500 U | 0.500 U             | 0.680    | 204                       | 1.00 U     | 623         | 552          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 728      | 2,643         | 1,520          |        |
| 12/19/12        |                              | 9.76     | 1.63     | 172       | 0.500 U | 0.500 U             | 0.500 U  | 278                       | 1.00 U     | 244         | 732          | 0.500 U            | 1.05    | 0.500 U   | 64.5    | 260      | 3,455         | 208            |        |
| 03/06/13        |                              | 17.4     | 6.77     | 51.5 J    | 0.500 U | 0.500 U             | 0.560    | 0.5 U                     | 1.00 U     | 1,310       | 376 J        | 1.06               | 4.41    | 1.26      | 185     | 156      | 2,168 J       | 712            |        |
| 06/06/13        |                              | 21.9     | 2.60     | 69.5      | 0.500 U | 0.500 U             | 0.510    | 88.0                      | 1.00 U     | 1,760       | 199          | 0.500 U            | 0.500 U | 1.86      | 0.500 U | 550      | 1,004         | 1,600          |        |
| 09/25/13        |                              | 7.88     | 0.500 U  | 168       | 0.500 U | 0.500 U             | 0.500 U  | 104                       | 1.00 U     | 25.0        | 256          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 25.0     | 1,911         | 45.6           |        |
| 03/28/14        |                              | 9.71     | 0.789    | 105       | 0.500 U | 0.500 U             | 0.500 U  | 113                       | 1.00 U     | 426         | 121          | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 55.1     | 1,207.4       | 422            |        |
| 09/24/14        |                              | 3.14     | 0.500 U  | 121       | 0.500 U | 0.500 U             | 0.500 U  | 45.1                      | 1.00 U     | 0.500 U     | 48.3         | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 2.90     | 1,423.1       | 0.200 U        |        |
| 09/24/14 (DUP)  |                              | 3.19     | 0.500 U  | 142       | 0.500 U | 0.500 U             | 0.500 U  | 59.5                      | 1.00 U     | 0.500 U     | 43.7         | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U | 2.56     | 1,283.5       | 0.345          |        |
| 03/17/15        |                              | 7.5 J    | 25 U     | 68.4      | 13 U    | 13 U                | 13 U     | 22.7 J                    | 25 U       | 1,100       | 40.5         | 130 U              | 13 U    | 25 U      | 25 U    | 81.3     | 556.1         | 535            |        |
| 09/15/15        |                              | 1.9 J    | 2.0 UJ   | 36.0 J    | 1.0 UJ  | 1.0 UJ              | 1.0 UJ   | 18.9 J                    | 2.0 UJ     | 64.1 J      | 6.6 J        | 10 UJ              | 1.0 UJ  | 2.0 UJ    | 2.0 UJ  | 11.4 J   | 235.6 J       | 86.1 J         |        |
| 03/16/16        |                              | 2.9      | 0.48 J   | 143       | 0.50 U  | 0.50 U              | 0.34 J   | 75.8                      | 1.0 U      | 270         | 60.8         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 32.7     | 1,060         | 144            |        |
| 09/15/16        |                              | 1.2      | 1.0 U    | 79.5      | 0.50 U  | 0.50 U              | 0.60     | 92.3 J                    | 1.0 U      | 7.2         | 11.4         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U   | 2.4      | 247.8         | 10.3           |        |
| 03/07/17        |                              | 0.64 J   | 2.5 U    | 27.9      | 2.5 U   | 2.5 U               | 2.5 U    | 91.5                      | 2.5 U      | 2.5 U       | 5.0          | 6.8 J              | 2.5 U   | 2.5 U     | 2.5 U   | 2.5 U    | 140           | 2.5 U          |        |
| 09/20/17        |                              | 1.2      | 0.50 U   | 80.8      | 0.24 J  | 0.50 U              | 0.75     | 90.9                      | 0.50 U     | 0.31 J      | 7.4          | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U  | 0.80     | 262           | 0.43 J         |        |
| 03/21/18        |                              | 0.72 J   | 0.50 UJ  | 58.4 J    | 0.50 UJ | 0.50 UJ             | 0.57 J   | 89.8 J                    | 0.50 UJ    | 0.16 J      | 8.5 J        | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 J   | 174 J         | 174 J          | 0.39 J |
| 09/11/18        |                              | 0.61 J   | 0.50 UJ  | 42.0 J    | 0.17 J  | 0.50 UJ             | 0.56 J   | 67.4 J                    | 0.32 J     | 0.83 J      | 1.8 J        | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ | 0.50 J   | 70.74 J       | 1.7 J          |        |
| 05/31/19        | 0.57 J                       | 0.24 J   | 22.2 J   | 0.18 J    | 0.50 UJ | 0.58 J              | 44.7 J   | 0.30 J                    | 60.0 J     | 1.5 J       | 2.0 UJ       | 0.50 UJ            | 0.50 UJ | 3.3 J     | 1.1 J   | 16.77 J  | 23.5 J        |                |        |
| 08/29/19        | 0.58 J                       | 1.3 U    | 6.6      | 1.3 U     | 1.3 U   | 0.52 J              | 33.0     | 1.3 U                     | 92.3       | 0.59 J      | 5.0 U        | 1.3 U              | 1.3 U   | 1.3 U     | 1.5     | 4.85     | 32.2          |                |        |
| MW-24           | 03/26/10                     | 540      | 17       | 230       | 0.5 U   | 0.5 U               | 0.9      | 160                       | 4.5        | 4,100       | 1,900        | 0.5 U              | 0.5 U   | 680       | 160     | 4,800    | 3,600         | 1,200          |        |
|                 | 04/16/10                     | 260      | 10 U     | 18        | 10 U    | 10 U                | 10 U     | 1,100                     | 20 U       | 80          | 1,300        | 10 U               | 10 U    | 10 U      | 5.0 U   | 3,800    | 3,300         | 320            |        |
|                 | 05/06/10                     | 820      | 5.0 U    | 72        | 10 U    | 10 U                | 10 U     | 900                       | 20 U       | 930         | 1,800        | 10 U               | 5.0 U   | 10 U      | 5.0 U   | 6,200    | 4,000         | 1,900          |        |
|                 | 05/06/10 (LAB DUP)           | 850      | 5.0 U    | 71        | 10 U    | 10 U                | 10 U     | 970                       | 20 U       | 980         | 1,800        | 10 U               | 5.0 U   | 10 U      | 5.0 U   | 6,800    | 4,400         | 2,000          |        |
|                 | 06/09/10                     | 1,300    | 22       | 130       | 10 U    | 10 U                | 10 U     | 89                        | 20 U       | 2,200       | 1,600        | 10 U               | 2.2 J   | 97        | 5.2     | 5,900    | 3,600         | 3,400          |        |
|                 | 07/06/10                     | 940      | 14       | 180       | 10 U    | 10 U                | 10 U     | 1,200                     | 20 U       | 2,100       | 1,200 J      | 10 U               | 5.0 U   | 120       | 5.0 U   | 7,300    | 2,900         | 4,200          |        |
|                 | 07/06/10 (DUP)               | 1,100    | 14       | 140       | 10 U    | 10 U                | 10 U     | 1,100                     | 20 U       | 2,400       | 830 J        | 10 U               | 5.0 U   | 130       | 5.0 U   | 6,600    | 2,300         | 3,400          |        |
| MW-25           | 03/29/10                     | 25       | 0.5 U    | 160       | 0.9     | 0.5 U               | 1.9      | 410                       | 1.1        | 2.2         | 940          | 0.5 U              | 0.5 U   | 0.5 U     | 0.4     | 1,200    | 1,600         | 2.7            |        |
|                 | 04/07/10                     | 48       | 10 U     |           |         |                     |          |                           |            |             |              |                    |         |           |         |          |               |                |        |

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                       | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloro-ethane <sup>1</sup> | Chloro-form | cis-1,2-DCE | Ethyl-benzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE      | Toluene   | Total Xylenes | Vinyl Chloride |         |
|---------------------------------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|----------------------------|-------------|-------------|---------------|--------------------|---------|-----------|----------|-----------|---------------|----------------|---------|
|                                       | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                    | 7.9E+06     | 4E+06       | 1.69E+05      | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1.E+06 | 5.26.E+05 | 1.71E+05      | 2.76E+06       |         |
|                                       | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                          | 1.4         | 16          | 700           | 5.0                | 5.0     | 200       | 0.54     | 640       | 1,600         | 0.50           |         |
|                                       | 05/06/10                     | 10 U     | 5.0 U    | 10 U      | 10 U    | 10 U                | 10 U     | 10 U                       | 20 U        | 11          | 10 U          | 10 U               | 300     | 10 U      | 28       | 10 U      | 10 U          | 5.2            |         |
|                                       | 06/09/10                     | 10 U     | 5.0 U    | 10 U      | 10 U    | 10 U                | 10 U     | 10 U                       | 20 U        | 14          | 10 U          | 10 U               | 350     | 10 U      | 31       | 10 U      | 10 U          | 12             |         |
|                                       | 07/06/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 0.5 U    | 0.5 U                      | 1.0 U       | 12          | 0.5 U         | 0.5 U              | 300     | 0.5 U     | 29       | 0.5 U     | 0.5 U         | 9              |         |
| <b>Deep Off-Site Monitoring Wells</b> |                              |          |          |           |         |                     |          |                            |             |             |               |                    |         |           |          |           |               |                |         |
| MW-20                                 | 03/29/10                     | 0.5 U    | 0.5 U    | 0.5 U     | 0.5 U   | 0.5 U               | 18 J     | 140                        | 1.0 U       | 0.5 U       | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 1.0       | 7.1           | 0.2            |         |
|                                       | 10/01/10                     | 0.5 U    | 0.5 U    | 1.27      | 0.5 U   | 0.5 U               | 15.2     | 195                        | 1.0 U       | 0.5 U       | 0.5 U         | 0.73 J             | 0.5 U   | 0.5 U     | 0.5 U    | 0.94      | 4.26          | 0.12 J         |         |
|                                       | 03/02/11                     | 0.5 U    | 0.5 U    | 1.05      | 0.5 U   | 0.5 U               | 12.8     | 75.5                       | 1.0 U       | 1.38        | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U    | 1.58      | 17.7          | 0.2 U          |         |
|                                       | 09/28/11                     | 0.5 U    | 0.5 U    | 0.890     | 0.5 U   | 0.5 U               | 13.9     | 161                        | 1.0 U       | 0.5 U       | 0.5 U         | 0.620              | 0.5 U   | 0.5 U     | 0.5 U    | 0.930     | 4.33          | 0.2 U          |         |
|                                       | 03/08/12                     | 0.500 U  | 0.500 U  | 0.600     | 0.500 U | 0.500 U             | 10.9     | 71.6                       | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.880     | 4.69          | 0.200 U        |         |
|                                       | 10/01/12                     | 0.500 U  | 0.500 U  | 1.26      | 0.500 U | 0.500 U             | 14.8     | 161                        | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.950     | 5.10          | 0.200 U        |         |
|                                       | 03/08/13                     | 0.500 U  | 0.500 U  | 0.5 U     | 0.500 U | 0.500 U             | 0.500 U  | 4.40                       | 1.00 U      | 0.500 U     | 0.890         | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.790         | 0.200 U        |         |
|                                       | 06/06/13                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 10.3     | 100                        | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.530         | 3.28           | 0.200 U |
|                                       | 09/27/13                     | 0.500 U  | 0.500 U  | 1.10      | 0.500 U | 0.500 U             | 16.0     | 122                        | 1.00 U      | 0.500 U     | 0.500 U       | 0.670              | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 1.06          | 5.51           | 0.200 U |
|                                       | 03/27/14                     | 0.500 U  | 0.500 U  | 1.15      | 0.500 U | 0.500 U             | 11.7     | 92.0                       | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.830     | 5.00          | 0.200 U        |         |
|                                       | 09/25/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 11.7     | 127                        | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.500 U        | 0.200 U |
|                                       | 03/18/15                     | 1.0 U    | 1.0 U    | 0.41 J    | 0.50 U  | 0.50 U              | 9.5      | 70.2                       | 1.0 U       | 1.0 U       | 1.0 U         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U    | 0.85 J    | 2.26          | 0.50 U         |         |
|                                       | 09/16/15                     | 1.0 U    | 1.0 U    | 0.31 J    | 0.50 U  | 0.50 U              | 14.8     | 171                        | 1.0 U       | 1.0 U       | 1.0 U         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U    | 0.72 J    | 3.9           | 0.50 U         |         |
|                                       | 03/15/16                     | 5.0 U    | 5.0 U    | 10 U      | 2.5 U   | 2.5 U               | 8.6      | 90.3                       | 5.0 U       | 5.0 U       | 5.0 U         | 25 U               | 2.5 U   | 5.0 U     | 5.0 U    | 2.2 J     | 5.0 U         | 2.5 U          |         |
|                                       | 09/15/16                     | 2.5 U    | 2.5 U    | 5.0 U     | 1.3 U   | 1.3 U               | 16.2     | 217                        | 2.5 U       | 2.5 U       | 2.5 U         | 13 U               | 1.3 U   | 2.5 U     | 2.5 U    | 0.77 J    | 3.3 J         | 1.3 U          |         |
|                                       | 03/08/17                     | 5.0 UJ   | 5.0 UJ   | 5.0 UJ    | 5.0 UJ  | 5.0 UJ              | 9.9 J    | 142 J                      | 5.0 UJ      | 5.0 UJ      | 5.0 UJ        | 10.7 J             | 5.0 UJ  | 5.0 UJ    | 5.0 UJ   | 5.0 UJ    | 5.0 UJ        | 10 UJ          | 5.0 UJ  |
| 09/19/17                              | 0.50 U                       | 0.50 U   | 0.30 J   | 0.50 U    | 0.50 U  | 21.5                | 232      | 0.50 U                     | 0.17 J      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.91     | 3.9       | 0.50 U        |                |         |
| 03/20/18                              | 0.50 UJ                      | 0.50 UJ  | 0.50 J-  | 0.50 UJ   | 0.50 UJ | 17.8 J-             | 137 J-   | 0.50 UJ                    | 0.50 UJ     | 0.50 UJ     | 2.0 UJ        | 0.50 UJ            | 0.50 UJ | 0.50 UJ   | 0.62 J-  | 3.4 J-    | 0.13 J-       |                |         |
| 09/12/18                              | 0.50 U                       | 0.50 U   | 0.20 j   | 0.50 U    | 0.50 U  | 17.5                | 363      | 0.50 U                     | 0.14 j      | 0.50 U      | 1.2 j         | 0.50 U             | 0.50 U  | 0.50 U    | 0.66     | 2.4       | 0.17 j        |                |         |
| 06/03/19                              | 0.50 U                       | 0.50 U   | 0.24 j   | 0.50 U    | 0.50 U  | 18.4                | 187 J-   | 0.50 U                     | 0.13 j      | 0.50 U      | 1.1 j         | 0.50 U             | 0.50 U  | 0.50 U    | 0.89     | 2.5       | 0.15 j        |                |         |
| 08/28/19                              | 0.50 U                       | 0.50 U   | 0.17 j   | 0.50 U    | 0.50 U  | 14.5                | 234 J-   | 0.50 U                     | 0.14 j      | 0.50 U      | 1.1 j         | 0.50 U             | 0.50 U  | 0.50 U    | 0.51 J+  | 1.69      | 0.50 U        |                |         |
| MW-27                                 | 09/24/14                     | 0.569    | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |         |
|                                       | 03/18/15                     | 0.33 J   | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 1.0 U       | 0.43 J      | 1.0 U         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U    | 0.45 J    | 1.0 U         | 0.50 U         |         |
|                                       | 09/16/15                     | 0.46 J   | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.43 J   | 1.0 U                      | 1.0 U       | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 0.38 J    | 1.0 U         | 0.50 U         |         |
|                                       | 03/15/16                     | 0.35 J   | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 1.0 U                      | 1.0 U       | 0.38 J      | 1.0 U         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.50 U         |         |
|                                       | 09/15/16                     | 0.45 J   | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.34 J   | 1.0 U                      | 1.0 U       | 0.40 J      | 1.0 U         | 5.0 U              | 0.50 U  | 1.0 U     | 1.0 U    | 1.0 U     | 1.0 U         | 0.50 U         |         |
|                                       | 03/08/17                     | 0.32 J   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.15 J   | 0.50 U                     | 0.50 U      | 0.30 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |         |
|                                       | 09/18/17                     | 0.52     | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.30 J   | 0.50 U                     | 0.50 U      | 0.42 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.21 J         |         |
|                                       | 03/20/18                     | 0.37 J-  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.50 UJ                    | 0.50 UJ     | 0.41 J-     | 0.50 UJ       | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ  | 0.50 UJ   | 1.0 UJ        | 0.18 J-        |         |
|                                       | 09/12/18                     | 0.39 j   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.18 j   | 0.50 U                     | 0.50 U      | 0.32 j      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.24 j         |         |
| 06/03/19                              | 0.38 j                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.17 j              | 0.50 U   | 0.50 U                     | 0.39 j      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.63     | 1.0 U     | 0.62          |                |         |
| 08/28/19                              | 0.42 j                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.20 j              | 0.50 U   | 0.50 U                     | 0.24 j      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 1.0 U     | 0.30 j        |                |         |
| MW-28                                 | 09/25/14                     | 0.500 U  | 0.500 U  | 0.500 U   | 0.500 U | 0.500 U             | 0.500 U  | 0.500 U                    | 1.00 U      | 0.500 U     | 0.500 U       | 0.500 U            | 0.500 U | 0.500 U   | 0.500 U  | 0.500 U   | 0.500 U       | 0.200 U        |         |
|                                       | 03/19/15                     | 1.0 U    | 1.0 U    | 2.0 U     | 0.50 U  | 0.50 U              | 0.50 U   | 0.60 J                     | 1.0 U       | 1.0 U       | 5.0 U         | 0.50 U             | 1.0 U   | 1.0 U     | 1.0 U    | 0.56 J    | 1.0 U         | 0.50 U         |         |
|                                       | 09/17/15                     | 5.0 U    | 5.0 U    | 10 U      | 2.5 U   | 2.5 U               | 2.5 U    | 2.6 J                      | 5.0 U       | 5.0 U       | 25 U          | 2.5 U              | 5.0 U   | 5.0 U     | 5.0 U    | 5.0 U     | 5.0 U         | 2.5 U          |         |
|                                       | 03/16/16                     | 5.0 U    | 5.0 U    | 10 U      | 2.5 U   | 2.5 U               | 2.5 U    | 5.0 U                      | 5.0 U       | 5.0 U       | 25 U          | 2.5 U              | 5.0 U   | 5.0 U     | 5.0 U    | 5.0 U     | 5.0 U         | 2.5 U          |         |
|                                       | 09/15/16                     | 5.0 U    | 5.0 U    | 10 U      | 2.5 U   | 2.5 U               | 2.5 U    | 5.0 U                      | 5.0 U       | 5.0 U       | 25 U          | 2.5 U              | 5.0 U   | 5.0 U     | 5.0 U    | 5.0 U     | 5.0 U         | 2.5 U          |         |
|                                       | 03/09/17                     | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.13 J   | 0.24 J                     | 0.50 UJ     | 0.50 UJ     | 0.50 UJ       | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ  | 0.50 UJ   | 1.0 UJ        | 0.50 UJ        |         |
|                                       | 09/18/17                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.20 J   | 0.50 U                     | 0.50 U      | 0.14 J      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |         |
|                                       | 03/19/18                     | 0.50 UJ  | 0.50 UJ  | 0.50 UJ   | 0.50 UJ | 0.50 UJ             | 0.50 UJ  | 0.31 J-                    | 0.50 UJ     | 0.50 UJ     | 0.50 UJ       | 2.0 UJ             | 0.50 UJ | 0.50 UJ   | 0.50 UJ  | 0.50 UJ   | 1.0 UJ        | 0.50 UJ        |         |
|                                       | 09/12/18                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.15 j   | 0.20 j                     | 0.50 U      | 0.50 U      | 0.50 U        | 2.0 U              | 0.50 U  | 0.50 U    | 0.50 U   | 0.50 U    | 1.0 U         | 0.50 U         |         |
| 06/03/19                              | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.14 j              | 0.50 U   | 0.50 U                     | 0.50 U      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.62     | 1.0 U     | 0.50 U        |                |         |
| 08/28/19                              | 0.50 U                       | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.50 U      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 1.0 U     | 0.50 U        |                |         |
| MW-29D                                | 08/30/19                     | 0.50 U   | 0.50 U   | 0.50 U    | 0.50 U  | 0.50 U              | 0.50 U   | 0.50 U                     | 0.50 U      | 0.50 U      | 2.0 U         | 0.50 U             | 0.50 U  | 0.50 U    | 0.50 U   | 1.8       | 1.0 U         | 0.50 U         |         |
| INJ-1                                 | 07/09/01                     | 9.3      | 0.65 J   | NA        | 0.58 U  | 0.62 U              | 0.5 U    | 25                         | 0.48 U      | 29          | NA            | U                  | 620     | 0.56 U    | 97       | NA        | NA            | 2.9            |         |
|                                       | 11/20/01                     | 1.2      | 0.5 U    | NA        | 0.5 U   | 0.5 U               | 0.21 U   | 2.8                        | 0.5 U       | 8.1         | 0.5 U         | 1 U                | 17      | 0.5 U     | 30       | 0.5 U     | 0.5 U         | 0.50 U         |         |
|                                       | 06/11/02                     | 0.60 J   | 1.9      | 0.29 U    | 0.23 U  | 0.26 U              | NA       | 0.46 U                     | 0.2 U       | 520         | 0.26 U        | 0.39 U             | 8.5     | 0.23 U    | 3.7      | 0.2 U     | 0.6 U         | 0.44 J         |         |
| INJ-2                                 | 07/09/01                     | <2.3 U   | 3 U      | NA        | 2.9 U   | 3.1 U               | 0.5 U    | 4.4 U                      | 2.4 U       | 200         | NA            | 4.9 U              | 6,300   | 2.8 U     | 240      | NA        | NA            | 5.5 J          |         |
|                                       | 10/15/01                     | <0.5 U   | 0.5 U    | NA        | 0.5 U   | 0.5 U               | 0.5 U    | 0.50 U                     | 0.5 U       | 1.1         | 1.6           | 1 U                | 33      | 0.5 U     | 1.8      | 0.5 U     | 6             | 0.5 U          |         |
|                                       | 10/22/01                     | <0.5 U   | 0.5 U    | NA        | 0.5 U   | 0.5 U               | 0.5 U    | 0.50 U                     | 0.5 U       | 2           | 2.9           | 1 U                | 57      | 0.5 U     | 2.8      | 0.53      | 11.3          | 0.5 U          |         |
|                                       | 10/29/01                     | <0.5 U   | 0.5 U    | NA        | 0.5 U   | 0.5 U               | 0.5 U    | 0.50 U                     | 0.5 U       | 2.9         | 1.4           | 1 U                | 68      | 0.5 U     | 4.3      | 0.65      | 6.8           | 0.5 U          |         |
|                                       | 11/19/01                     | <0.5 U   | 0.5 U    | NA        | 0.5 U   | 0.5 U               | 1.1 U    | 0.50 U                     | 0.5 U       | 7.3         | 0.89          | 1 U                | 230     | 0.5 U     | 9.2      | 0.5 U     | 4.4           | 0.5 U          |         |
|                                       | 06/11/02                     | <0.91 U  | 5.4      | 1.5 U     | 1.2 U   | 1.3 U               | 1.1 U    | 2.3 U                      | 0.96 U      | 2,100       | 1.3 U         | 2 U                | 1,000   | 1.2 U     | 600      | 0.98 U    | 2.9 U         | 2.2 U          |         |
|                                       | 06/10/03                     | <0.91 U  | 5.3      | 1.5 U     | 1.2 U   | 1.3 U               | NA       | 2.3 U                      | 0.96 U      | 2,100       | 1.3 U         | 2 U                | 2,700   | 1.2 U     | 610      | 1.1 JB    | 2.9 U         | 2.2 U          |         |
| INJ-3                                 | 07/09/01                     | 3.4      | 0.95 J   | NA        | INJ.5 U | 0.                  |          |                            |             |             |               |                    |         |           |          |           |               |                |         |

**Table 6**  
**Concentration of VOCs in Groundwater**  
**Deep Groundwater Well Installation and Benzene Delineation Report**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected               | 1,1-DCA  | 1,1-DCE  | 1,2,4-TMB | 1,2-DCA | 1,2-Dichloropropane | Benzene  | Chloroethane <sup>1</sup> | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE     | Toluene  | Total Xylenes | Vinyl Chloride |
|-----------------|------------------------------|----------|----------|-----------|---------|---------------------|----------|---------------------------|------------|-------------|--------------|--------------------|---------|-----------|---------|----------|---------------|----------------|
|                 | Solubility in Water:         | 5.06E+06 | 2.25E+06 | 5.7E+07   | 8.5E+06 | 2.8E+06             | 1.75E+06 | 4.5E+06                   | 7.9E+06    | 4E+06       | 1.69E+05     | 1.3E+07            | 2.0E+05 | 1.33E+06  | 1.1E+06 | 5.26E+05 | 1.71E+05      | 2.76E+06       |
|                 | 2019 Revised Cleanup Levels: | 7.7      | 7.0      | 80        | 0.48    | 1.2                 | 0.80     | -                         | 1.4        | 16          | 700          | 5.0                | 5.0     | 200       | 0.54    | 640      | 1,600         | 0.50           |

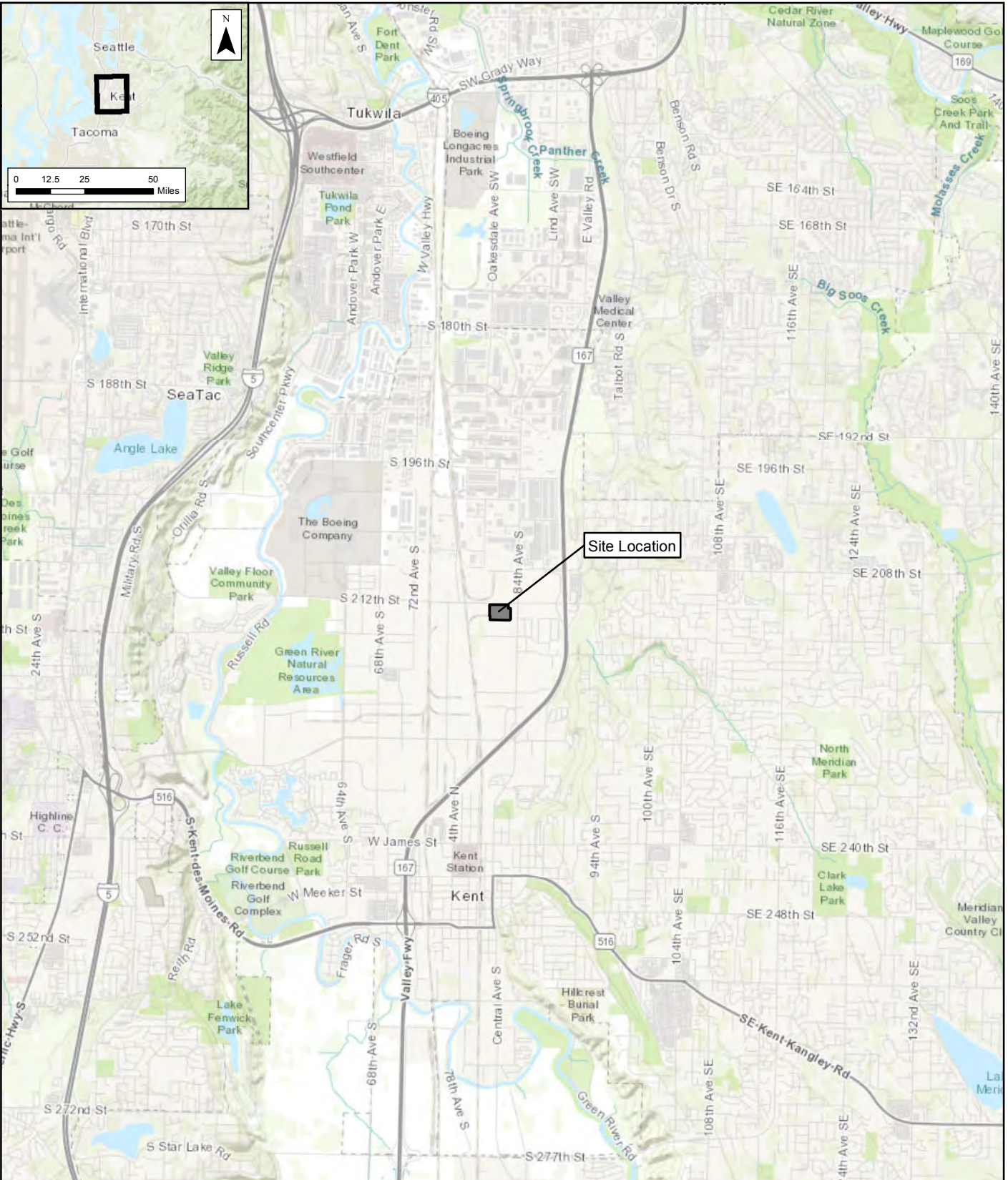
1995 analyses performed using EPA Method 8240A.  
 Analyses from 1996 to 2014 performed using EPA Method 8260A.  
 Starting in March 2015, the laboratory was switched to Accutest and VOCs were analyzed by EPA Method 8260B.  
 Only indicator hazardous substances (IHSs) shown.  
 Detections shown in **bold**.  
 Shaded results above their respective cleanup level.  
 J / j = the associated numerical value is an estimated quantity based on data review or laboratory estimate above the MDL but below the MRL.  
 J- = Estimated detection with low bias  
 Total Xylenes calculated as sum of o-Xylene and m,p-Xylene detections. In case of non-detects, highest non-detect result shown.  
 U = not detected above associated method reporting limit.  
 UU = Compound was analyzed for, but not detected above the reporting limit. The reporting limit is an estimated value.

1,1-DCA = 1,1-dichloroethane.  
 1,1-DCE = 1,1-dichloroethene.  
 1,2,3-TCP = 1,2,3-trichloropropane.  
 1,2,4-TCB = 1,2,4-trichlorobenzene.  
 1,2,4-TMB = 1,2,4-trimethylbenzene.  
 1,2-DCA = 1,2-dichloroethane.  
 1,3,5-TMB = 1,3,5-trimethylbenzene.  
 cis-1,2-DCE = cis-1,2-dichloroethene.  
 PCE = tetrachloroethene.  
 TCE = trichloroethene.

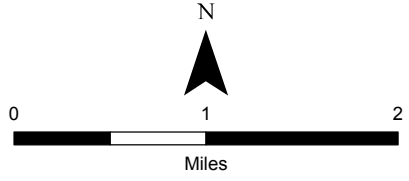
## FIGURES



DRAWN BY: Jake Sullivan  
M:\Projects\Univar\Kent WA 212th St S058\Maps\Annual Monitoring\_Report 2018\Figure 1 Site Location.mxd, REVISED: 03/25/2019, SCALE: 1:63,360 when printed at 8.5x11



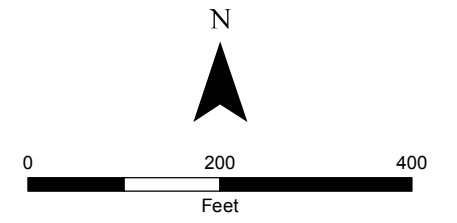
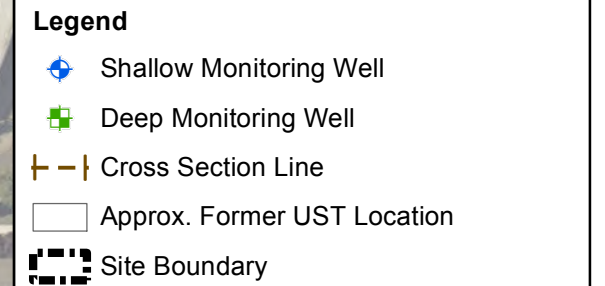
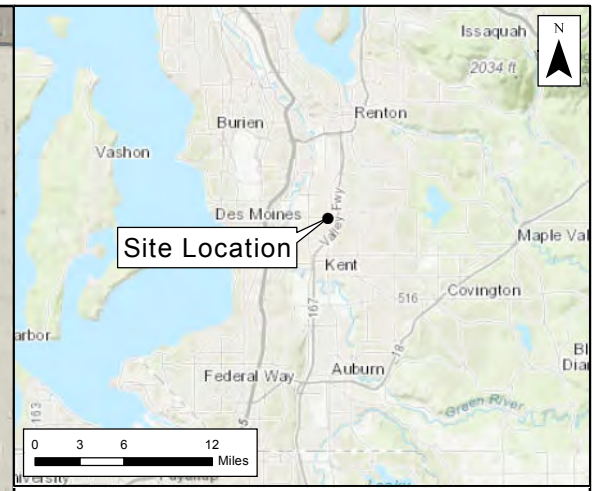
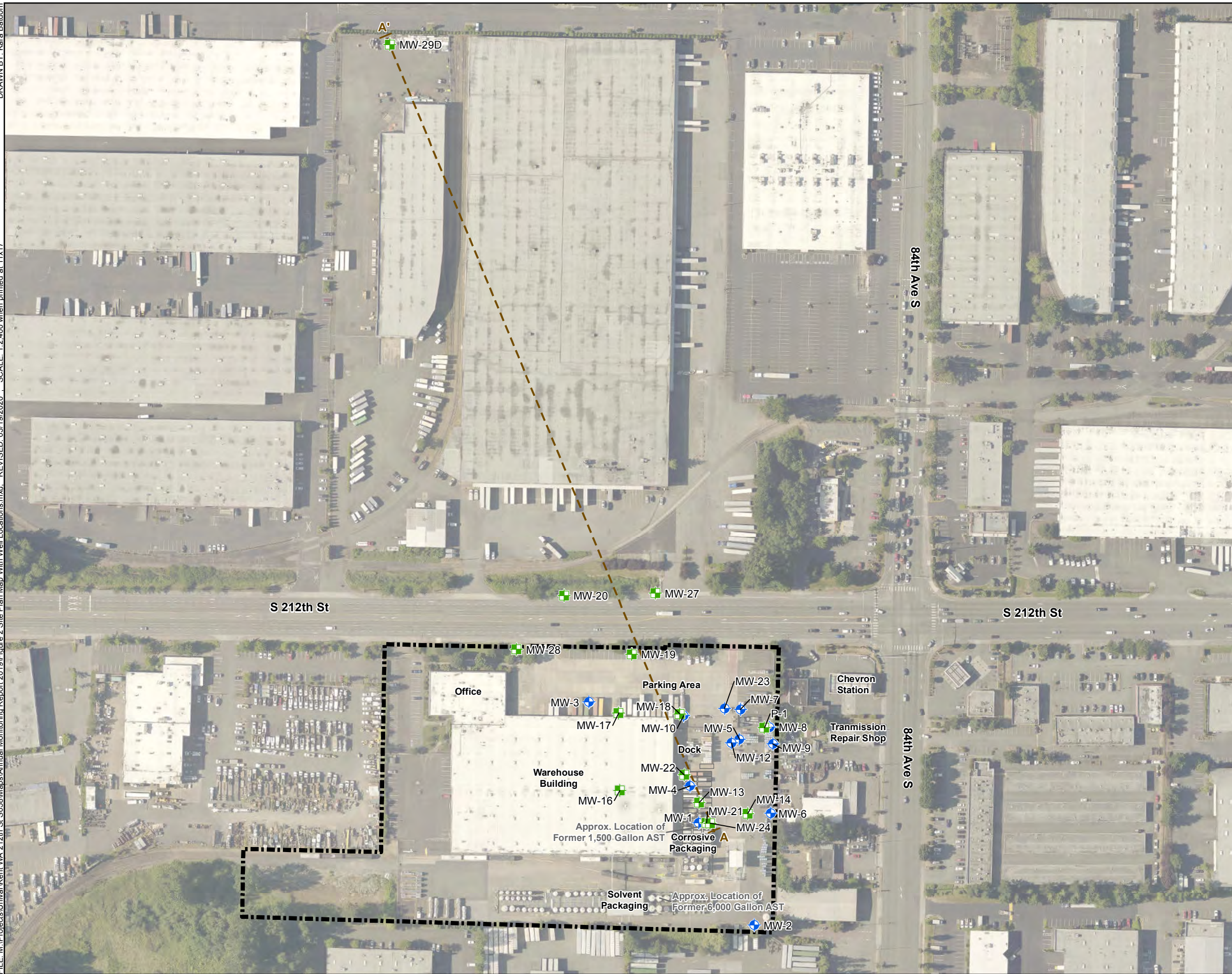
**Legend**  
■ Site Boundary



**Figure 1**  
**Site Location**  
Univar Solutions  
USA, Inc. 8201 S  
212th St Kent,  
Washington

Source: Esri - World Topographic Map; NAD 1983 StatePlane Washington North FIPS 4601 Feet

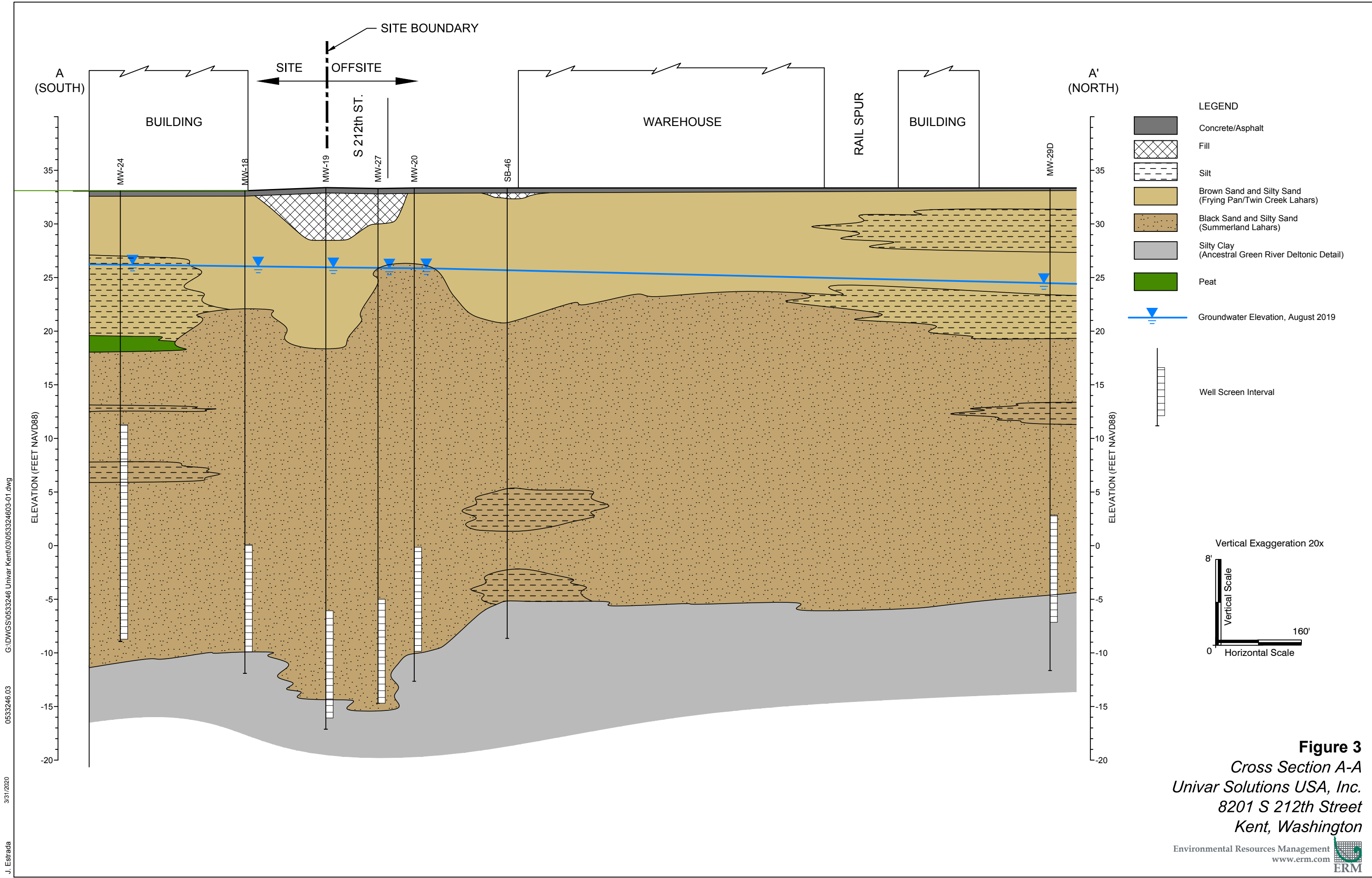




**Figure 2**  
**Site Plan Map**  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington

Source: King County aerial imagery, flown 2017, 3 inches per pixel; NAD 1983 StatePlane Washington North FIPS 4601 Feet

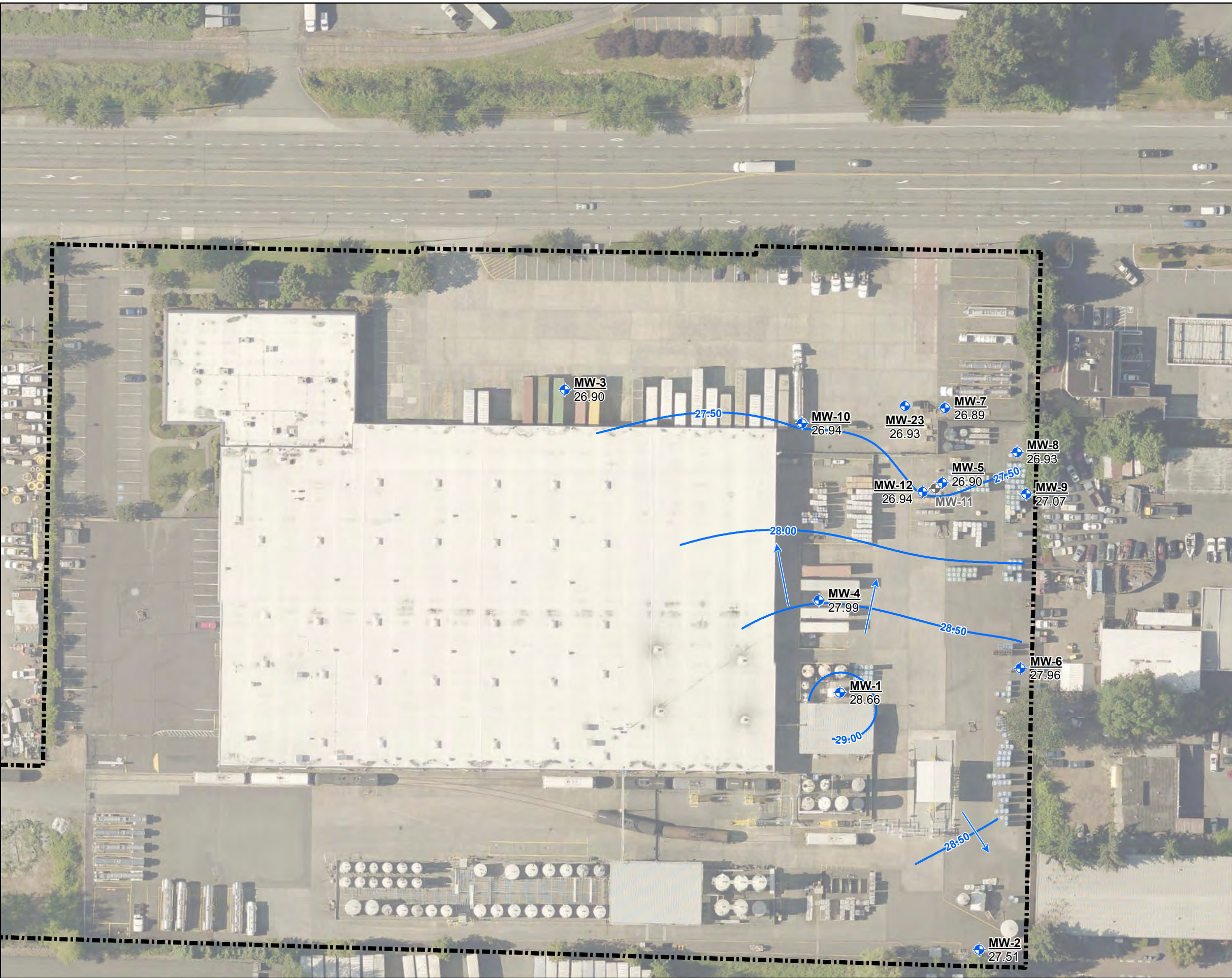




**Figure 3**  
 Cross Section A-A  
 Univar Solutions USA, Inc.  
 8201 S 212th Street  
 Kent, Washington

3/31/2020  
 J. Estrada  
 0533246.03  
 G:\DWGS\0533246 Univar Kent\03\053324603-01.dwg

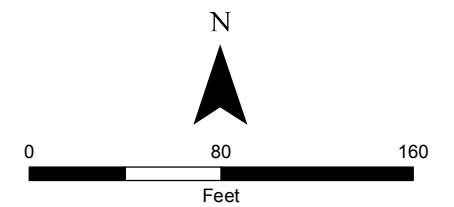




**Legend**

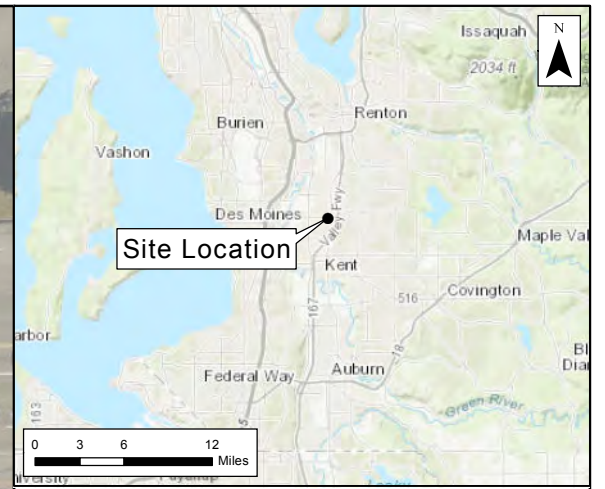
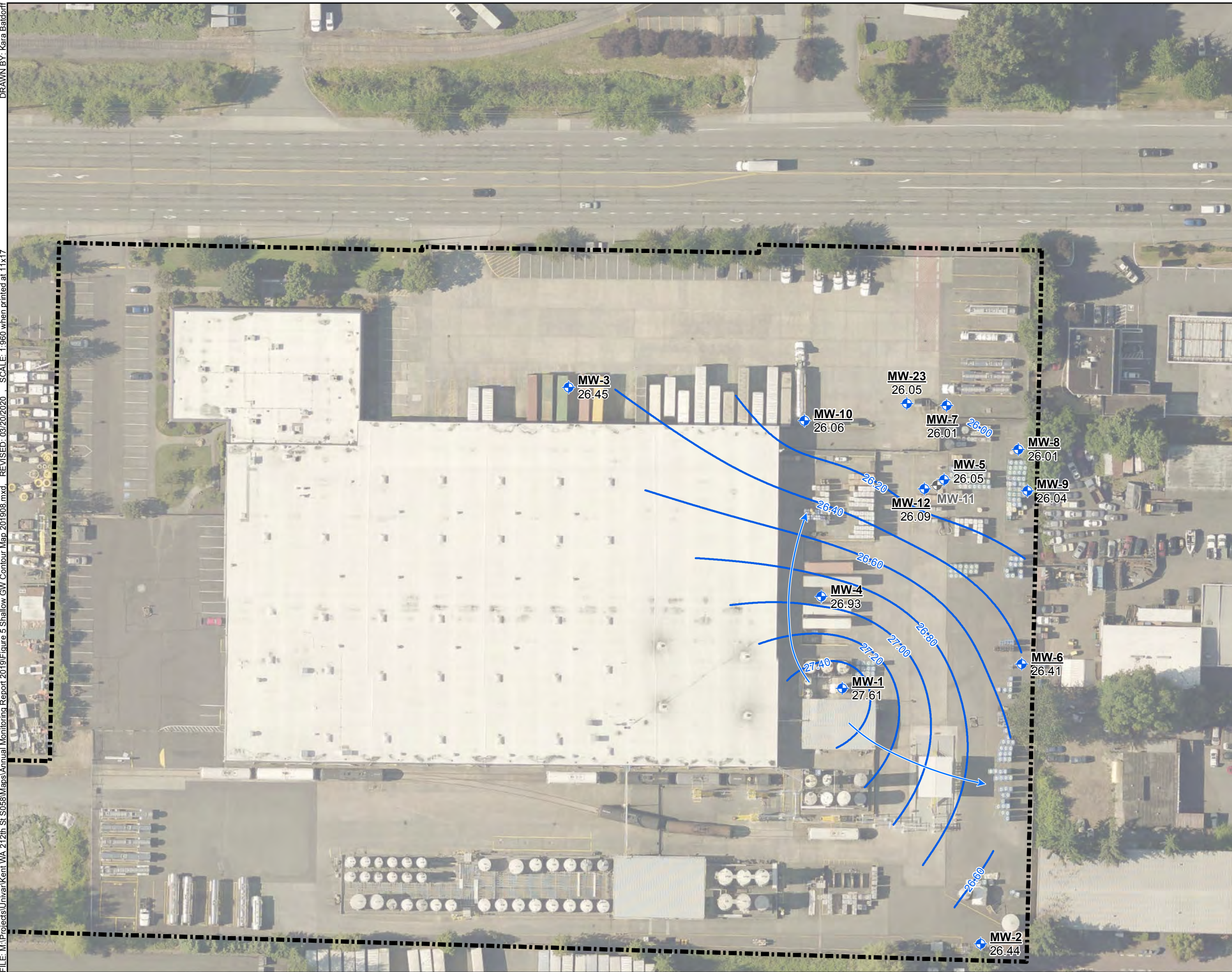
- Shallow Monitoring Well
- Abandoned Monitoring Well
- Flow Direction
- Groundwater Contour (0.20 ft)
- Site Boundary

Notes:  
 Groundwater elevations measured May 30, 2019.  
 All groundwater elevations given in North American Vertical Datum of 1988 (NAVD88) feet.



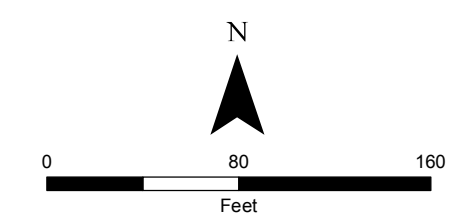
**Figure 4**  
**Shallow Groundwater**  
**Elevation Contours**  
 May 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





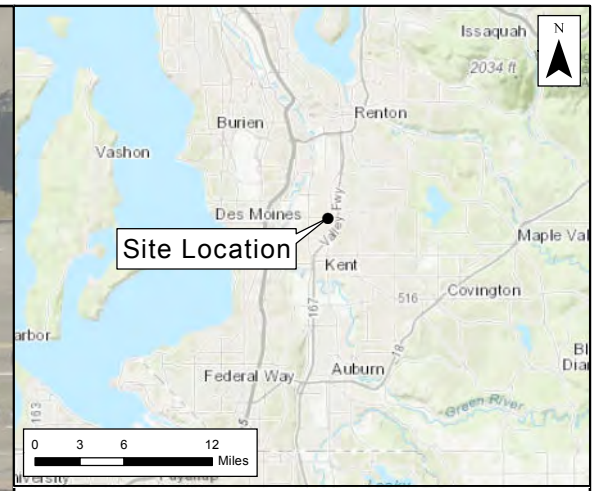
- Legend**
- ◆ Shallow Monitoring Well
  - ◆ Abandoned Monitoring Well
  - Flow Direction
  - Groundwater Contour (0.20 ft)
  - Site Boundary

Notes:  
 Groundwater elevations measured August 29, 2019.  
 All groundwater elevations given in North American Vertical Datum of 1988 (NAVD88) feet.



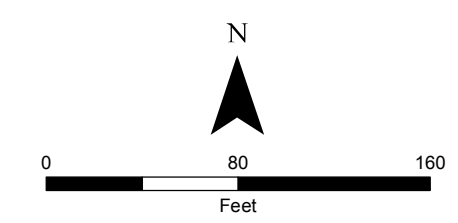
**Figure 5**  
**Shallow Groundwater**  
**Elevation Contours**  
 August 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





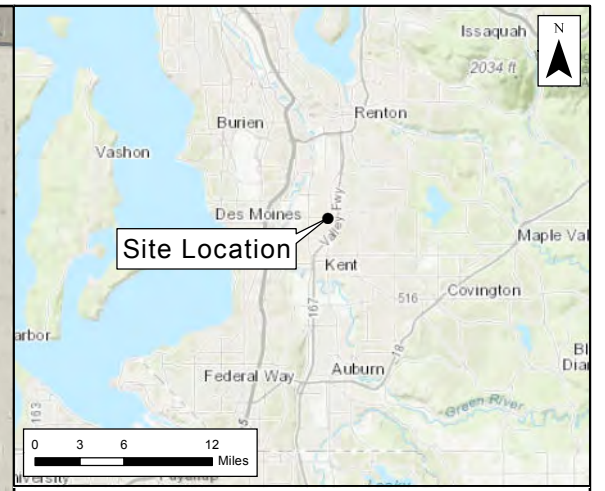
- Legend**
- Deep Monitoring Well
  - Flow Direction
  - Groundwater Contour (0.10 ft)
  - Site Boundary

**Notes:**  
 \* Data considered anomalous. Not used for contouring.  
 Groundwater elevations measured May 30, 2019.  
 All groundwater elevations given in North American Vertical Datum of 1988 (NAVD88) feet.



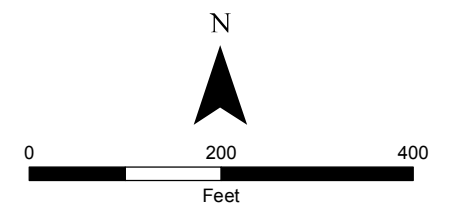
**Figure 6**  
**Deep Groundwater**  
**Elevation Contours**  
 May 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





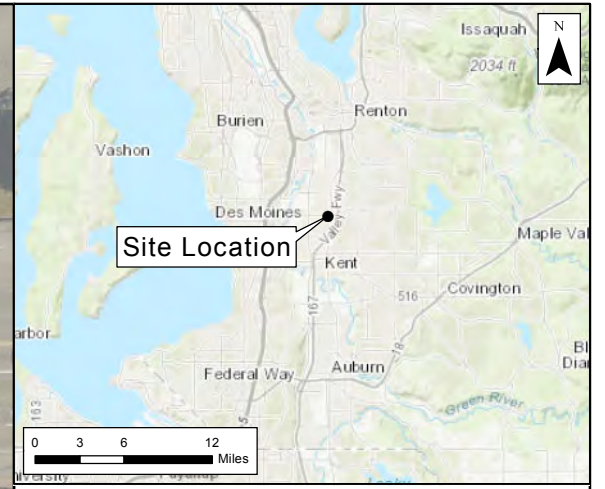
- Legend**
- Deep Monitoring Well
  - Groundwater Contour (0.1 ft)
  - Flow Direction
  - Site Boundary

**Notes:**  
 Groundwater elevations measured August 29, 2019 unless otherwise noted.  
 \*Groundwater elevation measured on August 30, 2019.  
 All groundwater elevations given in North American Vertical Datum 1988.



**Figure 7**  
**Deep Groundwater Elevation Contours**  
 August 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





- Legend**
- ◆ Shallow Monitoring Well
  - 1,1-Dichloroethane Isoconcentration Contour
  - Benzene Isoconcentration Contour
  - cDCE Isoconcentration Contour
  - PCE Isoconcentration Contour
  - TCE Isoconcentration Contour
  - VC Isoconcentration Contour
  - Site Boundary

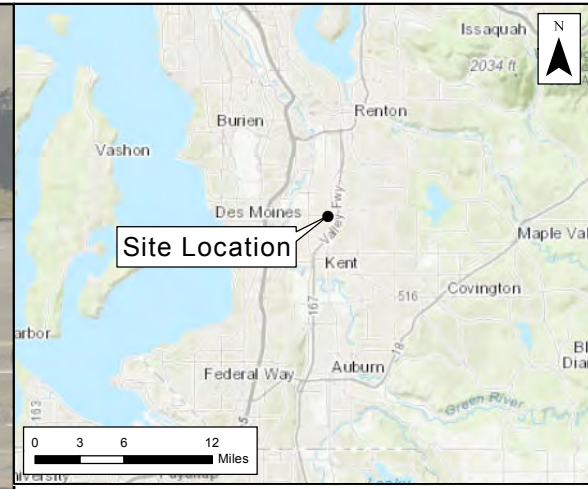
**Notes:**  
 Isoconcentration lines dashed where inferred.  
 Results in µg/L (micrograms per liter).  
 Samples collected May 30 through June 3, 2019.  
 Only chemicals detected above CUL levels are shown.  
 Isoconcentration lines developed using all data included in Table 5 of the 2018 Annual Groundwater Monitoring Report.

CUL: Cleanup Level  
 VOC: Volatile Organic Compound  
 1,1-DCA: 1,1-Dichloroethane  
 cDCE: cis-1,2-Dichloroethene  
 TCE: Trichloroethene  
 PCE: Tetrachloroethene  
 VC: Vinyl chloride

Cleanup Levels:  
 1,1-DCA: 7.7 µg/L  
 Benzene: 0.8 µg/L  
 cDCE: 16 µg/L  
 TCE: 0.54 µg/L  
 PCE: 5.0 µg/L  
 VC: 0.5 µg/L

**Figure 8**  
**VOC Concentrations in**  
**Shallow Groundwater**  
 June 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





**Legend**

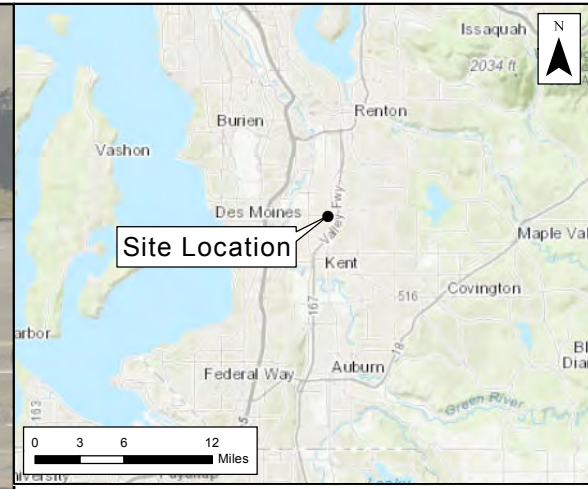
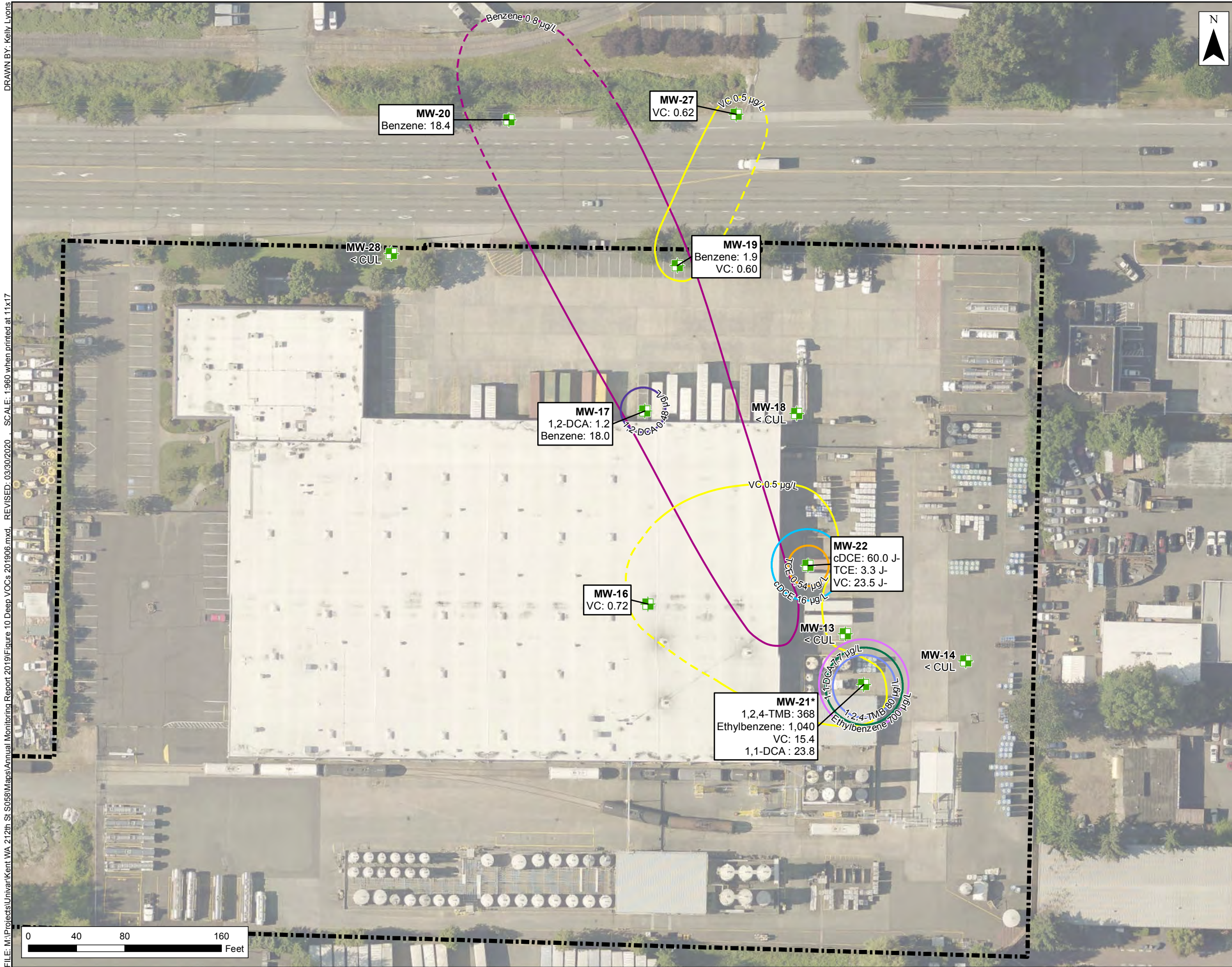
- ◆ Shallow Monitoring Well
- 1,1-Dichloroethane Isoconcentration Contour
- Benzene Isoconcentration Contour
- cDCE Isoconcentration Contour
- PCE Isoconcentration Contour
- TCE Isoconcentration Contour
- VC Isoconcentration Contour
- Site Boundary

**Notes:**  
 Isoconcentration lines dashed where inferred.  
 Results in µg/L (micrograms per liter).  
 Samples collected August 26-29, 2019.  
 Only chemicals detected above CUL levels are shown.  
 Isoconcentration lines developed using all data included in Table 5 of the 2018 Annual Groundwater Monitoring Report.  
 CUL: Cleanup Level  
 VOC: Volatile Organic Compound  
 1,1-DCA: 1,1-Dichloroethane  
 cDCE: cis-1,2-Dichloroethene  
 TCE: Trichloroethene  
 PCE: Tetrachloroethene  
 VC: Vinyl chloride  
 Cleanup Levels:  
 1,1-DCA: 7.7 µg/L  
 Benzene: 0.8 µg/L  
 cDCE: 16 µg/L  
 Ethylbenzene: 700 µg/L  
 TCE: 0.54 µg/L  
 PCE: 5.0 µg/L

**Figure 9**  
**VOC Concentrations in**  
**Shallow Groundwater**  
 August 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington

Source: King County aerial imagery, flown 2017, 3 inches per pixel; NAD 1983 StatePlane Washington North FIPS 4601 Feet





**Legend**

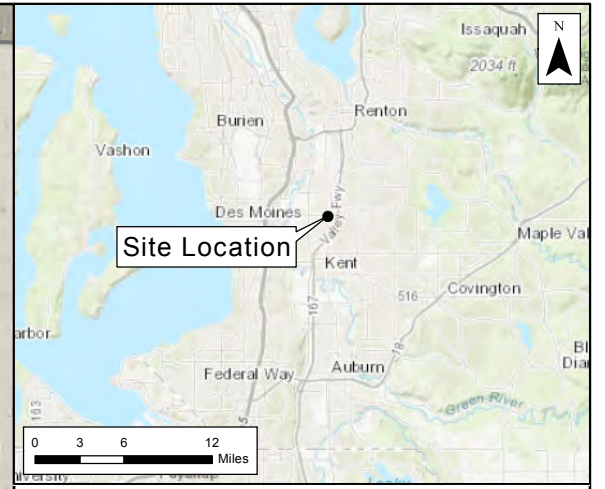
- Deep Monitoring Well
- 1,2,4-Trimethylbenzene Isoconcentration Contour
- 1,2-DCA Isoconcentration Contour
- Benzene Isoconcentration Contour
- Ethylbenzene Isoconcentration Contour
- TCE Isoconcentration Contour
- VC Isoconcentration Contour
- 1,1-DCA Isoconcentration Contour
- cDCE Isoconcentration Contour
- Site Boundary

**Notes:**  
 \*MW-21 has historically had benzene detections, and the MDL for benzene is above the isoconcentration line value.  
 J- = Estimated detection with low bias.  
 Isoconcentration lines dashed where inferred.  
 Results in µg/L (micrograms per liter).  
 Samples collected May 30 through June 3, 2019.  
 Only chemicals detected above CUL levels are shown.  
 Isoconcentration lines developed using all data included in Table 5 of the 2018 Annual Groundwater Monitoring Report.

|                                |                        |
|--------------------------------|------------------------|
| CUL: Cleanup Level             | Cleanup Levels:        |
| VOC: Volatile Organic Compound | 1,1-DCA: 7.7 µg/L      |
| 1,1-DCA: 1,1-Dichloroethane    | 1,2-DCA: 0.48 µg/L     |
| 1,2-DCA: 1,2-Dichloroethane    | 1,2,4-TMB: 80 µg/L     |
| 1,2,4-TMB:                     | Benzene: 0.8 µg/L      |
| 1,2,4-Trimethylbenzene         | cDCE: 16 µg/L          |
| cDCE: cis-1,2-Dichloroethene   | Ethylbenzene: 700 µg/L |
| TCE: Trichloroethene           | TCE: 0.54 µg/L         |
| VC: Vinyl chloride             | VC: 0.5 µg/L           |

**Figure 10**  
**VOC Concentrations in**  
**Deep Groundwater**  
 June 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington



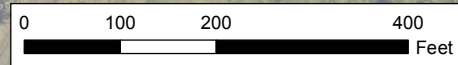


**Legend**

- Deep Monitoring Well
- 1,2,4-Trimethylbenzene Isoconcentration Contour
- Benzene Isoconcentration Contour
- cDCE Isoconcentration Contour
- Ethylbenzene Isoconcentration Contour
- VC Isoconcentration Contour
- Site Boundary

**Notes:**  
 J- = Estimated detection with low bias.  
 Isoconcentration lines dashed where inferred.  
 Results in µg/L (micrograms per liter).  
 Samples collected August 26-30, 2019.  
 Only chemicals detected above CUL levels are shown.  
 Isoconcentration lines developed using all data included in Table 5 of the 2018 Annual Groundwater Monitoring Report.  
 CUL: Cleanup Level  
 VOC: Volatile Organic Compound  
 1,2,4-TMB: 1,2,4-Trimethylbenzene  
 cDCE: cis-1,2-Dichloroethene  
 VC: Vinyl chloride  
 Cleanup Levels:  
 1,2,4-TMB: 80 µg/L  
 Benzene: 0.8 µg/L  
 cDCE: 16 µg/L  
 Ethylbenzene: 700 µg/L  
 VC: 0.5 µg/L

**Figure 11**  
**VOC Concentrations in**  
**Deep Groundwater**  
 August 2019  
 Univar Solutions USA, Inc.  
 8201 S 212th St  
 Kent, Washington





**APPENDIX A      WELL CONSTRUCTION LOG**



ERM-West, Inc.  
 1001 S.W. 5th Avenue, Suite 1010  
 Portland, Oregon 97204  
 Telephone: 503-488-5282

|   |   |
|---|---|
| <b>CLIENT</b> <u>Univar</u>   | <b>PROJECT NAME</b> <u>Univar Kent 212th</u>                                |
| <b>PROJECT NUMBER</b> <u>0487213</u>                                    | <b>PROJECT LOCATION</b> <u>8220 S 212th St Kent, WA</u>                     |
| <b>DATE STARTED</b> <u>8/7/19</u> <b>COMPLETED</b> <u>8/7/19</u>        | <b>GROUND ELEVATION</b> <u>30.416 feet</u> <b>HOLE SIZE</b> <u>8 inches</u> |
| <b>CONTRACTOR</b> <u>Cascade</u>  | <b>GROUND WATER LEVELS:</b>   |
| <b>EQUIPMENT</b> <u>Sonic</u>   | ▽ <b>AT TIME OF DRILLING</b> <u>10.00 ft / Elev 20.42 ft</u>                |
| <b>LOGGED BY</b> <u>M. Crandell</u> <b>CHECKED BY</b> <u>D. Edwards</u> | <b>AT END OF DRILLING</b> <u>---</u>  |
| <b>NOTES</b> <u>Vac cleared to 5 feet bgs. Ecology Well ID: BLZ 106</u> | <b>AFTER DRILLING</b> <u>---</u>  |

| DEPTH (ft) | SAMPLE IDENTIFICATION | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION   | PID (ppm) | WELL DIAGRAM                             |
|------------|-----------------------|----------|-------------|--|-----------|--|
| 0          |                       |          |             |  |           |  |
|            |                       |          |             | 0.3 3 inch asphalt slab. 30.2  |           |  |
|            | SM                    |          |             | Dark brown silty fine-medium SAND with sub-rounded fine gravel. Loose, slightly moist.                     | 15.9      | Flush-Mount Well Box with Cement Seal    |
|            |                       |          |             | 3.0  | 2.7       |  |
|            | ML                    |          |             | Very dark gray SILT, trace fine sand and angular fine gravel. Loose, moist.                                | 4.5       | Bentonite Cement Grout Seal              |
| 5          |                       |          |             | 6.0  | 5         |  |
|            | SM                    |          |             | Gray silty fine SAND, trace fine angular to sub-rounded gravel. Slightly stiff, moist.                     | 2.4       | 2 inch Schedule 40 PVC Black Well Casing |
|            |                       |          |             | 9.5  | 2.1       |  |
|            | SP                    |          |             | 9.8 Gray fine SAND. Loose, very moist.   | 20.9      |  |
| 10         |                       |          |             | 12.0   | 20.7      |  |
|            | SM                    |          |             | Gray silty fine SAND, trace fine angular to sub-rounded gravel. Slightly stiff, moist. Wet at 10 feet bgs. | 2.6       |  |
|            | ML                    |          |             | Very dark gray sandy SILT. Sand is fine. Stiff, slightly wet.  | 18.4      |  |
|            |                       |          |             | 14.5   | 2.7       |  |
| 15         | SM                    |          |             | Very dark gray silty fine SAND. Slightly stiff, wet.   | 15.9      |  |
|            |                       |          |             | 21.0   | 2.7       |  |
|            | ML                    |          |             | Dark bluish gray SILT with organic matter (plant roots), natural organic decay odor. Loose, wet.           | 9.4       |  |
|            |                       |          |             | 22.0   | 8.4       |  |
|            | SP                    |          |             | Dark gray medium SAND. Loose, wet.   | 2.5       |  |
| 25         |                       |          |             |  | 3         |  |

GENERAL BH / TP / WELL - GINT STD US.GDT - 10/2/19 13:20 - Q:\GENERAL\ADMIN\GINT\PROJECTS\UNIVAR KENT 212TH 08.2019.GPJ

(Continued Next Page)



ERM-West, Inc.  
 1001 S.W. 5th Avenue, Suite 1010  
 Portland, Oregon 97204  
 Telephone: 503-488-5282

**CLIENT** Univar **PROJECT NAME** Univar Kent 212th  
**PROJECT NUMBER** 0487213 **PROJECT LOCATION** 8220 S 212th St Kent, WA  
**DATE STARTED** 8/7/19 **COMPLETED** 8/7/19 **GROUND ELEVATION** 30.416 feet **HOLE SIZE** 8 inches  
**CONTRACTOR** Cascade **GROUND WATER LEVELS:**  
**EQUIPMENT** Sonic **∇ AT TIME OF DRILLING** 10.00 ft / Elev 20.42 ft  
**LOGGED BY** M. Crandell **CHECKED BY** D. Edwards **AT END OF DRILLING** ---  
**NOTES** Vac cleared to 5 feet bgs. Ecology Well ID: BLZ 106 **AFTER DRILLING** ---

GENERAL BH / TP / WELL - GINT STD US.GDT - 10/2/19 13:20 - Q:\GENERAL\ADMIN\GINT\PROJECTS\UNIVAR KENT 212TH 08.2019.GPJ

| DEPTH (ft) | SAMPLE IDENTIFICATION | U.S.C.S. | GRAPHIC LOG | MATERIAL DESCRIPTION   | PID (ppm) | WELL DIAGRAM  |
|------------|-----------------------|----------|-------------|--|-----------|---|
| 25         |                       |          |             |  |           |   |
| 25         |                       |          |             | Dark gray medium SAND. Loose, wet. (continued)<br>Sand is medium to coarse.              | 2.9       | <p>Labels in Well Diagram:<br/>           - Bentonite Seal (at 2.9 ft)<br/>           - Colorado 10/20 Silica Sand (between 2.9 and 3.3 ft)<br/>           - 2-inch 0.010" Slotted Screen Schedule 40 PVC (between 3.2 and 3.3 ft)<br/>           - Slough (at 10.1 ft)</p> |
| 30         |                       |          |             |  | 2.9       |   |
| 35         |                       | SP       |             |  | 3.3       |   |
| 40         |                       |          |             |  | 3.2       |   |
| 40         |                       |          |             |  | 3         |   |
| 40         |                       |          |             |  | 2.2       |   |
| 40         |                       | ML       |             | Medium brown SILT with clay, organic matter, and natural organic decay odor. Wet, stiff. | -9.6      |   |
| 43.0       |                       |          |             |  | 2.5       |   |
| 43.5       |                       | SM       |             | Medium gray silty fine SAND. Wet, slightly stiff.  | -12.6     |   |
| 43.5       |                       |          |             |  | -13.1     |   |
| 45         |                       | SP       |             | Medium gray fine SAND with silt. Wet, slightly stiff.                                    | 10.1      |   |
| 45.0       |                       |          |             |  | -14.6     |   |
|            |                       |          |             | Bottom of borehole at 45.0 feet.   | 13.5      |   |

Please print, sign and return by mail to Department of Ecology

**RESOURCE PROTECTION WELL REPORT**

CURRENT Notice of Intent No. RE18007

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

Construction/Decommission (select one)

Construction

Decommission ORIGINAL INSTALLATION Notice of Intent Number \_\_\_\_\_

Consulting Firm ERM

Unique Ecology Well ID \_\_\_\_\_

Tag No. BLZ 106

Type of Well (select one)

Resource Protection

Geotech Soil Boring

Property Owner Scott Seefeldt

Site Address 8220 South 212th Street

City Kent County King

Location ne 1/4-1/4 ne 1/4 Sec 12 Twn 22n R 4e Select One  EWA  WWA

Lat/Long (s, l, r still REQUIRED) Lat Deg \_\_\_\_\_ Lat Min/Sec \_\_\_\_\_

Long Deg \_\_\_\_\_ Long Min/Sec \_\_\_\_\_

Tax Parcel No. \_\_\_\_\_

Cased or Uncased Diameter 6 Static Level 12

Work/Decommission Start Date Aug 07 2019

Work/Decommission Completed Date Aug 07 2019

**WELL CONSTRUCTION CERTIFICATION:** I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Driller  Engineer  Trainee Name (Print) Daniel Rider

Driller/Engineer/Trainee Signature [Signature]

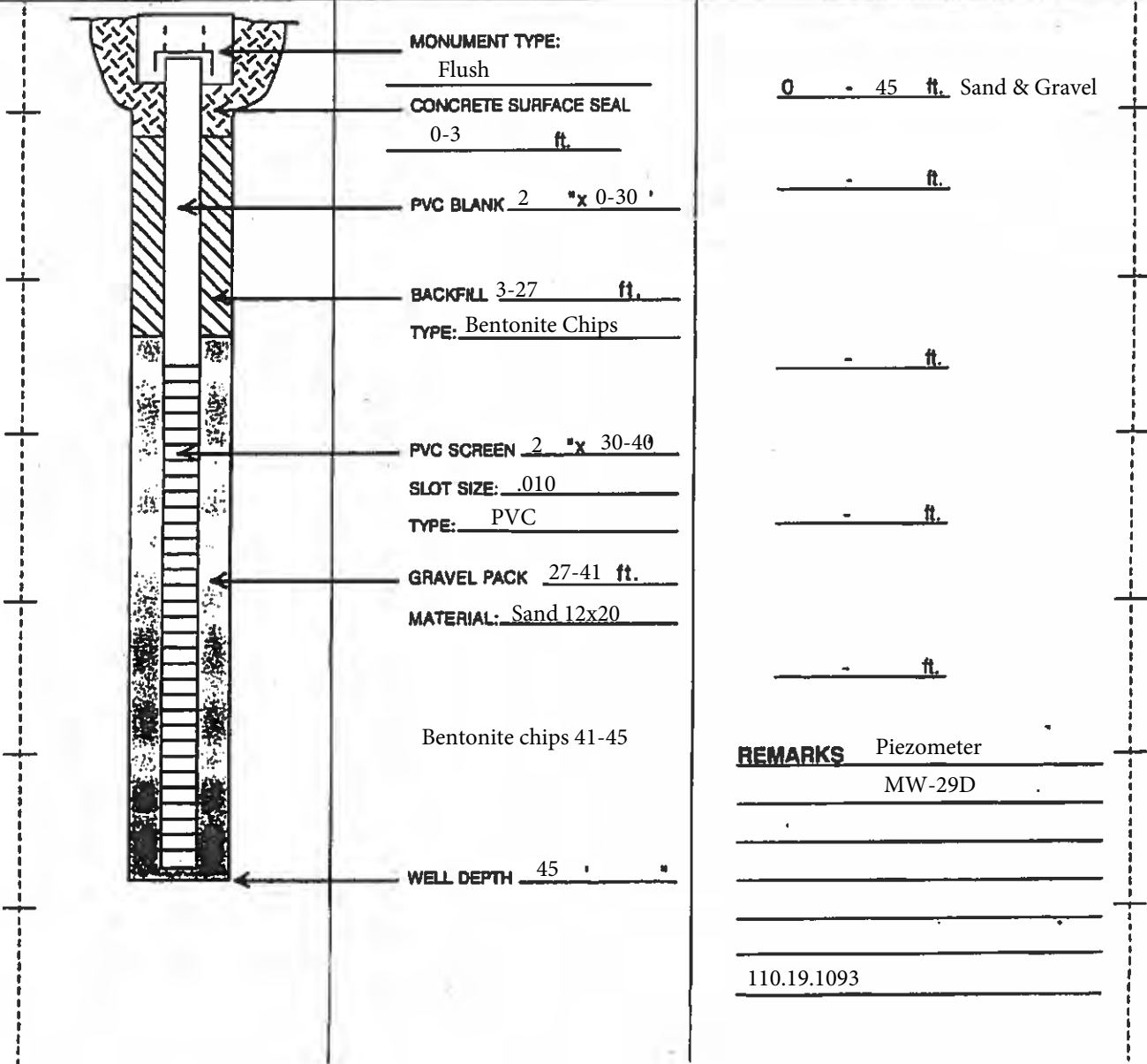
Driller or Trainee License No. 3223

If trainee, licensed driller's Signature and License No. \_\_\_\_\_

Construction/Design

Well Data

Formation Description



MONUMENT TYPE: Flush

CONCRETE SURFACE SEAL 0-3 ft.

PVC BLANK 2 "x 0-30 '

BACKFILL 3-27 ft. TYPE: Bentonite Chips

PVC SCREEN 2 "x 30-40 ' SLOT SIZE: .010 TYPE: PVC

GRAVEL PACK 27-41 ft. MATERIAL: Sand 12x20

Bentonite chips 41-45

WELL DEPTH 45 ' "

0 - 45 ft. Sand & Gravel

- ft.

- ft.

- ft.

- ft.

