February 28, 2022

U.S. EPA Region 5
Remediation and Reuse Branch
Land and Chemicals Division, LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3590
Attn: Molly Finn

RE: 2021 Groundwater Monitoring Report
RACER Trust Moraine Facilities
Moraine, Ohio

Dear Ms. Finn:

The Revitalizing Auto Communities Environmental Response Trust (RACER Trust) is providing this 2021 Groundwater Monitoring Report for the RACER Trust Moraine Facilities in Moraine, Ohio. This report presents the groundwater monitoring activities conducted to assess the performance of the current corrective measures completed in 2021 at the following facilities located in Moraine, Ohio: former Delphi Harrison Thermal Systems Moraine Plant; former General Motors Corporation Powertrain Group, Moraine Engine Plant; and former General Motors Corporation Truck Group, Moraine Assembly Plant. Given the significant amount of data collected at the Site and the anticipated progress with a Final Decision on the Statement of Basis and associated source treatment as part of remedy implementation, a significantly reduced sampling program and concise report that will include tabulated data is planned for 2022.

If you have any questions, please contact me at (937) 751-8635.

Sincerely,

Pamela L. Barnett

Pamela L. Barnett, PG
Cleanup Manager (DE, LA, MA, OH, PA, VA)
RACER Trust

cc: M. Finn and S. Patel, U.S. EPA
R. Miller and B. Moore, Montgomery County
M. Davis, City of Moraine
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A. Hou and A. Conn, Fuyao Glass America Inc.
B. Gitzinger and V. Orr, Ohio EPA
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2021 Groundwater Monitoring Report

Revitalizing Auto Communities Environmental Response Trust (RACER Trust)

Former Delphi Harrison Thermal Systems, Moraine Plant
Former General Motors Powertrain Group, Moraine Engine Plant
Former General Motors Corporation Truck Group, Moraine Assembly Plant
Moraine, Ohio

February 28, 2022

2021 Groundwater Monitoring Report

Revitalizing Auto Communities Environmental Response Trust (RACER Trust)

February 28, 2022

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1 Introduction

This 2021 Groundwater Monitoring Report summarizes the groundwater monitoring activities completed in 2021 at the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) Moraine Facilities (formerly General Motors Corporation [former GM Corporation]) located in Moraine, Ohio (Site; **Figure 1**). The facilities included:

- former Delphi Harrison Thermal Systems Moraine Plant (former Delphi Thermal Moraine)
- former General Motors Corporation Powertrain Group, Moraine Engine Plant (former Moraine Engine)
- former General Motors Corporation Truck Group, Moraine Assembly Plant (former Moraine Assembly)

Current property owners and parcel boundaries associated with the Site are shown on **Figure 2**.

This report summarizes the 2021 groundwater monitoring program (**Table 1**) and the performance of the ongoing interim measures (**Figure 3**). These interim measures were included in the Interim Measures/Corrective Measures (IM/CM) Report (Arcadis G&M, Inc. 2001) and incorporate the Former Oil House Area interim measures (in-situ remediation of upper aquifer groundwater); the capture zone interim measure (downgradient pumping of the lower aquifer); institutional actions (the Site will remain industrial, groundwater use will be restricted, and vapor intrusion controls are in place); and a groundwater monitoring program. An additional interim measure, Phase 1 Dynamic Groundwater Recirculation (DGR™; Arcadis 2020a), was implemented in 2019 to address off-site vapor intrusion.

The groundwater monitoring for the facilities was conducted in accordance with the Addendum to the Site-Wide Groundwater Monitoring Report for 2016 (Addendum; Arcadis 2017a) and the recommendations in the 2020 Groundwater Monitoring Report (Arcadis 2021).

1.1 Site Description

The Site has been used for industrial purposes since the property was acquired in the mid-1920s by former GM Corporation. The former Moraine Engine and Moraine Assembly facilities occupy approximately 282 acres, while the adjacent former Delphi Thermal Moraine facility occupies approximately 143 acres (Montgomery County Engineer's Office). The facilities are in the City of Moraine, Montgomery County, southwestern Ohio. A small portion of the Moraine Assembly facility is in the City of Kettering. **Figure 1** presents the location of each facility, property boundaries, and Site features.

Frigidaire (a former division of former GM Corporation) produced appliances from the late 1920s until 1979. Former GM Corporation announced the shutdown of all Frigidaire operations in January 1979. During 1980 and 1981, the majority of the former Frigidaire Plant 2 was converted to the former Moraine Engine facility, and the former Frigidaire Plant 3 and the northeast corner of former Frigidaire Plant 2 were converted to the Moraine Assembly facility. Since 1981, former Moraine Engine operations have included the machining, painting (this operation was discontinued in September 1995), and assembly of diesel truck engines. Operations at the former Moraine Engine facility ceased in the fall of 2000. The plant building has undergone decommissioning and demolition, and most of this portion of the Site has been covered with a parking surface. Former GM Corporation operated a regional haulaway at the location of the former Moraine Engine plant, which was referred to as the Vehicle Distribution Center. Operations at the regional haulaway ceased in December 2008.