REMARKS Piezometer MW-29D

110.19.1093



## **APPENDIX B      FIELD FORMS**



ERM - Purge Log

Project Name:  
Project Number:

Date: 05/31/19  
Set up time: 1259  
Weather: Sunny  
Field Staff: AL

Well # MW-1

Sample ID: MW-1-053119

Location: Near Tank Farm  
Construction: 2" PVC  
Groundwater Zone: Shallow

Construction Depth: 19  
Screened Interval: 4-19  
Pump Intake Depth: 11'

Purge Start Time: 1306  
Discharge Rate: 200  
Purge End Time: 1329

Depth to Water: 4.44  
Height of Water Column:  
Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1306 |             | 4.44                     | —     | —    | —          | —           | —     | —            | —               | clear          |
| 1316 |             | 4.82                     | 16.14 | 6.76 | 1.206      | 0.33        | -47.5 | 0.60         | 4.08            | no odor        |
| 1319 |             | 5.00                     | 16.44 | 6.76 | 1.206      | 0.04        | -47.3 | 0.60         | 2.62            |                |
| 1322 |             | 5.09                     | 16.59 | 6.77 | 1.206      | 0.08        | -47.2 | 0.60         | 2.79            |                |
| 1325 |             | 5.15                     | 16.69 | 6.77 | 1.208      | 0.06        | -47.0 | 0.60         | 3.97            |                |
| 1327 |             | 5.15                     | 16.57 | 6.78 | 1.211      | 0.06        | -46.8 | 0.60         | 3.67            |                |
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Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox or alconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s):



**ERM - Purge Log**

Project Name:  
Project Number:

Date: 05/31/19  
Set up time: 1122  
Weather: Cloudy  
Field Staff: AL

Well # MW-4

Sample ID: MW-4-053119

Location: Near West of Warehouse Construction Depth: 14.5'  
Construction: 2" PVC Screened Interval: 4.5-14.5'  
Groundwater Zone: shallow Pump Intake Depth: 10'

Purge Start Time: 1127  
Discharge Rate: 200  
Purge End Time:

Depth to Water: 4.9'  
Height of Water Column:  
Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1127 |             | 4.91                     | -     | -    | -          | -           | -     | -            | -               |                |
| 1137 |             | 5.19                     | 15.05 | 6.79 | 0.956      | 0.15        | -47.7 | 0.47         | 2.65            |                |
| 1140 |             | 5.22                     | 15.33 | 6.79 | 0.953      | 0.15        | -47.7 | 0.47         | 2.65            |                |
| 1143 |             | 5.29                     | 15.49 | 6.80 | 0.958      | 0.21        | -47.6 | 0.48         | 2.28            |                |
| 1146 |             | 5.35                     | 15.75 | 6.90 | 0.957      | 0.14        | -47.6 | 0.48         | 1.92            |                |
| 1149 |             | 5.42                     | 15.81 | 6.80 | 0.957      | 0.11        | -47.5 | 0.47         | 2.83            |                |
| 1151 |             | 5.43                     | 15.79 | 6.80 | 0.958      | 0.11        | -47.5 | 0.48         |                 |                |
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Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

MS/MSD

Sampler Signature(s):



**ERM - Purge Log**

Project Name:  
Project Number:

Date: \_\_\_\_\_  
Set up time: \_\_\_\_\_  
Weather: \_\_\_\_\_  
Field Staff: \_\_\_\_\_

Well # 5

Sample ID: MW-5-053019

Location: NW corner  
Construction: 2" PVC  
Groundwater Zone: shallow

Construction Depth: 14'  
Screened Interval: 4-14'  
Pump Intake Depth: 10'

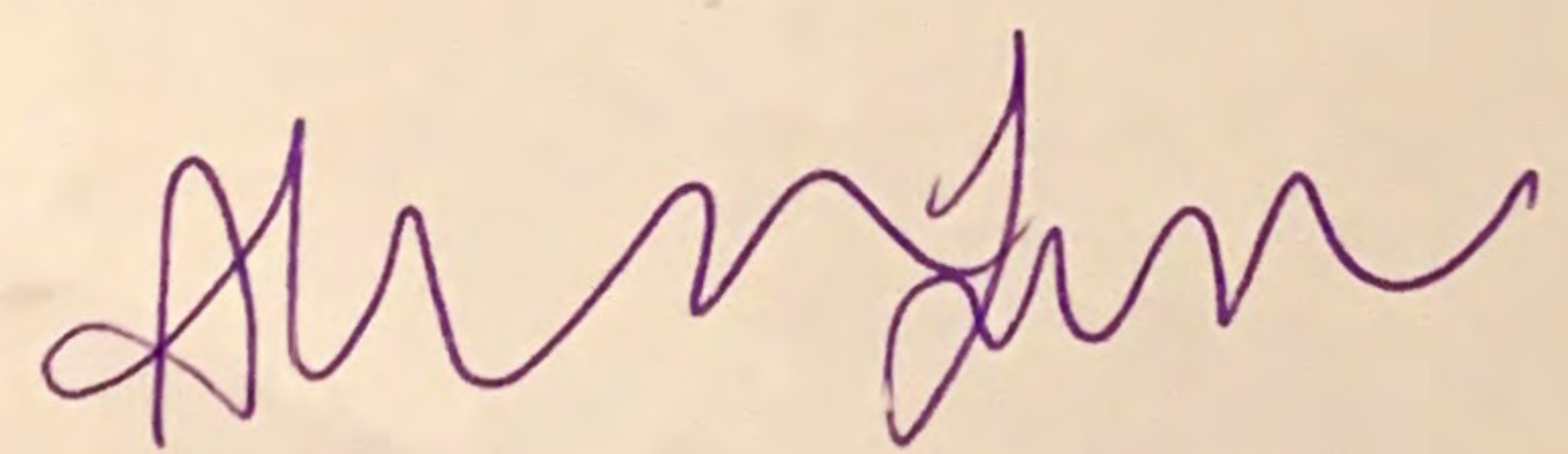
Purge Start Time: 1540  
Discharge Rate: 200  
Purge End Time: \_\_\_\_\_

Depth to Water: 5.70  
Height of Water Column: \_\_\_\_\_  
Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1540 |             | 5.70                     | —     | —    | —          | —           | —     | —            | —               |                |
| 1550 |             | 5.90                     | 17.44 | 6.14 | 0.20       | 0.52        | -42.5 | 0.10         | 10.0            |                |
| 1603 |             | 5.92                     | 16.89 | 6.12 | 0.200      | 0.31        | -42.1 | 0.09         | 5.81            |                |
| 1606 |             | 5.92                     | 16.95 | 6.12 | 0.199      | 0.27        | -44.6 | 0.09         | 4.74            |                |
| 1609 |             | 5.92                     | 16.87 | 6.12 | 0.200      | 0.13        | -41.4 | 0.09         | 4.24            |                |
| 1611 |             | 5.94                     | 16.95 | 6.12 | 0.200      | 0.13        | -41.3 | 0.09         | 3.90            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

MW 1613      PID - 0.00 ppm

Sampler Signature(s):  




**ERM - Purge Log**

Project Name: Kent 1907B  
 Project Number: 6487093

Date: 05/31/19  
 Set up time: 0715  
 Weather: cloudy  
 Field Staff: AL

Well # MW-3

Sample ID: MW-3-053119

Location: Near office  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 19'  
 Screened Interval: 4-79'  
 Pump Intake Depth: 12.5'

Purge Start Time: 0720  
 Discharge Rate:  
 Purge End Time: 0749

Depth to Water: 6.11  
 Height of Water Column:  
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0728 |             | 6.11                     | -     | -    | -          | -           | -     | -            | -               | Slight         |
| 0735 |             | 6.13                     | 13.99 | 6.75 | 0.543      | 0.28        | -48.2 | 0.26         | 0.79            | yellow tint    |
| 0739 |             | 6.14                     | 14.07 | 6.75 | 0.549      | 0.22        | -48.2 | 0.27         | 1.59            | no odor        |
| 0741 |             | 6.14                     | 14.13 | 6.76 | 0.555      | 0.22        | -48.4 | 0.27         | 1.52            |                |
| 0744 |             | 6.14                     | 14.09 | 6.76 | 0.558      | 0.23        | -48.5 | 0.27         | 0.70            |                |
| 0747 |             | 6.14                     | 13.95 | 6.76 | 0.563      | 0.16        | -48.6 | 0.27         | 1.58            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

DUP-1-053119

PID - 0.00 ppm

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487043

Date: 05/30/19  
 Set up time: 1452  
 Weather: Sunny  
 Field Staff: AL, ML

Well # MW-08

Sample ID: MW-8-053019

Location: 212B Street  
 Construction: 2" PVC  
 Groundwater Zone: Shallow

Construction Depth: 14'  
 Screened Interval: 4-14  
 Pump Intake Depth: 11'

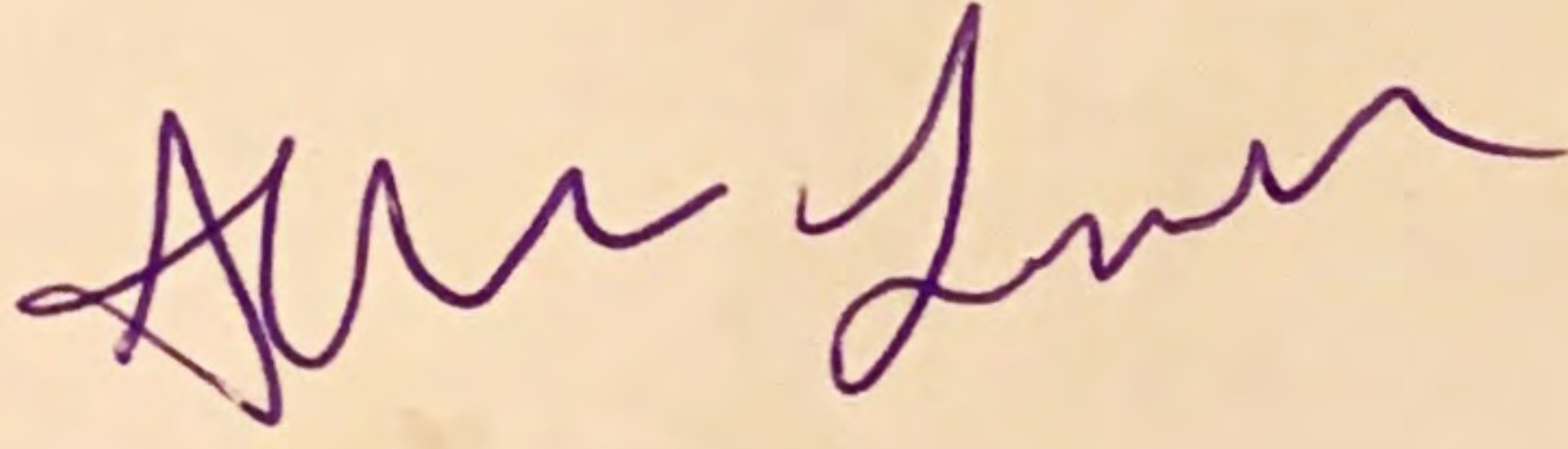
Purge Start Time: 1500  
 Discharge Rate: ?  
 Purge End Time: 1527

Depth to Water: 6.64  
 Height of Water Column:   
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1500 |             | 6.64                     | —     | —    | —          | —           | —     | —            | —               |                |
| 1512 |             | 7.59                     | 15.05 | 6.09 | 0.389      | 1.55        | -42.4 | 0.14         | 4.43            |                |
| 1517 |             | 7.70                     | 15.65 | 6.11 | 0.403      | 1.14        | -42.5 | 0.14         | 2.37            |                |
| 1520 |             | 7.70                     | 15.44 | 6.11 | 0.404      | 0.99        | -42.4 | 0.20         | 2.39            |                |
| 1523 |             | 7.70                     | 15.97 | 6.10 | 0.413      | 0.58        | -42.4 | 0.20         | 1.31            |                |
| 1526 |             | 7.70                     | 15.75 | 6.10 | 0.411      | 0.51        | -42.3 | 0.20         | 2.05            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

MW-8- 1529      PID - 0.00 ppm

Sampler Signature(s):  




**ERM - Purge Log**

Project Name:  
Project Number:

Date: 05/31/19  
Set up time: 1435  
Weather: Sunny  
Field Staff:

Well # MW-9-

Sample ID: MW-9-053119

Location: NW corner near Fence Construction Depth: 15'  
Construction: 2" PVC Screened Interval: 5-15'  
Groundwater Zone: shallow Pump Intake Depth: 10'

Purge Start Time: 1446  
Discharge Rate:  
Purge End Time:

Depth to Water: 6.71  
Height of Water Column:  
Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1446 |             | 6.71                     | -     | -    | -          | -           | -     | -            | -               | orange         |
| 1456 |             | 7.00                     | 15.62 | 6.14 | 0.320      | 0.13        | -45.3 | 0.15         | 70.4            | Flouring       |
| 1459 |             | 7.00                     | 15.93 | 6.16 | 0.324      | 0.07        | -45.3 | 0.16         | 61.8            | particles      |
| 1502 |             | 7.00                     | 15.64 | 6.24 | 0.324      | 0.07        | -45.4 | 0.16         | 20.5            |                |
| 1505 |             | 7.00                     | 15.67 | 6.26 | 0.340      | 0.04        | -45.7 | 0.17         | 12.8            |                |
| 1508 |             | 7.00                     | 15.92 | 6.27 | 0.351      | 0.04        | -45.9 | 0.17         | 39.9            |                |
| 1510 |             | 7.00                     | 15.66 | 6.79 | 0.357      | 0.04        | -46.0 | 0.17         | 24.7            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s):



**ERM - Purge Log**

Project Name: 0 Kent 212m  
 Project Number: 0487093

Date: 05/31/  
 Set up time: 0936  
 Weather: cloudy  
 Field Staff:

Well # MW-7

Sample ID: MW-7-053119

Location: NW corner of site Construction Depth: 14.5'  
 Construction: 2" PVC Screened Interval: 4.5-14.5'  
 Groundwater Zone: shallow Pump Intake Depth: 11

Purge Start Time: 0945  
 Discharge Rate: 200  
 Purge End Time:

Depth to Water: 6.10  
 Height of Water Column:  
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0945 |             | 6.10                     | -     | -    | -          | -           | -     | -            | -               | clear          |
| 0955 |             | 6.20                     | 14.42 | 6.29 | 0.221      | 0.72        | -45.3 | 0.11         | 3.35            | odorless       |
| 1000 |             | 6.20                     | 14.30 | 6.29 | 0.221      | 0.42        | -45.3 | 0.11         | 1.97            |                |
| 1003 |             | 6.20                     | 14.78 | 6.29 | 0.225      | 0.31        | -45.3 | 0.11         | 1.48            |                |
| 1006 |             | 6.20                     | 14.22 | 6.29 | 0.222      | 0.23        | -45.3 | 0.11         | 1.29            |                |
| 1009 |             | 6.20                     | 14.32 | 6.29 | 0.288      | 0.14        | -45.2 | 0.11         | 1.31            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PIP-0.0 ppm

Sampler Signature(s):



**ERM - Purge Log**

**Project Name:**

**Project Number:**

Date: \_\_\_\_\_

Set up time: 0915

Weather: \_\_\_\_\_

Field Staff: \_\_\_\_\_

**Well #** MW-12

**Sample ID:** MW-12-080319

Location: Near warehouse Construction Depth: 11 20'

Construction: 2" PVC Screened Interval: 5-20

Groundwater Zone: shallow Pump Intake Depth: 12'

Purge Start Time: 0925

Discharge Rate: 200

Purge End Time: \_\_\_\_\_

Depth to Water: 5.91

Height of Water Column: \_\_\_\_\_

Volume of one casing: \_\_\_\_\_

| Time           | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|----------------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0925           |             | 5.91                     | -     | -    | -          | -           | -     | -            | -               | clear          |
| 0934           |             | 6.10                     | 14.88 | 6.73 | 0.774      | 0.80        | -41.0 | 0.13         | 10.30           | no odor        |
| 0937           |             | 6.10                     | 15.08 | 6.24 | 0.771      | 0.49        | -44.0 | 0.13         | 6.71            |                |
| 0940           |             | 6.10                     | 15.07 | 6.24 | 0.771      | 0.40        | -44.0 | 0.13         | 5.07            |                |
| 0943           |             | 6.10                     | 15.16 | 6.24 | 0.770      | 0.34        | -44.0 | 0.13         | 5.96            |                |
| 0947           |             | 6.10                     | 15.05 | 6.24 | 0.269      | 0.23        | -44.0 | 0.13         | 4.50            |                |
| <hr/>          |             |                          |       |      |            |             |       |              |                 |                |
| <u>MW-6102</u> |             | 5.22                     | -     | -    | -          | -           | -     | -            | -               |                |
| 1017           |             | 5.46                     | 14.58 | 6.25 | 0.542      | 0.52        | -46.9 | 0.26         | 4.61            |                |
| 1015           |             | 5.54                     | 14.76 | 6.26 | 0.540      | 0.41        | -47.1 | 0.26         | -               |                |
| 1018           |             | 5.54                     | 15.00 | 6.27 | 0.540      | 0.27        | -47.3 | 0.26         | 6.94            |                |
| 1021           |             | 5.54                     | 15.16 | 6.27 | 0.541      | 0.25        | -47.4 | 0.26         | 6.03            |                |
| 1024           |             | 5.54                     | 15.34 | 6.27 | 0.541      | 0.28        | -47.5 | 0.26         | 6.61            |                |
| 1027           |             | 5.54                     | 15.36 | 6.27 | 0.542      | 0.23        | -47.5 | 0.28         | 6.12            |                |

20' intake  
 0958  
 1002  
 10.5'

Disposal method of purge water: 55-gallon drum

Decontamination procedure: Liquinox oralconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

DUP-12

Sampler Signature(s):



**ERM - Purge Log**

Project Name: ~~018~~ Kent 212th  
 Project Number: 0407093

Date: 05/31/19  
 Set up time: 1341  
 Weather: Sunny  
 Field Staff: AL

Well # MW-13

Sample ID: MW-13-053119

Location: near Farm Tank  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 44'  
 Screened Interval: 39'-44'  
 Pump Intake Depth: 41'

Purge Start Time: 1357  
 Discharge Rate: 2.00  
 Purge End Time: 1420

Depth to Water: 5.78  
 Height of Water Column:  
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L)    | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|----------------|-------|--------------|-----------------|----------------|
| 1351 |             | 5.78                     | -     | -    | -          | -              | -     | -            | -               | clear          |
| 1401 |             | 6.00                     | 16.02 | 6.28 | 0.744      | 156            | -45.7 | 0.37         | 3.67            | slight         |
| 1406 |             | 6.00                     | 16.95 | 6.27 | 0.741      | <del>156</del> | -46.7 | 0.36         | 5.51            | smell          |
| 1409 |             | 6.00                     | 17.12 | 6.27 | 0.741      | 0.52           | -46.9 | 0.36         | 5.14            |                |
| 1412 |             | 6.00                     | 17.06 | 6.28 | 0.739      | 0.55           | -46.9 | 0.36         | 7.75            |                |
| 1415 |             | 6.00                     | 17.06 | 6.28 | 0.737      | 0.54           | -46.9 | 0.36         | 5.82            |                |
| 1417 |             | 6.00                     | 16.94 | 6.27 | 0.736      | 0.54           | -46.9 | 0.36         | 9.11            |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |
|      |             |                          |       |      |            |                |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

No PID

Sampler Signature(s):



# ERM - Purge Log

Project Name:  
Project Number:

Date: 06/03/19  
Set up time: 1035  
Weather: cloudy  
Field Staff: AL

Well # MW-14

Sample ID: MW-14-060319

Location:  
Construction: 2" PVC  
Groundwater Zone: near cugh strata deep

Construction Depth: 34' 32"  
Screened Interval: 21' - 22' 32"  
Pump Intake Depth: 30'

Purge Start Time: 1053  
Discharge Rate: 200  
Purge End Time:

Depth to Water: 5.58  
Height of Water Column:  
Volume of one casing:

| Time      | Volume (mL) | Depth to Water (ft btoc) | Temp.        | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbity (ntu) | Color and Odor |
|-----------|-------------|--------------------------|--------------|------|------------|-------------|-------|--------------|---------------|----------------|
| 1053      |             | 5.58                     | -            | -    | -          | -           | -     | -            | -             | clear          |
| 1103      |             | 5.58                     | 15.30        | 6.34 | 0.568      | 0.53        | -46.9 | 0.28         | 4.82          | no odor        |
| 1106      |             | 5.60                     | 15.19        | 6.35 | 0.573      | 0.21        | -47.4 | 0.28         | 4.77          |                |
| 1109      |             | 5.60                     | 15.04        | 6.35 | 0.574      | 0.16        | -47.5 | 0.28         | 6.17          |                |
| 1111      |             | 5.60                     | 15.23        | 6.35 | 0.573      | 0.15        | -47.6 | 0.28         | 5.11          |                |
| 1114      |             | 5.60                     | 15.23        | 6.35 | 0.573      | 0.15        | -47.6 | 0.28         |               |                |
|           |             |                          | sampled 1116 |      |            |             |       |              |               |                |
| <hr/>     |             |                          |              |      |            |             |       |              |               |                |
| 1129 MW-2 |             | 6.40                     | -            | -    | -          | -           | -     | -            | -             | 14 ft intake   |
| 1139      |             | 6.91                     | 14.95        | 6.77 | 0.485      | 0.42        | -47.9 | 0.24         | 6.01          |                |
| 1142      |             | 7.07                     | 14.99        | 6.28 | 0.482      | 0.26        | -48.0 | 0.24         | 3.50          |                |
| 1145      |             | 7.09                     | 15.03        | 6.24 | 0.473      | 0.10        | -48.1 | 0.23         | 3.38          |                |
| 1148      |             | 7.22                     | 14.98        | 6.36 | 0.468      | 0.14        | -48.1 | 0.23         | 2.68          |                |
| 1151      |             | 7.31                     | 15.12        | 6.28 | 0.452      | 0.08        | -48.1 | 0.22         | 2.97          |                |
| 1154      |             | 7.35                     | 15.14        | 6.28 | 0.446      | 0.13        | -48.1 | 0.22         | 2.37          |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s):



# ERM - Purge Log

Project Name:  
Project Number:

Date:  
Set up time: 1220  
Weather:  
Field Staff:

Well # MW-16

Sample ID: MW-16-060319

Location: inside warehouse  
Construction: 2" PVC  
Groundwater Zone: Deep

Construction Depth: 47'  
Screened Interval: 37-47'  
Pump Intake Depth: 42.5'

Purge Start Time: 1233  
Discharge Rate:  
Purge End Time:

Depth to Water: 10  
Height of Water Column:  
Volume of one casing:

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp.  | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|-------|-------------|--------------------------|--------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1233  |             | 10.00                    | -      | -    | -          | -           | -     | -            | -               | clear no       |
| 1243  |             | 10.02                    | 13.806 | 6.19 | 0.798      | 0.71        | 47.4  | 0.39         | 4.11            | odor           |
| 1246  |             | 10.02                    | 13.86  | 6.18 | 0.810      | 0.36        | 48.0  | 0.40         | 3.70            |                |
| 1249  |             | 10.02                    | 13.81  | 6.27 | 0.814      | 0.19        | 48.4  | 0.40         | 4.76            |                |
| 1252  |             | 10.02                    | 13.76  | 6.21 | 0.817      | 0.20        | 48.5  | 0.40         | 5.87            |                |
| 1255  |             | 10.02                    | 13.77  | 6.21 | 0.817      | 0.18        | 48.6  | 0.40         | 6.61            |                |
|       |             | sample                   | 1258   |      |            |             |       |              |                 |                |
| ~~~~~ |             |                          |        |      |            |             |       |              |                 |                |
| 1327  | MW-20       | 7.89                     | -      | -    | -          | -           | -     | -            | -               | 40 m turbid    |
| 1337  |             | 8.00                     | 15.12  | 6.43 | 0.874      | 0.20        | 48.3  | 0.43         | 20.2            | cloudy         |
| 1340  |             | 8.00                     | 15.12  | 6.44 | 0.871      | 0.10        | 48.3  | 0.43         | 10.60           | slight yellow  |
| 1343  |             | 8.00                     | 15.03  | 6.44 | 0.869      | 0.11        | 48.4  | 0.43         | 10.50           | trnt           |
| 1346  |             | 8.00                     | 15.24  | 6.44 | 0.864      | 0.09        | 48.4  | 0.43         | 9.52            |                |
| 1349  |             | 8.00                     | 15.16  | 6.44 | 0.859      | 0.07        | 48.4  | 0.42         | 20.0            |                |
| 1352  |             | 8.00                     | 15.21  | 6.45 | 0.855      | 0.08        | 48.4  | 0.42         | 21.3            |                |
| 1357  |             | 8.00                     | 15.35  | 6.45 | 0.846      | 0.07        | 48.4  | 0.42         | 23.0            |                |
|       |             |                          |        | 125  |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s):







ERM - Purge Log

Project Name: Univar Kerst  
Project Number:

Date: 5/30/19  
Set up time: 1250  
Weather: Sun, warm  
Field Staff: NC

Well # MW-18-08

Sample ID: MW-18-053019

Location: N Parking lot  
Construction: 2" PVC  
Groundwater Zone: Deep

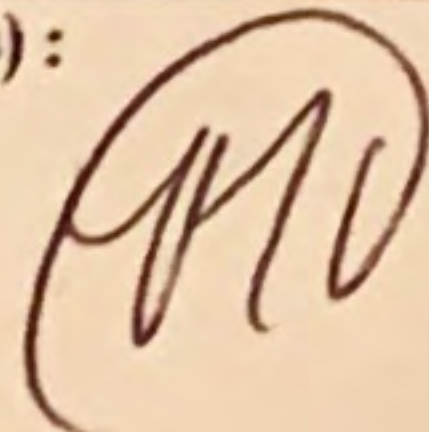
Construction Depth: 43.5'  
Screened Interval: 34-43.5'  
Pump Intake Depth: 39'  
TD = 42.69'

Purge Start Time: 1256  
Discharge Rate: 250  
Purge End Time: 1326

Depth to Water: 5.80'  
Height of Water Column: 37.7'  
Volume of one casing: 6.5 gallon

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox  | Salinity (ppt) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|--------|----------------|-----------------|----------------|
| 1304 | 280         | 5.80                     | 18.04 | 6.38 | 0.686      | 5.80        | 138.2  | 0.35           | 7.55            | Clear          |
| 1308 |             | /                        | 18.13 | 6.40 | 0.730      | 5.55        | -186.2 | 0.36           | 6.91            |                |
| 1312 |             | 5.81                     | 18.06 | 6.44 | 0.714      | 5.28        | -178.1 | 0.35           | 6.52            |                |
| 1316 |             | /                        | 18.09 | 6.46 | 0.711      | 5.21        | -180.1 | 0.35           | 6.97            |                |
| 1320 |             | 5.81                     | 18.07 | 6.45 | 0.712      | 4.94        | -182.1 | 0.35           | 7.12            |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed) 1321

Sampler Signature(s): 



**ERM - Purge Log**

Project Name: Univar Kent 212<sup>th</sup>  
 Project Number:

Date: 5/30/19  
 Set up time: \_\_\_\_\_  
 Weather: \_\_\_\_\_  
 Field Staff: MC

Well # MW-19

Sample ID: MW-19-053019

Location: N. Parking lot Construction Depth: 49.4 TD: \_\_\_\_\_  
 Construction: 2" PVC Screened Interval: 39.4-49.4 TD: 49.7'  
 Groundwater Zone: Deep Pump Intake Depth: 46.2

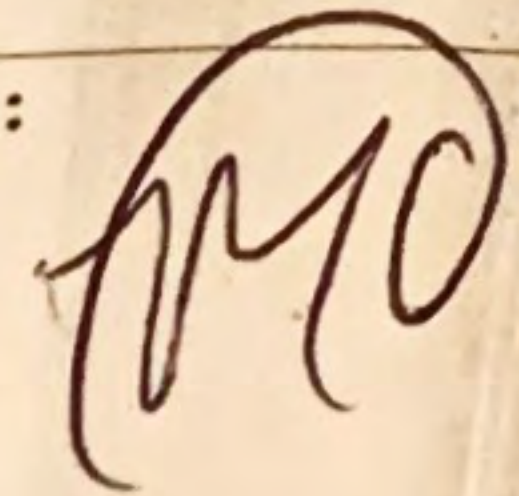
Purge Start Time: 1215  
 Discharge Rate: 200  
 Purge End Time: \_\_\_\_\_

Depth to Water: 6.65'  
 Height of Water Column: 42.75'  
 Volume of one casing: 7.4 gallons

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox  | Salinity (ppt) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|--------|----------------|-----------------|----------------|
| 1220 | 200         | 6.65'                    | 17.75 | 6.52 | 0.711      | 6.69        | -156.7 | 0.35           | 13.6            | Clear, slight  |
| 1224 |             | /                        | 17.01 | 6.51 | 0.718      | 6.19        | -152.8 | 0.35           | 13.2            | Musty odor     |
| 1228 |             | 6.65                     | 16.68 | 6.50 | 0.720      | 5.67        | -155.6 | 0.35           | 12.8            |                |
| 1232 |             | /                        | 16.54 | 6.50 | 0.718      | 5.37        | -153.6 | 0.35           | 11.9            |                |
| 1236 |             | 6.65                     | 16.51 | 6.50 | 0.717      | 5.41        | -154.0 | 0.35           | 12.5            |                |
| 1240 |             | /                        | 16.99 | 6.50 | 0.717      | 7.92        | -154.1 | 0.35           | 13.1            |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |
|      |             |                          |       |      |            |             |        |                |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

1241

Sampler Signature(s): 



ERM - Purge Log

Project Name:  
Project Number:

Date: \_\_\_\_\_  
Set up time: \_\_\_\_\_  
Weather: \_\_\_\_\_  
Field Staff: \_\_\_\_\_

Well # MW-20

Sample ID: MW-20-060319

Location: off site - 212th st.  
Construction: 2" PVC  
Groundwater Zone: Deep

Construction Depth: 431  
Screened Interval: 33-43'  
Pump Intake Depth: 38'

Purge Start Time: \_\_\_\_\_  
Discharge Rate: \_\_\_\_\_  
Purge End Time: \_\_\_\_\_

Depth to Water: 6.40  
Height of Water Column: \_\_\_\_\_  
Volume of one casing: \_\_\_\_\_

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—)    | Turbidity (ntu) | Color and Odor |
|-------|-------------|--------------------------|-------|------|------------|-------------|-------|-----------------|-----------------|----------------|
| 1430  |             | 6.40                     | —     | —    | —          | —           | —     | —               | —               | clear          |
| 1440  |             | 6.41                     | 17.04 | 6.33 | 1.053      | 0.29        | -46.7 | 0.52            | 12.9            | no odor        |
| 1443  |             | 6.41                     | 16.71 | 6.32 | 1.059      | 0.10        | -47.2 | 0.53            | 9.18            |                |
| 1446  |             | 6.41                     | 16.64 | 6.31 | 1.051      | 0.10        | -47.3 | <del>0.53</del> | 7.97            | sal-0.53       |
| 1449  |             | 6.43                     | 16.77 | 6.31 | 1.062      | 0.10        | -47.3 | 0.53            | 7.07            |                |
| 1452  |             | 6.45                     | 16.72 | 6.31 | 1.069      | 0.07        | -47.2 | 0.53            | 10.50           |                |
| 1455  |             | 6.45                     | 16.58 | 6.31 | 1.069      | 0.05        | -47.0 | 0.53            | 6.54            |                |
| 1458  |             | 6.46                     | 16.58 | 6.31 | 1.070      | 0.03        | -46.9 | 0.53            | 8.69            |                |
| ~~~~~ |             |                          |       |      |            |             |       |                 |                 |                |
| 1515  | MW-27       | 6.26                     | —     | —    | —          | —           | —     | —               | —               | clear          |
| 1525  |             | 6.26                     | 19.06 | 6.31 | 0.39       | 0.542       | -45.0 | 0.26            | —               | Slight         |
| 1528  |             | 6.26                     | 19.13 | 6.31 | 0.518      | 0.24        | -44.8 | 0.27            | 17.2            | yellow         |
| 1531  |             | 6.26                     | 18.17 | 6.31 | 0.555      | 0.16        | -44.8 | 0.27            | 6.74            | fine           |
| 1534  |             | 6.26                     | 18.35 | 6.32 | 0.554      | 0.13        | -44.8 | 0.27            | 5.58            |                |
| 1537  |             | 6.26                     | 18.44 | 6.32 | 0.559      | 0.09        | -44.7 | 0.27            | 8.19            |                |
| 1540  |             | 6.26                     | 18.62 | 6.31 | 0.560      | 0.12        | -44.5 | 0.27            | 9.63            |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s): \_\_\_\_\_



**ERM - Purge Log**

**Project Name:**

**Project Number:**

Date: 05/21/19

Set up time: 1215

Weather: cloudy

Field Staff: AZ

Well # MW-21

Sample ID:

Location: Near Farm tanks

Construction: 2" PVC

Groundwater Zone: Deep

Construction Depth: 44'

Screened Interval: 34-44'

Pump Intake Depth: 39'

Purge Start Time: 1227

Discharge Rate: 200

Purge End Time: 1253

Depth to Water: 5.86

Height of Water Column:

Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox  | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|--------|--------------|-----------------|----------------|
| 1227 |             | 5.86                     | —     | —    | —          | —           | —      | —            | —               | cloudy         |
| 1237 |             | 5.95                     | 16.01 | 6.29 | 0.636      | 0.24        | -47.4  | 0.31         | 15.2            | slight         |
| 1240 |             | 5.95                     | 16.06 | 6.29 | 0.628      | 0.26        | -47.4  | 0.31         | 11.53           | yellow         |
| 1243 |             | 5.95                     | 15.90 | 6.28 | 0.628      | 0.18        | -47.4  | 0.31         | 5.36            | tint           |
| 1246 |             | 5.95                     | 15.68 | 6.27 | 0.628      | 0.11        | -47.4  | 0.31         | 4.82            | tint, odor     |
| 1249 |             | 5.95                     | 15.65 | 6.27 | 0.627      | 0.12        | -47.21 | 0.31         | 5.96            |                |
| 1251 |             | 5.95                     | 15.53 | 6.27 | 0.628      | 0.14        | -47.4  | 0.31         | 3.93            |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |
|      |             |                          |       |      |            |             |        |              |                 |                |

Disposal method of purge water: 55-gallon drum

Decontamination procedure: Liquinox or alconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

NO PIP

Sampler Signature(s) :

*[Handwritten signature]*



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487043

Date: 05/21/19  
 Set up time: 0810  
 Weather: cloudy 50°  
 Field Staff: AL

Well # MW-17

Sample ID: MW-17-053119

Location: Near office  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 48.8  
 Screened Interval: 34-43  
 Pump Intake Depth: 391

Purge Start Time: 0820  
 Discharge Rate: 200  
 Purge End Time:

Depth to Water: 5.74  
 Height of Water Column:  
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0820 |             | 5.74                     | —     | —    | —          | —           | —     | —            | —               | cloudy         |
| 0830 |             | 5.74                     | 13.39 | 6.37 | 0.991      | 0.35        | -47.6 | 0.49         | 18.5            | slight         |
| 0833 |             | 5.74                     | 13.36 | 6.37 | 0.945      | 0.23        | -47.8 | 0.50         | 18.3            | odor           |
| 0836 |             | 5.74                     | 13.37 | 6.37 | 1.005      | 0.23        | -47.9 | 0.50         | 10.2            |                |
| 0839 |             | 5.74                     | 13.30 | 6.37 | 1.008      | 0.12        | -48.0 | 0.50         | 11.54           |                |
| 0841 |             | 5.74                     | 13.29 | 6.38 | 1.009      | 0.07        | -48.0 | 0.50         | 4.28            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.00 ppm

Sampler Signature(s):



ERM - Purge Log

Project Name: Kent 212<sup>m</sup>  
Project Number: 0487093

Date: 05/31/14  
Set up time: 0853  
Weather: cloudy  
Field Staff: AL

Well # MW-23

Sample ID: MW-23-053114

Location: NW corner of site  
Construction: 2" PVC  
Groundwater Zone: shallow

Construction Depth: 15'  
Screened Interval: 5-15'  
Pump Intake Depth: 10'

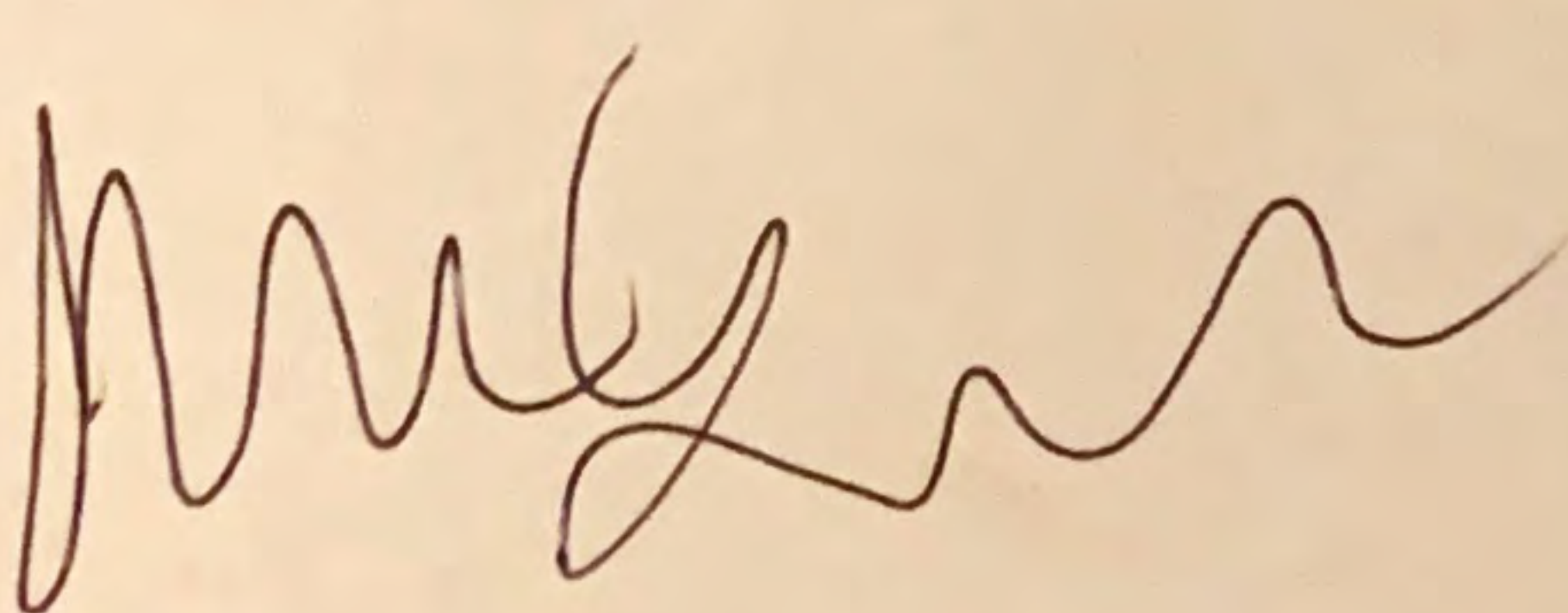
Purge Start Time: 0900  
Discharge Rate: 200  
Purge End Time:

Depth to Water: 5.88  
Height of Water Column: 10  
Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0900 |             | 5.88                     | -     | -    | -          | -           | -     | -            | -               | cloudy         |
| 0910 |             | 5.89                     | 14.68 | 6.30 | 0.609      | 0.30        | -46.0 | 0.30         | 22.0            | slight         |
| 0913 |             | 5.90                     | 14.65 | 6.37 | 0.604      | 0.14        | -45.9 | 0.29         | 96.1            | yellow tint    |
| 0916 |             | 5.90                     | 14.43 | 6.36 | 0.602      | 0.19        | -45.9 | 0.29         | 9.53            | no odor        |
| 0919 |             | 5.90                     | 14.66 | 6.37 | 0.601      | 0.15        | -45.9 | 0.29         | 7.82            |                |
| 0921 |             | 5.90                     | 14.70 | 6.37 | 0.600      | 0.13        | -45.8 | 0.29         | 7.81            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
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|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.00 ppm

Sampler Signature(s):  




**ERM - Purge Log**

Project Name:  
Project Number:

Date: 05/31/19  
Set up time: 1035  
Weather: Cloudy  
Field Staff: AL

Well # MW-22

Sample ID: MW-22-053119

Location: AW near warehouse  
Construction: 2" PVC  
Groundwater Zone: Deep  
Construction Depth: 424'  
Screened Interval: 322-422'  
Pump Intake Depth: 37'

Purge Start Time: 1645  
Discharge Rate: 200  
Purge End Time:

Depth to Water: 6.28  
Height of Water Column:  
Volume of one casing:

1045

| Time                 | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|----------------------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| <del>1045</del> 1045 |             | 6.28                     | -     | -    | -          | -           | -     | -            | -               | Clear          |
| 1055                 |             | 6.28                     | 14.78 | 6.19 | 0.829      | 0.20        | -40.9 | 0.41         | 1.05            | no odor        |
| 1058                 |             | 6.28                     | 14.79 | 6.19 | 0.837      | 0.15        | -47.1 | 0.41         | 8.39            |                |
| 1101                 |             | 6.28                     | 14.95 | 6.20 | 0.842      | 0.18        | -47.4 | 0.42         | 1.80            |                |
| 1104                 |             | 6.28                     | 14.92 | 6.20 | 0.842      | 0.13        | -47.6 | 0.42         | 2.52            |                |
| 1107                 |             | 6.28                     | 14.83 | 6.20 | 0.840      | 0.08        | -47.8 | 0.41         | 1.02            |                |
| 1109                 |             | 6.28                     | 14.80 | 6.20 | 0.840      | 0.06        | -47.9 | 0.41         | 0.92            |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
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|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |
|                      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
FIELD OBSERVATIONS (Well condition, repairs needed)

Sampler Signature(s):

*AL*



**ERM - Purge Log**

Project Name: Kunt 212  
 Project Number: 0487093

Date: 08/27/19  
 Set up time: 1400  
 Weather: Sunny 88°f  
 Field Staff: Ajose Luna

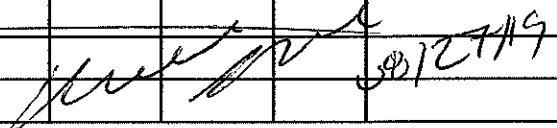
Well # MW-01

Sample ID: MW-01-082719

Location: N. of corrosive ponds Construction Depth: 19'  
 Construction: 2" PVC Screened Interval: 4-19'  
 Groundwater Zone: shallow Pump Intake Depth: 13.5'

Purge Start Time: 1412 1503  
 Discharge Rate: 120 mL/m  
 Purge End Time: 1531

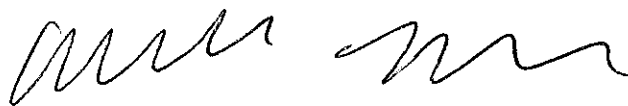
Depth to Water: 5.35  
 Height of Water Column: 13.65  
 Volume of one casing: \_\_\_\_\_

| Time   | Volume (mL)     | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox  | Salinity (—) | Turbidity (ntu) | Color and Odor |
|--|-----------------|--------------------------|-------|------|------------|-------------|--------|--------------|-----------------|----------------|
| 1508   | <del>1417</del> | 5.42                     | 25.14 | 6.36 | 1.142      | 1.00        | -83.7  | 0.57         | 13.68           | clear,         |
| 1513   | <del>1422</del> | 5.52                     | 27.64 | 6.36 | 1.154      | 0.44        | -108.9 | 0.57         | 11.04           | no odor        |
| 1518   | <del>1427</del> | 5.55                     | 23.83 | 6.35 | 1.142      | 0.39        | -118.3 | 0.57         | 5.71            |                |
| 1521   | <del>1430</del> | 5.57                     | 24.31 | 6.35 | 1.143      | 0.39        | -120.0 | 0.57         | 4.17            |                |
| 1524   | <del>1433</del> | 5.60                     | 24.24 | 6.35 | 1.144      | 0.34        | -121.0 | 0.57         | 2.50            |                |
| 1527   | <del>1436</del> | 5.62                     | 24.29 | 6.35 | 1.143      | 0.35        | -121.2 | 0.57         | 3.45            |                |
| 1530   | <del>1439</del> | 5.62                     | 24.67 | 6.35 | 1.144      | 0.37        | -121.9 | 0.57         | 2.12            |                |
|  |                 |                          |       |      |            |             |        |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID- 0.5 ppm time 1535

Sampler Signature(s) :



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487043

Date: 08/29/14  
 Set up time: 1220  
 Weather: Cloudy 78°F  
 Field Staff: Alison Ladd

Well # MW-2

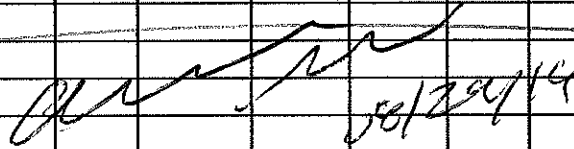
Sample ID: MW-02-082914

Location: South yard  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 19  
 Screened Interval: 4.9  
 Pump Intake Depth: 15


Purge Start Time: 1234  
 Discharge Rate: 120 L/min  
 Purge End Time: \_\_\_\_\_

Depth to Water: 7.85  
 Height of Water Column: \_\_\_\_\_  
 Volume of one casing: \_\_\_\_\_

| Time   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|--|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1244   |             | 7.45                     | 19.54 | 6.33 | 0.577      | 0.577       | 19.3  | 0.28         | 135             |                |
| 1249   |             | 7.45                     | 19.30 | 6.24 | 0.569      | 0.36        | -47.3 | 0.28         | 12.8            |                |
| 1254   |             | 7.48                     | 19.31 | 6.20 | 0.572      | 0.43        | -55.3 | 0.28         | 6.40            |                |
| 1257   |             | 7.50                     | 19.93 | 6.16 | 0.568      | 0.47        | -4.1  | 0.28         | 4.19            |                |
| 1300   |             | 7.54                     | 20.11 | 6.13 | 0.570      | 0.45        | -61.3 | 0.28         | 5.41            |                |
| 1303   |             | 7.58                     | 20.23 | 6.12 | 0.571      | 0.43        | -65.6 | 0.28         | 3.36            |                |
| 1306   |             | 7.62                     | 20.26 | 6.11 | 0.573      | 0.40        | -66.9 | 0.28         | 5.46            |                |
| 1309   |             | 7.66                     | 20.19 | 6.11 | 0.573      | 0.40        | -67.8 | 0.28         | 3.07            |                |
|  |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.0 Time 1314

Sampler Signature(s): 

**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487093

Date: 08/26/2019  
 Set up time: 11:15  
 Weather: Sunny, 70°F  
 Field Staff: Adam Lunde

Well # MW-3

Sample ID: MW-03-082619

Location: 5. Parking lot  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 19  
 Screened Interval: 4-19  
 Pump Intake Depth: 13.5


Purge Start Time: 1145  
 Discharge Rate: 120 ml/min  
 Purge End Time: 1216

Depth to Water: 7.0  
 Height of Water Column: 12  
 Volume of one casing:

| Time                   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox  | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------------------------|-------------|--------------------------|-------|------|------------|-------------|--------|--------------|-----------------|----------------|
| 1150                   |             | 7.01                     | 17.79 | 6.18 | 0.579      | 0.26        | -103.7 | 0.28         | ✓               | clear          |
| 1155                   |             | 7.01                     | 17.86 | 6.19 | 0.577      | 0.21        | -108.4 | 0.28         | 1.54            | no odor        |
| 1200                   |             | 7.01                     | 17.94 | 6.20 | 0.595      | 0.21        | -112.4 | 0.29         | 3.00            |                |
| 1203                   |             | 7.01                     | 17.84 | 6.23 | 0.605      | 0.22        | -115.0 | 0.30         | 12.33           |                |
| 1206                   |             | 7.01                     | 17.90 | 6.24 | 0.608      | 0.23        | -116.2 | 0.30         | —               |                |
| 1209                   |             | 7.01                     | 18.25 | 6.27 | 0.607      | 0.24        | -118.0 | 0.30         | 22.4            |                |
| 1212                   |             | 7.01                     | 18.29 | 6.30 | 0.610      | 0.27        | -120.6 | 0.30         | 4.50            |                |
| 1215                   |             | 7.01                     | 18.42 | 6.32 | 0.612      | 0.29        | -122.3 | 0.30         | 2.60            |                |
| ADAM LUNDE<br>08/26/19 |             |                          |       |      |            |             |        |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PFD - 0.0 ppm      time 1218

Sampler Signature(s):  




**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487093

Date: 08/27/19  
 Set up time: 1301  
 Weather: Sunny 73°F  
 Field Staff: Alison Linder

Well # MW-04

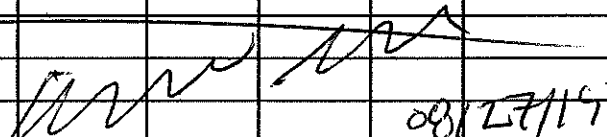
Sample ID: MW-04-082719

Location: W. Yard down  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 14.5'  
 Screened Interval: 4.5-14.5'  
 Pump Intake Depth: 11'

Purge Start Time: 1312  
 Discharge Rate: 120 mL/m  
 Purge End Time: 1340

Depth to Water: 5.86  
 Height of Water Column: 8.6  
 Volume of one casing:

| Time   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|--|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1317   |             | 6.10                     | 19.89 | 6.36 | 1.081      | 0.39        | -55.9 | 0.54         | 2.09            | clear          |
| 1322   |             | 6.13                     | 20.19 | 6.34 | 1.080      | 0.36        | -70.9 | 0.54         | 1.04            | no odor        |
| 1327   |             | 6.15                     | 20.52 | 6.31 | 1.076      | 0.39        | -75.9 | 0.53         | 1.08            |                |
| 1330   |             | 6.15                     | 20.90 | 6.30 | 1.077      | 0.43        | -77.4 | 0.53         | 2.43            |                |
| 1333   |             | 6.16                     | 20.74 | 6.28 | 1.082      | 0.41        | -78.4 | 0.54         | 0.85            |                |
| 1336   |             | 6.16                     | 20.81 | 6.26 | 1.081      | 0.42        | -78.9 | 0.54         | -               |                |
| 1339   |             | 6.16                     | 21.02 | 6.28 | 1.078      | 0.41        | -79.4 | 0.54         | -               |                |
|  |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

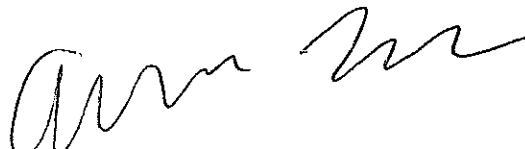
1344

PID - 1.2 ppm

MS/MSP

Sampler Signature(s):

time 1344





**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487043

Date: 08/27/19  
 Set up time: 1035  
 Weather: Sunny, 70°F  
 Field Staff: Aisen Lunde

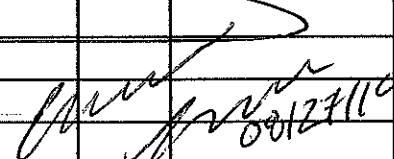
Well # MW-5

Sample ID: MW-05-082719

Location: E. yard  
 Construction: 2" PVC  
 Groundwater Zone: shallow  
 Construction Depth: 14.5  
 Screened Interval: 4.5-14.5  
 Pump Intake Depth: 12.5

Purge Start Time: 1049  
 Discharge Rate: 120 ml/m  
 Purge End Time: 1117


Depth to Water: 6.57  
 Height of Water Column: 7.93  
 Volume of one casing:

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor          |
|---|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|-------------------------|
| 1054  |             | 6.65                     | 17.56 | 5.98 | 0.223      | 0.68        | 100.5 | 0.11         | 28.7            | clear, orange particles |
| 1059  |             | 6.66                     | 18.02 | 5.87 | 0.222      | 0.42        | 110.4 | 0.11         | 7.25            |                         |
| 1104  |             | 6.66                     | 17.86 | 5.80 | 0.223      | 0.39        | 118.4 | 0.11         | 3.75            |                         |
| 1107  |             | 6.66                     | 17.98 | 5.74 | 0.222      | 0.36        | 123.6 | 0.11         | 3.28            |                         |
| 1110  |             | 6.66                     | 17.86 | 5.72 | 0.223      | 0.37        | 126.0 | 0.11         | 3.46            |                         |
| 1113  |             | 6.67                     | 17.87 | 5.71 | 0.222      | 0.38        | 127.9 | 0.11         | 2.97            |                         |
| 1116  |             | 6.67                     | 17.86 | 5.69 | 0.223      | 0.41        | 130.1 | 0.11         | 2.67            |                         |
|  |             |                          |       |      |            |             |       |              |                 |                         |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID: 0.0 ppm                      time 1121

Sampler Signature(s):





**ERM - Purge Log**

Project Name: KMTL12  
 Project Number: 0187003

Date: 08/29/19  
 Set up time: 1325  
 Weather: clear 73°F  
 Field Staff: Austin Linn

Well # MW-6

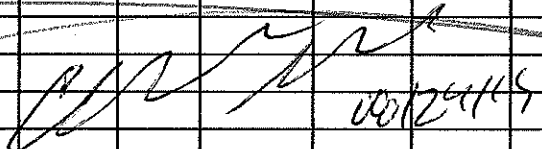
Sample ID: MW-06-082919

Location: E. yard  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 14.5  
 Screened Interval: 4.5-14.5  
 Pump Intake Depth: 12.5'

Purge Start Time: 1355  
 Discharge Rate: 120 ml/m  
 Purge End Time: \_\_\_\_\_

Depth to Water: 6.65  
 Height of Water Column: \_\_\_\_\_  
 Volume of one casing: \_\_\_\_\_

| Time   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|--|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1340   |             | 6.82                     | 21.61 | 6.14 | 0.754      | 1.91        | 15.3  | 0.37         | 9.28            | clear          |
| 1345   |             | 6.85                     | 21.47 | 6.12 | 0.756      | 0.57        | -33.1 | 0.37         | 12.11           | no odor        |
| 1350   |             | 6.86                     | 22.33 | 6.10 | 0.753      | 0.56        | -51.2 | 0.37         | 6.89            |                |
| 1353   |             | 6.86                     | 22.07 | 6.09 | 0.762      | 0.51        | -56.2 | 0.37         | 4.11            |                |
| 1356   |             | 6.87                     | 22.25 | 6.08 | 0.754      | 0.47        | -61.8 | 0.37         | 3.48            |                |
| 1359   |             | 6.87                     | 21.88 | 6.09 | 0.753      | 0.45        | -63.7 | 0.37         | 5.12            |                |
| 1402   |             | 6.87                     | 21.96 | 6.09 | 0.748      | 0.43        | -65.4 | 0.37         | 2.78            |                |
| 1405   |             | 6.87                     | 22.10 | 6.09 | 0.741      | 0.42        | -67.1 | 0.37         | 5.63            |                |
|  |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.0 ppm

time 140

Sampler Signature(s):





**ERM - Purge Log**

Project Name: KEAT 212  
 Project Number: 0402093

Date: 08/26/19  
 Set up time: 1245  
 Weather: Sunny 70°F  
 Field Staff: Alison Lunde

Well # MW-7

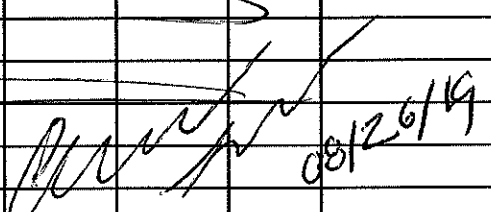
Sample ID: MW-07-082619

Location: E. parking lot  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 14.5  
 Screened Interval: 4-14.5  
 Pump Intake Depth: 12.5

Purge Start Time: 1255  
 Discharge Rate: 120 m<sup>3</sup>/m  
 Purge End Time: 1330

Depth to Water: 6.97  
 Height of Water Column: 7.53  
 Volume of one casing:

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity ( ) | Turbidity (ntu) | Color and Odor |
|---|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1305  |             | 6.99                     | 21.45 | 6.04 | 0.296      | 0.41        | 116.8 | 0.14         | 1               |                |
| 1310  |             | 6.99                     | 21.39 | 5.96 | 0.302      | 0.39        | 122.0 | 0.14         | 1               |                |
| 1315  |             | 6.99                     | 21.20 | 5.91 | 0.310      | 0.46        | 126.5 | 0.15         | 1               |                |
| 1318  |             | 6.99                     | 21.21 | 5.92 | 0.313      | 0.46        | 127.0 | 0.15         | 7.73            |                |
| 1321  |             | 6.99                     | 21.38 | 5.92 | 0.314      | 0.45        | 128.2 | 0.15         | 4.57            |                |
| 1324  |             | 6.99                     | 21.53 | 5.91 | 0.317      | 0.45        | 129.0 | 0.15         | 2.88            |                |
| 1327  |             | 6.99                     | 21.83 | 5.91 | 0.318      | 0.43        | 129.5 | 0.15         | 3.15            |                |
|  |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.0 ppm      time 1235

Sampler Signature(s):





**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487092

Date: 08/27/19  
 Set up time: 0815  
 Weather: Sunny 65°F  
 Field Staff: Alison Lunke

Well # mw-8

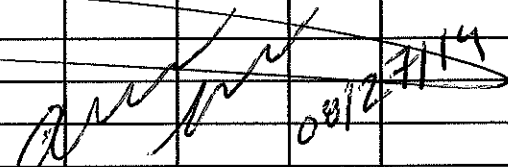
Sample ID: mw-08-082719

Location: E. yard  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 14.5  
 Screened Interval: 4.5-14.5  
 Pump Intake Depth: 13'

Purge Start Time: 0829  
 Discharge Rate: 120 mL/min  
 Purge End Time: 0900

Depth to Water: 7.57  
 Height of Water Column: 6.93  
 Volume of one casing: \_\_\_\_\_

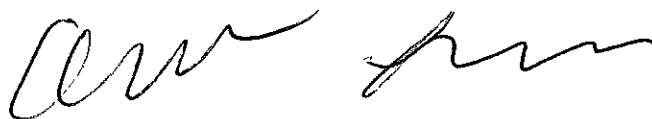
| Time   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (___) | Turbidity (ntu) | Color and Odor |
|--|-------------|--------------------------|-------|------|------------|-------------|-------|----------------|-----------------|----------------|
| 0834   |             | 7.90                     | 15.61 | 5.54 | 0490       | 0.46        | 240.1 | 0.24           | 1               | clear,         |
| 0839   |             | 7.92                     | 15.95 | 5.51 | 0473       | 0.39        | 277.4 | 0.23           | 1               | no odor        |
| 0844   |             | 7.95                     | 16.22 | 5.51 | 0466       | 0.40        | 211.0 | 0.23           | 373             |                |
| 0849   |             | 7.95                     | 16.31 | 5.51 | 0457       | 0.46        | 204.4 | 0.22           | 1.91            |                |
| 0852   |             | 7.96                     | 16.31 | 5.51 | 0448       | 0.47        | 200.3 | 0.27           | 2.40            |                |
| 0855   |             | 7.96                     | 16.28 | 5.51 | 0445       | 0.47        | 146.8 | 0.22           | 1.51            |                |
| 0858   |             | 7.96                     | 16.32 | 5.52 | 0443       | 0.48        | 143.0 | 0.21           | 2.46            |                |
|  |             |                          |       |      |            |             |       |                |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID: 0.0 ppm

time: 0901

Sampler Signature(s):





**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0407003

Date: 08/27/19  
 Set up time: 0926  
 Weather: Sunny 70°F  
 Field Staff: Austin Lunde

Well # MW-9

Sample ID: MW-09-082719

Location: E. yard Construction Depth: 15'  
 Construction: 2" PVC Screened Interval: 5-15'  
 Groundwater Zone: shallow Pump Intake Depth: 13.5'

Purge Start Time: 0937  
 Discharge Rate: 120ml/m  
 Purge End Time: \_\_\_\_\_

Depth to Water: 7.69  
 Height of Water Column: 7.31  
 Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0942 |             | 7.72                     | 17.42 | 5.85 | 73.1       | 0.33        | 0.586 | 0.28         | 6.76            | orange patch   |
| 0947 |             | 7.75                     | 17.30 | 5.79 | 74.8       | 0.23        | 0.569 | 0.28         | -               | cloudy         |
| 0952 |             | 7.75                     | 17.53 | 5.79 | 0.563      | 0.27        | -77.0 | 0.27         | 9.44            | no odor        |
| 0955 |             | 7.75                     | 17.70 | 5.80 | 0.561      | 0.35        | -78.1 | 0.27         | 12.22           |                |
| 0958 |             | 7.75                     | 17.81 | 5.80 | 0.560      | 0.38        | -78.6 | 0.27         | 7.94            |                |
| 1001 |             | 7.75                     | 17.76 | 5.80 | 0.560      | 0.39        | -79.4 | 0.27         | 7.83            |                |
| 1004 |             | 7.75                     | 17.90 | 5.82 | 0.559      | 0.37        | -80.5 | 0.27         | 7.74            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

*[Handwritten Signature]* 08/27/19

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.0 ppm time 1005

Sampler Signature(s): *[Handwritten Signature]*



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 04057093

Date: 08/26/19  
 Set up time: 1510  
 Weather: Sunny, 87°F  
 Field Staff: Alison Benoit

Well # MW-10

Sample ID: MW-10-082619

Location: S. Parking lot  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: ~~5-15'~~ 15'  
 Screened Interval: 5-15'  
 Pump Intake Depth: 8.15'

Purge Start Time: 1525  
 Discharge Rate: 120 mL/min  
 Purge End Time: 1558

Depth to Water: 6.84  
 Height of Water Column: 0.16  
 Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1535 |             | 6.86                     | 21.47 | 6.30 | 0.214      | 0.30        | -77.1 | 0.10         | 14.0            | clear, orange  |
| 1540 |             | 6.86                     | 21.23 | 6.25 | 0.214      | 0.33        | -78.5 | 0.10         | 11.1            | particles,     |
| 1545 |             | 6.86                     | 20.97 | 6.24 | 0.214      | 0.24        | -78.7 | 0.10         | 10.6            | no odor        |
| 1548 |             | 6.86                     | 20.61 | 6.22 | 0.214      | 0.27        | -77.7 | 0.10         | 10.5            |                |
| 1551 |             | 6.86                     | 20.36 | 6.22 | 0.214      | 0.28        | -77.4 | 0.10         | 9.20            |                |
| 1554 |             | 6.86                     | 20.21 | 6.20 | 0.214      | 0.27        | -77.6 | 0.10         | 8.41            |                |
| 1557 |             | 6.86                     | 19.87 | 6.21 | 0.214      | 0.27        | -78.4 | 0.10         | 7.66            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID- ~~0.0~~ 0.0 ppm      time: 1602

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487093

Date: 08/27/19  
 Set up time: 1138  
 Weather: Sunny 70°F  
 Field Staff: Alison Lunche

Well # MW-12

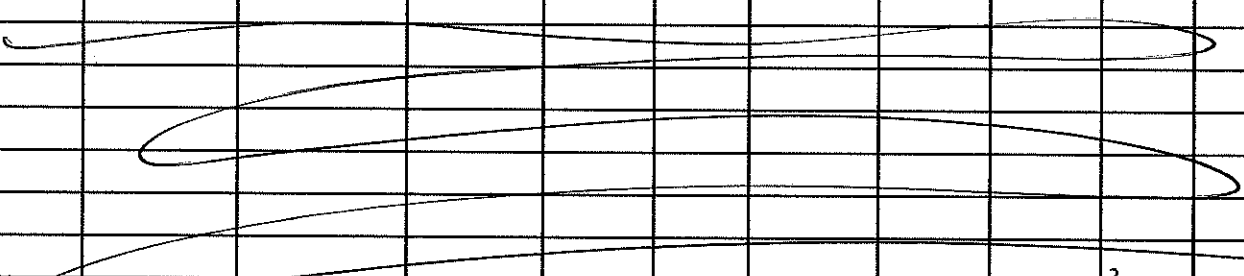
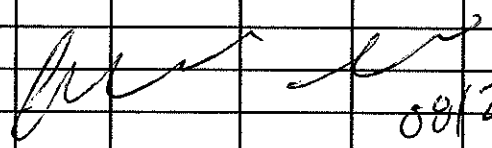
Sample ID: MW-12-082719

Location: E. yard  
 Construction: 2" pvc  
 Groundwater Zone: shallow

Construction Depth: ~~5-20~~ 20'  
 Screened Interval: 5-20'  
 Pump Intake Depth: 14.5'


Purge Start Time: 1149  
 Discharge Rate: 120 n/l/m  
 Purge End Time:

Depth to Water: 6.74  
 Height of Water Column: 13.26  
 Volume of one casing:

| Time   | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor   |
|--|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|--|
| 1154   |             | 6.82                     | 17.84 | 6.17 | 6283       | 0.54        | 131.3 | 0.13         | -               | clear,   |
| 1159   |             | 6.82                     | 18.02 | 6.08 | 6292       | 0.40        | 132.4 | 0.13         | 635             | no odor  |
| 1204   |             | 6.82                     | 17.95 | 6.01 | 6280       | 0.35        | 133.1 | 0.13         | 940             |  |
| 1207   |             | 6.82                     | 17.43 | 5.94 | 6280       | 0.34        | 129.9 | 0.13         | 560             |  |
| 1210   |             | 6.82                     | 18.05 | 5.92 | 6279       | 0.33        | 131.5 | 0.13         | 594             |  |
| 1213   |             | 6.82                     | 18.02 | 5.87 | 6278       | 0.35        | 134.0 | 0.13         | 430             |  |
| 1216   |             | 6.82                     | 18.03 | 5.84 | 6278       | 0.35        | 135.4 | 0.13         | 485             |  |
| 1219   |             | 6.82                     | 17.98 | 5.84 | 6278       | 0.34        | 135.5 | 0.13         | 432             |  |
|  |             |                          |       |      |            |             |       |              |                 |  |
|  |             |                          |       |      |            |             |       |              |                 | <br>08/27/19 |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID-0.0 ppm DUP-01-082719  
time 1224

Sampler Signature(s):  








**ERM - Purge Log**

Project Name: Vient 212  
 Project Number: 0487093

Date: 08/29/19  
 Set up time: 1030  
 Weather: cloudy 68°F  
 Field Staff: Aaron Lunde

Well # MW-16

Sample ID: MW-16-082919

Location: Inside building  
 Construction: 2" PVC  
 Groundwater Zone: DEEP

Construction Depth: 47.2  
 Screened Interval: 37.2-47.2  
 Pump Intake Depth: 42.5'

Purge Start Time: 1042  
 Discharge Rate: 120 L/min  
 Purge End Time: \_\_\_\_\_

Depth to Water: 10.93  
 Height of Water Column: \_\_\_\_\_  
 Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1047 |             | 10.90                    | 15.48 | 6.07 | 0.858      | 1.21        | 17.8  | 0.43         | 5.84            |                |
| 1052 |             | 10.90                    | 15.13 | 5.96 | 0.916      | 0.48        | -35.1 | 0.45         | 2.43            |                |
| 1057 |             | 10.90                    | 15.16 | 5.96 | 0.920      | 0.58        | -45.4 | 0.46         | 2.24            |                |
| 1100 |             | 10.90                    | 15.22 | 5.81 | 0.919      | 0.55        | -50.1 | 0.46         | 4.37            |                |
| 1103 |             | 10.90                    | 15.00 | 5.82 | 0.919      | 0.50        | -55.0 | 0.46         | 2.27            |                |
| 1106 |             | 10.90                    | 14.99 | 5.83 | 0.919      | 0.50        | -57.8 | 0.46         | 4.43            |                |
| 1109 |             | 10.90                    | 15.07 | 5.85 | 0.916      | 0.49        | -60.5 | 0.46         | 2.43            |                |
| 1112 |             | 10.90                    | 15.10 | 5.84 | 0.920      | 0.47        | -64.5 | 0.46         | 5.12            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PIP 0.0 ppn time 1117

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0467043

Date: 08/28/14  
 Set up time: 1250  
 Weather: Sunny 79°F  
 Field Staff: Adam [signature]

Well # MW-17

Sample ID: MW-17-082814

Location: Parking Lot  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 43.8  
 Screened Interval: 34.3-43.8  
 Pump Intake Depth: 39'

Purge Start Time: 1315  
 Discharge Rate: 120 ml/min  
 Purge End Time:

Depth to Water: 6.60  
 Height of Water Column:  
 Volume of one casing:

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1320 |             | 6.65                     | 21.15 | 6.23 | 1.189      | 0.46        | -67.6 | 0.59         | 14.8            | yellow tint,   |
| 1325 |             | 6.65                     | 20.95 | 6.21 | 1.143      | 0.57        | -81.4 | 0.60         | 25.6            | no odor        |
| 1330 |             | 6.65                     | 22.15 | 6.16 | 1.178      | 0.49        | -85.0 | 0.59         | 10.47           |                |
| 1333 |             | 6.65                     | 21.75 | 6.15 | 1.153      | 0.45        | -85.4 | 0.57         | 11.62           |                |
| 1336 |             | 6.65                     | 22.95 | 6.13 | 1.151      | 0.45        | -85.9 | 0.57         | 9.27            |                |
| 1339 |             | 6.65                     | 23.39 | 6.12 | 1.136      | 0.42        | -86.5 | 0.56         | 7.91            |                |
| 1342 |             | 6.65                     | 23.10 | 6.11 | 1.123      | 0.40        | -86.1 | 0.56         | 10.05           |                |
| 1420 |             | 6.70                     | 21.04 | 6.09 | 0.745      | 0.64        | -10.8 | 0.37         | 7.64            | clear, no      |
| 1425 |             | 6.70                     | 20.85 | 6.06 | 0.800      | 0.50        | -53.8 | 0.34         | 12.21           | o.m.           |
| 1430 |             | 6.70                     | 20.75 | 6.05 | 0.744      | 0.48        | -66.9 | 0.34         | 6.47            |                |
| 1433 |             | 6.70                     | 21.32 | 6.03 | 0.788      | 0.43        | -72.2 | 0.39         | 6.82            |                |
| 1436 |             | 6.70                     | 21.32 | 6.03 | 0.786      | 0.42        | -72.7 | 0.39         | 13.7            |                |
| 1439 |             | 6.70                     | 20.77 | 6.04 | 0.784      | 0.41        | -74.7 | 0.38         | 10.46           |                |
| 1442 |             | 6.70                     | 20.82 | 6.04 | 0.781      | 0.39        | -76.0 | 0.38         | 11.91           |                |
| 1445 |             | 6.70                     | 20.61 | 6.04 | 0.781      | 0.39        | -76.7 | 0.38         | 4.90            |                |

Start 1415  
 Stop 1446  
 MW-17

Set up 1407  
 MW-17

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

PID - 0.0 ppm      MW-17      MW-18  
 time 1347      DUP X 02 - 17      time 1450

Sampler Signature(s):

[Handwritten signature]

Input 39.5"







**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0487063

Date: 08/28/2019  
 Set up time: 0720  
 Weather: Sunny 65  
 Field Staff: Andrew Lunde

Well # MW-20

Sample ID: MW-20-082819

Location: off site, sidewalk  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 43.2  
 Screened Interval: 33.5-43.2  
 Pump Intake Depth: 38.5'

Purge Start Time: 0736  
 Discharge Rate: 120 mL/min  
 Purge End Time: 0807

Depth to Water: 7.32  
 Height of Water Column: 32.88  
 Volume of one casing:

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|-------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0741  |             | 7.32                     | 16.94 | 5.32 | 1138       | 0.50        | -31.7 | 0.57         | 6.27            | clear, no odor |
| 0746  |             | 7.32                     | 17.00 | 5.45 | 1142       | 0.48        | -54.7 | 0.57         | 6.34            | odor           |
| 0751  |             | 7.32                     | 17.28 | 5.51 | 1144       | 0.58        | -64.6 | 0.57         | 7.94            |                |
| 0754  |             | 7.32                     | 17.25 | 5.54 | 1145       | 0.51        | -68.5 | 0.57         | 14.0            |                |
| 0757  |             | 7.32                     | 17.20 | 5.56 | 1144       | 6.49        | -71.3 | 0.57         | 10.38           |                |
| 0800  |             | 7.32                     | 17.31 | 5.58 | 1145       | 0.46        | -74.0 | 0.57         | 9.43            |                |
| 0803  |             | 7.32                     | 17.40 | 5.59 | 1144       | 0.43        | -75.8 | 0.57         | 5.24            |                |
| 0806  |             | 7.32                     | 17.49 | 5.61 | 1144       | 0.43        | -77.2 | 0.57         | 5.38            |                |
| ~~~~~ |             |                          |       |      |            |             |       |              |                 |                |
| 0828  |             | 7.15                     | 17.16 | 5.76 | 6.636      | 0.46        | -55.3 | 0.31         | 8.7             | clear, no odor |
| 0833  |             | 7.15                     | 17.11 | 5.77 | 6.644      | 0.47        | -43.3 | 6.31         | 16.7            | odor           |
| 0838  |             | 7.15                     | 17.30 | 5.79 | 6.646      | 0.46        | -54.0 | 0.32         | 5.30            |                |
| 0841  |             | 7.15                     | 17.46 | 5.81 | 6.643      | 0.46        | -59.5 | 0.32         | 3.01            |                |
| 0844  |             | 7.15                     | 17.25 | 5.82 | 6.648      | 0.45        | -60.5 | 0.32         | 5.02            |                |
| 0847  |             | 7.15                     | 17.34 | 5.84 | 6.647      | 0.43        | -62.1 | 0.32         | 3.02            |                |
| 0850  |             | 7.15                     | 17.31 | 5.85 | 6.647      | 0.40        | -65.3 | 0.32         | 3.81            |                |
| 0853  |             | 7.15                     | 17.39 | 5.87 | 6.648      | 0.41        | -67.2 | 0.32         | 2.31            |                |

Setup - 0817  
 Purge start - 0823  
 Finish 0854  
 MW-27  
 intake - 45'  
 depth - 7.15  
 rate - 120 mL/min

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)  
 MW-20 PID - 0.0 ppm time 0811  
 MW-27 PID - 0.0 ppm time 0858

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0187013

Date: 08/29/14  
 Set up time: 0930  
 Weather: cloudy 68°  
 Field Staff: ANSON LANE

Well # MW-21

Sample ID: MW-21-082914

Location: Bl Corrosive Recovery  
 Construction: 2" PVC  
 Groundwater Zone: DEEP

Construction Depth: 44.1  
 Screened Interval: 34.1-44.1  
 Pump Intake Depth: 38.5

Purge Start Time: 0940  
 Discharge Rate: 120 ml/min  
 Purge End Time: \_\_\_\_\_

Depth to Water: 6.71  
 Height of Water Column: \_\_\_\_\_  
 Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoe) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0945 |             | 6.77                     | 18.07 | 6.50 | 6.745      | 1.03        | -38.6 | 0.36         | 10.76           | clear          |
| 0950 |             | 6.78                     | 17.84 | 6.16 | 6.67       | 0.40        | -54.9 | 0.34         | 11.77           | no odor        |
| 0955 |             | 6.79                     | 17.61 | 6.07 | 6.671      | 0.48        | -66.7 | 0.33         | 12.20           |                |
| 0958 |             | 6.79                     | 17.42 | 6.07 | 6.671      | 0.54        | -67.6 | 0.33         | 6.73            |                |
| 1001 |             | 6.79                     | 18.08 | 6.06 | 6.673      | 0.53        | -64.6 | 0.33         | 6.34            |                |
| 1004 |             | 6.79                     | 18.06 | 6.05 | 6.673      | 0.52        | -70.0 | 0.33         | 5.70            |                |
| 1007 |             | 6.79                     | 18.07 | 6.05 | 6.672      | 0.49        | -70.8 | 0.33         | 3.94            |                |
| 1010 |             | 6.79                     | 18.08 | 6.04 | 6.670      | 0.47        | -71.3 | 0.33         | 5.30            |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PEO - 00 ppm                      time 1015

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0447093

Date: 08/26/2019  
 Set up time: 1400  
 Weather: sunny, 77°F  
 Field Staff: Aislin Lunell

Well # MW-23

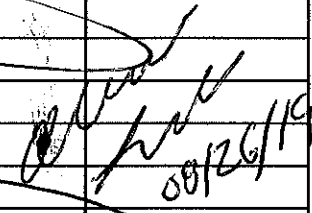
Sample ID: MW-23-082619

Location: E. Parking lot  
 Construction: 2" PVC  
 Groundwater Zone: shallow

Construction Depth: 15'  
 Screened Interval: 5-15'  
 Pump Intake Depth: 12.5'

Purge Start Time: 1421  
 Discharge Rate: 120 ml/m  
 Purge End Time:

Depth to Water: 6.75'  
 Height of Water Column: 8.25'  
 Volume of one casing:

| Time  | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|---|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1428  |             | 6.75                     | 21.01 | 6.31 | 0.655      | 1.34        | 150.3 | 0.32         | 9.10            | clear          |
| 1433  |             | 6.75                     | 21.04 | 6.12 | 0.651      | 0.40        | 152.5 | 0.32         | 6.25            | no odor        |
| 1438  |             | 6.75                     | 20.97 | 6.07 | 0.660      | 0.42        | 149.2 | 0.32         | 7.04            |                |
| 1441  |             | 6.75                     | 21.00 | 6.06 | 0.650      | 0.48        | 142.6 | 0.32         | 6.44            |                |
| 1444  |             | 6.75                     | 20.94 | 6.05 | 0.646      | 0.48        | 134.0 | 0.32         | 5.50            |                |
| 1447  |             | 6.75                     | 20.93 | 6.04 | 0.642      | 0.46        | 115.8 | 0.31         | 7.13            |                |
| 1450  |             | 6.75                     | 20.92 | 6.05 | 0.639      | 0.43        | 80.6  | 0.31         | 5.60            |                |
|  |             |                          |       |      |            |             |       |              |                 |                |

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

PID = 0.0 ppm

time 1455

Sampler Signature(s):





**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 0492093

Date: 08/28/19  
 Set up time: 0915  
 Weather: Sunny, 75°F  
 Field Staff: Anna Luna

Well # MW-28

Sample ID: MW-28-082819

Location: off-site, N. property  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 45'  
 Screened Interval: 35-45'  
 Pump Intake Depth: 40'

Purge Start Time: 0928  
 Discharge Rate: 120 L/min  
 Purge End Time:

Depth to Water: 8.80'  
 Height of Water Column: 36.2'  
 Volume of one casing:

| Time  | Volume (ml) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (—) | Turbidity (ntu) | Color and Odor |
|-------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 0933  |             | 8.83                     | 15.14 | 6.14 | 0.906      | 0.44        | -72.3 | 0.45         | 2.41            | Clear, no      |
| 0938  |             | 8.83                     | 15.70 | 6.15 | 0.912      | 0.38        | -90.3 | 0.45         | 6.06            | odor           |
| 0943  |             | 8.83                     | 15.75 | 6.07 | 0.908      | 0.47        | -93.0 | 0.45         | 3.44            |                |
| 0946  |             | 8.83                     | 15.86 | 6.03 | 0.908      | 0.46        | -93.9 | 0.45         | 1.97            |                |
| 0949  |             | 8.83                     | 15.97 | 6.01 | 0.906      | 0.49        | -94.3 | 0.45         | 0.88            |                |
| 0952  |             | 8.83                     | 16.00 | 6.00 | 0.905      | 0.48        | -94.2 | 0.45         | 3.27            |                |
| 0955  |             | 8.83                     | 15.98 | 5.98 | 0.899      | 0.46        | -94.9 | 0.45         | —               |                |
| <hr/> |             |                          |       |      |            |             |       |              |                 |                |
| 1512  |             | 7.15                     | 18.68 | 5.46 | 0.961      | 0.68        | -30.5 | 0.42         | 22.5            |                |
| 1517  |             | 7.15                     | 17.84 | 5.97 | 0.857      | 0.55        | -44.5 | 0.42         | 13.4            |                |
| 1522  |             | 7.15                     | 17.54 | 5.96 | 0.859      | 0.47        | -62.8 | 0.43         | 4.38            |                |
| 1525  |             | 7.15                     | 17.64 | 5.96 | 0.862      | 0.44        | -66.5 | 0.42         | 3.16            |                |
| 1528  |             | 7.15                     | 17.60 | 5.95 | 0.855      | 0.43        | -69.7 | 0.43         | 4.13            |                |
| 1531  |             | 7.15                     | 17.68 | 5.95 | 0.852      | 0.43        | -71.4 | 0.42         | 2.53            |                |
| 1534  |             | 7.15                     | 17.60 | 5.96 | 0.850      | 0.41        | -72.6 | 0.41         | 2.05            |                |
| 1537  |             | 7.15                     | 18.05 | 5.94 | 0.846      | 0.40        | -74.7 | 0.42         | 3.92            |                |
| <hr/> |             |                          |       |      |            |             |       |              |                 |                |

Start 1507  
 MW-22  
 1539  
 1538  
 1535  
 1534  
 1537  
 1507  
 1539  
 1538  
 1535  
 1534  
 1537

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox oralconox scrub, followed by DI water

FIELD OBSERVATIONS (Well condition, repairs needed)

MW-28  
 PID-0.0 ppm Time: 1000  
 Time 1542

Sampler Signature(s):



**ERM - Purge Log**

Project Name: Kent 212  
 Project Number: 04870013

Date: 08/30/14  
 Set up time: 11:45  
 Weather: cloudy 68°F  
 Field Staff: Austin Lunde

Well # MW-29D

Sample ID: MW-29D-083014

Location: Olymper Steamship  
 Construction: 2" PVC  
 Groundwater Zone: Deep

Construction Depth: 40.5  
 Screened Interval: 30.5-40.5  
 Pump Intake Depth: 35.5

Purge Start Time: 11:55  
 Discharge Rate: 120 ml/min  
 Purge End Time: \_\_\_\_\_

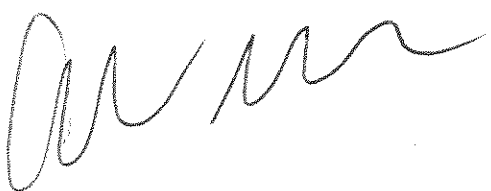
Depth to Water: 6.36  
 Height of Water Column: \_\_\_\_\_  
 Volume of one casing: \_\_\_\_\_

| Time | Volume (mL) | Depth to Water (ft btoc) | Temp. | pH   | EC (mS/cm) | D.O. (mg/L) | Redox | Salinity (‰) | Turbidity (ntu) | Color and Odor |
|------|-------------|--------------------------|-------|------|------------|-------------|-------|--------------|-----------------|----------------|
| 1200 |             | 6.36                     | 20.44 | 6.58 | 6424       | 0.54        | -84   | 0.20         | 106.2           | cloudy         |
| 1205 |             | 6.36                     | 20.28 | 6.53 | 6423       | 0.41        | -33.6 | 0.20         | 94.6            | clear          |
| 1210 |             | 6.36                     | 19.65 | 6.49 | 6420       | 0.37        | -51.6 | 0.20         | 102.3           | cloudy         |
| 1213 |             | 6.36                     | 20.08 | 6.46 | 6420       | 0.37        | -55.8 | 0.20         | 102.0           | precipitate    |
| 1216 |             | 6.36                     | 20.03 | 6.44 | 6418       | 0.36        | -58.4 | 0.20         | 108.3           |                |
| 1219 |             | 6.36                     | 20.11 | 6.42 | 6416       | 0.34        | -62.2 | 0.20         | 108.4           |                |
| 1222 |             | 6.36                     | 20.19 | 6.42 | 6415       | 0.35        | -62.4 | 0.20         | 108.1           |                |
| 1225 |             | 6.36                     | 19.73 | 6.41 | 6414       | 0.32        | -61.0 | 0.20         | 108.3           |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |
|      |             |                          |       |      |            |             |       |              |                 |                |

*Austin Lunde*  
 08/30/14

Disposal method of purge water: 55-gallon drum  
 Decontamination procedure: Liquinox or alconox scrub, followed by DI water  
 FIELD OBSERVATIONS (Well condition, repairs needed)

Time 1230 PID 0.0 ppm

Sampler Signature(s):  




## **APPENDIX C      SURVEY DATA**





8220 South 212th St., Kent Washington

**Monitoring Wells**

| Pt # | Well | Northing  | Easting    | Latitude          | Longitude          | Top of Metal Case Elev. | Top of PVC Casing Elev |
|------|------|-----------|------------|-------------------|--------------------|-------------------------|------------------------|
| 319  | MW19 | 153355.51 | 1294553.64 | N 47° 24' 42.514" | W 122° 13' 48.823" | 33.715                  | 33.385                 |
| 320  | MW20 | 153476.23 | 1294414.19 | N 47° 24' 43.680" | W 122° 13' 50.882" | 33.342                  | 33.032                 |
| 327  | MW27 | 153480.61 | 1294602.19 | N 47° 24' 43.757" | W 122° 13' 48.150" | 33.280                  | 32.937                 |
| 328  | MW28 | 153365.35 | 1294316.53 | N 47° 24' 42.569" | W 122° 13' 52.272" | 34.935                  | 34.535                 |
| 329  | MW29 | 154610.63 | 1294055.96 | N 47° 24' 54.810" | W 122° 13' 56.389" | 30.834                  | 30.416                 |

Notes:

1. The horizontal datum: Washington State Plane Coordinate System, North Zone, NAD83/11,
2. Vertical Datum NAVD88. Bench Mark Ciy of Kent #8149 elevation 33.84 feet
3. Date of Survey 8-27-2019
4. All elevations were established using a Leica DNA 3 Electronic Level.
5. MW 19, 20, 27, and 28 were located only for the purpose of comparing existing values that were supplied to True North.