Beginning in 1981, former Moraine Assembly operations included the manufacturing, assembly, and painting of small trucks and later sport utility vehicles. Operations at the former Moraine Assembly ceased in December 2008. Currently, an active diesel engine manufacturer, DMAX Ltd. (DMAX), is located north of former Delphi Thermal Moraine, on Lot #5416. DMAX is a joint venture between General Motors and Isuzu. This area was historically associated with the former Moraine Assembly and Engine Plant operations.

Former Delphi Thermal Moraine's major operations, which began in 1941, included the machining and assembly of automotive air conditioning compressors, accumulator dehydrators, and miscellaneous air conditioning valves. Operations at the former Delphi Thermal Moraine Building 14 ceased in September 2003, and the building was decommissioned. Demolition of Building 14 was completed in 2005.

On June 1, 2009, former GM Corporation and certain subsidiaries filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code. An order was entered approving the sale of substantially all former GM Corporation's assets to a new and independent company (now known as General Motors Company, LLC) under Section 363 of the Bankruptcy Code on June 5, 2009. The sale closed on July 10, 2009. At that time, former GM Corporation changed its name to Motors Liquidation Company (MLC). RACER Trust was established on March 31, 2011 by a federal bankruptcy court to own, manage, remediate, and revitalize the properties from the 2009 former GM Corporation bankruptcy.

On June 30, 2011, RACER Trust sold former Delphi Thermal Moraine (except for the closed South Settling Lagoon), former Moraine Engine Plant, and former Moraine Assembly Plant to Industrial Realty Group Moraine, LLC (IRG). As part of the property transfer, RACER Trust retained environmental liability for these properties. Current Site operations include multi-tenant use for commercial and industrial purposes. **Figure 2** provides details of the established parcels and current owners.

1.2 Groundwater Monitoring Program Objectives

The baseline groundwater sampling event for volatile organic compounds (VOCs) was conducted in September 1999. The next site-wide groundwater sampling event was completed in September and October 2000 and included sample analysis for additional constituents (Appendix IX chlorinated VOCs, cis-1,2-dichloroethence [cis-1,2-DCE], semi-volatile organic compounds [SVOCs], and metals) to narrow down the constituents of concern at the Site. The results from the 1999 baseline event and the 2000 site-wide event confirmed chlorinated VOCs are the constituents of concern and are presented in the IM/CM Report (Arcadis G&M, Inc. 2001). The site-specific VOCs include benzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, and xylenes. PCE and TCE are the primary risk drivers for the Site.

Since the baseline groundwater monitoring event, emerging contaminants including 1,4-dioxane (RACER Trust 2015 and 2016; Arcadis 2015, 2016, and 2017b) and poly- and perfluorinated alkyl substances (PFAS) have been evaluated and additional investigation or remediation is not warranted (Arcadis 2019a).

The objectives of groundwater monitoring in 2021 at the Site were as follows:

1. Monitor groundwater quality west of the Miami River near the Miami Shores neighborhood and downgradient of the Site.
2. Monitor lower aquifer capture (DN-13) downgradient of the property boundary.

3. Monitor the effectiveness of property boundary interim measures activities at suspended in-situ reactive zones IRZ-3 West, IRZ-3 East, and IRZ-4 East.
4. Monitor groundwater quality upgradient and downgradient of the closed North and South Settling Lagoons.
5. Monitor the performance of the upper aquifer Phase 1 DGR™ interim measure.

1.3 Interim Measures

1.3.1 Enhanced Reductive Dechlorination

The reductive dichlorination of chlorinated VOCs can be enhanced by the injection of a carbon source that stimulates activity of indigenous microorganisms. The high carbon loading triggers a succession of microbial species. Initially, aerobic electron acceptors such as oxygen and nitrate are consumed. Then the microbial succession leads to a consortium of species that survive by sulfate reduction, methanogenesis, and other similar metabolic pathways supporting the highly reducing conditions necessary for the dechlorination of PCE, TCE, cis-1,2-DCE, and vinyl chloride. This enhanced reductive dechlorination (ERD) process has been developed at the Site using in-situ reactive zones for the injection of a degradable carbon source (i.e., a dilute solution of molasses and potable water) necessary to develop the desired reducing conditions.

The ERD process was implemented at the Site in 1999 to address impacts at the former Oil House Area and downgradient diffuse plume VOC concentrations at the in-situ reactive zones IRZ-1, IRZ-2, IRZ-3 East, and IRZ-3 West. IRZ-4 East was designed and installed based on the data obtained from the Supplemental Groundwater Investigation completed in 2006. The in-situ reactive zones are shown on **Figure 4**.

Since 2006, the injection frequency at the different reactive zones has been modified or suspended based on VOC concentrations and the organic carbon degradation trend. In 2018, injections were implemented on a quarterly basis. This frequency was continued in the first quarter of 2019 only at IRZ-3 West. The 2018 Groundwater Monitoring Report recommended that active injections be suspended on an interim basis to allow for monitoring of rebound and to prepare groundwater conditions for the operation of the Phase 1 DGR™ system (see **Section 3.3**; Arcadis 2019a). On May 20, 2019, the United States Environmental Protection Agency (U.S. EPA) approved suspension of the injections at the in-situ reactive zones. Carbon source solution injections have not been completed since the first quarter of 2019. Monitoring to evaluate the need for additional injections is ongoing. The results of this evaluation are discussed in **Appendix A**.