**APPENDIX D      HISTORICAL GROUNDWATER ELEVATIONS**



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| MW-1            | 04/17/95       | 6.37 | 2,310                        | 11.0             | NM              | NM                      | NM                                 |
|                 | 09/04/96       | 6.49 | 1,620                        | 18.5             | 227.0           | 1.20                    | NM                                 |
|                 | 12/10/96       | 6.37 | 1,653                        | 9.8              | 427.0           | 1.18                    | NM                                 |
|                 | 03/04/97       | 6.65 | 1,359                        | 11.0             | 37.1            | 1.70                    | NM                                 |
|                 | 06/27/97       | 6.62 | 1,195                        | 15.0             | > 1,000         | 1.00                    | NM                                 |
|                 | 09/04/97       | 6.78 | 837                          | 18.0             | 40.0            | 1.71                    | NM                                 |
|                 | 12/04/97       | 6.23 | 1,076                        | 12.0             | 16.2            | 8.85                    | NM                                 |
|                 | 03/06/98       | 6.83 | 1,284                        | 10.0             | 16.0            | 2.15                    | NM                                 |
|                 | 06/18/98       | 6.85 | 1,045                        | 15.5             | 60.7            | 2.60                    | NM                                 |
|                 | 09/29/98       | 6.58 | 851                          | 18.5             | 45.8            | 1.27                    | NM                                 |
|                 | 12/14/98       | 6.50 | 973                          | 13.1             | 16.4            | 1.14                    | -147                               |
|                 | 03/03/99       | 6.70 | 849                          | 10.0             | 55.0            | 3.02                    | -148                               |
|                 | 06/17/99       | 6.51 | 790                          | 14.0             | 6.7             | 1.30                    | -176                               |
|                 | 09/16/99       | 6.60 | 905                          | 17.0             | 14.1            | 0.10                    | -189                               |
|                 | 12/08/99       | 7.12 | 408                          | 12.9             | 9.8             | 0.30                    | -158                               |
|                 | 03/07/00       | 7.51 | 599                          | 10.0             | 5.9             | 0.20                    | -126                               |
|                 | 06/21/00       | 7.10 | 505                          | 16.0             | 4.6             | 1.20                    | 7                                  |
|                 | 09/12/00       | 6.80 | 790                          | 14.5             | NM              | 2.60                    | -69                                |
|                 | 12/07/00       | 7.04 | 830                          | 12.0             | 6.9             | 1.10                    | -60                                |
|                 | 03/15/01       | 7.06 | 999                          | 10.0             | 4.9             | 2.00                    | -48                                |
|                 | 07/12/01       | 7.03 | 925                          | 15.6             | 7.8             | 2.65                    | -141                               |
|                 | 09/24/01       | 6.54 | NM                           | 20.2             | 4.3             | 1.08                    | NM                                 |
|                 | 01/02/02       | 7.19 | 1,150                        | 11.8             | NM              | NM                      | NM                                 |
|                 | 03/28/02       | 7.26 | 351                          | 10.2             | NM              | 0.20                    | NM                                 |
|                 | 06/11/02       | 7.34 | 613                          | 15.2             | NM              | 0.22                    | NM                                 |
|                 | 09/18/02       | 6.93 | 771                          | 18.6             | NM              | 0.04                    | -200                               |
|                 | 12/17/02       | 7.01 | 601                          | 12.6             | 3.5             | 0.19                    | NM                                 |
|                 | 03/20/03       | 7.19 | 517                          | 10.9             | 5.8             | 0.13                    | -111                               |
|                 | 05/14/03       | 7.00 | 493                          | 12.9             | NM              | 0.74                    | -75                                |
|                 | 06/11/03       | 7.02 | 405                          | 15.0             | 8.0             | 0.23                    | NM                                 |
|                 | 09/11/03       | 7.03 | 474                          | 18.7             | 4.0             | 0.21                    | NM                                 |
|                 | 12/04/03       | 7.00 | 451                          | 13.7             | 4.2             | 0.23                    | -51                                |
|                 | 03/16/04       | 6.71 | 391                          | 11.0             | 4.6             | 0.32                    | -63                                |
|                 | 09/22/04       | 6.49 | 500                          | 16.0             | NM              | 0.21                    | 4                                  |
|                 | 04/05/05       | 6.75 | 465                          | 12.3             | NM              | 1.10                    | 5                                  |
|                 | 09/21/05       | 7.26 | 624                          | 17.8             | NM              | 0.26                    | 5                                  |
|                 | 03/15/06       | 6.88 | 550                          | 11.0             | 18.8            | < 0.01                  | NM                                 |
|                 | 09/14/06       | 6.82 | 630                          | 16.8             | NM              | 0.22                    | 56                                 |
|                 | 04/04/07       | 7.16 | 737                          | 11.6             | 5.7             | < 0.01                  | -64                                |
|                 | 09/25/07       | 6.80 | 687                          | 15.7             | 6.2             | 0.18                    | -240                               |
|                 | 05/02/08       | 6.87 | 883                          | 12.3             | NM              | 0.19                    | -66                                |
|                 | 09/30/08       | 6.93 | 843                          | 16.2             | NM              | 7.57 <sup>a</sup>       | -101                               |
|                 | 03/25/09       | 7.11 | 843                          | 9.4              | NM              | 0.30                    | -45                                |
|                 | 09/30/09       | 6.96 | 346                          | 18.1             | NM              | 0.08                    | 3                                  |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/29/10       | 6.97 | 842                          | 11.4             | NM              | 0.30                    | -8                                 |
|                 | 09/30/10       | 7.26 | 937                          | 17.2             | NM              | 0.24                    | -10                                |
| MW-2            | 04/17/95       | 6.30 | 1,000                        | 13.0             | NM              | NM                      | NM                                 |
|                 | 09/04/96       | 6.11 | 964                          | 14.8             | 8.5             | 1.00                    | NM                                 |
|                 | 12/10/96       | 6.27 | 704                          | 13.1             | 1000.0          | 0.92                    | NM                                 |
|                 | 03/04/97       | 6.20 | 754                          | 13.0             | 9.4             | 1.77                    | NM                                 |
|                 | 06/27/97       | 6.54 | 667                          | 14.0             | 322.0           | 3.00                    | NM                                 |
|                 | 09/04/97       | 6.41 | 638                          | 15.0             | 332.0           | 1.17                    | NM                                 |
|                 | 12/04/97       | 5.25 | 612                          | 14.0             | 74.4            | 1.80                    | NM                                 |
|                 | 03/06/98       | 6.48 | 826                          | 12.0             | 66.9            | 1.12                    | NM                                 |
|                 | 06/18/98       | 6.60 | 899                          | 14.0             | 334.0           | 3.50                    | NM                                 |
|                 | 09/29/98       | 6.35 | 705                          | 17.0             | 16.6            | 16.6 <sup>a</sup>       | NM                                 |
|                 | 12/14/98       | 6.20 | 632                          | 15.1             | NM              | 1.14                    | -84                                |
|                 | 03/02/99       | 6.29 | 560                          | 12.0             | 59.4            | 1.30                    | -91.9                              |
|                 | 06/16/99       | 6.02 | 663                          | 13.0             | NM              | 0.90                    | -76                                |
|                 | 09/16/99       | 6.39 | 734                          | 13.0             | 11.5            | < 0.1                   | -475                               |
|                 | 12/08/99       | 6.74 | 421                          | 14.8             | 15.5            | 1.30                    | -121                               |
|                 | 03/07/00       | 6.40 | 491                          | 12.0             | 18.9            | 0.40                    | -70                                |
|                 | 06/21/00       | 6.55 | 320                          | 15.0             | 6.1             | 1.51                    | 8                                  |
|                 | 09/12/00       | 6.10 | 667                          | 13.0             | 10.9            | 3.90                    | -57                                |
|                 | 12/07/00       | 6.21 | 574                          | 13.0             | 6.1             | 1.90                    | -18                                |
|                 | 03/15/01       | 6.60 | 556                          | 12.0             | 39.0            | 0.60                    | -49                                |
|                 | 07/12/01       | 6.53 | 652                          | 15.1             | 76.7            | 2.54                    | -116                               |
|                 | 09/24/01       | 6.69 | NM                           | 19.5             | 5.0             | 1.10                    | NM                                 |
|                 | 01/03/02       | 5.81 | 531                          | 13.7             | 12.3            | 0.00                    | NM                                 |
|                 | 03/28/02       | 6.28 | 229                          | 12.6             | 6.2             | 0.63                    | NM                                 |
|                 | 06/11/02       | 6.72 | 526                          | 14.2             | 7.1             | 0.43                    | NM                                 |
|                 | 09/18/02       | 6.63 | 597                          | 17.9             | NM              | 0.08                    | -11                                |
|                 | 12/16/02       | 6.04 | 480                          | 15.2             | 5.1             | 0.34                    | NM                                 |
|                 | 03/20/03       | 6.63 | 413                          | 12.5             | 28.9            | 0.12                    | -57                                |
|                 | 06/11/03       | 6.59 | 306                          | 13.9             | 10.2            | 0.31                    | NM                                 |
|                 | 09/10/03       | 6.33 | 416                          | 15.9             | 4.2             | 0.34                    | NM                                 |
|                 | 12/05/03       | 6.58 | 293                          | 14.3             | 5.3             | 0.31                    | -20                                |
|                 | 03/16/04       | 6.54 | 306                          | 12.8             | 25.4            | 0.30                    | -23                                |
| 09/24/04        | 6.46           | 376  | 17.0                         | NM               | 0.37            | 30                      |                                    |
| 04/05/05        | 6.39           | 438  | 12.5                         | NM               | 1.04            | 24                      |                                    |
| 09/21/05        | 6.71           | 512  | 17.1                         | NM               | 0.26            | -3                      |                                    |
| 03/15/06        | 6.57           | 403  | 12.4                         | 52.8             | < 0.01          | NM                      |                                    |
| 09/13/06        | 6.33           | 472  | 15.5                         | NM               | 0.15            | 68                      |                                    |
| 04/03/07        | 6.64           | 421  | 13.9                         | 64.8             | 0.11            | 116                     |                                    |
| 09/26/07        | 6.44           | 608  | 15.8                         | 42.3             | 0.21            | -178                    |                                    |
| 05/02/08        | 6.29           | 567  | 12.2                         | NM               | 0.25            | -23                     |                                    |
| 09/29/08        | 6.43           | 607  | 19.6                         | NM               | 0.20            | -121                    |                                    |
| 03/26/09        | 5.99           | 543  | 9.6                          | NM               | 0.31            | -9                      |                                    |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 09/29/09       | 6.44 | 55 <sup>a</sup>              | 15.6             | NM              | 8.1 <sup>a</sup>        | 32                                 |
|                 | 03/26/10       | 6.49 | 390                          | 12.6             | NM              | 0.82                    | 7                                  |
|                 | 09/30/10       | 6.68 | 556                          | 16.4             | NM              | 0.28                    | 27                                 |
| MW-3            | 04/17/95       | 6.40 | 1,580                        | 12.0             | NM              | NM                      | NM                                 |
|                 | 09/04/96       | 6.33 | 1,357                        | 14.9             | 5.1             | 1.60                    | NM                                 |
|                 | 12/11/96       | 6.48 | 979                          | 12.4             | 14.7            | 1.00                    | NM                                 |
|                 | 03/04/97       | 6.44 | 1,152                        | 13.0             | 9.4             | 1.69                    | NM                                 |
|                 | 06/27/97       | 6.64 | 937                          | 13.0             | 423.0           | 1.00                    | NM                                 |
|                 | 09/04/97       | 6.47 | 765                          | 15.0             | 132.0           | 1.81                    | NM                                 |
|                 | 12/04/97       | 6.20 | 844                          | 13.5             | 7.5             | 1.29                    | NM                                 |
|                 | 03/06/98       | 6.53 | 1,255                        | 12.0             | 3.4             | 1.90                    | NM                                 |
|                 | 06/18/98       | 6.55 | 1,225                        | 13.0             | 5.3             | 0.90                    | NM                                 |
|                 | 09/29/98       | 6.41 | 947                          | 14.0             | 7.9             | 1.22                    | NM                                 |
|                 | 12/14/98       | 6.25 | 1,054                        | 13.5             | 0.9             | 1.14                    | -79                                |
|                 | 03/03/99       | 6.45 | 765                          | 12.0             | 4.7             | NM                      | -105                               |
|                 | 06/16/99       | 6.31 | 837                          | 12.0             | NM              | 1.00                    | -120                               |
|                 | 09/17/99       | 6.48 | 964                          | 14.0             | 4.2             | 0.10                    | -129                               |
|                 | 12/08/99       | 6.80 | 137                          | 13.5             | 6.7             | 1.50                    | -63                                |
|                 | 03/07/00       | 6.62 | 766                          | 12.0             | 8.0             | 0.80                    | -75                                |
|                 | 06/21/00       | 6.92 | 452                          | 14.0             | 7.5             | 1.25                    | -81                                |
|                 | 09/12/00       | 6.70 | 836                          | 10.7             | NM              | 1.40                    | -36                                |
|                 | 12/07/00       | 6.09 | 732                          | 12.0             | 2.7             | 1.80                    | -62                                |
|                 | 03/15/01       | 6.80 | 809                          | 11.0             | 7.5             | 0.90                    | NM                                 |
|                 | 07/12/01       | 6.63 | 746                          | 13.1             | 8.2             | 1.36                    | -42                                |
|                 | 09/24/01       | 6.49 | NM                           | 16.9             | 11.8            | 0.16                    | NM                                 |
|                 | 01/03/02       | 6.52 | 955                          | 13.1             | 2.0             | 0.00                    | NM                                 |
|                 | 03/28/02       | 6.74 | 330                          | 12.3             | 5.8             | 0.19                    | NM                                 |
|                 | 06/11/02       | 6.89 | 786                          | 12.8             | 14.3            | 0.38                    | NM                                 |
|                 | 09/17/02       | 6.80 | 773                          | 15.2             | NM              | 0.10                    | -135                               |
|                 | 12/17/02       | 6.44 | 821                          | 13.0             | 7.5             | 0.40                    | NM                                 |
|                 | 03/20/03       | 6.85 | 521                          | 12.1             | 3.3             | 0.12                    | -73                                |
|                 | 06/11/03       | 7.17 | 411                          | 13.8             | 3.6             | 0.24                    | NM                                 |
|                 | 09/11/03       | 6.72 | 395                          | 16.1             | 2.5             | 0.24                    | NM                                 |
|                 | 12/04/03       | 6.69 | 388                          | 13.2             | 2.2             | 0.68                    | 94                                 |
|                 | 03/15/04       | 6.61 | 425                          | 12.3             | 2.1             | 0.32                    | -81                                |
| 09/24/04        | 6.56           | 448  | 15.6                         | NM               | NM              | 2                       |                                    |
| 04/05/05        | 6.95           | 726  | 13.0                         | NM               | 0.33            | -4                      |                                    |
| 09/21/05        | 7.11           | 560  | 15.6                         | NM               | 0.42            | -6                      |                                    |
| 03/14/06        | 7.14           | 519  | 11.9                         | 1.0              | < 0.01          | NM                      |                                    |
| 09/12/06        | 6.50           | 606  | 15.8                         | NM               | 0.19            | -21                     |                                    |
| 04/04/07        | 6.40           | 515  | 12.1                         | 13.3             | 0.06            | -1                      |                                    |
| 09/25/07        | 6.43           | 540  | 14.2                         | 6.8              | 0.40            | -183                    |                                    |
| 05/01/08        | 6.63           | 688  | 11.9                         | NM               | 0.17            | -74                     |                                    |
| 10/01/08        | 6.77           | 662  | 17.2                         | NM               | 0.04            | -118                    |                                    |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH    | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|-------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/24/09       | 6.64  | 727                          | 11.3             | NM              | 0.26                    | -81                                |
|                 | 09/29/09       | 6.82  | 220                          | 17.0             | NM              | 0.37                    | 10                                 |
|                 | 03/30/10       | 6.85  | 601                          | 11.6             | NM              | 0.99                    | -5                                 |
|                 | 09/28/10       | 6.98  | 647                          | 15.6             | NM              | 0.28                    | 8                                  |
| <b>MW-4</b>     | 09/04/96       | 6.29  | 1,452                        | 17.9             | 98.5            | 1.50                    | NM                                 |
|                 | 12/10/96       | 6.29  | 1,690                        | 11.9             | 427.0           | 0.83                    | NM                                 |
|                 | 03/04/97       | 6.75  | 1,868                        | 10.0             | 2.6             | 2.82                    | NM                                 |
|                 | 06/27/97       | 6.78  | 1,431                        | 11.0             | 55.0            | 1.00                    | NM                                 |
|                 | 09/04/97       | 6.82  | 1,120                        | 19.0             | 51.0            | 1.40                    | NM                                 |
|                 | 12/04/97       | 6.33  | 1,578                        | 13.0             | 6.5             | 1.80                    | NM                                 |
|                 | 03/06/98       | 6.88  | 1,847                        | 10.0             | 3.6             | 1.92                    | NM                                 |
|                 | 06/18/98       | 6.79  | 1,862                        | 15.0             | 4.5             | 2.20                    | NM                                 |
|                 | 09/29/98       | 6.63  | 1,288                        | 18.0             | 10.8            | 1.26                    | NM                                 |
|                 | 12/14/98       | 6.18  | 1,560                        | 13.9             | 2.6             | 1.16                    | -150                               |
|                 | 03/03/99       | 6.69  | 1,288                        | 9.0              | 9.6             | NM                      | 155                                |
|                 | 06/17/99       | 6.69  | NM                           | 13.0             | 1.9             | 0.10                    | -186                               |
|                 | 09/17/99       | 6.57  | 1,623                        | 17.0             | 2.5             | 1.90                    | -178                               |
|                 | 12/08/99       | 6.94  | 394                          | 13.6             | 4.3             | 0.50                    | -109                               |
|                 | 03/07/00       | 6.92  | 1,344                        | 12.0             | 5.8             | 1.10                    | -68                                |
|                 | 06/21/00       | 6.90  | 992                          | 15.0             | 2.4             | 1.29                    | -67                                |
|                 | 09/12/00       | 6.58  | 1,450                        | 14.0             | 1.6             | 2.20                    | -86                                |
|                 | 12/07/00       | 6.60  | 1,210                        | 13.0             | 3.6             | 2.40                    | 15                                 |
|                 | 03/15/01       | 6.60  | 1,361                        | 10.0             | 5.2             | 1.50                    | -24                                |
|                 | 07/12/01       | 6.70  | 1,594                        | 15.2             | 6.2             | 2.73                    | -108                               |
|                 | 09/25/01       | 6.17  | NM                           | 17.7             | 47.9            | 1.04                    | NM                                 |
|                 | 01/02/02       | 6.73  | 1,840                        | 11.9             | 74.0            | NM                      | NM                                 |
|                 | 03/28/02       | 6.95  | 655                          | 10.5             | 24.7            | 0.39                    | NM                                 |
|                 | 06/11/02       | 6.97  | 817                          | 13.3             | NM              | 0.17                    | NM                                 |
|                 | 09/18/02       | 6.81  | 1,452                        | 18.1             | NM              | 0.04                    | -106                               |
|                 | 12/17/02       | 6.54  | 1,011                        | 12.4             | 2.7             | 0.34                    | NM                                 |
|                 | 03/20/03       | 6.74  | 877                          | 10.8             | 3.6             | 0.07                    | -78                                |
|                 | 05/14/03       | 6.70  | 864                          | 12.2             | NM              | 0.74                    | -45                                |
|                 | 06/11/03       | 6.89  | 776                          | 13.9             | 4.0             | 0.21                    | NM                                 |
|                 | 09/11/03       | 6.60  | 756                          | 17.1             | 3.7             | 0.25                    | NM                                 |
|                 | 12/04/03       | 6.68  | 437                          | 13.1             | 4.2             | 0.22                    | -52                                |
|                 | 03/15/04       | 6.60  | 518                          | 10.6             | 1.9             | 0.46                    | -58                                |
|                 | 09/24/04       | 6.45  | 596                          | 15.4             | NM              | 0.62                    | 36                                 |
| 04/04/05        | 6.71           | 945   | 11.6                         | NM               | 1.20            | 58                      |                                    |
| 09/21/05        | 6.56           | 881   | 17.5                         | NM               | 0.71            | -1                      |                                    |
| 03/15/06        | 6.82           | 907   | 10.1                         | 8.3              | 0.01            | NM                      |                                    |
| 09/14/06        | 6.49           | 907   | 15.5                         | NM               | 0.33            | 98                      |                                    |
| 04/04/07        | 6.85           | 891   | 11.2                         | 5.9              | < 0.01          | -68                     |                                    |
| 09/26/07        | 6.51           | 992   | 16.7                         | 4.2              | < 0.01          | -210                    |                                    |
| 05/02/08        | 6.46           | 1,076 | 11.1                         | NM               | 0.19            | -39                     |                                    |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 10/01/08       | 6.48 | 1,073                        | 15.8             | NM              | 0.26                    | -68                                |
|                 | 03/25/09       | 6.81 | 1,256                        | 9.5              | NM              | 0.30                    | -45                                |
|                 | 09/30/09       | 6.59 | 369                          | 17.9             | NM              | 0.11                    | 24                                 |
|                 | 03/29/10       | 6.71 | 1,094                        | 9.9              | NM              | 0.58                    | -8                                 |
|                 | 10/01/10       | 6.89 | 1,054                        | 16.7             | NM              | 0.55                    | 10                                 |
| <b>MW-5</b>     | 09/04/96       | 6.23 | 422                          | 15.9             | 21.7            | 2.10                    | NM                                 |
|                 | 12/10/96       | 6.15 | 463                          | 12.7             | 984.0           | 1.53                    | NM                                 |
|                 | 03/04/97       | 6.22 | 506                          | 13.0             | 8.9             | 2.48                    | NM                                 |
|                 | 06/27/97       | 6.46 | 329                          | 15.0             | 245.0           | 2.00                    | NM                                 |
|                 | 09/04/97       | 6.79 | 285                          | 16.0             | 51.0            | 1.39                    | NM                                 |
|                 | 12/04/97       | 5.90 | 367                          | 13.0             | 3.6             | 1.35                    | NM                                 |
|                 | 03/06/98       | 6.38 | 425                          | 12.0             | 4.9             | 1.97                    | NM                                 |
|                 | 06/18/98       | 6.36 | 439                          | 14.0             | 8.5             | 2.20                    | NM                                 |
|                 | 09/29/98       | 6.29 | 326                          | 17.0             | 8.7             | 1.54                    | NM                                 |
|                 | 12/15/98       | 5.94 | 394                          | 14.8             | 3.6             | 1.72                    | 111                                |
|                 | 03/02/99       | 5.87 | 301                          | 12.0             | 8.9             | 1.47                    | 237                                |
|                 | 06/16/99       | 5.99 | 375                          | 12.0             | < 10            | 0.20                    | 161                                |
|                 | 09/16/99       | 6.19 | 449                          | 14.0             | 2.9             | 0.40                    | -159                               |
|                 | 12/08/99       | 6.59 | 238                          | 14.9             | 5.1             | 0.20                    | 72                                 |
|                 | 03/07/00       | 6.34 | 278                          | 12.0             | 7.9             | 1.10                    | 67                                 |
|                 | 06/21/00       | 6.45 | 185                          | 14.0             | 1.6             | 1.68                    | -8                                 |
|                 | 09/12/00       | 7.24 | 349                          | 12.4             | 1.9             | 1.20                    | -18                                |
|                 | 12/07/00       | 6.15 | 314                          | 13.0             | 14.4            | 2.30                    | -45                                |
|                 | 03/15/01       | 6.55 | 371                          | 11.0             | 9.1             | 3.50                    | -61                                |
|                 | 07/09/01       | 6.32 | 352                          | 14.2             | 4.6             | 1.01                    | 111                                |
|                 | 09/24/01       | 6.16 | 256                          | 18.1             | 63.7            | 6.17                    | NM                                 |
|                 | 01/02/02       | 6.09 | 468                          | 15.3             | NM              | NM                      | NM                                 |
|                 | 03/27/02       | 6.51 | 5,000                        | 9.7              | 5.1             | 3.84                    | NM                                 |
|                 | 06/11/02       | 6.29 | 439                          | 13.9             | 2.4             | 1.05                    | NM                                 |
|                 | 09/18/02       | 6.28 | 429                          | 15.6             | NM              | 0.25                    | -4                                 |
|                 | 12/16/02       | 6.18 | 341                          | 14.2             | 2.7             | 0.48                    | NM                                 |
|                 | 03/17/03       | 6.29 | 350                          | 13.4             | 3.4             | 0.36                    | 79                                 |
|                 | 05/14/03       | 6.42 | 286                          | 12.3             | NM              | 0.69                    | 34                                 |
|                 | 06/10/03       | 6.35 | 218                          | 13.8             | 11.6            | 0.30                    | NM                                 |
|                 | 09/11/03       | 6.32 | 267                          | 16.5             | 1.4             | 0.37                    | NM                                 |
|                 | 12/05/03       | 6.40 | 219                          | 13.8             | 7.1             | 0.34                    | 281                                |
|                 | 03/16/04       | 6.40 | 219                          | 12.7             | 7.1             | 0.77                    | 73                                 |
|                 | 09/22/04       | 6.27 | 337                          | 13.9             | NM              | 0.66                    | 60                                 |
|                 | 04/04/05       | 6.41 | 290                          | 13.1             | NM              | 1.55                    | 100                                |
|                 | 09/20/05       | 6.59 | 324                          | 18.5             | NM              | 0.36                    | 11                                 |
|                 | 03/14/06       | 6.45 | 312                          | 12.4             | 12.1            | 0.61                    | NM                                 |
|                 | 09/13/06       | 6.34 | 296                          | 15.7             | NM              | 0.32                    | 124                                |
|                 | 04/05/07       | 6.47 | 327                          | 12.2             | 7.7             | 0.73                    | 128                                |
|                 | 09/26/07       | 6.22 | 351                          | 15.1             | 6.2             | 0.58                    | 92                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 05/01/08       | 6.10 | 436                          | 12.9             | NM              | 0.84                    | 74                                 |
|                 | 09/30/08       | 6.17 | 397                          | 15.7             | NM              | 0.33                    | 116                                |
|                 | 03/25/09       | 6.29 | 463                          | 10.6             | NM              | 0.57                    | 106                                |
|                 | 09/29/09       | 6.36 | 127                          | 16.5             | NM              | 1.73                    | 37                                 |
|                 | 04/01/10       | 6.39 | 287                          | 12.5             | 16.0            | 0.49                    | 27                                 |
|                 | 04/09/10       | NM   | 340                          | NM               | 3.0             | NM                      | NM                                 |
|                 | 04/16/10       | 6.38 | 342                          | 13.4             | 8.0             | 0.70                    | 26                                 |
|                 | 05/06/10       | 6.52 | 297                          | 12.7             | 6.0             | 2.35                    | 23                                 |
|                 | 06/09/10       | 6.44 | 283                          | 14.1             | 14.0            | 1.61                    | 24                                 |
|                 | 09/28/10       | 6.55 | 262                          | 18.4             | NM              | 1.06                    | 26                                 |
| <b>MW-6</b>     | 09/04/96       | 6.30 | 1,930                        | 14.5             | 23.0            | 4.80                    | NM                                 |
|                 | 12/10/96       | 6.17 | 1,909                        | 12.0             | > 1,000         | 1.02                    | NM                                 |
|                 | 03/04/97       | 6.32 | 1,683                        | 11.0             | 6.1             | 3.44                    | NM                                 |
|                 | 06/27/97       | 6.41 | 1,469                        | 14.0             | 73.0            | 1.00                    | NM                                 |
|                 | 09/04/97       | 6.30 | 1,157                        | 15.0             | 98.0            | 1.15                    | NM                                 |
|                 | 12/04/97       | 5.92 | 1,286                        | 14.0             | 5.7             | 1.05                    | NM                                 |
|                 | 03/06/98       | 6.33 | 1,620                        | 11.0             | 5.7             | 1.10                    | NM                                 |
|                 | 06/18/98       | 6.33 | 1,804                        | 14.0             | 7.0             | 1.80                    | NM                                 |
|                 | 09/29/98       | 6.25 | 1,440                        | 17.5             | 7.9             | 1.91                    | NM                                 |
|                 | 12/15/98       | 5.93 | 1,390                        | 14.4             | NM              | 1.26                    | -89                                |
|                 | 03/02/99       | 6.03 | 1,107                        | 11.0             | 7.7             | 1.38                    | -85                                |
|                 | 06/16/99       | 6.15 | 1,441                        | 12.0             | < 10            | < 0.1                   | -117                               |
|                 | 09/16/99       | 6.27 | 1,621                        | 13.0             | 9.1             | 0.60                    | -476                               |
|                 | 12/08/99       | 6.63 | 315                          | 13.7             | 3.7             | 0.70                    | -91                                |
|                 | 03/07/00       | 6.36 | 1,147                        | 11.0             | 5.5             | 0.60                    | -54                                |
|                 | 06/21/00       | 6.66 | 810                          | 14.0             | 1.0             | 1.75                    | -37                                |
|                 | 09/12/00       | 6.50 | 1,378                        | 12.0             | NM              | 2.30                    | -43                                |
|                 | 12/07/00       | 5.79 | 1,270                        | 14.0             | 3.6             | 1.60                    | -15                                |
|                 | 03/15/01       | 6.35 | 1,079                        | 11.0             | 16.1            | 0.40                    | -31                                |
|                 | 07/12/01       | 6.39 | 1,210                        | 14.1             | 7.6             | 1.07                    | -44                                |
|                 | 09/25/01       | 6.63 | NM                           | 16.4             | 18.9            | 1.02                    | NM                                 |
|                 | 01/03/02       | 6.19 | 1,120                        | 12.9             | 1.5             | 0.00                    | NM                                 |
|                 | 03/27/02       | 6.32 | NM                           | 9.0              | NM              | 0.45                    | NM                                 |
|                 | 06/11/02       | 6.78 | 891                          | 13.5             | NM              | 0.34                    | NM                                 |
|                 | 09/18/02       | 6.49 | 1,312                        | 16.7             | NM              | 0.16                    | -157                               |
|                 | 12/16/02       | 6.25 | 1,179                        | 14.2             | 8.8             | 0.24                    | NM                                 |
|                 | 03/20/03       | 6.53 | 721                          | 12.1             | 5.3             | 0.17                    | -70                                |
|                 | 06/11/03       | 6.74 | 387                          | 14.1             | 21.3            | 0.33                    | NM                                 |
|                 | 09/10/03       | 6.44 | 601                          | 16.9             | 4.2             | 0.31                    | NM                                 |
|                 | 12/04/03       | 6.60 | 393                          | 14.3             | 6.2             | 0.26                    | -12                                |
|                 | 03/16/04       | 6.75 | 286                          | 12.9             | 6.9             | 0.25                    | -37                                |
|                 | 09/23/04       | 6.36 | 635                          | 16.3             | NM              | 0.55                    | 13                                 |
|                 | 04/05/05       | 6.61 | 541                          | 13.3             | NM              | 0.61                    | -17                                |
|                 | 09/21/05       | 6.47 | 1,045                        | 15.4             | NM              | 0.66                    | 40                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/14/06       | 6.70 | 445                          | 12.7             | 12.6            | < 0.01                  | NM                                 |
|                 | 09/13/06       | 6.39 | 868                          | 15.4             | NM              | 0.25                    | 64                                 |
|                 | 04/05/07       | 6.50 | 377                          | 12.6             | 19.0            | 0.07                    | 23                                 |
|                 | 09/26/07       | 6.39 | 1,010                        | 15.0             | 12.2            | 0.06                    | -190                               |
|                 | 05/02/08       | 6.39 | 578                          | 11.9             | NM              | 0.19                    | -26                                |
|                 | 09/30/08       | 6.26 | 1,011                        | 14.9             | NM              | 0.14                    | -85                                |
|                 | 03/26/09       | 6.84 | 573                          | 11.9             | NM              | 0.41                    | 6                                  |
|                 | 09/29/09       | 6.30 | 99 <sup>a</sup>              | 14.3             | NM              | 6.9 <sup>a</sup>        | 39                                 |
|                 | 03/30/10       | 6.53 | 533                          | 11.5             | NM              | 0.61                    | 14                                 |
|                 | 09/30/10       | 6.55 | 936                          | 15.9             | NM              | 0.35                    | 30                                 |
| <b>MW-7</b>     | 12/22/97       | 6.56 | 550                          | 11.0             | 139.0           | 2.15                    | NM                                 |
|                 | 03/06/98       | 6.63 | 536                          | 12.0             | 13.4            | 1.53                    | NM                                 |
|                 | 06/18/98       | 6.36 | 543                          | 14.0             | 13.0            | 2.40                    | NM                                 |
|                 | 09/29/98       | 6.38 | 438                          | 17.0             | 20.5            | 1.41                    | NM                                 |
|                 | 12/14/98       | 5.98 | 409                          | 15.2             | 3.2             | 1.23                    | 68                                 |
|                 | 03/03/99       | 7.07 | 288                          | 12.0             | 5.5             | NM                      | -8.4                               |
|                 | 06/17/99       | 6.07 | 462                          | 13.0             | NM              | 0.80                    | 1                                  |
|                 | 09/17/99       | 6.13 | 506                          | 16.0             | 11.4            | < 0.1                   | -72                                |
|                 | 12/08/99       | 6.71 | 342                          | 15.3             | 7.6             | 1.30                    | -2                                 |
|                 | 03/07/00       | 6.44 | 362                          | 12.0             | 6.7             | 0.80                    | -11                                |
|                 | 06/21/00       | 6.57 | 241                          | 14.0             | 0.7             | 2.04                    | 24                                 |
|                 | 09/12/00       | 6.00 | 493                          | 13.0             | 12.6            | 1.40                    | 5                                  |
|                 | 12/07/00       | 6.46 | 505                          | 14.0             | 31.0            | 2.60                    | -39                                |
|                 | 03/15/01       | 6.58 | 425                          | 12.0             | 20.2            | 1.50                    | NM                                 |
|                 | 07/12/01       | 6.45 | 493                          | 14.1             | 10.5            | 1.87                    | 54                                 |
|                 | 09/25/01       | 6.48 | NM                           | 15.6             | 2.8             | 1.12                    | NM                                 |
|                 | 01/03/02       | 6.17 | 628                          | 13.9             | 4.1             | 0.00                    | NM                                 |
|                 | 03/28/02       | 6.37 | 184                          | 12.3             | 4.7             | 2.61                    | NM                                 |
|                 | 06/11/02       | 6.66 | 383                          | 13.2             | 5.7             | 0.70                    | NM                                 |
|                 | 09/17/02       | 6.56 | 427                          | 16.0             | NM              | 0.15                    | 4                                  |
|                 | 12/17/02       | 6.46 | 351                          | 13.2             | 2.4             | 0.32                    | NM                                 |
|                 | 03/17/03       | 6.49 | 436                          | 13.3             | 19.7            | 0.13                    | 27                                 |
|                 | 06/10/03       | 6.88 | 282                          | 13.8             | 52.1            | 0.18                    | NM                                 |
|                 | 09/10/03       | 6.27 | 257                          | 16.0             | 3.0             | 0.49                    | NM                                 |
|                 | 12/04/03       | 6.68 | 239                          | 13.4             | 4.7             | 0.29                    | 159                                |
|                 | 03/16/04       | 6.62 | 268                          | 13.9             | 7.3             | 0.84                    | 34                                 |
|                 | 09/22/04       | 7.00 | 469                          | 16.0             | NM              | 0.21                    | 103                                |
|                 | 04/04/05       | 6.71 | 388                          | 13.0             | NM              | 0.86                    | 40                                 |
|                 | 09/20/05       | 6.75 | 404                          | 18.3             | NM              | 0.68                    | -11                                |
|                 | 03/14/06       | 7.11 | 312                          | 12.5             | 3.7             | 2.78                    | NM                                 |
|                 | 09/13/06       | 6.33 | 345                          | 16.0             | NM              | 0.26                    | 115                                |
|                 | 04/03/07       | 6.56 | 220                          | 12.6             | 15.2            | 5.06                    | 222                                |
|                 | 09/25/07       | 6.43 | 313                          | 17.1             | 8.7             | 0.59                    | 44                                 |
|                 | 05/01/08       | 6.30 | 337                          | 13.4             | NM              | 1.40                    | 41                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU)  | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|------------------|-------------------------|------------------------------------|
|                 | 10/01/08       | 6.41 | 389                          | 17.3             | NM               | 0.13                    | 30                                 |
|                 | 03/24/09       | 6.12 | 450                          | 11.3             | NM               | 0.97                    | 94                                 |
|                 | 09/29/09       | 6.51 | 141                          | 15.9             | NM               | 1.83                    | 28                                 |
|                 | 04/01/10       | 6.81 | 255                          | 12.4             | NM               | 1.48                    | 6                                  |
|                 | 09/28/10       | 6.71 | 318                          | 17.4             | NM               | 0.27                    | 17                                 |
| <b>MW-8</b>     | 12/22/97       | 6.37 | 495                          | 12.0             | 66.5             | 4.06                    | NM                                 |
|                 | 03/06/98       | 6.49 | 758                          | 12.0             | 70.1             | 2.72                    | NM                                 |
|                 | 06/18/98       | 6.66 | 662                          | 13.0             | 243.0            | 2.80                    | NM                                 |
|                 | 09/29/98       | 6.33 | 428                          | 14.5             | 48.3             | 1.70                    | NM                                 |
|                 | 12/14/98       | 6.11 | 413                          | 13.9             | 13.8             | 1.83                    | 72                                 |
|                 | 03/02/99       | 6.10 | 442                          | 12.0             | 90.5             | 2.11                    | 117                                |
|                 | 06/16/99       | 5.95 | 534                          | 11.0             | < 10             | 0.10                    | 132                                |
|                 | 09/16/99       | 6.22 | 588                          | 13.0             | 10.5             | 1.80                    | -205                               |
|                 | 12/08/99       | 6.50 | 140                          | 13.9             | 133.0            | 2.40                    | 55                                 |
|                 | 03/07/00       | 6.90 | 455                          | 12.0             | 25.3             | 1.50                    | 38                                 |
|                 | 06/21/00       | 6.30 | 313                          | 14.0             | 1.2              | 1.73                    | 37                                 |
|                 | 09/12/00       | 6.52 | 447                          | 11.6             | 2.6              | 3.50                    | 52                                 |
|                 | 12/07/00       | 6.99 | 387                          | 14.0             | 6.5              | 1.80                    | -10                                |
|                 | 03/15/01       | 6.45 | 433                          | 11.0             | 8.3              | 2.70                    | -50                                |
|                 | 07/12/01       | 6.30 | 427                          | 13.8             | 5.0              | 2.03                    | 53                                 |
|                 | 09/25/01       | 6.48 | NM                           | 14.4             | 22.0             | 1.02                    | NM                                 |
|                 | 01/03/02       | 5.64 | 468                          | 13.4             | 2.8              | 0.00                    | NM                                 |
|                 | 03/27/02       | 6.31 | NM                           | 8.9              | 5.1              | 1.95                    | NM                                 |
|                 | 06/11/02       | 6.41 | 576                          | 12.9             | 6.4              | 0.40                    | NM                                 |
|                 | 09/18/02       | 6.32 | 415                          | 15.0             | NM               | 0.15                    | -88                                |
|                 | 12/16/02       | 6.23 | 294                          | 13.6             | 11.6             | 0.35                    | NM                                 |
|                 | 03/17/03       | 6.31 | 279                          | 12.4             | 2.4              | 0.28                    | 87                                 |
|                 | 05/14/03       | 6.36 | 338                          | 13.6             | NM               | 0.83                    | 35                                 |
|                 | 06/11/03       | 6.54 | 249                          | 13.4             | 3.5              | 0.54                    | NM                                 |
|                 | 09/10/03       | 6.12 | 249                          | 15.5             | 1.3              | 0.70                    | NM                                 |
|                 | 12/04/03       | 6.62 | 165                          | 13.5             | 4.7              | 0.17                    | 153                                |
|                 | 03/16/04       | 6.48 | 292                          | 12.6             | 6.1              | 0.72                    | 47                                 |
|                 | 09/24/04       | 6.60 | 309                          | 16.0             | NM               | 0.18                    | 66                                 |
|                 | 04/05/05       | 6.48 | 385                          | 12.9             | NM               | 1.31                    | -1                                 |
|                 | 09/20/05       | 6.52 | 349                          | 18.1             | NM               | 0.53                    | 31                                 |
|                 | 03/15/06       | 6.60 | 433                          | 12.0             | 26.5             | 0.42                    | NM                                 |
|                 | 09/13/06       | 6.41 | 411                          | 14.9             | NM               | 0.25                    | 52                                 |
| 04/05/07        | 6.32           | 690  | 12.4                         | 6.7              | 0.44             | 176                     |                                    |
| 09/26/07        | 6.30           | 506  | 14.7                         | 10.3             | 0.50             | -1                      |                                    |
| 05/01/08        | 6.07           | 812  | 12.8                         | NM               | 1.14             | 94                      |                                    |
| 09/30/08        | 6.25           | 584  | 15.2                         | NM               | 0.18             | 60                      |                                    |
| 03/26/09        | 6.70           | 906  | 12.3                         | NM               | 0.96             | 90                      |                                    |
| 09/29/09        | 6.27           | 135  | 15.3                         | NM               | 7.6 <sup>a</sup> | 40                      |                                    |
| 04/01/10        | 6.29           | 949  | 11.9                         | NM               | 0.79             | 29                      |                                    |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| MW-9            | 09/28/10       | 6.44 | 1,217                        | 18.1             | NM              | 0.28                    | 32                                 |
|                 | 07/09/01       | 6.24 | 812                          | 13.9             | 8.2             | 2.28                    | -63                                |
|                 | 09/25/01       | 6.33 | NM                           | 14.7             | 52.2            | 1.06                    | NM                                 |
|                 | 01/03/02       | 6.13 | 763                          | 13.4             | 1.4             | 0.00                    | NM                                 |
|                 | 03/27/02       | 6.37 | NM                           | 8.2              | NM              | 0.59                    | NM                                 |
|                 | 06/11/02       | 6.61 | 700                          | 12.8             | NM              | 0.61                    | NM                                 |
|                 | 09/17/02       | 6.41 | 728                          | 14.7             | NM              | 0.13                    | -131                               |
|                 | 12/16/02       | 6.24 | 614                          | 13.7             | 27.7            | 0.26                    | NM                                 |
|                 | 03/17/03       | 6.52 | 460                          | 12.7             | 18.8            | 0.08                    | -47                                |
|                 | 06/11/03       | 6.28 | 395                          | 13.3             | 64.7            | 0.41                    | NM                                 |
|                 | 09/10/03       | 6.12 | 494                          | 15.1             | 21.6            | 0.33                    | NM                                 |
|                 | 12/04/03       | 6.49 | 351                          | 14.5             | 16.0            | 0.18                    | 21                                 |
|                 | 03/16/04       | 6.46 | 269                          | 12.4             | 5.1             | 0.44                    | 46                                 |
|                 | 09/23/04       | 6.48 | 488                          | 15.5             | NM              | 0.17                    | 55                                 |
|                 | 04/05/05       | 6.53 | 710                          | 13.2             | NM              | 1.15                    | -5                                 |
|                 | 09/20/05       | 6.25 | 550                          | 16.7             | NM              | 0.21                    | 24                                 |
|                 | 03/14/06       | 6.51 | 416                          | 12.7             | 347.0           | < 0.01                  | NM                                 |
|                 | 09/13/06       | 6.43 | 548                          | 14.7             | NM              | 0.18                    | 59                                 |
|                 | 04/05/07       | 6.26 | 438                          | 12.5             | 110.0           | 0.01                    | 50                                 |
|                 | 09/26/07       | 6.18 | 596                          | 14.2             | 89.1            | 0.35                    | -166                               |
|                 | 05/01/08       | 6.28 | 753                          | 13.1             | NM              | 0.24                    | 78                                 |
|                 | 09/30/08       | 6.29 | 707                          | 14.7             | NM              | 0.15                    | -79                                |
|                 | 03/26/09       | 6.69 | 649                          | 11.8             | NM              | 0.29                    | 66                                 |
|                 | 09/29/09       | 6.38 | 111                          | 14.9             | NM              | 7.7 <sup>a</sup>        | 35                                 |
| 03/30/10        | 6.58           | 559  | 11.9                         | NM               | 0.72            | 17                      |                                    |
| 09/28/10        | 6.52           | 651  | 17.3                         | NM               | 0.24            | 27                      |                                    |
| MW-10           | 07/09/01       | 6.47 | 463                          | 14.2             | 14.2            | 2.11                    | 72                                 |
|                 | 09/25/01       | 6.53 | NM                           | 15.6             | 184.0           | 0.98                    | NM                                 |
|                 | 01/03/02       | 6.33 | 460                          | 13.6             | 3.2             | 0.00                    | NM                                 |
|                 | 03/28/02       | 6.57 | 159                          | 12.0             | NM              | 0.32                    | NM                                 |
|                 | 06/11/02       | 6.90 | 397                          | 13.1             | NM              | 0.22                    | NM                                 |
|                 | 09/17/02       | 6.76 | 390                          | 15.1             | NM              | 0.10                    | -97                                |
|                 | 12/17/02       | 6.65 | 300                          | 13.5             | 20.2            | 0.21                    | NM                                 |
|                 | 03/20/02       | 6.82 | 336                          | 12.9             | 3.2             | 0.10                    | -62                                |
|                 | 06/10/03       | 6.97 | 222                          | 14.1             | 15.9            | 0.18                    | NM                                 |
|                 | 09/10/03       | 6.09 | 267                          | 16.3             | 9.0             | 0.49                    | NM                                 |
|                 | 12/04/03       | 6.61 | 179                          | 13.4             | 7.6             | 0.37                    | 44                                 |
|                 | 03/16/04       | 6.51 | 245                          | 11.7             | 3.4             | 0.56                    | -24                                |
|                 | 09/22/04       | 6.80 | 282                          | 17.0             | NM              | 0.61                    | 10                                 |
|                 | 04/05/05       | 7.68 | 315                          | 12.1             | NM              | 0.89                    | -10                                |
|                 | 09/20/05       | 6.62 | 284                          | 18.1             | NM              | 0.67                    | 1                                  |
|                 | 03/15/06       | 6.71 | 268                          | 11.2             | 6.7             | 0.16                    | NM                                 |
|                 | 09/12/06       | 6.59 | 281                          | 20.3             | NM              | 0.30                    | -67                                |
|                 | 04/03/07       | 6.95 | 215                          | 13.7             | 11.7            | < 0.01                  | 46                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 09/24/07       | 6.61 | 238                          | 16.9             | 7.7             | 0.45                    | -138                               |
|                 | 05/01/08       | 6.56 | 268                          | 11.8             | NM              | 0.12                    | -54                                |
|                 | 10/01/08       | 6.72 | 237                          | 15.3             | NM              | 0.11                    | -62                                |
|                 | 03/24/09       | 6.53 | 266                          | 11.2             | NM              | 0.27                    | -36                                |
|                 | 09/30/09       | 6.73 | 96 <sup>a</sup>              | 15.7             | NM              | 0.23                    | 13                                 |
|                 | 03/30/10       | 6.96 | 201                          | 11.1             | NM              | 1.33                    | -8                                 |
|                 | 09/28/10       | 6.98 | 185                          | 17.7             | NM              | 0.20                    | 3                                  |
| <b>MW-11</b>    | 07/09/01       | 6.69 | 406                          | 12.8             | 134.0           | 0.89                    | 22                                 |
|                 | 09/24/01       | 6.28 | 418                          | 17.5             | 112.0           | 6.13                    | NM                                 |
|                 | 01/02/02       | 6.24 | 431                          | 14.8             | NM              | NM                      | NM                                 |
|                 | 03/27/02       | 6.58 | 5,000                        | 9.1              | 12.0            | 4.42                    | NM                                 |
|                 | 06/11/02       | 6.35 | 444                          | 14.2             | 6.4             | 2.74                    | NM                                 |
|                 | 09/17/02       | 6.22 | 530                          | 16.3             | NM              | 0.14                    | 83                                 |
|                 | 12/16/02       | 6.00 | 593                          | 14.0             | 1.8             | 0.30                    | NM                                 |
|                 | 03/17/03       | 6.15 | 539                          | 13.4             | 4.6             | 0.16                    | 26                                 |
|                 | 06/10/03       | 6.20 | 321                          | 13.7             | 8.7             | 0.35                    | NM                                 |
|                 | 09/10/03       | 6.08 | 411                          | 15.4             | 5.0             | 0.31                    | NM                                 |
|                 | 12/05/03       | 6.25 | 337                          | 13.5             | 5.1             | 0.29                    | 260                                |
|                 | 03/16/04       | 6.36 | 269                          | 12.7             | 1.7             | 0.50                    | 73                                 |
|                 | 09/22/04       | 6.44 | 285                          | 16.6             | NM              | 0.38                    | 85                                 |
|                 | 04/04/05       | 6.51 | 320                          | 13.2             | NM              | 1.84                    | 94                                 |
|                 | 09/20/05       | 6.33 | 352                          | 18.6             | NM              | 0.51                    | -8                                 |
|                 | 03/14/06       | 6.80 | 345                          | 13.0             | 41.5            | < 0.01                  | NM                                 |
|                 | 09/13/06       | 6.22 | 397                          | 15.2             | NM              | 0.19                    | 138                                |
|                 | 04/04/07       | 5.85 | 315                          | 12.1             | 23.5            | 0.28                    | 208                                |
|                 | 09/26/07       | 6.27 | 312                          | 14.9             | 18.3            | 0.39                    | 85                                 |
|                 | 05/01/08       | 6.11 | 486                          | 13.5             | NM              | 0.46                    | 69                                 |
| 09/30/08        | 6.13           | 703  | 16.2                         | NM               | 0.19            | 107                     |                                    |
| 04/01/10        | 6.40           | 286  | 12.0                         | 13.0             | 0.46            | 23                      |                                    |
| 04/09/10        | NM             | 330  | NM                           | 3.0              | NM              | NM                      |                                    |
| 04/16/10        | 6.41           | 326  | 13.6                         | 21.0             | 0.12            | 26                      |                                    |
| 05/06/10        | 6.55           | 285  | 13.0                         | 13.0             | 0.30            | 24                      |                                    |
| 06/09/10        | 6.43           | 278  | 14.3                         | 13.0             | 0.65            | 25                      |                                    |
| <b>MW-12</b>    | 07/09/01       | 6.67 | 590                          | 14.5             | 95.2            | 1.40                    | 37                                 |
|                 | 09/24/01       | 6.41 | NM                           | 19.2             | 78.9            | 1.17                    | NM                                 |
|                 | 01/03/02       | 5.37 | 1,480                        | 16.2             | 7.9             | NM                      | NM                                 |
|                 | 03/27/02       | 5.59 | NM                           | 12.3             | 15.8            | 0.43                    | NM                                 |
|                 | 06/11/02       | 6.33 | 865                          | 14.6             | 5.4             | 0.31                    | NM                                 |
|                 | 09/17/02       | 6.29 | 737                          | 16.8             | NM              | 0.18                    | -147                               |
|                 | 12/16/02       | 6.14 | 475                          | 14.7             | 2.1             | 0.12                    | NM                                 |
|                 | 03/17/03       | 6.13 | 620                          | 14.1             | 47.3            | 0.21                    | 1                                  |
|                 | 05/14/03       | 6.21 | 383                          | 13.7             | NM              | 0.66                    | 31                                 |
|                 | 06/10/03       | 6.30 | 367                          | 13.8             | 66.7            | 0.45                    | NM                                 |
|                 | 09/10/03       | 6.06 | 419                          | 15.9             | 27.8            | 0.35                    | NM                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 12/05/03       | 6.18 | 410                          | 13.4             | 9.2             | 0.33                    | 40                                 |
|                 | 03/16/04       | 6.40 | 317                          | 12.5             | 3.4             | 0.30                    | 60                                 |
|                 | 09/22/04       | 6.58 | 408                          | 16.5             | NM              | 2.00                    | 59                                 |
|                 | 04/04/05       | 6.93 | 416                          | 13.0             | NM              | 1.39                    | 88                                 |
|                 | 09/20/05       | 6.70 | 460                          | 18.4             | NM              | 0.37                    | -12                                |
|                 | 03/14/06       | 6.91 | 410                          | 12.8             | 36.4            | 0.38                    | NM                                 |
|                 | 09/13/06       | 6.31 | 390                          | 15.6             | NM              | 0.19                    | 132                                |
|                 | 04/04/07       | 5.82 | 420                          | 12.5             | 34.1            | 0.10                    | 196                                |
|                 | 09/26/07       | 6.42 | 383                          | 15.3             | 28.7            | 0.20                    | 62                                 |
|                 | 05/01/08       | 6.07 | 592                          | 14.0             | NM              | 0.35                    | 71                                 |
|                 | 09/30/08       | 6.25 | 511                          | 16.6             | NM              | 0.19                    | 97                                 |
|                 | 03/26/09       | 6.32 | 672                          | 13.3             | NM              | 0.34                    | 9                                  |
|                 | 09/29/09       | 6.40 | 196                          | 16.7             | NM              | 1.55                    | 33                                 |
|                 | 04/01/10       | 6.56 | 347                          | 13.0             | NM              | 0.87                    | 27                                 |
|                 | 09/28/10       | 6.52 | 322                          | 18.6             | NM              | 0.35                    | 26                                 |
| <b>MW-13</b>    | 03/31/03       | 6.41 | 506                          | 14.3             | 76.0            | 0.22                    | -37                                |
|                 | 05/14/03       | 6.29 | 491                          | 13.8             | NM              | 0.84                    | -53                                |
|                 | 06/11/03       | 6.63 | 425                          | 14.7             | 15.5            | 0.25                    | NM                                 |
|                 | 09/11/03       | 6.60 | 470                          | 16.8             | 23.1            | 0.58                    | NM                                 |
|                 | 12/04/03       | 6.86 | 379                          | 13.1             | 5.7             | 0.28                    | -11                                |
|                 | 03/15/04       | 6.58 | 458                          | 12.8             | 9.7             | 0.31                    | -44                                |
|                 | 06/10/04       | 6.55 | 383                          | 14.4             | NM              | 0.62                    | -21                                |
|                 | 09/23/04       | 6.38 | 427                          | 15.6             | NM              | 0.17                    | 18                                 |
|                 | 04/05/05       | 7.02 | 242                          | 12.9             | NM              | 1.43                    | 9                                  |
|                 | 09/21/05       | 6.92 | 367                          | 16.9             | NM              | 0.22                    | -15                                |
|                 | 03/15/06       | 7.07 | 301                          | 13.2             | 4.0             | < 0.01                  | NM                                 |
|                 | 09/14/06       | 6.58 | 490                          | 16.0             | NM              | 0.20                    | 59                                 |
|                 | 04/04/07       | 6.76 | 557                          | 13.6             | 5.0             | 0.03                    | -39                                |
|                 | 09/25/07       | 6.50 | 617                          | 15.6             | 4.8             | -0.11                   | -210                               |
|                 | 05/02/08       | 6.29 | 758                          | 14.0             | NM              | 0.24                    | -20                                |
|                 | 09/30/08       | 6.36 | 687                          | 17.1             | NM              | 0.07                    | -84                                |
|                 | 03/25/09       | 6.33 | 763                          | 11.7             | NM              | 0.31                    | -7                                 |
|                 | 09/30/09       | 6.47 | 273                          | 17.0             | NM              | 0.13                    | 30                                 |
|                 | 03/29/10       | 6.53 | 639                          | 12.4             | 15.0            | 0.58                    | 18                                 |
|                 | 04/07/10       | NM   | 720                          | NM               | 2.0             | NM                      | NM                                 |
|                 | 04/16/10       | 6.67 | 682                          | 14.2             | 9.0             | 0.49                    | 24                                 |
| 05/06/10        | 6.56           | 722  | 13.9                         | 6.0              | 0.31            | 25                      |                                    |
| 06/09/10        | 6.52           | 753  | 15.7                         | 4.0              | 0.20            | 22                      |                                    |
| 09/30/10        | 6.58           | 695  | 17.2                         | NM               | 0.14            | 17                      |                                    |
| <b>MW-14</b>    | 12/04/03       | 6.80 | 207                          | 13.5             | 8.2             | 0.22                    | 44                                 |
|                 | 03/16/04       | 6.52 | 294                          | 13.6             | 1.6             | 0.57                    | -9                                 |
|                 | 06/10/04       | 6.68 | 274                          | 14.4             | NM              | 0.55                    | -3                                 |
|                 | 09/24/04       | 6.97 | 343                          | 14.5             | NM              | 0.21                    | 155                                |
|                 | 04/05/05       | 6.84 | 369                          | 13.8             | NM              | 0.85                    | 21                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 09/21/05       | 6.71 | 495                          | 15.1             | NM              | 0.56                    | 11                                 |
|                 | 03/14/06       | 6.92 | 341                          | 13.5             | 4.9             | 0.05                    | NM                                 |
|                 | 09/13/06       | 6.81 | 396                          | 15.7             | NM              | 0.23                    | 33                                 |
|                 | 04/04/07       | 6.64 | 393                          | 14.5             | 0.8             | 0.21                    | -32                                |
|                 | 09/26/07       | 6.56 | 358                          | 14.8             | 2.2             | 0.26                    | -184                               |
|                 | 05/02/08       | 6.28 | 412                          | 12.7             | NM              | 0.50                    | -27                                |
|                 | 09/30/08       | 6.41 | 425                          | 13.9             | NM              | 0.35                    | -75                                |
|                 | 03/23/09       | 6.23 | 498                          | 11.4             | NM              | 0.27                    | -28                                |
|                 | 09/29/09       | 6.58 | 60 <sup>a</sup>              | 14.2             | NM              | 6.6 <sup>a</sup>        | 24                                 |
|                 | 03/30/10       | 6.58 | 360                          | 13.2             | NM              | 0.73                    | 15                                 |
| 09/30/10        | 6.72           | 555  | 17.4                         | NM               | 0.34            | 18                      |                                    |
| <b>MW-15</b>    | 12/04/03       | 7.00 | 259                          | 13.2             | 9.1             | 0.18                    | 48                                 |
|                 | 03/16/04       | 6.92 | 290                          | 13.4             | 2.8             | 0.39                    | -25                                |
|                 | 06/10/04       | 6.66 | 297                          | 14.1             | NM              | 0.56                    | -17                                |
|                 | 09/24/04       | 6.68 | 311                          | 14.9             | NM              | 0.21                    | 74                                 |
|                 | 04/05/05       | 6.79 | 370                          | 13.8             | NM              | 0.70                    | 15                                 |
|                 | 09/21/05       | 6.91 | 682                          | 16.4             | NM              | 0.56                    | -9                                 |
|                 | 03/14/06       | 6.80 | 334                          | 13.7             | NM              | < 0.01                  | NM                                 |
|                 | 09/13/06       | 6.77 | 367                          | 15.3             | NM              | 0.50                    | 55                                 |
|                 | 04/04/07       | 6.71 | 396                          | 14.2             | 1.2             | 0.06                    | -39                                |
|                 | 09/26/07       | 6.51 | 390                          | 15.4             | NM              | 0.01                    | -205                               |
|                 | 05/02/08       | 6.30 | 491                          | 13.7             | NM              | 0.21                    | -24                                |
|                 | 09/29/08       | 6.47 | 499                          | 18.5             | NM              | 2.86                    | -97                                |
|                 | 03/26/09       | 6.66 | 519                          | 12.0             | NM              | 0.23                    | -13                                |
|                 | 09/29/09       | 6.52 | 59 <sup>a</sup>              | 15.3             | NM              | 7.7 <sup>a</sup>        | 25                                 |
| 03/30/10        | 6.61           | 409  | 13.3                         | NM               | 0.77            | 14                      |                                    |
| 09/30/10        | 6.57           | 506  | 17.0                         | NM               | 0.38            | 19                      |                                    |
| <b>MW-16</b>    | 12/05/03       | 6.35 | 385                          | 12.7             | 6.1             | 0.59                    | 19                                 |
|                 | 03/16/04       | 6.42 | 370                          | 12.7             | 7.2             | 0.39                    | -14                                |
|                 | 06/10/04       | 6.36 | 366                          | 14.4             | NM              | 0.54                    | -5                                 |
|                 | 09/23/04       | 6.50 | 488                          | 14.0             | NM              | 0.24                    | 27                                 |
|                 | 04/05/05       | 6.56 | 645                          | 13.0             | NM              | 1.09                    | 38                                 |
|                 | 09/21/05       | 6.48 | 555                          | 14.6             | NM              | 0.47                    | 21                                 |
|                 | 03/15/06       | 6.91 | 569                          | 12.4             | 2.1             | < 0.01                  | NM                                 |
|                 | 09/13/06       | 6.58 | 459                          | 14.0             | NM              | 0.19                    | 68                                 |
|                 | 04/05/07       | 6.46 | 659                          | 12.7             | 1.0             | < 0.01                  | -62                                |
|                 | 09/26/07       | 6.52 | 621                          | 15.8             | 1.6             | 0.43                    | -202                               |
|                 | 05/02/08       | 6.13 | 790                          | 12.8             | NM              | 0.18                    | 0                                  |
|                 | 10/01/08       | 6.35 | 820                          | 14.6             | NM              | 0.17                    | -57                                |
|                 | 03/25/09       | 6.09 | 892                          | 11.5             | NM              | 0.32                    | -36                                |
|                 | 09/30/09       | 6.41 | 254                          | 13.7             | NM              | 0.16                    | 32                                 |
| 04/02/10        | 6.45           | 691  | 11.5                         | NM               | 0.59            | 24                      |                                    |
| 10/10/10        | 6.62           | 801  | 14.2                         | NM               | 0.39            | 21                      |                                    |
| <b>MW-17</b>    | 12/04/03       | 6.59 | 384                          | 12.0             | 5.7             | 0.51                    | 93                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH       | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|----------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/15/04       | 6.32     | 619                          | 12.3             | 7.1             | 0.78                    | -24                                |
|                 | 06/10/04       | 6.41     | 489                          | 13.1             | NM              | 0.68                    | -12                                |
|                 | 09/23/04       | 6.42     | 521                          | 13.4             | NM              | 0.01                    | 10                                 |
|                 | 04/05/05       | 6.60     | 920                          | 12.6             | NM              | 0.97                    | 30                                 |
|                 | 09/21/05       | 6.52     | 882                          | 13.6             | NM              | 0.31                    | 16                                 |
|                 | 03/15/06       | 6.92     | 804                          | 11.4             | 2.7             | 0.73                    | NM                                 |
|                 | 09/12/06       | 6.27     | 908                          | 16.7             | NM              | 0.14                    | -1                                 |
|                 | 04/03/07       | 6.24     | 766                          | 11.7             | 1.9             | 0.65                    | 96                                 |
|                 | 09/24/07       | 6.45     | 922                          | 13.9             | 2.1             | 0.40                    | -175                               |
|                 | 05/01/08       | 6.27     | 1,286                        | 12.3             | NM              | 0.24                    | 105                                |
|                 | 09/29/08       | 6.46     | 967                          | 14.9             | NM              | 4.61                    | -98                                |
|                 | 03/24/09       | 6.12     | 1,282                        | 11.9             | NM              | 0.42                    | -22                                |
|                 | 09/30/09       | 6.52     | 152                          | 12.9             | NM              | 0.31                    | 27                                 |
|                 | 03/30/10       | 6.37     | 667                          | 10.1             | NM              | 1.28                    | 12                                 |
|                 | 10/01/10       | 6.68     | 1,111                        | 14.2             | NM              | 0.31                    | 23                                 |
|                 | <b>MW-18</b>   | 12/04/03 | 6.54                         | 308              | 13.0            | 8.1                     | 0.33                               |
| 03/16/04        |                | 6.46     | 363                          | 12.4             | 19.4            | 0.36                    | -14                                |
| 06/10/04        |                | 6.41     | 415                          | 13.8             | NM              | 0.66                    | -3                                 |
| 09/23/04        |                | 6.31     | 373                          | 15.3             | NM              | 0.01                    | 7                                  |
| 04/05/05        |                | 6.94     | 463                          | 12.9             | NM              | 0.83                    | 18                                 |
| 09/20/05        |                | 6.84     | 183                          | 17.3             | NM              | 0.72                    | 21                                 |
| 03/15/06        |                | 6.68     | 430                          | 12.3             | 2.5             | 0.22                    | NM                                 |
| 09/12/06        |                | 6.07     | 519                          | 17.0             | NM              | 0.42                    | NM                                 |
| 04/03/07        |                | 6.50     | 464                          | 14.5             | 2.7             | < 0.01                  | 48                                 |
| 09/24/07        |                | 6.57     | 566                          | 15.5             | 2.1             | 0.41                    | -152                               |
| 05/01/08        |                | 6.32     | 637                          | 12.6             | NM              | 0.38                    | -43                                |
| 10/01/08        |                | 6.46     | 599                          | 15.6             | NM              | 0.12                    | -53                                |
| 03/24/09        |                | 6.20     | 626                          | 12.3             | NM              | 0.42                    | -29                                |
| 09/30/09        | 6.53           | 190      | 15.0                         | NM               | 0.38            | 26                      |                                    |
| 03/30/10        | 6.62           | 494      | 12.0                         | NM               | 1.57            | 13                      |                                    |
| 09/28/10        | 6.68           | 616      | 16.6                         | NM               | 0.24            | 21                      |                                    |
| <b>MW-19</b>    | 03/16/04       | 6.49     | 403                          | 13.2             | 12.0            | 0.38                    | -23                                |
|                 | 06/10/04       | 6.31     | 379                          | 14.5             | NM              | 0.89                    | -15                                |
|                 | 09/23/04       | 6.66     | 368                          | 15.4             | NM              | 0.26                    | 5                                  |
|                 | 04/05/05       | 6.87     | 571                          | 14.2             | NM              | 0.39                    | -21                                |
|                 | 09/21/05       | 6.80     | 636                          | 15.7             | NM              | 0.44                    | 31                                 |
|                 | 03/15/06       | 6.78     | 510                          | 12.6             | 3.7             | 0.14                    | NM                                 |
|                 | 09/12/06       | 6.40     | 563                          | 18.1             | NM              | 0.18                    | -22                                |
|                 | 04/03/07       | 6.05     | 505                          | 13.9             | 3.9             | 0.21                    | 40                                 |
|                 | 09/24/07       | 6.31     | 317                          | 15.6             | 3.4             | 0.41                    | -218                               |
|                 | 05/02/08       | 6.32     | 698                          | 13.5             | NM              | 0.23                    | -32                                |
|                 | 10/01/08       | 6.48     | 573                          | 18.0             | NM              | 0.10                    | -83                                |
|                 | 03/23/09       | 6.23     | 610                          | 12.6             | NM              | 0.34                    | -71                                |
|                 | 09/29/09       | 6.54     | 29 <sup>a</sup>              | 15.3             | NM              | 7.5 <sup>a</sup>        | 29                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH   | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
|                 | 03/30/10       | 6.33 | 528                          | 11.9             | NM              | 0.98                    | 14                                 |
|                 | 09/28/10       | 6.53 | 722                          | 16.4             | NM              | 0.36                    | 29                                 |
| <b>MW-20</b>    | 07/28/05       | 7.01 | 1,053                        | 14.7             | 10.8            | NM                      | NM                                 |
|                 | 09/20/05       | 6.71 | 957                          | 15.1             | NM              | 0.42                    | 45                                 |
|                 | 03/15/06       | 6.82 | 861                          | 12.7             | 3.2             | < 0.01                  | NM                                 |
|                 | 09/12/06       | 6.32 | 958                          | 17.1             | NM              | 0.39                    | -64                                |
|                 | 04/05/07       | 6.54 | 972                          | 14.1             | 5.0             | < 0.01                  | -70                                |
|                 | 09/26/07       | 6.34 | 961                          | 15.1             | NM              | 0.20                    | -169                               |
|                 | 05/02/08       | 6.27 | 1,037                        | 13.1             | NM              | 0.21                    | -42                                |
|                 | 09/29/08       | 6.41 | 1,130                        | 18.9             | NM              | 2.48                    | -125                               |
|                 | 03/23/09       | 6.18 | 1,235                        | 12.8             | NM              | 0.37                    | -39                                |
|                 | 09/30/09       | 6.58 | 119 <sup>a</sup>             | 14.4             | NM              | 0.22                    | 27                                 |
|                 | 03/29/10       | 6.33 | 922                          | 13.2             | NM              | 0.48                    | 17                                 |
|                 | 10/01/10       | 6.69 | 1,013                        | 15.8             | NM              | 0.40                    | 21                                 |
| <b>MW-21</b>    | 09/14/06       | 6.65 | 624                          | 14.9             | NM              | 0.34                    | 85                                 |
|                 | 04/04/07       | 6.68 | 657                          | 13.3             | 14.9            | < 0.01                  | -47                                |
|                 | 09/25/07       | 6.58 | 636                          | 14.7             | 12.2            | 0.06                    | -231                               |
|                 | 05/02/08       | 6.28 | 746                          | 13.8             | NM              | 0.25                    | -29                                |
|                 | 09/30/08       | 6.35 | 788                          | 15.6             | NM              | 0.12                    | -79                                |
|                 | 03/25/09       | 6.46 | 687                          | 11.6             | NM              | 0.32                    | 6                                  |
|                 | 09/30/09       | 6.46 | 310                          | 14.6             | NM              | 0.08                    | 30                                 |
|                 | 03/26/10       | 6.31 | 664                          | 13.2             | 10.0            | 0.68                    | 19                                 |
|                 | 04/16/10       | 6.54 | 702                          | 13.6             | 19.0            | 0.90                    | 22                                 |
|                 | 05/06/10       | 6.50 | 716                          | 13.9             | 30.0            | 0.20                    | 29                                 |
|                 | 06/09/10       | 6.21 | 741                          | 15.0             | 131.0           | 0.16                    | 38                                 |
|                 | 09/30/10       | 5.90 | 965                          | 16.9             | NM              | 0.34                    | 56                                 |
| <b>MW-22</b>    | 09/14/06       | 6.40 | 581                          | 14.0             | NM              | 0.62                    | 121                                |
|                 | 04/04/07       | 5.92 | 525                          | 12.4             | 8.2             | 0.04                    | -40                                |
|                 | 09/26/07       | 6.40 | 621                          | 15.0             | 9.2             | 0.07                    | -178                               |
|                 | 05/02/08       | 6.11 | 774                          | 12.7             | NM              | 0.19                    | -7.4                               |
|                 | 10/01/08       | 6.32 | 815                          | 13.9             | NM              | 0.19                    | -74                                |
|                 | 03/25/09       | 6.25 | 824                          | 11.3             | NM              | 0.26                    | -26                                |
|                 | 09/30/09       | 6.39 | 287                          | 14.9             | NM              | 0.09                    | 34                                 |
|                 | 03/29/10       | 6.20 | 665                          | 12.0             | NM              | 0.85                    | 22                                 |
|                 | 09/30/10       | 6.57 | 821                          | 17.6             | NM              | 0.56                    | 13                                 |
| <b>MW-23</b>    | 09/13/06       | 6.07 | 433                          | 16.2             | NM              | 0.52                    | 122                                |
|                 | 04/04/07       | 6.04 | 414                          | 12.6             | 63.9            | 0.65                    | 185                                |
|                 | 09/25/07       | 6.47 | 432                          | 15.9             | 31.2            | 0.49                    | 1.1                                |
|                 | 05/01/08       | 6.24 | 552                          | 13.8             | NM              | 0.29                    | 38                                 |
|                 | 10/01/08       | 6.40 | 458                          | 17.7             | NM              | 0.13                    | 46                                 |
|                 | 03/24/09       | 6.08 | 487                          | 11.8             | NM              | 0.41                    | 90                                 |
|                 | 09/29/09       | 6.48 | 170                          | 16.8             | NM              | 0.75                    | 29                                 |
|                 | 04/01/10       | 6.57 | 428                          | 13.0             | NM              | 0.66                    | 16                                 |
|                 | 09/28/10       | 6.67 | 495                          | 19.0             | NM              | 0.19                    | 19                                 |



**Table D1**  
**Historical Groundwater Field Parameters**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date collected | pH       | Specific Conductance (mS/cm) | Temperature (°C) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Oxidation Reduction Potential (mV) |
|-----------------|----------------|----------|------------------------------|------------------|-----------------|-------------------------|------------------------------------|
| <b>MW-24</b>    | 03/26/10       | 6.39     | 651                          | 13.4             | 153.0           | 0.31                    | 17                                 |
|                 | 04/16/10       | 6.59     | 671                          | 14.0             | 13.0            | 0.36                    | 21                                 |
|                 | 05/06/10       | 6.47     | 670                          | 15.1             | 2.0             | 0.20                    | 28                                 |
|                 | 06/09/10       | 6.52     | 799                          | 15.9             | 10.0            | 0.19                    | 24                                 |
| <b>MW-25</b>    | 03/29/10       | 6.56     | 703                          | 12.2             | 57.0            | 0.67                    | 12                                 |
|                 | 04/07/10       | NM       | 720                          | NM               | 2.0             | NM                      | NM                                 |
|                 | 04/16/10       | 6.51     | 687                          | 14.2             | 2.0             | 0.22                    | 24                                 |
|                 | 05/06/10       | 6.62     | 744                          | 14.0             | 2.0             | 0.31                    | 26                                 |
|                 | 06/09/10       | 6.52     | 896                          | 15.8             | 7.0             | 0.27                    | 25                                 |
| <b>MW-26</b>    | 04/01/10       | 6.44     | 269                          | 12.7             | 34.0            | 0.74                    | 19                                 |
|                 | 04/09/10       | NM       | 290                          | NM               | 4.0             | NM                      | NM                                 |
|                 | 04/16/10       | 6.49     | 270                          | 13.6             | 21.0            | 0.19                    | 23                                 |
|                 | 05/06/10       | 6.67     | 218                          | 12.6             | 18.0            | 0.31                    | 28                                 |
|                 | 06/09/10       | 6.47     | 207                          | 14.9             | 41.7            | 0.76                    | 28                                 |
|                 | <b>P-1</b>     | 09/24/04 | 6.54                         | 401              | 15.4            | NM                      | 0.24                               |
| <b>INJ-1</b>    | 07/09/01       | 6.39     | 703                          | 14.2             | 47.8            | 1.55                    | -18                                |
| <b>INJ-2</b>    | 07/09/01       | 6.45     | 384                          | 15.1             | 61.9            | 1.20                    | 17                                 |
|                 | 06/11/02       | 6.49     | 950                          | 15.6             | 13.8            | 0.23                    | NM                                 |
|                 | 06/10/03       | 6.38     | 381                          | 14.5             | 10.4            | 0.25                    | NM                                 |
| <b>INJ-3</b>    | 07/09/01       | 6.37     | 407                          | 14.2             | 30.1            | 1.51                    | 17                                 |
|                 | 06/11/02       | 6.59     | 1,971                        | 15.1             | 13.8            | 0.11                    | NM                                 |
|                 | 12/17/02       | 6.27     | 417                          | 13.4             | 12.3            | 0.11                    | NM                                 |
|                 | 06/10/03       | 6.50     | 634                          | 14.2             | 23.8            | 0.21                    | NM                                 |

**Notes:**

*mS/cm - millisiemens per centimeter*

*°C - degrees Celsius*

*NTU - Nephelometric turbidity units*

*mg/L - milligram per liter*

*mV - millivolts*

*NM - not measured*

*<sup>a</sup> Likely meter malfunction*

*<sup>b</sup> Anomalous result*



Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location                         | Date Collected       | 1,1-DCA   | 1,1-DCE   | 1,2,4-TMB | 1,2-DCA   | 1,2-Dichloropropane | Benzene | Chloroethane | Chloroform | cis-1,2-DCE | Ethylbenzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE       | Toluene | Total Xylenes | Vinyl Chloride |  |
|---|----------------------|-----------|-----------|-----------|-----------|---------------------|---------|--------------|------------|-------------|--------------|--------------------|---------|-----------|-----------|---------|---------------|----------------|--|
|   | Solubility in Water: | 5,100,000 | 3,350,000 | LNAPL     | 8,690,000 |                     | 0.8     | LNAPL        | 8,200,000  | 3,500,000   | LNAPL        | 20,000,000         | 200,000 | 720,000   | 1,100,000 | 1,000   | LNAPL         | LNAPL          |  |
|   | Final Cleanup Levels | 800       | 7.0       | 400       | 0.5       | 0.64                | 0.8     | -            | 7.2        | 70          | 700          | 5.0                | 0.85    | 200       | 4.0       | 1,000   | 1,600         | 0.5            |  |
| <b>Shallow On-Site Monitoring Wells</b> |                      |           |           |           |           |                     |         |              |            |             |              |                    |         |           |           |         |               |                |  |
| MW-1                                    | 04/17/95             | 710       | 53        | NA        | 25 U      | 25 U                | 25 U    | 560          | 25 U       | 1400        | 1,300        | 29                 | 180     | 540       | 150       | 2,900   | 3,600         | 120            |  |
|   | 04/17/95 (DUP)       | 770       | 65        | NA        | 25 U      | 25 U                | 25 U    | 610          | 25 U       | 1600        | 1,500        | 31                 | 230     | 640       | 180       | 3,100   | 3,900         | 130            |  |
|   | 09/04/96             | 1,300     | 50 U      | 200 U     | 50 U      | 50 U                | 50 U    | 220          | 50 U       | 700         | 1,300        | 100 U              | 50 U    | 180       | 50 U      | 1,600   | 4,400         | 82             |  |
|   | 12/10/96             | 1,400 J   | 67 J      | 210 J     | 1.5 J     | 0.5 U               | 7.7 J   | 120 J        | 5.1 J      | 2700 J      | 1,600 J      | 9 JB               | 31 J    | 1,200 J   | 62 J      | 3,500 J | 6,300 J       | 91 J           |  |
|   | 03/04/97             | 640 J     | 24 J      | 210 EJ    | 1.2 J     | 0.5 UJ              | 5.3 J   | 73 J         | 2.1 J      | 1000 J      | 1,600 J      | 5 JB               | 66 J    | 420 J     | 68 J      | 4,700 J | 7,100 J       | 80 J           |  |
|   | 06/27/97             | 900       | 21        | 200       | 5 U       | 5 U                 | 8.0     | 200          | 5 U        | 860         | 2,000        | 10 U               | 34      | 290       | 26        | 3,000   | 7,400         | 120            |  |
|   | 09/04/97             | 790       | 7.6       | 2 U       | 0.5 U     | 0.5 U               | 7.5     | 150          | 0.9        | 350         | 1,500        | 2.9                | 12      | 74        | 12        | 1,500   | 4,200         | 52             |  |
|   | 12/04/97             | 540 J     | 27 J      | 97 J      | 0.8 J     | 0.5 UJ              | 4.5 J   | 31 J         | 2.4 J      | 320 J       | 1,800 J      | 3 JB               | 22 J    | 250 J     | 20 J      | 4,700 J | 7,000 J       | 38 J           |  |
|   | 03/06/98             | 420       | 9         | 110       | 5 U       | 5 U                 | 8.0     | 320          | 5 U        | 340         | 1,500        | 10 U               | 10      | 160       | 7         | 1,600   | 4,400         | 50             |  |
|   | 03/06/98 (DUP)       | 400       | 10        | 120       | 5 U       | 5 U                 | 8.0     | 380          | 5 U        | 400         | 1,500        | 10 U               | 8       | 190       | 8         | 1,500   | 4,300         | 56             |  |
|   | 06/18/98             | 420       | 16        | 190       | 10 U      | 10 U                | 10 U    | 120          | 10 U       | 450         | 1,700        | 20 U               | 14      | 400       | 10        | 2,900   | 6,700         | 120            |  |
|   | 09/29/98             | 330 J     | 2 UJ      | 81 J      | 2 UJ      | 2 UJ                | 7 J     | 300 J        | 2 UJ       | 94 J        | 1,800 J      | 5 UJ               | 2 UJ    | 46 J      | 2 J       | 1,400 J | 5,400 J       | 14 J           |  |
|   | 12/15/98             | 330       | 14        | 110       | 5 U       | 5 U                 | 6       | 190          | 5 U        | 390         | 1,600        | 10 U               | 6       | 270       | 6         | 2,000   | 4,600         | 54             |  |
|   | 03/02/99             | 320       | 11        | 94        | 5 U       | 5 U                 | 5       | 390          | 5 U        | 490         | 1,700        | 10 U               | 6       | 220       | 7         | 1,600 B | 5,970         | 73             |  |
|   | 06/17/99             | 230       | 50 U      | 200 U     | 50 U      | 50 U                | 50 U    | 140          | 50 U       | 400         | 1,400        | 500 U              | 50 U    | 270       | 50 U      | 2,500   | 6,000         | 180            |  |
|   | 09/17/99             | 250       | 6.4       | 110       | 0.2 U     | 0.2 U               | 4 E     | 200          | 0.2 U      | 210         | 1,400        | 0.3 U              | 7.8 B   | 240       | 8.9       | 1,500   | 4,100         | 88             |  |
|   | 12/08/99             | 310       | 12 U      | 130       | 12 U      | 12 U                | 12 U    | 79 J         | 12 U       | 330         | 1,300 J      | 25 U               | 12 UJ   | 240       | 12 UJ     | 860 J   | 5,500 J       | 110            |  |
|   | 03/07/00             | 310       | 17        | 220       | 2 U       | 2 U                 | 2 U     | 22           | 2 U        | 1,100       | 970          | 5 U                | 14      | 300       | 17        | 1,100   | 4,310         | 450            |  |
|   | 06/21/00             | 290       | 9 J       | 260       | 6 U       | 7 U                 | 6 U     | 32           | 5 U        | 380         | 860          | 50 J               | 10 J    | 390       | 10 J      | 1,300   | 3,700         | 290            |  |
|   | 06/21/00 (DUP)       | 210       | 7 J       | 170       | 3 U       | 4 U                 | 3 U     | 58           | 3 U        | 340         | 860          | 20 J               | 10 J    | 310       | 10 J      | 1,300   | 3,420         | 290            |  |
|   | 09/12/00             | 190       | 5         | 91        | 1 U       | 1 U                 | 3       | 110          | 2          | 170         | 1,100        | 5 U                | 4       | 180       | 8         | 980     | 3,730         | 61             |  |
|   | 12/07/00             | 310       | 20 J      | 130       | 6 U       | 7 U                 | 6 U     | 42 J         | 9 J        | 390         | 830          | 10 U               | 10 J    | 270       | 10 J      | 630     | 3,290         | 100            |  |
|   | 12/07/00 (DUP)       | 260       | 10 J      | 120       | 6 U       | 7 U                 | 6 U     | 76 J         | 8 J        | 300         | 890          | 10 U               | 10 J    | 250       | 9 J       | 480     | 3,330         | 79             |  |
|   | 03/15/01             | 350 J     | 27        | 190       | 2 U       | 2 U                 | 2 U     | 13           | 31         | 500         | 690          | 12                 | 14 J    | 480 J     | 23        | 290     | 2,890         | 110 J          |  |
|   | 03/15/01 (DUP)       | 450       | 35        | 230       | 2 U       | 2 U                 | 2 U     | 13           | 43         | 620         | 740          | 13                 | 20      | 610       | 27        | 320     | 2,830         | 150            |  |
|   | 07/12/01             | 370       | 16        | 120       | 2.9 U     | 3.1 U               | 2.7 U   | 12 J         | 21         | 290         | 480          | 9.5 J              | 8.8 J   | 610       | 31        | 130     | 1,930         | 210            |  |
|   | 09/25/01             | 790       | 23        | NA        | 5 U       | 5 U                 | 5 U     | 17           | 18         | 460         | 480          | 10                 | 16      | 480       | 41        | 320     | 1,970         | 240            |  |
|   | 01/02/02             | 660       | 30        | 130       | 0.57 U    | 0.62 U              | 0.5 U   | 27           | 22         | 690         | 570          | 2.2 J              | 9.1     | 510       | 22        | 270     | 2,300         | 300            |  |
|   | 03/28/02             | 540       | 25        | 160       | 0.57 U    | 0.62 U              | 0.75 J  | 18           | 28         | 800         | 690          | 2.8 J              | 14      | 510       | 25        | 240     | 2,620         | 390            |  |
|   | 06/11/02             | 250       | 5.5       | 160       | 0.57 U    | 0.62 U              | 1 U     | 12           | 10         | 240         | 500          | 1.0 J              | 6.4     | 230       | 7.8       | 170     | 1,570         | 270            |  |
|   | 09/18/02             | 130       | 2.3 J     | 70        | 0.57 U    | 0.62 U              | 2.0 J   | 81           | 1.7 J      | 100         | 880          | 2.5 J              | 3.8     | 44        | 7.2       | 58      | 2,840         | 35             |  |
|   | 12/17/02             | 560       | 22        | 130       | 1.3 U     | 1.30 U              | 1.3 U   | 7.8          | 4.3 B      | 340         | 520          | 5 U                | 10      | 600       | 25        | 80      | 1,030         | 100            |  |
|   | 03/20/03             | 490       | 16        | 110       | 0.5 U     | 0.5 U               | 0.5 U   | 7.5          | 3.2        | 160         | 380          | 2 U                | 7.3     | 440       | 15        | 69      | 940           | 120            |  |
|   | 06/11/03             | 270       | 5.4       | 120       | 0.12 U    | 0.13 U              | 0.35 J  | 4.4          | 1.3        | 64          | 330          | 1.0 J              | 4.2     | 260       | 6.7       | 200     | 730           | 60             |  |
|   | 09/11/03             | 610       | 12        | 93        | 0.23 U    | 0.25 U              | 0.82 JB | 19           | 1.3        | 170         | 510          | 2.9 J              | 5       | 290       | 15        | 1,200   | 1,480         | 71             |  |
|   | 12/04/03             | 1,300     | 36        | 120       | 2.0       | 0.31 U              | 0.8 J   | 38           | 9          | 390         | 370          | 8.6                | 7.6     | 1,200     | 29        | 360     | 1,170         | 140            |  |
|   | 03/16/04             | 410       | 11        | 110       | 2.1       | 0.5 U               | 0.56 J  | 14           | 5.3        | 66          | 390          | 5.4 J              | 5.8     | 370       | 13        | 520     | 1,590         | 50             |  |
|   | 09/23/04             | 790       | 15        | 60        | 1.1 J     | 0.31 U              | 0.90 J  | 31           | 1.7        | 200         | 320          | 3.7 J              | 4.2     | 410       | 16        | 850     | 1,440         | 60             |  |
|   | 04/05/05             | 350       | 12        | 45        | 0.85 J    | 0.7 U               | 0.85 J  | 22           | 50         | 120         | 290          | 11                 | 7.4     | 540       | 23        | 1,500   | 900           | 26             |  |
|   | 09/21/05             | 590       | 6.3       | 33        | 0.25 J    | 0.14 U              | 0.86    | 30           | 3.4        | 65          | 260          | 2.2                | 2.1     | 130       | 8         | 1,100   | 1,100         | 24             |  |
|   | 03/15/06             | 580       | 6.5       | 60        | 0.35 J    | 0.35 U              | 0.73 J  | 44           | 8.5        | 55          | 300          | 9.6                | 3.9     | 240       | 15        | 710     | 1,680         | 24             |  |
|   | 09/14/06             | 830       | 6.4       | 37        | 0.33 J    | 0.35 U              | 0.78 J  | 71           | 8.0        | 49          | 200          | 5.6                | 3.1     | 160       | 7.6       | 62      | 1,590         | 21             |  |
|   | 04/04/07             | 240       | 4.9       | 47        | 0.57 U    | 0.7 U               | 0.68 U  | 17           | 8.9        | 44          | 400          | 6.6 J              | 3.6     | 210       | 9.3       | 69      | 2,080         | 12             |  |
|   | 09/25/07             | 300       | 4.4       | 34        | 0.57 U    | 0.7 U               | 1.0 J   | 100          | 3.3        | 49          | 290          | 3.5 J              | 2.7     | 150       | 8.9       | 1,500   | 1,360         | 8.5            |  |
|   | 09/25/07             | 300       | 4.4       | 34        | 0.57 U    | 0.7 U               | 1.0 J   | 100          | 3.3        | 49          | 290          | 3.5 J              | 2.7     | 150       | 8.9       | 1,500   | 1,360         | 8.5            |  |
| 05/02/08                                | 250                  | 6.3       | 29        | 0.11 J    | 0.04 U    | 0.65                | 25      | 5.3          | 48         | 180         | 3.5          | 3.0                | 220     | 8.7       | 290       | 1,010   | 12            |                |  |
| 09/30/08                                | 320                  | 4.3       | 27        | 0.19 U    | 0.11 U    | 0.63 J              | 60      | 2.7          | 37         | 170         | 3.4 J        | 2.3                | 130     | 7.1       | 300       | 910     | 10            |                |  |
| 03/25/09                                | 240                  | 4.0       | 27        | 0.50 U    | 0.50 U    | 3.2                 | 60      | 4.0          | 22         | 140         | 0.5 U        | 3.8                | 109     | 7.1       | 43        | 740     | 10            |                |  |
| 09/30/09                                | 500                  | 12        | 14        | 5.0 U     | 5.0 U     | 5.0 U               | 86      | 4.5 J        | 38         | 180         | 5.0 U        | 1.7 J              | 190     | 5.6 J     | 610       | 1,400   | 14            |                |  |
| 03/29/10                                | 0.5 U                | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U               | 9.6 J   | 20 U         | 15         | 48          | 0.5 U        | 0.5 U              | 63      | 7.8 J     | 27        | 170     | 4.4           |                |  |
| 09/30/10                                | 339                  | 0.5 U     | 18.1      | 0.5 U     | 0.5 U     | 0.5 U               | 46.5    | 1.0 U        | 28.3       | 70.2        | 1.41 J       | 0.5 U              | 173     | 3.16      | 144       | 301     | 9.51          |                |  |
| MW-2                                    | 04/17/95             | 5 U       | 5 U       | NA        | 5 U       | 5 U                 | 5 U     | 10 U         | 9          | 5 U         | 5 U          | 5 U                | 5 U     | 5 U       | 5 U       | 5 U     | 5 U           | 10 U           |  |
|   | 09/04/96             | 0.8       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 3.2         | 0.5 U        | 2.0 U              | 0.5 U   | 0.5 U     | 0.6       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 12/10/96             | 0.6       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 4.0         | 0.5 U        | 1.0 U              | 4.3     | 0.5 U     | 2.5       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 03/04/97             | 0.8       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 5.4         | 0.5 U        | 1.0 U              | 1.6     | 0.5 U     | 2.6       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 06/27/97             | 1.0       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 2.1     | 0.5 U        | 0.5 U      | 7.2         | 0.5 U        | 1.0 U              | 1.9     | 0.5 U     | 2.1       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 09/04/97             | 0.8       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 3.1         | 0.5 U        | 1.0 U              | 0.5 U   | 0.5 U     | 0.5       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 12/04/97             | 0.6       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 1.8         | 0.5 U        | 1.0 U              | 0.8     | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 03/06/98             | 0.8       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 5.9         | 0.5 U        | 1.0 U              | 2.5     | 0.5 U     | 2.8       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 06/18/98             | 0.9       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 3.8         | 0.5 U        | 1.0 U              | 1.8     | 0.5 U     | 2.0       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 09/29/98             | 1.1       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 2.9         | 0.5 U        | 1.0 U              | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 12/15/98             | 1.0       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 5.7         | 0.5 U        | 1.0 U              | 0.7     | 0.5 U     | 1.7       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 03/02/99             | 0.9       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 8.5         | 0.5 U        | 1.0 U              | 2.2     | 0.5 U     | 1.5       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 06/16/99             | 0.6       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 3.3         | 0.5 U        | 5.0 U              | 3.4     | 0.5 U     | 1.5       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 06/16/99 (DUP)       | 0.7       | 0.5 U     | 2 U       | 0.5 U     | 0.5 U               | 0.5 U   | 0.5 U        | 0.5 U      | 3.4         | 0.5 U        | 5.0 U              | 2.8     | 0.5 U     | 1.4       | 0.5 U   | 0.5 U         | 0.5 U          |  |
|   | 09/16                |           |           |           |           |                     |         |              |            |             |              |                    |         |           |           |         |               |                |  |



Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location      | Date Collected     | Solubility in Water: |           |           |           |                      |         |               |             |             |               |                    |        |           |         |         |               |                |  |
|----------------------|--------------------|----------------------|-----------|-----------|-----------|----------------------|---------|---------------|-------------|-------------|---------------|--------------------|--------|-----------|---------|---------|---------------|----------------|--|
|                      |                    | 1,1-DCA              | 1,1-DCE   | 1,2,4-TMB | 1,2-DCA   | 1,2-Dichloro-propane | Benzene | Chloro-ethane | Chloro-form | cis-1,2-DCE | Ethyl-benzene | Methylene Chloride | PCE    | 1,1,1-TCA | TCE     | Toluene | Total Xylenes | Vinyl Chloride |  |
| Final Cleanup Levels |                    | 5,100,000            | 3,350,000 | LNAPL     | 8,690,000 | 0.64                 | 0.8     | LNAPL         | 8,200,000   | 3,500,000   | 700           | 5.0                | 0.85   | 200       | 4.0     | 1,000   | 1,600         | 0.5            |  |
| MW-3                 | 03/15/01           | 1.2 J                | 0.2 U     | 0.2 U     | 0.2 U     | 0.2 U                | 0.2 U   | 0.2 U         | 0.1 U       | 1.3         | 0.1 U         | 0.20 J             | 1.0 J  | 0.2 U     | 0.5 J   | 0.2 J   | 0.2 U         | 0.68           |  |
|                      | 07/12/01           | 1.0                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.1 U                | 0.11 U  | 0.18 U        | 0.096 U     | 2.0         | 0.098 U       | 0.20 U             | 0.1 U  | 0.12 U    | 0.14 J  | 0.13 J  | 0.19 U        | 0.44 J         |  |
|                      | 09/25/01           | 2.1                  | 0.5 U     | NA        | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 0.5 U       | 0.5 U       | 0.67          | 1.0 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.57    | 2.1           | 0.75           |  |
|                      | 01/03/02           | 1.1                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.096 U     | 1.7         | 0.098 U       | 0.20 U             | 1.5    | 0.12 U    | 0.57    | 0.4 JB  | 0.19 U        | 1.0            |  |
|                      | 03/28/02           | 1.0                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.096 U     | 1.8         | 0.13 U        | 0.20 U             | 1.7    | 0.12 U    | 1.0     | 0.1 U   | 0.22 U        | 0.79           |  |
|                      | 06/14/02           | 0.71                 | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.096 U     | 2.5         | 0.13 U        | 0.20 U             | 1.5    | 0.12 U    | 1.1     | 0.1 U   | 0.22 U        | 0.59           |  |
|                      | 09/18/02           | 1.2                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.096 U     | 1.3         | 0.13 U        | 0.20 U             | 0.1 U  | 0.12 U    | 0.12 U  | 0.1 U   | 0.22 U        | 0.79           |  |
|                      | 12/16/02           | 1.2                  | 0.50 U    | 2.0 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.50 U        | 0.5 U       | 1.1         | 0.5 U         | 2.0 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.4            |  |
|                      | 03/20/03           | 0.86                 | 0.50 U    | 2.0 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 0.5 U       | 1.0         | 0.5 U         | 2.0 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.0            |  |
|                      | 06/11/03           | 0.88                 | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.098 U     | 1.1         | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.22 J  | 0.8 B   | 0.22 U        | 1.2            |  |
|                      | 09/10/03           | 1.3                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.098 U     | 0.75        | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.12 U  | 0.3 B   | 0.22 U        | 0.69           |  |
|                      | 12/05/03           | 1.0                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.098 U     | 1.5         | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.13 J  | 0.1 U   | 0.22 U        | 0.89           |  |
|                      | 03/16/04           | 0.7                  | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.098 U     | 1.3         | 0.13 U        | 0.2 U              | 2.2    | 0.12 U    | 0.59    | 0.1 J   | 0.22 U        | 0.75           |  |
|                      | 09/24/04           | 0.79                 | 0.12 U    | 0.15 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.23 U        | 0.096 U     | 0.61        | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.16 J  | 0.1 U   | 0.22 U        | 0.8            |  |
|                      | 04/05/05           | 0.8                  | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 0.82        | 0.13 U        | 0.2 U              | 1.0    | 0.12 U    | 0.32 J  | 0.2 J   | 0.22 U        | 0.71           |  |
|                      | 09/21/05           | 0.79                 | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 0.57        | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.24 J  | 0.2 J   | 0.22 U        | 0.77           |  |
|                      | 03/15/06           | 0.27 J               | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 0.93        | 0.13 U        | 0.2 U              | 4.4    | 0.12 U    | 0.97    | 0.1 U   | 0.22 U        | 0.37 J         |  |
|                      | 09/13/06           | 0.98                 | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 1.2         | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.14 U  | 0.1 U   | 0.22 U        | 0.60           |  |
|                      | 04/04/07           | 0.2 J                | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 1.1         | 0.13 U        | 0.2 U              | 3.9    | 0.12 U    | 0.77    | 0.1 U   | 0.22 U        | 0.22 J         |  |
|                      | 09/26/07           | 0.86                 | 0.13 U    | 0.15 U    | 0.12 U    | 0.14 U               | 0.14 U  | 0.23 U        | 0.14 U      | 0.8         | 0.13 U        | 0.2 U              | 0.1 U  | 0.12 U    | 0.14 U  | 0.1 U   | 0.22 U        | 0.37 J         |  |
|                      | 05/02/08           | 0.65                 | 0.10 U    | 0.04 U    | 0.073 U   | 0.042 U              | 0.06 J  | 0.13 U        | 0.042 U     | 0.55        | 0.042 U       | 0.23 U             | 0.36 J | 0.05 U    | 0.18 J  | 0.2 JB  | 0.16 J        | 0.51           |  |
|                      | 09/29/08           | 0.61                 | 0.10 U    | 0.04 U    | 0.073 U   | 0.042 U              | 0.045 U | 0.13 U        | 0.042 U     | 0.71        | 0.042 U       | 0.23 U             | 0.1 U  | 0.05 U    | 0.10 J  | 0.2 JB  | 0.13 J        | 0.44 J         |  |
|                      | 03/26/09           | 0.5 U                | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 1.0 U       | 0.50 U      | 0.5 U         | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.2            |  |
|                      | 09/29/09           | 0.5 U                | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 1.0 U       | 1.0         | 0.5 U         | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.6 J          |  |
|                      | 03/29/10           | 0.5 U                | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 1.0 U       | 0.5         | 0.5 U         | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.7            |  |
|                      | 03/29/10 (LAB DUP) | 0.5 U                | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 1.0 U       | 0.6         | 0.5 U         | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.7            |  |
|                      | 09/30/10           | 0.61                 | 0.5 U     | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 1.0 U       | 1.07        | 0.5 U         | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.2 UJ         |  |
|                      | 04/17/95           | 230                  | 5 U       | NA U      | 5.0 U     | 5.0 U                | 5.0 U   | 30            | 5.0 U       | 42          | 5.0 U         | 5 U                | 5.0 U  | 5.0 U     | 5.0 U   | 5.0 U   | 5.0 U         | 10 U           |  |
|                      | 09/04/96           | 330                  | 5 U       | 20 U      | 5.0 U     | 5.0 U                | 5.0 U   | 9             | 5.0 U       | 56          | 5.0 U         | 10 U               | 5.0 U  | 5.0 U     | 5.0 U   | 5.0 U   | 5.0 U         | 5 U            |  |
|                      | 9/4/96 (DUP)       | 460                  | 5 U       | 20 U      | 5.0 U     | 5.0 U                | 5.0 U   | 13            | 5.0 U       | 7.2         | 5.0 U         | 10 U               | 5.0 U  | 5.0 U     | 5.0 U   | 5.0 U   | 5.0 U         | 5 U            |  |
|                      | 12/11/96           | 120                  | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 0.5 U       | 9.7         | 0.5 U         | 2 B                | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.7            |  |
|                      | 03/04/97           | 73                   | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 4.5         | 0.5 U       | 5.8           | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.8            |  |
|                      | 06/27/97           | 140 J                | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 18          | 0.5 U       | 17            | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 2              |  |
|                      | 09/04/97           | 190                  | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.6           | 1.4         | 0.5 U       | 25            | 0.6                | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 2.5            |  |
|                      | 12/04/97           | 48                   | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 1.8         | 0.5 U       | 2.1           | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U          |  |
|                      | 03/06/98           | 100                  | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.6           | 3.6         | 0.5 U       | 8.6           | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.9            |  |
|                      | 06/18/98           | 38                   | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.7 B         | 3.1         | 0.5 U       | 1.8           | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 0.6            |  |
|                      | 09/29/98           | 160                  | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 0.7         | 0.5 U       | 14            | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.1            |  |
|                      | 9/29/98 (DUP)      | 200                  | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 1 U           | 1.6         | 0.5 U       | 18            | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.5            |  |
|                      | 12/14/98           | 37                   | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 0.5           | 5.8         | 0.5 U       | 1.5           | 0.5 U              | 1 U    | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1.5            |  |
|                      | 03/03/99           | 47                   | 0.5 U     | 2 U       | 0.5 U     | 0.5 U                | 0.5 U   | 11            | 0.5 U       | 4.1         | 0.5 U         | 1 U                | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         | 1              |  |
|                      | 06/17/99           | 66                   | 1.0 U     | 4 U       | 1.0 U     | 1.0 U                | 1.0 U   | 1.0 U         | 1.0 U       | 3.0         | 1.0 U         | 10 U               | 1.0 U  | 1.0 U     | 1.0 U   | 1.0 U   | 1.0 U         | 1 U            |  |
| 09/17/99             | 97 J               | 0.2 U                | 0.2 U     | 0.2 U     | 0.2 U     | 0.2 U                | 0.4 E   | 0.8           | 0.2 U       | 6.5         | 0.2 U         | 0.3 U              | 0.2 U  | 0.3 U     | 0.2 U   | 0.4 U   | 0.6           |                |  |
| 12/08/99             | 26                 | 0.5 U                | 2 U       | 0.5 U     | 0.5 U     | 0.5 U                | 7.9     | 0.5 U         | 1.1         | 0.5 U       | 1 U           | 0.6 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5           |                |  |
| 03/07/00             | 33                 | 0.5 U                | 2 U       | 0.5 U     | 0.5 U     | 0.5 U                | 17      | 0.5 U         | 1.7         | 0.5 U       | 1 U           | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.6           |                |  |
| 06/21/00             | 24                 | 0.2 U                | 0.2 U     | 0.2 U     | 0.2 U     | 0.2 U                | 0.5 J   | 0.2 U         | 1.3         | 0.1 U       | 0.2 U         | 0.2 U              | 0.2 U  | 0.2 U     | 0.1 U   | 0.2 U   | 0.4 J         |                |  |
| 09/12/00             | 54                 | 1.0 U                | 1.0 U     | 1.0 U     | 1.0 U     | 1.0 U                | 2       | 1.0 U         | 3.0         | 1.0 U       | 5 U           | 1.0 U              | 1.0 U  | 1.0 U     | 1.0 U   | 2.0 U   | 1 U           |                |  |
| 9/12/00 (DUP)        | 61                 | 1.0 U                | 1.0 U     | 1.0 U     | 1.0 U     | 1.0 U                | 2       | 1.0 U         | 3.0         | 1.0 U       | 5 U           | 1.0 U              | 1.0 U  | 1.0 U     | 1.0 U   | 3.0 U   | 1 U           |                |  |
| 12/07/00             | 26                 | 0.2 U                | 0.2 U     | 0.2 U     | 0.2 U     | 0.2 U                | 0.4 J   | 0.2 U         | 1.7         | 0.1 U       | 0.2 U         | 0.2 U              | 0.2 U  | 0.2 U     | 0.1 U   | 0.2 U   | 0.3 J         |                |  |
| 03/15/01             | 46 J               | 0.2 U                | 0.2 U     | 0.2 U     | 0.2 U     | 0.2 U                | 0.4 J   | 0.2 U         | 0.1 U       | 2.3         | 0.1 U         | 0.2 J              | 0.2 U  | 0.2 U     | 0.2 U   | 0.1 J   | 0.2 U         |                |  |
| 07/12/01             | 27                 | 0.1 U                | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.43 J  | 0.2 U         | 0.1 U       | 1.9         | 0.098 U       | 0.2 U              | 0.11 U | 0.12 U    | 0.12 U  | 0.31 J  | 0.19 U        |                |  |
| 09/24/01             | 37                 | 0.5 U                | NA U      | 0.50 U    | 0.50 U    | 0.50 U               | 0.51    | 0.5 U         | 0.5 U       | 3.0         | 0.5 U         | 1 U                | 0.5 U  | 0.50 U    | 0.50 U  | 0.59 U  | 0.5 U         |                |  |
| 01/03/02             | 16                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.11 U  | 0.10 U        | 1.0         | 0.098 U     | 0.2 U         | 0.11 U             | 0.12 U | 0.12 U    | 0.46 JB | 0.19 U  | 0.25 J        |                |  |
| 03/28/02             | 22                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.41 J  | 0.23 U        | 0.10 U      | 1.4         | 0.13 U        | 0.2 U              | 0.11 U | 0.12 U    | 0.12 U  | 0.12 U  | 0.26 J        |                |  |
| 06/14/02             | 19                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.35 J  | 0.23 U        | 0.10 U      | 1.3         | 0.13 U        | 0.2 U              | 0.11 U | 0.12 U    | 0.098 U | 0.22 U  | 0.25 J        |                |  |
| 09/17/02             | 27                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.43 J  | 0.23 U        | 0.10 U      | 2.1         | 0.13 U        | 0.2 U              | 0.11 U | 0.12 U    | 0.098 U | 0.22 U  | 0.32 J        |                |  |
| 12/17/02             | 38                 | 0.5 U                | 2 U       | 0.5 U     | 0.5 U     | 0.5 U                | 18      | 0.5 U         | 0.9         | 0.5 U       | 2 U           | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.58          |                |  |
| 03/20/03             | 12                 | 0.5 U                | 2 U       | 0.5 U     | 0.5 U     | 0.5 U                | 0.5 U   | 0.5 U         | 0.8         | 0.5 U       | 2 U           | 0.5 U              | 0.5 U  | 0.5 U     | 0.5 U   | 0.5 U   | 0.5 U         |                |  |
| 06/11/03             | 9.5                | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.41 J  | 0.23 U        | 0.096 U     | 0.9         | 0.13 U        | 0.2 U              | 0.11 U | 0.12 U    | 0.12 U  | 0.47 JB | 0.22 U        |                |  |
| 09/11/03             | 9.9                | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.41 JB | 0.23 U        | 0.096 U     | 0.9         | 0.13 U        | 0.2 U              | 0.11 U | 0.12 U    | 0.12 U  | 0.32 JB | 0.22 U        |                |  |
| 12/04/03             | 19                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.35 J  | 19            | 0.096 U     | 1.0         | 0.13 U        | 0.27 J             | 0.11 U | 0.12 U    | 0.12 U  | 0.098 U | 0.22 U        |                |  |
| 03/15/04             | 16                 | 0.12 U               | 0.15 U    | 0.12 U    | 0.12 U    | 0.13 U               | 0.48 J  | 0.23 U        |             |             |               |                    |        |           |         |         |               |                |  |



Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location | Date Collected | 1,1-DCA   |           | 1,1-DCE |           | 1,2,4-TMB |        | 1,2-DCA   |           | 1,2-Dichloropropane |            | Benzene |         | Chloroethane |        | Chloroform |         | cis-1,2-DCE |       | Ethylbenzene |       | Methylene Chloride |       | PCE   |       | 1,1,1-TCA |       | TCE   |       | Toluene |       | Total Xylenes |       | Vinyl Chloride |       |        |       |  |
|-----------------|----------------|-----------|-----------|---------|-----------|-----------|--------|-----------|-----------|---------------------|------------|---------|---------|--------------|--------|------------|---------|-------------|-------|--------------|-------|--------------------|-------|-------|-------|-----------|-------|-------|-------|---------|-------|---------------|-------|----------------|-------|--------|-------|--|
|                 |                | 5,100,000 | 3,350,000 | LNAPL   | 8,690,000 | 0.8       | LNAPL  | 8,200,000 | 3,500,000 | LNAPL               | 20,000,000 | 200,000 | 720,000 | 1,100,000    | 1,000  | LNAPL      | 1,600   | 0.5         | LNAPL | 0.5          | LNAPL | 0.5                | LNAPL | 0.5   | LNAPL | 0.5       | LNAPL | 0.5   | LNAPL | 0.5     | LNAPL | 0.5           | LNAPL | 0.5            | LNAPL |        |       |  |
| MW-4            | 09/28/10       | 8.47      | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.33 J | 0.5 U     | 1.0 U     | 1.49                | 0.5 U      | 0.5 U   | 0.5 U   | 0.5 U        | 0.5 U  | 0.5 U      | 0.5 U   | 0.5 U       | 0.5 U | 0.5 U        | 0.5 U | 0.5 U              | 0.5 U | 0.5 U | 0.5 U | 0.5 U     | 0.5 U | 0.5 U | 0.5 U | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U          | 0.5 U | 0.2 UJ |       |  |
|                 | 09/04/96       | 76        | 50 U      | 200 U   | 50 U      | 50 U      | 50 U   | 830       | 50 U      | 50 U                | 200        | 100 U   | 50 U    | 2,000        | 50 U   | 50 U       | 50 U    | 2,000       | 50 U  | 50 U         | 50 U  | 50 U               | 50 U  | 50 U  | 50 U  | 50 U      | 50 U  | 50 U  | 50 U  | 50 U    | 50 U  | 50 U          | 50 U  | 50 U           | 50 U  | 50 U   |       |  |
|                 | 12/10/96       | 33        | 0.5 U     | 110 E   | 2.6       | 0.5 U     | 38     | 950       | 0.5 U     | 2.1                 | 430        | 7 B     | 0.5 U   | 0.5 U        | 0.5 U  | 0.5 U      | 0.5 U   | 0.5 U       | 0.5 U | 0.5 U        | 0.5 U | 0.5 U              | 0.5 U | 0.5 U | 0.5 U | 0.5 U     | 0.5 U | 0.5 U | 0.5 U | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U          | 0.5 U | 0.5 U  | 0.5 U |  |
|                 | 03/04/97       | 140       | 0.5 U     | 170     | 1.9       | 0.5 U     | 29     | 1,100     | 0.5 U     | 12                  | 580        | 7       | 0.5 U   | 4.8          | 1      | 160        | 210     | 15.0        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/27/97       | 160       | 0.5 U     | 230     | 1.2       | 0.5 U     | 31     | 2,000     | 0.5 U     | 2.8                 | 900        | 9.6     | 0.5 U   | 2.6          | 2      | 62         | 53      | 6.3         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/04/97       | 52        | 0.5 U     | 2 U     | 1.4       | 0.5 U     | 23     | 820       | 0.5 U     | 2.5                 | 570        | 7       | 0.5 U   | 0.5 U        | 0.8    | 120        | 42      | 6.9         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/04/97 (DUP) | 47        | 0.5 U     | 510     | 1.5       | 0.5 U     | 22     | 2,100     | 0.5 U     | 0.5 U               | 1,300      | 7.1     | 0.5 U   | 0.5 U        | 0.7    | 300        | 110     | 6.5         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/04/97       | 22 J      | 0.5 UJ    | 180 J   | 1.3 J     | 0.5 UJ    | 23 J   | 960 J     | 0.5 UJ    | 1.2 J               | 860 J      | 7 J     | 0.5 UJ  | 0.5 UJ       | 1 J    | 320 J      | 250 J   | 3.4 J       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/06/98       | 84        | 1 U       | 220     | 1 U       | 1 U       | 29     | 1,400     | 1 U       | 4                   | 970        | 10      | 1 U     | 11           | 1      | 48         | 140     | 8.0         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/18/98       | 410       | 12 U      | 260     | 12 U      | 12 U      | 140    | 1,700     | 12 U      | 12 U                | 1,200      | 45      | 12 U    | 12 U         | 12 U   | 390        | 1,800   | 12 U        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/29/98       | 33 J      | 2 U       | 240 J   | 2 U       | 2 U       | 23 J   | 1,000 J   | 2 U       | 2 U                 | 780 J      | 8 J     | 2 U     | 2 U          | 2 U    | 1,600 J    | 1,300 J | 2 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/14/98       | 26        | 2 U       | 250     | 2 U       | 2 U       | 37     | 1,000     | 2 U       | 2 U                 | 840        | 7       | 2 U     | 2 U          | 2 U    | 1,100      | 1,900   | 2 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/03/99       | 72        | 2 U       | 110     | 2 U       | 2 U       | 18     | 1,300     | 4 U       | 6                   | 790        | 9       | 2 U     | 2 U          | 2 U    | 8 B        | 13 B    | 8           |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/17/99       | 210       | 25 U      | 240     | 25 U      | 25 U      | 25 U   | 1,200     | 25 U      | 25 U                | 1,200      | 250 U   | 25 U    | 25 U         | 25 U   | 110        | 142     | 25 U        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/17/99       | 36        | 0.2 U     | 220     | 0.2 U     | 0.2 U     | 18     | 820 J     | 0.2 U     | 1.4 E               | 850 J      | 9       | 0.2 U   | 0.3 U        | 0.3 U  | 540        | 1,230   | 0 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/08/99       | 19        | 5 U       | 270     | 5 U       | 5 U       | 24     | 1,000 J   | 5 U       | 5 U                 | 980 J      | 10 U    | 5 U     | 5 U          | 5 UJ   | 380 J      | 1,570 J | 5 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/08/99 (DUP) | 20        | 5 U       | 260     | 5 U       | 5 U       | 23     | 1,100 J   | 5 U       | 5 U                 | 970 J      | 10 U    | 5 U     | 5 UJ         | 5 UJ   | 360 J      | 1,560 J | 5 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/07/00       | 29        | 2 U       | 240     | 2 U       | 2 U       | 17     | 1,200     | 2 U       | 2 U                 | 1,200      | 9       | 2 U     | 2 U          | 2 U    | 8          | 389     | 2 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/07/00 (DUP) | 28        | 2 U       | 240     | 2 U       | 2 U       | 17     | 1,200     | 2 U       | 2 U                 | 1,200      | 9       | 2 U     | 2 U          | 2 U    | 8          | 389     | 2 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/21/00       | 43        | 3 U       | 240     | 3 U       | 3 U       | 17     | 980       | 2 U       | 3 U                 | 1,100      | 20      | 3 U     | 3 U          | 3 U    | 58         | 1,040   | 5 U         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/12/00       | 14        | 1.0 U     | 140     | 1.0 U     | 1.0 U     | 10     | 840       | 1.0 U     | 1.0 U               | 610        | 6       | 1.0 U   | 1.0 U        | 1.0 U  | 25         | 820     | 1.0         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/07/00       | 10 J      | 6 U       | 230     | 6 U       | 7 U       | 10 J   | 750 J     | 5 U       | 6 U                 | 850        | 10 J    | 6 U     | 6 U          | 6 U    | 32         | 2,540   | 20 U        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/15/01       | 23 J      | 0.6 U     | 210     | 2.0 J     | 0.7 U     | 19     | 770       | 0.5 U     | 0.7 J               | 820        | 11      | 0.6 U   | 0.6 U        | 0.6 U  | 37         | 850     | 2.0 U       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 07/12/01       | 43        | 3 U       | 93      | 2.9 U     | 3.1 U     | 14     | 710       | 2.4 U     | 3 U                 | 960        | 16 J    | 2.8 U   | 2.8 U        | 3 U    | 5 J        | 370     | 5.3 U       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/25/01       | 27        | 0.5 U     | 27      | 0.71      | 0.5 U     | 6.5    | 340       | 0.5 U     | 0.74                | 230        | 5.9     | 0.5 U   | 0.5 U        | 0.5 U  | 2.1        | 38      | 3.6         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 01/02/02       | 25        | 0.6 U     | 55      | 0.57 U    | 0.62 U    | 10     | 570       | 0.48 U    | 1.4 J               | 450        | 7.5 J   | 0.55 U  | 0.56 U       | 1.2 J  | 5.5        | 164     | 1.6 J       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/28/02       | 87        | 0.6 U     | 65      | 0.57 U    | 0.62 U    | 12     | 810       | 0.48 U    | 2.6                 | 700        | 13      | 0.55 U  | 0.57 U       | 2.3 J  | 18         | 184     | 6.2         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/11/02       | 58        | 0.6 U     | 36      | 0.57 U    | 0.62 U    | 12     | 760       | 0.48 U    | 0.58 U              | 630        | 9.2 J   | 1.6 J   | 0.57 U       | 1.7 J  | 6.7        | 64      | 1.1 U       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/18/02       | 20        | 0.3 U     | 160     | 0.29 U    | 0.31 U    | 11     | 570       | 0.24 U    | 1.1 J               | 690        | 7.6     | 0.28 U  | 0.29 U       | 0.70 J | 11         | 1,640   | 1.9         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/17/02       | 18        | 1 U       | 150     | 1.0 U     | 1.0 U     | 14     | 500       | 1 U       | 1 U                 | 620        | 6.2     | 1.0 U   | 1.0 U        | 1.0 U  | 10         | 1,290   | 3.1         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/20/03       | 13        | 1 U       | 140     | 1.0 U     | 1.0 U     | 16     | 530       | 1 U       | 1.0 U               | 740        | 5.3     | 1.0 U   | 1.0 U        | 1.0 U  | 2.3        | 325     | 1.5         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 06/11/03       | 24        | 0.3 U     | 120     | 0.58 J    | 0.31 U    | 13     | 530       | 0.24 U    | 1.0 J               | 750        | 7.2     | 0.28 U  | 0.29 U       | 0.68 J | 1.8 B      | 114     | 1.5         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/11/03       | 18        | 0.24 U    | 200     | 0.23 U    | 0.25 U    | 13     | 460       | 0.2 U     | 1.1                 | 780        | 6.8     | 0.22 U  | 0.23 U       | 0.34 J | 9.3        | 1,990   | 2.3         |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 12/04/03       | 11        | 0.24 U    | 180     | 0.23 U    | 0.25 U    | 27     | 370       | 0.2 U     | 0.56 J              | 800        | 4.2     | 0.22 U  | 0.23 U       | 0.32 J | 11         | 1,787   | 0.7 J       |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/15/04       | 15        | 0.12 U    | 160     | 0.12 U    | 0.13 U    | 24     | 420       | 0.096 U   | 0.67                | 730        | 6.2     | 0.11 U  | 0.12 U       | 0.48 J | 5.6        | 702     | 0.59        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/24/04       | 12        | 0.12 U    | 19      | 0.75      | 0.13 U    | 13     | 270       | 0.096 U   | 0.56                | 350        | 2.6     | 0.11 U  | 0.12 U       | 0.31 J | 0.8        | 11.3    | 0.78        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 04/04/05       | 10        | 0.25 U    | 170     | 0.86 J    | 0.28 U    | 21     | 400       | 0.28 U    | 0.42 J              | 730        | 3.9     | 0.46 J  | 0.24 U       | 0.34 J | 3.6        | 690     | 0.66 J      |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/21/05       | 15        | 0.13 U    | 120     | 0.63      | 0.14 U    | 17     | 230       | 0.14 U    | 0.79                | 270        | 3.1     | 0.13 U  | 0.12 U       | 0.29 J | 2.9        | 328     | 0.58        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 03/15/06       | 12        | 0.13 U    | 140     | 0.66      | 0.14 U    | 20     | 300       | 0.14 U    | 0.46 J              | 81         | 3.7     | 0.13 U  | 0.12 U       | 0.19 J | 2.1        | 376     | 0.86        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
|                 | 09/14/06       | 10        | 0.13 U    | 120     | 0.59      | 0.14 U    | 12     | 190       | 0.14 U    | 0.51                | 61         | 2.2     | 0.13 U  | 0.12 U       | 0.17 J | 1.4        | 343     | 1.60        |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
| 04/04/07        | 7.2            | 0.13 U    | 140       | 0.49 J  | 0.14 U    | 17        | 110    | 0.14 U    | 0.25 J    | 22                  | 1.3 J      | 0.13 U  | 0.12 U  | 0.15 J       | 0.78   | 151        | 0.09 J  |             |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |
| 09/26/07        | 9.0            | 0.13 U    | 120       | 0.85 U  | 0.14 U    | 14        | 85     | 0.14 U    | 0.31 J    | 62                  | 0.62 J     | 0.13 U  | 0.12 U  | 0            |        |            |         |             |       |              |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |        |       |  |



Table D2  
Indicator Hazardous Substances in Groundwater  
Univar Solutions USA, Inc.  
Kent, Washington

| Sample Location      | Date Collected | 1,1-DCA   |           | 1,1-DCE |           | 1,2,4-TMB |         | 1,2-DCA   |           | 1,2-Dichloro-propane |         | Benzene    |            | Chloro-ethane |           | Chloro-form |        | cis-1,2-DCE |     | Ethyl-benzene |  | Methylene Chloride |  | PCE |  | 1,1,1-TCA |  | TCE |  | Toluene |  | Total Xylenes |  | Vinyl Chloride |  |
|----------------------|----------------|-----------|-----------|---------|-----------|-----------|---------|-----------|-----------|----------------------|---------|------------|------------|---------------|-----------|-------------|--------|-------------|-----|---------------|--|--------------------|--|-----|--|-----------|--|-----|--|---------|--|---------------|--|----------------|--|
|                      |                | 5,100,000 | 3,350,000 | LNAPL   | 8,690,000 | 0.8       | LNAPL   | 8,200,000 | 3,500,000 | 70                   | 700     | 5.0        | 20,000,000 | 200,000       | 720,000   | 1,100,000   | 1,000  | 1,600       | 0.5 |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
| Final Cleanup Levels |                | 800       | 7.0       | 400     | 0.5       | 0.64      | 0.8     | 7.2       | 70        | 700                  | 5.0     | 20,000,000 | 200,000    | 720,000       | 1,100,000 | 1,000       | 1,600  | 0.5         |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 10/22/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U     | 5 U       | 7.1       | 5 U                  | 10 U    | 1,600      | 5 U        | 76            | 5 U       | 5 U         | 5 U    | 5 U         |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 11/19/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U     | 5 U       | 12        | 5 U                  | 10 U    | 2,000      | 5 U        | 75            | 5 U       | 5 U         | 5 U    | 5 U         |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/27/02       | 0.8 J     | 0.8 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 7.4                  | 0.49 U  | 0.97 U     | 1,600      | 0.9 J         | 69        | 0.49 U      | 0.93 U | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/11/02       | 0.91 U    | 1.2 U     | 1.5 U   | 1.2 U     | 1.3 U     | 1.1 U   | 2.3 U     | 0.96 U    | 2.9 J                | 1.3 U   | 2 U        | 2,500      | 1.2 U         | 70        | 0.98 U      | 2.2 U  | 2.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/18/02       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.98 U    | 2.2 J                | 0.65 U  | 0.97 U     | 2,100      | 0.75 J        | 63        | 0.49 U      | 1.5 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/16/02       | 0.91 U    | 1.2 U     | 1.5 U   | 1.2 U     | 0.76 U    | 1.1 U   | 2.3 U     | 0.46 U    | 3.7 J                | 1.3 U   | 4 J        | 2,600      | 1.2 U         | 76        | 0.98 U      | 2.2 U  | 2.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/17/03       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 7.6                  | 0.65 U  | 1.1 J      | 1,500      | 0.6 J         | 57        | 0.49 U      | 1.1 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/10/03       | 0.91 U    | 1.2 U     | 1.5 U   | 1.2 U     | 1.3 U     | 1.1 U   | 2.3 U     | 0.96 U    | 1.4 J                | 1.3 U   | 2 U        | 2,200      | 1.2 U         | 57        | 0.98 U      | 2.2 U  | 2.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/11/03       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 1.5 J                | 0.65 U  | 0.97 U     | 2,400      | 0.57 U        | 86        | 0.49 U      | 1.1 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/05/03       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 5                    | 0.65 U  | 0.97 U     | 1,600      | 0.57 U        | 76        | 0.49 U      | 1.1 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/16/04       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 0.8 J                | 0.65 U  | 0.97 U     | 1,700      | 0.7 J         | 47        | 0.49 U      | 1.1 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/22/04       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U  | 1.2 U     | 0.48 U    | 1.2 J                | 0.65 U  | 0.97 U     | 2,200      | 0.85 J        | 57        | 0.49 U      | 1.1 U  | 1.1 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/04/05       | 0.26 U    | 0.31 U    | 0.36 U  | 0.29 U    | 0.35 U    | 0.34 U  | 0.57 U    | 0.34 U    | 1.5                  | 0.33 U  | 0.49 U     | 1,300      | 0.43 J        | 45        | 0.28 J      | 0.55 U | 0.53 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/20/05       | 0.11 U    | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.23 U    | 0.14 U    | 2.0                  | 0.13 U  | 0.2 U      | 1,300      | 0.53 J        | 48        | 0.32 J      | 0.22 U | 0.042 U     |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/14/06       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U  | 1.2 U     | 0.68 U    | 3.1                  | 0.65 U  | 0.97 U     | 1,300      | 0.58 U        | 47        | 0.54 U      | 1.1 U  | 0.21 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/13/06       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U  | 1.2 U     | 0.68 U    | 3.6                  | 0.65 U  | 0.97 U     | 1,600      | 0.58 U        | 59        | 0.54 U      | 1.1 U  | 0.21 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/05/07       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U  | 1.2 U     | 0.68 U    | 4.5                  | 0.65 U  | 1.2 J      | 1,200      | 0.58 U        | 43        | 0.54 U      | 1.1 U  | 0.21 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/26/07       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U  | 1.2 U     | 0.68 U    | 6.7                  | 0.65 U  | 0.97 U     | 1,300      | 0.58 U        | 49        | 0.54 U      | 1.1 U  | 0.21 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 05/01/08       | 0.11 U    | 0.28 J    | 0.093 U | 0.19 U    | 0.11 U    | 0.12 U  | 0.3 U     | 0.11 U    | 6.1                  | 0.11 U  | 0.58 U     | 990        | 0.28 J        | 37        | 0.13 JB     | 0.2 U  | 0.18 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/30/08       | 0.21 U    | 0.5 U     | 0.19 U  | 0.37 U    | 0.21 U    | 0.23 U  | 0.85 U    | 0.21 U    | 8.1                  | 0.21 U  | 1.2 U      | 1,500      | 0.25 J        | 46        | 0.25 JB     | 0.39 U | 0.36 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/25/09       | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 5.4 J                | 10 U    | 10 U       | 1,200      | 10 U          | 27        | 10 U        | 10 U   | 4.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/29/09       | 5.0 U     | 5.0 U     | 5.0 U   | 5.0 U     | 5.0 U     | 5.0 U   | 5.0 U     | 5.0 U     | 4.6 J                | 5.0 U   | 5.0 U      | 850        | 5.0 U         | 31 J      | 5.0 U       | 5.0 U  | 2.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/29/09 (DUP) | 5.0 UJ    | 5.0 UJ    | 5.0 UJ  | 5.0 UJ    | 5.0 UJ    | 5.0 UJ  | 5.0 UJ    | 5.0 UJ    | 6.0 J                | 5.0 UJ  | 5.0 UJ     | 900        | 5.0 UJ        | 48 J      | 5.0 UJ      | 5.0 UJ | 2.0 UJ      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/01/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 3.9                  | 0.5 U   | 0.5 U      | 340        | 0.5 U         | 42        | 0.5 U       | 0.5 U  | 0.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/01/10 (DUP) | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 3.9                  | 0.5 U   | 0.5 U      | 270        | 0.5 U         | 44        | 0.5 U       | 0.5 U  | 0.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/09/10       | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U                 | 10 U    | 10 U       | 1,100      | 10 U          | 35        | 10 U        | 10 U   | 4.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/16/10       | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 5.0 J                | 10 U    | 10 U       | 780        | 10 U          | 42        | 10 U        | 10 U   | 4.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 05/06/10       | 10 U      | 5.0 U     | 10 U    | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 3.2 J                | 10 U    | 10 U       | 640        | 10 U          | 36        | 10 U        | 10 U   | 2.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/09/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 3.2                  | 0.5 U   | 0.5 U      | 670        | 0.5 U         | 33        | 0.5 U       | 0.5 U  | 0.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 07/06/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 4.6                  | 0.5 U   | 0.5 U      | 640        | 0.5 U         | 31        | 0.5 U       | 0.5 U  | 0.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 07/06/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 4.6                  | 0.5 U   | 0.5 U      | 640        | 0.5 U         | 31        | 0.5 U       | 0.5 U  | 0.2 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/28/10       | 10 U      | 5.0 U     | 10 U    | 10 U      | 10 U      | 10 U    | 10 U      | 20 U      | 5.0 U                | 10 U    | 10 U       | 514        | 10 U          | 22.6      | 10 U        | 10 U   | 2.0 UJ      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/28/10 (DUP) | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 1.0 U     | 2.43                 | 0.5 U   | 0.5 U      | 514        | 0.5 U         | 21.7      | 0.5 U       | 0.5 U  | 0.2 UJ      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/04/96       | 12        | 0.5 U     | 2 U     | 3.2       | 0.5 U     | 1.7     | 460       | 0.5 U     | 0.6                  | 0.5 U   | 2 B        | 0.5 U      | 0.5 U         | 31        | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/10/96       | 13        | 0.5 U     | 2 U     | 2.1       | 0.5 U     | 1.2     | 240       | 0.5 U     | 0.7                  | 0.5 U   | 1 B        | 1 U        | 0.5 U         | 26        | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/04/97       | 12        | 0.5 U     | 2 U     | 1.4       | 0.5 U     | 0.7     | 190 J     | 0.5 U     | 0.5                  | 0.5 U   | 1 U        | 1 U        | 0.5 U         | 5.0       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/27/97       | 13        | 0.5 U     | 2 U     | 2.2       | 0.5 U     | 1.2     | 370       | 0.5 U     | 0.9                  | 0.5 U   | 1 U        | 1 U        | 0.5 U         | 7.3       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/04/97       | 9.5       | 0.5 U     | 2 U     | 2.4       | 0.5 U     | 1.6     | 320       | 0.5 U     | 0.5 U                | 0.5 U   | 1 U        | 2.7        | 0.5 U         | 13        | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/04/97       | 9.1       | 0.5 U     | 2 U     | 1.4       | 0.5 U     | 0.7     | 180       | 0.5 U     | 0.6                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 4.9       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/06/98       | 11        | 0.5 U     | 2 U     | 1.8       | 0.5 U     | 1.1 B   | 150       | 0.5 U     | 0.6                  | 0.5 U   | 2.5 B      | 0.5 U      | 0.5 U         | 9.4 B     | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/18/98       | 12        | 0.5 U     | 2 U     | 2.6       | 0.5 U     | 1.7 B   | 190       | 0.5 U     | 0.8                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 11 B      | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/29/98       | 10        | 0.5 U     | 2 U     | 2.1       | 0.5 U     | 1.5     | 190 E     | 0.5 U     | 0.7                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 8.9       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/15/98       | 9.9       | 0.5 U     | 2 U     | 0.9       | 0.5 U     | 0.5 U   | 110       | 0.5 U     | 0.6                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 3.7 B     | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/02/99       | 10        | 0.5 U     | 2 U     | 0.9       | 0.5 U     | 0.5 U   | 180       | 0.5 U     | 0.6                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 3.2 B     | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/02/99 (DUP) | 9.5       | 0.5 U     | 2 U     | 0.8       | 0.5 U     | 0.5 U   | 170       | 0.5 U     | 0.6                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 3.1 B     | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/16/99       | 7.4       | 0.5 U     | 2 U     | 0.5 U     | 0.9       | 0.5 B   | 100       | 0.5 U     | 0.5                  | 0.5 U   | 5 U        | 0.5 U      | 0.5 U         | 2.3 B     | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/16/99       | 7.5       | 0.2 U     | 0.2 U   | 0.8       | 0.2 U     | 0.5 E   | 81        | 0.2 U     | 0.5                  | 0.2 U   | 0.3 U      | 0.2 U      | 0.3 U         | 2.3 E     | 0.4 U       | 0.3 U  | 0.3 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/08/99       | 7.2       | 0.5 U     | 2 U     | 0.7       | 0.5 U     | 0.50 U  | 73 J      | 0.5 U     | 0.6                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 1.5       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/07/00       | 6.9       | 0.5 U     | 2 U     | 0.8       | 0.5 U     | 0.5 U   | 72        | 0.5 U     | 0.5                  | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 1.8       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/21/00       | 6.6       | 0.2 U     | 0.2 U   | 0.4 J     | 0.2 U     | 0.2 U   | 29        | 0.1 U     | 0.3 J                | 0.78    | 0.2 U      | 2.6        | 0.2 U         | 0.3 J     | 0.7         | 0.7 J  | 0.3 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/12/00       | 5         | 1.0 U     | 1.0 U   | 1.0 U     | 1.0 U     | 1.0 U   | 53        | 1.0 U     | 1.0 U                | 1.0 U   | 5 U        | 1.0 U      | 1.0 U         | 1.0 U     | 3 U         | 1.0 U  | 1.0 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/07/00       | 5.8       | 0.2 U     | 0.2 U   | 0.5 J     | 0.2 U     | 0.4 J   | 52 J      | 0.1 U     | 0.51                 | 0.1 U   | 0.2 U      | 0.2 U      | 0.2 U         | 1.6 B     | 0.2 U       | 0.3 U  | 0.3 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/15/01       | 6 J       | 0.2 U     | 0.2 U   | 0.64      | 0.2 U     | 0.3 J   | 54        | 0.1 U     | 0.4 J                | 0.1 U   | 0.4 J      | 0.3 U      | 0.2 U         | 1.6       | 0.2 U       | 0.3 U  | 0.3 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 07/12/01       | 4.8       | 0.12 U    | 0.15 U  | 0.40 J    | 0.13 U    | 0.25 J  | 29        | 0.096 U   | 0.3 J                | 0.098 U | 0.2 U      | 0.11 U     | 0.12 U        | 0.83      | 0.19 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/25/01       | 5.9       | 0.5 U     | 2.0 U   | 0.53      | 0.5 U     | 0.5 U   | 47        | 0.5 U     | 0.5 U                | 0.5 U   | 1 U        | 0.5 U      | 0.5 U         | 1.2       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 01/03/02       | 5.3       | 0.12 U    | 0.15 U  | 0.62      | 0.13 U    | 0.11 U  | 44        | 0.096 U   | 0.33 J               | 0.098 U | 0.2 U      | 0.11 U     | 0.12 U        | 1.4 B     | 0.19 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/27/02       | 5.1       | 0.12 U    | 0.15 U  | 0.78      | 0.13 U    | 0.43 J  | 63        | 0.096 U   | 0.38 J               | 0.13 U  | 0.29 J     | 0.11 U     | 0.12 U        | 1.2       | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/14/02       | 3.4       | 0.12 U    | 0.15 U  | 0.15 J    | 0.13 U    | 0.11 U  | 11        | 0.096 U   | 0.22 J               | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.37 J    | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/18/02       | 4.9       | 0.12 U    | 0.15 U  | 0.52      | 0.13 U    | 0.50    | 36        | 0.096 U   | 0.4 J                | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 1.2       | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/16/02       | 4.6       | 0.5 U     | 2.0 U   | 0.76      | 0.5 U     | 0.58    | 51        | 0.5 U     | 0.5 U                | 0.5 U   | 2 U        | 0.5 U      | 0.5 U         | 1.2       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/20/03       | 3.4       | 0.5 U     | 2.0 U   | 0.5 U     | 0.5 U     | 0.50 U  | 31        | 0.5 U     | 0.5 U                | 0.5 U   | 2 U        | 0.5 U      | 0.5 U         | 0.6       | 0.5 U       | 0.5 U  | 0.5 U       |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 06/11/03       | 2.7       | 0.12 U    | 0.15 U  | 0.12 U    | 0.13 U    | 0.11 U  | 0.72      | 0.096 U   | 0.13 J               | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.8 B     | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/10/03       | 3.4       | 0.12 U    | 0.15 U  | 0.12 U    | 0.13 U    | 0.20 JB | 4.9       | 0.096 U   | 0.2 J                | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.59 B    | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 12/04/03       | 3.2       | 0.12 U    | 0.15 U  | 0.34 J    | 0.13 U    | 0.23 J  | 13        | 0.096 U   | 0.26 J               | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.45 J    | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 03/16/04       | 1.5       | 0.12 U    | 0.15 U  | 0.12 U    | 0.13 U    | 0.11 U  | 2.2       | 0.096 U   | 0.13 J               | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.16 J    | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 09/23/04       | 3.6       | 0.12 U    | 0.15 U  | 0.57      | 0.13 U    | 0.31 J  | 19        | 0.096 U   | 0.34 J               | 0.13 U  | 0.2 U      | 0.11 U     | 0.12 U        | 0.73      | 0.22 U      | 0.22 U | 0.22 U      |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |
|                      | 04/05/05       | 1.3       | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.72      | 0.14 U    | 0.12 U               | 0.13 U  |            |            |               |           |             |        |             |     |               |  |                    |  |     |  |           |  |     |  |         |  |               |  |                |  |



Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location | Date Collected | 1,1-DCA   |           | 1,1-DCE |           | 1,2,4-TMB |        | 1,2-DCA |           | 1,2-Dichloro-propane |        | Benzene |         | Chloro-ethane |         | Chloro-form |           | cis-1,2-DCE |        | Ethyl-benzene |        | Methylene Chloride |        | PCE    |        | 1,1,1-TCA |        | TCE    |        | Toluene |        | Total Xylenes |        | Vinyl Chloride |        |        |
|-----------------|----------------|-----------|-----------|---------|-----------|-----------|--------|---------|-----------|----------------------|--------|---------|---------|---------------|---------|-------------|-----------|-------------|--------|---------------|--------|--------------------|--------|--------|--------|-----------|--------|--------|--------|---------|--------|---------------|--------|----------------|--------|--------|
|                 |                | 5,100,000 | 3,350,000 | LNAPL   | 8,690,000 | 0.64      | 0.8    | LNAPL   | 8,200,000 | 3,500,000            | 70     | 700     | 5.0     | 200,000       | 200,000 | 720,000     | 1,100,000 | 1,000       | 1,000  | 1,600         | 0.5    |                    |        |        |        |           |        |        |        |         |        |               |        |                |        |        |
| MW-7            | 09/30/08       | 1.8       | 0.1 U     | 0.037 U | 0.21 J    | 0.042 U   | 0.2 J  | 1.3     | 0.042 U   | 0.19 J               | 0.05 J | 2.3 U   | 0.077 U | 0.05 U        | 0.07 J  | 0.32 JB     | 0.21 J    | 0.071 U     |        |               |        |                    |        |        |        |           |        |        |        |         |        |               |        |                |        |        |
|                 | 03/26/09       | 1.3       | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
|                 | 09/29/09       | 3.0       | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 03/30/10       | 0.6       | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 09/30/10       | 1.81      | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 12/22/97       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 2.0       | 0.5 U  | 0.5 U   | 0.9 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 03/06/98       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 1.3       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 06/18/98       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 1.0       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 06/18/98 (DUP) | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 1.0       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 09/29/98       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 1.1       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 12/14/98       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 03/03/99       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 2.1       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 06/17/99       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 0.6       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 5 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 09/17/99       | 0.2 U     | 0.2 U     | 0.2 U   | 0.2 U     | 0.9       | 0.2 U  | 0.2 U   | 0.2 U     | 0.2 U                | 0.2 U  | 0.2 U   | 0.3 U   | 0.2 U         | 0.3 U   | 0.2 U       | 0.3 U     | 0.2 U       | 0.3 U  | 0.2 U         | 0.3 U  | 0.2 U              | 0.3 U  | 0.2 U  | 0.3 U  | 0.2 U     | 0.3 U  | 0.2 U  | 0.3 U  | 0.2 U   | 0.3 U  | 0.2 U         | 0.3 U  | 0.2 U          | 0.3 U  | 0.2 U  |
|                 | 12/08/99       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 2.3       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 1 U     | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 03/07/00       | 0.5 U     | 0.5 U     | 2 U     | 0.5 U     | 2.0       | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  | 0.5 U  |
|                 | 06/21/00       | 0.1 J     | 0.2 U     | 0.2 U   | 0.2 U     | 0.3 J     | 0.2 U  | 0.2 U   | 0.82      | 0.1 U                | 0.2 U  | 0.58    | 0.2 U   | 0.2 U         | 0.2 U   | 0.2 U       | 0.2 U     | 0.2 U       | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U              | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U     | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U   | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U          | 0.2 U  | 0.2 U  |
|                 | 09/12/00       | 1.0 U     | 1.0 U     | 1.0 U   | 1.0 U     | 1.0 U     | 1.0 U  | 1.0 U   | 1.0 U     | 1.0 U                | 1.0 U  | 1.0 U   | 1.0 U   | 5 U           | 1.0 U   | 1.0 U       | 1.0 U     | 1.0 U       | 1.0 U  | 1.0 U         | 1.0 U  | 1.0 U              | 1.0 U  | 1.0 U  | 1.0 U  | 1.0 U     | 1.0 U  | 1.0 U  | 1.0 U  | 1.0 U   | 1.0 U  | 1.0 U         | 1.0 U  | 1.0 U          | 1.0 U  | 1.0 U  |
|                 | 12/07/00       | 0.1 U     | 0.2 U     | 0.2 U   | 0.2 U     | 1.7       | 0.2 U  | 0.2 U   | 0.2 U     | 0.1 U                | 0.09 U | 0.1 U   | 0.09 U  | 0.1 U         | 0.2 U   | 0.2 U       | 0.2 U     | 0.2 U       | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U              | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U     | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U   | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U          | 0.2 U  | 0.2 U  |
|                 | 03/15/01       | 0.1 U     | 0.2 U     | 0.2 U   | 0.2 U     | 0.91      | 0.2 U  | 0.2 U   | 0.2 U     | 0.1 U                | 0.09 U | 0.1 U   | 0.09 U  | 0.1 U         | 0.2 U   | 0.2 U       | 0.2 U     | 0.2 U       | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U              | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U     | 0.2 U  | 0.2 U  | 0.2 U  | 0.2 U   | 0.2 U  | 0.2 U         | 0.2 U  | 0.2 U          | 0.2 U  | 0.2 U  |
| 07/12/01        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 0.28 J    | 0.11 U    | 0.18 U | 0.096 U | 0.12 U    | 0.098 U              | 0.2 U  | 0.1 U   | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U |        |
| 08/27/01        | 0.5 U          | 0.5 U     | 2.0 U     | 0.5 U   | 0.72      | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 1.0 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
| 09/25/01        | 0.5 U          | 0.5 U     | 2.0 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 1.0 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
| 10/22/01        | 0.5 U          | 0.5 U     | 2.0 U     | 0.5 U   | 0.69      | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 1.0 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
| 11/20/01        | 0.5 U          | 0.5 U     | 2.0 U     | 0.5 U   | 1.3       | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
| 01/03/02        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 1.2       | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    | 0.098 U              | 0.2 U  | 0.1 U   | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U | 0.12 U |
| 03/28/02        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 0.58      | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    | 0.13 U               | 0.28 J | 0.13 U  | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U | 0.12 U |
| 06/14/02        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 0.31 J    | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    | 0.13 U               | 0.2 U  | 0.13 U  | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U | 0.12 U |
| 09/17/02        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 0.37 J    | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    | 0.13 U               | 0.2 U  | 0.13 U  | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U | 0.12 U |
| 09/17/02 (DUP)  | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 0.36 J    | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    | 0.13 U               | 0.2 U  | 0.13 U  | 0.12 U  | 0.12 U        | 0.12 U  | 0.12 U      | 0.12 U    | 0.12 U      | 0.12 U | 0.12 U        | 0.12 U | 0.12 U             | 0.12 U | 0.12 U | 0.12 U | 0.12 U    | 0.12 U | 0.12 U | 0.12 U | 0.12 U  | 0.12 U | 0.12 U        | 0.12 U | 0.12 U         | 0.12 U | 0.12 U |
| 12/17/02        | 0.5 U          | 0.5 U     | 2.0 U     | 0.5 U   | 1.4       | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 2 U     | 0.5 U   | 0.5 U         | 0.5 U   | 0.5 U       | 0.5 U     | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U              | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U     | 0.5 U  | 0.5 U  | 0.5 U  | 0.5 U   | 0.5 U  | 0.5 U         | 0.5 U  | 0.5 U          | 0.5 U  |        |
| 03/17/03        | 0.091 U        | 0.12 U    | 0.15 U    | 0.12 U  | 1.3       | 0.11 U    | 0.23 U | 0.096 U | 0.12 U    |                      |        |         |         |               |         |             |           |             |        |               |        |                    |        |        |        |           |        |        |        |         |        |               |        |                |        |        |







Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location | Date Collected | 1,1-DCA   |           | 1,1-DCE |           | 1,2,4-TMB |        | 1,2-DCA |           | 1,2-Dichloro-propane |        | Benzene |       | Chloro-ethane |       | Chloro-form |        | cis-1,2-DCE |        | Ethyl-benzene |       | Methylene Chloride |       | PCE   |       | 1,1,1-TCA |       | TCE   |       | Toluene |       | Total Xylenes |       | Vinyl Chloride |       |       |       |       |       |        |  |
|-----------------|----------------|-----------|-----------|---------|-----------|-----------|--------|---------|-----------|----------------------|--------|---------|-------|---------------|-------|-------------|--------|-------------|--------|---------------|-------|--------------------|-------|-------|-------|-----------|-------|-------|-------|---------|-------|---------------|-------|----------------|-------|-------|-------|-------|-------|--------|--|
|                 |                | 5,100,000 | 3,350,000 | LNAPL   | 8,690,000 | 0.64      | 0.8    | LNAPL   | 8,200,000 | 3,500,000            | 70     | 700     | 5.0   | 0.86          | 200   | 4.0         | 1,000  | 1,000       | 1,600  | 1,600         | 0.5   | 0.5 U              | 0.5 U | 0.5 U | 0.5 U | 0.5 U     | 0.5 U | 0.5 U | 0.5 U | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U          | 0.5 U | 0.5 U |       |       |       |        |  |
| MW-11           | 03/30/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U       | 0.5 U  | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U | 0.5 U              | 0.5 U | 0.5 U | 0.5 U | 0.5 U     | 0.5 U | 0.5 U | 0.5 U | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U          | 0.5 U | 0.2 U | 0.2 U |       |       |        |  |
|                 | 09/28/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 0.5 U                | 0.5 U  | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U       | 0.5 U  | 0.5 U       | 0.5 U  | 0.5 U         | 0.5 U | 0.5 U              | 0.5 U | 0.5 U | 0.5 U | 0.5 U     | 0.5 U | 0.5 U | 0.5 U | 0.5 U   | 0.5 U | 0.5 U         | 0.5 U | 0.5 U          | 0.5 U | 0.5 U | 0.2 U | 0.2 U |       |        |  |
|                 | 07/12/01       | 0.91 U    | 1.2 U     | NA      | 1.2 U     | 1.3 U     | NA     | 1.8 U   | 0.96 U    | 19                   | NA     | 2 U     | 2,000 | 1.2 U         | 78    | NA          | NA     | NA          | NA     | 2.5 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       | 2.5 J |       |        |  |
|                 | 08/27/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 19                   | 5 U    | 10 U    | 1,600 | 5 U           | 69    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       | 5 U   |       |        |  |
|                 | 09/24/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 22                   | 5 U    | 10 U    | 1,900 | 5 U           | 84    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 10/15/01       | 1.4       | 0.53      | NA      | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 28                   | 0.5 U  | 1 U     | 1,600 | 0.5 U         | 83    | 0.5 U       | 0.5 U  | 0.5 U       | 0.5 U  | 1.2           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 1.2   |        |  |
|                 | 10/15/01       | 1.4       | 0.54      | NA      | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 0.5 U     | 29                   | 0.5 U  | 1 U     | 1,700 | 0.5 U         | 86    | 0.5 U       | 0.5 U  | 0.5 U       | 0.5 U  | 1.2           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 1.2   |        |  |
|                 | 10/22/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 25                   | 5 U    | 10 U    | 2,000 | 5 U           | 92    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 10/22/01       | 2.5 U     | 2.5 U     | NA      | 2.5 U     | 2.5 U     | 2.5 U  | 2.5 U   | 2.5 U     | 25                   | 2.5 U  | 5 U     | 2,000 | 2.5 U         | 92    | 2.5 U       | 2.5 U  | 2.5 U       | 2.5 U  | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 10/29/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 25                   | 5 U    | 10 U    | 1,700 | 5 U           | 91    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 10/29/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 25                   | 5 U    | 10 U    | 1,800 | 5 U           | 92    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 11/19/01       | 5 U       | 5 U       | NA      | 5 U       | 5 U       | 5 U    | 5 U     | 5 U       | 20                   | 5 U    | 10 U    | 1,900 | 5 U           | 78    | 5 U         | 5 U    | 5 U         | 5 U    | 5 U           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 5 U   |        |  |
|                 | 01/02/02       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.48 U    | 18                   | 0.49 U | 0.97 U  | 1,900 | 0.56 U        | 78    | 0.49 U      | 0.93 U | 0.93 U      | 1.1 U  | 1.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 1.1 U |        |  |
|                 | 03/27/02       | 0.91 U    | 1.2 U     | 1.5 U   | 1.2 U     | 1.3 U     | 1.1 U  | 2.3 U   | 0.96 U    | 19                   | 1.3 U  | 4 J     | 1,800 | 1.2 U         | 67    | 0.98 U      | 2.2 U  | 2.2 U       | 2.2 U  | 2.2 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 2.2 U  |  |
|                 | 06/11/02       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.48 U    | 19                   | 0.49 U | 0.97 U  | 1,500 | 0.57 U        | 64    | 0.49 U      | 1.5 U  | 1.5 U       | 1.1 U  | 1.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.1 U  |  |
|                 | 09/17/02       | 0.91 U    | 1.2 U     | 1.5 U   | 1.2 U     | 1.3 U     | 1.1 U  | 2.3 U   | 0.96 U    | 16                   | 1.3 U  | 2 U     | 2,000 | 1.2 U         | 67    | 0.98 U      | 2.2 U  | 2.2 U       | 2.2 U  | 2.2 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 2.2 U  |  |
|                 | 12/16/02       | 2.2       | 1 U       | 4.0 U   | 1.0 U     | 1.0 U     | 1.1 U  | 1 U     | 1.0 U     | 7.9                  | 1.0 U  | 4 U     | 680   | 1.0 U         | 40    | 1.0 U       | 1.0 U  | 1.0 U       | 1.7    | 1.7           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 1.7   |        |  |
|                 | 03/17/03       | 1.0 J     | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.48 U    | 7.5                  | 0.65 U | 1.3 J   | 1,100 | 0.57 U        | 46    | 0.49 U      | 1.1 U  | 1.1 U       | 1.1 U  | 1.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.1 U  |  |
|                 | 03/17/03       | 1.0 J     | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.48 U    | 7.5                  | 0.65 U | 1.3 J   | 1,100 | 0.57 U        | 45    | 0.49 U      | 1.1 U  | 1.1 U       | 1.1 U  | 1.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.1 U  |  |
|                 | 06/10/03       | 0.9 J     | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.53 U    | 7.4                  | 0.65 U | 0.97 U  | 1,500 | 0.57 U        | 53    | 0.85 JB     | 1.1 U  | 1.1 U       | 1.1 U  | 1.5 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.5 J  |  |
|                 | 09/10/03       | 0.46 U    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.53 U    | 6.0                  | 0.65 U | 0.97 U  | 1,700 | 0.75 J        | 62    | 0.49 U      | 1.1 U  | 1.1 U       | 1.1 U  | 1.6 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.6 J  |  |
|                 | 12/05/03       | 2.9       | 0.4 J     | 0.29 U  | 0.23 U    | 0.25 U    | 0.25 U | 0.46 U  | 0.2 J     | 8.8                  | 0.26 U | 0.39 U  | 1,100 | 0.3 J         | 58    | 0.2 U       | 0.44 U | 0.44 U      | 2.1    | 2.1           |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 2.1    |  |
|                 | 03/16/04       | 0.55 J    | 0.6 U     | 0.71 U  | 0.57 U    | 0.62 U    | 0.53 U | 1.2 U   | 0.55 J    | 5.2                  | 0.65 U | 0.97 U  | 1,500 | 0.65 J        | 47    | 0.49 U      | 1.5 U  | 1.5 U       | 1.1 U  | 1.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.1 U  |  |
|                 | 09/22/04       | 0.7 J     | 0.3 U     | 0.36 U  | 0.29 U    | 0.31 U    | 0.27 U | 0.57 U  | 0.43 J    | 6.3                  | 0.33 U | 0.49 U  | 1,300 | 0.58 J        | 47    | 0.25 U      | 0.55 U | 0.55 U      | 0.78 J | 0.78 J        |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.78 J |  |
|                 | 04/04/05       | 0.68 J    | 0.31 U    | 0.36 U  | 0.29 U    | 0.35 U    | 0.34 U | 0.57 U  | 0.34 U    | 13                   | 0.33 U | 0.49 U  | 1,300 | 0.50 J        | 48    | 0.58 J      | 0.55 U | 0.55 U      | 0.53 U | 0.53 U        |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.53 U |  |
|                 | 09/20/05       | 0.45 J    | 0.19 J    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U | 0.23 U  | 0.21 J    | 29                   | 0.13 U | 0.2 U   | 1,400 | 0.61          | 52    | 0.17 J      | 0.22 U | 0.22 U      | 0.35 J | 0.35 J        |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.35 J |  |
|                 | 03/14/06       | 0.65 J    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U | 1.2 U   | 0.68 U    | 51                   | 0.65 U | 0.97 U  | 1,000 | 0.60 J        | 50    | 0.54 U      | 1.1 U  | 1.1 U       | 0.8 J  | 0.8 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.8 J  |  |
|                 | 09/13/06       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U | 1.2 U   | 0.68 U    | 28                   | 0.65 U | 0.97 U  | 1,100 | 0.58 U        | 50    | 0.54 U      | 1.1 U  | 1.1 U       | 0.7 J  | 0.7 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.7 J  |  |
|                 | 04/04/07       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U | 1.2 U   | 0.68 U    | 50                   | 0.65 U | 0.97 U  | 1,200 | 0.58 U        | 38    | 0.54 U      | 1.1 U  | 1.1 U       | 2.1 U  | 2.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 2.1 U  |  |
|                 | 09/26/07       | 0.51 U    | 0.61 U    | 0.71 U  | 0.57 U    | 0.7 U     | 0.68 U | 1.2 U   | 0.68 U    | 41                   | 0.65 U | 0.97 U  | 1,200 | 0.58 U        | 42    | 0.54 U      | 1.1 U  | 1.1 U       | 2.1 U  | 2.1 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 2.1 U  |  |
|                 | 05/01/08       | 0.11 U    | 0.25 U    | 0.093 U | 0.19 U    | 0.11 U    | 0.12 U | 0.33 U  | 0.2 J     | 26                   | 0.11 U | 0.58 U  | 910   | 0.28 J        | 35    | 0.13 JB     | 0.2 U  | 0.18 U      | 0.18 U | 0.18 U        |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.18 U |  |
|                 | 09/30/08       | 0.21 U    | 0.5 U     | 0.19 U  | 0.37 U    | 0.21 U    | 0.23 U | 0.65 U  | 0.21 U    | 27                   | 0.21 U | 1.2 U   | 1,000 | 0.25 J        | 41    | 0.25 JB     | 0.39 U | 0.36 U      | 0.36 U | 0.36 U        |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 0.36 U |  |
|                 | 04/01/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 1.0 U     | 16                   | 0.5 U  | 0.5 U   | 290   | 0.5 U         | 44    | 0.5 U       | 0.5 U  | 0.2 U       | 0.2 U  | 0.2 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       | 0.2 U |        |  |
|                 | 04/09/10       | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U   | 10 U    | 20 U      | 10 U                 | 10 U   | 10 U    | 850   | 10 U          | 35    | 10 U        | 10 U   | 10 U        | 4.0 U  | 4.0 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 4.0 U  |  |
|                 | 04/16/10       | 10 U      | 10 U      | 10 U    | 10 U      | 10 U      | 10 U   | 10 U    | 20 U      | 22                   | 10 U   | 10 U    | 500   | 10 U          | 66    | 10 U        | 10 U   | 10 U        | 4.0 U  | 4.0 U         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 4.0 U  |  |
|                 | 05/06/10       | 10 U      | 5.0 U     | 10 U    | 10 U      | 10 U      | 10 U   | 10 U    | 20 U      | 24                   | 10 U   | 10 U    | 530   | 10 U          | 43    | 10 U        | 10 U   | 10 U        | 1.0 J  | 1.0 J         |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       | 1.0 J  |  |
|                 | 06/09/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U  | 0.5 U   | 1.0 U     | 11                   | 0.5 U  | 0.5 U   | 680   | 0.5 U         | 33    | 0.5 U       | 0.5 U  | 0.5 U       | 0.28   | 0.28          |       |                    |       |       |       |           |       |       |       |         |       |               |       |                |       |       |       |       |       |        |  |



Table D2  
 Indicator Hazardous Substances in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location                              | Date Collected | 1,1-DCA   |           | 1,1-DCE |           | 1,2,4-TMB |         | 1,2-DCA |           | 1,2-Dichloro-propane |         | Benzene |         | Chloro-ethane |         | Chloro-form |           | cis-1,2-DCE |         | Ethyl-benzene |         | Methylene Chloride |         | PCE    |         | 1,1,1-TCA |         | TCE    |         | Toluene |         | Total Xylenes |         | Vinyl Chloride |         |        |
|--|----------------|-----------|-----------|---------|-----------|-----------|---------|---------|-----------|----------------------|---------|---------|---------|---------------|---------|-------------|-----------|-------------|---------|---------------|---------|--------------------|---------|--------|---------|-----------|---------|--------|---------|---------|---------|---------------|---------|----------------|---------|--------|
|  |                | 5,100,000 | 3,350,000 | LNAPL   | 8,690,000 | 0.64      | 0.8     | LNAPL   | 8,200,000 | 3,500,000            | 70      | 700     | 700     | 20,000,000    | 200,000 | 720,000     | 1,100,000 | 1,000       | LNAPL   | LNAPL         |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| MW-23  | 09/13/06       | 0.36 J    | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.23 U  | 0.14 U    | 0.23 U               | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U      | 0.14 U    | 0.23 U      | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U             | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U    | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U         | 0.14 U  | 0.23 U |
|  | 04/04/07       | 0.14 J    | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.23 U  | 0.14 U    | 0.23 U               | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U      | 0.14 U    | 0.23 U      | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U             | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U    | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U         | 0.14 U  | 0.23 U |
|  | 09/25/07       | 0.25 J    | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.23 U  | 0.14 U    | 0.23 U               | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U      | 0.14 U    | 0.23 U      | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U             | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U    | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U         | 0.14 U  | 0.23 U |
|  | 09/25/07 (DUP) | 0.26 J    | 0.13 U    | 0.15 U  | 0.12 U    | 0.14 U    | 0.14 U  | 0.23 U  | 0.14 U    | 0.23 U               | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U      | 0.14 U    | 0.23 U      | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U             | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U    | 0.14 U  | 0.23 U | 0.14 U  | 0.23 U  | 0.14 U  | 0.23 U        | 0.14 U  | 0.23 U         | 0.14 U  | 0.23 U |
|  | 05/01/08       | 0.18 J    | 0.18 J    | 0.037 U | 0.073 U   | 0.12 J    | 0.045 U | 0.13 U  | 0.042 U   | 0.13 U               | 0.042 U | 0.13 U  | 0.042 U | 0.13 U        | 0.042 U | 0.13 U      | 0.042 U   | 0.13 U      | 0.042 U | 0.13 U        | 0.042 U | 0.13 U             | 0.042 U | 0.13 U | 0.042 U | 0.13 U    | 0.042 U | 0.13 U | 0.042 U | 0.13 U  | 0.042 U | 0.13 U        | 0.042 U | 0.13 U         | 0.042 U |        |
|  | 10/01/08       | 0.26 J    | 0.1 U     | 0.037 U | 0.073 U   | 0.042 U   | 0.045 U | 0.13 U  | 0.042 U   | 0.13 U               | 0.042 U | 0.13 U  | 0.042 U | 0.13 U        | 0.042 U | 0.13 U      | 0.042 U   | 0.13 U      | 0.042 U | 0.13 U        | 0.042 U | 0.13 U             | 0.042 U | 0.13 U | 0.042 U | 0.13 U    | 0.042 U | 0.13 U | 0.042 U | 0.13 U  | 0.042 U | 0.13 U        | 0.042 U | 0.13 U         | 0.042 U |        |
|  | 03/24/09       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U   | 1.0 U     | 0.5 U                | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U       | 1.0 U     | 0.5 U       | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U              | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U     | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U          | 1.0 U   |        |
|  | 09/29/09       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U   | 1.0 U     | 0.5 U                | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U       | 1.0 U     | 0.5 U       | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U              | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U     | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U          | 1.0 U   |        |
|  | 04/01/10       | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U   | 1.0 U     | 0.5 U                | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U       | 1.0 U     | 0.5 U       | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U              | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U     | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U          | 1.0 U   |        |
|  | 09/28/10       | 0.31 J    | 0.5 U     | 0.5 U   | 0.5 U     | 0.5 U     | 0.5 U   | 0.5 U   | 1.0 U     | 0.5 U                | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U       | 1.0 U     | 0.5 U       | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U              | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U     | 1.0 U   | 0.5 U  | 1.0 U   | 0.5 U   | 1.0 U   | 0.5 U         | 1.0 U   | 0.5 U          | 1.0 U   |        |
| Shallow On-Site Injection Wells              |                |           |           |         |           |           |         |         |           |                      |         |         |         |               |         |             |           |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| INJ-1  | 07/09/01       | 9.3       | 0.65 J    | NA      | 0.58 U    | 0.62 U    | 0.5 U   | 25      | 0.48 U    | 29                   | NA      | U       | 620     | 0.56 U        | 97      | NA          | NA        | NA          | NA      | 2.9           |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 11/20/01       | 1.2       | 0.5 U     | NA      | 0.5 U     | 0.5 U     | 0.21 U  | 2.8     | 0.5 U     | 8.1                  | 0.5 U   | 1 U     | 17      | 0.5 U         | 30      | 0.5 U       | 0.5 U     | 0.5 U       | 0.50 U  |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/11/02       | 0.60 J    | 1.9       | 0.29 U  | 0.23 U    | 0.26 U    | NA      | 0.46 U  | 0.2 U     | 520                  | 0.26 U  | 0.39 U  | 8.5     | 0.23 U        | 3.7     | 0.2 U       | 0.6 U     | 0.6 U       | 0.44 J  |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| INJ-2  | 07/09/01       | < 2.3 U   | 3 U       | NA      | 2.9 U     | 3.1 U     | 0.5 U   | 4.4 U   | 2.4 U     | 200                  | NA      | 4.9 U   | 6,300   | 2.8 U         | 240     | NA          | NA        | NA          | 5.5 J   |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 10/15/01       | <0.5 U    | 0.5 U     | NA      | 0.5 U     | 0.5 U     | 0.5 U   | 0.50 U  | 0.5 U     | 1.1                  | 1.6     | 1 U     | 33      | 0.5 U         | 1.8     | 0.5 U       | 6         | 0.5 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 10/22/01       | <0.5 U    | 0.5 U     | NA      | 0.5 U     | 0.5 U     | 0.5 U   | 0.50 U  | 0.5 U     | 2                    | 2.9     | 1 U     | 57      | 0.5 U         | 2.8     | 0.5 U       | 11.3      | 0.5 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 10/29/01       | <0.5 U    | 0.5 U     | NA      | 0.5 U     | 0.5 U     | 0.5 U   | 0.50 U  | 0.5 U     | 2.9                  | 1.4     | 1 U     | 68      | 0.5 U         | 4.3     | 0.65        | 6.8       | 0.5 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 11/19/01       | <0.5 U    | 0.5 U     | NA      | 0.5 U     | 0.5 U     | 1.1 U   | 0.50 U  | 0.5 U     | 7.3                  | 0.89    | 1 U     | 230     | 0.5 U         | 9.2     | 0.5 U       | 4.4       | 0.5 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/11/02       | < 0.91 U  | 5.4       | 1.5 U   | 1.2 U     | 1.3 U     | 1.1 U   | 2.3 U   | 0.96 U    | 2,100                | 1.3 U   | 2 U     | 1,000   | 1.2 U         | 600     | 0.98 U      | 2.9 U     | 2.2 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| INJ-3  | 06/10/03       | < 0.91 U  | 5.3       | 1.5 U   | 1.2 U     | 1.3 U     | NA      | 2.3 U   | 0.96 U    | 2,100                | 1.3 U   | 2 U     | 2,700   | 1.2 U         | 610     | 1.1 JB      | 2.9 U     | 2.2 U       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 07/09/01       | 3.4       | 0.95 J    | NA      | 0.58 U    | 0.62 U    | 1 U     | 5.9     | 0.48 U    | 39                   | NA      | 0.97 U  | 520     | 0.56 U        | 250     | NA          | NA        | 7.3         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 11/20/01       | 1.0 U     | 1.0 U     | NA      | 1.0 U     | 1.0 U     | 0.53 U  | 1.0 U   | 1.0 U     | 49                   | 1.0 U   | 2 U     | 670     | 1.0 U         | 130     | 1.0 U       | 1.0 U     | 1.8         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/11/02       | 1.2 J     | 3.4       | 0.71 U  | 0.57 U    | 0.62 U    | 1.3     | 1.2 U   | 0.48 U    | 1,200                | 0.65 U  | 0.97 U  | 530     | 0.57 U        | 240     | 0.49 U      | 1.5 U     | 180         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 12/17/02       | 2.0       | 0.53      | 2 U     | 0.5 U     | 0.5 U     | 1.2     | 0.50 U  | 0.5 U     | 250                  | 0.5 U   | 2 U     | 150     | 0.5 U         | 100     | 0.5 U       | 0.5 U     | 90          |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 12/17/02 (DUP) | 1.9       | 0.6       | 2 U     | 0.5 U     | 0.5 U     | 0.21 U  | 0.50 U  | 0.5 U     | 270                  | 0.5 U   | 2 U     | 180     | 0.5 U         | 120     | 0.5 U       | 0.5 U     | 91          |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 06/10/03                                     | 0.40 J         | 0.98 J    | 0.29 U    | 0.23 U  | 0.25 U    | 0.11 U    | 2.2     | 0.2 U   | 350       | 0.26 U               | 0.39 U  | 390     | 0.23 U  | 140           | 0.8 B   | 0.44 U      | 78        |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| Deep On-Site Monitoring Wells and Piezometer |                |           |           |         |           |           |         |         |           |                      |         |         |         |               |         |             |           |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| MW-13  | 03/31/03       | 2,700     | 320       | 260     | 25 U      | 25 U      | 25 U    | 260     | 25 U      | 23,000               | 1,600   | 100 U   | 25 U    | 2,900         | 25 U    | 21,000      | 6,900     | 1,100       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 05/14/03       | 3,600     | 440       | 320     | 12 U      | 13 U      | 11 U    | 440     | 9.6 U     | 25,000               | 1,900   | 23 J    | 11 U    | 3,700         | 12 U    | 21,000      | 8,100     | 1,200       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/11/03       | 3,900     | 440       | 370     | 12 U      | 13 U      | 11 U    | 490     | 9.6 U     | 26,000               | 2,300   | 25 J    | 11 U    | 3,600         | 12 U    | 20,000      | 9,800     | 1,200       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/11/03 (DUP) | 4,000     | 450       | 410     | 12 U      | 13 U      | 11 U    | 470     | 9.6 U     | 29,000               | 2,500   | 30 J    | 11 U    | 3,800         | 12 U    | 22,000      | 10,600    | 1,300       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/11/03       | 4,400     | 460       | 400     | 5.7 U     | 6.2 U     | 5.5 J   | 490     | 4.8 U     | 30,000               | 2,400   | 25 J    | 5.5 U   | 4,100         | 5.9 U   | 25,000      | 10,200    | 1,400       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 12/04/03       | 5,600     | 490       | 510     | 5.7 U     | 6.2 U     | 6.5 J   | 380     | 4.8 U     | 33,000               | 2,900   | 25 J    | 5.5 U   | 3,300         | 5.9 U   | 29,000      | 12,300    | 1,800       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 03/15/04       | 6,200     | 490       | 540     | 5.7 U     | 6.2 U     | 7 J     | 310     | 4.8 U     | 38,000               | 2,900   | 26 J    | 5.5 U   | 2,900         | 5.9 U   | 32,000      | 14,000    | 1,700       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 06/10/04       | 5,300     | 470       | 310     | 12 U      | 13 U      | 11 U    | 260     | 9.6 U     | 31,000               | 2,300   | 58 J    | 11 U    | 2,800         | 12 U    | 25,000      | 10,300    | 2,200       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/23/04       | 4,500     | 370       | 320     | 12 U      | 13 U      | 11 U    | 380     | 9.6 U     | 22,000               | 2,000   | 25 J    | 11 U    | 2,600         | 12 U    | 17,000      | 8,900     | 2,100       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 04/05/05       | 100       | 7.4       | 5.7     | 0.12 U    | 0.14 U    | 0.14 U  | 5.3     | 0.14 U    | 470                  | 34      | 0.39 J  | 0.23 J  | 26            | 0.14 U  | 210         | 120       | 86          |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/21/05       | 930       | 44        | 70      | 0.5 J     | 0.28 U    | 1.4     | 340     | 0.28 U    | 2,900                | 620     | 3.2 J   | 0.48 J  | 280           | 0.28 J  | 2,900       | 2,570     | 740         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 03/15/06       | 1,100     | 13        | 79      | 2.3 U     | 2.8 U     | 2.8 U   | 450     | 54 U      | 1,100                | 580     | 12 J    | 2.6 U   | 220           | 2.7 U   | 3,400       | 2,830     | 1,900       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/14/06       | 1,300     | 65        | 130     | 5.7 U     | 7 U       | 6.8 U   | 860     | 6.8 U     | 5,400                | 990     | 10 J    | 6.3 U   | 150           | 6.7 U   | 7,100       | 4,900     | 1,900       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 04/04/07       | 2,800     | 130       | 300     | 5.7 U     | 7 U       | 6.8 U   | 350     | 6.8 U     | 11,000               | 1,800   | 18 J    | 6.3 U   | 73            | 6.7 U   | 13,000      | 8,000     | 1,800       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/25/07       | 1,600     | 89        | 250     | 2.9 U     | 3.5 U     | 3.4 U   | 480     | 3.4 U     | 6,700                | 1,400   | 8.3 J   | 3.2 U   | 100           | 3.4 U   | 9,800       | 6,200     | 1,500       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 05/02/08       | 1,300     | 71        | 290     | 1.5 U     | 0.84 U    | 2.4 J   | 680     | 0.84 U    | 5,600                | 1,600   | 8.3 J   | 3.2 U   | 50            | 1.3 U   | 9,300       | 6,200     | 2,900       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/30/08       | 1,100     | 72        | 230     | 1.9 U     | 1.1 U     | 1.3 J   | 550     | 1.1 U     | 6,800                | 1,500   | 5.8 U   | 2 U     | 60            | 1.6 U   | 7,800       | 6,300     | 1,600       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 03/25/09       | 1,050     | 46        | 280     | 25 U      | 25 U      | 25 U    | 800     | 50 U      | 3,900                | 1,700   | 25 U    | 25 U    | 25 U          | 25 U    | 8,600       | 6,650     | 2,300       |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 09/30/09       | 240       | 25 U      | 110     | 25 U      | 25 U      | 25 U    | 1,200   | 50 U      | 86                   | 1,100   | 25 U    | 25 U    | 25 U          | 25 U    | 5,000       | 5,000     | 300         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
|  | 03/29/10       | 180       | 10 U      | 86      | 10 U      | 10 U      | 10 U    | 280     | 20 U      | 500                  | 710     | 10 U    | 10 U    | 10 U          | 10 U    | 2,200       | 1,700     | 900         |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 03/29/10 (LAB DUP)                           | 200            | 10 U      | 110       | 10 U    | 10 U      | 10 U      | 310     | 20 U    | 580       | 810                  | 10 U    | 10 U    | 10 U    | 10 U          | 2,400   | 1,900       | 890       |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 04/07/10                                     | 480            | 10 U      | 540       | 10 U    | 10 U      | 10 U      | 480     | 20 U    | 1,800     | 2,100                | 10 U    | 10 U    | 10 U    | 10 U          | 4,600   | 4,200       | 2,700     |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 04/16/10                                     | 1,100          | 20        | 640       | 10 U    | 10 U      | 10 U      | 840     | 20 U    | 3,300     | 2,800                | 10 U    | 10 U    | 10 U    | 10 U          | 5,400   | 5,800       | 4,000     |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 05/06/10                                     | 820            | 11        | 340       | 10 U    | 10 U      | 10 U      | 640     | 20 U    | 1,900     | 2,000                | 10 U    | 5.0 U   | 10 U    | 5.0 U         | 6,200   | 4,900       | 3,100     |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 06/09/10                                     | 720            | 11        | 280       | 10 U    | 10 U      | 10 U      | 1,200   | 20 U    | 1,500     | 1,800                | 10 U    | 20      | 10 U    | 5.0 U         | 5,600   | 3,900       | 4,700     |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |
| 07/06/10                                     | 510            | 9.5       | 280       | 10      |           |           |         |         |           |                      |         |         |         |               |         |             |           |             |         |               |         |                    |         |        |         |           |         |        |         |         |         |               |         |                |         |        |











**Table D2**  
**Indicator Hazardous Substances in Groundwater**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location | Date Collected       | 1,1-DCA       | 1,1-DCE   | 1,2,4-TMB     | 1,2-DCA   | 1,2-Dichloro-propane | Benzene     | Chloro-ethane | Chloro-form | cis-1,2-DCE   | Ethyl-benzene | Methylene Chloride | PCE     | 1,1,1-TCA | TCE           | Toluene     | Total Xylenes | Vinyl Chloride |
|-----------------|----------------------|---------------|-----------|---------------|-----------|----------------------|-------------|---------------|-------------|---------------|---------------|--------------------|---------|-----------|---------------|-------------|---------------|----------------|
|                 | Solubility in Water: | 5,100,000     | 3,350,000 | LNAPL         | 8,690,000 |                      | 0.8         | LNAPL         | 8,200,000   | 3,500,000     | LNAPL         | 20,000,000         | 200,000 | 720,000   | 1,100,000     | 1,000       | LNAPL         | LNAPL          |
|                 | Final Cleanup Levels | 800           | 7.0       | 400           | 0.5       | 0.64                 |             | -             | 7.2         | 70            | 700           | 5.0                | 0.86    | 200       | 4.0           | 1,000       | 1,600         | 0.5            |
|                 | 04/05/07             | <b>0.93 J</b> | 0.13 U    | <b>1.2 J</b>  | 0.12 U    | 0.14 U               | <b>15</b>   | <b>88</b>     | 0.14 U      | <b>0.15 J</b> | <b>0.57</b>   | <b>0.74 J</b>      | 0.13 U  | 0.12 U    | 0.14 U        | <b>1.6</b>  | <b>114</b>    | <b>0.21 J</b>  |
|                 | 09/26/07             | 0.11 U        | 0.13 U    | <b>0.96 J</b> | 0.12 U    | 0.14 U               | <b>13</b>   | <b>85</b>     | 0.14 U      | <b>0.12 J</b> | <b>0.22 J</b> | <b>0.46 J</b>      | 0.13 U  | 0.12 U    | 0.14 U        | <b>1.2</b>  | <b>22.7</b>   | <b>0.13 J</b>  |
|                 | 05/02/08             | <b>0.19 J</b> | 0.1 U     | <b>0.81 J</b> | 0.34 U    | 0.042 U              | <b>11</b>   | <b>76</b>     | 0.042 U     | <b>0.16 J</b> | <b>0.26 J</b> | <b>0.46 J</b>      | 0.077 U | 0.05 U    | <b>0.07 J</b> | <b>0.93</b> | <b>71</b>     | <b>0.14 J</b>  |
|                 | 5/2/08 (DUP)         | <b>0.18 J</b> | 0.1 U     | <b>0.85 J</b> | 0.34 U    | 0.042 U              | <b>12</b>   | <b>72</b>     | 0.042 U     | <b>0.11 J</b> | <b>0.29 J</b> | <b>0.46 J</b>      | 0.077 U | 0.05 U    | 0.061 U       | <b>1.0</b>  | <b>75.2</b>   | <b>0.15 J</b>  |
|                 | 09/29/08             | 0.04 U        | 0.1 U     | <b>0.47</b>   | 0.073 U   | 0.042 U              | <b>15</b>   | <b>110</b>    | 0.042 U     | <b>0.13 J</b> | <b>0.17 J</b> | <b>0.53 J</b>      | 0.077 U | 0.05 U    | 0.061 U       | <b>1.2</b>  | <b>8.9</b>    | <b>0.13 J</b>  |
|                 | 03/23/09             | 0.5 U         | 0.5 U     | 0.5 U         | 0.5 U     | 0.5 U                | <b>13</b>   | <b>89</b>     | 1.0 U       | 0.5 U         | <b>65</b>     | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U         | <b>1.3</b>  | <b>86</b>     | <b>1.0</b>     |
|                 | 09/30/09             | 0.5 U         | 0.5 U     | 0.5 U         | 0.5 U     | 0.5 U                | <b>14</b>   | <b>190</b>    | 1.0 U       | 0.5 U         | <b>1.3</b>    | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U         | <b>0.7</b>  | <b>4.0</b>    | <b>0.31 J</b>  |
|                 | 03/29/10             | 0.5 U         | 0.5 U     | 0.5 U         | 0.5 U     | 0.5 U                | <b>18 J</b> | <b>140</b>    | 1.0 U       | 0.5 U         | 0.5 U         | 0.5 U              | 0.5 U   | 0.5 U     | 0.5 U         | <b>1.0</b>  | <b>7.1</b>    | <b>0.2</b>     |
|                 | 10/01/10             | 0.5 U         | 0.5 U     | <b>1.27</b>   | 0.5 U     | 0.5 U                | <b>15.2</b> | <b>195</b>    | 1.0 U       | 0.5 U         | 0.5 U         | <b>0.73 J</b>      | 0.5 U   | 0.5 U     | 0.5 U         | <b>0.94</b> | <b>4.26</b>   | <b>0.12 J</b>  |

**Notes:**

All results in ug/L.

1995 analyses performed using EPA Method 8240A.

Analyses since 1996 performed using EPA Method 8260A.

Only indicator hazardous substances shown.

Detections shown in bold.

Shaded results above their respective cleanup level.

U = not detected above associated method reporting limit.

NA = not analyzed or not quantitated

DUP = duplicate sample collected in the field and blind labeled.

LAB DUP = laboratory duplicate sample.

B = the analyte was also detected in an associated blank.

J = the associated numerical value is an estimated quantity based on data review or laboratory estimate above the MDL but below the MRL.

E = laboratory estimated concentration.

Results from June 2000 and from December 2000 to September 2008 are reported relative to the method detection limits (MDLs).

1,2,4-TMB = 1,2,4-trimethylbenzene.

1,1-DCA = 1,1-dichloroethane.

1,2-DCA = 1,2-dichloroethane.

1,1-DCE = 1,1-dichloroethane.

cis-1,2-DCE = cis-1,2-dichloroethane.

TCA = 1,1,1-trichloroethane.

TCE = trichloroethene.

PCE = tetrachloroethene.



Table D3  
 General Chemistry Parameters in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location                         | Date Collected     | Anions (EPA Method 300.0) |         |                     |         | Sulfide                          | Total Alkalinity       |          | Total Organic Carbon         | Total Manganese        | Total Iron             |                  | Ferrous Iron     | TDS              |
|---|--------------------|---------------------------|---------|---------------------|---------|----------------------------------|------------------------|----------|------------------------------|------------------------|------------------------|------------------|------------------|------------------|
|   |                    | Chloride                  | Bromide | Nitrate as Nitrogen | Sulfate | Hach Method 8131 or SM 4500-S2-F | Hach Method AL AP MG-L | SM 2320B | EPA Method 415.1 or SM 5310B | EPA Method 6010A/6010B | EPA Method 6010A/6010B | Hach Method 8008 | Hach Method 8146 | EPA Method 160.1 |
| <b>Shallow On-Site Monitoring Wells</b> |                    |                           |         |                     |         |                                  |                        |          |                              |                        |                        |                  |                  |                  |
| MW-1                                    | 09/04/96           | 130                       | NA      | NA                  | 88.0    | NA                               | NA                     | NA       | NA                           | 2.1                    | 29.6                   | NA               | NA               | 990              |
|   | 12/15/98           | 68.5                      | NA      | < 0.2               | 4.3     | 0.070                            | 500                    | NA       | 47.0                         | NA                     | NA                     | 23.4             | 24.6             | NA               |
|   | 03/02/99           | 64.5                      | NA      | 0.2                 | 5.8     | 0.266                            | 540                    | NA       | 37.0                         | NA                     | NA                     | 29.4             | 18.2             | NA               |
|   | 06/17/99           | 49                        | NA      | 0.3                 | 6.7     | 0.110                            | 460                    | NA       | 40.5                         | NA                     | NA                     | 24.0             | 20.8             | NA               |
|   | 09/16/99           | 59.8                      | NA      | < 0.2               | 7.2     | 0.249                            | 400                    | NA       | 42.1                         | NA                     | NA                     | 11.0             | 18.8             | NA               |
|   | 09/18/02           | NA                        | NA      | NA                  | NA      | NA                               | NA                     | NA       | 37                           | NA                     | NA                     | NA               | NA               | NA               |
| MW-2                                    | 09/04/96           | 18.0                      | NA      | NA                  | 0.3     | NA                               | NA                     | NA       | NA                           | 3.21                   | 112                    | NA               | NA               | 576              |
|   | 12/15/98           | 13.6                      | NA      | 0.3                 | 5.3     | 0.017                            | 260                    | NA       | 26.4                         | NA                     | NA                     | 23.9             | 30.4             | NA               |
|   | 03/02/99           | 14.3                      | NA      | 0.9                 | 13.1    | 0.037                            | 360                    | NA       | 22.8                         | NA                     | NA                     | 46.4             | 23.0             | NA               |
|   | 06/16/99           | 13                        | NA      | 1.0                 | 7.5     | 0.054                            | 420                    | NA       | 24.2                         | NA                     | NA                     | 86.5             | 66.7             | NA               |
|   | 06/16/99 (DUP)     | 12.2                      | NA      | 1.3                 | 12.8    | NA                               | NA                     | NA       | 25.1                         | NA                     | NA                     | NA               | NA               | NA               |
|   | 09/16/99           | 14.6                      | NA      | < 0.2               | < 0.2   | 0.037                            | 400                    | NA       | 27.2                         | NA                     | NA                     | 94.6             | 61.9             | NA               |
| 09/18/02                                | NA                 | NA                        | NA      | NA                  | NA      | NA                               | NA                     | 33       | NA                           | NA                     | NA                     | NA               | NA               |                  |
| MW-3                                    | 09/04/96           | 26.0                      | NA      | NA                  | 0.9     | NA                               | NA                     | NA       | NA                           | 3.17                   | 36.3                   | NA               | NA               | 952              |
|   | 09/04/96 (DUP)     | 26.0                      | NA      | NA                  | 1.1     | NA                               | NA                     | NA       | NA                           | 3.13                   | 38.5                   | NA               | NA               | 976              |
|   | 12/14/98           | 29.8                      | NA      | < 0.2               | < 0.2   | < 0.001                          | 660                    | NA       | 44.5                         | NA                     | NA                     | 34.4             | 34.2             | NA               |
|   | 03/03/99           | 25.6                      | NA      | < 0.2               | 0.3     | 0.013                            | 640                    | NA       | 52.8                         | NA                     | NA                     | 33.0             | 31.7             | NA               |
|   | 06/17/99           | 17.1                      | NA      | < 0.2               | < 0.2   | 0.013                            | 640                    | NA       | 57.9                         | NA                     | NA                     | 59.7             | 38.0             | NA               |
|   | 09/17/99           | 14.5                      | NA      | < 0.2               | < 0.2   | 0.047                            | 520                    | NA       | 62.4                         | NA                     | NA                     | 100.1            | 47.7             | NA               |
| MW-4                                    | 09/04/96           | 110                       | NA      | NA                  | 37.0    | NA                               | NA                     | NA       | NA                           | 9.89                   | 83.9                   | NA               | NA               | 796              |
|   | 12/14/98           | 89.7                      | NA      | < 0.2               | 15.6    | 0.026                            | 840                    | NA       | 23.4                         | NA                     | NA                     | 59.8             | 59.1             | NA               |
|   | 03/03/99           | 45.0                      | NA      | < 0.2               | 183     | 0.880                            | 900                    | NA       | 12.8                         | NA                     | NA                     | 12.9             | 7.5              | NA               |
|   | 06/17/99           | 60.9                      | NA      | 0.3                 | 61.7    | 0.159                            | 840                    | NA       | 18.2                         | NA                     | NA                     | 6.99             | 4.75             | NA               |
|   | 09/17/99           | 77.3                      | NA      | < 0.2               | 2.0     | 0.071                            | 870                    | NA       | 18.4                         | NA                     | NA                     | 24.3             | 13.4             | NA               |
|   | 09/18/02           | NA                        | NA      | NA                  | NA      | NA                               | NA                     | NA       | 19                           | NA                     | NA                     | NA               | NA               | NA               |
| MW-5                                    | 09/04/96           | 17.0                      | NA      | NA                  | 32      | NA                               | NA                     | NA       | NA                           | 0.34                   | 0.107                  | NA               | NA               | 332              |
|   | 12/15/98           | 17.5                      | NA      | < 0.2               | 17.3    | 0                                | 200                    | NA       | 7.8                          | NA                     | NA                     | 0.090            | 0.024            | NA               |
|   | 03/02/99           | 6.9                       | NA      | 2.4                 | 22.0    | 0.002                            | 145                    | NA       | 4.8                          | NA                     | NA                     | 0.137            | 0.060            | NA               |
|   | 06/16/99           | 6.2                       | NA      | 2.5                 | 20.5    | 0.002                            | 180                    | NA       | 6.0                          | NA                     | NA                     | 0.125            | 0.042            | NA               |
|   | 09/16/99           | 6.8                       | NA      | 1.5                 | 20.7    | 0.001                            | 160                    | NA       | 5.9                          | NA                     | NA                     | 0.052            | 0.008            | NA               |
|   | 09/16/99 (DUP)     | 6.2                       | NA      | 1.5                 | 20.4    | NA                               | NA                     | NA       | 5.9                          | NA                     | NA                     | NA               | NA               | NA               |
|   | 09/18/02           | NA                        | NA      | NA                  | NA      | NA                               | NA                     | NA       | 7.2                          | NA                     | NA                     | NA               | NA               | NA               |
|   | 09/13/06           | NA                        | NA      | 0.6                 | 34.1    | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |
|   | 04/01/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 6.3                          | NA                     | NA                     | NA               | NA               | NA               |
|   | 04/09/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 5.7                          | NA                     | NA                     | NA               | NA               | NA               |
|   | 04/16/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 6.0                          | NA                     | NA                     | NA               | NA               | NA               |
|   | 04/16/10 (LAB DUP) | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |
|   | 05/06/10           | NA                        | < 2.0   | NA                  | NA      | NA                               | NA                     | NA       | 5.9                          | NA                     | NA                     | NA               | NA               | NA               |
| 06/09/10                                | NA                 | < 0.1                     | NA      | NA                  | NA      | NA                               | NA                     | 5.0      | NA                           | NA                     | NA                     | NA               | NA               |                  |
| 07/06/10                                | NA                 | < 0.1                     | NA      | NA                  | NA      | NA                               | NA                     | 4.8      | NA                           | NA                     | NA                     | NA               | NA               |                  |
| 07/06/10                                | NA                 | NA                        | NA      | NA                  | NA      | NA                               | NA                     | 5.6      | NA                           | NA                     | NA                     | NA               | NA               |                  |
| MW-6                                    | 09/04/96           | 340                       | NA      | NA                  | 0.6     | NA                               | NA                     | NA       | NA                           | 9.28                   | 222                    | NA               | NA               | 1,260            |
|   | 12/15/98           | 199                       | NA      | < 0.2               | 11.7    | 0.014                            | 460                    | NA       | 22.6                         | NA                     | NA                     | 114              | 125              | NA               |
|   | 03/02/99           | 213                       | NA      | 0.6                 | 19.8    | 0.015                            | 500                    | NA       | 15.8                         | NA                     | NA                     | 170              | 63               | NA               |
|   | 03/02/99 (DUP)     | 208                       | NA      | 0.6                 | 46.6    | NA                               | NA                     | NA       | 15.9                         | NA                     | NA                     | NA               | NA               | NA               |
| MW-6<br>(continued)                     | 06/16/99           | 232                       | NA      | 0.3                 | 11.6    | 0.009                            | 520                    | NA       | 21                           | NA                     | NA                     | 192              | 120              | NA               |
|   | 09/16/99           | 130                       | NA      | < 0.5               | 27.3    | 0.047                            | 480                    | NA       | 18.5                         | NA                     | NA                     | 169              | 95               | NA               |



Table D3  
General Chemistry Parameters in Groundwater  
Univar Solutions USA, Inc.  
Kent, Washington

| Sample Location                                     | Date Collected     | Anions (EPA Method 300.0) |         |                     |         | Sulfide                          |                                 | Total Alkalinity             |                        | Total Organic Carbon   |                  | Total Manganese  |                  | Total Iron |    | Ferrous Iron | TDS |
|---|--------------------|---------------------------|---------|---------------------|---------|----------------------------------|---------------------------------|------------------------------|------------------------|------------------------|------------------|------------------|------------------|------------|----|--------------|-----|
|   |                    | Chloride                  | Bromide | Nitrate as Nitrogen | Sulfate | Hach Method 8131 or SM 4500-S2-F | Hach Method AL AP MG-L SM 2320B | EPA Method 415.1 or SM 5310B | EPA Method 6010A/6010B | EPA Method 6010A/6010B | Hach Method 8008 | Hach Method 8146 | EPA Method 160.1 |            |    |              |     |
| MW-7  | 09/18/02           | NA                        | NA      | NA                  | NA      | NA                               | NA                              | 20                           | NA                     | NA                     | NA               | NA               | NA               | NA         | NA | NA           |     |
|   | 12/14/98           | 5.4                       | NA      | < 0.2               | 1.6     | 0.003                            | 260                             | 9.4                          | NA                     | NA                     | 3.36             | 3.17             | NA               |            |    |              |     |
|   | 03/03/99           | 5.7                       | NA      | 1.3                 | 12.7    | 0.010                            | 180                             | 6.5                          | NA                     | NA                     | 1.79             | 1.72             | NA               |            |    |              |     |
|   | 06/17/99           | 6.8                       | NA      | 2.3                 | 25.1    | 0.005                            | 200                             | 9.2                          | NA                     | NA                     | 2.21             | 1.86             | NA               |            |    |              |     |
|   | 09/17/99           | 8.1                       | NA      | 0.3                 | 21.4    | 0.004                            | 240                             | 10.6                         | NA                     | NA                     | 3.58             | 2.98             | NA               |            |    |              |     |
| MW-8  | 12/14/98           | 9.2                       | NA      | < 0.2               | 20.4    | NA                               | 260                             | 10.0                         | NA                     | NA                     | 1.13             | 0.98             | NA               |            |    |              |     |
|   | 12/14/98 (DUP)     | 9.3                       | NA      | < 0.2               | 20.4    | NA                               | NA                              | 10.1                         | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 03/02/99           | 12.7                      | NA      | 0.3                 | 29.7    | 0.023                            | 260                             | 8.9                          | NA                     | NA                     | 2.03             | 0.77             | NA               |            |    |              |     |
|   | 06/16/99           | 12.8                      | NA      | < 0.2               | 29.1    | 0.009                            | 240                             | 9.6                          | NA                     | NA                     | 0.70             | 0.50             | NA               |            |    |              |     |
|   | 09/16/99           | 10.5                      | NA      | < 0.2               | 21.1    | 0.007                            | 260                             | 10.5                         | NA                     | NA                     | 1.02             | 0.45             | NA               |            |    |              |     |
|   | 09/18/02           | NA                        | NA      | NA                  | NA      | NA                               | NA                              | 11.4                         | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| MW-11   | 04/01/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                              | 5.8                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 04/09/10           | NA                        | 0.35    | NA                  | NA      | NA                               | NA                              | 4.9                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 04/16/10           | NA                        | 0.35    | NA                  | NA      | NA                               | NA                              | 5.7                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 05/06/10           | NA                        | 2.6     | NA                  | NA      | NA                               | NA                              | 5.4                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 05/06/10 (LAB DUP) | NA                        | 2.6     | NA                  | NA      | NA                               | NA                              | 6.4                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 06/09/10           | NA                        | 3.9     | NA                  | NA      | NA                               | NA                              | 5.2                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 06/09/10 (LAB DUP) | NA                        | 3.9     | NA                  | NA      | NA                               | NA                              | 5.0                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 07/06/10           | NA                        | 8.1     | NA                  | NA      | NA                               | NA                              | 5.6                          | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| MW-23   | 09/13/06           | NA                        | NA      | < 0.1               | 29.0    | NA                               | NA                              | NA                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| <b>Deep On-Site Monitoring Wells and Piezometer</b> |                    |                           |         |                     |         |                                  |                                 |                              |                        |                        |                  |                  |                  |            |    |              |     |
| MW-13   | 09/24/04           | 56.1                      | NA      | < 0.2               | 0.6     | 0.05                             | 260                             | 40.3                         | 1.40                   | 37.1                   | NA               | 1.5              | NA               |            |    |              |     |
|   | 04/05/05           | 4.3                       | NA      | < 0.1               | 6.1     | < 0.01                           | 50                              | 5.8                          | 0.145                  | 3.3                    | NA               | 2.4              | NA               |            |    |              |     |
|   | 09/14/06           | NA                        | NA      | < 0.1               | < 0.2   | NA                               | NA                              | NA                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 03/29/10           | NA                        | 0.45    | NA                  | NA      | NA                               | NA                              | 29                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 03/29/10 (LAB DUP) | NA                        | 0.48    | NA                  | NA      | NA                               | NA                              | NA                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 04/07/10           | NA                        | 0.44    | NA                  | NA      | NA                               | NA                              | 30                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 04/07/10 (LAB DUP) | NA                        | 0.46    | NA                  | NA      | NA                               | NA                              | 30                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 04/16/10           | NA                        | 0.47    | NA                  | NA      | NA                               | NA                              | 30                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 05/06/10           | NA                        | < 2.0   | NA                  | NA      | NA                               | NA                              | 32                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
|   | 06/09/10           | NA                        | 0.64    | NA                  | NA      | NA                               | NA                              | 34                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| 07/06/10  | NA                 | 0.66                      | NA      | NA                  | NA      | NA                               | 32                              | NA                           | NA                     | NA                     | NA               | NA               |                  |            |    |              |     |
| MW-14   | 09/24/04           | 6.2                       | NA      | < 0.2               | < 0.2   | < 0.01                           | 240                             | 11.8                         | 1.12                   | 32.7                   | NA               | 2.0              | NA               |            |    |              |     |
|   | 04/05/05           | 6.3                       | NA      | < 0.1               | < 0.2   | < 0.01                           | 215                             | 12.8                         | 1.24                   | 35.7                   | NA               | 1.8              | NA               |            |    |              |     |
| MW-15   | 09/24/04           | 6.6                       | NA      | < 0.2               | < 0.2   | < 0.01                           | 240                             | 7.9                          | 1.33                   | 34.8                   | NA               | 1.6              | NA               |            |    |              |     |
|   | 04/05/05           | 7.5                       | NA      | < 0.1               | < 0.2   | < 0.01                           | 190                             | 8.0                          | 1.41                   | 35.9                   | NA               | 2.0              | NA               |            |    |              |     |
|   | 09/13/06           | NA                        | NA      | < 0.1               | < 0.2   | NA                               | NA                              | NA                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| MW-16   | 09/23/04           | 33.5                      | NA      | < 0.2               | 8.1     | < 0.01                           | 420                             | 24.1                         | 3.71                   | 108                    | NA               | 2.0              | NA               |            |    |              |     |
|   | 04/05/05           | 36.2                      | NA      | < 0.1               | 1.1     | < 0.01                           | 295                             | 23.6                         | 3.92                   | 114                    | NA               | 2.2              | NA               |            |    |              |     |
| MW-17   | 09/23/04           | 49.7                      | NA      | < 0.2               | < 0.2   | < 0.01                           | 1,320                           | 32.9                         | 1.77                   | 55.7                   | NA               | 2.4              | NA               |            |    |              |     |
|   | 09/23/04 (DUP)     | 46.9                      | NA      | < 0.2               | < 0.2   | NA                               | NA                              | 32.8                         | 1.75                   | 54.9                   | NA               | NA               | NA               |            |    |              |     |
|   | 04/05/05           | 50.0                      | NA      | < 0.1               | < 0.2   | < 0.01                           | 230                             | 32.7                         | 0.92                   | 40.1                   | NA               | 2.5              | NA               |            |    |              |     |
| MW-17   | 09/12/06           | NA                        | NA      | < 0.1               | 0.3     | NA                               | NA                              | NA                           | NA                     | NA                     | NA               | NA               | NA               |            |    |              |     |
| MW-18   | 09/23/04           | 8.7                       | NA      | < 0.2               | < 0.2   | < 0.01                           | 380                             | 17.1                         | 1.64                   | 54.4                   | NA               | 2.3              | NA               |            |    |              |     |
|   | 04/05/05           | 8.9                       | NA      | < 0.1               | < 0.2   | < 0.01                           | 295                             | 17.7                         | 1.62                   | 50.2                   | NA               | 2.4              | NA               |            |    |              |     |
|   | 04/05/05 (DUP)     | 8.8                       | NA      | < 0.1               | < 0.2   | NA                               | NA                              | 17.2                         | 1.61                   | 50.0                   | NA               | NA               | NA               |            |    |              |     |
| MW-19   | 09/23/04           | 23.0                      | NA      | < 0.2               | 0.3     | < 0.01                           | 340                             | 19.2                         | 1.44                   | 64.0                   | NA               | 1.8              | NA               |            |    |              |     |
|   | 04/05/05           | 18.9                      | NA      | < 0.100             | 3.7     | < 0.01                           | 250                             | 19.9                         | 1.31                   | 65.8                   | NA               | 2.6              | NA               |            |    |              |     |
| MW-20   | 09/20/05           | 50.7                      | NA      | < 0.1               | 1.4     | < 0.01                           | 355                             | 29.1                         | 3.60                   | 88                     | NA               | 2.2              | NA               |            |    |              |     |



Table D3  
 General Chemistry Parameters in Groundwater  
 Univar Solutions USA, Inc.  
 Kent, Washington

| Sample Location                      | Date Collected     | Anions (EPA Method 300.0) |         |                     |         | Sulfide                          | Total Alkalinity       |          |                              | Total Organic Carbon   | Total Manganese        | Total Iron       |                  | Ferrous Iron     | TDS |
|--------------------------------------|--------------------|---------------------------|---------|---------------------|---------|----------------------------------|------------------------|----------|------------------------------|------------------------|------------------------|------------------|------------------|------------------|-----|
|                                      |                    | Chloride                  | Bromide | Nitrate as Nitrogen | Sulfate | Hach Method 8131 or SM 4500-S2-F | Hach Method AL AP MG-L | SM 2320B | EPA Method 415.1 or SM 5310B | EPA Method 6010A/6010B | EPA Method 6010A/6010B | Hach Method 8008 | Hach Method 8146 | EPA Method 160.1 |     |
| MW-21                                | 09/14/06           | NA                        | NA      | < 0.1               | 4.0     | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 09/14/06 (DUP)     | NA                        | NA      | < 0.1               | 3.9     | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 03/26/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 32                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/07/10           | NA                        | 20      | NA                  | NA      | NA                               | NA                     | NA       | 2,400                        | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/16/10           | NA                        | 0.59    | NA                  | NA      | NA                               | NA                     | NA       | 33                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 05/06/10           | NA                        | 2.7     | NA                  | NA      | NA                               | NA                     | NA       | 69                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 05/06/10 (DUP)     | NA                        | 2.6     | NA                  | NA      | NA                               | NA                     | NA       | 67                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 06/09/10           | NA                        | 8.5     | NA                  | NA      | NA                               | NA                     | NA       | 82                           | NA                     | NA                     | NA               | NA               | NA               |     |
| 07/06/10                             | NA                 | 8.4                       | NA      | NA                  | NA      | NA                               | NA                     | 150      | NA                           | NA                     | NA                     | NA               | NA               |                  |     |
| MW-24                                | 03/26/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 27                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/07/10           | NA                        | 50      | NA                  | NA      | NA                               | NA                     | NA       | 2,200                        | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/16/10           | NA                        | 0.46    | NA                  | NA      | NA                               | NA                     | NA       | 23                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 05/06/10           | NA                        | < 2.0   | NA                  | NA      | NA                               | NA                     | NA       | 58                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 06/09/10           | NA                        | 6.3     | NA                  | NA      | NA                               | NA                     | NA       | 68                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 07/06/10           | NA                        | 8.6     | NA                  | NA      | NA                               | NA                     | NA       | 74                           | NA                     | NA                     | NA               | NA               | NA               |     |
| MW-25                                | 07/06/10 (DUP)     | NA                        | 8.9     | NA                  | NA      | NA                               | NA                     | NA       | 72                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 03/29/10           | NA                        | 0.45    | NA                  | NA      | NA                               | NA                     | NA       | 23                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/07/10           | NA                        | 0.43    | NA                  | NA      | NA                               | NA                     | NA       | 24                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/16/10           | NA                        | 0.37    | NA                  | NA      | NA                               | NA                     | NA       | 23                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 05/06/10           | NA                        | < 2.0   | NA                  | NA      | NA                               | NA                     | NA       | 26                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 06/09/10           | NA                        | 1.2     | NA                  | NA      | NA                               | NA                     | NA       | 33                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 07/06/10           | NA                        | 2.5     | NA                  | NA      | NA                               | NA                     | NA       | 43                           | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 07/06/10 (LAB DUP) | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |     |
| MW-26                                | 04/01/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 3.7                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/01/10 (LAB DUP) | NA                        | NA      | NA                  | NA      | NA                               | NA                     | NA       | 3.7                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/09/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 4.0                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 04/16/10           | NA                        | 0.43    | NA                  | NA      | NA                               | NA                     | NA       | 3.8                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 05/06/10           | NA                        | < 2.0   | NA                  | NA      | NA                               | NA                     | NA       | 4.2                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 06/09/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 4.6                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 07/06/10           | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | 7.0                          | NA                     | NA                     | NA               | NA               | NA               |     |
|                                      | 07/06/10 (LAB DUP) | NA                        | < 0.1   | NA                  | NA      | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |     |
| P-1                                  | 09/24/04           | 8.8                       | NA      | < 0.2               | < 0.2   | < 0.01                           | 220                    | NA       | 20.7                         | 1.10                   | 38.1                   | NA               | 2.0              | NA               |     |
| <b>Deep Off-Site Monitoring Well</b> |                    |                           |         |                     |         |                                  |                        |          |                              |                        |                        |                  |                  |                  |     |
| MW-22                                | 09/14/06           | NA                        | NA      | 0.4                 | 49.9    | NA                               | NA                     | NA       | NA                           | NA                     | NA                     | NA               | NA               | NA               |     |

**Notes:**  
 All results in mg/L.  
 < = less than the method reporting limit shown.  
 DUP = duplicate sample collected in the field and blind labeled.

E = The result exceeded calibration curve.  
 J = the associated numerical value is an estimated quantity based on data review or laboratory estimate above the MDL but below the MRL.

LAB DUP = laboratory duplicate sample.  
 NA = not analyzed.  
 TDS = Total Dissolved Solids



**Table D4**  
**Dissolved Gases in Groundwater**  
**Univar Solutions USA, Inc.**  
**Kent, Washington**

| Sample Location                                     | Date Collected | Modified RSK Method 175 (µg/L) |        |        |
|---|----------------|--------------------------------|--------|--------|
|   |                | Methane                        | Ethane | Ethene |
| <b>Shallow On-Site Monitoring Wells</b>             |                |                                |        |        |
| <b>MW-1</b>   | 12/15/98       | 18,000                         | 110    | 310    |
|   | 03/02/99       | 15,000                         | 75     | 270    |
|   | 06/17/99       | 8,400                          | 44     | 170    |
|   | 09/17/99       | 14,000                         | 83     | 230    |
| <b>MW-2</b>   | 12/15/98       | 13,000                         | 1.1    | 0.5 U  |
|   | 03/02/99       | 8,600                          | 0.88   | 0.5 U  |
|   | 06/16/99       | 13,000                         | 1.0    | 0.5 U  |
|   | 06/16/99 (DUP) | 13,000                         | 0.97   | 0.5 U  |
|   | 09/16/99       | 17,000                         | 1.2    | 0.5 U  |
| <b>MW-3</b>   | 12/14/98       | 10,000                         | 6.9    | 0.95   |
|   | 03/03/99       | 5,700                          | 9.3    | 1.2    |
|   | 06/17/99       | 3,800                          | 3.2    | 0.93   |
|   | 09/17/99       | 4,300                          | 6.8    | 0.88   |
| <b>MW-4</b>   | 12/14/98       | 16,000                         | 130    | 1,500  |
|   | 03/03/99       | 10,000                         | 110    | 730    |
|   | 06/17/99       | 12,000                         | 110    | 1,300  |
|   | 09/17/99       | 14,000                         | 150    | 1,000  |
| <b>MW-5</b>   | 12/15/98       | 0.5 U                          | 0.5 U  | 0.5 U  |
|   | 03/02/99       | 66                             | 0.5 U  | 0.5 U  |
|   | 06/16/99       | 7.8                            | 0.5 U  | 0.5 U  |
|   | 09/16/99       | 28                             | 0.5 U  | 0.5 U  |
|   | 09/16/99 (DUP) | 26                             | 0.5 U  | 0.5 U  |
| <b>MW-6</b>   | 12/15/98       | 14,000                         | 130    | 31     |
|   | 03/02/99       | 9,800                          | 94     | 15     |
|   | 03/02/99 (DUP) | 12,000                         | 120    | 16     |
|   | 06/16/99       | 11,000                         | 100    | 10     |
|   | 09/16/99       | 13,000                         | 98     | 8.2    |
| <b>MW-7</b>   | 12/14/98       | 1.9                            | 0.5 U  | 0.5 U  |
|   | 03/03/99       | 34                             | 0.5 U  | 0.5 U  |
|   | 06/17/99       | 7.9                            | 0.5 U  | 0.5 U  |
|   | 09/17/99       | 15                             | 0.5 U  | 0.5 U  |
| <b>MW-8</b>   | 12/14/98       | 23                             | 0.5 U  | 0.5 U  |
|   | 12/14/98 (DUP) | 25                             | 0.5 U  | 0.5 U  |
|   | 03/02/99       | 12                             | 0.5 U  | 0.5 U  |
|   | 06/16/99       | 5.2                            | 0.5 U  | 0.5 U  |
|   | 09/16/99       | 18                             | 0.5 U  | 0.5 U  |
| <b>Deep On-Site Monitoring Wells and Piezometer</b> |                |                                |        |        |
| <b>MW-13</b>  | 09/24/04       | 13,000                         | 15     | 680    |
|   | 04/05/05       | 520                            | 1.9    | 27     |
| <b>MW-14</b>  | 09/24/04       | 5,800                          | 2.2    | 1.2    |
|   | 04/05/05       | 5,900                          | 0.41   | 0.55 U |
| <b>MW-15</b>  | 09/24/04       | 7,700                          | 1.7    | 0.8 U  |
|   | 04/05/05       | 6,500                          | 1.5    | 0.55 U |
| <b>MW-16</b>  | 09/23/04       | 16,000                         | 3.2    | 1.3    |
|   | 04/05/05       | 17,000                         | 3.7    | 2.0    |
| <b>MW-17</b>  | 09/23/04       | 13,000                         | 290    | 61     |
|   | 09/23/04 (DUP) | 13,000                         | 290    | 60     |
|   | 04/05/05       | 13,000                         | 290    | 70     |
| <b>MW-18</b>  | 09/23/04       | 4,500                          | 25     | 3.2    |



**Table D4  
Dissolved Gases in Groundwater  
Univar Solutions USA, Inc.  
Kent, Washington**

| Sample Location                      | Date Collected | Modified RSK Method 175 (µg/L) |        |        |
|--------------------------------------|----------------|--------------------------------|--------|--------|
|                                      |                | Methane                        | Ethane | Ethene |
|                                      | 04/05/05       | 4,800                          | 16     | 1.5    |
|                                      | 04/05/05 (DUP) | 5,700                          | 19     | 1.8    |
| <b>MW-19</b>                         | 09/23/04       | 5,600                          | 32     | 870    |
|                                      | 04/05/05       | 5,400                          | 40     | 97     |
| <b>P-1</b>                           | 09/24/04       | 5,100                          | 3.0    | 0.8 U  |
| <b>Deep Off-Site Monitoring Well</b> |                |                                |        |        |
| <b>MW-20</b>                         | 09/20/05       | 13,000                         | 240    | 10     |

**Notes:**

Analyses prior to 2011 performed using Modified RSK Method 175.