The current primary site-specific VOC source area is within groundwater at the former Process Sump Area (PSA) (Arcadis 2012a, 2020c; RACER Trust 2015, 2016). The Primary Groundwater Source Area Interim Measures Work Plan Addendum (Arcadis 2017c) was submitted to the U.S. EPA and approved (U.S. EPA 2017). This Work Plan Addendum detailed the design basis and methodology for implementation of an ERD pilot test in the PSA. The associated field activities were completed in the fourth quarter of 2017 and first quarter of 2018. The results of this pilot test were submitted to the U.S. EPA (Arcadis 2019b) and ERD is the proposed remedy for the source area (PSA) at the Site.

1.3.2 Phase 1 DGR™

Dynamic Groundwater Recirculation (DGR™) involves hydraulic containment of the dissolved-phase site-specific VOCs near the property boundary at the former South Settling Lagoon in combination with groundwater recirculation to enhance advective flushing by creating the dynamic gradients required to reverse the processes of plume development, with routine optimization to achieve optimal performance. The objective of the Phase 1 DGR™ interim measure is to reduce site-specific VOCs in groundwater within the downgradient Riverview Plat neighborhood (neighborhood) to concentrations below the Maximum Contaminant Levels (MCLs) within 5 years of initiating full-scale operation (**Figure 3**). The direct benefit of addressing site-specific VOCs within the neighborhood is a reduced vapor intrusion risk for structures within the neighborhood that have not provided access for installation of a vapor intrusion mitigation system.

The upper aquifer Phase 1 DGR™ construction activities were completed on October 24, 2019 (Arcadis 2020a). Following an initial shake down period, the system operation began on October 28, 2019 at 09:30. Baseline groundwater samples and hydraulic information were collected during the July 2019 groundwater monitoring event. Performance monitoring groundwater sampling was completed on a semi-annual basis in February and July of 2020. Current performance monitoring data collected in 2021 indicates that the system is functioning as designed with results summarized in **Section 2.5.3**. The system performance will continue to be evaluated and summarized in the forthcoming Semi-Annual Progress Reports and Annual Groundwater Monitoring Reports.

1.3.3 Lower Aquifer Capture

Extraction well DN-13 is a lower aquifer extraction well that is owned and operated by Montgomery County and has been used in a Pump-to-Waste Program since March 1990 in cooperation with former GM Corporation / MLC until March 31, 2011 and continued with RACER Trust. The capture zone interim measure for the lower aquifer consisted of continued pumping of DN-13 in 2021. Samples at the DN-13 invert outfall and well flow rate data are collected monthly as a requirement of the National Pollutant Discharge Elimination System (NPDES) permit, and the results are submitted to the Ohio Environmental Protection Agency (Ohio EPA). Extraction well DN-13 was operational throughout 2021 except for periodic shutdowns related to power failures. Details on well DN-13 operation and maintenance are discussed in **Section 2.5.3**. The location of well DN-13 is shown on **Figure 3**.

2 Groundwater Monitoring and Performance Summary

To meet the objectives of the groundwater monitoring program in 2021, the scope of work presented in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002), the Addendum (Arcadis 2017a), and the 2020 Groundwater Monitoring Report (Arcadis 2021) were completed. Note that the semi-annual sampling event for monitoring of the Phase 1 DGR™ interim measure was not completed in the first half of 2021. Groundwater sampling field data are included as **Appendix B**. The analytical data summary including quality assurance results are included as **Appendix C**.

The 1999 baseline through 2021 groundwater analytical data for the site-specific VOC parameter list are summarized in **Appendix D**. For 2021, the site-specific VOC groundwater data is summarized in **Table 2** of this report. This information is used to assess the effectiveness of the on-going interim measures, monitor the closed settling lagoons, and monitor shallow upper aquifer VOC concentrations near the Miami Shores neighborhood. The following sections summarize the data collected, and **Figures 5** and **6** show the upper and lower aquifer monitoring wells that are included in the monitoring program.

2.1 Groundwater Elevation Monitoring

Groundwater levels were measured from October 4 through 8, 2021 and on November 11 and 16, 2021. The measured wells included on-site and off-site monitoring wells located in and around the closed North and South Settling Lagoons as shown on **Figures 7** and **8,** respectively (upper aquifer wells). Groundwater levels were measured in accordance with procedures defined in the Phase 1 DGR™ Interim Measure Pilot Test Work Plan, Standard Operating Procedure (SOP) #17 (Arcadis 2017d).

2.2 Monthly Groundwater Discharge Monitoring

The NPDES permit was revised in 2012 to include lower aquifer well DN-13 as a separate final outfall to the Great Miami River and remove the north and south retention basins as they were included with the property sold to IRG in 2011. The Ohio EPA approved renewal of NPDES Permit 1IC00008*KD for the internal outfall related to TW-2 and for the DN-13 outfall on December 1, 2017. The permit requires monthly monitoring and reporting for lower aquifer extraction well DN-13.