µg/L = micrograms per liter

U = not detected, the associated value is the quantification limit.

J = estimated concentration between the method detection and reporting limits.

(DUP) = duplicate sample collected in the field and blind labeled.



**APPENDIX E      LABORATORY DATA AND VALIDATION MEMORANDUM**



## APPENDIX E – LABORATORY ANALYTICAL DATA REPORTS AND DATA VALIDATION MEMORANDA

<Provided in electronic format only>

### Laboratory Analytical Data Reports

| Number | Lab ID   | Report Reference                 |
|--------|----------|----------------------------------|
| 01     | FA64743  | June 2019 Groundwater Sampling   |
| 02     | FA67623  | August 2019 Groundwater Sampling |
| 03     | FA67699  | August 2019 Groundwater Sampling |
| 04     | FA67699R | August 2019 Groundwater Sampling |

### Data Validation Memoranda

16 September 2019 Data Review of Univar Kent, Washington Groundwater Samples: SGS Data Package FA64743. ERM.

03 October 2019 Data Review of Univar Kent, Washington Groundwater Samples Collected August 2019: SGS Data Package FA67623, FA67699, and FA67669R. ERM.



The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

### Univar

ERMORP: Univar; 8201 S 212th St, Kent, WA

60527139

SGS Job Number: FA64743

Sampling Dates: 05/30/19 - 06/03/19



### Report to:

ERM  
1050 SW 6th Ave Suite 1650  
Portland, OR 97204  
Dylan.Stankus@erm.com; Alison.Lunde@erm.com  
ATTN: Dylan Stankus

Total number of pages in report: 92



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.  
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

This report shall not be reproduced, except in its entirety, without the written approval of SGS.

Test results relate only to samples analyzed.



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## Sample Summary

Univar

**Job No:** FA64743

ERMORP: Univar; 8201 S 212th St, Kent, WA  
 Project No: 60527139

| Sample Number | Collected |          | Matrix   |      |              | Client Sample ID |
|---------------|-----------|----------|----------|------|--------------|------------------|
|               | Date      | Time By  | Received | Code | Type         |                  |
| FA64743-1     | 05/31/19  | 11:53 AL | 06/04/19 | AQ   | Ground Water | MW-4-053119      |
| FA64743-1D    | 05/31/19  | 11:53 AL | 06/04/19 | AQ   | Ground Water | MW-4-053119      |
| FA64743-1S    | 05/31/19  | 11:53 AL | 06/04/19 | AQ   | Ground Water | MW-4-053119      |
| FA64743-2     | 05/31/19  | 12:53 AL | 06/04/19 | AQ   | Ground Water | MW-21-053119     |
| FA64743-3     | 05/31/19  | 13:29 AL | 06/04/19 | AQ   | Ground Water | MW-1-053119      |
| FA64743-4     | 05/31/19  | 14:20 AL | 06/04/19 | AQ   | Ground Water | MW-13-053119     |
| FA64743-5     | 05/31/19  | 15:13 AL | 06/04/19 | AQ   | Ground Water | MW-9-053119      |
| FA64743-6     | 06/03/19  | 09:49 AL | 06/04/19 | AQ   | Ground Water | MW-12-060319     |
| FA64743-7     | 06/03/19  | 10:29 AL | 06/04/19 | AQ   | Ground Water | MW-6-060319      |
| FA64743-8     | 06/03/19  | 11:16 AL | 06/04/19 | AQ   | Ground Water | MW-14-060319     |
| FA64743-9     | 06/03/19  | 11:56 AL | 06/04/19 | AQ   | Ground Water | MW-2-060319      |
| FA64743-10    | 06/03/19  | 12:58 AL | 06/04/19 | AQ   | Ground Water | MW-16-060319     |
| FA64743-11    | 06/03/19  | 13:59 AL | 06/04/19 | AQ   | Ground Water | MW-28-060319     |





## Sample Summary

(continued)

Univar

**Job No:** FA64743

ERMORP: Univar; 8201 S 212th St, Kent, WA  
 Project No: 60527139

| Sample Number | Collected |          | Matrix Received | Code | Type             | Client Sample ID |
|---------------|-----------|----------|-----------------|------|------------------|------------------|
|               | Date      | Time By  |                 |      |                  |                  |
| FA64743-12    | 06/03/19  | 13:00 AL | 06/04/19        | AQ   | Ground Water     | DUP-2-060319     |
| FA64743-13    | 05/30/19  | 00:00 AL | 06/04/19        | AQ   | Trip Blank Water | TB-053019-1      |
| FA64743-14    | 05/30/19  | 12:41 AL | 06/04/19        | AQ   | Ground Water     | MW-19-053019     |
| FA64743-15    | 05/30/19  | 13:21 AL | 06/04/19        | AQ   | Ground Water     | MW-18-053019     |
| FA64743-16    | 05/30/19  | 14:09 AL | 06/04/19        | AQ   | Ground Water     | MW-10-053019     |
| FA64743-17    | 05/30/19  | 15:28 AL | 06/04/19        | AQ   | Ground Water     | MW-8-053019      |
| FA64743-18    | 05/30/19  | 16:13 AL | 06/04/19        | AQ   | Ground Water     | MW-5-053019      |
| FA64743-19    | 05/31/19  | 07:49 AL | 06/04/19        | AQ   | Ground Water     | MW-3-053119      |
| FA64743-20    | 05/31/19  | 08:43 AL | 06/04/19        | AQ   | Ground Water     | MW-17-053119     |
| FA64743-21    | 05/31/19  | 09:23 AL | 06/04/19        | AQ   | Ground Water     | MW-23-053119     |
| FA64743-22    | 05/31/19  | 10:11 AL | 06/04/19        | AQ   | Ground Water     | MW-07-053119     |
| FA64743-23    | 05/31/19  | 10:00 AL | 06/04/19        | AQ   | Ground Water     | DUP-1-053119     |
| FA64743-24    | 05/31/19  | 11:11 AL | 06/04/19        | AQ   | Ground Water     | MW-22-053119     |





## Sample Summary

(continued)

Univar

Job No: FA64743

ERMORP: Univar; 8201 S 212th St, Kent, WA  
Project No: 60527139

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type            | Client Sample ID |
|---------------|----------------|---------|----------|-------------|-----------------|------------------|
| FA64743-25    | 06/03/19       | 15:00   | AL       | 06/04/19    | AQ Ground Water | MW-20-060319     |
| FA64743-26    | 06/03/19       | 15:42   | AL       | 06/04/19    | AQ Ground Water | MW-27-060319     |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Univar

**Job No:** FA64743

**Site:** ERMORP: Univar; 8201 S 212th St, Kent, WA

**Report Date:** 6/13/2019 4:47:42 PM

25 Samples and 1 Trip Blank were collected on between 05/30/2019 and 06/03/2019 and were received at SGS North America Inc - Orlando on 06/04/2019 properly preserved, at 3 Deg. C and intact. These Samples received an SGS Orlando job number of FA64743. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VE2142

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA64743-1MS, FA64743-1MSD were used as the QC samples indicated.

Sample(s) FA64743-2 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for Bromoform, Dibromochloromethane, Styrene, trans-1,3-Dichloropropene are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, Dibromochloromethane, Styrene, trans-1,3-Dichloropropene are outside control limits. Probable cause is due to matrix interference.

FA64743-1: Confirmation run.

FA64743-2 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-2 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-3 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-3 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-5 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-5 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-5 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

FA64743-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-6 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-6 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-6 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

FA64743-7 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

FA64743-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-7 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-8 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-8 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-8 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

FA64743-8 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-9 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-9 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-9 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

FA64743-10 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-10 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-10 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.

FA64743-11 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

FA64743-11 for Chloroethane: Associated CCV outside of control limits high, sample was ND.



## MS Volatiles By Method SW846 8260B

**Matrix:** AQ **Batch ID:** VE2142

FA64743-11 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.  
 FA64743-11 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.  
 FA64743-12 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.  
 FA64743-12 for Methyl Bromide: Associated CCV outside of control limits high, sample was ND.  
 FA64743-12 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.  
 FA64743-12 for Chloroethane: Associated CCV outside of control limits high, sample was ND.

**Matrix:** AQ **Batch ID:** VE2144

All samples were analyzed within the recommended method holding time.

Sample(s) FA64743-15MS, FA64743-15MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for Bromoform, cis-1,3-Dichloropropene, Dibromochloromethane are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, cis-1,3-Dichloropropene, Dibromochloromethane, trans-1,3-Dichloropropene are outside control limits. Probable cause is due to matrix interference.

**Matrix:** AQ **Batch ID:** VE2146

All samples were analyzed within the recommended method holding time.

Sample(s) FA64743-1MS, FA64743-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) FA64743-12, FA64743-18, FA64743-2, FA64743-3, FA64743-4, FA64743-6 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for Bromoform, Dibromochloromethane, Isopropylbenzene, n-Propylbenzene, Styrene, trans-1,3-Dichloropropene are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, Dibromochloromethane, Isopropylbenzene are outside control limits. Probable cause is due to matrix interference.

FA64743-4: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA64743-10: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA64743-18: Sample vial(s) contained significant headspace; reported results are considered minimum values.

FA64743-24: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

**Matrix:** AQ **Batch ID:** VE2147

All samples were analyzed within the recommended method holding time.

Sample(s) FA64743-24MS, FA64743-24MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) FA64743-20, FA64743-24, FA64743-25 have compounds reported from the diluted analysis.

FA64743-20: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA64743-24: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA64743-25: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Jenna Kravitz, Client Services (*Signature on File*)



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19

| Lab Sample ID | Client Sample ID | Result/<br>Analyte | RL | MDL | Units | Method |
|---------------|------------------|--------------------|----|-----|-------|--------|
|---------------|------------------|--------------------|----|-----|-------|--------|

### FA64743-1 MW-4-053119

|                            |        |      |      |      |             |
|----------------------------|--------|------|------|------|-------------|
| Benzene                    | 2.3    | 0.50 | 0.13 | ug/l | SW846 8260B |
| n-Butylbenzene             | 0.30 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| sec-Butylbenzene           | 1.2    | 0.50 | 0.13 | ug/l | SW846 8260B |
| tert-Butylbenzene          | 0.20 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane               | 21.8   | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane         | 0.20 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 0.68   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Ethylbenzene               | 0.24 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Hexane                     | 0.38 J | 1.0  | 0.20 | ug/l | SW846 8260B |
| Isopropylbenzene           | 26.4   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methyl Chloride            | 0.21 J | 0.50 | 0.20 | ug/l | SW846 8260B |
| n-Propylbenzene            | 24.4   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                    | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene     | 0.20 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             | 0.26 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                 | 0.14 J | 1.0  | 0.13 | ug/l | SW846 8260B |

### FA64743-2 MW-21-053119

|                            |        |     |     |      |             |
|----------------------------|--------|-----|-----|------|-------------|
| Chloroethane               | 281    | 50  | 20  | ug/l | SW846 8260B |
| o-Chlorotoluene            | 25.3   | 25  | 6.3 | ug/l | SW846 8260B |
| 1,1-Dichloroethane         | 23.8 J | 25  | 6.3 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 24.2 J | 25  | 6.3 | ug/l | SW846 8260B |
| Ethylbenzene               | 1040   | 25  | 6.3 | ug/l | SW846 8260B |
| Hexane                     | 12.1 J | 50  | 10  | ug/l | SW846 8260B |
| Isopropylbenzene           | 77.1   | 25  | 6.3 | ug/l | SW846 8260B |
| n-Propylbenzene            | 123    | 25  | 6.3 | ug/l | SW846 8260B |
| Toluene                    | 136    | 25  | 6.3 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene     | 368    | 25  | 6.3 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene     | 220    | 25  | 6.3 | ug/l | SW846 8260B |
| Vinyl Chloride             | 15.4 J | 25  | 6.3 | ug/l | SW846 8260B |
| m,p-Xylene                 | 6490   | 100 | 13  | ug/l | SW846 8260B |
| o-Xylene                   | 579    | 25  | 6.3 | ug/l | SW846 8260B |

### FA64743-3 MW-1-053119

|                    |        |      |      |      |             |
|--------------------|--------|------|------|------|-------------|
| Acetone            | 3.6 J  | 10   | 2.0  | ug/l | SW846 8260B |
| Benzene            | 0.18 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| n-Butylbenzene     | 0.40 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| sec-Butylbenzene   | 0.89   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane       | 32.9   | 1.0  | 0.40 | ug/l | SW846 8260B |
| Chloroform         | 0.31 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1-Dichloroethane | 35.3   | 0.50 | 0.13 | ug/l | SW846 8260B |



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19



| Lab Sample ID | Client Sample ID | Result/<br>Analyte | RL | MDL | Units | Method |
|---------------|------------------|--------------------|----|-----|-------|--------|
|---------------|------------------|--------------------|----|-----|-------|--------|

|                            |  |        |      |      |      |             |
|----------------------------|--|--------|------|------|------|-------------|
| cis-1,2-Dichloroethylene   |  | 1.1    | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene |  | 0.41 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Ethylbenzene               |  | 0.78   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Hexane                     |  | 0.33 J | 1.0  | 0.20 | ug/l | SW846 8260B |
| Isopropylbenzene           |  | 14.3   | 0.50 | 0.13 | ug/l | SW846 8260B |
| p-Isopropyltoluene         |  | 0.21 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methylene Chloride         |  | 1.9 J  | 2.0  | 1.0  | ug/l | SW846 8260B |
| n-Propylbenzene            |  | 16.3   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Tetrachloroethylene        |  | 0.34 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                    |  | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1,1-Trichloroethane      |  | 1.8    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene          |  | 2.0    | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene     |  | 2.9    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             |  | 0.66   | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                 |  | 0.28 J | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                   |  | 5.3    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-4 MW-13-053119**

|   |  |        |     |      |      |             |
|---|--|--------|-----|------|------|-------------|
| Benzene <sup>a</sup>                    |  | 0.40 J | 1.3 | 0.31 | ug/l | SW846 8260B |
| sec-Butylbenzene <sup>a</sup>           |  | 0.41 J | 1.3 | 0.31 | ug/l | SW846 8260B |
| Chloroethane <sup>a</sup>               |  | 32.1   | 1.3 | 0.50 | ug/l | SW846 8260B |
| o-Chlorotoluene <sup>a</sup>            |  | 0.75 J | 1.3 | 0.31 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene <sup>a</sup> |  | 0.91 J | 1.3 | 0.31 | ug/l | SW846 8260B |
| Ethylbenzene <sup>a</sup>               |  | 9.6    | 1.3 | 0.31 | ug/l | SW846 8260B |
| Hexane <sup>a</sup>                     |  | 3.1    | 2.5 | 0.50 | ug/l | SW846 8260B |
| Isopropylbenzene <sup>a</sup>           |  | 12.6   | 1.3 | 0.31 | ug/l | SW846 8260B |
| n-Propylbenzene <sup>a</sup>            |  | 20.7   | 1.3 | 0.31 | ug/l | SW846 8260B |
| Toluene <sup>a</sup>                    |  | 0.53 J | 1.3 | 0.31 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene <sup>a</sup>     |  | 59.1   | 1.3 | 0.31 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene <sup>a</sup>     |  | 5.9    | 1.3 | 0.31 | ug/l | SW846 8260B |
| m,p-Xylene <sup>a</sup>                 |  | 171    | 2.5 | 0.31 | ug/l | SW846 8260B |
| o-Xylene <sup>a</sup>                   |  | 0.50 J | 1.3 | 0.31 | ug/l | SW846 8260B |

**FA64743-5 MW-9-053119**

|                            |  |        |      |      |      |             |
|----------------------------|--|--------|------|------|------|-------------|
| Benzene                    |  | 0.24 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   |  | 0.55   | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene |  | 0.13 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene          |  | 0.80   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             |  | 0.29 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-6 MW-12-060319**

|                      |  |        |      |      |      |             |
|----------------------|--|--------|------|------|------|-------------|
| 1,1-Dichloroethylene |  | 0.19 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|----------------------|--|--------|------|------|------|-------------|



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19



| Lab Sample ID     | Client Sample ID | Result/<br>Qual            | RL     | MDL  | Units | Method |             |
|-------------------|------------------|----------------------------|--------|------|-------|--------|-------------|
|                   |                  | cis-1,2-Dichloroethylene   | 147    | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                  | trans-1,2-Dichloroethylene | 0.74   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Tetrachloroethylene        | 55.0   | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                  | Trichloroethylene          | 11.6   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Vinyl Chloride             | 6.1    | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-7</b>  |                  | <b>MW-6-060319</b>         |        |      |       |        |             |
|                   |                  | 1,1-Dichloroethane         | 0.31 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-8</b>  |                  | <b>MW-14-060319</b>        |        |      |       |        |             |
|                   |                  | Toluene                    | 2.5    | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-9</b>  |                  | <b>MW-2-060319</b>         |        |      |       |        |             |
|                   |                  | 1,1-Dichloroethane         | 0.32 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | cis-1,2-Dichloroethylene   | 0.61   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Trichloroethylene          | 0.15 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Vinyl Chloride             | 0.16 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-10</b> |                  | <b>MW-16-060319</b>        |        |      |       |        |             |
|                   |                  | Acetone                    | 4.2 J  | 10   | 2.0   | ug/l   | SW846 8260B |
|                   |                  | Chloroethane <sup>a</sup>  | 0.63   | 0.50 | 0.20  | ug/l   | SW846 8260B |
|                   |                  | 1,1-Dichloroethane         | 0.42 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Toluene                    | 0.22 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Vinyl Chloride             | 0.72   | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-11</b> |                  | <b>MW-28-060319</b>        |        |      |       |        |             |
|                   |                  | Benzene                    | 0.14 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Toluene                    | 0.62   | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA64743-12</b> |                  | <b>DUP-2-060319</b>        |        |      |       |        |             |
|                   |                  | 1,1-Dichloroethylene       | 0.17 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | cis-1,2-Dichloroethylene   | 143    | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                  | trans-1,2-Dichloroethylene | 0.95   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Tetrachloroethylene        | 51.8   | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                  | Trichloroethylene          | 11.3   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                  | Vinyl Chloride             | 5.5    | 0.50 | 0.13  | ug/l   | SW846 8260B |



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**FA64743-13 TB-053019-1**

No hits reported in this sample.

**FA64743-14 MW-19-053019**

|                          |        |      |      |      |             |
|--------------------------|--------|------|------|------|-------------|
| Benzene                  | 1.9    | 0.50 | 0.13 | ug/l | SW846 8260B |
| sec-Butylbenzene         | 0.36 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane             | 4.5    | 0.50 | 0.20 | ug/l | SW846 8260B |
| Chloroform               | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1-Dichloroethane       | 0.16 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene | 0.30 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Ethylbenzene             | 39.9   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Hexane                   | 12.0   | 1.0  | 0.20 | ug/l | SW846 8260B |
| Isopropylbenzene         | 4.7    | 0.50 | 0.13 | ug/l | SW846 8260B |
| n-Propylbenzene          | 5.0    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                  | 1.3    | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene   | 39.8   | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene   | 0.54   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride           | 0.60   | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene               | 3.7    | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                 | 2.5    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-15 MW-18-053019**

No hits reported in this sample.

**FA64743-16 MW-10-053019**

No hits reported in this sample.

**FA64743-17 MW-8-053019**

|                          |        |      |      |      |             |
|--------------------------|--------|------|------|------|-------------|
| 1,1-Dichloroethylene     | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene | 0.40 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Tetrachloroethylene      | 0.32 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene        | 1.8    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-18 MW-5-053019**

|                                  |      |     |      |      |             |
|----------------------------------|------|-----|------|------|-------------|
| Tetrachloroethylene <sup>b</sup> | 76.4 | 2.5 | 0.63 | ug/l | SW846 8260B |
|----------------------------------|------|-----|------|------|-------------|

**FA64743-19 MW-3-053119**

|         |        |      |      |      |             |
|---------|--------|------|------|------|-------------|
| Benzene | 0.26 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|---------|--------|------|------|------|-------------|



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

|                            |  |        |      |      |      |             |
|----------------------------|--|--------|------|------|------|-------------|
| Chloroethane               |  | 1.2    | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane         |  | 0.40 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   |  | 0.71   | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene |  | 0.28 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             |  | 0.53   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-20 MW-17-053119**

|                           |  |        |      |      |      |             |
|---------------------------|--|--------|------|------|------|-------------|
| Benzene                   |  | 18.0   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane <sup>a</sup> |  | 194    | 5.0  | 2.0  | ug/l | SW846 8260B |
| 1,2-Dichloroethane        |  | 1.2    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methylene Chloride        |  | 1.1 J  | 2.0  | 1.0  | ug/l | SW846 8260B |
| Toluene                   |  | 0.46 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene    |  | 0.39 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride            |  | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                |  | 2.3    | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                  |  | 0.62   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-21 MW-23-053119**

|                          |  |        |      |      |      |             |
|--------------------------|--|--------|------|------|------|-------------|
| cis-1,2-Dichloroethylene |  | 0.15 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Tetrachloroethylene      |  | 11.3   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene        |  | 1.0    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-22 MW-07-053119**

|                     |  |        |      |      |      |             |
|---------------------|--|--------|------|------|------|-------------|
| Tetrachloroethylene |  | 4.1    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene   |  | 0.29 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-23 DUP-1-053119**

|                            |  |        |      |      |      |             |
|----------------------------|--|--------|------|------|------|-------------|
| Benzene                    |  | 0.24 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane               |  | 1.1    | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane         |  | 0.37 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   |  | 0.74   | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene |  | 0.27 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             |  | 0.52   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-24 MW-22-053119**

|                                 |  |        |      |      |      |             |
|---------------------------------|--|--------|------|------|------|-------------|
| Benzene <sup>a</sup>            |  | 0.58   | 0.50 | 0.13 | ug/l | SW846 8260B |
| sec-Butylbenzene <sup>a</sup>   |  | 0.15 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane <sup>a</sup>       |  | 44.7   | 1.3  | 0.50 | ug/l | SW846 8260B |
| Chloroform <sup>a</sup>         |  | 0.30 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1-Dichloroethane <sup>a</sup> |  | 0.57   | 0.50 | 0.13 | ug/l | SW846 8260B |



## Summary of Hits

**Job Number:** FA64743  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 05/30/19 thru 06/03/19



| Lab Sample ID<br>Analyte                | Client Sample ID | Result/<br>Qual | RL   | MDL  | Units | Method      |
|---|------------------|-----------------|------|------|-------|-------------|
| 1,2-Dichloroethane <sup>a</sup>         |                  | 0.18 J          | 0.50 | 0.13 | ug/l  | SW846 8260B |
| 1,1-Dichloroethylene <sup>a</sup>       |                  | 0.24 J          | 0.50 | 0.13 | ug/l  | SW846 8260B |
| cis-1,2-Dichloroethylene <sup>a</sup>   |                  | 60.0            | 1.3  | 0.31 | ug/l  | SW846 8260B |
| trans-1,2-Dichloroethylene <sup>a</sup> |                  | 1.7             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| Ethylbenzene <sup>a</sup>               |                  | 1.5             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| Hexane <sup>a</sup>                     |                  | 2.4             | 1.0  | 0.20 | ug/l  | SW846 8260B |
| Isopropylbenzene <sup>a</sup>           |                  | 7.4             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| n-Propylbenzene <sup>a</sup>            |                  | 8.4             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| Toluene <sup>a</sup>                    |                  | 1.1             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| Trichloroethylene <sup>a</sup>          |                  | 3.3             | 0.50 | 0.13 | ug/l  | SW846 8260B |
| 1,2,4-Trimethylbenzene <sup>a</sup>     |                  | 22.2            | 0.50 | 0.13 | ug/l  | SW846 8260B |
| Vinyl Chloride <sup>a</sup>             |                  | 23.5            | 0.50 | 0.13 | ug/l  | SW846 8260B |
| m,p-Xylene <sup>a</sup>                 |                  | 16.1            | 1.0  | 0.13 | ug/l  | SW846 8260B |
| o-Xylene <sup>a</sup>                   |                  | 0.67            | 0.50 | 0.13 | ug/l  | SW846 8260B |

**FA64743-25 MW-20-060319**

|                           |  |        |      |      |      |             |
|---------------------------|--|--------|------|------|------|-------------|
| Benzene                   |  | 18.4   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane <sup>a</sup> |  | 187    | 5.0  | 2.0  | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene  |  | 0.13 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methylene Chloride        |  | 1.1 J  | 2.0  | 1.0  | ug/l | SW846 8260B |
| Toluene                   |  | 0.89   | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene    |  | 0.24 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride            |  | 0.15 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                |  | 1.3    | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                  |  | 1.2    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA64743-26 MW-27-060319**

|                          |  |        |      |      |      |             |
|--------------------------|--|--------|------|------|------|-------------|
| Benzene                  |  | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1-Dichloroethane       |  | 0.38 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene |  | 0.39 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                  |  | 0.63   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride           |  | 0.62   | 0.50 | 0.13 | ug/l | SW846 8260B |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
 (b) Sample vial(s) contained significant headspace; reported results are considered minimum values.



Sample Results

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Report of Analysis

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## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-4-053119                      |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-1                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1              | E099504.D | 1  | 06/12/19 10:23 | AB | n/a       | n/a        | VE2146           |
| Run #2 <sup>a</sup> | E099425.D | 1  | 06/07/19 12:32 | AB | n/a       | n/a        | VE2142           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 2.3    | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | 0.30   | 0.50 | 0.13 | ug/l  | J |
| 135-98-8   | sec-Butylbenzene            | 1.2    | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | 0.20   | 0.50 | 0.13 | ug/l  | J |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 21.8   | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.20   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.68   | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 0.24   | 0.50 | 0.13 | ug/l  | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound







## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-21-053119                     |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-2                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #  | File ID   | DF  | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|-----|----------------|----|-----------|------------|------------------|
| Run #1 | E099426.D | 50  | 06/07/19 12:56 | AB | n/a       | n/a        | VE2142           |
| Run #2 | E099519.D | 100 | 06/12/19 16:29 | AB | n/a       | n/a        | VE2146           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                             | Result           | RL  | MDL | Units | Q |
|------------|--------------------------------------|------------------|-----|-----|-------|---|
| 67-64-1    | Acetone                              | ND               | 500 | 100 | ug/l  |   |
| 71-43-2    | Benzene                              | ND               | 25  | 6.3 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND               | 25  | 6.3 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND               | 25  | 6.3 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND               | 25  | 6.3 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND               | 25  | 6.3 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND               | 25  | 6.3 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND               | 25  | 6.3 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND               | 25  | 6.3 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND               | 25  | 6.3 | ug/l  |   |
| 75-00-3    | Chloroethane                         | 281 <sup>a</sup> | 50  | 20  | ug/l  |   |
| 67-66-3    | Chloroform                           | ND               | 25  | 6.3 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | 25.3             | 25  | 6.3 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND               | 25  | 6.3 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND               | 25  | 6.3 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND               | 25  | 12  | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND               | 25  | 6.3 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>b</sup> | ND               | 25  | 10  | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND               | 25  | 6.3 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND               | 25  | 6.3 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND               | 25  | 6.3 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | 23.8             | 25  | 6.3 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane                   | ND               | 25  | 6.3 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND               | 25  | 6.3 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | ND               | 25  | 6.3 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | 24.2             | 25  | 6.3 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane                  | ND               | 25  | 6.3 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND               | 25  | 6.3 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND               | 25  | 6.3 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND               | 25  | 6.3 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND               | 25  | 6.3 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | 1040             | 25  | 6.3 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-21-053119                              | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-2                                 | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result            | RL  | MDL | Units | Q |
|----------|-------------------------------------|-------------------|-----|-----|-------|---|
| 110-54-3 | Hexane                              | 12.1              | 50  | 10  | ug/l  | J |
| 98-82-8  | Isopropylbenzene                    | 77.1              | 25  | 6.3 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND                | 25  | 6.3 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>b</sup>         | ND                | 25  | 10  | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND                | 25  | 10  | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND                | 25  | 6.3 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND                | 100 | 50  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND                | 130 | 63  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | 123               | 25  | 6.3 | ug/l  |   |
| 100-42-5 | Styrene                             | ND                | 25  | 6.3 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND                | 25  | 6.3 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND                | 25  | 6.3 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND                | 25  | 6.3 | ug/l  |   |
| 108-88-3 | Toluene                             | 136               | 25  | 6.3 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND                | 25  | 6.3 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND                | 25  | 6.3 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND                | 25  | 6.3 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | ND                | 25  | 6.3 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>b</sup> | ND                | 25  | 10  | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND                | 25  | 6.3 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | 368               | 25  | 6.3 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | 220               | 25  | 6.3 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 15.4              | 25  | 6.3 | ug/l  | J |
|          | m,p-Xylene                          | 6490 <sup>a</sup> | 100 | 13  | ug/l  |   |
| 95-47-6  | o-Xylene                            | 579               | 25  | 6.3 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   | 98%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   | 102%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 100%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 95%    | 101%   | 83-118% |

(a) Result is from Run# 2

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-1-053119                      |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-3                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099427.D | 1  | 06/07/19 13:20 | AB | n/a       | n/a        | VE2142           |
| Run #2 | E099520.D | 2  | 06/12/19 16:53 | AB | n/a       | n/a        | VE2146           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                             | Result            | RL   | MDL  | Units | Q |
|------------|--------------------------------------|-------------------|------|------|-------|---|
| 67-64-1    | Acetone                              | 3.6               | 10   | 2.0  | ug/l  | J |
| 71-43-2    | Benzene                              | 0.18              | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                         | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND                | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | 0.40              | 0.50 | 0.13 | ug/l  | J |
| 135-98-8   | sec-Butylbenzene                     | 0.89              | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                         | 32.9 <sup>a</sup> | 1.0  | 0.40 | ug/l  |   |
| 67-66-3    | Chloroform                           | 0.31              | 0.50 | 0.13 | ug/l  | J |
| 95-49-8    | o-Chlorotoluene                      | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND                | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND                | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>b</sup> | ND                | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | 35.3              | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | 1.1               | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | 0.41              | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | 0.78              | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-1-053119                               | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-3                                 | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | 0.33   | 1.0  | 0.20 | ug/l  | J |
| 98-82-8  | Isopropylbenzene                    | 14.3   | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | 0.21   | 0.50 | 0.13 | ug/l  | J |
| 74-83-9  | Methyl Bromide <sup>b</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | 1.9    | 2.0  | 1.0  | ug/l  | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | 16.3   | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | 0.34   | 0.50 | 0.13 | ug/l  | J |
| 108-88-3 | Toluene                             | 0.17   | 0.50 | 0.13 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | 1.8    | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | 2.0    | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>b</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | 2.9    | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 0.66   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | 0.28   | 1.0  | 0.13 | ug/l  | J |
| 95-47-6  | o-Xylene                            | 5.3    | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   | 102%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 104%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 95%    | 94%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    | 99%    | 83-118% |

(a) Result is from Run# 2

(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-13-053119                     | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-4                           | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #               | File ID   | DF  | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|-----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E099521.D | 2.5 | 06/12/19 17:17 | AB | n/a       | n/a        | VE2146           |
| Run #2              |           |     |                |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL  | Units | Q |
|------------|-----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 25  | 5.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.40   | 1.3 | 0.31 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 1.3 | 0.31 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 1.3 | 0.31 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | 0.41   | 1.3 | 0.31 | ug/l  | J |
| 98-06-6    | tert-Butylbenzene           | ND     | 1.3 | 0.31 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 1.3 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-00-3    | Chloroethane                | 32.1   | 1.3 | 0.50 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 1.3 | 0.31 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | 0.75   | 1.3 | 0.31 | ug/l  | J |
| 106-43-4   | p-Chlorotoluene             | ND     | 1.3 | 0.31 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 1.3 | 0.31 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 1.3 | 0.62 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 1.3 | 0.50 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 1.3 | 0.31 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 1.3 | 0.31 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 1.3 | 0.31 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.91   | 1.3 | 0.31 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 1.3 | 0.31 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 1.3 | 0.31 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 9.6    | 1.3 | 0.31 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-13-053119                              | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-4                                 | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL  | MDL  | Units | Q |
|----------|-----------------------------|--------|-----|------|-------|---|
| 110-54-3 | Hexane                      | 3.1    | 2.5 | 0.50 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | 12.6   | 1.3 | 0.31 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 1.3 | 0.31 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 1.3 | 0.50 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 1.3 | 0.50 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 5.0 | 2.5  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 6.3 | 3.1  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 20.7   | 1.3 | 0.31 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 1.3 | 0.31 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 1.3 | 0.31 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.53   | 1.3 | 0.31 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 1.3 | 0.31 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 1.3 | 0.50 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 1.3 | 0.31 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 59.1   | 1.3 | 0.31 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 5.9    | 1.3 | 0.31 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 1.3 | 0.31 | ug/l  |   |
|          | m,p-Xylene                  | 171    | 2.5 | 0.31 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 0.50   | 1.3 | 0.31 | ug/l  | J |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 94%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    |        | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound







# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-9-053119                      |                                |
| <b>Lab Sample ID:</b> FA64743-5                           | <b>Date Sampled:</b> 05/31/19  |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Date Received:</b> 06/04/19 |
| <b>Method:</b> SW846 8260B                                | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | 0.80   | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 0.29   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                          | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%    |        | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
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## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-12-060319                     |  | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-6                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099434.D | 1  | 06/07/19 16:12 | AB | n/a       | n/a        | VE2142           |
| Run #2 | E099522.D | 5  | 06/12/19 17:42 | AB | n/a       | n/a        | VE2146           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                             | Result           | RL   | MDL  | Units | Q |
|------------|--------------------------------------|------------------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND               | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND               | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND               | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND               | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND               | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND               | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND               | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND               | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND               | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND               | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | 0.19             | 0.50 | 0.13 | ug/l  | J |
| 156-59-2   | cis-1,2-Dichloroethylene             | 147 <sup>b</sup> | 2.5  | 0.63 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | 0.74             | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND               | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-12-060319                     |                                |
| <b>Lab Sample ID:</b> FA64743-6                           | <b>Date Sampled:</b> 06/03/19  |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Date Received:</b> 06/04/19 |
| <b>Method:</b> SW846 8260B                                | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

## VOA Special List

| CAS No.  | Compound                            | Result            | RL   | MDL  | Units | Q |
|----------|-------------------------------------|-------------------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND                | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND                | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND                | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND                | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND                | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND                | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | 55.0 <sup>b</sup> | 2.5  | 0.63 | ug/l  |   |
| 108-88-3 | Toluene                             | ND                | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | 11.6              | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND                | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND                | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 6.1               | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | ND                | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND                | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 102%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    | 100%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   | 101%   | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-6-060319                      | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-7                           | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099435.D | 1  | 06/07/19 16:36 | AB | n/a       | n/a        | VE2142           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                             | Result | RL   | MDL  | Units | Q |
|------------|--------------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | 0.31   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-6-060319                               | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-7                                 | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    |        | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-14-060319                     |  | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-8                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099436.D | 1  | 06/07/19 17:01 | AB | n/a       | n/a        | VE2142           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                             | Result | RL   | MDL  | Units | Q |
|------------|--------------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound







## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-2-060319                      |  | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-9                           |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099437.D | 1  | 06/07/19 17:26 | AB | n/a       | n/a        | VE2142           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                             | Result | RL   | MDL  | Units | Q |
|------------|--------------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | 0.32   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | 0.61   | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-2-060319                               | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-9                                 | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | 0.15   | 0.50 | 0.13 | ug/l  | J |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 0.16   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                          | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 95%    |        | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-16-060319                     | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-10                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1              | E099438.D | 1  | 06/07/19 17:50 | AB | n/a       | n/a        | VE2142           |
| Run #2 <sup>a</sup> | E099505.D | 1  | 06/12/19 10:47 | AB | n/a       | n/a        | VE2146           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                             | Result            | RL   | MDL  | Units | Q |
|------------|--------------------------------------|-------------------|------|------|-------|---|
| 67-64-1    | Acetone                              | 4.2               | 10   | 2.0  | ug/l  | J |
| 71-43-2    | Benzene                              | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND                | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND                | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND                | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                         | 0.63 <sup>b</sup> | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND                | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND                | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND                | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>c</sup> | ND                | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | 0.42              | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND                | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | ND                | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND                | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-16-060319                              | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-10                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>c</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                             | 0.22   | 0.50 | 0.13 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>c</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 0.72   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   | 99%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   | 100%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    | 100%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    | 101%   | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

(b) Result is from Run# 2

(c) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-28-060319                     | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-11                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099439.D | 1  | 06/07/19 18:14 | AB | n/a       | n/a        | VE2142           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                             | Result | RL   | MDL  | Units | Q |
|------------|--------------------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | 0.14   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-28-060319                              | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-11                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result | RL   | MDL  | Units | Q |
|----------|-------------------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                             | 0.62   | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    |        | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> DUP-2-060319                     | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-12                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099440.D | 1  | 06/07/19 18:38 | AB | n/a       | n/a        | VE2142           |
| Run #2 | E099523.D | 5  | 06/12/19 18:06 | AB | n/a       | n/a        | VE2146           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                             | Result           | RL   | MDL  | Units | Q |
|------------|--------------------------------------|------------------|------|------|-------|---|
| 67-64-1    | Acetone                              | ND               | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                              | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                         | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                            | ND               | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene                       | ND               | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene                     | ND               | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene                    | ND               | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene                        | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane <sup>a</sup>            | ND               | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                           | ND               | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene                      | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene                      | ND               | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane                 | ND               | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane          | ND               | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane                    | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane <sup>a</sup> | ND               | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene                 | 0.17             | 0.50 | 0.13 | ug/l  | J |
| 156-59-2   | cis-1,2-Dichloroethylene             | 143 <sup>b</sup> | 2.5  | 0.63 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene           | 0.95             | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene              | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene            | ND               | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                         | ND               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-2-060319                              | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-12                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                            | Result            | RL   | MDL  | Units | Q |
|----------|-------------------------------------|-------------------|------|------|-------|---|
| 110-54-3 | Hexane                              | ND                | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                    | ND                | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide <sup>a</sup>         | ND                | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride                     | ND                | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride                  | ND                | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)         | ND                | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                     | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                             | ND                | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene                 | 51.8 <sup>b</sup> | 2.5  | 0.63 | ug/l  |   |
| 108-88-3 | Toluene                             | ND                | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane               | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane               | ND                | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene                   | 11.3              | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane <sup>a</sup> | ND                | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane              | ND                | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                      | 5.5               | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                          | ND                | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                            | ND                | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 102%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    | 101%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 96%    | 102%   | 83-118% |

(a) Associated CCV outside of control limits high, sample was ND.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> TB-053019-1                      | <b>Date Sampled:</b> 05/30/19  |
| <b>Lab Sample ID:</b> FA64743-13                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Trip Blank Water                      | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099485.D | 1  | 06/11/19 14:40 | AB | n/a       | n/a        | VE2144           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | TB-053019-1                               | <b>Date Sampled:</b>   | 05/30/19 |
| <b>Lab Sample ID:</b>    | FA64743-13                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Trip Blank Water                     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 97%    |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%    |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound











## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-18-053019                     | <b>Date Sampled:</b> 05/30/19  |
| <b>Lab Sample ID:</b> FA64743-15                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099486.D | 1  | 06/11/19 15:05 | AB | n/a       | n/a        | VE2144           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound







## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-10-053019                     | <b>Date Sampled:</b> 05/30/19  |
| <b>Lab Sample ID:</b> FA64743-16                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099492.D | 1  | 06/11/19 17:31 | AB | n/a       | n/a        | VE2144           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound







## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-8-053019                      |  | <b>Date Sampled:</b> 05/30/19  |
| <b>Lab Sample ID:</b> FA64743-17                          |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099493.D | 1  | 06/11/19 17:56 | AB | n/a       | n/a        | VE2144           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | 0.17   | 0.50 | 0.13 | ug/l  | J |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.40   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-8-053019                               | <b>Date Sampled:</b>   | 05/30/19 |
| <b>Lab Sample ID:</b>    | FA64743-17                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | 0.32   | 0.50 | 0.13 | ug/l  | J |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 1.8    | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-5-053019                      | <b>Date Sampled:</b> 05/30/19  |
| <b>Lab Sample ID:</b> FA64743-18                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

|                     | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E099518.D | 5  | 06/12/19 16:04 | AB | n/a       | n/a        | VE2146           |
| Run #2              |           |    |                |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

### VOA Special List

| CAS No.  | Compound            | Result | RL  | MDL  | Units | Q |
|----------|---------------------|--------|-----|------|-------|---|
| 127-18-4 | Tetrachloroethylene | 76.4   | 2.5 | 0.63 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 83-118% |

(a) Sample vial(s) contained significant headspace; reported results are considered minimum values.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.18  
4



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-3-053119                      |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-19                          |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099506.D | 1  | 06/12/19 11:11 | AB | n/a       | n/a        | VE2146           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.26   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 1.2    | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.40   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.71   | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.28   | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-3-053119                               | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-19                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.53   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-17-053119                     |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-20                          |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1              | E099507.D | 1  | 06/12/19 11:36 | AB | n/a       | n/a        | VE2146           |
| Run #2 <sup>a</sup> | E099531.D | 10 | 06/13/19 10:28 | AB | n/a       | n/a        | VE2147           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result           | RL   | MDL  | Units | Q |
|------------|-----------------------------|------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND               | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 18.0             | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND               | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND               | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND               | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 194 <sup>b</sup> | 5.0  | 2.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND               | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | 1.2              | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND               | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound





## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-23-053119                     | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-21                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099508.D | 1  | 06/12/19 12:00 | AB | n/a       | n/a        | VE2146           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.15   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound









## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-07-053119                              | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-22                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | 4.1    | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 0.29   | 0.50 | 0.13 | ug/l  | J |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 101%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> DUP-1-053119                     | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-23                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099510.D | 1  | 06/12/19 12:49 | AB | n/a       | n/a        | VE2146           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.24   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 1.1    | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.37   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.74   | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.27   | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-1-053119                              | <b>Date Sampled:</b>   | 05/31/19 |
| <b>Lab Sample ID:</b>    | FA64743-23                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.52   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-22-053119                     |  | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-24                          |  | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

|                     | File ID   | DF  | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|-----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E099511.D | 1   | 06/12/19 13:13 | AB | n/a       | n/a        | VE2146           |
| Run #2 <sup>a</sup> | E099533.D | 2.5 | 06/13/19 11:18 | AB | n/a       | n/a        | VE2147           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result            | RL   | MDL  | Units | Q |
|------------|-----------------------------|-------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND                | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.58              | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | 0.15              | 0.50 | 0.13 | ug/l  | J |
| 98-06-6    | tert-Butylbenzene           | ND                | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 44.7 <sup>b</sup> | 1.3  | 0.50 | ug/l  |   |
| 67-66-3    | Chloroform                  | 0.30              | 0.50 | 0.13 | ug/l  | J |
| 95-49-8    | o-Chlorotoluene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND                | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.57              | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | 0.18              | 0.50 | 0.13 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene        | 0.24              | 0.50 | 0.13 | ug/l  | J |
| 156-59-2   | cis-1,2-Dichloroethylene    | 60.0 <sup>b</sup> | 1.3  | 0.31 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.7               | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 1.5               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-22-053119                     | <b>Date Sampled:</b> 05/31/19  |
| <b>Lab Sample ID:</b> FA64743-24                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | 2.4    | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | 7.4    | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 8.4    | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 1.1    | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 3.3    | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 22.2   | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 23.5   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | 16.1   | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 0.67   | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   | 105%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   | 109%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 97%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%    | 98%    | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
 (b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.24  
4

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-20-060319                              | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-25                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1              | E099516.D | 1  | 06/12/19 15:15 | AB | n/a       | n/a        | VE2146           |
| Run #2 <sup>a</sup> | E099532.D | 10 | 06/13/19 10:52 | AB | n/a       | n/a        | VE2147           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result           | RL   | MDL  | Units | Q |
|------------|-----------------------------|------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND               | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 18.4             | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND               | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND               | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND               | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 187 <sup>b</sup> | 5.0  | 2.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND               | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.13             | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-20-060319                     | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-25                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | 1.1    | 2.0  | 1.0  | ug/l  | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.89   | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.24   | 0.50 | 0.13 | ug/l  | J |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.15   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | 1.3    | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 1.2    | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 97%    | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101%   | 103%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   | 102%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   | 100%   | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.  
 (b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.25  
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## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-27-060319                     | <b>Date Sampled:</b> 06/03/19  |
| <b>Lab Sample ID:</b> FA64743-26                          | <b>Date Received:</b> 06/04/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E099517.D | 1  | 06/12/19 15:39 | AB | n/a       | n/a        | VE2146           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.17   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.38   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.39   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-27-060319                              | <b>Date Sampled:</b>   | 06/03/19 |
| <b>Lab Sample ID:</b>    | FA64743-26                                | <b>Date Received:</b>  | 06/04/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.63   | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.62   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody





SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

FA64743

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Form containing Client/Reporting Information, Project Information, Analytical Information, Matrix Codes, and a table of sample collection data with columns for Sample #, Field ID, Date, Time, Matrix, and various chemical analysis results.

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| Client / Reporting Information   |                                |         | Project Information                |             |        | Analytical Information  |       |      |            |      |      |                             |         |          |                 | Matrix Codes        |  |
|--|--------------------------------|---------|------------------------------------|-------------|--------|---|-------|------|------------|------|------|-----------------------------|---------|----------|-----------------|---------------------|--|
| Company Name: <b>ERM</b>   |                                |         | Project Name: <b>Kent 2125b</b>    |             |        |   |       |      |            |      |      |                             |         |          |                 | DW - Drinking Water |  |
| Address: <b>1218 3<sup>rd</sup> Ave Ste 1412</b>   |                                |         | Street: <b>5201 S. 2125b St.</b>   |             |        |   |       |      |            |      |      |                             |         |          |                 | GW - Ground Water   |  |
| City: <b>Seattle</b> State: <b>WA</b> Zip: <b>98101</b>  |                                |         | City: <b>Kent</b> State: <b>WA</b> |             |        |   |       |      |            |      |      |                             |         |          |                 | WW - Water          |  |
| Project Contact: <b>Dylan Stankus</b> Email: <b>dylan.stankus@erm.com</b>  |                                |         | Project #                          |             |        |   |       |      |            |      |      |                             |         |          |                 | SW - Surface Water  |  |
| Phone #:   |                                |         | Fax #:                             |             |        |   |       |      |            |      |      |                             |         |          |                 | SO - Soil           |  |
| Sampler(s) Name(s) (Printed)   |                                |         | Client Purchase Order #            |             |        |   |       |      |            |      |      |                             |         |          |                 | SL - Sludge         |  |
| Sampler 1: <b>MC</b>   |                                |         | Sampler 2:                         |             |        |   |       |      |            |      |      |                             |         |          |                 | OI - Oil            |  |
|  |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 | LIQ - Other Liquid  |  |
|  |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 | AIR - Air           |  |
|  |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 | SOL - Other Solid   |  |
|  |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 | LAB USE ONLY        |  |
| SGS Orlando Sample #   | Field ID / Point of Collection | DATE    | TIME                               | SAMPLED BY: | MATRIX | TOTAL # OF BOTTLES  | OTHER | NONE | ICI        | NOCH | HCOS | FFS04                       | NOH/204 | DI WATER | MEDH            |                     |  |
| 13   | TB-053019-01                   | 5/30/19 |                                    |             | W      | 2   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 14   | MW-19-053019                   |         | 1241                               | MC          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 15   | MW-18-053019                   |         | 1321                               | MC          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 16   | MW-10-053019                   |         | 1409                               | MC          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 17   | MW-8-053019                    |         | 1528                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 18   | MW-5-053019                    |         | 1613                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 19   | MW-3-053119                    | 5/31/19 | 0749                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 20   | MW-17-053119                   |         | 0843                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 21   | MW-23-053119                   |         | 0923                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 22   | MW-07-053119                   |         | 1011                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 23   | DWP-1-053119                   |         | 1000                               | AL          | W      | 2   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| 24   | MW-22-053119                   |         | 1111                               | AL          | W      | 3   |       |      |            |      |      |                             |         |          |                 | X                   |  |
| Turnaround Time (Business days)  |                                |         | Data Deliverable Information       |             |        | Comments / Remarks  |       |      |            |      |      |                             |         |          |                 |                     |  |
| <input checked="" type="checkbox"/> 10 Day (Business)<br><input type="checkbox"/> 7 Day<br><input type="checkbox"/> 5 Day<br><input type="checkbox"/> 3 Day RUSH<br><input type="checkbox"/> 2 Day RUSH<br><input type="checkbox"/> 1 Day RUSH<br><input type="checkbox"/> Other |                                |         | Approved By: / Date:               |             |        | <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY)<br><input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC)<br><input type="checkbox"/> REDT1 (EPA LEVEL 3)<br><input type="checkbox"/> FULLT1 (EPA LEVEL 4)<br><input type="checkbox"/> EDD'S |       |      |            |      |      |                             |         |          |                 |                     |  |
| Rush T/A Data Available VIA Email or Lablink   |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 |                     |  |
| Relinquished by Sampler/Affiliation  |                                |         | Date Time:                         |             |        | Received By/Affiliation   |       |      | Date Time: |      |      | Relinquished By/Affiliation |         |          | Date Time:      |                     |  |
| 1 <b>ADP/aml</b>   |                                |         | 4/6/19 5:15                        |             |        | 2 <b>FIX</b>  |       |      | 6-4-19     |      |      | 3 <b>FIX</b>                |         |          | 4 <b>DJP/ML</b> |                     |  |
| 5  |                                |         |                                    |             |        | 6   |       |      |            |      |      | 7                           |         |          | 8               |                     |  |
| Lab Use Only : Cooler Temperature (s) Celsius (corrected):   |                                |         |                                    |             |        |   |       |      |            |      |      |                             |         |          |                 |                     |  |

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SGS - ORLANDO JOB #: PAGE \_\_\_ OF \_\_\_

| Client / Reporting Information   |          |                                |        | Project Information                        |       |                             |    | Analytical Information  |      |                         |            | Matrix Codes   |       |              |  |  |
|--|----------|--------------------------------|--------|--|-------|-----------------------------|----|---|------|-------------------------|------------|--|-------|--------------|--|--|
| Company Name: <b>ERM</b>   |          |                                |        | Project Name: <b>Kent 212<sup>th</sup></b> |       |                             |    |   |      |                         |            | DW - Drinking Water<br>GW - Ground Water<br>WW - Water<br>SW - Surface Water<br>SO - Soil<br>SL - Sludge<br>OI - Oil<br>LIQ - Other Liquid<br>AIR - Air<br>SOL - Other Solid |       |              |  |  |
| Address: <b>1218 3<sup>rd</sup> Avenue</b>   |          |                                |        | Street: <b>8201 S. 212<sup>th</sup> St</b> |       |                             |    |   |      |                         |            |  |       |              |  |  |
| City: <b>Seattle</b> State: <b>WA</b> Zip: <b>98101</b>  |          |                                |        | City: <b>Kent</b> State: <b>WA</b>         |       |                             |    |   |      |                         |            |  |       |              |  |  |
| Project Contact: <b>Dylan Stankus</b> Email: <b>Dylan.Stankus@erm.com</b>  |          |                                |        | Project # <b>0487093</b>                   |       |                             |    |   |      |                         |            |  |       |              |  |  |
| Phone #:   |          |                                |        | Fax #:                                     |       |                             |    |   |      |                         |            |  |       |              |  |  |
| Sampler(s) Name(s) (Printed)   |          |                                |        | Client Purchase Order #                    |       |                             |    |   |      |                         |            |  |       |              |  |  |
| Sampler 1: <b>AL</b>   |          |                                |        | Sampler 2:                                 |       |                             |    |   |      |                         |            |  |       |              |  |  |
| SGS Orlando Sample #   |          | Field ID / Point of Collection |        | COLLECTION                                 |       | CONTAINER INFORMATION       |    |   |      |                         |            |  |       |              |  |  |
| DATE   | TIME     | SAMPLED BY:                    | MATRIX | TOTAL # OF BOTTLES                         | OTHER | NONE                        | IC | NIOSH   | HNO3 | H2SO4                   | NACH/ZN/AK | DI WATER   | MEDI: | LAB USE ONLY |  |  |
| 25/1   | 06/27/19 | 1500                           | AL W   | 3  |       |                             |    |   |      |                         |            |  |       |              |  |  |
| 20/2   | 06/27/19 | 1542                           | AL W   | 3  |       |                             |    |   |      |                         |            |  |       | X            |  |  |
| Turnaround Time ( Business days)   |          |                                |        | Data Deliverable Information               |       |                             |    | Comments / Remarks  |      |                         |            |  |       |              |  |  |
| <input type="radio"/> 10 Day (Business)<br><input type="radio"/> 7 Day<br><input type="radio"/> 5 Day<br><input type="radio"/> 3 Day RUSH<br><input type="radio"/> 2 Day RUSH<br><input type="radio"/> 1 Day RUSH<br><input type="radio"/> Other |          |                                |        | Approved By: / Date:                       |       |                             |    | <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY)<br><input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC)<br><input type="checkbox"/> REDT1 (EPA LEVEL 3)<br><input type="checkbox"/> FULLT1 (EPA LEVEL 4)<br><input type="checkbox"/> EDD'S |      |                         |            |  |       |              |  |  |
| Rush T/A Data Available VIA Email or Lablink   |          |                                |        |  |       |                             |    |   |      |                         |            |  |       |              |  |  |
| Relinquished by Sampler/Affiliation  |          | Date Time:                     |        | Received By/Affiliation                    |       | Relinquished By/Affiliation |    | Date Time:  |      | Received By/Affiliation |            |  |       |              |  |  |
| 1 <b>Adam Lunde</b>  |          | 1/02/19 5:15                   |        | 2 <b>EF</b>                                |       | 3 <b>EF</b>                 |    |   |      | 4 <b>JEFF</b>           |            | 6/11/19<br>PAG   |       |              |  |  |
| 5  |          |                                |        | 6  |       | 7                           |    |   |      | 8                       |            |  |       |              |  |  |
| Lab Use Only : Cooler Temperature (s) Celsius (corrected):   |          |                                |        | 1.3  |       |                             |    |   |      |                         |            | <a href="http://www.sgs.com/en/srms-and-conditions">http://www.sgs.com/en/srms-and-conditions</a>  |       |              |  |  |

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

FA64743: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FA64743

Client: ERM/UNIVAR

Project: KENT 212TH

Date / Time Received: 6/4/2019 9:00:00 AM

Delivery Method: FedEx

Airbill #s: 790957621749, 790957621750

Therm ID: IR 1;

Therm CF: 0.4;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

**Cooler Information**

Y or N

- 1. Custody Seals Present
- 2. Custody Seals Intact
- 3. Temp criteria achieved
- 4. Cooler temp verification IR Gun
- 5. Cooler media Ice (Bag)

**Sample Information**

Y or N N/A

- 1. Sample labels present on bottles
- 2. Samples preserved properly
- 3. Sufficient volume/containers recvd for analysis:
- 4. Condition of sample Intact
- 5. Sample recvd within HT
- 6. Dates/Times/IDs on COC match Sample Label
- 7. VOCs have headspace
- 8. Bottles received for unspecified tests
- 9. Compositing instructions clear
- 10. Voa Soil Kits/Jars received past 48hrs?
- 11. % Solids Jar received?
- 12. Residual Chlorine Present?

**Trip Blank Information**

Y or N N/A

- 1. Trip Blank present / cooler
  - 2. Trip Blank listed on COC
- W or S N/A
- 3. Type Of TB Received

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_ Number of 5035 Field Kits: \_\_\_\_\_ Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #: pH 0-3 230315 pH 10-12 219813A Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: TRINITYM

Date: 6/4/2019 9:00:00 AM

Reviewer: PH

Date: 6/6/2019

**FA64743: Chain of Custody**

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2142-MB | E099419.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2142-MB | E099419.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 96%    | 83-118% |

## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2144-MB | E099484.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2144-MB | E099484.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 97%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%    | 79-125% |
| 2037-26-5  | Toluene-D8            | 101%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 103%   | 83-118% |

## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2146-MB | E099503.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



## Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2146-MB | E099503.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 101%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   | 83-118% |

# Method Blank Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2147-MB | E099530.D | 1  | 06/13/19 | AB | n/a       | n/a        | VE2147           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-20, FA64743-24, FA64743-25

| CAS No.  | Compound                 | Result | RL   | MDL  | Units | Q |
|----------|--------------------------|--------|------|------|-------|---|
| 75-00-3  | Chloroethane             | ND     | 0.50 | 0.20 | ug/l  |   |
| 156-59-2 | cis-1,2-Dichloroethylene | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%    | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 102%   | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   | 83-118% |

6.1.4  
6



# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2142-BS | E099417.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.    | Compound                    | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|-----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                     | 50            | 59.9        | 120      | 50-147 |
| 71-43-2    | Benzene                     | 10            | 10.3        | 103      | 81-122 |
| 108-86-1   | Bromobenzene                | 10            | 9.5         | 95       | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10            | 10.0        | 100      | 79-123 |
| 75-25-2    | Bromoform                   | 10            | 8.8         | 88       | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10            | 9.7         | 97       | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10            | 10.6        | 106      | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10            | 9.9         | 99       | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10            | 11.0        | 110      | 76-136 |
| 108-90-7   | Chlorobenzene               | 10            | 10.1        | 101      | 82-124 |
| 75-00-3    | Chloroethane                | 10            | 10.9        | 109      | 62-144 |
| 67-66-3    | Chloroform                  | 10            | 10.5        | 105      | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10            | 9.8         | 98       | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10            | 9.7         | 97       | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10            | 9.0         | 90       | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10            | 9.0         | 90       | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10            | 9.3         | 93       | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10            | 8.6         | 86       | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10            | 9.6         | 96       | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10            | 10          | 100      | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10            | 9.7         | 97       | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10            | 10.7        | 107      | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10            | 9.7         | 97       | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10            | 11.3        | 113      | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10            | 10.0        | 100      | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10            | 10.4        | 104      | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10            | 10.2        | 102      | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10            | 9.1         | 91       | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10            | 11.4        | 114      | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10            | 9.4         | 94       | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10            | 9.2         | 92       | 80-120 |
| 100-41-4   | Ethylbenzene                | 10            | 10.3        | 103      | 81-121 |
| 110-54-3   | Hexane                      | 10            | 10.4        | 104      | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10            | 11.0        | 110      | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10            | 9.6         | 96       | 79-130 |
| 74-83-9    | Methyl Bromide              | 10            | 10.5        | 105      | 59-143 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2142-BS | E099417.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 10.5     | 105   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.9      | 99    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.3     | 103   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 49.4     | 99    | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.1     | 101   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 8.9      | 89    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.9      | 99    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 9.8      | 98    | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.6     | 106   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 10.1     | 101   | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.5      | 95    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 10.3     | 103   | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 9.5      | 95    | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 10.2     | 102   | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 11.1     | 111   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 8.8      | 88    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.7      | 97    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.1     | 101   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.4     | 104   | 69-159 |
|          | m,p-Xylene                  | 20         | 20.7     | 104   | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.9      | 99    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 79-125% |
| 2037-26-5  | Toluene-D8            | 100% | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 95%  | 83-118% |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2144-BS | E099482.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.    | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|------------|-----------------------------|------------|----------|-------|--------|
| 67-64-1    | Acetone                     | 50         | 56.2     | 112   | 50-147 |
| 71-43-2    | Benzene                     | 10         | 9.7      | 97    | 81-122 |
| 108-86-1   | Bromobenzene                | 10         | 9.2      | 92    | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10         | 9.2      | 92    | 79-123 |
| 75-25-2    | Bromoform                   | 10         | 8.4      | 84    | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10         | 9.6      | 96    | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10         | 9.6      | 96    | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10         | 9.3      | 93    | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10         | 10.1     | 101   | 76-136 |
| 108-90-7   | Chlorobenzene               | 10         | 8.9      | 89    | 82-124 |
| 75-00-3    | Chloroethane                | 10         | 9.9      | 99    | 62-144 |
| 67-66-3    | Chloroform                  | 10         | 9.3      | 93    | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10         | 9.5      | 95    | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10         | 9.6      | 96    | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10         | 9.2      | 92    | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10         | 8.5      | 85    | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10         | 9.2      | 92    | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10         | 10.3     | 103   | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10         | 9.3      | 93    | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10         | 9.5      | 95    | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10         | 9.1      | 91    | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10         | 9.7      | 97    | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10         | 9.1      | 91    | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10         | 10.2     | 102   | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10         | 9.5      | 95    | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10         | 9.7      | 97    | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10         | 9.4      | 94    | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10         | 8.8      | 88    | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10         | 10.6     | 106   | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10         | 8.3      | 83    | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10         | 8.8      | 88    | 80-120 |
| 100-41-4   | Ethylbenzene                | 10         | 9.4      | 94    | 81-121 |
| 110-54-3   | Hexane                      | 10         | 9.9      | 99    | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10         | 9.4      | 94    | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10         | 9.5      | 95    | 79-130 |
| 74-83-9    | Methyl Bromide              | 10         | 10.0     | 100   | 59-143 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2144-BS | E099482.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.2     | 112   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.0      | 90    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 9.2      | 92    | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 44.4     | 89    | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 9.6      | 96    | 82-133 |
| 100-42-5 | Styrene                     | 10         | 8.5      | 85    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.1      | 91    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 9.3      | 93    | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 9.8      | 98    | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.4      | 94    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.4      | 94    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 9.7      | 97    | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 8.8      | 88    | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.3      | 93    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 11.4     | 114   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 8.9      | 89    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.5      | 95    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 9.4      | 94    | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 11.3     | 113   | 69-159 |
|          | m,p-Xylene                  | 20         | 19.0     | 95    | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.5      | 95    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%  | 79-125% |
| 2037-26-5  | Toluene-D8            | 101% | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 83-118% |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2146-BS | E099501.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.    | Compound                    | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|-----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                     | 50            | 60.9        | 122      | 50-147 |
| 71-43-2    | Benzene                     | 10            | 9.5         | 95       | 81-122 |
| 108-86-1   | Bromobenzene                | 10            | 8.8         | 88       | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10            | 9.0         | 90       | 79-123 |
| 75-25-2    | Bromoform                   | 10            | 8.1         | 81       | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10            | 9.2         | 92       | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10            | 9.1         | 91       | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10            | 8.7         | 87       | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10            | 10.3        | 103      | 76-136 |
| 108-90-7   | Chlorobenzene               | 10            | 8.7         | 87       | 82-124 |
| 75-00-3    | Chloroethane                | 10            | 9.2         | 92       | 62-144 |
| 67-66-3    | Chloroform                  | 10            | 9.2         | 92       | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10            | 9.0         | 90       | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10            | 9.0         | 90       | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10            | 8.9         | 89       | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10            | 8.5         | 85       | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10            | 8.8         | 88       | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10            | 9.2         | 92       | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10            | 9.0         | 90       | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10            | 9.1         | 91       | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10            | 8.7         | 87       | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10            | 9.6         | 96       | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10            | 9.1         | 91       | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10            | 10.3        | 103      | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10            | 9.3         | 93       | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10            | 9.7         | 97       | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10            | 9.2         | 92       | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10            | 8.5         | 85       | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10            | 10.5        | 105      | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10            | 8.4         | 84       | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10            | 8.7         | 87       | 80-120 |
| 100-41-4   | Ethylbenzene                | 10            | 9.1         | 91       | 81-121 |
| 110-54-3   | Hexane                      | 10            | 10          | 100      | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10            | 9.2         | 92       | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10            | 9.0         | 90       | 79-130 |
| 74-83-9    | Methyl Bromide              | 10            | 9.4         | 94       | 59-143 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2146-BS | E099501.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 10.3     | 103   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.2      | 92    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 9.3      | 93    | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 44.9     | 90    | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 9.2      | 92    | 82-133 |
| 100-42-5 | Styrene                     | 10         | 8.2      | 82    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 8.8      | 88    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 9.1      | 91    | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 9.5      | 95    | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.1      | 91    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.3      | 93    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 9.7      | 97    | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 8.9      | 89    | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.2      | 92    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 10.4     | 104   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 8.7      | 87    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.0      | 90    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 8.8      | 88    | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.1     | 101   | 69-159 |
|          | m,p-Xylene                  | 20         | 18.3     | 92    | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.2      | 92    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 79-125% |
| 2037-26-5  | Toluene-D8            | 100% | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 83-118% |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2147-BS | E099528.D | 1  | 06/13/19 | AB | n/a       | n/a        | VE2147           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-20, FA64743-24, FA64743-25

| CAS No.  | Compound                 | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|----------|--------------------------|---------------|-------------|----------|--------|
| 75-00-3  | Chloroethane             | 10            | 9.8         | 98       | 62-144 |
| 156-59-2 | cis-1,2-Dichloroethylene | 10            | 9.6         | 96       | 78-120 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | 79-125% |
| 2037-26-5  | Toluene-D8            | 101% | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%  | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-1MS            | E099429.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |
| FA64743-1MSD           | E099430.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |
| FA64743-1 <sup>a</sup> | E099425.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.    | Compound                    | FA64743-1<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|-----------------------------|-------------------|------------|------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                     | 24.3              |            | 50   | 56.7       | 65      | 50            | 57.8        | 67       | 2   | 50-147/21         |
| 71-43-2    | Benzene                     | 2.6               |            | 10   | 12.6       | 100     | 10            | 12.9        | 103      | 2   | 81-122/14         |
| 108-86-1   | Bromobenzene                | ND                |            | 10   | 9.4        | 94      | 10            | 9.6         | 96       | 2   | 80-121/14         |
| 75-27-4    | Bromodichloromethane        | ND                |            | 10   | 9.2        | 92      | 10            | 9.5         | 95       | 3   | 79-123/19         |
| 75-25-2    | Bromoform                   | ND                |            | 10   | 5.8        | 58*     | 10            | 5.9         | 59*      | 2   | 66-123/21         |
| 104-51-8   | n-Butylbenzene              | 0.41              | J          | 10   | 10.2       | 98      | 10            | 10.2        | 98       | 0   | 79-126/16         |
| 135-98-8   | sec-Butylbenzene            | 1.8               |            | 10   | 12.6       | 108     | 10            | 12.6        | 108      | 0   | 83-133/16         |
| 98-06-6    | tert-Butylbenzene           | 0.26              | J          | 10   | 10.2       | 99      | 10            | 10.2        | 99       | 0   | 80-133/16         |
| 56-23-5    | Carbon Tetrachloride        | ND                |            | 10   | 10.3       | 103     | 10            | 10.4        | 104      | 1   | 76-136/23         |
| 108-90-7   | Chlorobenzene               | ND                |            | 10   | 9.6        | 96      | 10            | 9.8         | 98       | 2   | 82-124/14         |
| 75-00-3    | Chloroethane                | 29.5              |            | 10   | 40.7       | 112     | 10            | 43.7        | 142      | 7   | 62-144/20         |
| 67-66-3    | Chloroform                  | ND                |            | 10   | 10.3       | 103     | 10            | 10.4        | 104      | 1   | 80-124/15         |
| 95-49-8    | o-Chlorotoluene             | ND                |            | 10   | 9.5        | 95      | 10            | 9.8         | 98       | 3   | 81-127/15         |
| 106-43-4   | p-Chlorotoluene             | ND                |            | 10   | 9.5        | 95      | 10            | 9.7         | 97       | 2   | 83-130/15         |
| 124-48-1   | Dibromochloromethane        | ND                |            | 10   | 7.4        | 74*     | 10            | 7.6         | 76*      | 3   | 78-122/19         |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                |            | 10   | 9.7        | 97      | 10            | 9.2         | 92       | 5   | 64-123/18         |
| 106-93-4   | 1,2-Dibromoethane           | ND                |            | 10   | 9.0        | 90      | 10            | 9.3         | 93       | 3   | 75-120/13         |
| 75-71-8    | Dichlorodifluoromethane     | ND                |            | 10   | 8.8        | 88      | 10            | 9.0         | 90       | 2   | 42-167/19         |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                |            | 10   | 9.6        | 96      | 10            | 9.6         | 96       | 0   | 82-124/14         |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                |            | 10   | 9.7        | 97      | 10            | 9.7         | 97       | 0   | 84-125/14         |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                |            | 10   | 9.4        | 94      | 10            | 9.7         | 97       | 3   | 78-120/15         |
| 75-34-3    | 1,1-Dichloroethane          | 0.26              | J          | 10   | 10.7       | 104     | 10            | 10.8        | 105      | 1   | 81-122/15         |
| 107-06-2   | 1,2-Dichloroethane          | ND                |            | 10   | 9.6        | 96      | 10            | 9.8         | 98       | 2   | 75-125/14         |
| 75-35-4    | 1,1-Dichloroethylene        | ND                |            | 10   | 10.6       | 106     | 10            | 10.9        | 109      | 3   | 78-137/18         |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND                |            | 10   | 9.7        | 97      | 10            | 9.9         | 99       | 2   | 78-120/15         |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.77              |            | 10   | 10.7       | 99      | 10            | 11.0        | 102      | 3   | 76-127/17         |
| 78-87-5    | 1,2-Dichloropropane         | ND                |            | 10   | 10         | 100     | 10            | 10.1        | 101      | 1   | 76-124/14         |
| 142-28-9   | 1,3-Dichloropropane         | ND                |            | 10   | 8.8        | 88      | 10            | 9.2         | 92       | 4   | 80-118/13         |
| 594-20-7   | 2,2-Dichloropropane         | ND                |            | 10   | 10.5       | 105     | 10            | 10.5        | 105      | 0   | 74-139/17         |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                |            | 10   | 7.5        | 75      | 10            | 7.5         | 75       | 0   | 75-118/23         |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                |            | 10   | 7.4        | 74*     | 10            | 7.5         | 75*      | 1   | 80-120/22         |
| 100-41-4   | Ethylbenzene                | 0.35              | J          | 10   | 10.2       | 99      | 10            | 10.4        | 101      | 2   | 81-121/14         |
| 110-54-3   | Hexane                      | 0.41              | J          | 10   | 10.3       | 99      | 10            | 10.6        | 102      | 3   | 69-132/20         |
| 98-82-8    | Isopropylbenzene            | 36.0              |            | 10   | 47.1       | 111     | 10            | 46.3        | 103      | 2   | 83-132/15         |
| 99-87-6    | p-Isopropyltoluene          | ND                |            | 10   | 9.3        | 93      | 10            | 9.4         | 94       | 1   | 79-130/16         |
| 74-83-9    | Methyl Bromide              | ND                |            | 10   | 12.3       | 123     | 10            | 12.3        | 123      | 0   | 59-143/19         |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                 | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-1MS            | E099429.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |
| FA64743-1MSD           | E099430.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |
| FA64743-1 <sup>a</sup> | E099425.D | 1  | 06/07/19 | AB | n/a       | n/a        | VE2142           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-2, FA64743-3, FA64743-5, FA64743-6, FA64743-7, FA64743-8, FA64743-9, FA64743-10, FA64743-11, FA64743-12

| CAS No.  | Compound                    | FA64743-1<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|-----------------------------|-------------------|------------|------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 74-87-3  | Methyl Chloride             | 0.31              | J          | 10   | 9.8        | 95      | 10            | 10.1        | 98       | 3   | 50-159/19         |
| 74-95-3  | Methylene Bromide           | ND                |            | 10   | 9.8        | 98      | 10            | 9.9         | 99       | 1   | 78-119/14         |
| 75-09-2  | Methylene Chloride          | ND                |            | 10   | 10.3       | 103     | 10            | 10.3        | 103      | 0   | 69-135/16         |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND                |            | 50   | 51.6       | 103     | 50            | 51.9        | 104      | 1   | 66-122/16         |
| 103-65-1 | n-Propylbenzene             | 32.3              |            | 10   | 42.7       | 104     | 10            | 41.8        | 95       | 2   | 82-133/15         |
| 100-42-5 | Styrene                     | ND                |            | 10   | 6.7        | 67*     | 10            | 6.8         | 68*      | 1   | 78-119/23         |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND                |            | 10   | 9.4        | 94      | 10            | 9.4         | 94       | 0   | 77-122/19         |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND                |            | 10   | 10.1       | 101     | 10            | 10.2        | 102      | 1   | 72-120/14         |
| 127-18-4 | Tetrachloroethylene         | ND                |            | 10   | 10         | 100     | 10            | 10.2        | 102      | 2   | 76-135/16         |
| 108-88-3 | Toluene                     | 0.22              | J          | 10   | 9.7        | 95      | 10            | 10.0        | 98       | 3   | 80-120/14         |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND                |            | 10   | 9.7        | 97      | 10            | 9.6         | 96       | 1   | 73-129/20         |
| 71-55-6  | 1,1,1-Trichloroethane       | ND                |            | 10   | 10.1       | 101     | 10            | 10.3        | 103      | 2   | 75-130/16         |
| 79-00-5  | 1,1,2-Trichloroethane       | ND                |            | 10   | 9.8        | 98      | 10            | 10.1        | 101      | 3   | 76-119/14         |
| 79-01-6  | Trichloroethylene           | ND                |            | 10   | 9.8        | 98      | 10            | 10          | 100      | 2   | 81-126/15         |
| 75-69-4  | Trichlorofluoromethane      | ND                |            | 10   | 11.2       | 112     | 10            | 11.6        | 116      | 4   | 71-156/21         |
| 96-18-4  | 1,2,3-Trichloropropane      | ND                |            | 10   | 8.9        | 89      | 10            | 9.1         | 91       | 2   | 77-120/16         |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.21              | J          | 10   | 9.5        | 93      | 10            | 9.5         | 93       | 0   | 79-120/18         |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND                |            | 10   | 9.4        | 94      | 10            | 9.7         | 97       | 3   | 79-120/19         |
| 75-01-4  | Vinyl Chloride              | 0.33              | J          | 10   | 10.7       | 104     | 10            | 11.5        | 112      | 7   | 69-159/18         |
|          | m,p-Xylene                  | 0.16              | J          | 20   | 19.4       | 96      | 20            | 20.3        | 101      | 5   | 79-126/15         |
| 95-47-6  | o-Xylene                    | ND                |            | 10   | 9.5        | 95      | 10            | 9.8         | 98       | 3   | 80-127/14         |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA64743-1 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 102% | 103%      | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 106% | 103%      | 79-125% |
| 2037-26-5  | Toluene-D8            | 96%  | 97%  | 94%       | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%  | 97%  | 95%       | 83-118% |

(a) Confirmation run.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-15MS  | E099495.D | 5  | 06/11/19 | AB | n/a       | n/a        | VE2144           |
| FA64743-15MSD | E099496.D | 5  | 06/11/19 | AB | n/a       | n/a        | VE2144           |
| FA64743-15    | E099486.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.    | Compound                    | FA64743-15<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|-----------------------------|--------------------|------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                     | ND                 | 250        | 259        | 104     | 250           | 257         | 103      | 1   | 50-147/21         |
| 71-43-2    | Benzene                     | ND                 | 50         | 48.5       | 97      | 50            | 46.9        | 94       | 3   | 81-122/14         |
| 108-86-1   | Bromobenzene                | ND                 | 50         | 45.0       | 90      | 50            | 44.1        | 88       | 2   | 80-121/14         |
| 75-27-4    | Bromodichloromethane        | ND                 | 50         | 41.7       | 83      | 50            | 40.0        | 80       | 4   | 79-123/19         |
| 75-25-2    | Bromoform                   | ND                 | 50         | 25.7       | 51*     | 50            | 24.9        | 50*      | 3   | 66-123/21         |
| 104-51-8   | n-Butylbenzene              | ND                 | 50         | 45.3       | 91      | 50            | 43.4        | 87       | 4   | 79-126/16         |
| 135-98-8   | sec-Butylbenzene            | ND                 | 50         | 45.6       | 91      | 50            | 44.0        | 88       | 4   | 83-133/16         |
| 98-06-6    | tert-Butylbenzene           | ND                 | 50         | 43.8       | 88      | 50            | 42.3        | 85       | 3   | 80-133/16         |
| 56-23-5    | Carbon Tetrachloride        | ND                 | 50         | 52.5       | 105     | 50            | 49.3        | 99       | 6   | 76-136/23         |
| 108-90-7   | Chlorobenzene               | ND                 | 50         | 44.6       | 89      | 50            | 43.1        | 86       | 3   | 82-124/14         |
| 75-00-3    | Chloroethane                | ND                 | 50         | 44.8       | 90      | 50            | 38.3        | 77       | 16  | 62-144/20         |
| 67-66-3    | Chloroform                  | ND                 | 50         | 47.4       | 95      | 50            | 46.1        | 92       | 3   | 80-124/15         |
| 95-49-8    | o-Chlorotoluene             | ND                 | 50         | 45.1       | 90      | 50            | 44.1        | 88       | 2   | 81-127/15         |
| 106-43-4   | p-Chlorotoluene             | ND                 | 50         | 45.0       | 90      | 50            | 44.1        | 88       | 2   | 83-130/15         |
| 124-48-1   | Dibromochloromethane        | ND                 | 50         | 34.8       | 70*     | 50            | 32.4        | 65*      | 7   | 78-122/19         |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 | 50         | 40.9       | 82      | 50            | 40.8        | 82       | 0   | 64-123/18         |
| 106-93-4   | 1,2-Dibromoethane           | ND                 | 50         | 44.3       | 89      | 50            | 43.3        | 87       | 2   | 75-120/13         |
| 75-71-8    | Dichlorodifluoromethane     | ND                 | 50         | 44.4       | 89      | 50            | 38.5        | 77       | 14  | 42-167/19         |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 | 50         | 45.0       | 90      | 50            | 43.5        | 87       | 3   | 82-124/14         |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 | 50         | 45.6       | 91      | 50            | 44.0        | 88       | 4   | 84-125/14         |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 | 50         | 43.6       | 87      | 50            | 43.1        | 86       | 1   | 78-120/15         |
| 75-34-3    | 1,1-Dichloroethane          | ND                 | 50         | 49.3       | 99      | 50            | 48.0        | 96       | 3   | 81-122/15         |
| 107-06-2   | 1,2-Dichloroethane          | ND                 | 50         | 46.3       | 93      | 50            | 45.0        | 90       | 3   | 75-125/14         |
| 75-35-4    | 1,1-Dichloroethylene        | ND                 | 50         | 53.6       | 107     | 50            | 51.2        | 102      | 5   | 78-137/18         |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND                 | 50         | 47.0       | 94      | 50            | 46.2        | 92       | 2   | 78-120/15         |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND                 | 50         | 48.2       | 96      | 50            | 47.2        | 94       | 2   | 76-127/17         |
| 78-87-5    | 1,2-Dichloropropane         | ND                 | 50         | 46.0       | 92      | 50            | 45.9        | 92       | 0   | 76-124/14         |
| 142-28-9   | 1,3-Dichloropropane         | ND                 | 50         | 42.5       | 85      | 50            | 41.2        | 82       | 3   | 80-118/13         |
| 594-20-7   | 2,2-Dichloropropane         | ND                 | 50         | 50.9       | 102     | 50            | 47.4        | 95       | 7   | 74-139/17         |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 | 50         | 36.7       | 73*     | 50            | 35.8        | 72*      | 2   | 75-118/23         |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 | 50         | 41.7       | 83      | 50            | 39.2        | 78*      | 6   | 80-120/22         |
| 100-41-4   | Ethylbenzene                | ND                 | 50         | 45.7       | 91      | 50            | 44.3        | 89       | 3   | 81-121/14         |
| 110-54-3   | Hexane                      | ND                 | 50         | 48.2       | 96      | 50            | 46.5        | 93       | 4   | 69-132/20         |
| 98-82-8    | Isopropylbenzene            | ND                 | 50         | 45.6       | 91      | 50            | 44.0        | 88       | 4   | 83-132/15         |
| 99-87-6    | p-Isopropyltoluene          | ND                 | 50         | 45.1       | 90      | 50            | 43.6        | 87       | 3   | 79-130/16         |
| 74-83-9    | Methyl Bromide              | ND                 | 50         | 50.4       | 101     | 50            | 42.0        | 84       | 18  | 59-143/19         |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-15MS  | E099495.D | 5  | 06/11/19 | AB | n/a       | n/a        | VE2144           |
| FA64743-15MSD | E099496.D | 5  | 06/11/19 | AB | n/a       | n/a        | VE2144           |
| FA64743-15    | E099486.D | 1  | 06/11/19 | AB | n/a       | n/a        | VE2144           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-13, FA64743-14, FA64743-15, FA64743-16, FA64743-17, FA64743-18

| CAS No.  | Compound                    | FA64743-15 Spike |     | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|-----|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q   |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50  | 49.4    | 99   | 50         | 44.8     | 90    | 10  | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50  | 48.2    | 96   | 50         | 46.2     | 92    | 4   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50  | 51.2    | 102  | 50         | 49.6     | 99    | 3   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250 | 228     | 91   | 250        | 226      | 90    | 1   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | ND               | 50  | 46.4    | 93   | 50         | 44.7     | 89    | 4   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50  | 40.8    | 82   | 50         | 39.4     | 79    | 3   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50  | 44.3    | 89   | 50         | 43.2     | 86    | 3   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50  | 46.9    | 94   | 50         | 45.7     | 91    | 3   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50  | 46.6    | 93   | 50         | 46.0     | 92    | 1   | 76-135/16      |
| 108-88-3 | Toluene                     | ND               | 50  | 45.7    | 91   | 50         | 44.3     | 89    | 3   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50  | 42.0    | 84   | 50         | 40.1     | 80    | 5   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50  | 48.7    | 97   | 50         | 47.4     | 95    | 3   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50  | 45.2    | 90   | 50         | 43.8     | 88    | 3   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50  | 45.5    | 91   | 50         | 44.1     | 88    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50  | 50.3    | 101  | 50         | 42.7     | 85    | 16  | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50  | 44.0    | 88   | 50         | 43.0     | 86    | 2   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND               | 50  | 44.9    | 90   | 50         | 43.7     | 87    | 3   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND               | 50  | 44.2    | 88   | 50         | 43.2     | 86    | 2   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | ND               | 50  | 47.5    | 95   | 50         | 42.1     | 84    | 12  | 69-159/18      |
|          | m,p-Xylene                  | ND               | 100 | 91.9    | 92   | 100        | 89.5     | 90    | 3   | 79-126/15      |
| 95-47-6  | o-Xylene                    | ND               | 50  | 45.1    | 90   | 50         | 44.1     | 88    | 2   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA64743-15 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101% | 102% | 100%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 104% | 100%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%  | 98%  | 92%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%  | 99%  | 101%       | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-1MS  | E099512.D | 5  | 06/12/19 | AB | n/a       | n/a        | VE2146           |
| FA64743-1MSD | E099513.D | 5  | 06/12/19 | AB | n/a       | n/a        | VE2146           |
| FA64743-1    | E099504.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.    | Compound                    | FA64743-1<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |           |
|------------|-----------------------------|-------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|-----------|
| 67-64-1    | Acetone                     | ND                |                    | 250        | 251     | 100           | 250         | 256      | 102 | 2                 | 50-147/21 |
| 71-43-2    | Benzene                     | 2.3               |                    | 50         | 49.7    | 95            | 50          | 51.1     | 98  | 3                 | 81-122/14 |
| 108-86-1   | Bromobenzene                | ND                |                    | 50         | 43.3    | 87            | 50          | 45.1     | 90  | 4                 | 80-121/14 |
| 75-27-4    | Bromodichloromethane        | ND                |                    | 50         | 41.0    | 82            | 50          | 41.4     | 83  | 1                 | 79-123/19 |
| 75-25-2    | Bromoform                   | ND                |                    | 50         | 23.5    | 47*           | 50          | 24.9     | 50* | 6                 | 66-123/21 |
| 104-51-8   | n-Butylbenzene              | 0.30              | J                  | 50         | 46.1    | 92            | 50          | 48.4     | 96  | 5                 | 79-126/16 |
| 135-98-8   | sec-Butylbenzene            | 1.2               |                    | 50         | 45.8    | 89            | 50          | 47.6     | 93  | 4                 | 83-133/16 |
| 98-06-6    | tert-Butylbenzene           | 0.20              | J                  | 50         | 43.3    | 86            | 50          | 45.3     | 90  | 5                 | 80-133/16 |
| 56-23-5    | Carbon Tetrachloride        | ND                |                    | 50         | 51.4    | 103           | 50          | 52.7     | 105 | 2                 | 76-136/23 |
| 108-90-7   | Chlorobenzene               | ND                |                    | 50         | 43.5    | 87            | 50          | 44.6     | 89  | 2                 | 82-124/14 |
| 75-00-3    | Chloroethane                | 21.8              |                    | 50         | 65.5    | 87            | 50          | 66.0     | 88  | 1                 | 62-144/20 |
| 67-66-3    | Chloroform                  | ND                |                    | 50         | 46.4    | 93            | 50          | 48.1     | 96  | 4                 | 80-124/15 |
| 95-49-8    | o-Chlorotoluene             | ND                |                    | 50         | 44.3    | 89            | 50          | 45.1     | 90  | 2                 | 81-127/15 |
| 106-43-4   | p-Chlorotoluene             | ND                |                    | 50         | 44.6    | 89            | 50          | 46.2     | 92  | 4                 | 83-130/15 |
| 124-48-1   | Dibromochloromethane        | ND                |                    | 50         | 32.9    | 66*           | 50          | 34.5     | 69* | 5                 | 78-122/19 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                |                    | 50         | 42.8    | 86            | 50          | 43.3     | 87  | 1                 | 64-123/18 |
| 106-93-4   | 1,2-Dibromoethane           | ND                |                    | 50         | 43.9    | 88            | 50          | 44.5     | 89  | 1                 | 75-120/13 |
| 75-71-8    | Dichlorodifluoromethane     | ND                |                    | 50         | 48.8    | 98            | 50          | 47.1     | 94  | 4                 | 42-167/19 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                |                    | 50         | 44.1    | 88            | 50          | 46.5     | 93  | 5                 | 82-124/14 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                |                    | 50         | 45.0    | 90            | 50          | 47.0     | 94  | 4                 | 84-125/14 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                |                    | 50         | 43.0    | 86            | 50          | 43.8     | 88  | 2                 | 78-120/15 |
| 75-34-3    | 1,1-Dichloroethane          | 0.20              | J                  | 50         | 49.7    | 99            | 50          | 50.4     | 100 | 1                 | 81-122/15 |
| 107-06-2   | 1,2-Dichloroethane          | ND                |                    | 50         | 46.3    | 93            | 50          | 46.5     | 93  | 0                 | 75-125/14 |
| 75-35-4    | 1,1-Dichloroethylene        | ND                |                    | 50         | 52.5    | 105           | 50          | 53.0     | 106 | 1                 | 78-137/18 |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND                |                    | 50         | 47.5    | 95            | 50          | 49.1     | 98  | 3                 | 78-120/15 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.68              |                    | 50         | 48.8    | 96            | 50          | 50.3     | 99  | 3                 | 76-127/17 |
| 78-87-5    | 1,2-Dichloropropane         | ND                |                    | 50         | 46.5    | 93            | 50          | 47.7     | 95  | 3                 | 76-124/14 |
| 142-28-9   | 1,3-Dichloropropane         | ND                |                    | 50         | 42.2    | 84            | 50          | 42.9     | 86  | 2                 | 80-118/13 |
| 594-20-7   | 2,2-Dichloropropane         | ND                |                    | 50         | 51.3    | 103           | 50          | 52.7     | 105 | 3                 | 74-139/17 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                |                    | 50         | 38.0    | 76            | 50          | 38.4     | 77  | 1                 | 75-118/23 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                |                    | 50         | 39.1    | 78*           | 50          | 41.0     | 82  | 5                 | 80-120/22 |
| 100-41-4   | Ethylbenzene                | 0.24              | J                  | 50         | 45.3    | 90            | 50          | 46.9     | 93  | 3                 | 81-121/14 |
| 110-54-3   | Hexane                      | 0.38              | J                  | 50         | 49.6    | 98            | 50          | 50.8     | 101 | 2                 | 69-132/20 |
| 98-82-8    | Isopropylbenzene            | 26.4              |                    | 50         | 65.7    | 79*           | 50          | 67.4     | 82* | 3                 | 83-132/15 |
| 99-87-6    | p-Isopropyltoluene          | ND                |                    | 50         | 44.4    | 89            | 50          | 46.4     | 93  | 4                 | 79-130/16 |
| 74-83-9    | Methyl Bromide              | ND                |                    | 50         | 54.3    | 109           | 50          | 51.7     | 103 | 5                 | 59-143/19 |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample       | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| FA64743-1MS  | E099512.D | 5  | 06/12/19 | AB | n/a       | n/a        | VE2146           |
| FA64743-1MSD | E099513.D | 5  | 06/12/19 | AB | n/a       | n/a        | VE2146           |
| FA64743-1    | E099504.D | 1  | 06/12/19 | AB | n/a       | n/a        | VE2146           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-1, FA64743-2, FA64743-3, FA64743-4, FA64743-6, FA64743-10, FA64743-12, FA64743-18, FA64743-19, FA64743-20, FA64743-21, FA64743-22, FA64743-23, FA64743-24, FA64743-25, FA64743-26

| CAS No.  | Compound                    | FA64743-1<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|-----------------------------|-------------------|------------|------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 74-87-3  | Methyl Chloride             | 0.21              | J          | 50   | 51.2       | 102     | 50            | 51.0        | 102      | 0   | 50-159/19         |
| 74-95-3  | Methylene Bromide           | ND                |            | 50   | 47.4       | 95      | 50            | 47.6        | 95       | 0   | 78-119/14         |
| 75-09-2  | Methylene Chloride          | ND                |            | 50   | 49.0       | 98      | 50            | 50.1        | 100      | 2   | 69-135/16         |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND                |            | 250  | 218        | 87      | 250           | 220         | 88       | 1   | 66-122/16         |
| 103-65-1 | n-Propylbenzene             | 24.4              |            | 50   | 63.8       | 79*     | 50            | 65.7        | 83       | 3   | 82-133/15         |
| 100-42-5 | Styrene                     | ND                |            | 50   | 38.6       | 77*     | 50            | 39.8        | 80       | 3   | 78-119/23         |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND                |            | 50   | 43.0       | 86      | 50            | 44.7        | 89       | 4   | 77-122/19         |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND                |            | 50   | 45.3       | 91      | 50            | 46.5        | 93       | 3   | 72-120/14         |
| 127-18-4 | Tetrachloroethylene         | ND                |            | 50   | 47.3       | 95      | 50            | 48.6        | 97       | 3   | 76-135/16         |
| 108-88-3 | Toluene                     | 0.17              | J          | 50   | 45.1       | 90      | 50            | 46.7        | 93       | 3   | 80-120/14         |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND                |            | 50   | 41.9       | 84      | 50            | 45.9        | 92       | 9   | 73-129/20         |
| 71-55-6  | 1,1,1-Trichloroethane       | ND                |            | 50   | 48.5       | 97      | 50            | 49.8        | 100      | 3   | 75-130/16         |
| 79-00-5  | 1,1,2-Trichloroethane       | ND                |            | 50   | 44.6       | 89      | 50            | 45.5        | 91       | 2   | 76-119/14         |
| 79-01-6  | Trichloroethylene           | ND                |            | 50   | 45.8       | 92      | 50            | 46.3        | 93       | 1   | 81-126/15         |
| 75-69-4  | Trichlorofluoromethane      | ND                |            | 50   | 54.3       | 109     | 50            | 54.4        | 109      | 0   | 71-156/21         |
| 96-18-4  | 1,2,3-Trichloropropane      | ND                |            | 50   | 43.7       | 87      | 50            | 44.7        | 89       | 2   | 77-120/16         |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.20              | J          | 50   | 44.9       | 89      | 50            | 46.7        | 93       | 4   | 79-120/18         |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND                |            | 50   | 43.7       | 87      | 50            | 45.2        | 90       | 3   | 79-120/19         |
| 75-01-4  | Vinyl Chloride              | 0.26              | J          | 50   | 53.1       | 106     | 50            | 53.1        | 106      | 0   | 69-159/18         |
|          | m,p-Xylene                  | 0.14              | J          | 100  | 90.6       | 90      | 100           | 93.7        | 94       | 3   | 79-126/15         |
| 95-47-6  | o-Xylene                    | ND                |            | 50   | 44.8       | 90      | 50            | 46.5        | 93       | 4   | 80-127/14         |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA64743-1 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 100% | 100%      | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 104% | 100%      | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 99%  | 97%       | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%  | 98%  | 100%      | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA64743  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|-----|----------|----|-----------|------------|------------------|
| FA64743-24MS            | E099534.D | 10  | 06/13/19 | AB | n/a       | n/a        | VE2147           |
| FA64743-24MSD           | E099535.D | 10  | 06/13/19 | AB | n/a       | n/a        | VE2147           |
| FA64743-24 <sup>a</sup> | E099533.D | 2.5 | 06/13/19 | AB | n/a       | n/a        | VE2147           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA64743-20, FA64743-24, FA64743-25

| CAS No.  | Compound                 | FA64743-24<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|--------------------------|--------------------|--------------------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 75-00-3  | Chloroethane             | 44.7               | 100                | 120        | 75      | 100           | 135         | 90       | 12  | 62-144/20         |
| 156-59-2 | cis-1,2-Dichloroethylene | 60.0               | 100                | 154        | 94      | 100           | 157         | 97       | 2   | 78-120/15         |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA64743-24 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100% | 101% | 105%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 104% | 109%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%  | 101% | 97%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 97%  | 98%  | 98%        | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

\* = Outside of Control Limits.