The historic TW-2 groundwater recovery and treatment system was shut down on July 31, 2012 (Arcadis 2012b). Shutdown monitoring of the groundwater recovery and treatment system continued through 2014 (Arcadis 2013). Current data suggests that continued shutdown of this system is recommended based on the results of groundwater monitoring since the TW-2 system shutdown.

Table 3 summarizes the VOC results for the monthly DN-13 effluent sampling during 2021. The analyses were conducted in accordance with methods specified in the NPDES Permit 1IC00008*KD.

2.3 2021 Groundwater Monitoring Program

In 2021, the following wells were sampled to assess the groundwater monitoring program objectives, as detailed in **Section 1.2**:

- Off-Site Groundwater Monitoring: GM-18, GM-52, GM-79, GM-80, GM-81, RMW-95, RWM-96, and RMW-97
- Performance Monitoring of DN-13: DN-13
- Performance Monitoring of IRZs:
  - Inactive RZ-3 West: GM-6, GM-8, and GM-32
  - Inactive IRZ-3 East: GM-2, GM-17, GM-21, and WSU-24
  - Inactive IRZ-4 East: GM-19S
- Closed North and South Settling Lagoons:
  - Closed North Settling Lagoon: HR-4, W-2-N, W-3-N, and W-4-N
  - Closed South Settling Lagoon: HR-17, W-2-S, W-3-S, and W-4-S
- Performance monitoring of the Phase 1 DGR™ interim measure: HR-16, GM-16, GM-47 through GM-51, GM-63, GM-64, RMW-91 through RMW-94, RMW-98 through RMW-102, and WSU-23. Note that wells used for the closed South Settling Lagoon monitoring (HR-17, W-2-S, W-3-S, and W-4-S) are also used for monitoring of Phase 1 DGR™.
- Groundwater Monitoring Upgradient of IRZ-3 West: GM-35, GM-36, GM-37, GM-38, WEST, and EAST.

A summary of the 2021 groundwater monitoring activities, including the number of monitoring wells and analytical parameters, is presented on **Table 1**. Well construction data for the wells used in the program are presented in **Table 4**.

Groundwater samples were collected from the specified wells using the low-flow methodology and following procedures outlined in SOP #14 (Arcadis 2017c). Field parameters including pH, specific conductance, temperature, oxidation/reduction potential, and dissolved oxygen were measured during purging of each well using a multi-parameter groundwater quality meter with flow-through cell (**Appendix B**). One groundwater sample from well DN-13 was collected through the sampling valve.

The groundwater samples were collected and managed under standard chain-of-custody procedures and validated in accordance with the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002) and as presented in the draft Amended Quality Assurance Project Plan (Arcadis 2011). Analytical results are presented and discussed in **Section 2.5.3**.

2.4 Laboratory Analytical Methods

Groundwater samples were analyzed for the site-specific VOC parameter list using Method 8260B. Select groundwater samples from upper aquifer monitoring wells collected during the groundwater monitoring event were also analyzed for the following biogeochemical indicator parameters: total organic carbon (TOC) and dissolved gases (ethane, ethene, and methane). **Table 1** lists specific field, laboratory, and biogeochemical indicator parameters and laboratory analytical methods. The groundwater samples were submitted to Eurofins

TestAmerica Laboratories, Inc. (TestAmerica) in North Canton, Ohio. Samples for analysis for ethene, ethane, and methane were submitted to Pace Analytical Gulf Coast in Baton Rouge, Louisiana.

2.5 Groundwater Monitoring Program Results

2.5.1 Groundwater Elevation Monitoring

As part of the 2021 groundwater monitoring program, a reduced set of groundwater levels were measured to verify and determine groundwater flow directions and vertical hydraulic gradients. The reduced set was used to target specific areas for focus related to the closed North and South Settling Lagoons, Phase 1 DGR™, and DN-13. Groundwater elevation monitoring events were completed from October 4 through 8, 2021 and November 11 and 16, 2021. The groundwater level measurement data are presented on **Table 5**.

Upper Aquifer

Focused potentiometric surface maps were generated for the closed North and South Settling Lagoon areas (**Figures 7** and **8**, respectively). For the closed North Settling Lagoon, the general southwestern groundwater flow conditions for 2021 are consistent with historical groundwater flow conditions documented in the previous groundwater monitoring reports. The closed South Settling Lagoon correlates with the Phase 1 DGR™ operational area. The potentiometric surface in this area provides an understanding of groundwater flow during system operation, demonstrating how groundwater recirculation affects groundwater flow. Groundwater flow for the upper aquifer is generally from northeast to southwest with induced hydraulic gradient control in the Phase 1 DGR™ area, where radial flow towards the extraction wells with overlapping cones of depression and radial flow out of the injection wells into the upper aquifer. The individual extraction and injection well flow rates are posted for the system during the data collection (**Figure 8**).