The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Univar

ERMORP: Univar; 8201 S 212th St, Kent, WA

SGS Job Number: FA67623

Sampling Dates: 08/26/19 - 08/28/19

Report to:

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ATTN: Dylan Stankus

Total number of pages in report: **79**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Caitlin Brice".

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General Manager

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AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.

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## Sample Summary

Univar

**Job No:** FA67623

ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|---------|----------|-------------|------|------------------|
|---------------|----------------|---------|----------|-------------|------|------------------|

This report contains results reported as ND = Not detected. The following applies:  
 Organics ND = Not detected above the MDL

|             |          |       |    |          |    |                    |              |
|-------------|----------|-------|----|----------|----|--------------------|--------------|
| FA67623-1   | 08/26/19 | 11:01 | AL | 08/29/19 | AQ | Ground Water       | MW-19-082619 |
| FA67623-2   | 08/26/19 | 12:18 | AL | 08/29/19 | AQ | Ground Water       | MW-03-082619 |
| FA67623-3   | 08/26/19 | 13:35 | AL | 08/29/19 | AQ | Ground Water       | MW-07-082619 |
| FA67623-4   | 08/26/19 | 14:55 | AL | 08/29/19 | AQ | Ground Water       | MW-23-082619 |
| FA67623-5   | 08/26/19 | 16:02 | AL | 08/29/19 | AQ | Ground Water       | MW-10-082619 |
| FA67623-6   | 08/27/19 | 09:04 | AL | 08/29/19 | AQ | Ground Water       | MW-08-082719 |
| FA67623-7   | 08/27/19 | 10:05 | AL | 08/29/19 | AQ | Ground Water       | MW-09-082719 |
| FA67623-8   | 08/27/19 | 11:21 | AL | 08/29/19 | AQ | Ground Water       | MW-05-082719 |
| FA67623-9   | 08/27/19 | 12:24 | AL | 08/29/19 | AQ | Ground Water       | MW-12-082719 |
| FA67623-10  | 08/27/19 | 13:44 | AL | 08/29/19 | AQ | Ground Water       | MW-04-082719 |
| FA67623-10D | 08/27/19 | 13:44 | AL | 08/29/19 | AQ | Water Dup/MSD      | MW-04-082719 |
| FA67623-10S | 08/27/19 | 13:44 | AL | 08/29/19 | AQ | Water Matrix Spike | MW-04-082719 |



## Sample Summary

(continued)

Univar

**Job No:** FA67623

ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample Number | Collected |          | Received | Matrix |                  | Client Sample ID |
|---------------|-----------|----------|----------|--------|------------------|------------------|
|               | Date      | Time By  |          | Code   | Type             |                  |
| FA67623-11    | 08/27/19  | 15:35 AL | 08/29/19 | AQ     | Ground Water     | MW-01-082719     |
| FA67623-12    | 08/28/19  | 08:11 AL | 08/29/19 | AQ     | Ground Water     | MW-20-082819     |
| FA67623-13    | 08/28/19  | 08:58 AL | 08/29/19 | AQ     | Ground Water     | MW-27-082819     |
| FA67623-14    | 08/28/19  | 10:00 AL | 08/29/19 | AQ     | Ground Water     | MW-28-082819     |
| FA67623-15    | 08/28/19  | 11:12 AL | 08/29/19 | AQ     | Ground Water     | MW-14-082819     |
| FA67623-16    | 08/28/19  | 12:25 AL | 08/29/19 | AQ     | Ground Water     | MW-13-082819     |
| FA67623-17    | 08/28/19  | 13:47 AL | 08/29/19 | AQ     | Ground Water     | MW-17-082819     |
| FA67623-18    | 08/28/19  | 14:50 AL | 08/29/19 | AQ     | Ground Water     | MW-18-082819     |
| FA67623-19    | 08/28/19  | 15:42 AL | 08/29/19 | AQ     | Ground Water     | MW-22-082819     |
| FA67623-20    | 08/28/19  | 16:30 AL | 08/29/19 | AQ     | Ground Water     | DUP-02-082819    |
| FA67623-21    | 08/26/19  | 00:00 AL | 08/29/19 | AQ     | Trip Blank Water | TRIP BLANK       |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Univar

**Job No:** FA67623

**Site:** ERMORP: Univar; 8201 S 212th St, Kent, WA

**Report Date:** 9/7/2019 6:15:17 PM

20 Samples and 1 Trip Blank were collected on between 08/26/2019 and 08/28/2019 and were received at SGS North America Inc - Orlando on 08/29/2019 properly preserved, at 2.6 Deg. C and intact. These Samples received an SGS Orlando job number of FA67623. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VE2197

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA67623-10MS, FA67623-10MSD were used as the QC samples indicated.

Sample(s) FA67623-8, FA67623-9 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for cis-1,3-Dichloropropene, Styrene, Chloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix Spike Duplicate Recovery(s) for Chloroethane, cis-1,3-Dichloropropene, Styrene, trans-1,3-Dichloropropene are outside control limits. Probable cause is due to matrix interference.

RPD(s) for MSD for Chloroethane are outside control limits for sample FA67623-10MSD. Probable cause is due to sample non-homogeneity.

FA67623-9 for Methylene Chloride: Suspected laboratory contaminant.

FA67623-8 for Methylene Chloride: Suspected laboratory contaminant.

**Matrix:** AQ

**Batch ID:** VE2198

All samples were analyzed within the recommended method holding time.

Sample(s) FA67623-13MS, FA67623-13MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) FA67623-11, FA67623-12, FA67623-16, FA67623-17, FA67623-19, FA67623-20 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for Bromoform are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform are outside control limits. Probable cause is due to matrix interference.

FA67623-12: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-16: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-18: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-20: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-17: Sample was not preserved to a pH < 2. Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

**Matrix:** AQ

**Batch ID:** VE2199

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA67623-16MS, FA67623-16MSD were used as the QC samples indicated.

Sample(s) FA67623-17, FA67623-20 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for 1,2,4-Trimethylbenzene, Bromoform, Chloroethane, Dibromochloromethane are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, Chloroethane are outside control limits. Probable cause is due to matrix interference.

FA67623-16: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-17: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67623-20: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Jenna Kravitz, Client Services (Signature on File)



## Laboratory Report Glossary

**Client Sample ID:** Normally refers to a point of collection – a monitoring well, discharge outfall, treatment facility intake, soil core grid location and depth, or any other identification client assigns to a sample.

**Lab Sample ID:** Letter prefix identifies one of the SGS laboratories and the rest is a consecutive number of the job (or SDG) received. Number after dash is a sample number and it is unequivocally linked in the LIMS to the Client Sample ID (see above).

**Matrix (Matrix Code):**

- **AQ- Water Samples**
- **SO- Soil/Solid Samples**
- **LIQ- Non-Water Liquid Samples**
- **OIL- Oil Samples**

**Matrix Type:**

- **SW for Surface Water**
- **SO for Soil/Sediment**
- **GW for Ground Water**
- **DW for Drinking Water**

All available definitions are found on Chain of Custody form.

**Deg. C:** Degrees Celsius, measurement of temperature.

**Method:** Analytical and preparation methods used for the analysis, with the version or revision identified.

**Date Sampled:** This information is entered from Chain of Custody at the time of login for every sample.

**Date Received:** When the job was received by one of the SGS Laboratories.

**Percent Solids:** Applicable only to SO matrix. For other matrices this field defaults to “n/a”.

**Run #:** Provides information how many attempts were made in the analysis of the sample. LIMS can merge information from several attempts and lists all of them, including dilution, confirmation, etc. #1 designation is assigned to the analytical run with majority of analytes reported from it, not necessarily in chronological order.

**File ID:** Actual instrument data acquisition file that produced the result. Letter prefix identifies the instrument; the rest is a consecutive injection number for that instrument.

**DF (Dilution Factor):** Most common reasons are either to fit into the range of the calibration or alleviate matrix interference. DF other than 1 are accompanied with a comment at the end of the sample report.

**Analyzed:** Date of analysis.

**By:** Field Technician or Analyst uniquely identified by initials.

**Prep Date:** Date of sample preparation. If hold time is 72 hours or less, time of preparation is also indicated.

**Prep Batch:** Letter prefix OP followed by a consecutive number. For VOC analysis preparation happens at the time of analysis, therefore analytical batch and preparation batch are the same. Size of prep batch is limited to 20 field samples of similar matrix and the entire batch should be completed within 12-hour time.

**Analytical Batch:** Letter prefix identifies the instrument and is followed by a consecutive number. Not limited by a number of samples.

**Initial Weight or Initial Volume:** Raw sample size used for preparation.

**Final Volume:** Final volume of extract. If different from method-prescribed volume, reasons are reflected in the comments at the end of the report form.

**CAS Number:** *Chemical Abstracts Service* (CAS), a division of the *American Chemical Society*.

**Compound:** Most commonly used names of chemical compounds.

**Result:** Depending on project requirements, this field could be set up as text, such as ND (for Non-Detected) or a number. The number may be reported with a qualifier.

**MDL (Method Detection Limit):** This value is defined as 99% probability that analyte above this concentration is positively (qualitatively) identified.

**RL (Reporting Limit):** This value is supported by the low calibration standard and defines lowest point of quantitative identification of analyte.

**DL (Detection Limit):** The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%.

**LOD (Limit of Detection):** The smallest concentration of a substance that must be present in a sample to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%.

**LOQ (Limit of Quantitation):** The smallest concentration that produces a quantitative result with known and recorded precision and bias.

**Units:** ug/l (micrograms per liter) for aqueous samples and ug/kg (micrograms per kilogram) for solids (or ppb – parts per billion). The units could be set according to project or state-specific requirements, such as mg/l (milligrams per liter), or mg/kg (milligrams per kilogram).

**Qualifiers (Q):** Definitions of most often used qualifiers are found at the bottom of each result page. Applied depending on the program – state-specific (Florida A.C. 62-160), CLP-like, AFCEE, DOD QSM, etc.

**Tentatively Identified Compound (TIC):** Used when client requests a search for analytes that are not part of instrument calibration. Unknown peaks are compared with published spectral libraries and best match is reported as TIC.

**Surrogate (S1, S2, S3 etc.):** are positive controls that are used in most organics methods to ascertain preparation efficiency and matrix effect in individual samples. These chemicals mimic common method constituents but are unlikely to be found in real samples. Recoveries can be reported for every analytical run used in the analysis.

**IS (Internal Standard IS1, IS2, IS3, etc):** quantitative reference used to adjust for instrument performance fluctuations.

**Area (of chromatographic peak):** signal intensity directly related to compound concentration.

**RT (Retention Time):** time required for analyte to traverse the length of analytical column. Used for compound identification.

**ICAL (Initial Calibration):** Must pass calibration criteria established by method.

**ICV (Independent Calibration Verification):** Used to verify ICAL preparation and concentration of calibration points.

**CCV (Continuing Calibration Verification):** Used to assess calibration status of the instrument and must recover within established acceptance criteria.

**MB (Method Blank):** is a negative batch control. MB is an aliquot of matrix free of analyte of interest (either ASTM Type II water or appropriate solid substance) that is put through all the preparation and possible clean-up steps alongside investigative (field) samples. MB should be free of interferences above a set level.

**BS (Blank Spike, Laboratory Fortified Blank - LFB, Laboratory Control Sample - LCS):** is a positive control used to determine method accuracy - in clean matrix, i.e. matrix free of analytes of interest.

**BSD (Blank Spike Duplicate):** Used to assess recovery reproducibility - method precision – per analytical method requirement. %Recovery and Relative Percent Difference (%RPD) are compared with the established acceptance criteria.

**MS and/or MSD (Matrix Spike and Matrix Spike Duplicate):** positive batch controls which indicate matrix effect on the precision and accuracy of the method in given sample matrix. Results are expressed in %Recovery and Relative Percent Difference (%RPD) and compared with the established acceptance criteria.

**DUP (Matrix Duplicate):** Positive batch control, a way of assessing laboratory's precision; however, the composition of the samples is unknown and may not yield meaningful results.

**REC (Recovery in Percent):** expresses method accuracy.

**RPD (Relative Percent Difference):** expresses method precision.

**Limits:** Recovery limits for surrogates and spikes



## Summary of Hits

**Job Number:** FA67623  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/26/19 thru 08/28/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**FA67623-1 MW-19-082619**

|                        |        |      |      |      |             |
|------------------------|--------|------|------|------|-------------|
| Benzene                | 0.38 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane           | 1.0    | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane     | 0.19 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Ethylbenzene           | 5.3    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Hexane                 | 1.0    | 1.0  | 0.20 | ug/l | SW846 8260B |
| Isopropylbenzene       | 0.54   | 0.50 | 0.13 | ug/l | SW846 8260B |
| n-Propylbenzene        | 0.55   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                | 0.22 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene | 4.3    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride         | 0.18 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene             | 0.38 J | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene               | 0.32 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-2 MW-03-082619**

|                            |        |      |      |      |             |
|----------------------------|--------|------|------|------|-------------|
| Benzene                    | 0.29 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane               | 1.5    | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane         | 0.36 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   | 0.86   | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 0.27 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             | 0.57   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-3 MW-07-082619**

|                     |        |      |      |      |             |
|---------------------|--------|------|------|------|-------------|
| Tetrachloroethylene | 3.1    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene   | 0.28 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-4 MW-23-082619**

|                          |        |      |      |      |             |
|--------------------------|--------|------|------|------|-------------|
| cis-1,2-Dichloroethylene | 0.22 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Tetrachloroethylene      | 7.9    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene        | 0.89   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride           | 0.13 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-5 MW-10-082619**

No hits reported in this sample.

**FA67623-6 MW-08-082719**

|                            |        |      |      |      |             |
|----------------------------|--------|------|------|------|-------------|
| 1,1-Dichloroethylene       | 1.3    | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   | 2.9    | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 0.34 J | 0.50 | 0.13 | ug/l | SW846 8260B |

## Summary of Hits

**Job Number:** FA67623  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/26/19 thru 08/28/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

|  |  |        |      |      |      |             |
|--|--|--------|------|------|------|-------------|
|  |  | 0.29 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 14.5   | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.37 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-7 MW-09-082719**

|  |  |        |      |      |      |             |
|--|--|--------|------|------|------|-------------|
|  |  | 0.56   | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.43 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.28 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.46 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-8 MW-05-082719**

|  |  |       |     |      |      |             |
|--|--|-------|-----|------|------|-------------|
|  |  | 34.2  | 2.5 | 0.63 | ug/l | SW846 8260B |
|  |  | 6.4 J | 10  | 5.0  | ug/l | SW846 8260B |
|  |  | 118   | 2.5 | 0.63 | ug/l | SW846 8260B |
|  |  | 37.9  | 2.5 | 0.63 | ug/l | SW846 8260B |

**FA67623-9 MW-12-082719**

|  |  |        |     |     |      |             |
|--|--|--------|-----|-----|------|-------------|
|  |  | 252    | 5.0 | 1.3 | ug/l | SW846 8260B |
|  |  | 1.3 J  | 5.0 | 1.3 | ug/l | SW846 8260B |
|  |  | 13.6 J | 20  | 10  | ug/l | SW846 8260B |
|  |  | 29.0   | 5.0 | 1.3 | ug/l | SW846 8260B |
|  |  | 10.1   | 5.0 | 1.3 | ug/l | SW846 8260B |
|  |  | 10     | 5.0 | 1.3 | ug/l | SW846 8260B |

**FA67623-10 MW-04-082719**

|  |  |        |      |      |      |             |
|--|--|--------|------|------|------|-------------|
|  |  | 2.4    | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.33 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 1.2    | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.18 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 30.0   | 0.50 | 0.20 | ug/l | SW846 8260B |
|  |  | 0.29 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.78   | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.25 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.64 J | 1.0  | 0.20 | ug/l | SW846 8260B |
|  |  | 22.4   | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 17.0   | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.26 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.47 J | 0.50 | 0.13 | ug/l | SW846 8260B |
|  |  | 0.37 J | 1.0  | 0.13 | ug/l | SW846 8260B |



## Summary of Hits

**Job Number:** FA67623  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/26/19 thru 08/28/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**FA67623-11 MW-01-082719**

|                            |        |      |      |      |             |
|----------------------------|--------|------|------|------|-------------|
| Benzene                    | 0.19 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| n-Butylbenzene             | 0.30 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| sec-Butylbenzene           | 0.46 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane               | 52.7   | 2.5  | 1.0  | ug/l | SW846 8260B |
| 1,1-Dichloroethane         | 46.7   | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene   | 2.0    | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 0.39 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Ethylbenzene               | 0.31 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Isopropylbenzene           | 7.2    | 0.50 | 0.13 | ug/l | SW846 8260B |
| p-Isopropyltoluene         | 0.25 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methylene Chloride         | 1.7 J  | 2.0  | 1.0  | ug/l | SW846 8260B |
| n-Propylbenzene            | 8.2    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Tetrachloroethylene        | 0.45 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Toluene                    | 0.27 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1,1-Trichloroethane      | 0.71   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Trichloroethylene          | 2.5    | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene     | 4.4    | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride             | 0.79   | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                 | 0.54 J | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                   | 4.3    | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-12 MW-20-082819**

|                           |        |      |      |      |             |
|---------------------------|--------|------|------|------|-------------|
| Benzene                   | 14.5   | 0.50 | 0.13 | ug/l | SW846 8260B |
| Chloroethane <sup>b</sup> | 234    | 5.0  | 2.0  | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene  | 0.14 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Methylene Chloride        | 1.1 J  | 2.0  | 1.0  | ug/l | SW846 8260B |
| Toluene                   | 0.51   | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene    | 0.17 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| m,p-Xylene                | 0.87 J | 1.0  | 0.13 | ug/l | SW846 8260B |
| o-Xylene                  | 0.82   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-13 MW-27-082819**

|                          |        |      |      |      |             |
|--------------------------|--------|------|------|------|-------------|
| Benzene                  | 0.20 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| 1,1-Dichloroethane       | 0.42 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene | 0.24 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride           | 0.30 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67623-14 MW-28-082819**

No hits reported in this sample.

## Summary of Hits

**Job Number:** FA67623  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/26/19 thru 08/28/19



| Lab Sample ID     | Client Sample ID    | Result/<br>Analyte                      | RL     | MDL  | Units | Method |             |
|-------------------|---------------------|---|--------|------|-------|--------|-------------|
| <b>FA67623-15</b> | <b>MW-14-082819</b> |   |        |      |       |        |             |
|                   |                     | Chloroethane                            | 0.33 J | 0.50 | 0.20  | ug/l   | SW846 8260B |
| <b>FA67623-16</b> | <b>MW-13-082819</b> |   |        |      |       |        |             |
|                   |                     | Benzene <sup>b</sup>                    | 0.52   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | sec-Butylbenzene <sup>b</sup>           | 0.31 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Chloroethane <sup>b</sup>               | 33.7   | 1.3  | 0.50  | ug/l   | SW846 8260B |
|                   |                     | Chloroform <sup>b</sup>                 | 0.24 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | o-Chlorotoluene <sup>b</sup>            | 0.68   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | 1,1-Dichloroethane <sup>b</sup>         | 0.26 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | 1,2-Dichloroethane <sup>b</sup>         | 0.20 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | cis-1,2-Dichloroethylene <sup>b</sup>   | 0.83   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | trans-1,2-Dichloroethylene <sup>b</sup> | 1.0    | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Ethylbenzene <sup>b</sup>               | 4.3    | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Hexane <sup>b</sup>                     | 2.1    | 1.0  | 0.20  | ug/l   | SW846 8260B |
|                   |                     | Isopropylbenzene <sup>b</sup>           | 7.6    | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | n-Propylbenzene <sup>b</sup>            | 13.3   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Toluene <sup>b</sup>                    | 0.82   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | 1,2,4-Trimethylbenzene <sup>b</sup>     | 44.7   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | 1,3,5-Trimethylbenzene <sup>b</sup>     | 5.7    | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Vinyl Chloride <sup>b</sup>             | 0.59   | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | m,p-Xylene <sup>b</sup>                 | 73.5   | 1.0  | 0.13  | ug/l   | SW846 8260B |
|                   |                     | o-Xylene <sup>b</sup>                   | 0.41 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA67623-17</b> | <b>MW-17-082819</b> |   |        |      |       |        |             |
|                   |                     | Benzene <sup>b</sup>                    | 9.3    | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                     | Chloroethane <sup>c</sup>               | 171    | 5.0  | 2.0   | ug/l   | SW846 8260B |
|                   |                     | Toluene <sup>b</sup>                    | 0.82 J | 2.5  | 0.63  | ug/l   | SW846 8260B |
|                   |                     | m,p-Xylene <sup>b</sup>                 | 1.4 J  | 5.0  | 0.63  | ug/l   | SW846 8260B |
| <b>FA67623-18</b> | <b>MW-18-082819</b> |   |        |      |       |        |             |
|                   |                     | Chloroethane <sup>b</sup>               | 1.0    | 0.50 | 0.20  | ug/l   | SW846 8260B |
|                   |                     | cis-1,2-Dichloroethylene <sup>b</sup>   | 0.21 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | 1,2,4-Trimethylbenzene <sup>b</sup>     | 0.15 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
|                   |                     | Vinyl Chloride <sup>b</sup>             | 0.21 J | 0.50 | 0.13  | ug/l   | SW846 8260B |
| <b>FA67623-19</b> | <b>MW-22-082819</b> |   |        |      |       |        |             |
|                   |                     | Benzene                                 | 0.52 J | 1.3  | 0.31  | ug/l   | SW846 8260B |
|                   |                     | Chloroethane                            | 33.0   | 1.3  | 0.50  | ug/l   | SW846 8260B |
|                   |                     | 1,1-Dichloroethane                      | 0.58 J | 1.3  | 0.31  | ug/l   | SW846 8260B |





Sample Results

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Report of Analysis

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# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-19-082619                     | <b>Date Sampled:</b> 08/26/19  |
| <b>Lab Sample ID:</b> FA67623-1                           | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100648.D | 1  | 09/03/19 12:46 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.38   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 1.0    | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.19   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 5.3    | 0.50 | 0.13 | ug/l  |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound





## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-03-082619                     | <b>Date Sampled:</b> 08/26/19  |
| <b>Lab Sample ID:</b> FA67623-2                           | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100649.D | 1  | 09/03/19 13:11 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.29   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 1.5    | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.36   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.86   | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.27   | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound











## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-23-082619                     | <b>Date Sampled:</b> 08/26/19  |
| <b>Lab Sample ID:</b> FA67623-4                           | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100651.D | 1  | 09/03/19 14:00 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.22   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-23-082619                     |  | <b>Date Sampled:</b> 08/26/19  |
| <b>Lab Sample ID:</b> FA67623-4                           |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

**VOA Special List**

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | 7.9    | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 0.89   | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.13   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 103%   |        | 83-118% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-10-082619                     | <b>Date Sampled:</b> 08/26/19  |
| <b>Lab Sample ID:</b> FA67623-5                           | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100652.D | 1  | 09/03/19 14:25 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-10-082619                              | <b>Date Sampled:</b>   | 08/26/19 |
| <b>Lab Sample ID:</b>    | FA67623-5                                 | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 92%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-08-082719                     |  | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67623-6                           |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

### VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | 0.29   | 0.50 | 0.13 | ug/l  | J |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 14.5   | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.37   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 96%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 105%   |        | 83-118% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-09-082719                              | <b>Date Sampled:</b>   | 08/27/19 |
| <b>Lab Sample ID:</b>    | FA67623-7                                 | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.46   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-05-082719                     |  | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67623-8                           |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100655.D | 5  | 09/03/19 15:38 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL  | Units | Q |
|------------|-----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 50  | 10   | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 2.5 | 0.63 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 2.5 | 0.63 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 2.5 | 0.63 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 2.5 | 0.63 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 2.5 | 1.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 2.5 | 0.63 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 2.5 | 0.63 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 2.5 | 0.63 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.5 | 0.63 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.5 | 1.2  | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 2.5 | 1.0  | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 2.5 | 0.63 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 2.5 | 0.63 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 34.2   | 2.5 | 0.63 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 2.5 | 0.63 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.5 | 0.63 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.5 | 0.63 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 2.5 | 0.63 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-05-082719                              | <b>Date Sampled:</b>   | 08/27/19 |
| <b>Lab Sample ID:</b>    | FA67623-8                                 | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                        | Result | RL  | MDL  | Units | Q |
|----------|---------------------------------|--------|-----|------|-------|---|
| 110-54-3 | Hexane                          | ND     | 5.0 | 1.0  | ug/l  |   |
| 98-82-8  | Isopropylbenzene                | ND     | 2.5 | 0.63 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene              | ND     | 2.5 | 0.63 | ug/l  |   |
| 74-83-9  | Methyl Bromide                  | ND     | 2.5 | 1.0  | ug/l  |   |
| 74-87-3  | Methyl Chloride                 | ND     | 2.5 | 1.0  | ug/l  |   |
| 74-95-3  | Methylene Bromide               | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-09-2  | Methylene Chloride <sup>a</sup> | 6.4    | 10  | 5.0  | ug/l  | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)     | ND     | 13  | 6.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                 | ND     | 2.5 | 0.63 | ug/l  |   |
| 100-42-5 | Styrene                         | ND     | 2.5 | 0.63 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane       | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane       | ND     | 2.5 | 0.63 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene             | 118    | 2.5 | 0.63 | ug/l  |   |
| 108-88-3 | Toluene                         | ND     | 2.5 | 0.63 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene          | ND     | 2.5 | 0.63 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane           | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane           | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-01-6  | Trichloroethylene               | 37.9   | 2.5 | 0.63 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane          | ND     | 2.5 | 1.0  | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane          | ND     | 2.5 | 0.63 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene          | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene          | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                  | ND     | 2.5 | 0.63 | ug/l  |   |
|          | m,p-Xylene                      | ND     | 5.0 | 0.63 | ug/l  |   |
| 95-47-6  | o-Xylene                        | ND     | 2.5 | 0.63 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

(a) Suspected laboratory contaminant.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-12-082719                     | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67623-9                           | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100656.D | 10 | 09/03/19 16:03 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL | Units | Q |
|------------|-----------------------------|--------|-----|-----|-------|---|
| 67-64-1    | Acetone                     | ND     | 100 | 20  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 5.0 | 1.3 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 5.0 | 1.3 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 5.0 | 1.3 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 5.0 | 1.3 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 5.0 | 1.3 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 5.0 | 1.3 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 5.0 | 2.0 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 5.0 | 1.3 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 5.0 | 1.3 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 5.0 | 1.3 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 5.0 | 1.3 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 5.0 | 2.5 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 5.0 | 2.0 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 5.0 | 1.3 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 5.0 | 1.3 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 5.0 | 1.3 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 5.0 | 1.3 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 252    | 5.0 | 1.3 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.3    | 5.0 | 1.3 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 5.0 | 1.3 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 5.0 | 1.3 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 5.0 | 1.3 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 5.0 | 1.3 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 5.0 | 1.3 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 5.0 | 1.3 | ug/l  |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-12-082719                              | <b>Date Sampled:</b>   | 08/27/19 |
| <b>Lab Sample ID:</b>    | FA67623-9                                 | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                        | Result | RL  | MDL | Units | Q |
|----------|---------------------------------|--------|-----|-----|-------|---|
| 110-54-3 | Hexane                          | ND     | 10  | 2.0 | ug/l  |   |
| 98-82-8  | Isopropylbenzene                | ND     | 5.0 | 1.3 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene              | ND     | 5.0 | 1.3 | ug/l  |   |
| 74-83-9  | Methyl Bromide                  | ND     | 5.0 | 2.0 | ug/l  |   |
| 74-87-3  | Methyl Chloride                 | ND     | 5.0 | 2.0 | ug/l  |   |
| 74-95-3  | Methylene Bromide               | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-09-2  | Methylene Chloride <sup>a</sup> | 13.6   | 20  | 10  | ug/l  | J |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK)     | ND     | 25  | 13  | ug/l  |   |
| 103-65-1 | n-Propylbenzene                 | ND     | 5.0 | 1.3 | ug/l  |   |
| 100-42-5 | Styrene                         | ND     | 5.0 | 1.3 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane       | ND     | 5.0 | 1.3 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane       | ND     | 5.0 | 1.3 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene             | 29.0   | 5.0 | 1.3 | ug/l  |   |
| 108-88-3 | Toluene                         | ND     | 5.0 | 1.3 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene          | ND     | 5.0 | 1.3 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane           | ND     | 5.0 | 1.3 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane           | ND     | 5.0 | 1.3 | ug/l  |   |
| 79-01-6  | Trichloroethylene               | 10.1   | 5.0 | 1.3 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane          | ND     | 5.0 | 2.0 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane          | ND     | 5.0 | 1.3 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene          | ND     | 5.0 | 1.3 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene          | ND     | 5.0 | 1.3 | ug/l  |   |
| 75-01-4  | Vinyl Chloride                  | 10     | 5.0 | 1.3 | ug/l  |   |
|          | m,p-Xylene                      | ND     | 10  | 1.3 | ug/l  |   |
| 95-47-6  | o-Xylene                        | ND     | 5.0 | 1.3 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

(a) Suspected laboratory contaminant.

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-04-082719                     |  | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67623-10                          |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100647.D | 1  | 09/03/19 12:22 | AB | n/a       | n/a        | VE2197           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 2.4    | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | 0.33   | 0.50 | 0.13 | ug/l  | J |
| 135-98-8   | sec-Butylbenzene            | 1.2    | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | 0.18   | 0.50 | 0.13 | ug/l  | J |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 30.0   | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.29   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.78   | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 0.25   | 0.50 | 0.13 | ug/l  | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-04-082719                              | <b>Date Sampled:</b>   | 08/27/19 |
| <b>Lab Sample ID:</b>    | FA67623-10                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | 0.64   | 1.0  | 0.20 | ug/l  | J |
| 98-82-8  | Isopropylbenzene            | 22.4   | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 17.0   | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.26   | 0.50 | 0.13 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.47   | 0.50 | 0.13 | ug/l  | J |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | 0.37   | 1.0  | 0.13 | ug/l  | J |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 96%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 103%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-01-082719                     |  | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67623-11                          |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #  | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100657.D | 1  | 09/03/19 16:27 | AB | n/a       | n/a        | VE2197           |
| Run #2 | E100672.D | 5  | 09/05/19 12:03 | AB | n/a       | n/a        | VE2198           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result            | RL   | MDL  | Units | Q |
|------------|-----------------------------|-------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND                | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.19              | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | 0.30              | 0.50 | 0.13 | ug/l  | J |
| 135-98-8   | sec-Butylbenzene            | 0.46              | 0.50 | 0.13 | ug/l  | J |
| 98-06-6    | tert-Butylbenzene           | ND                | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 52.7 <sup>a</sup> | 2.5  | 1.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND                | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND                | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 46.7              | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND                | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 2.0               | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.39              | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 0.31              | 0.50 | 0.13 | ug/l  | J |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound





# Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-20-082819                     | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-12                          | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1              | E100658.D | 1  | 09/03/19 16:52 | AB | n/a       | n/a        | VE2197           |
| Run #2 <sup>a</sup> | E100673.D | 10 | 09/05/19 12:28 | AB | n/a       | n/a        | VE2198           |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result           | RL   | MDL  | Units | Q |
|------------|-----------------------------|------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND               | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 14.5             | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND               | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND               | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND               | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND               | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND               | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 234 <sup>b</sup> | 5.0  | 2.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND               | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND               | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND               | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND               | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND               | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.14             | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound





## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-27-082819                     | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-13                          | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100671.D | 1  | 09/05/19 11:39 | AB | n/a       | n/a        | VE2198           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.20   | 0.50 | 0.13 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.42   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.24   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-27-082819                              | <b>Date Sampled:</b>   | 08/28/19 |
| <b>Lab Sample ID:</b>    | FA67623-13                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.30   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 94%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-28-082819                              | <b>Date Sampled:</b>   | 08/28/19 |
| <b>Lab Sample ID:</b>    | FA67623-14                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound









## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-13-082819                     |  | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-16                          |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

|                     | File ID   | DF  | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|-----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E100697.D | 1   | 09/06/19 10:46 | AB | n/a       | n/a        | VE2199           |
| Run #2 <sup>a</sup> | E100676.D | 2.5 | 09/05/19 13:41 | AB | n/a       | n/a        | VE2198           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result            | RL   | MDL  | Units | Q |
|------------|-----------------------------|-------------------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND                | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.52              | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND                | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND                | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | 0.31              | 0.50 | 0.13 | ug/l  | J |
| 98-06-6    | tert-Butylbenzene           | ND                | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND                | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 33.7 <sup>b</sup> | 1.3  | 0.50 | ug/l  |   |
| 67-66-3    | Chloroform                  | 0.24              | 0.50 | 0.13 | ug/l  | J |
| 95-49-8    | o-Chlorotoluene             | 0.68              | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND                | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND                | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND                | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.26              | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | 0.20              | 0.50 | 0.13 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene        | ND                | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.83              | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.0               | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 4.3               | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-13-082819                              | <b>Date Sampled:</b>   | 08/28/19 |
| <b>Lab Sample ID:</b>    | FA67623-16                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | 2.1    | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | 7.6    | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 13.3   | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.82   | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 44.7   | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 5.7    | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.59   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | 73.5   | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 0.41   | 0.50 | 0.13 | ug/l  | J |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   | 107%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   | 111%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    | 95%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   | 98%    | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-17-082819                              | <b>Date Sampled:</b>   | 08/28/19 |
| <b>Lab Sample ID:</b>    | FA67623-17                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

|                     | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E100699.D | 5  | 09/06/19 11:34 | AB | n/a       | n/a        | VE2199           |
| Run #2 <sup>b</sup> | E100677.D | 10 | 09/05/19 14:05 | AB | n/a       | n/a        | VE2198           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 | 10.0 ml      |

## VOA Special List

| CAS No.    | Compound                    | Result           | RL  | MDL  | Units | Q |
|------------|-----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                     | ND               | 50  | 10   | ug/l  |   |
| 71-43-2    | Benzene                     | 9.3              | 2.5 | 0.63 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND               | 2.5 | 0.63 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND               | 2.5 | 0.63 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND               | 2.5 | 0.63 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND               | 2.5 | 0.63 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND               | 2.5 | 0.63 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-00-3    | Chloroethane                | 171 <sup>c</sup> | 5.0 | 2.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND               | 2.5 | 0.63 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND               | 2.5 | 0.63 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND               | 2.5 | 0.63 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND               | 2.5 | 0.63 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 2.5 | 1.2  | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 2.5 | 1.0  | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 2.5 | 0.63 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 2.5 | 0.63 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND               | 2.5 | 0.63 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND               | 2.5 | 0.63 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 2.5 | 0.63 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND               | 2.5 | 0.63 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               | 2.5 | 0.63 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 2.5 | 0.63 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 2.5 | 0.63 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 2.5 | 0.63 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 2.5 | 0.63 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 2.5 | 0.63 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND               | 2.5 | 0.63 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound







## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-18-082819                     |  | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-18                          |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

**VOA Special List**

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.15   | 0.50 | 0.13 | ug/l  | J |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.21   | 0.50 | 0.13 | ug/l  | J |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.18  
4



## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-22-082819                     | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-19                          | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF  | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|-----|----------------|----|-----------|------------|------------------|
| Run #1 | E100683.D | 2.5 | 09/05/19 16:31 | AB | n/a       | n/a        | VE2198           |
| Run #2 |           |     |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL  | Units | Q |
|------------|-----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 25  | 5.0  | ug/l  |   |
| 71-43-2    | Benzene                     | 0.52   | 1.3 | 0.31 | ug/l  | J |
| 108-86-1   | Bromobenzene                | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 1.3 | 0.31 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 1.3 | 0.31 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 1.3 | 0.31 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 1.3 | 0.31 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 1.3 | 0.31 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-00-3    | Chloroethane                | 33.0   | 1.3 | 0.50 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 1.3 | 0.31 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 1.3 | 0.31 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 1.3 | 0.31 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 1.3 | 0.31 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 1.3 | 0.62 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 1.3 | 0.50 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.58   | 1.3 | 0.31 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 1.3 | 0.31 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 92.3   | 1.3 | 0.31 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 2.1    | 1.3 | 0.31 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 1.3 | 0.31 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 1.3 | 0.31 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 1.3 | 0.31 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 0.59   | 1.3 | 0.31 | ug/l  | J |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-22-082819                     |  | <b>Date Sampled:</b> 08/28/19  |
| <b>Lab Sample ID:</b> FA67623-19                          |  | <b>Date Received:</b> 08/29/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

**VOA Special List**

| CAS No.  | Compound                    | Result | RL  | MDL  | Units | Q |
|----------|-----------------------------|--------|-----|------|-------|---|
| 110-54-3 | Hexane                      | 1.6    | 2.5 | 0.50 | ug/l  | J |
| 98-82-8  | Isopropylbenzene            | 2.3    | 1.3 | 0.31 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 1.3 | 0.31 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 1.3 | 0.50 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 1.3 | 0.50 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 5.0 | 2.5  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 6.3 | 3.1  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 2.7    | 1.3 | 0.31 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 1.3 | 0.31 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 1.3 | 0.31 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 1.3 | 0.31 | ug/l  |   |
| 108-88-3 | Toluene                     | 1.5    | 1.3 | 0.31 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 1.3 | 0.31 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 1.3 | 0.31 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 1.3 | 0.50 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 1.3 | 0.31 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 6.6    | 1.3 | 0.31 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 1.3 | 0.31 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 32.2   | 1.3 | 0.31 | ug/l  |   |
|          | m,p-Xylene                  | 4.3    | 2.5 | 0.31 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 0.55   | 1.3 | 0.31 | ug/l  | J |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 109%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 112%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 95%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.19  
4









## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                                | <b>Date Sampled:</b>   | 08/26/19 |
| <b>Lab Sample ID:</b>    | FA67623-21                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Trip Blank Water                     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100668.D | 1  | 09/05/19 10:26 | AB | n/a       | n/a        | VE2198           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | 3.1    | 10   | 2.0  | ug/l  | J |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                                | <b>Date Sampled:</b>   | 08/26/19 |
| <b>Lab Sample ID:</b>    | FA67623-21                                | <b>Date Received:</b>  | 08/29/19 |
| <b>Matrix:</b>           | AQ - Trip Blank Water                     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.15   | 0.50 | 0.13 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody







## SGS Sample Receipt Summary

Job Number: FA67623

Client: ERM/Univar

Project: UNIVAR - KENT 212

Date / Time Received: 8/29/2019 9:00:00 AM

Delivery Method: FedEx

Airbill #s: 790979323900

Therm ID: IR 1;

Therm CF: 1;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

**Cooler Information**

Y or N

- |                             |                                     |                          |
|-----------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |                          |

**Sample Information**

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Samples preserved properly                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Condition of sample                              | <u>Intact</u>                       |                                     |                                     |
| 5. Sample recvd within HT                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match Sample Label        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. % Solids Jar received?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Trip Blank Information**

Y or N N/A

- |                                |                                     |                                     |                          |
|--------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 1. Trip Blank present / cooler | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|                                | <u>W or S N/A</u>                   |                                     |                          |
| 3. Type Of TB Received         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_ Number of 5035 Field Kits: \_\_\_\_\_ Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #: pH 0-3 230315 pH 10-12 219813A Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments Sample not received: DUP-01-082719  
 Trip Blank received but not listed on the COC for Analysis!!

SM001  
 Rev. Date 05/24/17

Technician: TRINITYM

Date: 8/29/2019 9:00:00 AM

Reviewer: PH

Date: 8/30/2019

**FA67623: Chain of Custody**

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2197-MB | E100646.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



## Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2197-MB | E100646.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 83-118% |

## Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-MB | E100667.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



# Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-MB | E100667.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 83-118% |

## Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



# Method Blank Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   | 83-118% |

# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2197-BS | E100644.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.    | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|------------|-----------------------------|------------|----------|-------|--------|
| 67-64-1    | Acetone                     | 50         | 53.7     | 107   | 50-147 |
| 71-43-2    | Benzene                     | 10         | 9.9      | 99    | 81-122 |
| 108-86-1   | Bromobenzene                | 10         | 9.8      | 98    | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10         | 10.1     | 101   | 79-123 |
| 75-25-2    | Bromoform                   | 10         | 9.3      | 93    | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10         | 10.6     | 106   | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10         | 10.4     | 104   | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10         | 9.3      | 93    | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10         | 11.1     | 111   | 76-136 |
| 108-90-7   | Chlorobenzene               | 10         | 9.6      | 96    | 82-124 |
| 75-00-3    | Chloroethane                | 10         | 9.9      | 99    | 62-144 |
| 67-66-3    | Chloroform                  | 10         | 10.2     | 102   | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10         | 10.1     | 101   | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10         | 10.1     | 101   | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10         | 10.1     | 101   | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10         | 9.3      | 93    | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10         | 9.8      | 98    | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10         | 9.7      | 97    | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10         | 9.5      | 95    | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10         | 10       | 100   | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10         | 9.5      | 95    | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10         | 10.6     | 106   | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10         | 10.0     | 100   | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10         | 11.0     | 110   | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10         | 9.9      | 99    | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10         | 10.3     | 103   | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10         | 9.9      | 99    | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10         | 9.5      | 95    | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10         | 10.5     | 105   | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10         | 9.0      | 90    | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10         | 9.6      | 96    | 80-120 |
| 100-41-4   | Ethylbenzene                | 10         | 10.1     | 101   | 81-121 |
| 110-54-3   | Hexane                      | 10         | 11.0     | 110   | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10         | 10.6     | 106   | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10         | 10.4     | 104   | 79-130 |
| 74-83-9    | Methyl Bromide              | 10         | 10.7     | 107   | 59-143 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2197-BS | E100644.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.9     | 119   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.8      | 98    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.8     | 108   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.6     | 101   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.3     | 103   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.8      | 98    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 10.0     | 100   | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.5     | 105   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.1     | 101   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.8      | 98    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.3      | 93    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 10.3     | 103   | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 10.1     | 101   | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.6      | 96    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 12.0     | 120   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 9.5      | 95    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.3     | 103   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.6     | 106   | 69-159 |
|          | m,p-Xylene                  | 20         | 20.3     | 102   | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.8      | 98    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 83-118% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-BS | E100665.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.    | Compound                    | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|-----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                     | 50            | 54.3        | 109      | 50-147 |
| 71-43-2    | Benzene                     | 10            | 9.8         | 98       | 81-122 |
| 108-86-1   | Bromobenzene                | 10            | 10          | 100      | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10            | 10.1        | 101      | 79-123 |
| 75-25-2    | Bromoform                   | 10            | 9.0         | 90       | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10            | 10.5        | 105      | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10            | 10.5        | 105      | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10            | 9.4         | 94       | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10            | 10.8        | 108      | 76-136 |
| 108-90-7   | Chlorobenzene               | 10            | 9.7         | 97       | 82-124 |
| 75-00-3    | Chloroethane                | 10            | 9.3         | 93       | 62-144 |
| 67-66-3    | Chloroform                  | 10            | 9.8         | 98       | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10            | 10          | 100      | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10            | 10.1        | 101      | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10            | 10.1        | 101      | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10            | 9.1         | 91       | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10            | 9.9         | 99       | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10            | 9.7         | 97       | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10            | 9.5         | 95       | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10            | 9.9         | 99       | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10            | 9.5         | 95       | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10            | 10.3        | 103      | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10            | 10          | 100      | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10            | 10.7        | 107      | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10            | 9.6         | 96       | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10            | 10.0        | 100      | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10            | 10.1        | 101      | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10            | 9.6         | 96       | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10            | 10.5        | 105      | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10            | 9.3         | 93       | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10            | 9.8         | 98       | 80-120 |
| 100-41-4   | Ethylbenzene                | 10            | 9.9         | 99       | 81-121 |
| 110-54-3   | Hexane                      | 10            | 10.8        | 108      | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10            | 10.3        | 103      | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10            | 10.3        | 103      | 79-130 |
| 74-83-9    | Methyl Bromide              | 10            | 10.7        | 107      | 59-143 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-BS | E100665.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.9     | 119   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.9      | 99    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.1     | 101   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.9     | 102   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.3     | 103   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.7      | 97    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.7      | 97    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.3     | 103   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.1     | 101   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.7      | 97    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.1      | 91    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 10.1     | 101   | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 9.8      | 98    | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.4      | 94    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 12.2     | 122   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 9.4      | 94    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.2     | 102   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.6     | 106   | 69-159 |
|          | m,p-Xylene                  | 20         | 20.0     | 100   | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.5      | 95    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 83-118% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.    | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|------------|-----------------------------|------------|----------|-------|--------|
| 67-64-1    | Acetone                     | 50         | 55.1     | 110   | 50-147 |
| 71-43-2    | Benzene                     | 10         | 9.8      | 98    | 81-122 |
| 108-86-1   | Bromobenzene                | 10         | 10       | 100   | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10         | 10.3     | 103   | 79-123 |
| 75-25-2    | Bromoform                   | 10         | 9.0      | 90    | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10         | 10.5     | 105   | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10         | 10.5     | 105   | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10         | 9.6      | 96    | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10         | 10.7     | 107   | 76-136 |
| 108-90-7   | Chlorobenzene               | 10         | 9.6      | 96    | 82-124 |
| 75-00-3    | Chloroethane                | 10         | 9.1      | 91    | 62-144 |
| 67-66-3    | Chloroform                  | 10         | 9.8      | 98    | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10         | 10.1     | 101   | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10         | 10.3     | 103   | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10         | 10.1     | 101   | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10         | 9.3      | 93    | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10         | 10       | 100   | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10         | 9.1      | 91    | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10         | 9.4      | 94    | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10         | 10       | 100   | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10         | 9.6      | 96    | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10         | 10.3     | 103   | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10         | 10.3     | 103   | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10         | 10.7     | 107   | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10         | 9.3      | 93    | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10         | 9.8      | 98    | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10         | 10.1     | 101   | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10         | 9.7      | 97    | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10         | 9.7      | 97    | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10         | 9.4      | 94    | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10         | 9.8      | 98    | 80-120 |
| 100-41-4   | Ethylbenzene                | 10         | 9.8      | 98    | 81-121 |
| 110-54-3   | Hexane                      | 10         | 10.5     | 105   | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10         | 9.9      | 99    | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10         | 10.2     | 102   | 79-130 |
| 74-83-9    | Methyl Bromide              | 10         | 9.9      | 99    | 59-143 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.8     | 118   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 10.1     | 101   | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.4     | 104   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.6     | 101   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.4     | 104   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.4      | 94    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.6      | 96    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.8     | 108   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.0     | 100   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.7      | 97    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.1      | 91    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 9.7      | 97    | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 10.3     | 103   | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.6      | 96    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 11.8     | 118   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 10.0     | 100   | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.3     | 103   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.1     | 101   | 69-159 |
|          | m,p-Xylene                  | 20         | 19.7     | 99    | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.3      | 93    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104% | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-10MS  | E100659.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |
| FA67623-10MSD | E100660.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |
| FA67623-10    | E100647.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.    | Compound                    | FA67623-10 Spike |      | MS ug/l | MS %  | Spike ug/l | MSD ug/l | MSD %  | RPD | Limits Rec/RPD |
|------------|-----------------------------|------------------|------|---------|-------|------------|----------|--------|-----|----------------|
|            |                             | ug/l             | Q    |         |       |            |          |        |     |                |
| 67-64-1    | Acetone                     | ND               | 50   | 50.7    | 101   | 50         | 51.3     | 103    | 1   | 50-147/21      |
| 71-43-2    | Benzene                     | 2.4              | 10   | 11.9    | 95    | 10         | 12.0     | 96     | 1   | 81-122/14      |
| 108-86-1   | Bromobenzene                | ND               | 10   | 9.4     | 94    | 10         | 9.2      | 92     | 2   | 80-121/14      |
| 75-27-4    | Bromodichloromethane        | ND               | 10   | 9.1     | 91    | 10         | 9.1      | 91     | 0   | 79-123/19      |
| 75-25-2    | Bromoform                   | ND               | 10   | 6.7     | 67    | 10         | 6.9      | 69     | 3   | 66-123/21      |
| 104-51-8   | n-Butylbenzene              | 0.33             | J 10 | 10.8    | 105   | 10         | 10.8     | 105    | 0   | 79-126/16      |
| 135-98-8   | sec-Butylbenzene            | 1.2              | 10   | 11.7    | 105   | 10         | 11.9     | 107    | 2   | 83-133/16      |
| 98-06-6    | tert-Butylbenzene           | 0.18             | J 10 | 9.4     | 92    | 10         | 9.5      | 93     | 1   | 80-133/16      |
| 56-23-5    | Carbon Tetrachloride        | ND               | 10   | 9.8     | 98    | 10         | 10.1     | 101    | 3   | 76-136/23      |
| 108-90-7   | Chlorobenzene               | ND               | 10   | 9.3     | 93    | 10         | 9.3      | 93     | 0   | 82-124/14      |
| 75-00-3    | Chloroethane                | 30.0             | 10   | 33.9    | 39* a | 10         | 45.9     | 159* a | 30* | 62-144/20      |
| 67-66-3    | Chloroform                  | ND               | 10   | 9.9     | 99    | 10         | 10.0     | 100    | 1   | 80-124/15      |
| 95-49-8    | o-Chlorotoluene             | ND               | 10   | 9.6     | 96    | 10         | 9.6      | 96     | 0   | 81-127/15      |
| 106-43-4   | p-Chlorotoluene             | ND               | 10   | 9.4     | 94    | 10         | 9.3      | 93     | 1   | 83-130/15      |
| 124-48-1   | Dibromochloromethane        | ND               | 10   | 8.4     | 84    | 10         | 8.3      | 83     | 1   | 78-122/19      |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 10   | 9.9     | 99    | 10         | 10.2     | 102    | 3   | 64-123/18      |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 10   | 9.0     | 90    | 10         | 9.0      | 90     | 0   | 75-120/13      |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 10   | 9.1     | 91    | 10         | 9.8      | 98     | 7   | 42-167/19      |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 10   | 9.4     | 94    | 10         | 9.3      | 93     | 1   | 82-124/14      |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 10   | 9.5     | 95    | 10         | 9.5      | 95     | 0   | 84-125/14      |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 10   | 9.1     | 91    | 10         | 9.2      | 92     | 1   | 78-120/15      |
| 75-34-3    | 1,1-Dichloroethane          | 0.29             | J 10 | 10.4    | 101   | 10         | 10.7     | 104    | 3   | 81-122/15      |
| 107-06-2   | 1,2-Dichloroethane          | ND               | 10   | 9.7     | 97    | 10         | 9.7      | 97     | 0   | 75-125/14      |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 10   | 10.7    | 107   | 10         | 10.9     | 109    | 2   | 78-137/18      |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND               | 10   | 9.3     | 93    | 10         | 9.6      | 96     | 3   | 78-120/15      |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.78             | 10   | 10.4    | 96    | 10         | 10.8     | 100    | 4   | 76-127/17      |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 10   | 9.4     | 94    | 10         | 9.4      | 94     | 0   | 76-124/14      |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 10   | 8.9     | 89    | 10         | 8.9      | 89     | 0   | 80-118/13      |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 10   | 9.5     | 95    | 10         | 9.7      | 97     | 2   | 74-139/17      |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 10   | 7.2     | 72*   | 10         | 7.1      | 71*    | 1   | 75-118/23      |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 10   | 8.0     | 80    | 10         | 7.9      | 79*    | 1   | 80-120/22      |
| 100-41-4   | Ethylbenzene                | 0.25             | J 10 | 9.9     | 97    | 10         | 10       | 98     | 1   | 81-121/14      |
| 110-54-3   | Hexane                      | 0.64             | J 10 | 10.4    | 98    | 10         | 10.8     | 102    | 4   | 69-132/20      |
| 98-82-8    | Isopropylbenzene            | 22.4             | 10   | 33.7    | 113   | 10         | 34.1     | 117    | 1   | 83-132/15      |
| 99-87-6    | p-Isopropyltoluene          | ND               | 10   | 9.9     | 99    | 10         | 10.0     | 100    | 1   | 79-130/16      |
| 74-83-9    | Methyl Bromide              | ND               | 10   | 9.6     | 96    | 10         | 11.1     | 111    | 14  | 59-143/19      |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-10MS  | E100659.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |
| FA67623-10MSD | E100660.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |
| FA67623-10    | E100647.D | 1  | 09/03/19 | AB | n/a       | n/a        | VE2197           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-1, FA67623-2, FA67623-3, FA67623-4, FA67623-5, FA67623-6, FA67623-7, FA67623-8, FA67623-9, FA67623-10, FA67623-11, FA67623-12

| CAS No.  | Compound                    | FA67623-10 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 10   | 10.0    | 100  | 10         | 11.0     | 110   | 10  | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 10   | 9.5     | 95   | 10         | 9.5      | 95    | 0   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 10   | 10.1    | 101  | 10         | 10.4     | 104   | 3   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 50   | 52.8    | 106  | 50         | 51.9     | 104   | 2   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | 17.0             | 10   | 27.2    | 102  | 10         | 27.2     | 102   | 0   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 10   | 7.0     | 70*  | 10         | 7.3      | 73*   | 4   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 10   | 9.6     | 96   | 10         | 9.7      | 97    | 1   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 10   | 10.1    | 101  | 10         | 10.2     | 102   | 1   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 10   | 9.7     | 97   | 10         | 9.6      | 96    | 1   | 76-135/16      |
| 108-88-3 | Toluene                     | 0.26             | J 10 | 9.6     | 93   | 10         | 9.6      | 93    | 0   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 10   | 9.4     | 94   | 10         | 9.6      | 96    | 2   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 10   | 9.8     | 98   | 10         | 10.1     | 101   | 3   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 10   | 10.1    | 101  | 10         | 10       | 100   | 1   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 10   | 9.3     | 93   | 10         | 9.1      | 91    | 2   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 10   | 11.8    | 118  | 10         | 12.2     | 122   | 3   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 10   | 9.2     | 92   | 10         | 9.4      | 94    | 2   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 0.47             | J 10 | 9.6     | 91   | 10         | 9.6      | 91    | 0   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND               | 10   | 9.4     | 94   | 10         | 9.5      | 95    | 1   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | ND               | 10   | 10.1    | 101  | 10         | 11.0     | 110   | 9   | 69-159/18      |
|          | m,p-Xylene                  | 0.37             | J 20 | 19.5    | 96   | 20         | 19.6     | 96    | 1   | 79-126/15      |
| 95-47-6  | o-Xylene                    | ND               | 10   | 9.5     | 95   | 10         | 9.6      | 96    | 1   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-10 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 105% | 106%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | 109% | 106%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%  | 98%  | 96%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 100% | 103%       | 83-118% |

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-13MS  | E100678.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13MSD | E100679.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13    | E100671.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.    | Compound                    | FA67623-13 Spike |   | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|------------|-----------------------------|------------------|---|---------|------|------------|----------|-------|-----|----------------|
|            |                             | ug/l             | Q |         |      |            |          |       |     |                |
| 67-64-1    | Acetone                     | ND               |   | 250     | 93   | 250        | 231      | 92    | 0   | 50-147/21      |
| 71-43-2    | Benzene                     | 0.20             | J | 50      | 97   | 50         | 47.6     | 95    | 2   | 81-122/14      |
| 108-86-1   | Bromobenzene                | ND               |   | 50      | 96   | 50         | 48.5     | 97    | 1   | 80-121/14      |
| 75-27-4    | Bromodichloromethane        | ND               |   | 50      | 92   | 50         | 45.8     | 92    | 0   | 79-123/19      |
| 75-25-2    | Bromoform                   | ND               |   | 50      | 63*  | 50         | 29.3     | 59*   | 7   | 66-123/21      |
| 104-51-8   | n-Butylbenzene              | ND               |   | 50      | 102  | 50         | 50.3     | 101   | 1   | 79-126/16      |
| 135-98-8   | sec-Butylbenzene            | ND               |   | 50      | 103  | 50         | 51.0     | 102   | 1   | 83-133/16      |
| 98-06-6    | tert-Butylbenzene           | ND               |   | 50      | 92   | 50         | 46.3     | 93    | 0   | 80-133/16      |
| 56-23-5    | Carbon Tetrachloride        | ND               |   | 50      | 105  | 50         | 49.7     | 99    | 6   | 76-136/23      |
| 108-90-7   | Chlorobenzene               | ND               |   | 50      | 95   | 50         | 46.9     | 94    | 1   | 82-124/14      |
| 75-00-3    | Chloroethane                | ND               |   | 50      | 90   | 50         | 41.9     | 84    | 7   | 62-144/20      |
| 67-66-3    | Chloroform                  | ND               |   | 50      | 99   | 50         | 47.2     | 94    | 5   | 80-124/15      |
| 95-49-8    | o-Chlorotoluene             | ND               |   | 50      | 98   | 50         | 49.5     | 99    | 1   | 81-127/15      |
| 106-43-4   | p-Chlorotoluene             | ND               |   | 50      | 99   | 50         | 49.8     | 100   | 1   | 83-130/15      |
| 124-48-1   | Dibromochloromethane        | ND               |   | 50      | 79   | 50         | 38.8     | 78    | 1   | 78-122/19      |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               |   | 50      | 91   | 50         | 42.9     | 86    | 5   | 64-123/18      |
| 106-93-4   | 1,2-Dibromoethane           | ND               |   | 50      | 95   | 50         | 47.9     | 96    | 1   | 75-120/13      |
| 75-71-8    | Dichlorodifluoromethane     | ND               |   | 50      | 93   | 50         | 46.0     | 92    | 1   | 42-167/19      |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               |   | 50      | 92   | 50         | 45.3     | 91    | 2   | 82-124/14      |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               |   | 50      | 97   | 50         | 48.0     | 96    | 1   | 84-125/14      |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               |   | 50      | 95   | 50         | 46.7     | 93    | 1   | 78-120/15      |
| 75-34-3    | 1,1-Dichloroethane          | 0.42             | J | 50      | 102  | 50         | 49.0     | 97    | 5   | 81-122/15      |
| 107-06-2   | 1,2-Dichloroethane          | ND               |   | 50      | 102  | 50         | 49.9     | 100   | 2   | 75-125/14      |
| 75-35-4    | 1,1-Dichloroethylene        | ND               |   | 50      | 107  | 50         | 51.2     | 102   | 4   | 78-137/18      |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.24             | J | 50      | 93   | 50         | 44.8     | 89    | 4   | 78-120/15      |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               |   | 50      | 97   | 50         | 47.0     | 94    | 3   | 76-127/17      |
| 78-87-5    | 1,2-Dichloropropane         | ND               |   | 50      | 98   | 50         | 49.0     | 98    | 0   | 76-124/14      |
| 142-28-9   | 1,3-Dichloropropane         | ND               |   | 50      | 92   | 50         | 47.1     | 94    | 2   | 80-118/13      |
| 594-20-7   | 2,2-Dichloropropane         | ND               |   | 50      | 97   | 50         | 45.4     | 91    | 7   | 74-139/17      |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               |   | 50      | 82   | 50         | 42.1     | 84    | 3   | 75-118/23      |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               |   | 50      | 92   | 50         | 46.8     | 94    | 2   | 80-120/22      |
| 100-41-4   | Ethylbenzene                | ND               |   | 50      | 97   | 50         | 47.2     | 94    | 3   | 81-121/14      |
| 110-54-3   | Hexane                      | ND               |   | 50      | 102  | 50         | 49.4     | 99    | 3   | 69-132/20      |
| 98-82-8    | Isopropylbenzene            | ND               |   | 50      | 98   | 50         | 48.0     | 96    | 2   | 83-132/15      |
| 99-87-6    | p-Isopropyltoluene          | ND               |   | 50      | 100  | 50         | 49.5     | 99    | 1   | 79-130/16      |
| 74-83-9    | Methyl Bromide              | ND               |   | 50      | 107  | 50         | 51.1     | 102   | 4   | 59-143/19      |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-13MS  | E100678.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13MSD | E100679.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13    | E100671.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-11, FA67623-12, FA67623-13, FA67623-14, FA67623-15, FA67623-16, FA67623-17, FA67623-18, FA67623-19, FA67623-20, FA67623-21

| CAS No.  | Compound                    | FA67623-13 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50   | 58.5    | 117  | 50         | 58.5     | 117   | 0   | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50   | 49.6    | 99   | 50         | 49.7     | 99    | 0   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50   | 53.4    | 107  | 50         | 50.2     | 100   | 6   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250  | 246     | 98   | 250        | 248      | 99    | 1   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | ND               | 50   | 50.6    | 101  | 50         | 51.0     | 102   | 1   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50   | 45.1    | 90   | 50         | 44.4     | 89    | 2   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50   | 47.0    | 94   | 50         | 45.8     | 92    | 3   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50   | 53.8    | 108  | 50         | 51.6     | 103   | 4   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50   | 48.8    | 98   | 50         | 48.5     | 97    | 1   | 76-135/16      |
| 108-88-3 | Toluene                     | ND               | 50   | 47.3    | 95   | 50         | 47.3     | 95    | 0   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50   | 42.6    | 85   | 50         | 43.0     | 86    | 1   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50   | 49.7    | 99   | 50         | 47.9     | 96    | 4   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50   | 48.9    | 98   | 50         | 49.2     | 98    | 1   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50   | 47.9    | 96   | 50         | 46.7     | 93    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50   | 62.6    | 125  | 50         | 60.1     | 120   | 4   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50   | 48.2    | 96   | 50         | 47.8     | 96    | 1   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND               | 50   | 47.8    | 96   | 50         | 47.7     | 95    | 0   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND               | 50   | 50.4    | 101  | 50         | 49.9     | 100   | 1   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | 0.30             | J 50 | 51.1    | 102  | 50         | 50.9     | 101   | 0   | 69-159/18      |
|          | m,p-Xylene                  | ND               | 100  | 96.9    | 97   | 100        | 94.9     | 95    | 2   | 79-126/15      |
| 95-47-6  | o-Xylene                    | ND               | 50   | 45.4    | 91   | 50         | 44.3     | 89    | 2   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-13 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 100% | 107%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 109% | 107%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 98%  | 94%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 104% | 102%       | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.    | Compound                    | FA67623-16 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|------------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|            |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 67-64-1    | Acetone                     | ND               | 250  | 247     | 99   | 250        | 250      | 100   | 1   | 50-147/21      |
| 71-43-2    | Benzene                     | 0.52             | 50   | 48.0    | 95   | 50         | 50.2     | 99    | 4   | 81-122/14      |
| 108-86-1   | Bromobenzene                | ND               | 50   | 47.1    | 94   | 50         | 48.6     | 97    | 3   | 80-121/14      |
| 75-27-4    | Bromodichloromethane        | ND               | 50   | 44.9    | 90   | 50         | 46.6     | 93    | 4   | 79-123/19      |
| 75-25-2    | Bromoform                   | ND               | 50   | 30.1    | 60*  | 50         | 31.5     | 63*   | 5   | 66-123/21      |
| 104-51-8   | n-Butylbenzene              | ND               | 50   | 50.4    | 101  | 50         | 52.9     | 106   | 5   | 79-126/16      |
| 135-98-8   | sec-Butylbenzene            | 0.31             | J 50 | 50.7    | 101  | 50         | 53.0     | 105   | 4   | 83-133/16      |
| 98-06-6    | tert-Butylbenzene           | ND               | 50   | 45.4    | 91   | 50         | 47.5     | 95    | 5   | 80-133/16      |
| 56-23-5    | Carbon Tetrachloride        | ND               | 50   | 50.3    | 101  | 50         | 53.9     | 108   | 7   | 76-136/23      |
| 108-90-7   | Chlorobenzene               | ND               | 50   | 46.0    | 92   | 50         | 48.4     | 97    | 5   | 82-124/14      |
| 75-00-3    | Chloroethane                | ND               | 50   | 83.4    | 167* | 50         | 87.4     | 175*  | 5   | 62-144/20      |
| 67-66-3    | Chloroform                  | 0.24             | J 50 | 49.0    | 98   | 50         | 51.8     | 103   | 6   | 80-124/15      |
| 95-49-8    | o-Chlorotoluene             | 0.68             | 50   | 49.3    | 97   | 50         | 51.5     | 102   | 4   | 81-127/15      |
| 106-43-4   | p-Chlorotoluene             | ND               | 50   | 48.0    | 96   | 50         | 50.4     | 101   | 5   | 83-130/15      |
| 124-48-1   | Dibromochloromethane        | ND               | 50   | 38.5    | 77*  | 50         | 39.9     | 80    | 4   | 78-122/19      |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 50   | 45.8    | 92   | 50         | 47.6     | 95    | 4   | 64-123/18      |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 50   | 45.6    | 91   | 50         | 47.1     | 94    | 3   | 75-120/13      |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 50   | 45.8    | 92   | 50         | 49.9     | 100   | 9   | 42-167/19      |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 50   | 45.3    | 91   | 50         | 47.8     | 96    | 5   | 82-124/14      |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 50   | 47.3    | 95   | 50         | 49.3     | 99    | 4   | 84-125/14      |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 50   | 45.9    | 92   | 50         | 48.0     | 96    | 4   | 78-120/15      |
| 75-34-3    | 1,1-Dichloroethane          | 0.26             | J 50 | 50.8    | 101  | 50         | 54.4     | 108   | 7   | 81-122/15      |
| 107-06-2   | 1,2-Dichloroethane          | 0.20             | J 50 | 50.9    | 101  | 50         | 51.8     | 103   | 2   | 75-125/14      |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 50   | 52.6    | 105  | 50         | 56.7     | 113   | 8   | 78-137/18      |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.83             | 50   | 45.7    | 90   | 50         | 49.5     | 97    | 8   | 78-120/15      |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.0              | 50   | 49.1    | 96   | 50         | 53.1     | 104   | 8   | 76-127/17      |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 50   | 48.8    | 98   | 50         | 49.9     | 100   | 2   | 76-124/14      |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 50   | 45.1    | 90   | 50         | 45.9     | 92    | 2   | 80-118/13      |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 50   | 46.0    | 92   | 50         | 49.5     | 99    | 7   | 74-139/17      |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 50   | 38.7    | 77   | 50         | 38.8     | 78    | 0   | 75-118/23      |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 50   | 43.3    | 87   | 50         | 44.3     | 89    | 2   | 80-120/22      |
| 100-41-4   | Ethylbenzene                | 4.3              | 50   | 50.9    | 93   | 50         | 54.3     | 100   | 6   | 81-121/14      |
| 110-54-3   | Hexane                      | 2.1              | 50   | 52.1    | 100  | 50         | 54.2     | 104   | 4   | 69-132/20      |
| 98-82-8    | Isopropylbenzene            | 7.6              | 50   | 55.2    | 95   | 50         | 58.6     | 102   | 6   | 83-132/15      |
| 99-87-6    | p-Isopropyltoluene          | ND               | 50   | 48.9    | 98   | 50         | 50.9     | 102   | 4   | 79-130/16      |
| 74-83-9    | Methyl Bromide              | ND               | 50   | 52.3    | 105  | 50         | 55.7     | 111   | 6   | 59-143/19      |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67623  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67623-16, FA67623-17, FA67623-20

| CAS No.  | Compound                    | FA67623-16 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50   | 56.9    | 114  | 50         | 60.9     | 122   | 7   | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50   | 48.7    | 97   | 50         | 49.9     | 100   | 2   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50   | 53.0    | 106  | 50         | 56.0     | 112   | 6   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250  | 258     | 103  | 250        | 268      | 107   | 4   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | 13.3             | 50   | 59.9    | 93   | 50         | 62.2     | 98    | 4   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50   | 43.0    | 86   | 50         | 45.2     | 90    | 5   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50   | 47.9    | 96   | 50         | 50.6     | 101   | 5   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50   | 52.2    | 104  | 50         | 53.8     | 108   | 3   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50   | 47.5    | 95   | 50         | 49.3     | 99    | 4   | 76-135/16      |
| 108-88-3 | Toluene                     | 0.82             | 50   | 46.8    | 92   | 50         | 49.2     | 97    | 5   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50   | 41.4    | 83   | 50         | 45.1     | 90    | 9   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50   | 48.6    | 97   | 50         | 51.9     | 104   | 7   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50   | 48.2    | 96   | 50         | 50.2     | 100   | 4   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50   | 46.7    | 93   | 50         | 48.2     | 96    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50   | 63.1    | 126  | 50         | 65.6     | 131   | 4   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50   | 47.4    | 95   | 50         | 48.1     | 96    | 1   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 44.7             | 50   | 82.9    | 76*  | 50         | 86.0     | 83    | 4   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 5.7              | 50   | 54.6    | 98   | 50         | 56.7     | 102   | 4   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | 0.59             | 50   | 50.7    | 100  | 50         | 55.3     | 109   | 9   | 69-159/18      |
|          | m,p-Xylene                  | 73.5             | 100  | 153     | 80   | 100        | 161      | 88    | 5   | 79-126/15      |
| 95-47-6  | o-Xylene                    | 0.41             | J 50 | 44.4    | 88   | 50         | 47.9     | 95    | 8   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-16 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 105% | 101%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 112% | 111% | 107%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 98%  | 98%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 100% | 104%       | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

\* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Univar

ERMORP: Univar; 8201 S 212th St, Kent, WA

0487093

SGS Job Number: FA67699

Sampling Dates: 08/27/19 - 08/30/19



Report to:

ERM  
1050 SW 6th Ave Suite 1650  
Portland, OR 97204  
Dylan.Stankus@erm.com; Alison.Lunde@erm.com  
  
ATTN: Dylan Stankus

Total number of pages in report: **36**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.  
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.



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## Sample Summary

Univar

**Job No:** FA67699

ERMORP: Univar; 8201 S 212th St, Kent, WA  
 Project No: 0487093

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|---------|----------|-------------|------|------------------|
|---------------|----------------|---------|----------|-------------|------|------------------|

This report contains results reported as ND = Not detected. The following applies:  
 Organics ND = Not detected above the MDL

|           |          |       |    |          |    |                  |               |
|-----------|----------|-------|----|----------|----|------------------|---------------|
| FA67699-1 | 08/29/19 | 10:15 | AL | 08/31/19 | AQ | Ground Water     | MW-21-082919  |
| FA67699-2 | 08/29/19 | 11:17 | AL | 08/31/19 | AQ | Ground Water     | MW-16-082919  |
| FA67699-3 | 08/29/19 | 13:14 | AL | 08/31/19 | AQ | Ground Water     | MW-02-082919  |
| FA67699-4 | 08/29/19 | 14:10 | AL | 08/31/19 | AQ | Ground Water     | MW-06-082919  |
| FA67699-5 | 08/27/19 | 15:35 | AL | 08/31/19 | AQ | Ground Water     | DUP-01-082719 |
| FA67699-7 | 08/30/19 | 00:00 | AL | 08/31/19 | AQ | Trip Blank Water | TB-083019-02  |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Univar

**Job No:** FA67699

**Site:** ERMORP: Univar; 8201 S 212th St, Kent, WA

**Report Date:** 9/7/2019 6:17:23 PM

5 Samples and 1 Trip Blank were collected on between 08/27/2019 and 08/30/2019 and were received at SGS North America Inc - Orlando on 08/31/2019 properly preserved, at 2.8 Deg. C and intact. These Samples received an SGS Orlando job number of FA67699. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VE2198

All samples were analyzed within the recommended method holding time.

Sample(s) FA67623-13MS, FA67623-13MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for Bromoform are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform are outside control limits. Probable cause is due to matrix interference.

FA67699-2: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

FA67699-7: Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

**Matrix:** AQ

**Batch ID:** VE2199

All samples were analyzed within the recommended method holding time.

Sample(s) FA67623-16MS, FA67623-16MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) FA67699-1, FA67699-5 have compounds reported from the diluted analysis.

Matrix Spike Recovery(s) for 1,2,4-Trimethylbenzene, Bromoform, Chloroethane, Dibromochloromethane are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, Chloroethane are outside control limits. Probable cause is due to matrix interference.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Jenna Kravitz, Client Services (*Signature on File*)

## Laboratory Report Glossary

**Client Sample ID:** Normally refers to a point of collection – a monitoring well, discharge outfall, treatment facility intake, soil core grid location and depth, or any other identification client assigns to a sample.

**Lab Sample ID:** Letter prefix identifies one of the SGS laboratories and the rest is a consecutive number of the job (or SDG) received. Number after dash is a sample number and it is unequivocally linked in the LIMS to the Client Sample ID (see above).

**Matrix (Matrix Code):**

- **AQ- Water Samples**
- **SO- Soil/Solid Samples**
- **LIQ- Non-Water Liquid Samples**
- **OIL- Oil Samples**

**Matrix Type:**

- **SW for Surface Water**
- **SO for Soil/Sediment**
- **GW for Ground Water**
- **DW for Drinking Water**

All available definitions are found on Chain of Custody form.

**Deg. C:** Degrees Celsius, measurement of temperature.

**Method:** Analytical and preparation methods used for the analysis, with the version or revision identified.

**Date Sampled:** This information is entered from Chain of Custody at the time of login for every sample.

**Date Received:** When the job was received by one of the SGS Laboratories.

**Percent Solids:** Applicable only to SO matrix. For other matrices this field defaults to “n/a”.

**Run #:** Provides information how many attempts were made in the analysis of the sample. LIMS can merge information from several attempts and lists all of them, including dilution, confirmation, etc. #1 designation is assigned to the analytical run with majority of analytes reported from it, not necessarily in chronological order.

**File ID:** Actual instrument data acquisition file that produced the result. Letter prefix identifies the instrument; the rest is a consecutive injection number for that instrument.

**DF (Dilution Factor):** Most common reasons are either to fit into the range of the calibration or alleviate matrix interference. DF other than 1 are accompanied with a comment at the end of the sample report.

**Analyzed:** Date of analysis.

**By:** Field Technician or Analyst uniquely identified by initials.

**Prep Date:** Date of sample preparation. If hold time is 72 hours or less, time of preparation is also indicated.

**Prep Batch:** Letter prefix OP followed by a consecutive number. For VOC analysis preparation happens at the time of analysis, therefore analytical batch and preparation batch are the same. Size of prep batch is limited to 20 field samples of similar matrix and the entire batch should be completed within 12-hour time.

**Analytical Batch:** Letter prefix identifies the instrument and is followed by a consecutive number. Not limited by a number of samples.

**Initial Weight or Initial Volume:** Raw sample size used for preparation.

**Final Volume:** Final volume of extract. If different from method-prescribed volume, reasons are reflected in the comments at the end of the report form.

**CAS Number:** *Chemical Abstracts Service* (CAS), a division of the *American Chemical Society*.

**Compound:** Most commonly used names of chemical compounds.

**Result:** Depending on project requirements, this field could be set up as text, such as ND (for Non-Detected) or a number. The number may be reported with a qualifier.

**MDL (Method Detection Limit):** This value is defined as 99% probability that analyte above this concentration is positively (qualitatively) identified.

**RL (Reporting Limit):** This value is supported by the low calibration standard and defines lowest point of quantitative identification of analyte.

**DL (Detection Limit):** The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate (Type I error) is 1%.

**LOD (Limit of Detection):** The smallest concentration of a substance that must be present in a sample to be detected at the DL with 99% confidence. At the LOD, the false negative rate (Type II error) is 1%.



**LOQ (Limit of Quantitation):** The smallest concentration that produces a quantitative result with known and recorded precision and bias.

**Units:** ug/l (micrograms per liter) for aqueous samples and ug/kg (micrograms per kilogram) for solids (or ppb – parts per billion). The units could be set according to project or state-specific requirements, such as mg/l (milligrams per liter), or mg/kg (milligrams per kilogram).

**Qualifiers (Q):** Definitions of most often used qualifiers are found at the bottom of each result page. Applied depending on the program – state-specific (Florida A.C. 62-160), CLP-like, AFCEE, DOD QSM, etc.

**Tentatively Identified Compound (TIC):** Used when client requests a search for analytes that are not part of instrument calibration. Unknown peaks are compared with published spectral libraries and best match is reported as TIC.

**Surrogate (S1, S2, S3 etc.):** are positive controls that are used in most organics methods to ascertain preparation efficiency and matrix effect in individual samples. These chemicals mimic common method constituents but are unlikely to be found in real samples. Recoveries can be reported for every analytical run used in the analysis.

**IS (Internal Standard IS1, IS2, IS3, etc):** quantitative reference used to adjust for instrument performance fluctuations.

**Area (of chromatographic peak):** signal intensity directly related to compound concentration.

**RT (Retention Time):** time required for analyte to traverse the length of analytical column. Used for compound identification.

**ICAL (Initial Calibration):** Must pass calibration criteria established by method.

**ICV (Independent Calibration Verification):** Used to verify ICAL preparation and concentration of calibration points.

**CCV (Continuing Calibration Verification):** Used to assess calibration status of the instrument and must recover within established acceptance criteria.

**MB (Method Blank):** is a negative batch control. MB is an aliquot of matrix free of analyte of interest (either ASTM Type II water or appropriate solid substance) that is put through all the preparation and possible clean-up steps alongside investigative (field) samples. MB should be free of interferences above a set level.

**BS (Blank Spike, Laboratory Fortified Blank - LFB, Laboratory Control Sample - LCS):** is a positive control used to determine method accuracy - in clean matrix, i.e. matrix free of analytes of interest.

**BSD (Blank Spike Duplicate):** Used to assess recovery reproducibility - method precision – per analytical method requirement. %Recovery and Relative Percent Difference (%RPD) are compared with the established acceptance criteria.

**MS and/or MSD (Matrix Spike and Matrix Spike Duplicate):** positive batch controls which indicate matrix effect on the precision and accuracy of the method in given sample matrix. Results are expressed in %Recovery and Relative Percent Difference (%RPD) and compared with the established acceptance criteria.

**DUP (Matrix Duplicate):** Positive batch control, a way of assessing laboratory's precision; however, the composition of the samples is unknown and may not yield meaningful results.

**REC (Recovery in Percent):** expresses method accuracy.

**RPD (Relative Percent Difference):** expresses method precision.

**Limits:** Recovery limits for surrogates and spikes

## Summary of Hits

**Job Number:** FA67699  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/27/19 thru 08/30/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**FA67699-1 MW-21-082919**

|                            |        |    |     |      |             |
|----------------------------|--------|----|-----|------|-------------|
| Chloroethane               | 323    | 25 | 10  | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 19.7 J | 25 | 6.3 | ug/l | SW846 8260B |
| Ethylbenzene               | 765    | 25 | 6.3 | ug/l | SW846 8260B |
| Isopropylbenzene           | 43.0   | 25 | 6.3 | ug/l | SW846 8260B |
| n-Propylbenzene            | 66.6   | 25 | 6.3 | ug/l | SW846 8260B |
| Toluene                    | 36.5   | 25 | 6.3 | ug/l | SW846 8260B |
| 1,2,4-Trimethylbenzene     | 202    | 25 | 6.3 | ug/l | SW846 8260B |
| 1,3,5-Trimethylbenzene     | 124    | 25 | 6.3 | ug/l | SW846 8260B |
| m,p-Xylene                 | 4480   | 50 | 6.3 | ug/l | SW846 8260B |
| o-Xylene                   | 288    | 25 | 6.3 | ug/l | SW846 8260B |

**FA67699-2 MW-16-082919**

|                                 |        |      |      |      |             |
|---------------------------------|--------|------|------|------|-------------|
| Chloroethane <sup>a</sup>       | 0.75   | 0.50 | 0.20 | ug/l | SW846 8260B |
| 1,1-Dichloroethane <sup>a</sup> | 0.44 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| Vinyl Chloride <sup>a</sup>     | 0.62   | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67699-3 MW-02-082919**

|                          |        |      |      |      |             |
|--------------------------|--------|------|------|------|-------------|
| 1,1-Dichloroethane       | 0.36 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| cis-1,2-Dichloroethylene | 0.40 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67699-4 MW-06-082919**

|                            |        |      |      |      |             |
|----------------------------|--------|------|------|------|-------------|
| 1,1-Dichloroethane         | 0.49 J | 0.50 | 0.13 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 0.16 J | 0.50 | 0.13 | ug/l | SW846 8260B |

**FA67699-5 DUP-01-082719**

|                            |       |     |      |      |             |
|----------------------------|-------|-----|------|------|-------------|
| cis-1,2-Dichloroethylene   | 240   | 2.5 | 0.63 | ug/l | SW846 8260B |
| trans-1,2-Dichloroethylene | 1.4 J | 2.5 | 0.63 | ug/l | SW846 8260B |
| Tetrachloroethylene        | 26.6  | 2.5 | 0.63 | ug/l | SW846 8260B |
| Trichloroethylene          | 9.2   | 2.5 | 0.63 | ug/l | SW846 8260B |
| Vinyl Chloride             | 9.0   | 2.5 | 0.63 | ug/l | SW846 8260B |

**FA67699-7 TB-083019-02**

|                      |        |      |      |      |             |
|----------------------|--------|------|------|------|-------------|
| Acetone <sup>a</sup> | 3.4 J  | 10   | 2.0  | ug/l | SW846 8260B |
| Toluene <sup>a</sup> | 0.18 J | 0.50 | 0.13 | ug/l | SW846 8260B |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.