Lower Aquifer

Given the decades of groundwater elevation data collected to evaluate extraction well DN-13 performance and the relatively consistent conditions at the Site in 2021, a potentiometric surface map was not generated for the area around lower aquifer extraction well DN-13 in 2021. Groundwater flow for the lower aquifer is generally from northeast to southwest towards pumping well DN-13. An estimated cone of depression surrounds pumping well DN-13 as indicated by influence of the surrounding monitoring wells in previous annual capture evaluation figures.

2.5.2 Vertical Hydraulic Gradients

The vertical hydraulic gradient between the shallow portion of the upper aquifer to the deep portion of the upper aquifer was calculated from the RMW-91 and RMW-92 groundwater elevation data collected on October 4, 2021 within the vicinity of the Phase 1 DGR™ system extraction well area (**Table 6**). The vertical gradient was calculated using the following equation:

$$I_V = \frac{h_{upper} - h_{lower}}{D_v}$$

Where

I_v = vertical hydraulic gradient (ft/ft)

h_{upper} = groundwater elevation in upper aquifer monitoring well (feet above mean sea level [ft AMSL])

h_{lower} = groundwater elevation in lower aquifer monitoring well (ft AMSL)

D_v = distance between midpoint of lower screen and midpoint of saturated section of upper screen (ft)

The vertical hydraulic gradient in the area of the Phase 1 DGR™ system extraction wells was downward at a magnitude of 6.7 x 10^{-3} ft/ft (**Table 6**) and supports hydraulic control of the upper aquifer from the Phase 1 DGR™ operation.

2.5.3 Groundwater Monitoring Analytical Results

Groundwater was sampled to evaluate the presence of site-specific VOCs based on the groundwater monitoring objectives detailed in **Section 1.2**. **Tables 2** and **3** and **Appendix C** provide the groundwater results for 2021. The 1999 baseline through 2021 groundwater quality data for the site-specific VOC parameter list are provided in tables in **Appendix D**. The isoconcentration figures for the upper and lower aquifers were updated with the 2021 concentrations for TCE and PCE and are provided as **Figures 9** through **12**. Note that the isoconcentration maps were generated using data collected prior to 2021 as the complete well network for the Site is not sampled on an annual basis. The legend on each figure clarifies how data collected prior to 2013 is differentiated from data collected from 2013 through 2020 and current data. The pre-2013 data was differentiated from 2013 – 2020 historic data as much of it is dated and associated with baseline groundwater sampling. While this data is historic in nature, it was still useful in interpretations for development of the isoconcentration maps.

Off-Site Groundwater Monitoring

Upper aquifer monitoring wells that are upgradient of the Miami Shores neighborhood (GM-79, GM-80, GM-81, RMW-95, RWM-96, and RMW-97) were sampled in 2021. The PCE concentration at two locations exceeded the MCL of 5.0 micrograms per liter (µg/L): GM-79 (29 µg/L) and a slight exceedance at RMW-95 (8.9 µg/L). The TCE at GM-79 also exceeded the MCL of 5.0 µg/L with a concentrations of 7.5 µg/L. The other constituents were below MCLs or below reporting limits. The groundwater data from the Miami Shores shallower upper aquifer monitoring wells (screened in the water table: GM-80, RMW-95, RMW-96, and RMW-97) were screened against the Vapor Intrusion Screening Levels (VISLs; **Table 7**), and there were no exceedances, which is consistent with the previous four years of sampling at these locations.

Upper aquifer monitoring wells located off-site and downgradient of the Riverview Plat neighborhood were sampled to confirm upper aquifer concentrations at the toe of the plume (GM-18, GM-49, and GM-52). The PCE concentration at all three locations exceeded the MCL of 5.0 µg/L: 11 µg/L at GM-18, 28 µg/L at GM-49, and 26 µg/L at GM-52. TCE at GM-49 also exceeded the MCL of 5.0 µg/L with a concentration of 8.9 µg/L. The other constituents were below MCLs or below reporting limits.

DN-13 Performance Monitoring

Pumping well DN-13 is utilized to capture site-specific VOCs in lower aquifer groundwater. Past evaluations to determine the effectiveness of DN-13 in this regard used several lines of evidence following the general procedures outlined in the U.S. EPA guidance, A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems (U.S. EPA 2008). With the robust capture analyses that followed U.S. EPA guidance over the past 9 years, the capture hydraulics in relation to DN-13 operation have been established. In the 2019 Groundwater Monitoring Report (Arcadis 2020b), it was recommended that the capture analysis and evaluation of DN-13 data relative to hydraulic control be reduced to every 5 years with continued reporting on operation and maintenance to maintain a flow rate for capture. Specifically, removing the need to evaluate the hydraulics in relation to horizontal hydraulic gradients, statistical analysis of VOC concentrations, calculations, and inferred

capture zones. The collection of groundwater levels and annual monitoring of local lower aquifer site-specific VOC concentrations at DN-13 was maintained.