Sample Results

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Report of Analysis

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## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-21-082919                     |  | <b>Date Sampled:</b> 08/29/19  |
| <b>Lab Sample ID:</b> FA67699-1                           |  | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100701.D | 50 | 09/06/19 12:23 | AB | n/a       | n/a        | VE2199           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

### VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL | Units | Q |
|------------|-----------------------------|--------|-----|-----|-------|---|
| 67-64-1    | Acetone                     | ND     | 500 | 100 | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 25  | 6.3 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 25  | 6.3 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 25  | 6.3 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 25  | 6.3 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 25  | 6.3 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 25  | 6.3 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 25  | 6.3 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 25  | 6.3 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 25  | 6.3 | ug/l  |   |
| 75-00-3    | Chloroethane                | 323    | 25  | 10  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 25  | 6.3 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 25  | 6.3 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 25  | 6.3 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 25  | 6.3 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 25  | 12  | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 25  | 6.3 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 25  | 10  | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 25  | 6.3 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 25  | 6.3 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 25  | 6.3 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 25  | 6.3 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 25  | 6.3 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 25  | 6.3 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 25  | 6.3 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 19.7   | 25  | 6.3 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 25  | 6.3 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 25  | 6.3 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 25  | 6.3 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 25  | 6.3 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 25  | 6.3 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | 765    | 25  | 6.3 | ug/l  |   |

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-21-082919                              | <b>Date Sampled:</b>   | 08/29/19 |
| <b>Lab Sample ID:</b>    | FA67699-1                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL  | MDL | Units | Q |
|----------|-----------------------------|--------|-----|-----|-------|---|
| 110-54-3 | Hexane                      | ND     | 50  | 10  | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | 43.0   | 25  | 6.3 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 25  | 6.3 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 25  | 10  | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 25  | 10  | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 25  | 6.3 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 100 | 50  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 130 | 63  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | 66.6   | 25  | 6.3 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 25  | 6.3 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 25  | 6.3 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 25  | 6.3 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 25  | 6.3 | ug/l  |   |
| 108-88-3 | Toluene                     | 36.5   | 25  | 6.3 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 25  | 6.3 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 25  | 6.3 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 25  | 6.3 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 25  | 6.3 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 25  | 10  | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 25  | 6.3 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 202    | 25  | 6.3 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 124    | 25  | 6.3 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 25  | 6.3 | ug/l  |   |
|          | m,p-Xylene                  | 4480   | 50  | 6.3 | ug/l  |   |
| 95-47-6  | o-Xylene                    | 288    | 25  | 6.3 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 103%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |  |                                |
|---|--|--------------------------------|
| <b>Client Sample ID:</b> MW-16-082919                     |  | <b>Date Sampled:</b> 08/29/19  |
| <b>Lab Sample ID:</b> FA67699-2                           |  | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          |  | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |  |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |  |                                |

|                     | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E100686.D | 1  | 09/05/19 17:43 | AB | n/a       | n/a        | VE2198           |
| Run #2              |           |    |                |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | 0.75   | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.44   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-16-082919                              | <b>Date Sampled:</b>   | 08/29/19 |
| <b>Lab Sample ID:</b>    | FA67699-2                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 0.62   | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 101%   |        | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-02-082919                     | <b>Date Sampled:</b> 08/29/19  |
| <b>Lab Sample ID:</b> FA67699-3                           | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100687.D | 1  | 09/05/19 18:08 | AB | n/a       | n/a        | VE2198           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.36   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.40   | 0.50 | 0.13 | ug/l  | J |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-02-082919                              | <b>Date Sampled:</b>   | 08/29/19 |
| <b>Lab Sample ID:</b>    | FA67699-3                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-06-082919                     | <b>Date Sampled:</b> 08/29/19  |
| <b>Lab Sample ID:</b> FA67699-4                           | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100688.D | 1  | 09/05/19 18:32 | AB | n/a       | n/a        | VE2198           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | 0.49   | 0.50 | 0.13 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 0.16   | 0.50 | 0.13 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | MW-06-082919                              | <b>Date Sampled:</b>   | 08/29/19 |
| <b>Lab Sample ID:</b>    | FA67699-4                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%    |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> DUP-01-082719                    | <b>Date Sampled:</b> 08/27/19  |
| <b>Lab Sample ID:</b> FA67699-5                           | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100702.D | 5  | 09/06/19 12:47 | AB | n/a       | n/a        | VE2199           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL  | MDL  | Units | Q |
|------------|-----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 50  | 10   | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 2.5 | 0.63 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 2.5 | 0.63 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 2.5 | 0.63 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 2.5 | 0.63 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 2.5 | 1.0  | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 2.5 | 0.63 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 2.5 | 0.63 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 2.5 | 0.63 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 2.5 | 0.63 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 2.5 | 1.2  | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 2.5 | 1.0  | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 2.5 | 0.63 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 2.5 | 0.63 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | 240    | 2.5 | 0.63 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.4    | 2.5 | 0.63 | ug/l  | J |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 2.5 | 0.63 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 2.5 | 0.63 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 2.5 | 0.63 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 2.5 | 0.63 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | DUP-01-082719                             | <b>Date Sampled:</b>   | 08/27/19 |
| <b>Lab Sample ID:</b>    | FA67699-5                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Ground Water                         | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL  | MDL  | Units | Q |
|----------|-----------------------------|--------|-----|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 5.0 | 1.0  | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 2.5 | 0.63 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 2.5 | 0.63 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 2.5 | 1.0  | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 2.5 | 1.0  | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 10  | 5.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 13  | 6.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 2.5 | 0.63 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 2.5 | 0.63 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 2.5 | 0.63 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | 26.6   | 2.5 | 0.63 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 2.5 | 0.63 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 2.5 | 0.63 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 2.5 | 0.63 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | 9.2    | 2.5 | 0.63 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 2.5 | 1.0  | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 2.5 | 0.63 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 2.5 | 0.63 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 2.5 | 0.63 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | 9.0    | 2.5 | 0.63 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 5.0 | 0.63 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 2.5 | 0.63 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 100%   |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   |        | 83-118% |

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> TB-083019-02                     | <b>Date Sampled:</b> 08/30/19  |
| <b>Lab Sample ID:</b> FA67699-7                           | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Trip Blank Water                      | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #               | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | E100670.D | 1  | 09/05/19 11:14 | AB | n/a       | n/a        | VE2198           |
| Run #2              |           |    |                |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | 3.4    | 10   | 2.0  | ug/l  | J |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |   |                        |          |
|--------------------------|---|------------------------|----------|
| <b>Client Sample ID:</b> | TB-083019-02                              | <b>Date Sampled:</b>   | 08/30/19 |
| <b>Lab Sample ID:</b>    | FA67699-7                                 | <b>Date Received:</b>  | 08/31/19 |
| <b>Matrix:</b>           | AQ - Trip Blank Water                     | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                               |                        |          |
| <b>Project:</b>          | ERMORP: Univar; 8201 S 212th St, Kent, WA |                        |          |

## VOA Special List

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 110-54-3 | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8  | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6  | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9  | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | 0.18   | 0.50 | 0.13 | ug/l  | J |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   |        | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    |        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   |        | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody





## SGS Sample Receipt Summary

Job Number: FA67699

Client: ERM/UNIVAR

Project: Univar - 212 Kent, WA

Date / Time Received: 8/31/2019 9:30:00 AM

Delivery Method: FedEx

Airbill #s: 790979323921

|  |              |                 |
|--|--------------|-----------------|
| Therm ID: IR 1;                                  | Therm CF: 1; | # of Coolers: 1 |
| Cooler Temps (Raw Measured) °C: Cooler 1: (1.8); |              |                 |
| Cooler Temps (Corrected) °C: Cooler 1: (2.8);    |              |                 |

| <u>Cooler Information</u>   | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
|-----------------------------|-------------------------------------|-----------|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |           |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |           |                          |

| <u>Trip Blank Information</u>  | <u>Y</u>                 | <u>or</u> | <u>N</u>                 | <u>N/A</u>                          |
|--------------------------------|--------------------------|-----------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler | <input type="checkbox"/> |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/> |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| <u>W</u>               | <u>or</u> | <u>S</u>                 | <u>N/A</u>                          |
|------------------------|-----------|--------------------------|-------------------------------------|
| 3. Type Of TB Received |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| <u>Sample Information</u>                           | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles                 | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 2. Samples preserved properly                       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recvd for analysis: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. Condition of sample                              | <u>Intact</u>                       |           |                                     |                                     |
| 5. Sample recvd within HT                           | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match Sample Label        | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. % Solids Jar received?                          | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

| <u>Misc. Information</u>                  |              |                                  |                                      |
|---|--------------|----------------------------------|--------------------------------------|
| Number of Encores: 25-Gram _____          | 5-Gram _____ | Number of 5035 Field Kits: _____ | Number of Lab Filtered Metals: _____ |
| Test Strip Lot #: pH 0-3 _____            | 230315 _____ | pH 10-12 _____                   | 219813A _____                        |
| Residual Chlorine Test Strip Lot #: _____ |              |                                  |                                      |

Comments

SM001 Rev. Date 05/24/17 Technician: PETERH Date: 8/31/2019 9:30:00 AM Reviewer: PH Date: 9/2/2019

5.1  
5

## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-MB | E100667.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |



## Method Blank Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-MB | E100667.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102%   | 83-118% |

## Method Blank Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |

# Method Blank Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   | 83-118% |



# Blank Spike Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-BS | E100665.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.    | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|------------|-----------------------------|------------|----------|-------|--------|
| 67-64-1    | Acetone                     | 50         | 54.3     | 109   | 50-147 |
| 71-43-2    | Benzene                     | 10         | 9.8      | 98    | 81-122 |
| 108-86-1   | Bromobenzene                | 10         | 10       | 100   | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10         | 10.1     | 101   | 79-123 |
| 75-25-2    | Bromoform                   | 10         | 9.0      | 90    | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10         | 10.5     | 105   | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10         | 10.5     | 105   | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10         | 9.4      | 94    | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10         | 10.8     | 108   | 76-136 |
| 108-90-7   | Chlorobenzene               | 10         | 9.7      | 97    | 82-124 |
| 75-00-3    | Chloroethane                | 10         | 9.3      | 93    | 62-144 |
| 67-66-3    | Chloroform                  | 10         | 9.8      | 98    | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10         | 10       | 100   | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10         | 10.1     | 101   | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10         | 10.1     | 101   | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10         | 9.1      | 91    | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10         | 9.9      | 99    | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10         | 9.7      | 97    | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10         | 9.5      | 95    | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10         | 9.9      | 99    | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10         | 9.5      | 95    | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10         | 10.3     | 103   | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10         | 10       | 100   | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10         | 10.7     | 107   | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10         | 9.6      | 96    | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10         | 10.0     | 100   | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10         | 10.1     | 101   | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10         | 9.6      | 96    | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10         | 10.5     | 105   | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10         | 9.3      | 93    | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10         | 9.8      | 98    | 80-120 |
| 100-41-4   | Ethylbenzene                | 10         | 9.9      | 99    | 81-121 |
| 110-54-3   | Hexane                      | 10         | 10.8     | 108   | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10         | 10.3     | 103   | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10         | 10.3     | 103   | 79-130 |
| 74-83-9    | Methyl Bromide              | 10         | 10.7     | 107   | 59-143 |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2198-BS | E100665.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.9     | 119   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 9.9      | 99    | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.1     | 101   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.9     | 102   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.3     | 103   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.7      | 97    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.7      | 97    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.3     | 103   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.1     | 101   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.7      | 97    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.1      | 91    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 10.1     | 101   | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 9.8      | 98    | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.4      | 94    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 12.2     | 122   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 9.4      | 94    | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.2     | 102   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.6     | 106   | 69-159 |
|          | m,p-Xylene                  | 20         | 20.0     | 100   | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.5      | 95    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 83-118% |

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.    | Compound                    | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|-----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                     | 50            | 55.1        | 110      | 50-147 |
| 71-43-2    | Benzene                     | 10            | 9.8         | 98       | 81-122 |
| 108-86-1   | Bromobenzene                | 10            | 10          | 100      | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10            | 10.3        | 103      | 79-123 |
| 75-25-2    | Bromoform                   | 10            | 9.0         | 90       | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10            | 10.5        | 105      | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10            | 10.5        | 105      | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10            | 9.6         | 96       | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10            | 10.7        | 107      | 76-136 |
| 108-90-7   | Chlorobenzene               | 10            | 9.6         | 96       | 82-124 |
| 75-00-3    | Chloroethane                | 10            | 9.1         | 91       | 62-144 |
| 67-66-3    | Chloroform                  | 10            | 9.8         | 98       | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10            | 10.1        | 101      | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10            | 10.3        | 103      | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10            | 10.1        | 101      | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10            | 9.3         | 93       | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10            | 10          | 100      | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10            | 9.1         | 91       | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10            | 9.4         | 94       | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10            | 10          | 100      | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10            | 9.6         | 96       | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10            | 10.3        | 103      | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10            | 10.3        | 103      | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10            | 10.7        | 107      | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10            | 9.3         | 93       | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10            | 9.8         | 98       | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10            | 10.1        | 101      | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10            | 9.7         | 97       | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10            | 9.7         | 97       | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10            | 9.4         | 94       | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10            | 9.8         | 98       | 80-120 |
| 100-41-4   | Ethylbenzene                | 10            | 9.8         | 98       | 81-121 |
| 110-54-3   | Hexane                      | 10            | 10.5        | 105      | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10            | 9.9         | 99       | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10            | 10.2        | 102      | 79-130 |
| 74-83-9    | Methyl Bromide              | 10            | 9.9         | 99       | 59-143 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.8     | 118   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 10.1     | 101   | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.4     | 104   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.6     | 101   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.4     | 104   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.4      | 94    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.6      | 96    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.8     | 108   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.0     | 100   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.7      | 97    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.1      | 91    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 9.7      | 97    | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 10.3     | 103   | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.6      | 96    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 11.8     | 118   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 10.0     | 100   | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.3     | 103   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.1     | 101   | 69-159 |
|          | m,p-Xylene                  | 20         | 19.7     | 99    | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.3      | 93    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104% | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-13MS  | E100678.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13MSD | E100679.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13    | E100671.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.    | Compound                    | FA67623-13 Spike |   | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |           |
|------------|-----------------------------|------------------|---|---------|------|------------|----------|-------|-----|----------------|-----------|
|            |                             | ug/l             | Q |         |      |            |          |       |     |                |           |
| 67-64-1    | Acetone                     | ND               |   | 250     | 232  | 93         | 250      | 231   | 92  | 0              | 50-147/21 |
| 71-43-2    | Benzene                     | 0.20             | J | 50      | 48.8 | 97         | 50       | 47.6  | 95  | 2              | 81-122/14 |
| 108-86-1   | Bromobenzene                | ND               |   | 50      | 48.2 | 96         | 50       | 48.5  | 97  | 1              | 80-121/14 |
| 75-27-4    | Bromodichloromethane        | ND               |   | 50      | 45.9 | 92         | 50       | 45.8  | 92  | 0              | 79-123/19 |
| 75-25-2    | Bromoform                   | ND               |   | 50      | 31.5 | 63*        | 50       | 29.3  | 59* | 7              | 66-123/21 |
| 104-51-8   | n-Butylbenzene              | ND               |   | 50      | 50.9 | 102        | 50       | 50.3  | 101 | 1              | 79-126/16 |
| 135-98-8   | sec-Butylbenzene            | ND               |   | 50      | 51.5 | 103        | 50       | 51.0  | 102 | 1              | 83-133/16 |
| 98-06-6    | tert-Butylbenzene           | ND               |   | 50      | 46.1 | 92         | 50       | 46.3  | 93  | 0              | 80-133/16 |
| 56-23-5    | Carbon Tetrachloride        | ND               |   | 50      | 52.7 | 105        | 50       | 49.7  | 99  | 6              | 76-136/23 |
| 108-90-7   | Chlorobenzene               | ND               |   | 50      | 47.4 | 95         | 50       | 46.9  | 94  | 1              | 82-124/14 |
| 75-00-3    | Chloroethane                | ND               |   | 50      | 45.0 | 90         | 50       | 41.9  | 84  | 7              | 62-144/20 |
| 67-66-3    | Chloroform                  | ND               |   | 50      | 49.4 | 99         | 50       | 47.2  | 94  | 5              | 80-124/15 |
| 95-49-8    | o-Chlorotoluene             | ND               |   | 50      | 49.2 | 98         | 50       | 49.5  | 99  | 1              | 81-127/15 |
| 106-43-4   | p-Chlorotoluene             | ND               |   | 50      | 49.4 | 99         | 50       | 49.8  | 100 | 1              | 83-130/15 |
| 124-48-1   | Dibromochloromethane        | ND               |   | 50      | 39.3 | 79         | 50       | 38.8  | 78  | 1              | 78-122/19 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               |   | 50      | 45.3 | 91         | 50       | 42.9  | 86  | 5              | 64-123/18 |
| 106-93-4   | 1,2-Dibromoethane           | ND               |   | 50      | 47.6 | 95         | 50       | 47.9  | 96  | 1              | 75-120/13 |
| 75-71-8    | Dichlorodifluoromethane     | ND               |   | 50      | 46.4 | 93         | 50       | 46.0  | 92  | 1              | 42-167/19 |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               |   | 50      | 46.1 | 92         | 50       | 45.3  | 91  | 2              | 82-124/14 |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               |   | 50      | 48.6 | 97         | 50       | 48.0  | 96  | 1              | 84-125/14 |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               |   | 50      | 47.4 | 95         | 50       | 46.7  | 93  | 1              | 78-120/15 |
| 75-34-3    | 1,1-Dichloroethane          | 0.42             | J | 50      | 51.4 | 102        | 50       | 49.0  | 97  | 5              | 81-122/15 |
| 107-06-2   | 1,2-Dichloroethane          | ND               |   | 50      | 51.0 | 102        | 50       | 49.9  | 100 | 2              | 75-125/14 |
| 75-35-4    | 1,1-Dichloroethylene        | ND               |   | 50      | 53.3 | 107        | 50       | 51.2  | 102 | 4              | 78-137/18 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.24             | J | 50      | 46.5 | 93         | 50       | 44.8  | 89  | 4              | 78-120/15 |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND               |   | 50      | 48.4 | 97         | 50       | 47.0  | 94  | 3              | 76-127/17 |
| 78-87-5    | 1,2-Dichloropropane         | ND               |   | 50      | 49.1 | 98         | 50       | 49.0  | 98  | 0              | 76-124/14 |
| 142-28-9   | 1,3-Dichloropropane         | ND               |   | 50      | 46.2 | 92         | 50       | 47.1  | 94  | 2              | 80-118/13 |
| 594-20-7   | 2,2-Dichloropropane         | ND               |   | 50      | 48.5 | 97         | 50       | 45.4  | 91  | 7              | 74-139/17 |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               |   | 50      | 40.8 | 82         | 50       | 42.1  | 84  | 3              | 75-118/23 |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               |   | 50      | 46.0 | 92         | 50       | 46.8  | 94  | 2              | 80-120/22 |
| 100-41-4   | Ethylbenzene                | ND               |   | 50      | 48.4 | 97         | 50       | 47.2  | 94  | 3              | 81-121/14 |
| 110-54-3   | Hexane                      | ND               |   | 50      | 51.0 | 102        | 50       | 49.4  | 99  | 3              | 69-132/20 |
| 98-82-8    | Isopropylbenzene            | ND               |   | 50      | 49.1 | 98         | 50       | 48.0  | 96  | 2              | 83-132/15 |
| 99-87-6    | p-Isopropyltoluene          | ND               |   | 50      | 50.1 | 100        | 50       | 49.5  | 99  | 1              | 79-130/16 |
| 74-83-9    | Methyl Bromide              | ND               |   | 50      | 53.3 | 107        | 50       | 51.1  | 102 | 4              | 59-143/19 |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample        | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-13MS  | E100678.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13MSD | E100679.D | 5  | 09/05/19 | AB | n/a       | n/a        | VE2198           |
| FA67623-13    | E100671.D | 1  | 09/05/19 | AB | n/a       | n/a        | VE2198           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-2, FA67699-3, FA67699-4, FA67699-7

| CAS No.  | Compound                    | FA67623-13 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50   | 58.5    | 117  | 50         | 58.5     | 117   | 0   | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50   | 49.6    | 99   | 50         | 49.7     | 99    | 0   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50   | 53.4    | 107  | 50         | 50.2     | 100   | 6   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250  | 246     | 98   | 250        | 248      | 99    | 1   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | ND               | 50   | 50.6    | 101  | 50         | 51.0     | 102   | 1   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50   | 45.1    | 90   | 50         | 44.4     | 89    | 2   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50   | 47.0    | 94   | 50         | 45.8     | 92    | 3   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50   | 53.8    | 108  | 50         | 51.6     | 103   | 4   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50   | 48.8    | 98   | 50         | 48.5     | 97    | 1   | 76-135/16      |
| 108-88-3 | Toluene                     | ND               | 50   | 47.3    | 95   | 50         | 47.3     | 95    | 0   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50   | 42.6    | 85   | 50         | 43.0     | 86    | 1   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50   | 49.7    | 99   | 50         | 47.9     | 96    | 4   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50   | 48.9    | 98   | 50         | 49.2     | 98    | 1   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50   | 47.9    | 96   | 50         | 46.7     | 93    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50   | 62.6    | 125  | 50         | 60.1     | 120   | 4   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50   | 48.2    | 96   | 50         | 47.8     | 96    | 1   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND               | 50   | 47.8    | 96   | 50         | 47.7     | 95    | 0   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND               | 50   | 50.4    | 101  | 50         | 49.9     | 100   | 1   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | 0.30             | J 50 | 51.1    | 102  | 50         | 50.9     | 101   | 0   | 69-159/18      |
|          | m,p-Xylene                  | ND               | 100  | 96.9    | 97   | 100        | 94.9     | 95    | 2   | 79-126/15      |
| 95-47-6  | o-Xylene                    | ND               | 50   | 45.4    | 91   | 50         | 44.3     | 89    | 2   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-13 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 100% | 107%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 109% | 107%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 98%  | 94%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 104% | 102%       | 83-118% |

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.    | Compound                    | FA67623-16 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|------------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|            |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 67-64-1    | Acetone                     | ND               | 250  | 247     | 99   | 250        | 250      | 100   | 1   | 50-147/21      |
| 71-43-2    | Benzene                     | 0.52             | 50   | 48.0    | 95   | 50         | 50.2     | 99    | 4   | 81-122/14      |
| 108-86-1   | Bromobenzene                | ND               | 50   | 47.1    | 94   | 50         | 48.6     | 97    | 3   | 80-121/14      |
| 75-27-4    | Bromodichloromethane        | ND               | 50   | 44.9    | 90   | 50         | 46.6     | 93    | 4   | 79-123/19      |
| 75-25-2    | Bromoform                   | ND               | 50   | 30.1    | 60*  | 50         | 31.5     | 63*   | 5   | 66-123/21      |
| 104-51-8   | n-Butylbenzene              | ND               | 50   | 50.4    | 101  | 50         | 52.9     | 106   | 5   | 79-126/16      |
| 135-98-8   | sec-Butylbenzene            | 0.31             | J 50 | 50.7    | 101  | 50         | 53.0     | 105   | 4   | 83-133/16      |
| 98-06-6    | tert-Butylbenzene           | ND               | 50   | 45.4    | 91   | 50         | 47.5     | 95    | 5   | 80-133/16      |
| 56-23-5    | Carbon Tetrachloride        | ND               | 50   | 50.3    | 101  | 50         | 53.9     | 108   | 7   | 76-136/23      |
| 108-90-7   | Chlorobenzene               | ND               | 50   | 46.0    | 92   | 50         | 48.4     | 97    | 5   | 82-124/14      |
| 75-00-3    | Chloroethane                | ND               | 50   | 83.4    | 167* | 50         | 87.4     | 175*  | 5   | 62-144/20      |
| 67-66-3    | Chloroform                  | 0.24             | J 50 | 49.0    | 98   | 50         | 51.8     | 103   | 6   | 80-124/15      |
| 95-49-8    | o-Chlorotoluene             | 0.68             | 50   | 49.3    | 97   | 50         | 51.5     | 102   | 4   | 81-127/15      |
| 106-43-4   | p-Chlorotoluene             | ND               | 50   | 48.0    | 96   | 50         | 50.4     | 101   | 5   | 83-130/15      |
| 124-48-1   | Dibromochloromethane        | ND               | 50   | 38.5    | 77*  | 50         | 39.9     | 80    | 4   | 78-122/19      |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND               | 50   | 45.8    | 92   | 50         | 47.6     | 95    | 4   | 64-123/18      |
| 106-93-4   | 1,2-Dibromoethane           | ND               | 50   | 45.6    | 91   | 50         | 47.1     | 94    | 3   | 75-120/13      |
| 75-71-8    | Dichlorodifluoromethane     | ND               | 50   | 45.8    | 92   | 50         | 49.9     | 100   | 9   | 42-167/19      |
| 95-50-1    | 1,2-Dichlorobenzene         | ND               | 50   | 45.3    | 91   | 50         | 47.8     | 96    | 5   | 82-124/14      |
| 541-73-1   | 1,3-Dichlorobenzene         | ND               | 50   | 47.3    | 95   | 50         | 49.3     | 99    | 4   | 84-125/14      |
| 106-46-7   | 1,4-Dichlorobenzene         | ND               | 50   | 45.9    | 92   | 50         | 48.0     | 96    | 4   | 78-120/15      |
| 75-34-3    | 1,1-Dichloroethane          | 0.26             | J 50 | 50.8    | 101  | 50         | 54.4     | 108   | 7   | 81-122/15      |
| 107-06-2   | 1,2-Dichloroethane          | 0.20             | J 50 | 50.9    | 101  | 50         | 51.8     | 103   | 2   | 75-125/14      |
| 75-35-4    | 1,1-Dichloroethylene        | ND               | 50   | 52.6    | 105  | 50         | 56.7     | 113   | 8   | 78-137/18      |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.83             | 50   | 45.7    | 90   | 50         | 49.5     | 97    | 8   | 78-120/15      |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.0              | 50   | 49.1    | 96   | 50         | 53.1     | 104   | 8   | 76-127/17      |
| 78-87-5    | 1,2-Dichloropropane         | ND               | 50   | 48.8    | 98   | 50         | 49.9     | 100   | 2   | 76-124/14      |
| 142-28-9   | 1,3-Dichloropropane         | ND               | 50   | 45.1    | 90   | 50         | 45.9     | 92    | 2   | 80-118/13      |
| 594-20-7   | 2,2-Dichloropropane         | ND               | 50   | 46.0    | 92   | 50         | 49.5     | 99    | 7   | 74-139/17      |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND               | 50   | 38.7    | 77   | 50         | 38.8     | 78    | 0   | 75-118/23      |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND               | 50   | 43.3    | 87   | 50         | 44.3     | 89    | 2   | 80-120/22      |
| 100-41-4   | Ethylbenzene                | 4.3              | 50   | 50.9    | 93   | 50         | 54.3     | 100   | 6   | 81-121/14      |
| 110-54-3   | Hexane                      | 2.1              | 50   | 52.1    | 100  | 50         | 54.2     | 104   | 4   | 69-132/20      |
| 98-82-8    | Isopropylbenzene            | 7.6              | 50   | 55.2    | 95   | 50         | 58.6     | 102   | 6   | 83-132/15      |
| 99-87-6    | p-Isopropyltoluene          | ND               | 50   | 48.9    | 98   | 50         | 50.9     | 102   | 4   | 79-130/16      |
| 74-83-9    | Methyl Bromide              | ND               | 50   | 52.3    | 105  | 50         | 55.7     | 111   | 6   | 59-143/19      |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-1, FA67699-5

| CAS No.  | Compound                    | FA67623-16 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50   | 56.9    | 114  | 50         | 60.9     | 122   | 7   | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50   | 48.7    | 97   | 50         | 49.9     | 100   | 2   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50   | 53.0    | 106  | 50         | 56.0     | 112   | 6   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250  | 258     | 103  | 250        | 268      | 107   | 4   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | 13.3             | 50   | 59.9    | 93   | 50         | 62.2     | 98    | 4   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50   | 43.0    | 86   | 50         | 45.2     | 90    | 5   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50   | 47.9    | 96   | 50         | 50.6     | 101   | 5   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50   | 52.2    | 104  | 50         | 53.8     | 108   | 3   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50   | 47.5    | 95   | 50         | 49.3     | 99    | 4   | 76-135/16      |
| 108-88-3 | Toluene                     | 0.82             | 50   | 46.8    | 92   | 50         | 49.2     | 97    | 5   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50   | 41.4    | 83   | 50         | 45.1     | 90    | 9   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50   | 48.6    | 97   | 50         | 51.9     | 104   | 7   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50   | 48.2    | 96   | 50         | 50.2     | 100   | 4   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50   | 46.7    | 93   | 50         | 48.2     | 96    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50   | 63.1    | 126  | 50         | 65.6     | 131   | 4   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50   | 47.4    | 95   | 50         | 48.1     | 96    | 1   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 44.7             | 50   | 82.9    | 76*  | 50         | 86.0     | 83    | 4   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 5.7              | 50   | 54.6    | 98   | 50         | 56.7     | 102   | 4   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | 0.59             | 50   | 50.7    | 100  | 50         | 55.3     | 109   | 9   | 69-159/18      |
|          | m,p-Xylene                  | 73.5             | 100  | 153     | 80   | 100        | 161      | 88    | 5   | 79-126/15      |
| 95-47-6  | o-Xylene                    | 0.41             | J 50 | 44.4    | 88   | 50         | 47.9     | 95    | 8   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-16 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 105% | 101%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 112% | 111% | 107%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 98%  | 98%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 100% | 104%       | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

\* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

Univar

ERMORP: Univar; 8201 S 212th St, Kent, WA

0487093

SGS Job Number: FA67699R

Sampling Date: 08/30/19

Report to:

ERM  
1050 SW 6th Ave Suite 1650  
Portland, OR 97204  
Dylan.Stankus@erm.com; Alison.Lunde@erm.com  
  
ATTN: Dylan Stankus

Total number of pages in report: **19**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Caitlin Brice".

Caitlin Brice, M.S.  
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.



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## Sample Summary

Univar

Job No: FA67699R

ERMORP: Univar; 8201 S 212th St, Kent, WA  
Project No: 0487093

| Sample Number | Collected Date | Time By | Received | Matrix Code Type | Client Sample ID |
|---------------|----------------|---------|----------|------------------|------------------|
|---------------|----------------|---------|----------|------------------|------------------|

This report contains results reported as ND = Not detected. The following applies:  
Organics ND = Not detected above the MDL

---

|            |          |       |    |          |    |              |               |
|------------|----------|-------|----|----------|----|--------------|---------------|
| FA67699-6R | 08/30/19 | 12:30 | AL | 08/31/19 | AQ | Ground Water | MW-29D-083019 |
|------------|----------|-------|----|----------|----|--------------|---------------|

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Univar

**Job No:** FA67699R

**Site:** ERMORP: Univar; 8201 S 212th St, Kent, WA

**Report Date** 9/12/2019 2:19:38

1 Sample was collected on 08/30/2019 and received at SGS North America Inc - Orlando on 08/31/2019 properly preserved, at 2.8 Deg. C and intact. This Sample received an SGS Orlando job number of FA67699R. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VE2199

All samples were analyzed within the recommended method holding time.

Sample(s) FA67623-16MS, FA67623-16MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery(s) for 1,2,4-Trimethylbenzene, Bromoform, Chloroethane, Dibromochloromethane are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Bromoform, Chloroethane are outside control limits. Probable cause is due to matrix interference.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Ariel Hartney, Client Services (*Signature on File*)



## Summary of Hits

**Job Number:** FA67699R  
**Account:** Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA  
**Collected:** 08/30/19



| Lab Sample ID | Client Sample ID | Result/<br>Qual | RL | MDL | Units | Method |
|---------------|------------------|-----------------|----|-----|-------|--------|
|---------------|------------------|-----------------|----|-----|-------|--------|

**FA67699-6R**    **MW-29D-083019**

|         |  |     |      |      |      |             |
|---------|--|-----|------|------|------|-------------|
| Toluene |  | 1.8 | 0.50 | 0.13 | ug/l | SW846 8260B |
|---------|--|-----|------|------|------|-------------|

Sample Results

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Report of Analysis

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## Report of Analysis

|   |                                |
|---|--------------------------------|
| <b>Client Sample ID:</b> MW-29D-083019                    | <b>Date Sampled:</b> 08/30/19  |
| <b>Lab Sample ID:</b> FA67699-6R                          | <b>Date Received:</b> 08/31/19 |
| <b>Matrix:</b> AQ - Ground Water                          | <b>Percent Solids:</b> n/a     |
| <b>Method:</b> SW846 8260B                                |                                |
| <b>Project:</b> ERMORP: Univar; 8201 S 212th St, Kent, WA |                                |

| Run #1 | File ID   | DF | Analyzed       | By | Prep Date | Prep Batch | Analytical Batch |
|--------|-----------|----|----------------|----|-----------|------------|------------------|
| Run #1 | E100703.D | 1  | 09/06/19 13:12 | AB | n/a       | n/a        | VE2199           |
| Run #2 |           |    |                |    |           |            |                  |

| Run #1 | Purge Volume |
|--------|--------------|
| Run #1 | 10.0 ml      |
| Run #2 |              |

## VOA Special List

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound





Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody





## SGS Sample Receipt Summary

Job Number: FA67699

Client: ERM/UNIVAR

Project: Univar - 212 Kent, WA

Date / Time Received: 8/31/2019 9:30:00 AM

Delivery Method: FedEx

Airbill #s: 790979323921

|  |              |                 |
|--|--------------|-----------------|
| Therm ID: IR 1;                                  | Therm CF: 1; | # of Coolers: 1 |
| Cooler Temps (Raw Measured) °C: Cooler 1: (1.8); |              |                 |
| Cooler Temps (Corrected) °C: Cooler 1: (2.8);    |              |                 |

| Cooler Information          | Y                                   | or | N                        |
|-----------------------------|-------------------------------------|----|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> |    | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |    |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |    |                          |

| Trip Blank Information         | Y                        | or | N                        | N/A                                 |
|--------------------------------|--------------------------|----|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler | <input type="checkbox"/> |    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/> |    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

|                        | W                        | or | S                        | N/A                                 |
|------------------------|--------------------------|----|--------------------------|-------------------------------------|
| 3. Type Of TB Received | <input type="checkbox"/> |    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| Sample Information                                  | Y                                   | or | N                                   | N/A                                 |
|---|-------------------------------------|----|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles                 | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |                                     |
| 2. Samples preserved properly                       | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recvd for analysis: | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |                                     |
| 4. Condition of sample                              | <u>Intact</u>                       |    |                                     |                                     |
| 5. Sample recvd within HT                           | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match Sample Label        | <input checked="" type="checkbox"/> |    | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input type="checkbox"/>            |    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            |    | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            |    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            |    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. % Solids Jar received?                          | <input type="checkbox"/>            |    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            |    | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

| Misc. Information                         |              |                                  |                                      |
|---|--------------|----------------------------------|--------------------------------------|
| Number of Encores: 25-Gram _____          | 5-Gram _____ | Number of 5035 Field Kits: _____ | Number of Lab Filtered Metals: _____ |
| Test Strip Lot #: pH 0-3 _____            | 230315 _____ | pH 10-12 _____                   | 219813A _____                        |
| Residual Chlorine Test Strip Lot #: _____ |              |                                  |                                      |

Comments

SM001 Rev. Date 05/24/17 Technician: PETERH Date: 8/31/2019 9:30:00 AM Reviewer: PH Date: 9/2/2019

5.1  
5

**Job Change Order: FA67699**

|                             |   |                       |           |
|-----------------------------|---|-----------------------|-----------|
| <b>Requested Date:</b>      | 9/9/2019                                  | <b>Received Date:</b> | 8/31/2019 |
| <b>Account Name:</b>        | Univar                                    | <b>Due Date:</b>      | 9/16/2019 |
| <b>Project Description:</b> | ERMORP: Univar; 8201 S 212th St, Kent, WA | <b>Deliverable:</b>   | COMMBN    |
| <b>CSR:</b>                 | EK  | <b>TAT (Days):</b>    | 10        |

=====  
**Sample #:** FA67699-6                      **Change:**  
**Dept:**    Run sample for VOCs (VLL8260SL)  
**TAT:**    10  
  
MW-29D-083019  
=====

**FA67699R: Chain of Custody**

**Page 3 of 3**

**Above Changes Per:** Dylan Stankus

**Date/Time:** 9/9/2019 3:37:01 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

| CAS No.    | Compound                    | Result | RL   | MDL  | Units | Q |
|------------|-----------------------------|--------|------|------|-------|---|
| 67-64-1    | Acetone                     | ND     | 10   | 2.0  | ug/l  |   |
| 71-43-2    | Benzene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-86-1   | Bromobenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-27-4    | Bromodichloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-25-2    | Bromoform                   | ND     | 0.50 | 0.13 | ug/l  |   |
| 104-51-8   | n-Butylbenzene              | ND     | 0.50 | 0.13 | ug/l  |   |
| 135-98-8   | sec-Butylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 98-06-6    | tert-Butylbenzene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 56-23-5    | Carbon Tetrachloride        | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-90-7   | Chlorobenzene               | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-00-3    | Chloroethane                | ND     | 0.50 | 0.20 | ug/l  |   |
| 67-66-3    | Chloroform                  | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-49-8    | o-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-43-4   | p-Chlorotoluene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 124-48-1   | Dibromochloromethane        | ND     | 0.50 | 0.13 | ug/l  |   |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND     | 0.50 | 0.25 | ug/l  |   |
| 106-93-4   | 1,2-Dibromoethane           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-71-8    | Dichlorodifluoromethane     | ND     | 0.50 | 0.20 | ug/l  |   |
| 95-50-1    | 1,2-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 541-73-1   | 1,3-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 106-46-7   | 1,4-Dichlorobenzene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane          | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene        | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene    | ND     | 0.50 | 0.13 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene  | ND     | 0.50 | 0.13 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 142-28-9   | 1,3-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 594-20-7   | 2,2-Dichloropropane         | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND     | 0.50 | 0.13 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-41-4   | Ethylbenzene                | ND     | 0.50 | 0.13 | ug/l  |   |
| 110-54-3   | Hexane                      | ND     | 1.0  | 0.20 | ug/l  |   |
| 98-82-8    | Isopropylbenzene            | ND     | 0.50 | 0.13 | ug/l  |   |
| 99-87-6    | p-Isopropyltoluene          | ND     | 0.50 | 0.13 | ug/l  |   |
| 74-83-9    | Methyl Bromide              | ND     | 0.50 | 0.20 | ug/l  |   |

# Method Blank Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-MB | E100696.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

| CAS No.  | Compound                    | Result | RL   | MDL  | Units | Q |
|----------|-----------------------------|--------|------|------|-------|---|
| 74-87-3  | Methyl Chloride             | ND     | 0.50 | 0.20 | ug/l  |   |
| 74-95-3  | Methylene Bromide           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-09-2  | Methylene Chloride          | ND     | 2.0  | 1.0  | ug/l  |   |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND     | 2.5  | 1.3  | ug/l  |   |
| 103-65-1 | n-Propylbenzene             | ND     | 0.50 | 0.13 | ug/l  |   |
| 100-42-5 | Styrene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND     | 0.50 | 0.13 | ug/l  |   |
| 127-18-4 | Tetrachloroethylene         | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-88-3 | Toluene                     | ND     | 0.50 | 0.13 | ug/l  |   |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 71-55-6  | 1,1,1-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-00-5  | 1,1,2-Trichloroethane       | ND     | 0.50 | 0.13 | ug/l  |   |
| 79-01-6  | Trichloroethylene           | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-69-4  | Trichlorofluoromethane      | ND     | 0.50 | 0.20 | ug/l  |   |
| 96-18-4  | 1,2,3-Trichloropropane      | ND     | 0.50 | 0.13 | ug/l  |   |
| 95-63-6  | 1,2,4-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 108-67-8 | 1,3,5-Trimethylbenzene      | ND     | 0.50 | 0.13 | ug/l  |   |
| 75-01-4  | Vinyl Chloride              | ND     | 0.50 | 0.13 | ug/l  |   |
|          | m,p-Xylene                  | ND     | 1.0  | 0.13 | ug/l  |   |
| 95-47-6  | o-Xylene                    | ND     | 0.50 | 0.13 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits |         |
|------------|-----------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 108%   | 79-125% |
| 2037-26-5  | Toluene-D8            | 99%    | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104%   | 83-118% |

# Blank Spike Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

| CAS No.    | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|------------|-----------------------------|------------|----------|-------|--------|
| 67-64-1    | Acetone                     | 50         | 55.1     | 110   | 50-147 |
| 71-43-2    | Benzene                     | 10         | 9.8      | 98    | 81-122 |
| 108-86-1   | Bromobenzene                | 10         | 10       | 100   | 80-121 |
| 75-27-4    | Bromodichloromethane        | 10         | 10.3     | 103   | 79-123 |
| 75-25-2    | Bromoform                   | 10         | 9.0      | 90    | 66-123 |
| 104-51-8   | n-Butylbenzene              | 10         | 10.5     | 105   | 79-126 |
| 135-98-8   | sec-Butylbenzene            | 10         | 10.5     | 105   | 83-133 |
| 98-06-6    | tert-Butylbenzene           | 10         | 9.6      | 96    | 80-133 |
| 56-23-5    | Carbon Tetrachloride        | 10         | 10.7     | 107   | 76-136 |
| 108-90-7   | Chlorobenzene               | 10         | 9.6      | 96    | 82-124 |
| 75-00-3    | Chloroethane                | 10         | 9.1      | 91    | 62-144 |
| 67-66-3    | Chloroform                  | 10         | 9.8      | 98    | 80-124 |
| 95-49-8    | o-Chlorotoluene             | 10         | 10.1     | 101   | 81-127 |
| 106-43-4   | p-Chlorotoluene             | 10         | 10.3     | 103   | 83-130 |
| 124-48-1   | Dibromochloromethane        | 10         | 10.1     | 101   | 78-122 |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | 10         | 9.3      | 93    | 64-123 |
| 106-93-4   | 1,2-Dibromoethane           | 10         | 10       | 100   | 75-120 |
| 75-71-8    | Dichlorodifluoromethane     | 10         | 9.1      | 91    | 42-167 |
| 95-50-1    | 1,2-Dichlorobenzene         | 10         | 9.4      | 94    | 82-124 |
| 541-73-1   | 1,3-Dichlorobenzene         | 10         | 10       | 100   | 84-125 |
| 106-46-7   | 1,4-Dichlorobenzene         | 10         | 9.6      | 96    | 78-120 |
| 75-34-3    | 1,1-Dichloroethane          | 10         | 10.3     | 103   | 81-122 |
| 107-06-2   | 1,2-Dichloroethane          | 10         | 10.3     | 103   | 75-125 |
| 75-35-4    | 1,1-Dichloroethylene        | 10         | 10.7     | 107   | 78-137 |
| 156-59-2   | cis-1,2-Dichloroethylene    | 10         | 9.3      | 93    | 78-120 |
| 156-60-5   | trans-1,2-Dichloroethylene  | 10         | 9.8      | 98    | 76-127 |
| 78-87-5    | 1,2-Dichloropropane         | 10         | 10.1     | 101   | 76-124 |
| 142-28-9   | 1,3-Dichloropropane         | 10         | 9.7      | 97    | 80-118 |
| 594-20-7   | 2,2-Dichloropropane         | 10         | 9.7      | 97    | 74-139 |
| 10061-01-5 | cis-1,3-Dichloropropene     | 10         | 9.4      | 94    | 75-118 |
| 10061-02-6 | trans-1,3-Dichloropropene   | 10         | 9.8      | 98    | 80-120 |
| 100-41-4   | Ethylbenzene                | 10         | 9.8      | 98    | 81-121 |
| 110-54-3   | Hexane                      | 10         | 10.5     | 105   | 69-132 |
| 98-82-8    | Isopropylbenzene            | 10         | 9.9      | 99    | 83-132 |
| 99-87-6    | p-Isopropyltoluene          | 10         | 10.2     | 102   | 79-130 |
| 74-83-9    | Methyl Bromide              | 10         | 9.9      | 99    | 59-143 |

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample    | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-----------|----|----------|----|-----------|------------|------------------|
| VE2199-BS | E100694.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

| CAS No.  | Compound                    | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------|-----------------------------|------------|----------|-------|--------|
| 74-87-3  | Methyl Chloride             | 10         | 11.8     | 118   | 50-159 |
| 74-95-3  | Methylene Bromide           | 10         | 10.1     | 101   | 78-119 |
| 75-09-2  | Methylene Chloride          | 10         | 10.4     | 104   | 69-135 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 50         | 50.6     | 101   | 66-122 |
| 103-65-1 | n-Propylbenzene             | 10         | 10.4     | 104   | 82-133 |
| 100-42-5 | Styrene                     | 10         | 9.4      | 94    | 78-119 |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | 10         | 9.6      | 96    | 77-122 |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | 10         | 10.8     | 108   | 72-120 |
| 127-18-4 | Tetrachloroethylene         | 10         | 10.0     | 100   | 76-135 |
| 108-88-3 | Toluene                     | 10         | 9.7      | 97    | 80-120 |
| 120-82-1 | 1,2,4-Trichlorobenzene      | 10         | 9.1      | 91    | 73-129 |
| 71-55-6  | 1,1,1-Trichloroethane       | 10         | 9.7      | 97    | 75-130 |
| 79-00-5  | 1,1,2-Trichloroethane       | 10         | 10.3     | 103   | 76-119 |
| 79-01-6  | Trichloroethylene           | 10         | 9.6      | 96    | 81-126 |
| 75-69-4  | Trichlorofluoromethane      | 10         | 11.8     | 118   | 71-156 |
| 96-18-4  | 1,2,3-Trichloropropane      | 10         | 10.0     | 100   | 77-120 |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 10         | 9.8      | 98    | 79-120 |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 10         | 10.3     | 103   | 79-120 |
| 75-01-4  | Vinyl Chloride              | 10         | 10.1     | 101   | 69-159 |
|          | m,p-Xylene                  | 20         | 19.7     | 99    | 79-126 |
| 95-47-6  | o-Xylene                    | 10         | 9.3      | 93    | 80-127 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102% | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 110% | 79-125% |
| 2037-26-5  | Toluene-D8            | 98%  | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 104% | 83-118% |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

| CAS No.    | Compound                    | FA67623-16<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | Spike<br>ug/l | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|-----------------------------|--------------------|------------|------|------------|---------|---------------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                     | ND                 |            | 250  | 247        | 99      | 250           | 250         | 100      | 1   | 50-147/21         |
| 71-43-2    | Benzene                     | 0.52               |            | 50   | 48.0       | 95      | 50            | 50.2        | 99       | 4   | 81-122/14         |
| 108-86-1   | Bromobenzene                | ND                 |            | 50   | 47.1       | 94      | 50            | 48.6        | 97       | 3   | 80-121/14         |
| 75-27-4    | Bromodichloromethane        | ND                 |            | 50   | 44.9       | 90      | 50            | 46.6        | 93       | 4   | 79-123/19         |
| 75-25-2    | Bromoform                   | ND                 |            | 50   | 30.1       | 60*     | 50            | 31.5        | 63*      | 5   | 66-123/21         |
| 104-51-8   | n-Butylbenzene              | ND                 |            | 50   | 50.4       | 101     | 50            | 52.9        | 106      | 5   | 79-126/16         |
| 135-98-8   | sec-Butylbenzene            | 0.31               | J          | 50   | 50.7       | 101     | 50            | 53.0        | 105      | 4   | 83-133/16         |
| 98-06-6    | tert-Butylbenzene           | ND                 |            | 50   | 45.4       | 91      | 50            | 47.5        | 95       | 5   | 80-133/16         |
| 56-23-5    | Carbon Tetrachloride        | ND                 |            | 50   | 50.3       | 101     | 50            | 53.9        | 108      | 7   | 76-136/23         |
| 108-90-7   | Chlorobenzene               | ND                 |            | 50   | 46.0       | 92      | 50            | 48.4        | 97       | 5   | 82-124/14         |
| 75-00-3    | Chloroethane                | ND                 |            | 50   | 83.4       | 167*    | 50            | 87.4        | 175*     | 5   | 62-144/20         |
| 67-66-3    | Chloroform                  | 0.24               | J          | 50   | 49.0       | 98      | 50            | 51.8        | 103      | 6   | 80-124/15         |
| 95-49-8    | o-Chlorotoluene             | 0.68               |            | 50   | 49.3       | 97      | 50            | 51.5        | 102      | 4   | 81-127/15         |
| 106-43-4   | p-Chlorotoluene             | ND                 |            | 50   | 48.0       | 96      | 50            | 50.4        | 101      | 5   | 83-130/15         |
| 124-48-1   | Dibromochloromethane        | ND                 |            | 50   | 38.5       | 77*     | 50            | 39.9        | 80       | 4   | 78-122/19         |
| 96-12-8    | 1,2-Dibromo-3-chloropropane | ND                 |            | 50   | 45.8       | 92      | 50            | 47.6        | 95       | 4   | 64-123/18         |
| 106-93-4   | 1,2-Dibromoethane           | ND                 |            | 50   | 45.6       | 91      | 50            | 47.1        | 94       | 3   | 75-120/13         |
| 75-71-8    | Dichlorodifluoromethane     | ND                 |            | 50   | 45.8       | 92      | 50            | 49.9        | 100      | 9   | 42-167/19         |
| 95-50-1    | 1,2-Dichlorobenzene         | ND                 |            | 50   | 45.3       | 91      | 50            | 47.8        | 96       | 5   | 82-124/14         |
| 541-73-1   | 1,3-Dichlorobenzene         | ND                 |            | 50   | 47.3       | 95      | 50            | 49.3        | 99       | 4   | 84-125/14         |
| 106-46-7   | 1,4-Dichlorobenzene         | ND                 |            | 50   | 45.9       | 92      | 50            | 48.0        | 96       | 4   | 78-120/15         |
| 75-34-3    | 1,1-Dichloroethane          | 0.26               | J          | 50   | 50.8       | 101     | 50            | 54.4        | 108      | 7   | 81-122/15         |
| 107-06-2   | 1,2-Dichloroethane          | 0.20               | J          | 50   | 50.9       | 101     | 50            | 51.8        | 103      | 2   | 75-125/14         |
| 75-35-4    | 1,1-Dichloroethylene        | ND                 |            | 50   | 52.6       | 105     | 50            | 56.7        | 113      | 8   | 78-137/18         |
| 156-59-2   | cis-1,2-Dichloroethylene    | 0.83               |            | 50   | 45.7       | 90      | 50            | 49.5        | 97       | 8   | 78-120/15         |
| 156-60-5   | trans-1,2-Dichloroethylene  | 1.0                |            | 50   | 49.1       | 96      | 50            | 53.1        | 104      | 8   | 76-127/17         |
| 78-87-5    | 1,2-Dichloropropane         | ND                 |            | 50   | 48.8       | 98      | 50            | 49.9        | 100      | 2   | 76-124/14         |
| 142-28-9   | 1,3-Dichloropropane         | ND                 |            | 50   | 45.1       | 90      | 50            | 45.9        | 92       | 2   | 80-118/13         |
| 594-20-7   | 2,2-Dichloropropane         | ND                 |            | 50   | 46.0       | 92      | 50            | 49.5        | 99       | 7   | 74-139/17         |
| 10061-01-5 | cis-1,3-Dichloropropene     | ND                 |            | 50   | 38.7       | 77      | 50            | 38.8        | 78       | 0   | 75-118/23         |
| 10061-02-6 | trans-1,3-Dichloropropene   | ND                 |            | 50   | 43.3       | 87      | 50            | 44.3        | 89       | 2   | 80-120/22         |
| 100-41-4   | Ethylbenzene                | 4.3                |            | 50   | 50.9       | 93      | 50            | 54.3        | 100      | 6   | 81-121/14         |
| 110-54-3   | Hexane                      | 2.1                |            | 50   | 52.1       | 100     | 50            | 54.2        | 104      | 4   | 69-132/20         |
| 98-82-8    | Isopropylbenzene            | 7.6                |            | 50   | 55.2       | 95      | 50            | 58.6        | 102      | 6   | 83-132/15         |
| 99-87-6    | p-Isopropyltoluene          | ND                 |            | 50   | 48.9       | 98      | 50            | 50.9        | 102      | 4   | 79-130/16         |
| 74-83-9    | Methyl Bromide              | ND                 |            | 50   | 52.3       | 105     | 50            | 55.7        | 111      | 6   | 59-143/19         |

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA67699R  
**Account:** UNIVAR Univar  
**Project:** ERMORP: Univar; 8201 S 212th St, Kent, WA

| Sample                  | File ID   | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------------------|-----------|----|----------|----|-----------|------------|------------------|
| FA67623-16MS            | E100704.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16MSD           | E100705.D | 5  | 09/06/19 | AB | n/a       | n/a        | VE2199           |
| FA67623-16 <sup>a</sup> | E100697.D | 1  | 09/06/19 | AB | n/a       | n/a        | VE2199           |

The QC reported here applies to the following samples:

Method: SW846 8260B

FA67699-6R

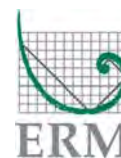
| CAS No.  | Compound                    | FA67623-16 Spike |      | MS ug/l | MS % | Spike ug/l | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|----------|-----------------------------|------------------|------|---------|------|------------|----------|-------|-----|----------------|
|          |                             | ug/l             | Q    |         |      |            |          |       |     |                |
| 74-87-3  | Methyl Chloride             | ND               | 50   | 56.9    | 114  | 50         | 60.9     | 122   | 7   | 50-159/19      |
| 74-95-3  | Methylene Bromide           | ND               | 50   | 48.7    | 97   | 50         | 49.9     | 100   | 2   | 78-119/14      |
| 75-09-2  | Methylene Chloride          | ND               | 50   | 53.0    | 106  | 50         | 56.0     | 112   | 6   | 69-135/16      |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND               | 250  | 258     | 103  | 250        | 268      | 107   | 4   | 66-122/16      |
| 103-65-1 | n-Propylbenzene             | 13.3             | 50   | 59.9    | 93   | 50         | 62.2     | 98    | 4   | 82-133/15      |
| 100-42-5 | Styrene                     | ND               | 50   | 43.0    | 86   | 50         | 45.2     | 90    | 5   | 78-119/23      |
| 630-20-6 | 1,1,1,2-Tetrachloroethane   | ND               | 50   | 47.9    | 96   | 50         | 50.6     | 101   | 5   | 77-122/19      |
| 79-34-5  | 1,1,2,2-Tetrachloroethane   | ND               | 50   | 52.2    | 104  | 50         | 53.8     | 108   | 3   | 72-120/14      |
| 127-18-4 | Tetrachloroethylene         | ND               | 50   | 47.5    | 95   | 50         | 49.3     | 99    | 4   | 76-135/16      |
| 108-88-3 | Toluene                     | 0.82             | 50   | 46.8    | 92   | 50         | 49.2     | 97    | 5   | 80-120/14      |
| 120-82-1 | 1,2,4-Trichlorobenzene      | ND               | 50   | 41.4    | 83   | 50         | 45.1     | 90    | 9   | 73-129/20      |
| 71-55-6  | 1,1,1-Trichloroethane       | ND               | 50   | 48.6    | 97   | 50         | 51.9     | 104   | 7   | 75-130/16      |
| 79-00-5  | 1,1,2-Trichloroethane       | ND               | 50   | 48.2    | 96   | 50         | 50.2     | 100   | 4   | 76-119/14      |
| 79-01-6  | Trichloroethylene           | ND               | 50   | 46.7    | 93   | 50         | 48.2     | 96    | 3   | 81-126/15      |
| 75-69-4  | Trichlorofluoromethane      | ND               | 50   | 63.1    | 126  | 50         | 65.6     | 131   | 4   | 71-156/21      |
| 96-18-4  | 1,2,3-Trichloropropane      | ND               | 50   | 47.4    | 95   | 50         | 48.1     | 96    | 1   | 77-120/16      |
| 95-63-6  | 1,2,4-Trimethylbenzene      | 44.7             | 50   | 82.9    | 76*  | 50         | 86.0     | 83    | 4   | 79-120/18      |
| 108-67-8 | 1,3,5-Trimethylbenzene      | 5.7              | 50   | 54.6    | 98   | 50         | 56.7     | 102   | 4   | 79-120/19      |
| 75-01-4  | Vinyl Chloride              | 0.59             | 50   | 50.7    | 100  | 50         | 55.3     | 109   | 9   | 69-159/18      |
|          | m,p-Xylene                  | 73.5             | 100  | 153     | 80   | 100        | 161      | 88    | 5   | 79-126/15      |
| 95-47-6  | o-Xylene                    | 0.41             | J 50 | 44.4    | 88   | 50         | 47.9     | 95    | 8   | 80-127/14      |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | FA67623-16 | Limits  |
|------------|-----------------------|------|------|------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 105% | 101%       | 83-118% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 112% | 111% | 107%       | 79-125% |
| 2037-26-5  | Toluene-D8            | 97%  | 98%  | 98%        | 85-112% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 100% | 104%       | 83-118% |

(a) Sample vial(s) contained bubbles greater than 6mm; reported results are considered minimum values.

\* = Outside of Control Limits.



**Memo**

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|                  |  |
|------------------|--|
| <b>To</b>        | Dylan Stankus  |
| <b>From</b>      | Rachel James   |
| <b>Date</b>      | 16 September 2019  |
| <b>Reference</b> | 0487093  |
| <b>Subject</b>   | Data Review of Univar Kent, Washington 2019 Groundwater Samples: SGS North America, Inc. Data Package FA64743. |

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The data quality was assessed and any necessary qualifiers were applied following the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017.

***HOLDING TIME AND PRESERVATION EVALUATION***

The samples were prepared and analyzed within the method-prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method-prescribed temperature preservation requirements of less than 6°C.

The VOA vials used for at least one analytical run for samples MW-13-053119, MW-16-060319, MW-5-053019, MW-17-053119, MW-22-053119, and MW-20-060319 contained headspace. For samples MW-16-060319, MW-5-053019, MW-17-053119, and MW-20-060319, only one compound was affected and those results were qualified as estimates with a low bias (J-). For samples MW-13-053119 and MW-22-053119, all compounds were affected and a comparison of historical results was performed to check for consistency of detected and non-detected results.

Historical data is not readily available for comparison for 39 of the 57 reported VOCs (referred to as non-contaminants of concern [non-COCs]). The non-detected results for these analytes were rejected (R) and the detected results were qualified as estimates with a low bias (J-). For the VOC contaminants of concern (COCs), all non-detected results were comparable to historical results and were qualified as estimates (JJ), and detected results were qualified as estimates with a low bias (J-). Historical results that were consistently reported below the reporting limit did not result in rejection of current results. Additionally, for the common lab contaminant, methylene chloride, the historical data show that it has been sporadically detected in most wells and the current results were not rejected. Qualifications applied due to the headspace are displayed in Table 1.

***CONTINUING CALIBRATION VERIFICATION (CCV) EVALUATION***

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance, with some exceptions. CCV percent recoveries were greater than the upper control limits for target analytes: trichlorofluoromethane, methyl bromide, dichlorodifluoromethane, and chloroethane. However, since associated sample results for these compounds were non-detected,

no sample data were qualified. The CCV compounds that did not meet control limits are presented in Table 2.

### ***BLANK EVALUATION***

The method and trip blank sample results were nondetected for each of the target analytes. No data were qualified on the basis of the blank evaluation. The blank results indicate that no contaminants were introduced to the samples during processing or analysis in the laboratory or during shipment, handling, and storage.

### ***BLANK SPIKE EVALUATION***

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries and RPDs were within the laboratory's limits of acceptance. The LCS recoveries and RPDs indicate acceptable laboratory accuracy and precision.

### ***MATRIX SPIKE EVALUATION***

The matrix spike (MS)/matrix spike duplicate (MSD) recoveries and RPDs were within laboratory limits of acceptance with several exceptions. No data were qualified if the outlier could be verified by an in-control result. Remaining sample results associated with low MS and MSD recoveries were qualified as estimated with a low bias (J-/UJ). The outliers and associated qualifications can be found in Table 3.

### ***SURROGATE SPIKE EVALUATION***

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

### ***FIELD DUPLICATE EVALUATION***

Two samples were submitted in duplicate. ERM calculated the relative percent differences (RPDs) between detected results in Table 4. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision.

### ***OVERALL ASSESSMENT***

Select VOCs from samples MW-13-053119 and MW-22-053119 were rejected due to headspace and the lack of historical data for comparison. With exception of the rejected results, all of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically-defensible documents.

**Table 1**  
**Samples with Exceeded Preservation Requirements**  
**2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Sample ID                 | Method | Affected Compound         | Preservation Condition | Limits       | ERM Qualifier |
|-------------|---------------------------|--------|---------------------------|------------------------|--------------|---------------|
| FA64743     | MW-13-053119              | 8260B  | Non-COC VOCs <sup>1</sup> | > 6mm headspace        | No headspace | J-/R          |
|             |                           |        | COC VOCs <sup>2</sup>     |                        |              | J-/UJ         |
|             | Chloroethane              |        | J-                        |                        |              |               |
|             | Tetrachloroethene         |        | J-                        |                        |              |               |
|             | Chloroethane              |        | J-                        |                        |              |               |
|             | Non-COC VOCs <sup>1</sup> |        | J-/R                      |                        |              |               |
|             | COC VOCs <sup>2</sup>     |        | J-/UJ                     |                        |              |               |
|             | Chloroethane              |        | J-                        |                        |              |               |

Lab package reviewed: FA64743

**Notes:**

1 = Non-COC VOCs are 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dichlorobenzene, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Bromobenzene, Bromodichloromethane, Bromoform, Carbon tetrachloride, Chlorobenzene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Ethylene dibromide, Isopropylbenzene, Methyl bromide, Methyl chloride, n-Butylbenzene, n-Hexane, n-Propylbenzene, o-Chlorotoluene, sec-Butylbenzene, Styrene, tert-Butylbenzene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, and Trichlorofluoromethane  
2 = COC VOCs are 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Chloroethane, Chloroform, cis-1,2-Dichloroethene, Ethylbenzene, m,p-Xylenes, Methylene chloride, o-Xylene, Tetrachloroethene, Toluene, Trichloroethene, and Vinyl chloride

J- = Detected results are estimated with a low bias

J-/R = Detected results are estimated, biased low; nondetected results are rejected

J-/UJ = Detected results are estimated with low bias; nondetected results are estimated at the report limit

mm = Millimeters



**Table 2**  
**Calibration Verification Recoveries Outside of Acceptable Limits**  
**2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | CCV Sample ID    | Compound                | CCV Recovery (%) | CCV Limits (%) | Associated Sample | Reported Concentration | Units | ERM Qualifier |
|-------------|------------------|-------------------------|------------------|----------------|-------------------|------------------------|-------|---------------|
| FA64743     | Batch VE2142 CCV | Trichlorofluoromethane  | High             | NR             | MW-21-053119      | ND                     | µg/L  | --            |
|             |                  | Methyl Bromide          |                  |                | MW-1-053119       |                        |       |               |
|             |                  | Dichlorodifluoromethane |                  |                | MW-9-053119       |                        |       |               |
|             |                  | Chloroethane            |                  |                | MW-12-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-6-060319       |                        |       |               |
|             |                  |                         |                  |                | MW-14-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-2-060319       |                        |       |               |
|             |                  |                         |                  |                | MW-16-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-28-060319      |                        |       |               |
|             |                  |                         |                  |                | DUP-2-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-9-053119       |                        |       |               |
|             |                  |                         |                  |                | MW-12-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-6-060319       |                        |       |               |
|             |                  |                         |                  |                | MW-14-060319      |                        |       |               |
|             |                  |                         |                  |                | MW-2-060319       |                        |       |               |
|             |                  |                         |                  |                | MW-28-060319      |                        |       |               |
|             |                  |                         |                  |                | DUP-2-060319      |                        |       |               |

Lab package reviewed: FA64743

*Notes:*

*CCV = Continuing calibration verification*

*High = Recovery above maximum acceptable limit*

*ND = Not detected*

*NR = Not reported*

*µg/L = Micrograms per liter*

**Table 3**  
**Spike Recoveries Outside of Acceptable Limits**  
**2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Spike Sample ID                       | Associated Sample | Compound                  | Recovery (%) | Limit (%) | RPD | RPD Limit | Result | Units | ERM Qualifier   |
|-------------|---------------------------------------|-------------------|---------------------------|--------------|-----------|-----|-----------|--------|-------|-----------------|
| MS/MSD      |                                       |                   |                           |              |           |     |           |        |       |                 |
| FA64743     | MW-4-053119<br>MS/MSD<br>Batch VE2142 | MW-4-053119       | Bromoform                 | 58/59        | 66-123    | 2   | 21        | ND     | µg/L  | UJ              |
|             |                                       |                   | Dibromochloromethane      | 74/76        | 78-122    | 3   | 19        | ND     | µg/L  | UJ              |
|             |                                       |                   | trans-1,3-Dichloropropene | 74/75        | 80-120    | 1   | 22        | ND     | µg/L  | UJ              |
|             |                                       |                   | Styrene                   | 67/68        | 78-119    | 1   | 23        | ND     | µg/L  | UJ              |
|             | MW-18-053019<br>MS/MSD                | MW-18-053019      | Bromoform                 | 51/50        | 66-123    | 3   | 21        | ND     | µg/L  | UJ              |
|             |                                       |                   | Dibromochloromethane      | 70/65        | 78-122    | 7   | 19        | ND     | µg/L  | UJ              |
|             |                                       |                   | cis-1,3-Dichloropropene   | 73/72        | 75-118    | 2   | 23        | ND     | µg/L  | UJ              |
|             |                                       |                   | trans-1,3-Dichloropropene | 83/78        | 80-120    | 6   | 22        | ND     | µg/L  | --              |
|             | MW-4-053119<br>MS/MSD<br>Batch VE2146 | MW-4-053119       | Bromoform                 | 47/50        | 66-123    | 6   | 21        | ND     | µg/L  | Qualified above |
|             |                                       |                   | Dibromochloromethane      | 66/69        | 78-122    | 5   | 19        | ND     | µg/L  | Qualified above |
|             |                                       |                   | trans-1,3-Dichloropropene | 78/82        | 80-120    | 5   | 22        | ND     | µg/L  | Qualified above |
|             |                                       |                   | Isopropylbenzene          | 79/82        | 83-132    | 3   | 15        | 26.4   | µg/L  | J-              |
|             |                                       |                   | n-Propylbenzene           | 79/83        | 82-133    | 3   | 15        | 24.4   | µg/L  | --              |
|             |                                       |                   | Styrene                   | 77/80        | 78-119    | 3   | 23        | ND     | µg/L  | --              |

Lab package reviewed: FA64743

**Notes:**

J- = Estimated detection with low bias

MS/MSD - Matrix spike/matrix spike duplicate

ND = Not detected

RPD = Relative percent difference

µg/L = Micrograms per liter

UJ = Nondetected, estimated report limit

**Table 4**  
**Field Duplicate Results and Calculated Relative Percent Differences**  
**2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Primary/Duplicate Sample ID   | Compound                   | Concentration |           | Report Limit |           | Units | RPD |
|-------------|-------------------------------|----------------------------|---------------|-----------|--------------|-----------|-------|-----|
|             |                               |                            | Sample        | Duplicate | Sample       | Duplicate |       |     |
| FA64743     | MW-3-053119/<br>DUP-1-053119  | Benzene                    | 0.26          | 0.24      | 0.50         | 0.50      | µg/L  | 8.0 |
|             |                               | Chloroethane               | 1.2           | 1.1       | 0.50         | 0.50      | µg/L  | 8.7 |
|             |                               | 1,1-Dichloroethane         | 0.40          | 0.37      | 0.50         | 0.50      | µg/L  | 7.8 |
|             |                               | cis-1,2-Dichloroethylene   | 0.71          | 0.74      | 0.50         | 0.50      | µg/L  | 4.1 |
|             |                               | trans-1,2-Dichloroethylene | 0.28          | 0.27      | 0.50         | 0.50      | µg/L  | 3.6 |
|             |                               | Vinyl Chloride             | 0.53          | 0.52      | 0.50         | 0.50      | µg/L  | 1.9 |
|             | MW-12-060319/<br>DUP-2-060319 | 1,1-Dichloroethylene       | 0.19          | 0.17      | 0.50         | 0.50      | µg/L  | 11  |
|             |                               | cis-1,2-Dichloroethylene   | 147           | 143       | 2.5          | 2.5       | µg/L  | 2.8 |
|             |                               | trans-1,2-Dichloroethylene | 0.74          | 0.95      | 0.50         | 0.50      | µg/L  | 25  |
|             |                               | Tetrachloroethylene        | 55.0          | 51.8      | 2.5          | 2.5       | µg/L  | 6.0 |
|             |                               | Trichloroethylene          | 11.6          | 11.3      | 0.50         | 0.50      | µg/L  | 2.6 |
|             | Vinyl Chloride                | 6.1                        | 5.5           | 0.50      | 0.50         | µg/L      | 10    |     |

Lab package reviewed: FA64743

**Notes:**

*RPD = Relative percent difference*

*µg/L = Micrograms per liter*



**Memorandum**

|                  |  |
|------------------|--|
| <b>To</b>        | Dylan Stankus  |
| <b>From</b>      | Jack James   |
| <b>Date</b>      | 03 October 2019  |
| <b>Reference</b> | 0487093  |
| <b>Subject</b>   | Data Review of Univar Kent, Washington August 2019 Groundwater<br>Samples: SGS North America, Inc. Data Package FA67623, FA67699, and<br>FA67669R. |

The data quality was assessed and any necessary qualifiers were applied following the *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017.

**CHAIN-OF-CUSTODY DISCREPANCIES**

There were some issues between the chain-of-custody (COC) and the sample delivery for report FA67623. The laboratory indicated sample DUP-01-082719 was not received with the shipment. This sample arrived later with the sample shipment for report FA67699. Additionally, the sample TRIP BLANK was received with the shipment for report FA67623 but was not listed on the COC. The laboratory logged the sample in and proceeded with analysis. No data were qualified due to the COC discrepancies.

**CASE NARRATIVE COMMENTS**

The laboratory case narrative for report FA67623 indicated the methylene chloride results for samples MW-12-082719 and MW-05-082719 were suspected laboratory contamination. This comment is not related to actual laboratory contamination for the sample, as shown by the method blank non-detect result for methylene chloride, but rather a general comment referring to methylene chloride defined as a common laboratory contaminant by industry. No qualifications were applied due to the case narrative comment.

**HOLDING TIME AND PRESERVATION EVALUATION**

The samples were prepared and analyzed within the method-prescribed time period from the date of collection, with one exception. Sample MW-17-082819 was analyzed for chloroethane from a vial with a pH of greater than two one day past the shortened hold time of seven days for nonpreserved samples. Consequently the detected result for chloroethane was qualified as estimated with a low bias (J-) due to the hold time exceedance. The qualified result is presented in Table 1.

The sample shipments were received at the laboratory within the method-prescribed temperature preservation requirements of less than 6°C.

The volatile organic analysis vials used for at least one analytical run for samples MW-20-082819, MW-13-082819, MW-18-082819, DUP-02-082819, MW-17-082819, MW-16-082919, and TB-083019-02 contained headspace. For sample MW-20-082819, only the result for chloroethane was affected and the result was qualified as an estimate with a low bias (J-). For the trip blank sample TB-083019-02 the non-detected results were rejected (R) and the detected results were qualified as estimates with a low bias (J-). For samples MW-13-082819, MW-18-082819, DUP-02-082819, MW-17-082819, and MW-16-082919, all compounds were affected and a comparison of historical results was performed to check for consistency of detected and non-detected results.

Historical data is not readily available for comparison for 39 of the 57 reported volatile organic compounds (VOCs) (referred to as non-contaminants of concern [non-COCs]). The non-detected results for these analytes were rejected (R) and the detected results were qualified as estimates with a low bias (J-). For the VOC contaminants of concern (COCs), all non-detected results were comparable to historical results and were qualified as estimates (UJ), and detected results were qualified as estimates with a low bias (J-). Historical results that were consistently reported below the reporting limit did not result in rejection of current results. Additionally, for the common laboratory contaminants, methylene chloride and acetone, the historical data show that they have been sporadically detected in most wells and the current results were not rejected. Qualifications applied due to the headspace are displayed in Table 2.

### ***BLANK EVALUATION***

The method and trip blank sample results were non-detected for each of the target analytes with several exceptions. Non-detected results or results greater than five times the blank concentration were considered not affected by the blank contamination and were not qualified. Results within five times the blank concentration and less than the reporting limit were qualified as non-detect (U) at the MRL. One result within five times the blank concentration and greater than the reporting limit was qualified as estimated with a high bias (J+). The blank detections and associated data are presented in Table 3.

The non-detected trip blank results for TB-083019-02 associated with samples in reports FA67699 and FA67699R were rejected due to headspace in the vial used for analysis. Therefore, the trip blank results cannot be used to evaluate whether or not contaminants were introduced to the samples during shipment, handling, and storage.

### ***BLANK SPIKE EVALUATION***

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries and relative percent differences (RPDs) were within the laboratory's limits of acceptance. The LCS recoveries and RPDs indicate acceptable laboratory accuracy and precision.

### ***MATRIX SPIKE EVALUATION***

The matrix spike (MS)/matrix spike duplicate (MSD) recoveries and RPDs were within laboratory limits of acceptance with several exceptions. No data were qualified if the outlier could be verified by an in-control result. The detected chloroethane result in sample MW-04-082719 was qualified as estimated with a no bias (J) due to both high and low recoveries in the MS/MSD pair. Remaining non-detected sample results associated with low MS and MSD recoveries were qualified as

estimated at the reporting limit (UJ). Non-detected results for sample MW-13-082819 were qualified as estimated at the reporting limit (UJ) or rejected (R) due to additional sample preservation exceedances. The outliers and associated qualifications can be found in Table 4.

#### ***SURROGATE SPIKE EVALUATION***

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

#### ***FIELD DUPLICATE EVALUATION***

Two samples were collected and submitted in duplicate. ERM calculated the relative percent difference (RPD) between the detected results of the primary and duplicate samples. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. A list of the field duplicate detections and the calculated RPDs are provided in Table 5.

#### ***OVERALL ASSESSMENT***

Select VOCs from samples MW-13-082819, MW-18-082819, DUP-02-082819, MW-17-082819, MW-16-082919, and TB-083019-02 were rejected due to headspace and the lack of historical data for comparison. With exception of the rejected results, all of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically-defensible documents.



**Table 1**  
**Samples with Exceeded Holding Times**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Sample ID    | Method                      | Extraction Holding Time | Time Exceeded | Analysis Holding Time | Time Exceeded | ERM Qualifier |
|-------------|--------------|-----------------------------|-------------------------|---------------|-----------------------|---------------|---------------|
| FA67623     | MW-17-082819 | 8260B,<br>Chloroethane only | --                      | --            | 7 days                | 1 day         | J-            |

Lab packages reviewed: FA67623, FA67699, and FA67669R

*Notes:*

*J- = Detected results are estimated with a low bias*

**Table 2**  
**Samples with Exceeded Preservation Requirements**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Sample ID     | Method                | Affected Compound         | Preservation Condition | Limits       | ERM Qualifier |
|-------------|---------------|-----------------------|---------------------------|------------------------|--------------|---------------|
| FA67623     | MW-20-082819  | 8260B                 | Chloroethane              | > 6mm headspace        | No headspace | J-            |
|             | MW-13-082819  |                       | Non-COC VOCs <sup>1</sup> |                        |              | J-/R          |
|             |               |                       | COC VOCs <sup>2</sup>     |                        |              | J-/UJ         |
|             | MW-18-082819  |                       | Non-COC VOCs <sup>1</sup> |                        |              | R             |
|             |               |                       | COC VOCs <sup>2</sup>     |                        |              | J-/UJ         |
|             | DUP-02-082819 |                       | Non-COC VOCs <sup>1</sup> |                        |              | R             |
|             |               |                       | COC VOCs <sup>2</sup>     |                        |              | J-/UJ         |
|             | MW-17-082819  |                       | Non-COC VOCs <sup>1</sup> |                        |              | R             |
|             |               | COC VOCs <sup>2</sup> | J-/UJ                     |                        |              |               |
| FA67699     | MW-16-082919  | 8260B                 | Non-COC VOCs <sup>1</sup> | > 6mm headspace        | No headspace | R             |
|             |               |                       | COC VOCs <sup>2</sup>     |                        |              | J-/UJ         |
|             | TB-083019-02  |                       | All VOCs                  |                        |              | J-/R          |

Lab packages reviewed: FA67623, FA67699, and FA67669R

**Table 2**  
**Samples with Exceeded Preservation Requirements**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Sample ID | Method | Affected Compound | Preservation Condition | Limits | ERM Qualifier |
|-------------|-----------|--------|-------------------|------------------------|--------|---------------|
|-------------|-----------|--------|-------------------|------------------------|--------|---------------|

**Notes:**

1 = Non-COC VOCs are 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dichlorobenzene, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Bromobenzene, Bromodichloromethane, Bromoform, Carbon tetrachloride, Chlorobenzene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Ethylene dibromide, Isopropylbenzene, Methyl bromide, Methyl chloride, n-Butylbenzene, n-Hexane, n-Propylbenzene, o-Chlorotoluene, sec-Butylbenzene, Styrene, tert-Butylbenzene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, and Trichlorofluoromethane

2 = COC VOCs are 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Chloroethane, Chloroform, cis-1,2-Dichloroethene, Ethylbenzene, m,p-Xylenes, Methylene chloride, o-Xylene, Tetrachloroethene, Toluene, Trichloroethene, and Vinyl chloride

J- = Detected results are estimated with a low bias

J-/R = Detected results are estimated, biased low; nondetected results are rejected

J-/UJ = Detected results are estimated with low bias; nondetected results are estimated at the report limit

R = Nondetected results are rejected

mm = Millimeters



**Table 3**  
**Blank and Associated Suspect Sample Detections**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package | Blank ID     | Associated Sample | Detected Compound | Reported Concentration | Report Limit | Units | ERM Qualifier   |
|-------------|--------------|-------------------|-------------------|------------------------|--------------|-------|-----------------|
| FA67623     | TRIP BLANK   | --                | Acetone           | 3.1                    | 10           | µg/L  | --              |
|             |              | See below         | Toluene           | 0.15                   | 0.50         | µg/L  | --              |
|             |              | MW-01-082719      | Toluene           | 0.27                   | 0.50         | µg/L  | 0.50 U          |
|             |              | MW-04-082719      | Toluene           | 0.26                   | 0.50         | µg/L  | 0.50 U          |
|             |              | MW-19-082619      | Toluene           | 0.22                   | 0.50         | µg/L  | 0.50 U          |
|             |              | MW-20-082819      | Toluene           | 0.51                   | 0.50         | µg/L  | J+              |
| FA67669     | TB-083019-02 | --                | Acetone           | 3.4                    | 10           | µg/L  | J <sup>-1</sup> |
|             |              | --                | Toluene           | 0.18                   | 0.50         | µg/L  | J <sup>-1</sup> |

Lab packages reviewed: FA67623, FA67699, and FA67669R

**Notes:**

*1 = Result qualified for sample preservation exceedance*

*J- = Detected results are estimated with a low bias*

*J+ = Detected results are estimated with a high bias*

*TB = Trip blank*

*U = Nondetected*

*UJ = Nondetected, estimated report limit*

*µg/L = Micrograms per liter*

**Table 4**  
**Spike Recoveries Outside of Acceptable Limits**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package                    | Spike Sample ID                        | Associated Sample | Compound                  | Recovery (%) | Limit (%) | RPD | RPD Limit | Result | Units | ERM Qualifier  |
|--------------------------------|--|-------------------|---------------------------|--------------|-----------|-----|-----------|--------|-------|----------------|
| MS/MSD                         |  |                   |                           |              |           |     |           |        |       |                |
| FA67623                        | MW-04-082719<br>MS/MSD<br>Batch VE2197 | MW-04-082719      | Chloroethane              | 39/159       | 62-144    | 30  | 20        | 30.0   | µg/L  | J              |
|                                |  |                   | cis-1,3-Dichloropropene   | 72/71        | 75-118    | 1   | 23        | ND     | µg/L  | UJ             |
|                                |  |                   | trans-1,3-Dichloropropene | 80/79        | 80-120    | 1   | 22        | ND     | µg/L  | --             |
|                                |  |                   | Styrene                   | 70/73        | 78-119    | 4   | 23        | ND     | µg/L  | UJ             |
| FA67623<br>FA67699             | MW-27-082819<br>MS/MSD<br>VE2198       | MW-27-082819      | Bromoform                 | 63/59        | 66-123    | 7   | 21        | ND     | µg/L  | UJ             |
| FA67623<br>FA67699<br>FA67699R | MW-13-082819<br>MS/MSD<br>VE2199       | MW-13-082819      | Bromoform                 | 60/63        | 66-123    | 5   | 21        | ND     | µg/L  | R <sup>1</sup> |
|                                |  |                   | Chloroethane              | 167/175      | 62-144    | 5   | 20        | 33.7   | µg/L  | J <sup>1</sup> |
|                                |  |                   | Dibromochloromethane      | 77/80        | 78-122    | 4   | 19        | ND     | µg/L  | R <sup>1</sup> |
|                                |  |                   | 1,2,4-Trimethylbenzene    | 76/83        | 79-120    | 4   | 18        | 44.7   | µg/L  | J <sup>1</sup> |

Lab packages reviewed: FA67623, FA67699, and FA67669R

**Notes:**

1 = Result qualified for sample preservation exceedance

J = Estimated detection with no bias

MS/MSD - Matrix spike/matrix spike duplicate

ND = Not detected

RPD = Relative percent difference

µg/L = Micrograms per liter

UJ = Nondetected, estimated report limit

R = Nondetected results are rejected

**Table 5**  
**Field Duplicate Results and Calculated Relative Percent Differences**  
**August 2019 Groundwater Samples**  
**Univar USA, Inc.**  
**Kent, Washington**

| Lab Package        | Primary/Duplicate Sample ID     | Compound                 | Concentration |           | Report Limit |           | Units | RPD |
|--------------------|---------------------------------|--------------------------|---------------|-----------|--------------|-----------|-------|-----|
|                    |                                 |                          | Sample        | Duplicate | Sample       | Duplicate |       |     |
| FA67623            | MW-17-082819 /<br>DUP-02-082819 | Chloroethane             | 171           | 203       | 5.0          | 5.0       | µg/L  | 17  |
|                    |                                 | Toluene                  | 0.82          | ND        | 2.5          | 2.5       | µg/L  | NC  |
|                    |                                 | m,p-Xylenes              | 1.4           | 1.3       | 5.0          | 5.0       | µg/L  | 7.4 |
|                    |                                 | Benzene                  | 9.3           | 9.2       | 2.5          | 2.5       | µg/L  | 1.1 |
| FA67623<br>FA67699 | MW-12-082719 /<br>DUP-01-082719 | Tetrachloroethene        | 29.0          | 26.6      | 5.0          | 2.5       | µg/L  | 8.6 |
|                    |                                 | cis-1,2-Dichloroethene   | 252           | 240       | 5.0          | 2.5       | µg/L  | 4.9 |
|                    |                                 | trans-1,2-Dichloroethene | 1.3           | 1.4       | 5.0          | 2.5       | µg/L  | 7.4 |
|                    |                                 | Vinyl chloride           | 10            | 9.0       | 5.0          | 2.5       | µg/L  | 11  |
|                    |                                 | Methylene chloride       | 13.6          | ND        | 20           | 5.0       | µg/L  | NC  |
|                    |                                 | Trichloroethene          | 10.1          | 9.2       | 5.0          | 2.5       | µg/L  | 9.3 |

Lab packages reviewed: FA67623, FA67699, and FA67669R

**Notes:**

*RPD = Relative percent difference*

*µg/L = Micrograms per liter*

*ND = Not detected*

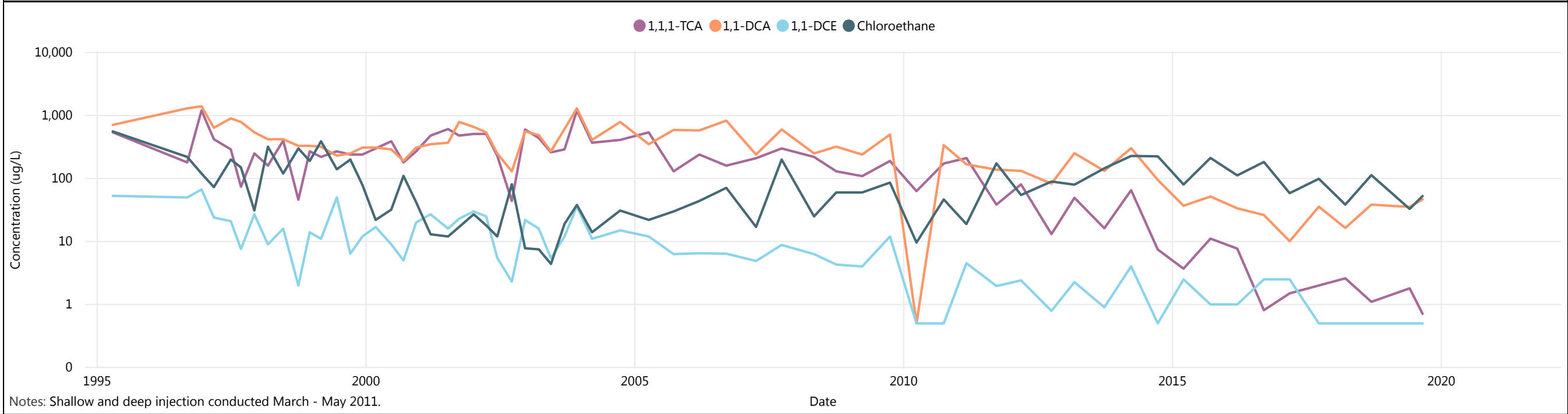
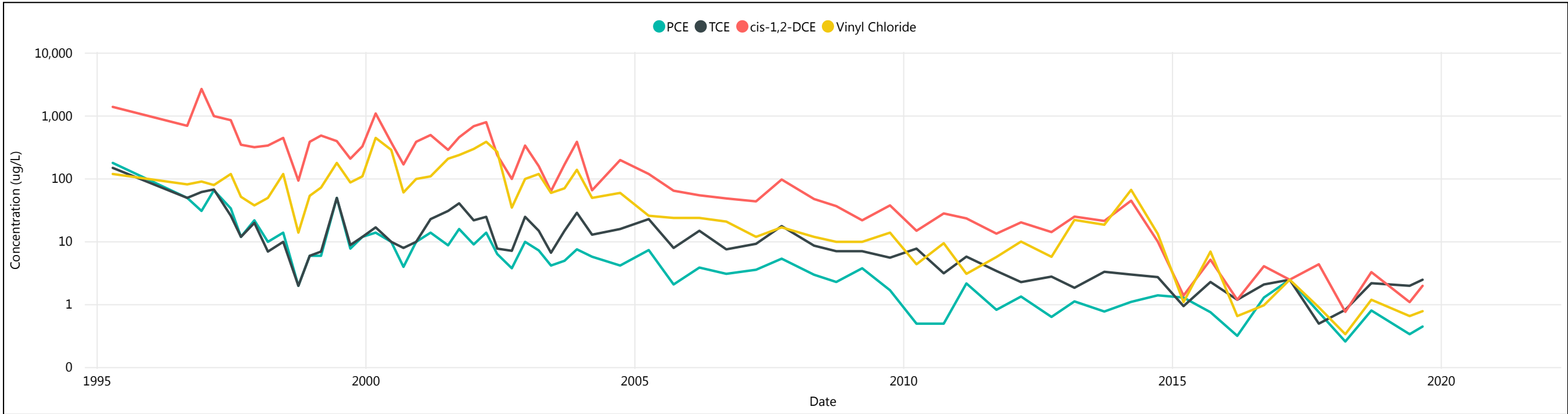
*NC = Not calculated, one result not detected*



**APPENDIX F**

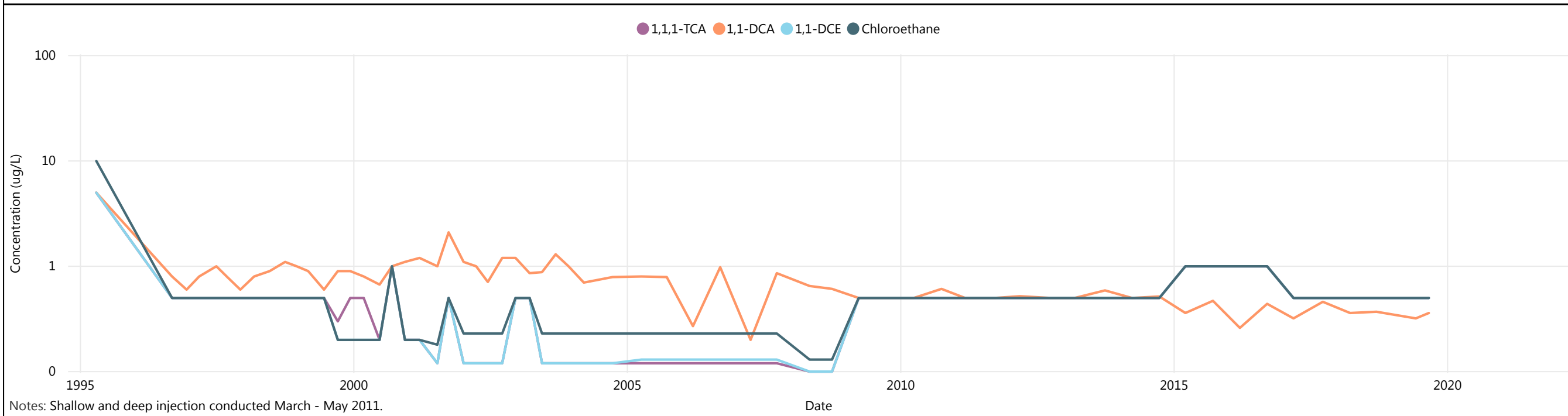
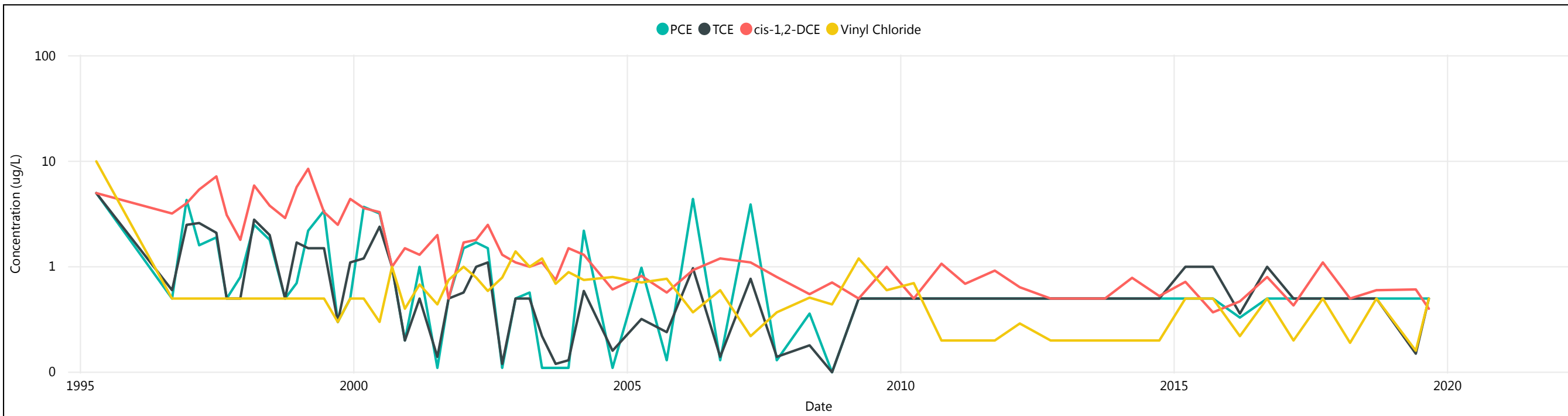
**TREND CHARTS**

Figure F1. On-site VOC Trend Charts (MW-1)



Notes: Shallow and deep injection conducted March - May 2011.

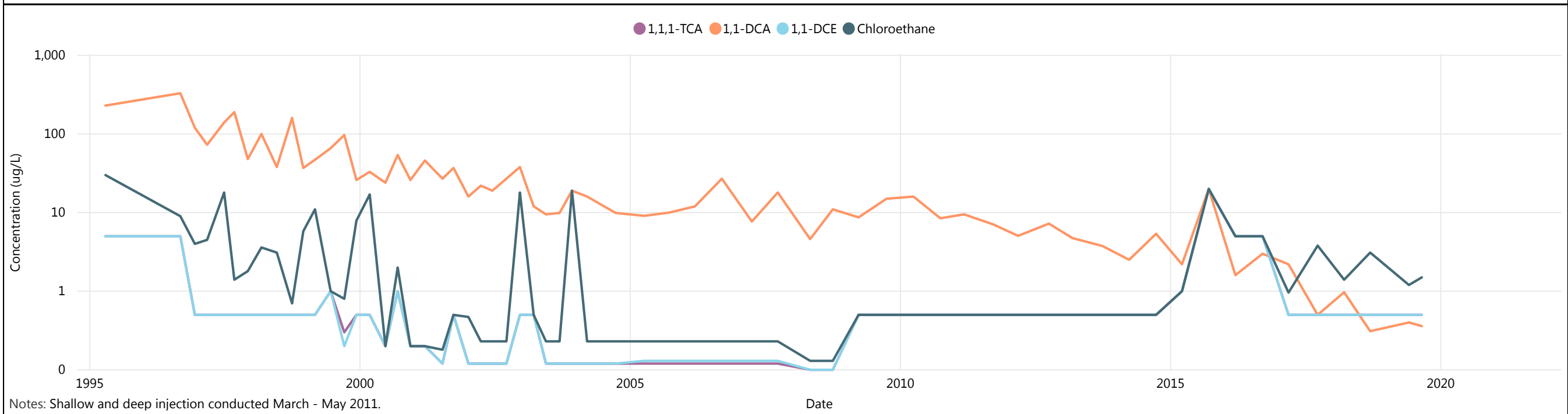
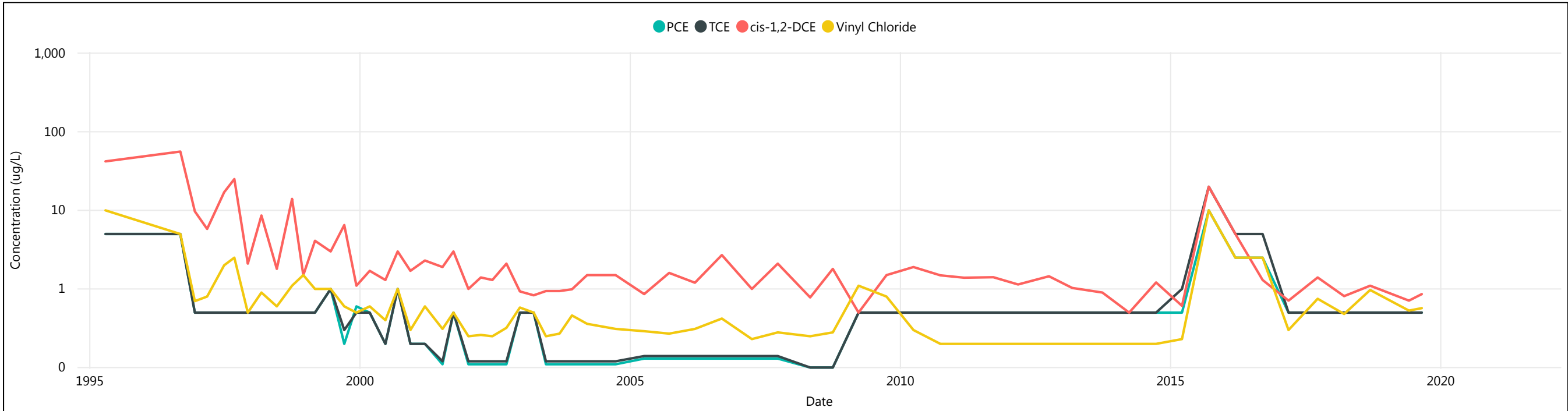
Figure F2. Boundary VOC Trend Charts (MW-2)



Notes: Shallow and deep injection conducted March - May 2011.

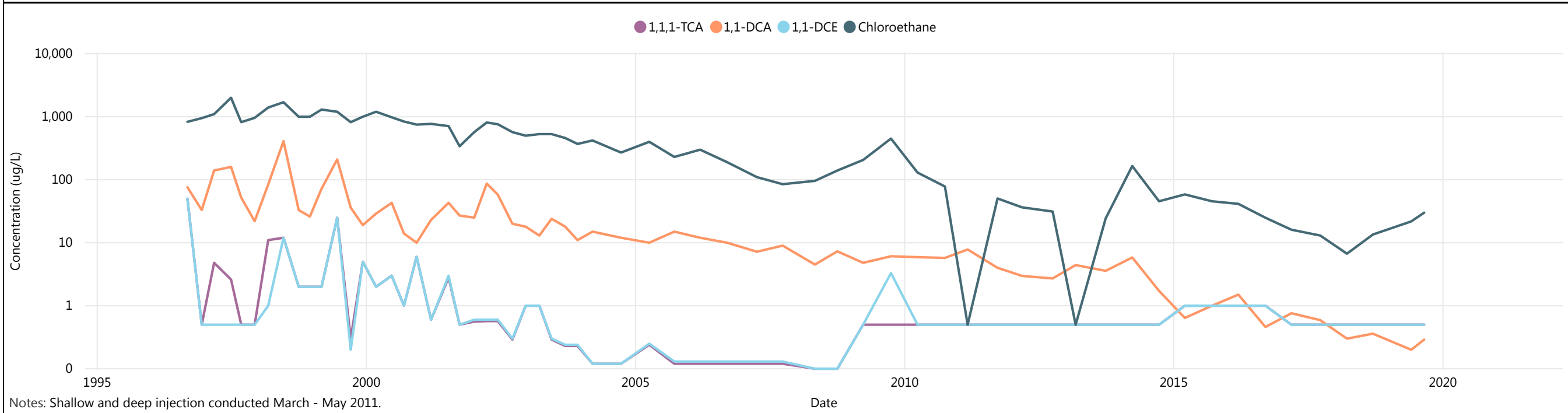
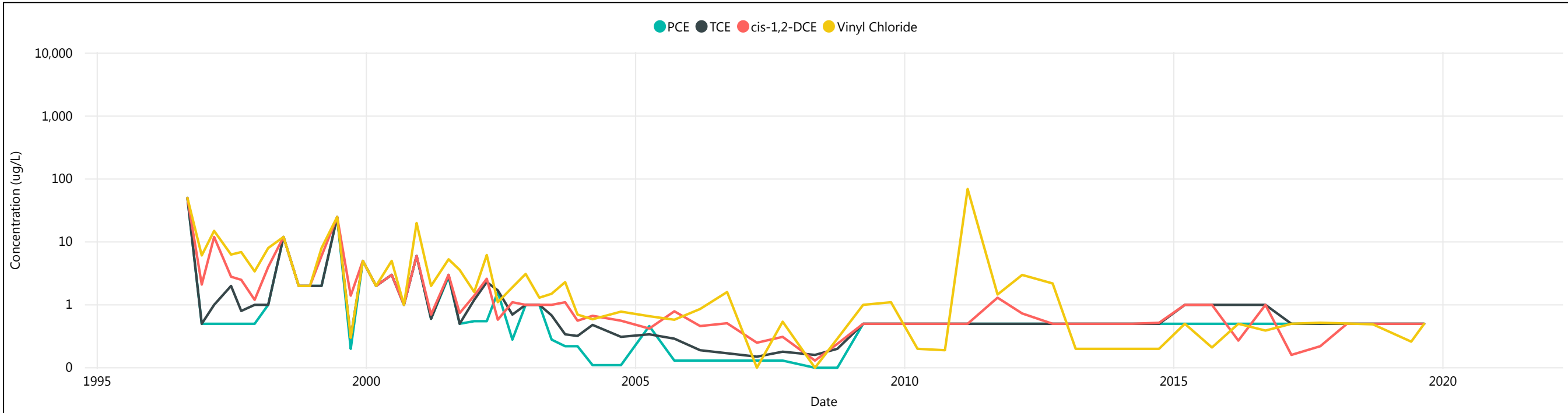


Figure F3. On-site VOC Trend Charts (MW-3)



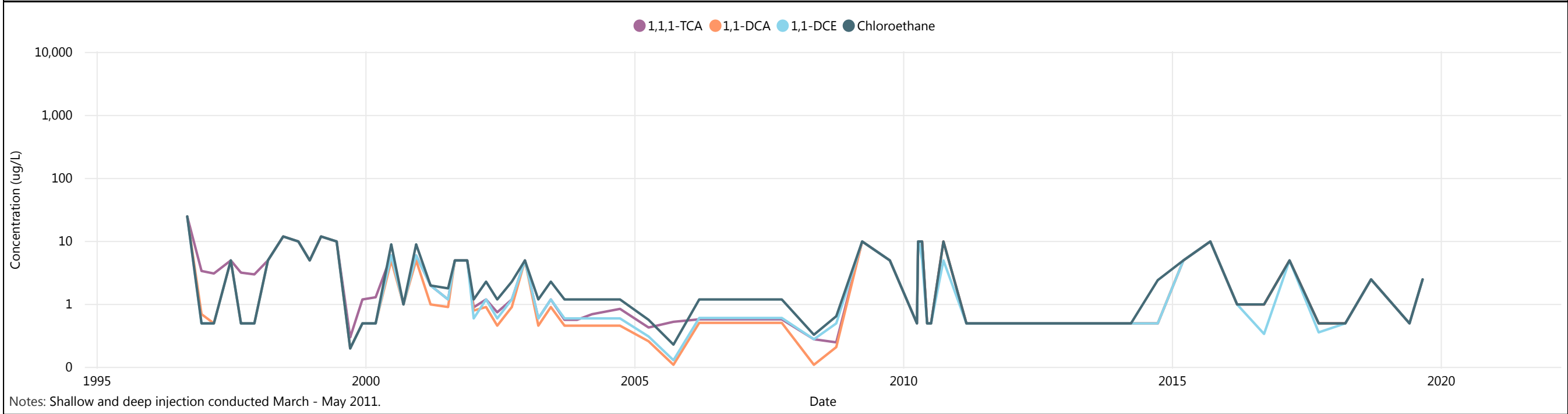
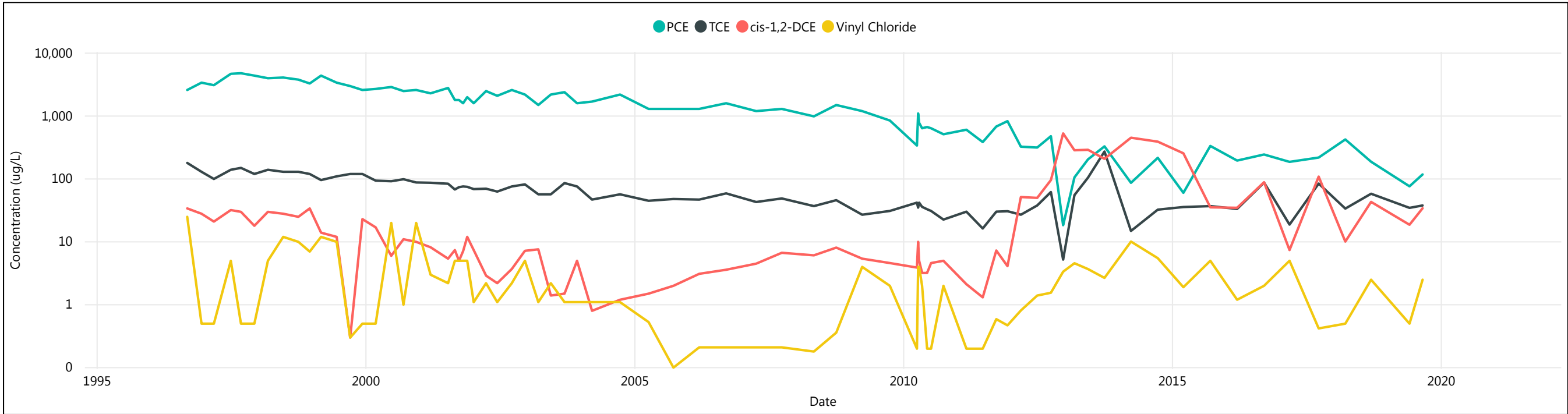
Notes: Shallow and deep injection conducted March - May 2011.