The lower aquifer DN-13 groundwater elevations (**Table 5** and **Appendix F**), DN-13 site-specific VOC concentrations, and DN-13 operational data (e.g., pumping rates) were used to compare to past evaluations to confirm conditions as outlined below:

- The approximate run-time average flow rate (pump in operation) for DN-13 in 2021 was approximately 674 gallons per minute (gpm) or 0.97 million gallons per day (MGD), while the average period (daily) rate (total flow volume averaged over the entire year – including downtime) for 2021 was approximately 654 gpm (0.94 MGD). Extraction well DN-13 was operational for 97.4% of 2021 with minor shutdowns likely related to power outages. **Appendix F** provides supporting details for DN-13 operation and maintenance and includes charts.
- Using the operational data and considering the consistent site-specific VOC plume width as shown in **Figures 11** and **12**, the average daily flow rate of 654 gpm exceeds the most conservative calculated groundwater flow rate required to capture the plume at 573 gpm (Arcadis 2020b). Therefore, even after incorporating an overly conservative set of parameters as presented in the 2019 Groundwater Monitoring Report, the current operational flow rate of DN-13 is sufficient to capture the lower aquifer plume width.
- The concentration of PCE at DN-13 in November 2021 was 1.4 µg/L, which is consistent with the past six years. The concentration of TCE at DN-13 in 2021 was 5.0 µg/L, which is consistent with the 2019 and 2020 sample results. The other constituents were detected at relatively low concentrations or below reporting limits.

The data above indicate that sufficient hydraulic capture within the lower aquifer was achieved.

IRZ Performance Monitoring

As described in **Section 1.3.1**, carbon solution injections were not completed in 2021. Continued effectiveness from past injections based on the operation of the in-situ reactive zones was monitored through the collection of field parameter measurements and laboratory analyses of biogeochemical indicator parameters and site-specific VOCs, according to the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002) and revisions in the Site-Wide Groundwater Monitoring Report for 2009 (Arcadis 2010) and the 2020 Groundwater Monitoring Report (Arcadis 2021). Groundwater concentration trends for the in-situ reactive zone performance monitoring wells are presented in **Figures 13** through **16**. **Appendix A** includes a detailed summary of the in-situ reactive zone performance monitoring. Based on the evaluation within **Appendix A**, the following observations and conclusions can be made:

- Upper aquifer conditions were strongly reducing within and downgradient of the in-situ reactive zones due to the previous injections of a carbon source (i.e., molasses), as evidenced by the presence of dissolved phase methane at concentrations above background data.
- The target compounds (PCE and TCE) were largely reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data. The exception is at monitoring wells GM-2 and GM-17, located further downgradient of IRZ-3 West and East. The monitoring well results appear to be increasing in concentrations of PCE over the past 5 years, and concentrations are currently at 43 micrograms per liter (µg/L) and 26 µg/L in monitoring wells GM-2 and GM-17, respectively. Note that these concentrations remain below the residential VISL for PCE of 122 µg/L, and the TCE concentrations at these locations are below the MCL and residential VISL.
- No significant changes in anaerobic conditions (e.g., the concentration of methane) or treatment effectiveness (e.g., sustained reductions in site-specific VOC concentrations with the observation of elevated

concentrations of ethene and/or ethane) were observed as a result of the suspension of injections after the first quarter of 2019.

- Reducing conditions are expected to continue even with injections suspended.

Monitoring of Closed Settling Lagoons

Groundwater quality is monitored upgradient and downgradient of the closed North and South Settling Lagoons as described in **Section 2.3**. Upgradient monitoring wells used are HR-4 for the closed North Settling Lagoon and HR-17 for the closed South Settling Lagoon (**Figure 3**). Wells downgradient of the closed North (W-2-N, W-3-N, and W-4-N) and South (W-2-S, W-3-S, and W-4-S) Settling Lagoons (closed through in-situ solidification and installation of a cover system in 2001 after the 1999 baseline sampling event) were sampled in 2021. The monitoring of the closed North and South Settling Lagoons showed that the closed lagoons do not appear to be contributing constituents to existing groundwater concentrations in the area, which is consistent with post-closure monitoring results for the previous 18 years (19 years total) and the numerous years of pre-closure monitoring. The 2021 Supplementary Annual Report provides additional details associated with the evaluations completed for the closed North and South Settling Lagoons and is provided as **Appendix E**.

Phase 1 DGR™ Performance Monitoring

Baseline groundwater samples were collected in October 2021 from several monitoring wells upgradient, side-gradient, and downgradient of the Phase 1 DGR™ system to establish baseline groundwater concentrations for site-specific VOCs prior to system startup. The Phase 1 DGR™ system began full-scale operation in October 2019 and has continued operation throughout 2021 with periodic shutdowns for maintenance and repair activities. Performance monitoring was completed in 2021 in October and November. The monitoring network sampled in 2021 includes wells located in four groups or areas of the Site.

The general concentration trends for TCE and PCE in the Phase 1 DGR™ performance monitoring wells are discussed below in relation to the four groups with supporting concentration charts provided on **Figure 17**. Note that that concentration charts for TCE and PCE shown on **Figure 17** are provided for concentrations over the past 6 years (2016 through 2021), if available, have the respective residential VISL concentrations (dashed lines) for TCE (9.9 µg/L) and PCE (122 µg/L), and respective monitoring well screen interval for the shallow portion of the upper aquifer (WT – water table) and deeper portion of the upper aquifer (TT – top of till).