Figure F4. On-site VOC Trend Charts (MW-4)



Notes: Shallow and deep injection conducted March - May 2011.

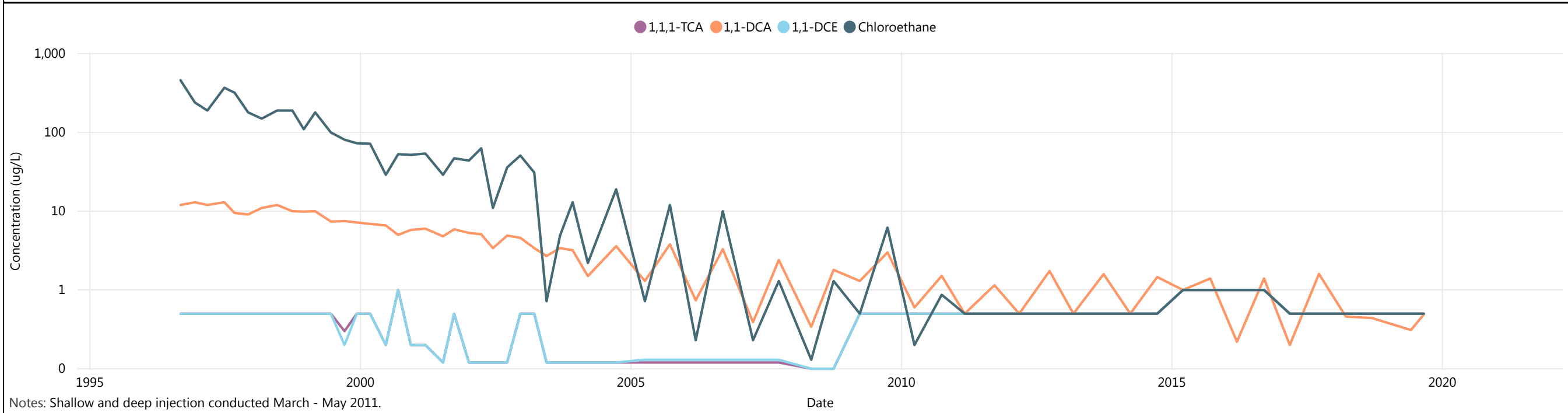
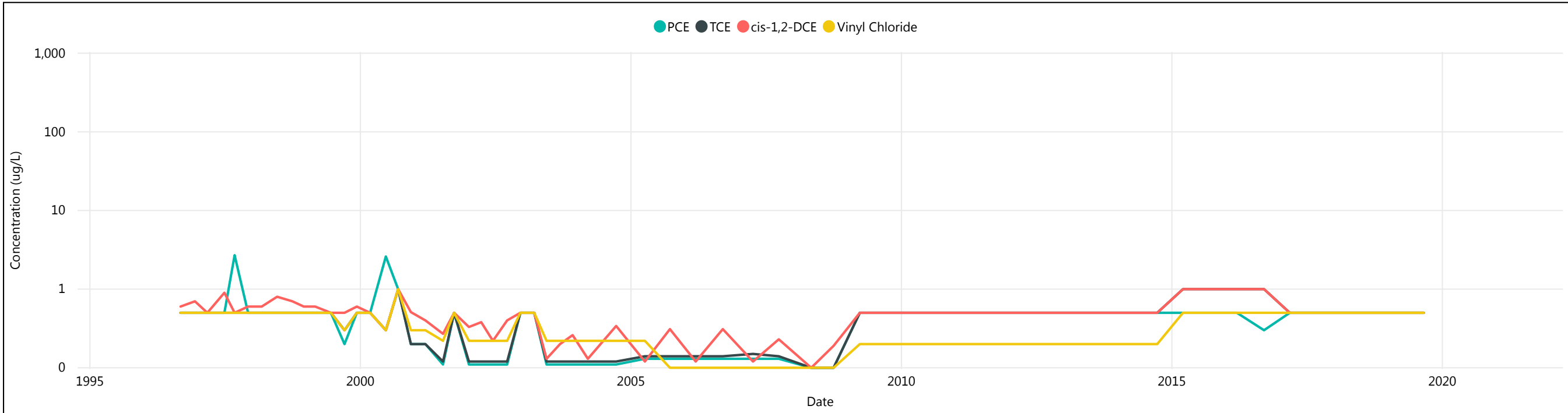
Figure F5. On-site VOC Trend Charts (MW-5)



Notes: Shallow and deep injection conducted March - May 2011.

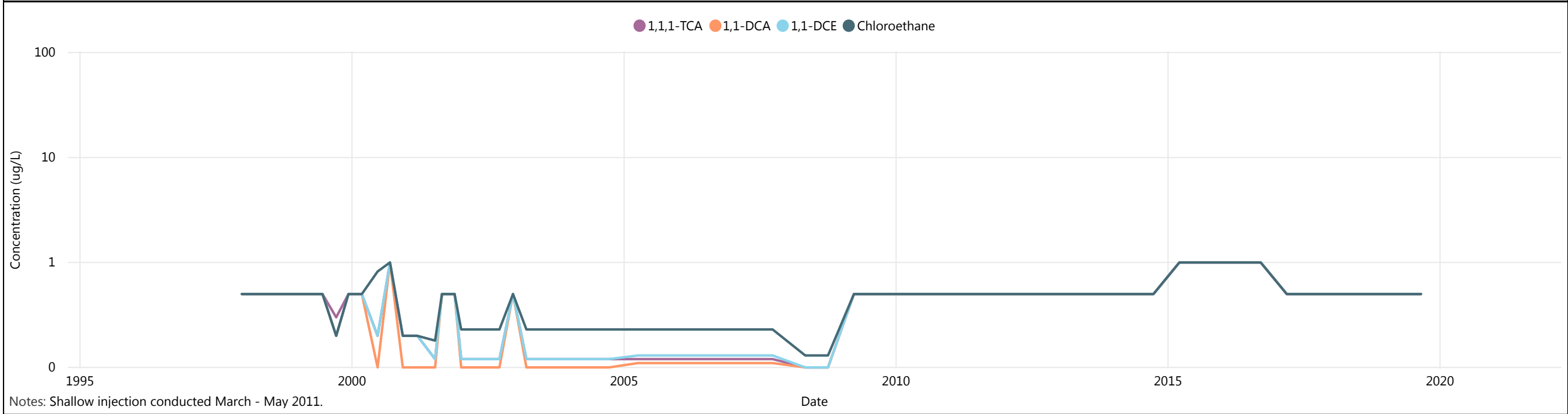
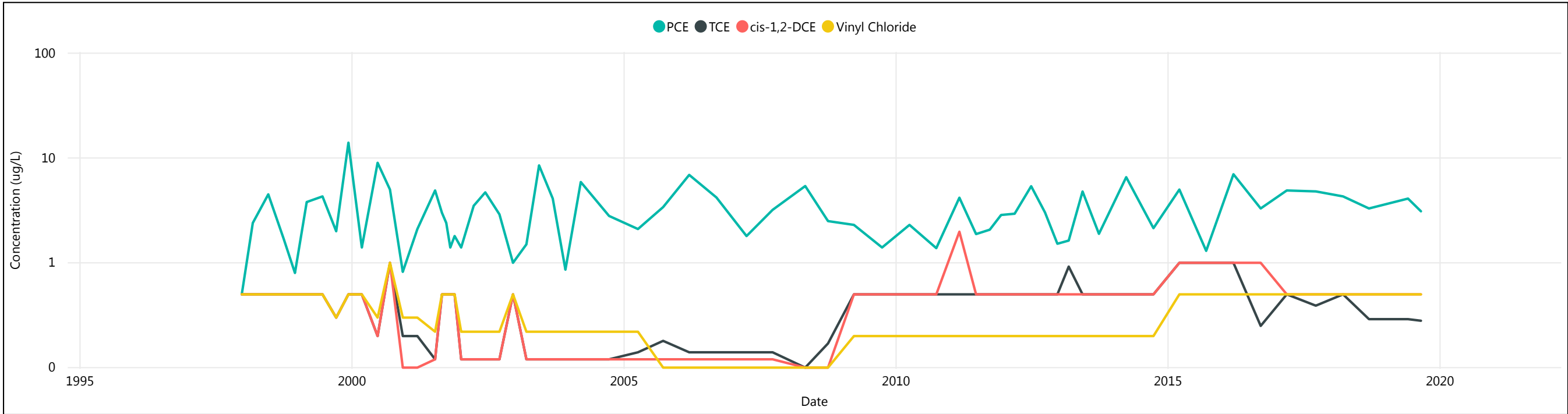


Figure F6. Boundary VOC Trend Charts (MW-6)



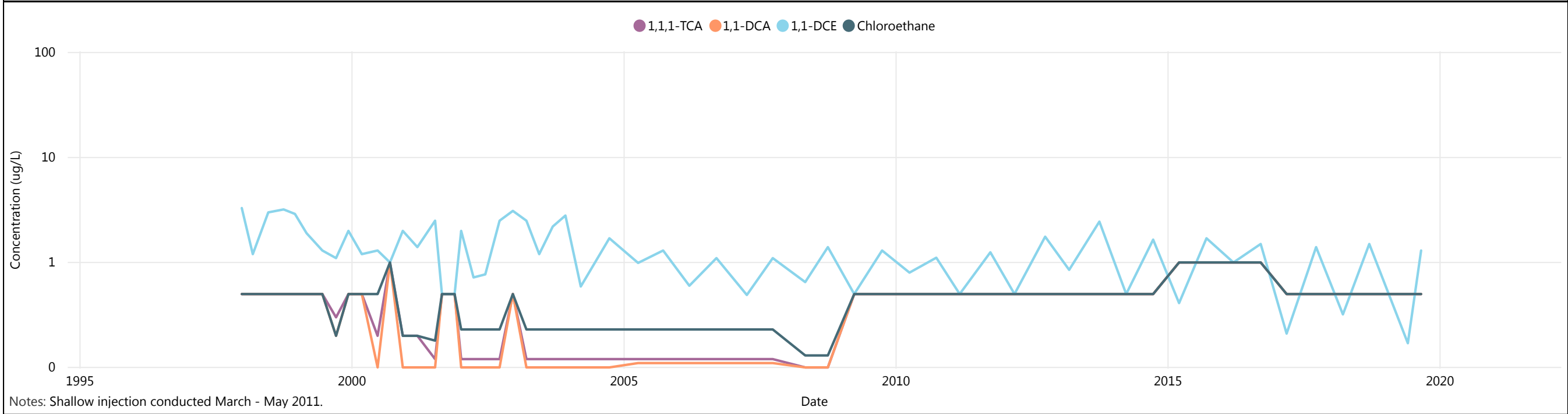
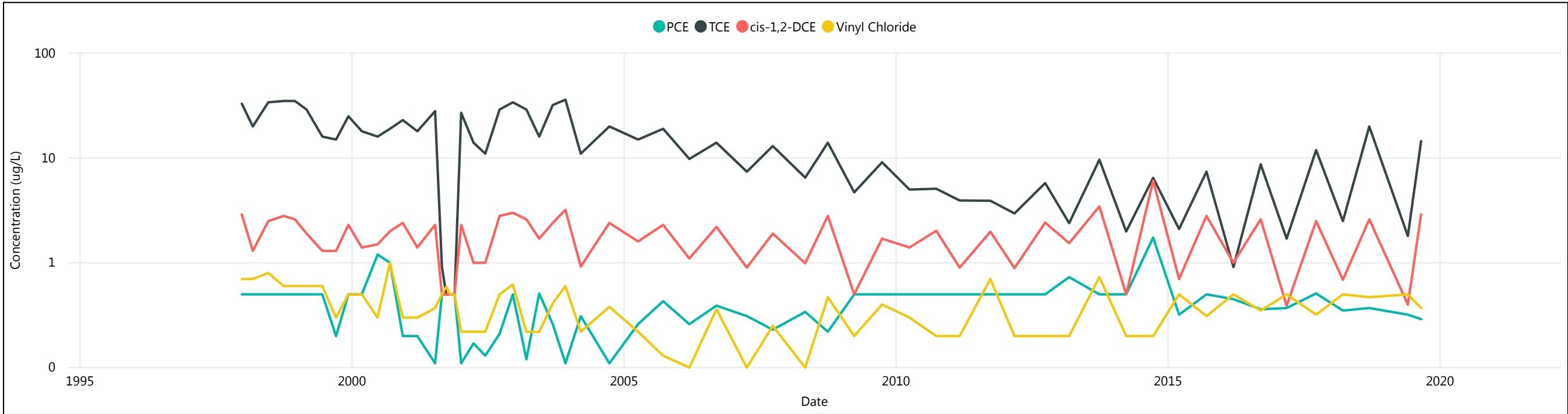
Notes: Shallow and deep injection conducted March - May 2011.

Figure F7. On-site VOC Trend Charts (MW-7)



Notes: Shallow injection conducted March - May 2011.

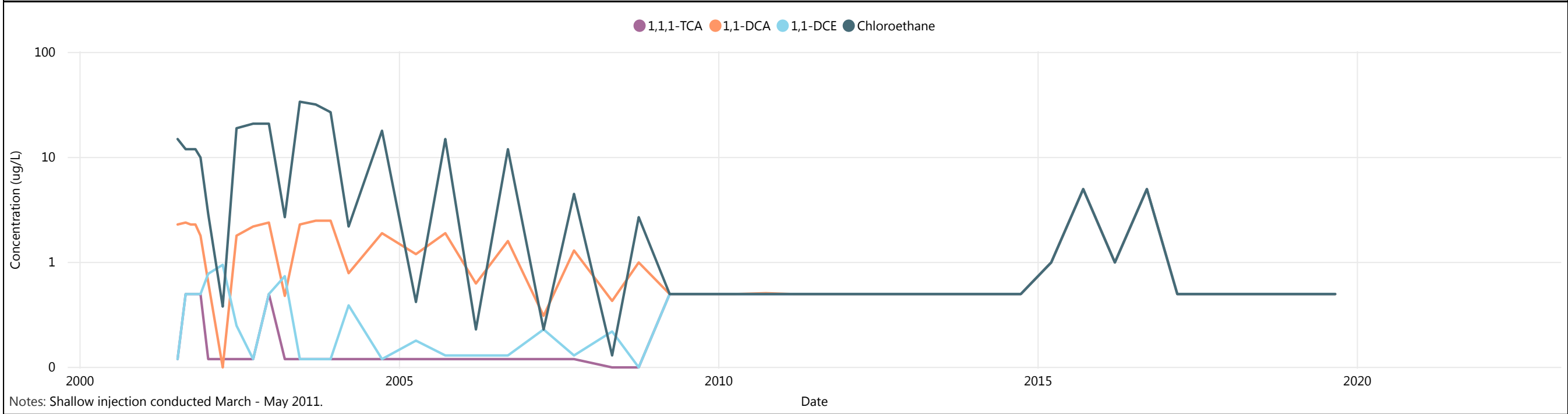
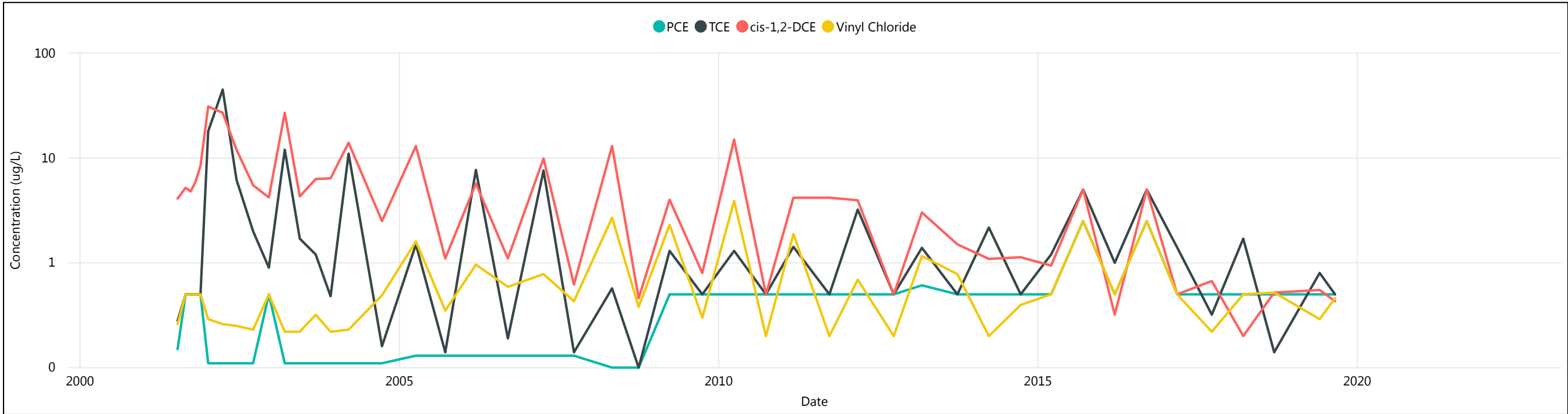
Figure F8. Boundary VOC Trend Charts (MW-8)



Notes: Shallow injection conducted March - May 2011.

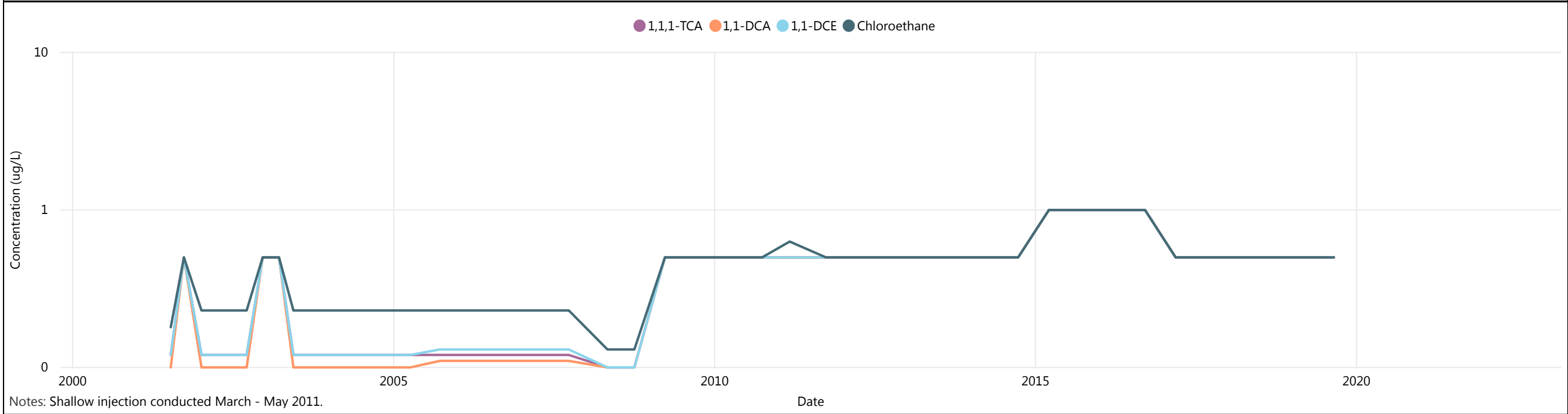
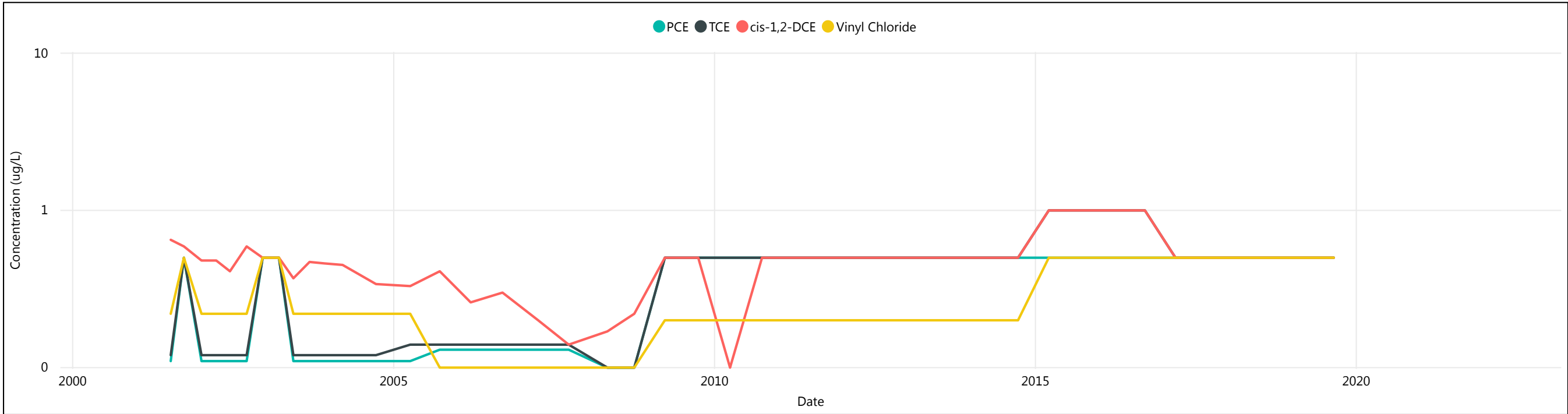


Figure F9. Boundary VOC Trend Charts (MW-9)



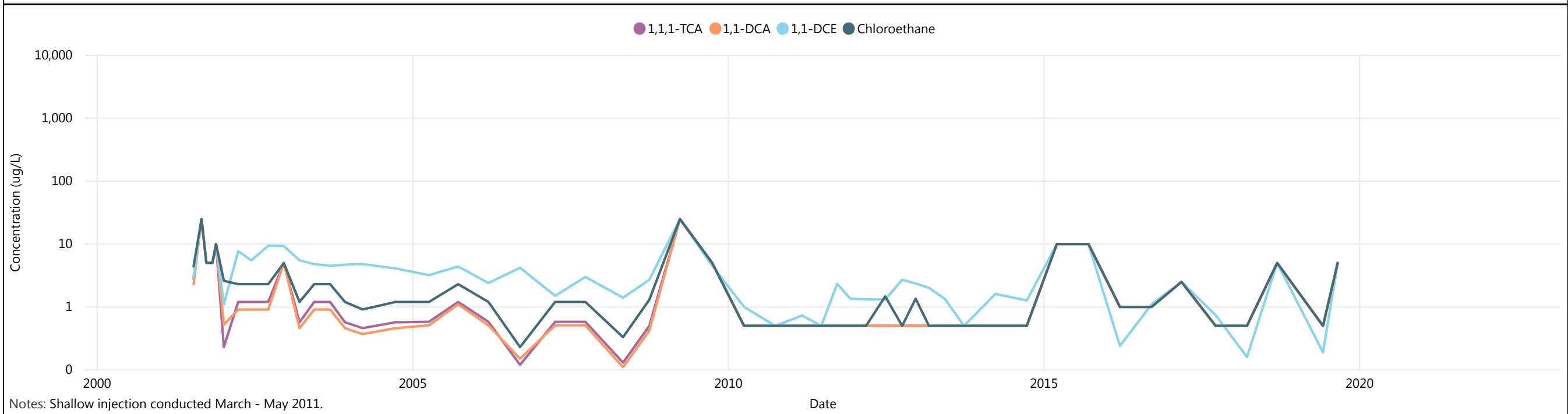
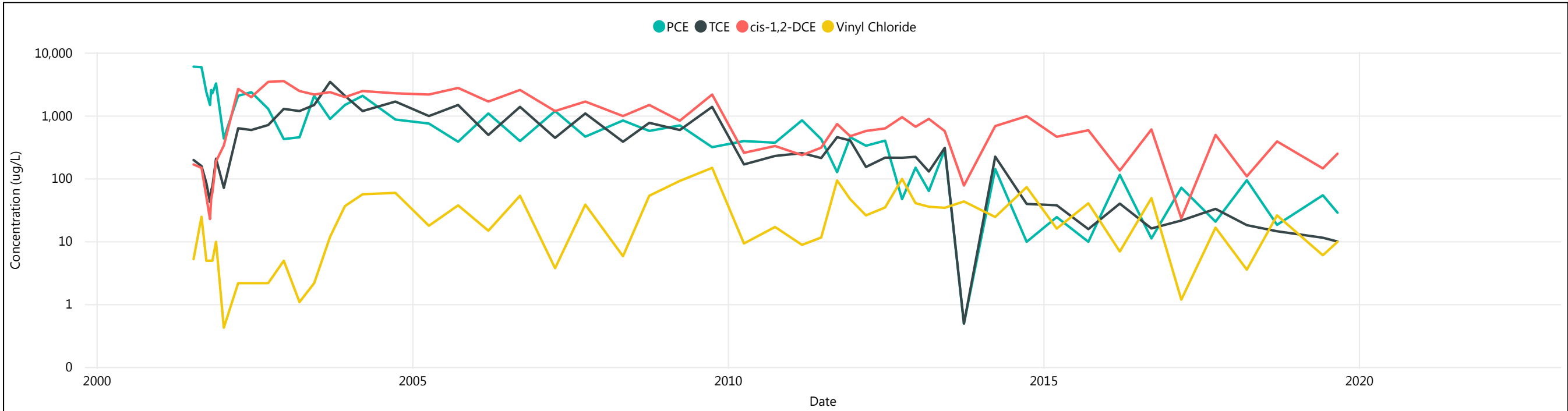
Notes: Shallow injection conducted March - May 2011.

Figure F10. On-site VOC Trend Charts (MW-10)



Notes: Shallow injection conducted March - May 2011.

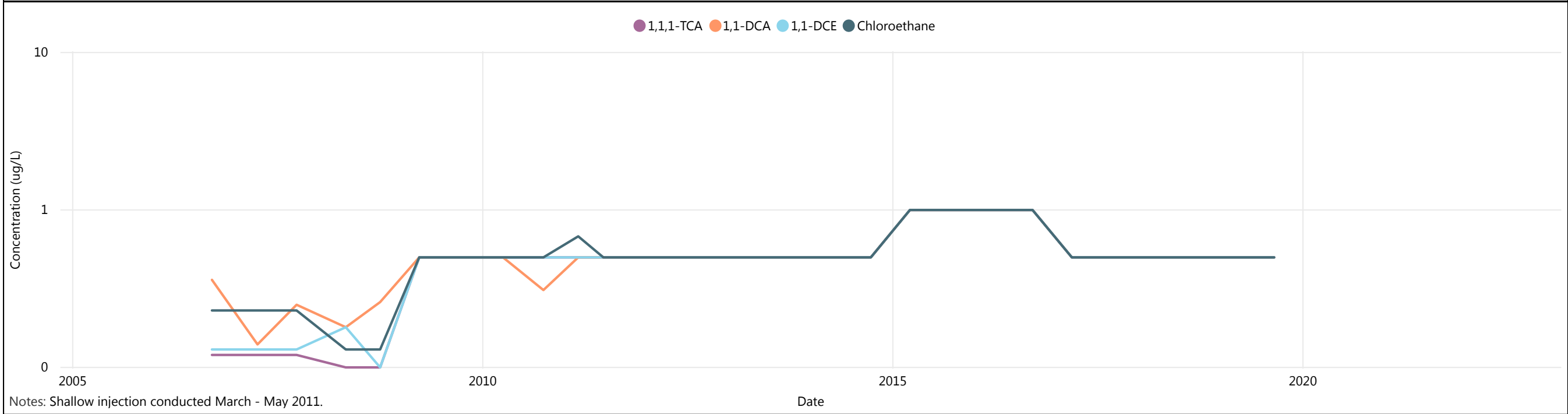
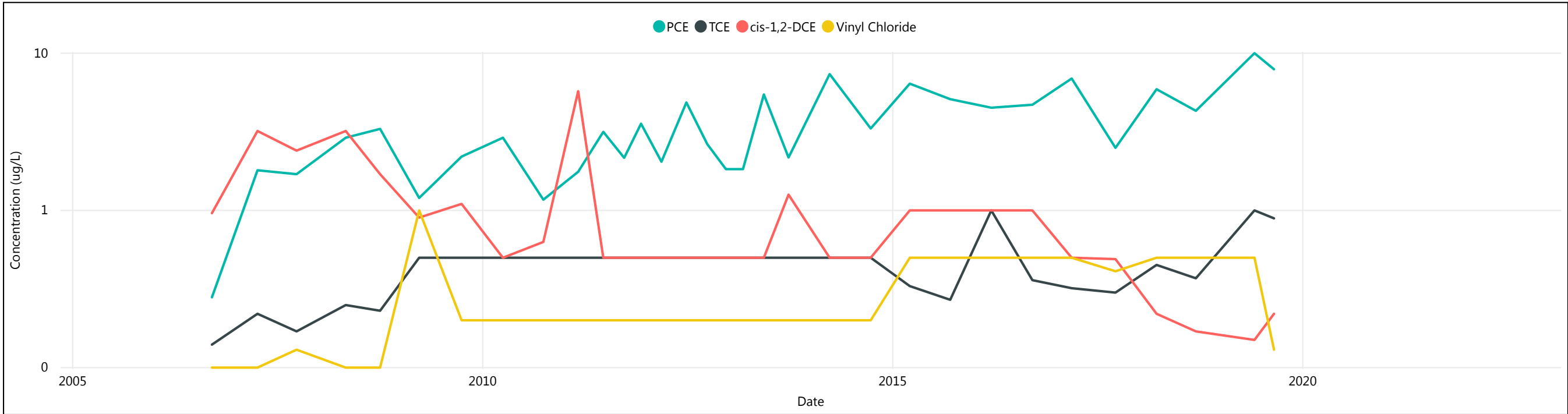
Figure F11. On-site VOC Trend Charts (MW-12)



Notes: Shallow injection conducted March - May 2011.

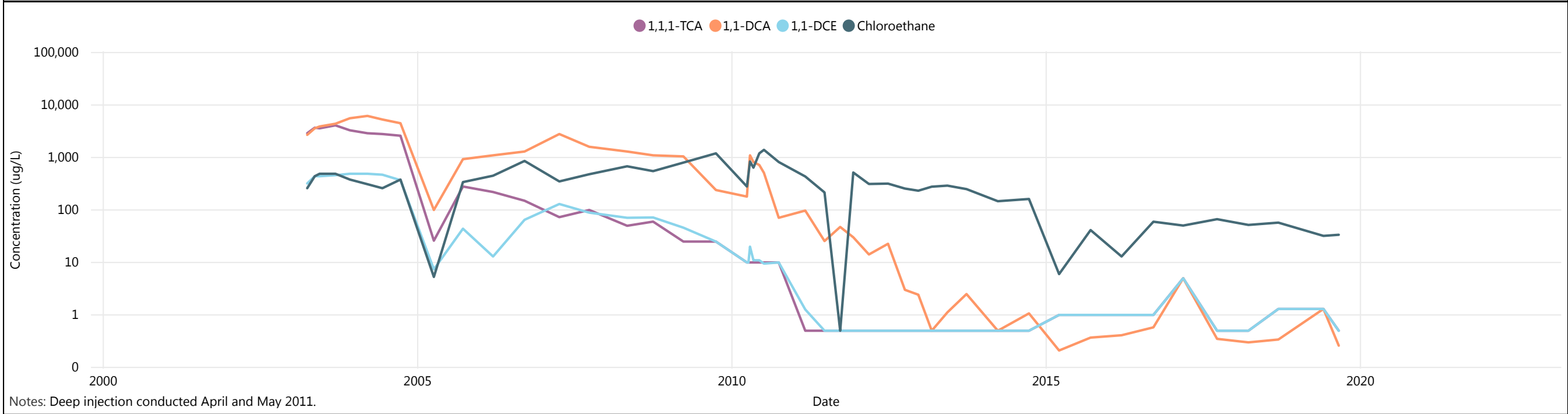
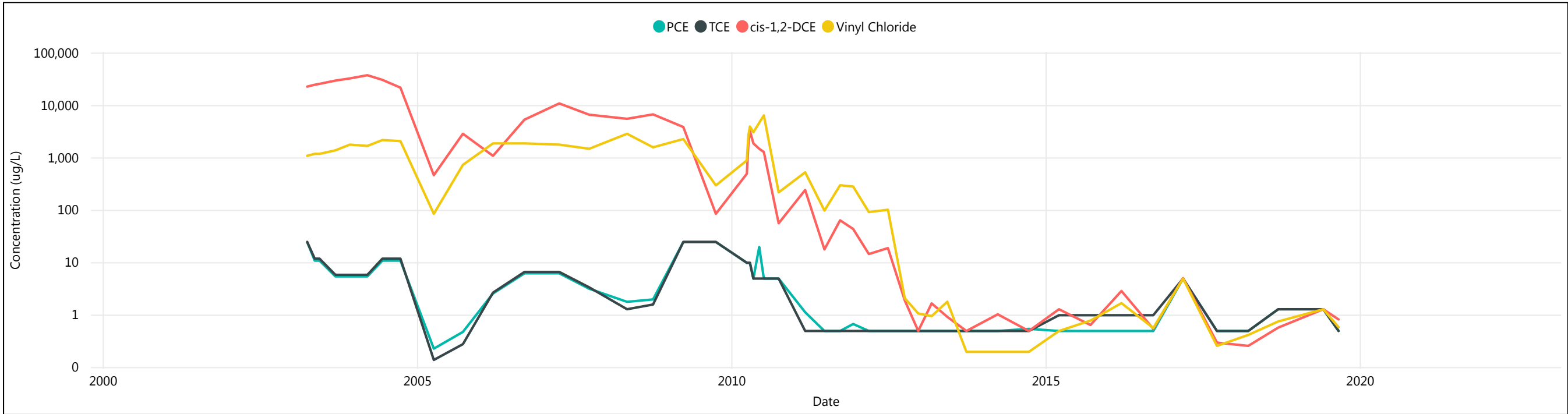


Figure F12. On-site VOC Trend Charts (MW-23)



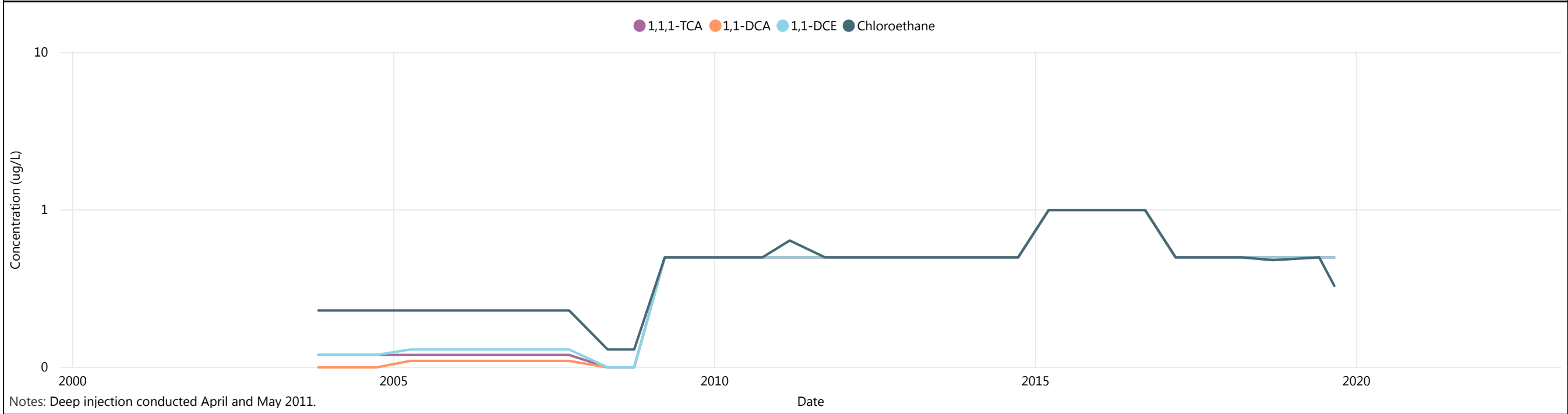
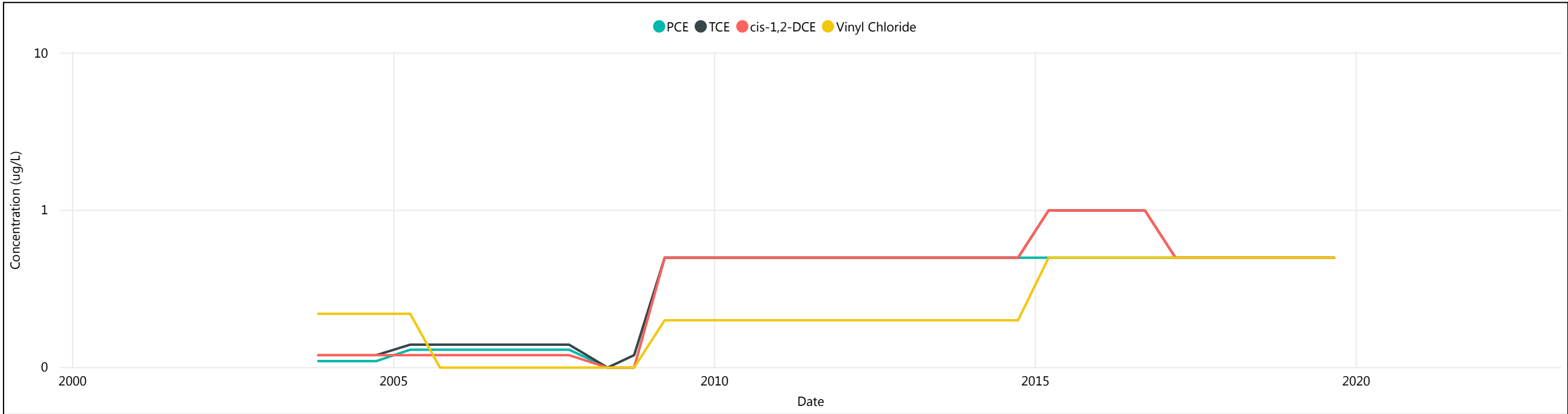
Notes: Shallow injection conducted March - May 2011.

Figure F13. On-site VOC Trend Charts (MW-13)



Notes: Deep injection conducted April and May 2011.

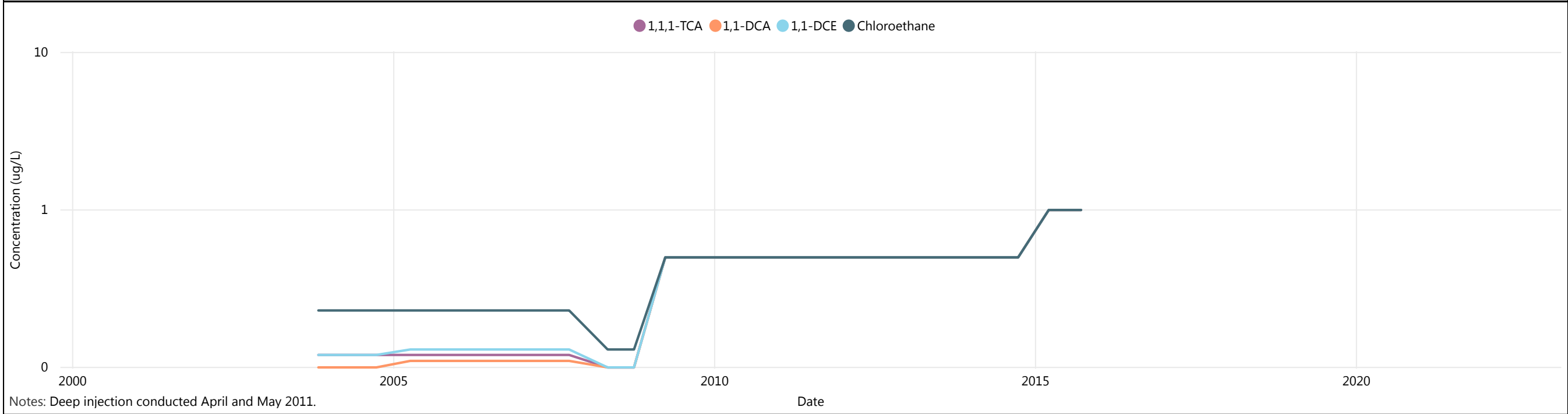
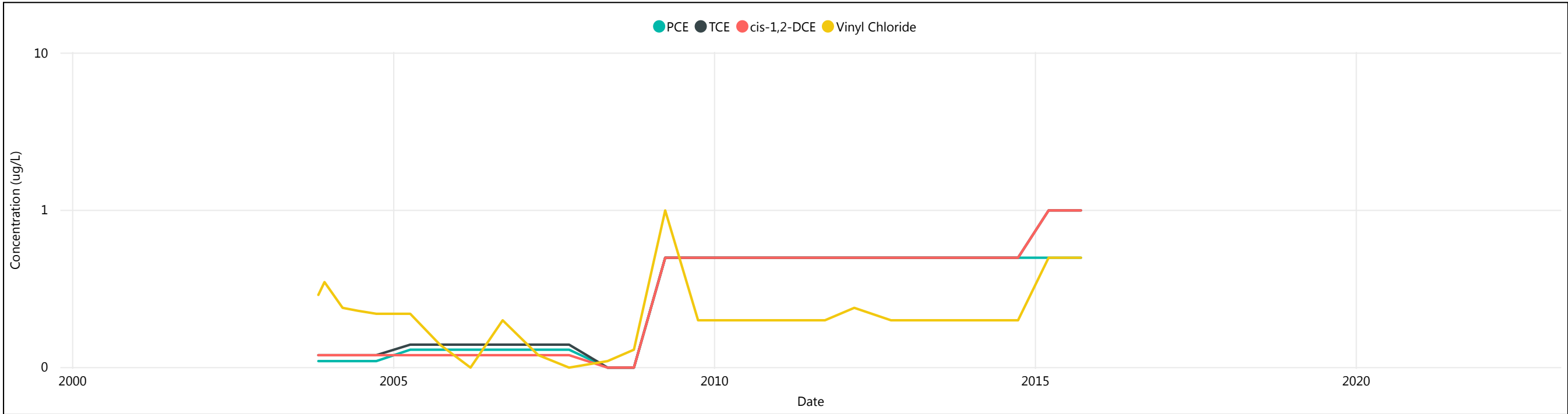
Figure F14. On-site VOC Trend Charts (MW-14)



Notes: Deep injection conducted April and May 2011.

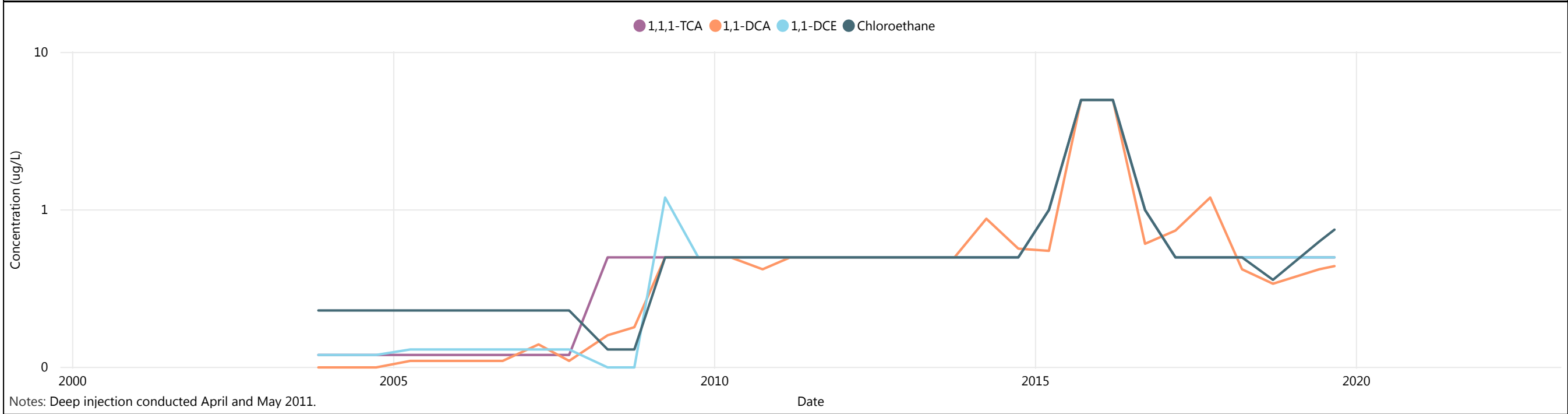
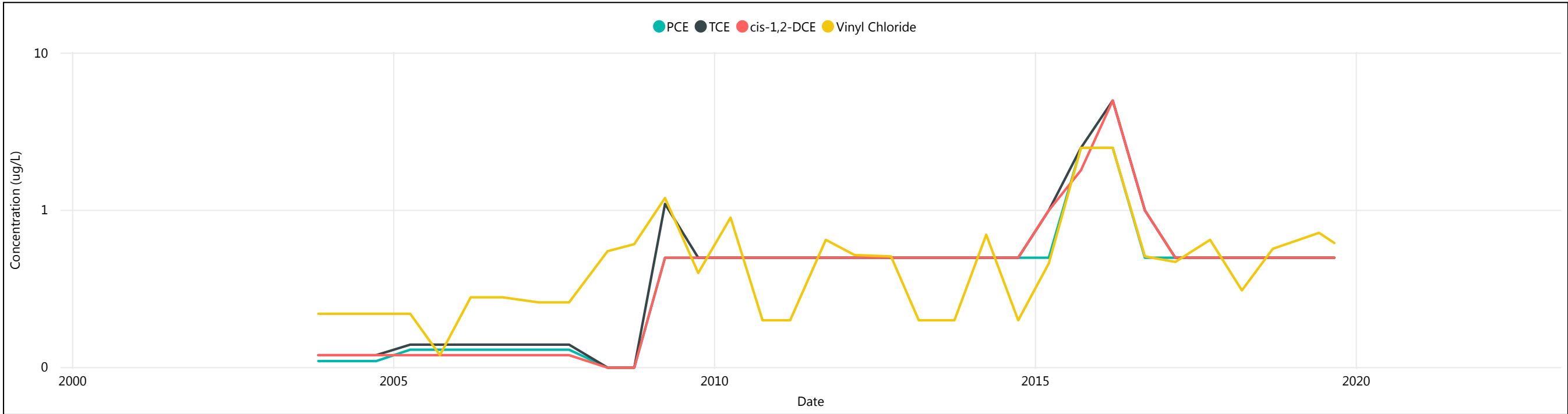


Figure F15. On-site VOC Trend Charts (MW-15)



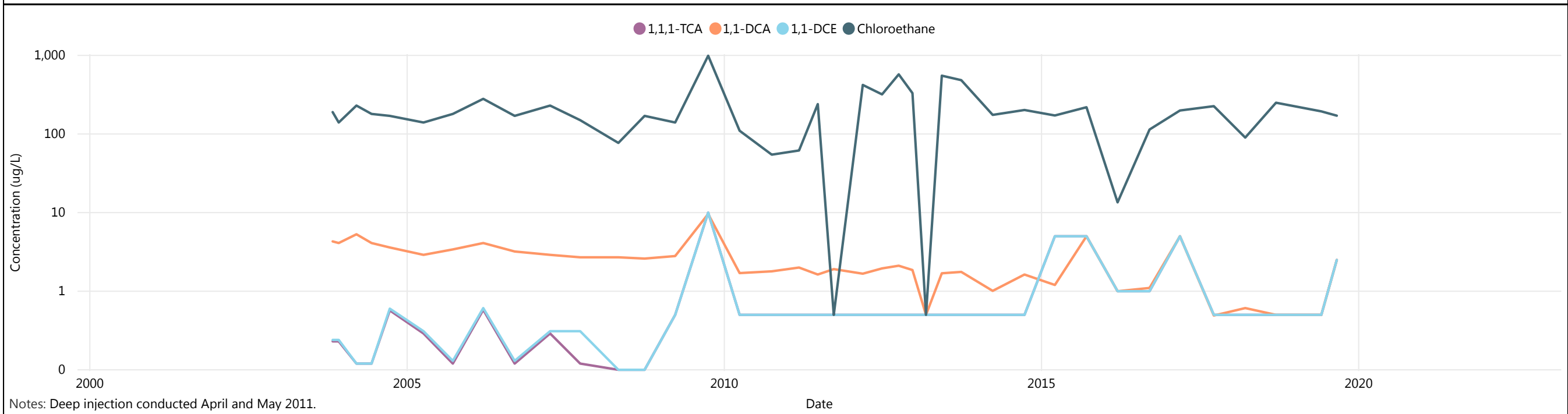
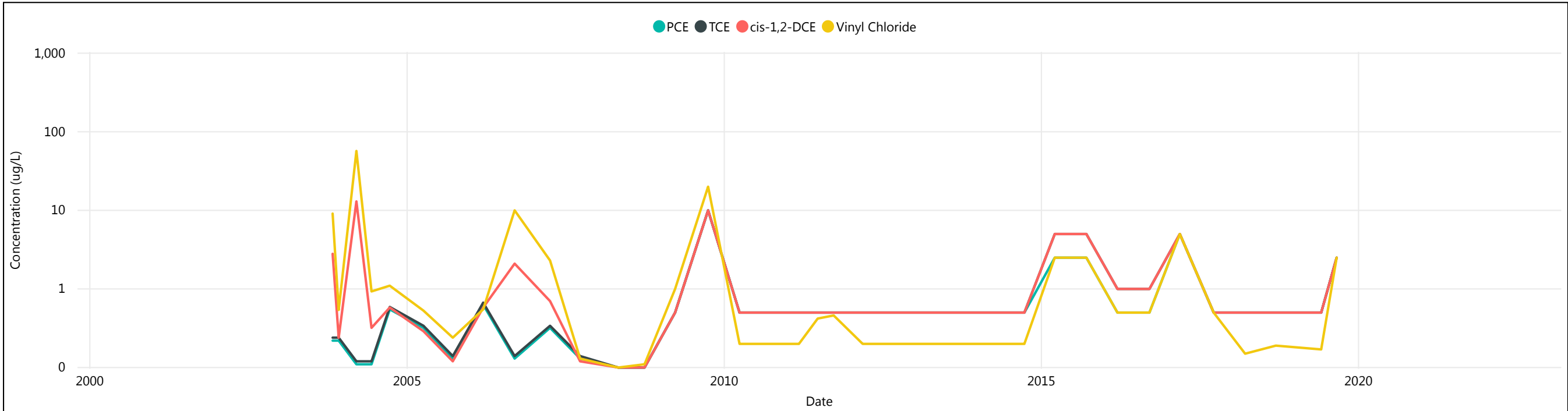
Notes: Deep injection conducted April and May 2011.

Figure F16. On-site VOC Trend Charts (MW-16)



Notes: Deep injection conducted April and May 2011.

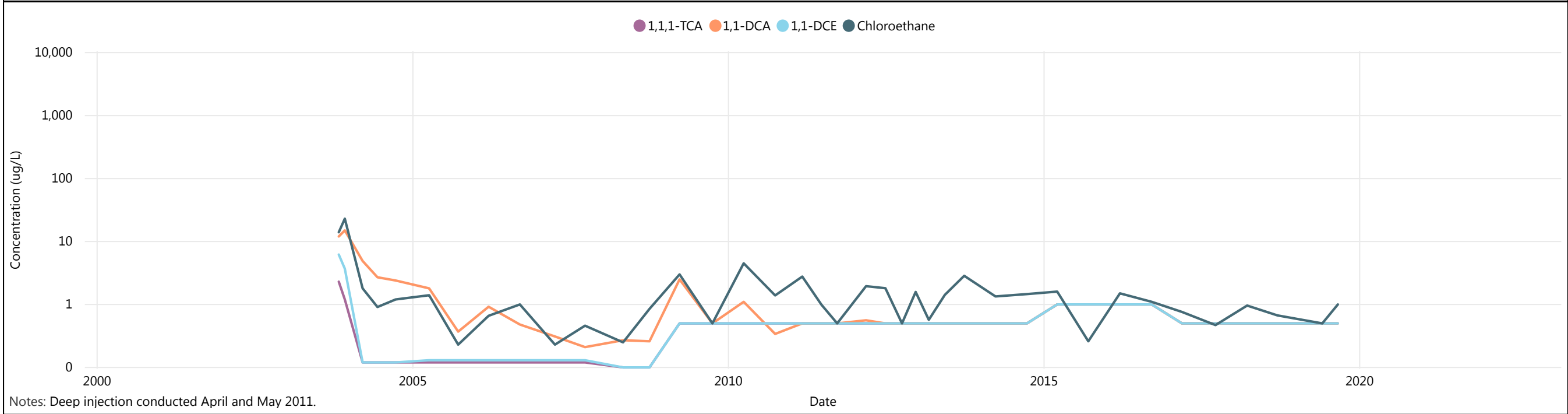
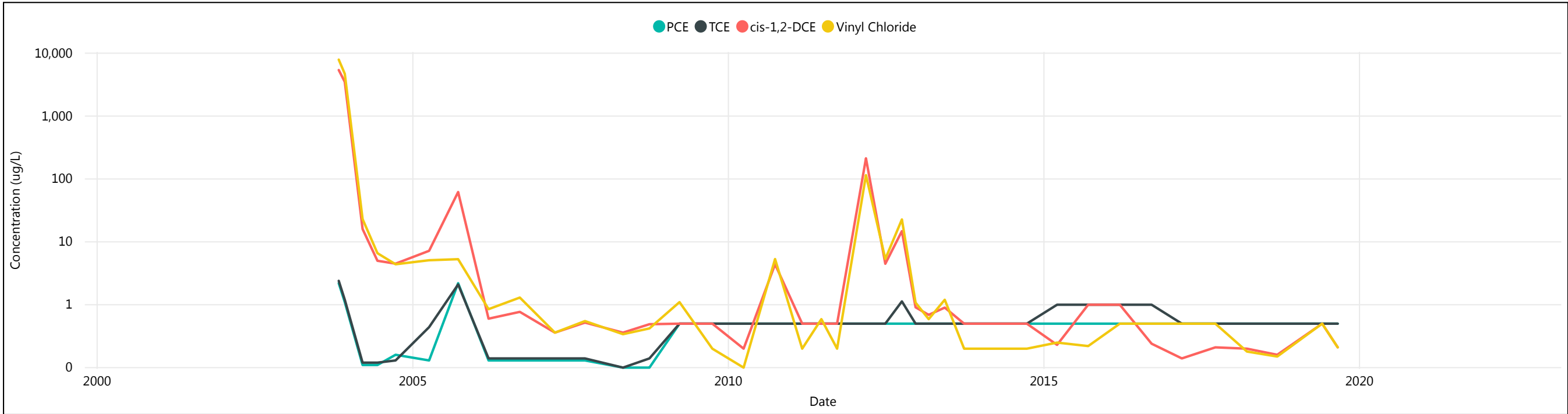
Figure F17. On-site VOC Trend Charts (MW-17)



Notes: Deep injection conducted April and May 2011.

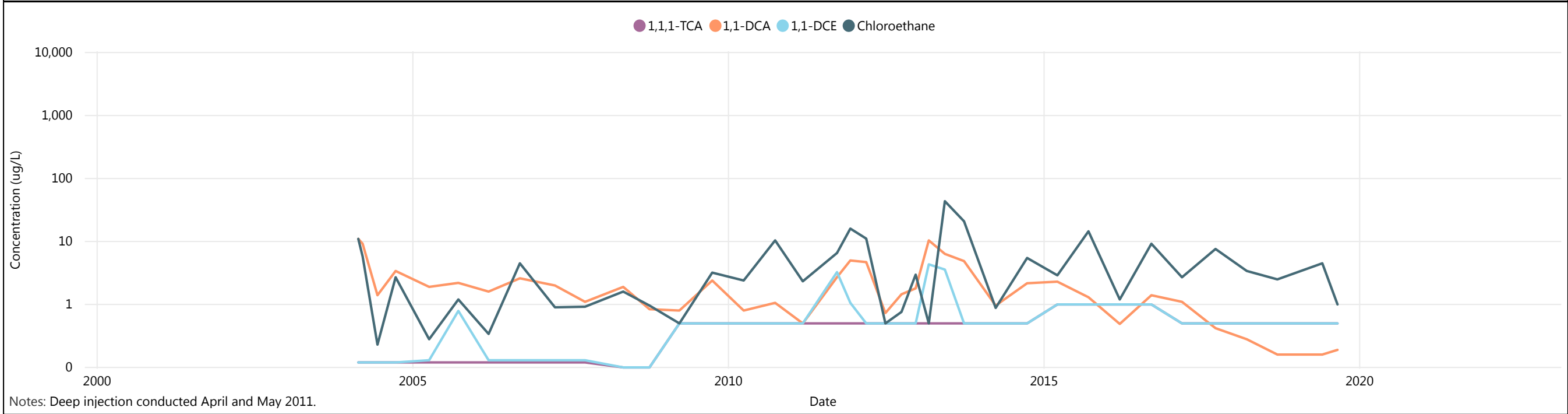
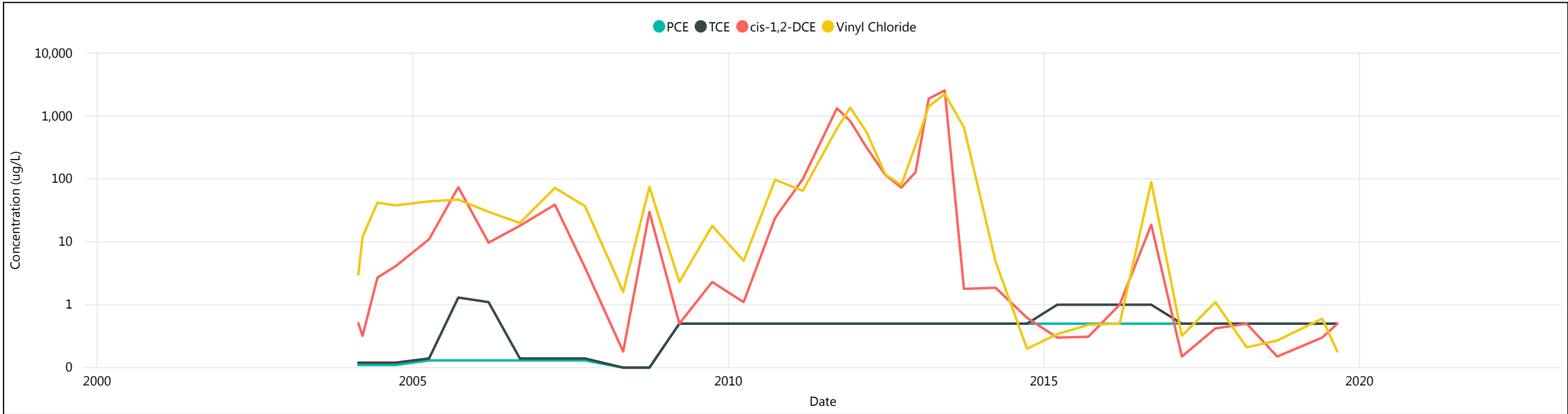


Figure F18. On-site VOC Trend Charts (MW-18)



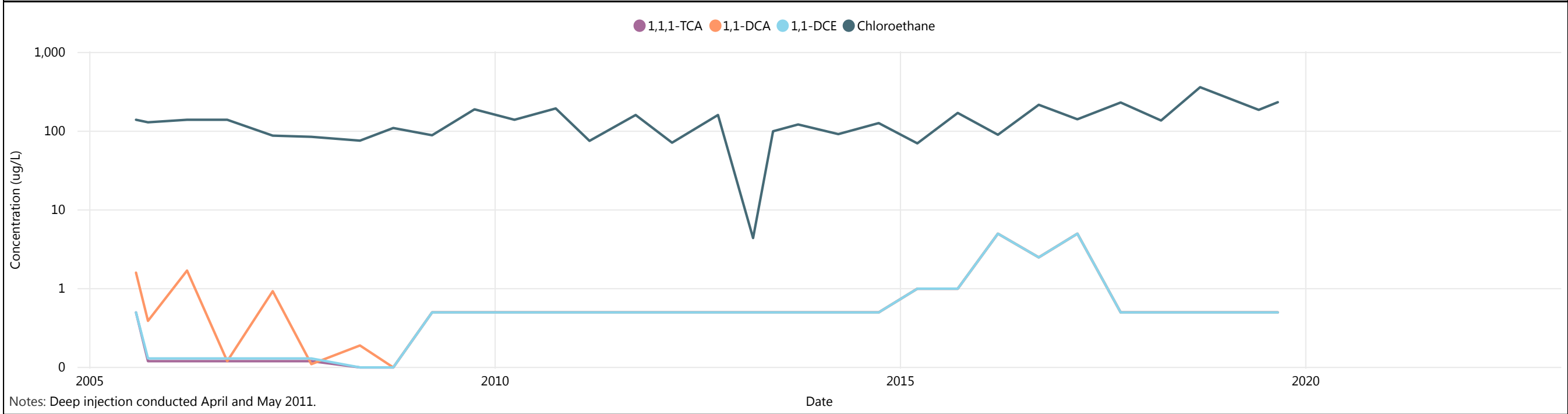
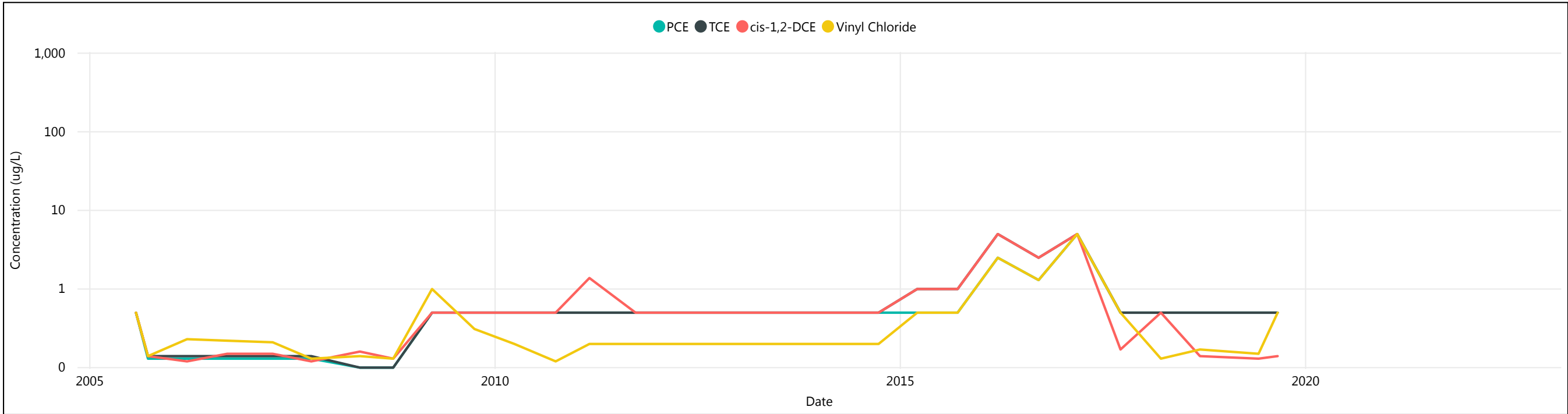
Notes: Deep injection conducted April and May 2011.

Figure F19. Boundary VOC Trend Charts (MW-19)



Notes: Deep injection conducted April and May 2011.

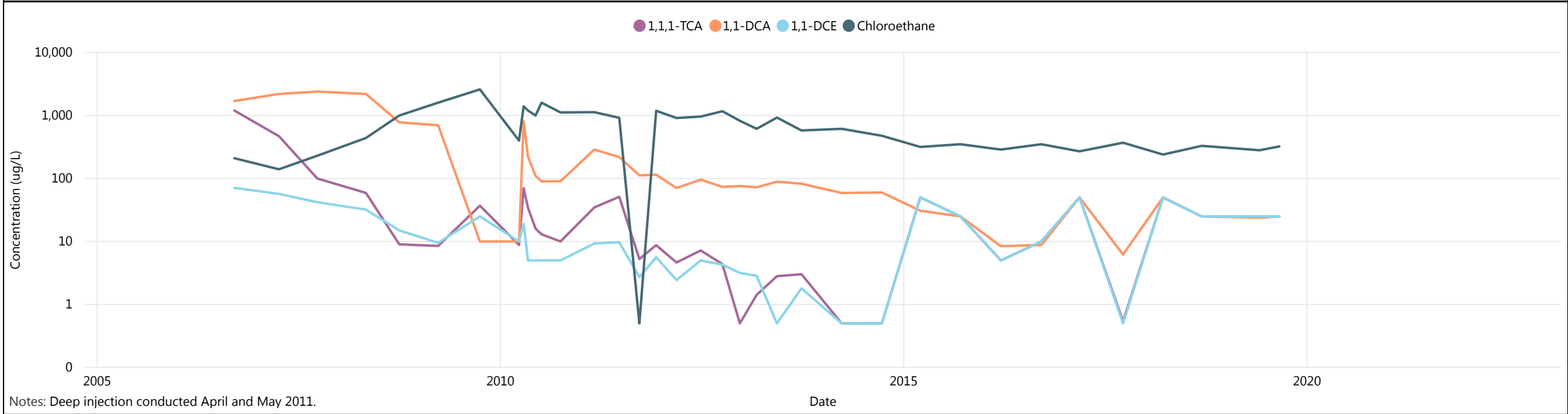
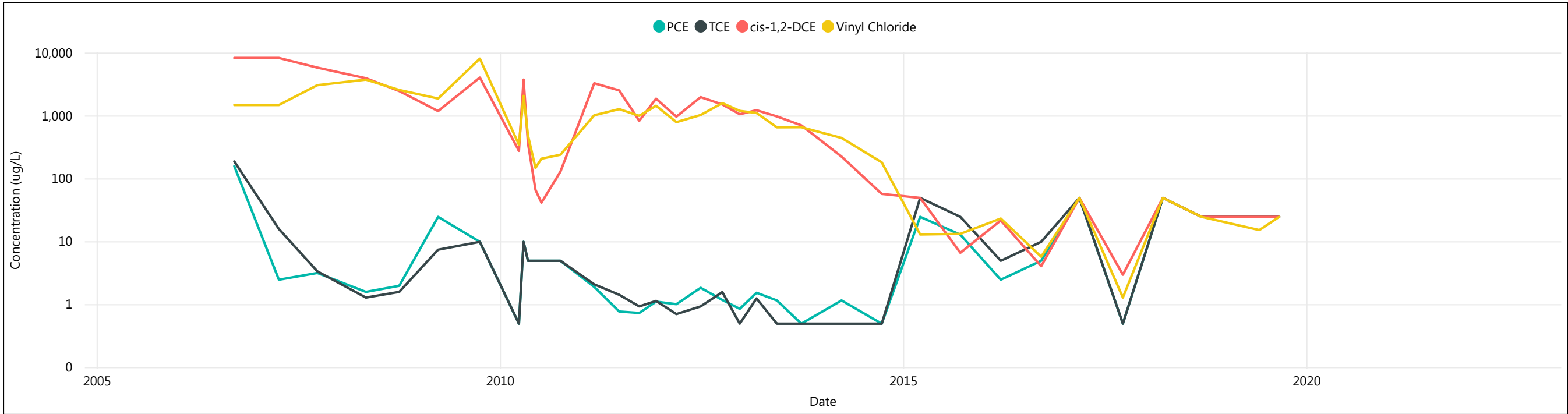
Figure F20. Off-site VOC Trend Charts (MW-20)



Notes: Deep injection conducted April and May 2011.

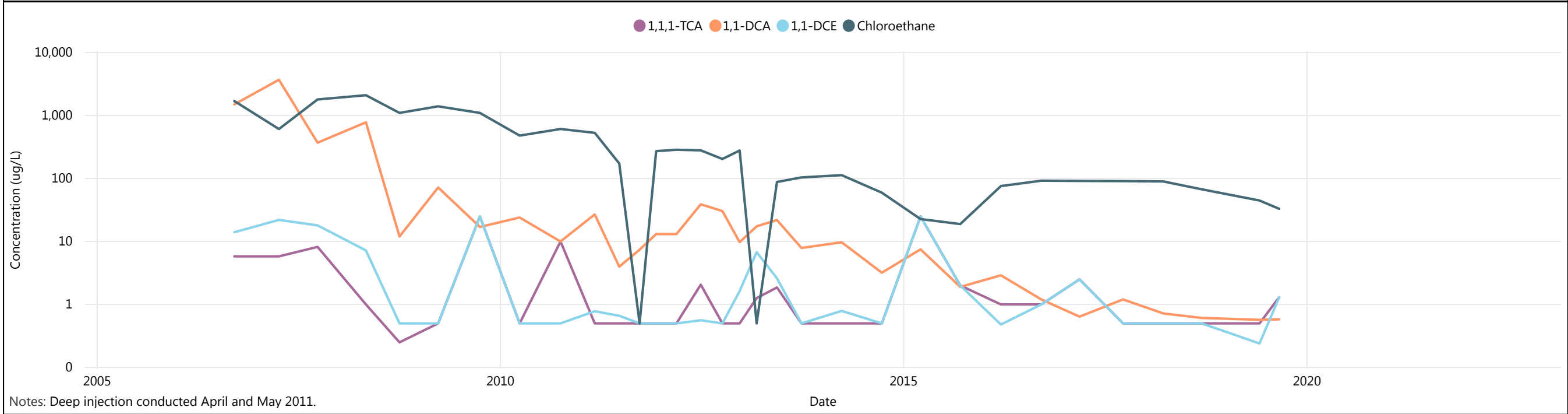
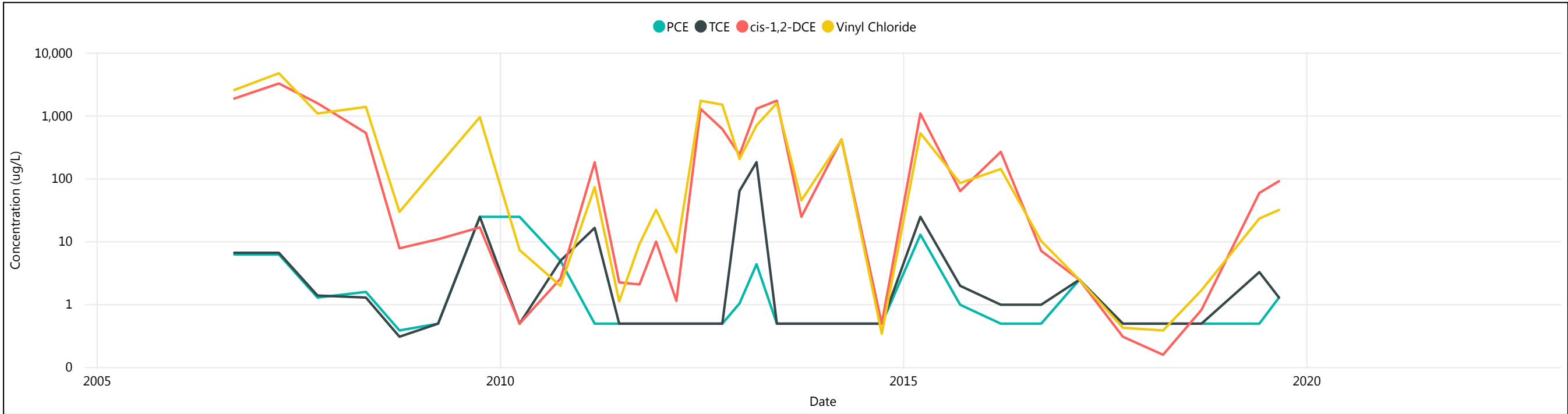


Figure F21. On-site VOC Trend Charts (MW-21)



Notes: Deep injection conducted April and May 2011.

Figure F22. On-site VOC Trend Charts (MW-22)



Notes: Deep injection conducted April and May 2011.

Figure F23. Off-site VOC Trend Charts (MW-27)

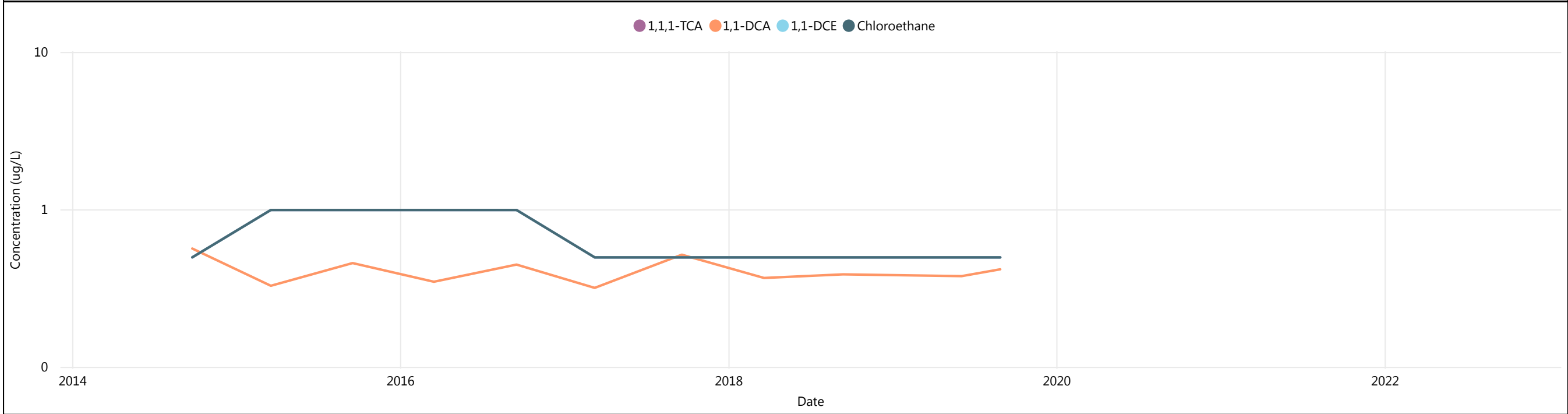
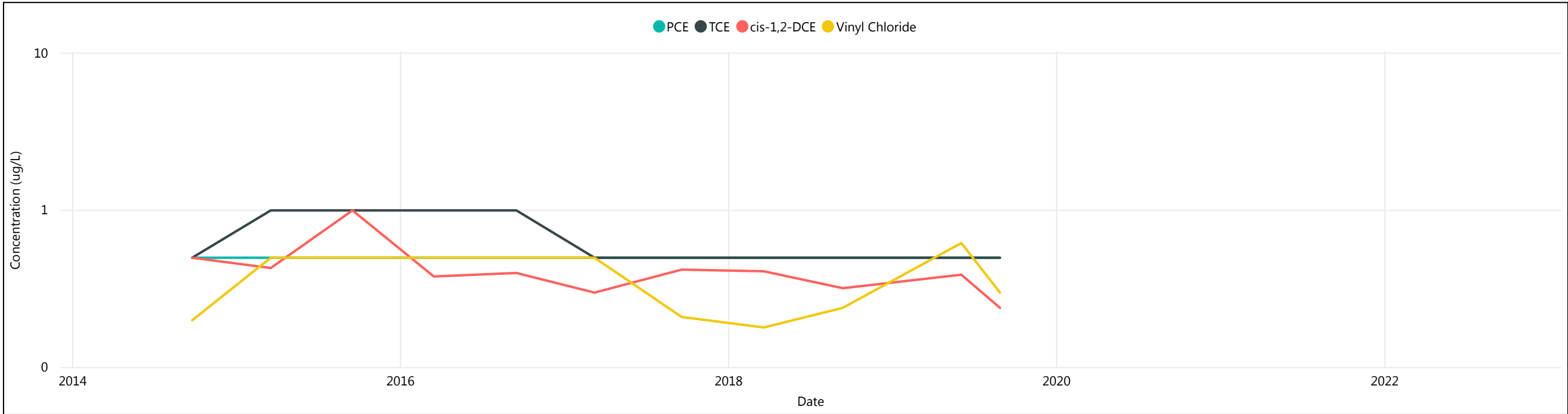




Figure F24. Boundary VOC Trend Charts (MW-28)

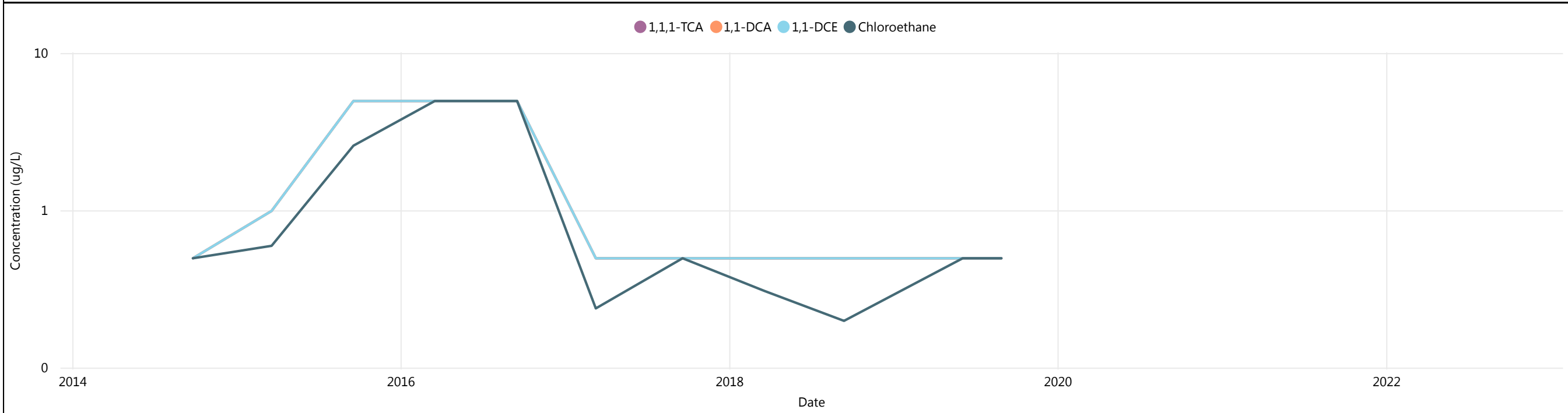
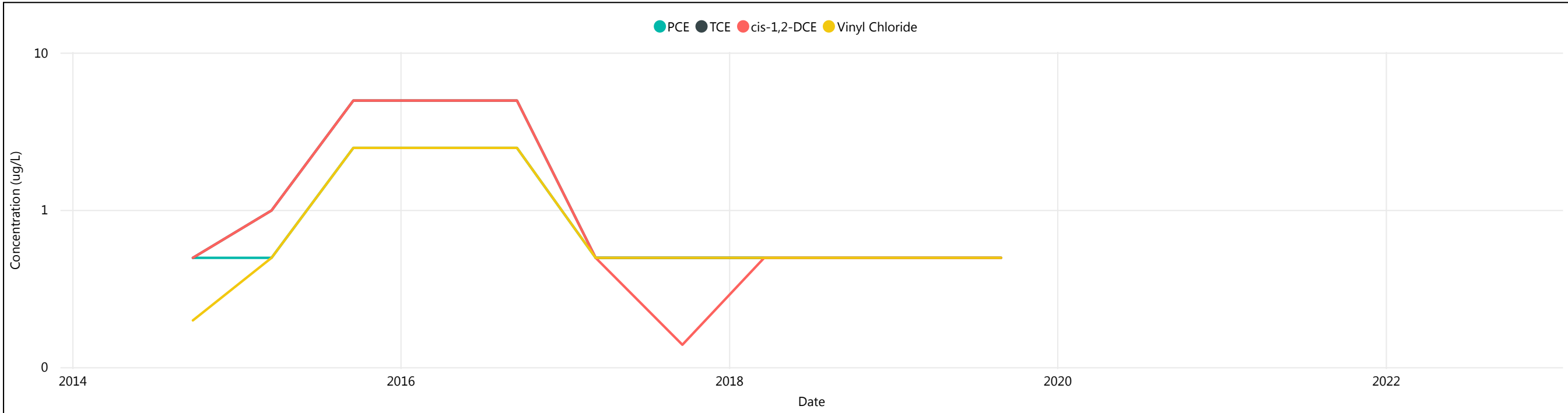


Figure F25. Off-site VOC Trend Charts (MW-29)

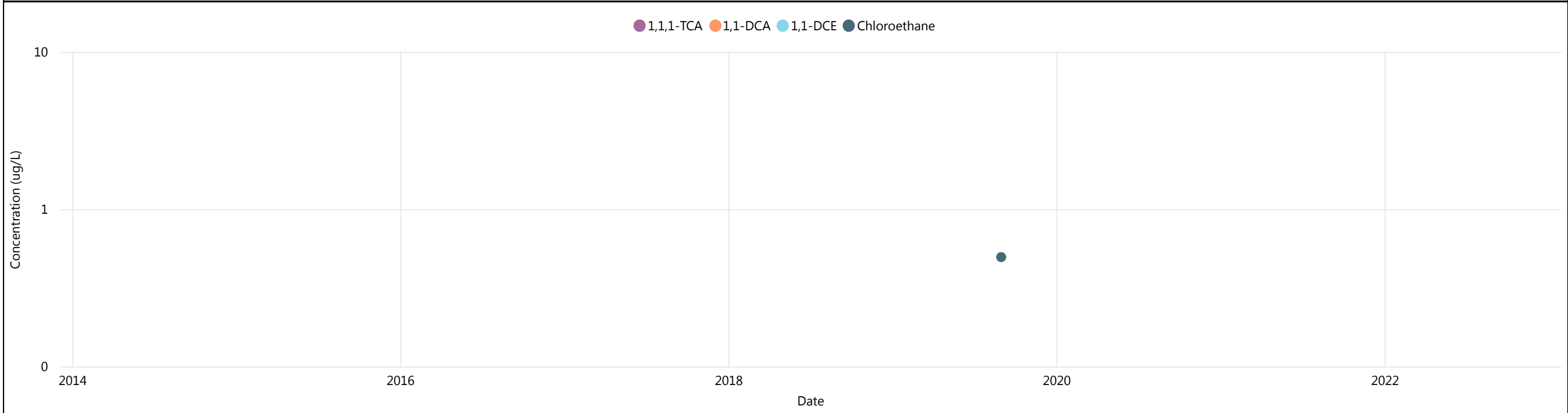


Figure F26. Benzene Deep Zone Trend Chart

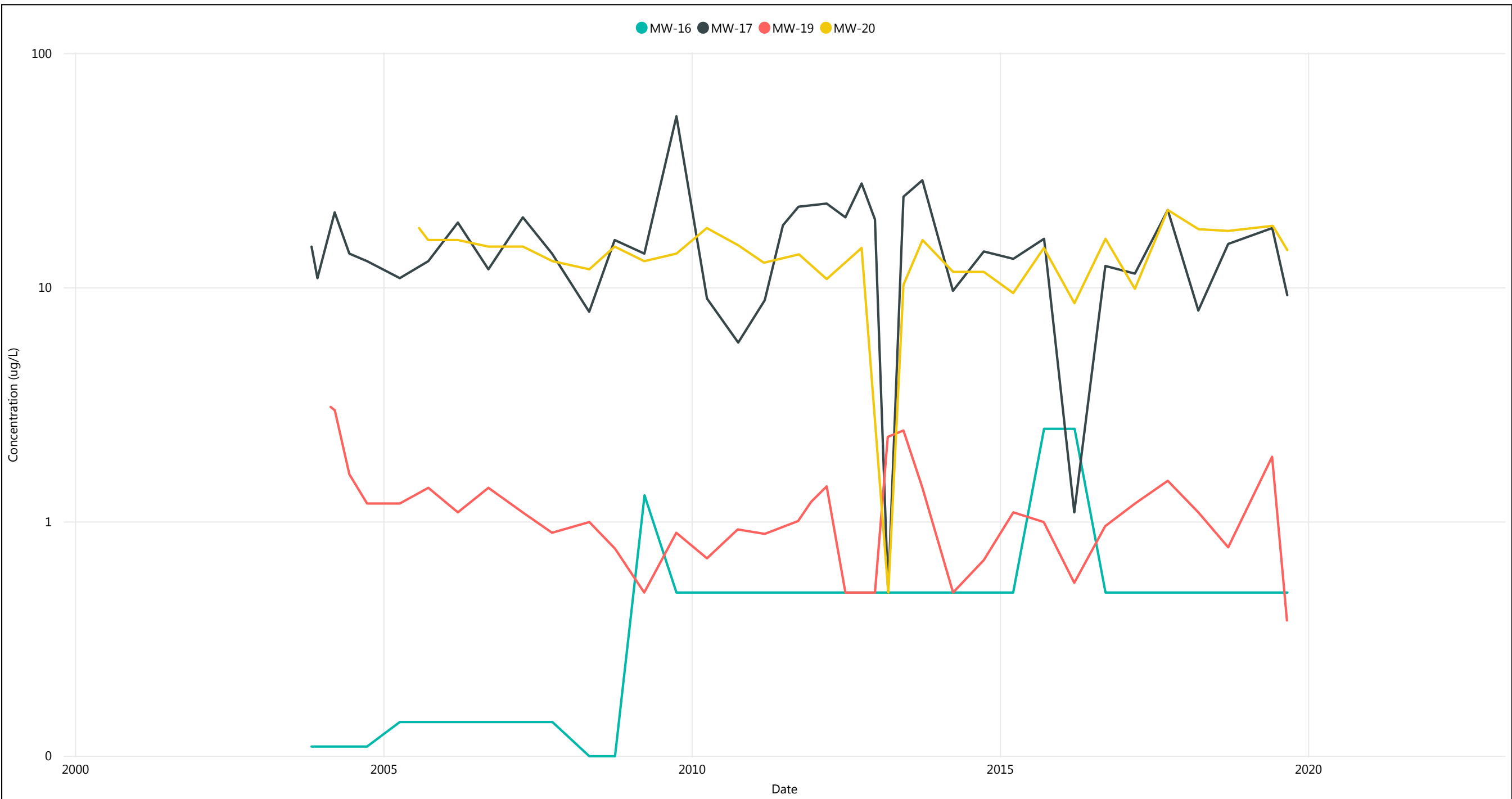
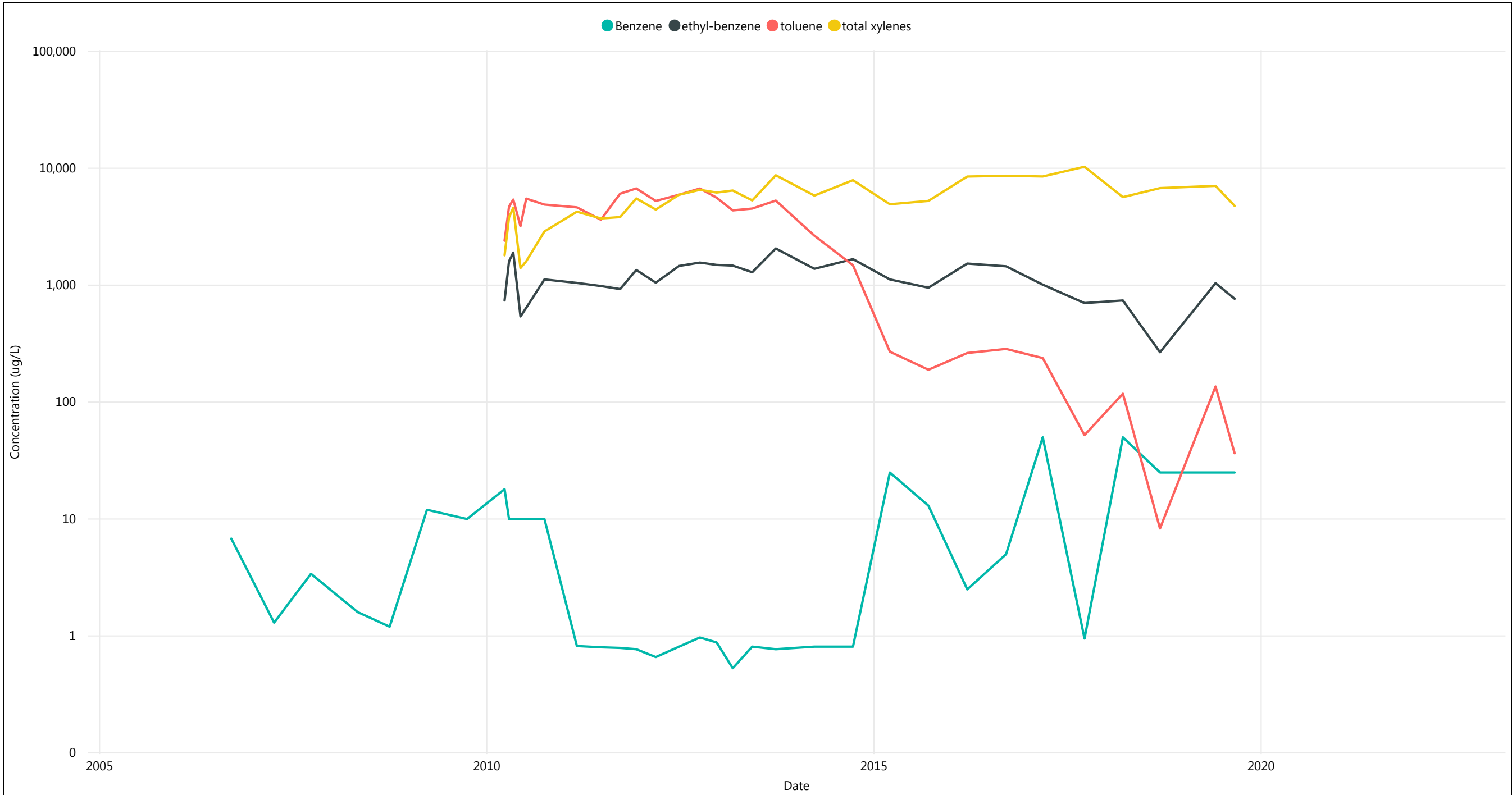




Figure F27. On-site Trend Chart (MW-21)



**APPENDIX G      EIMS SUBMITTAL**

## Dylan Stankus

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**Subject:** RE: EIM Data Submission - Study ID AODE5988

**From:** Sinclair, Gaylen (ECY) <[GSIN461@ECY.WA.GOV](mailto:GSIN461@ECY.WA.GOV)>  
**Sent:** Friday, February 28, 2020 9:48 AM  
**To:** Mike Appel <[Mike.Appel@erm.com](mailto:Mike.Appel@erm.com)>  
**Cc:** Mackie, Thomas L. (ECY) <[tmac461@ECY.WA.GOV](mailto:tmac461@ECY.WA.GOV)>  
**Subject:** EIM Data Submission - Study ID AODE5988

Good Morning Mike,

Thank you for submitting data for Univar Kent 212<sup>th</sup> Street. Submitted data for this study loaded into EIM successfully. The Ecology Project Manager will verify the data on study, locations, and results.

Below is further information on the loaded data.

**Facility Site ID:** 13862483  
**Study ID:** AODE5988  
**Study Name:** Univar Kent 212th Street Facility Cleanup  
**Date Range:** Mar 2018, Sep 2018, May 2019, Jun 2019, Aug 2019  
**New Locations:** 28  
**New Results:** 5230

**Information for data submitter:**

- You can view the data by using the following link. <https://apps.ecology.wa.gov/eim/search/Map/Map.aspx?MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE5988&MapLocationExtent=-13606844.0433243%2c6009305.16116582%2c-13606478.0215483%2c6010116.56715282>

**Information for Ecology employees:**

- You can view the data by using the following link. <http://ecyeim/search/Map/Map.aspx?MapType=EIM&StudyUserIdSearchType=Contains&StudyUserIds=AODE5988&MapLocationExtent=-13606844.0433243%2c6009305.16116582%2c-13606478.0215483%2c6010116.56715282>
- You should verify study, location, and result information.
- The [EIM Data Entry Review Checklist](#), updated May 2018, can be found in the [EIM Help Center](#).
- There is a [video training on how to review the data](#).

Thanks,  
Gaylen



**Note for data submitters:**

1. We resumed processing submittals for PLIA sites on Monday, Jan 13. Thank you for your patience!
2. [Please take this 2-min survey about EIM \(link\)](#)

Gaylen Sinclair, PhD  
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| Indonesia       | South Korea  |
| Ireland         | Spain        |
| Italy           | Sweden       |
| Japan           | Switzerland  |
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