- Upgradient and side-gradient monitoring wells: GM-19S, HR-16, HR-17, RMW-91, and RMW-92
  - PCE concentrations appear generally consistent to previous years. Monitoring wells GM-19S, HR-16, HR-17, RMW-1, and RMW-92 exhibited generally consistent concentrations of PCE (2.9 µg/L, 1.2 J µg/L, 130 µg/L, 93 J µg/L, and 55 µg/L, respectively).
  - TCE concentrations at upgradient and side-gradient monitoring wells appear to be generally consistent to previous years. The concentration of TCE observed at RMW-91 in 2021 was 54 µg/L. Other TCE concentrations for this group of wells were relatively low or non-detect.
  - At GM-19S, a side-gradient well located east of Dryden Road and downgradient of the IRZ-4 East injection wells had a detected concentration of vinyl chloride measured at 1.7 µg/L in October 2021. This is consistent with the lower PCE and TCE concentrations at this well as vinyl chloride is a daughter product of the enhanced degradation process in response to the carbon source injections in the IRZs. Vinyl chloride was not detected in the other wells in this group.
- Phase 1 DGR™ area monitoring wells: W-2-S, W-3-S, W-4-S, RMW-93, and RMW-94

  - PCE concentrations appear to be generally decreasing for the wells in this group. At W-2-S, located on the western edge of the closed South Settling Lagoon, the concentrations of PCE have been variable since the 2019 system startup, with an apparent decreasing trend since the peak concentration of 20 µg/L observed during the July 2019 baseline sampling event to the current concentration of 1.0 µg/L. At monitoring well W-3-S, located just west of the Phase 1 DGR™ injection wells, PCE increased to a peak concentration in February 2020 of 140 µg/L and decreased to 82 µg/L in October 2021. At W-4-S, RMW-93, and RMW-94, located on the southern border of the closed South Settling Lagoon, concentrations are decreasing, with observed PCE concentrations in October 2021 of 29 µg/L, 5.5 µg/L, and 5.3 µg/L, respectively. Note that the current PCE concentrations detected are below the residential VISL for the Phase 1 DGR™ area monitoring wells.
  - In 2021, TCE concentrations appeared to be generally consistent or decreasing for the wells in this group. At monitoring well W-2-S, the concentration of TCE appears consistent at 6.1 µg/L in October 2021. Concentrations of TCE appear to be decreasing and at low concentrations at monitoring wells W-3-S and W-4-S, with October 2021 concentrations of 1.6 J µg/L and 3.5 µg/L, respectively. At RMW-93 and RMW-94, the TCE concentrations have decreased to non-detect. Note that the current TCE concentrations detected are below the residential VISL for the Phase 1 DGR™ area monitoring wells.

- Riverview Plat neighborhood downgradient monitoring wells: GM-47, GM-50, GM-63, GM-64, RMW-98, RMW-99, RMW-100, RMW-101, and WSU-23
  - PCE concentrations were detected at all wells during the October 2021 sampling event except RMW-100 and RMW-101. Detected concentrations of PCE ranged from 3.2 µg/L at GM-50 to 50 µg/L at RMW-98 in October 2021. The concentrations of PCE are more prevalent on the western edge of the Riverview Plat neighborhood; however, all are below the residential VISL.
  - TCE concentrations are decreasing at monitoring wells GM-63 and GM-64 and appear to be slightly increasing at GM-47. At monitoring wells GM-50 and WSU-23 the concentrations of TCE are consistent with past concentrations. TCE was not detected at RMW-98, RMW-99, RMW-100, and RMW-101.
  - Except for the slightly increasing concentration of TCE at GM-47 in October 2021 (17 µg/L), all concentrations of TCE in the Riverview Plat neighborhood monitoring wells were below the residential VISL. Monitoring well GM-47 is screened within the deeper portion of the upper aquifer. The shallower paired monitoring well GM-50 exhibited a low TCE concentration of 0.56 J µg/L for the October 2021 sampling event. Note that the shallower paired wells are more appropriate for evaluating the potential for vapor intrusion. In general, the monitoring wells that exhibit relatively higher TCE concentrations are screened at deeper intervals within the upper aquifer.

- Downgradient of the Riverview Plat neighborhood monitoring wells: GM-16, GM-48, GM-49, GM-51, GM-52, and RMW-102
  - PCE concentrations ranged from 8.3 µg/L at GM-16 to 28 µg/L at GM-49 for the October/November 2021 sampling event. In 2021, the PCE concentrations were generally consistent with previous years at the monitoring wells downgradient of the Riverview Plat neighborhood. PCE concentrations in the wells downgradient of the Riverview Plat neighborhood were below the residential VISL in 2021.
  - TCE concentrations ranged from <1.0 U µg/L at RMW-102 to 12 µg/L at GM-51 during the October/November sampling event. TCE concentrations are generally consistent to slightly decreasing at wells GM-16, GM-48, GM-49, GM-52, and RMW-102, and appear to be variable at GM-51. The concentration of TCE in monitoring well GM-51 (12 µg/L) slightly exceeded the residential VISL (9.9 µg/L); however, the TCE concentration was below the VISL in 2019 and 2020. Monitoring at this location will continue in 2022.

Data collected from the Phase 1 DGR™ interim measure (e.g., flow rates, groundwater levels, and influent/mid-stream sampling) and area groundwater monitoring (e.g., sampling and groundwater levels) were used to evaluate system performance. Overall, the Phase 1 DGR™ system is operating as designed. System operational charts for 2021 are presented in **Appendix G**.

The target Phase 1 DGR™ system extraction flow rate was 300 gpm (100 gpm from each of the three extraction wells EW-1, EW-2, EW-3; **Figure 3**). The average total extraction flow rate for 2021 was approximately 265 gpm and includes downtime due to periodic maintenance activities (**Appendix G**). The average total flow rate for 2021 excluding the downtime was approximately 287 gpm.

Groundwater levels collected at monitoring wells within the upper aquifer in the area of the Phase 1 DGR™ system are used to assess the operational hydraulic influence. As discussed in **Section 2.5.1**, the groundwater flow for the upper aquifer is generally from northeast to southwest with induced hydraulic gradient control in the Phase 1 DGR™ area (**Figure 8**). The extraction well pumping demonstrates radial flow towards the extraction wells with overlapping cones of depression and radial flow out of the injection wells into the upper aquifer. Additionally, the vertical hydraulic gradient from the shallow portion of the upper aquifer to the deeper portion of the upper aquifer demonstrates an induced downward vertical hydraulic gradient in the vicinity of the extraction wells (see **Section 2.5.2** and **Table 6**). Water-levels in the injection wells (IW-1 through IW-4) indicate satisfactory injectability.

Groundwater concentration data for groundwater monitoring wells in the Phase 1 DGR™ area demonstrates decreases in site-specific VOC concentrations downgradient and local to the injection wells (**Figure 17**). In addition, all PCE and TCE concentrations downgradient within the Riverview Plat neighborhood in the shallow portion of the upper aquifer, are below the respective residential VISLs (**Figures 9** and **10**). Consequently, these data along with the groundwater levels presented above suggest that the Phase 1 DGR™ interim measure is sufficiently maintaining hydraulic capture of the upper aquifer plume and decreasing the site-specific VOC concentrations downgradient with the treated water injection.

Groundwater samples for the performance monitoring of the Phase 1 DGR™ system will be collected in 2022 to confirm and verify system performance. Groundwater level data will continue to be collected throughout 2022. Continued data collected and evaluations will be reported in forthcoming Semi-Annual Progress Reports and Groundwater Monitoring Reports.

Groundwater Monitoring Upgradient of IRZ-3 West

Monitoring wells in the area north of IRZ-3 West were sampled in 2021 to evaluate site-specific VOC concentrations upgradient of the ERD treatment area. Monitoring wells GM-35, GM-36, GM-37, GM-38, WEST, and EAST were sampled in October 2021 for site-specific VOCs. PCE concentrations exceeded the MCL of 5.0 µg/L in all monitoring wells. At monitoring well GM-35, the TCE concentration was 210 µg/L and detections of TCE at all other monitoring wells were relatively low and below the MCL. GM-35 also exhibited a concentration of cis-1,2-DCE that exceeded the MCL (78 µg/L). Other site-specific VOCs were detected at relatively low concentrations or below reporting limits.

Results Summary

Current site-specific VOC, specifically PCE and TCE, concentrations within the upper aquifer above MCLs are present downgradient (southwest) beyond the property boundary west of Dryden Road. Groundwater reducing conditions induced by operation of in-situ reactive zones continue to provide effective treatment downgradient east of Dryden Road. Performance monitoring of Phase 1 DGR™ shows satisfactory performance with the primary objectives to contain migrating upgradient mass and improve groundwater quality downgradient within the

Riverview Plat neighborhood within 5 years. For the lower aquifer, the robust data set for the extraction well DN-13 monitoring network and operational data in 2021 indicates sufficient capture exists to mitigate and control the migration of lower aquifer site-specific VOCs.

3 Corrective Action Completion Strategy

Corrective Measures Objectives (CMOs) to address site-specific VOCs in groundwater were proposed in the CMP Addendum (Arcadis 2020c) and the Statement of Basis that was issued for Public Comment on December 9, 2021. The Public Comment period ended on January 10, 2022. Once the U.S. EPA issues the Final Decision on the Statement of Basis, implementation of the source remedy will be initiated, allowing for progress toward achieving the CMOs for groundwater that are outlined below. The following timeframes apply to the CMOs:

- Short term – The CMO should be demonstrated approximately 1 year from the finalization of the Statement of Basis
- Intermediate – The CMO should be demonstrated approximately 2 to 5 years from the finalization of the Statement of Basis
- Long term – The CMO should be demonstrated at a time that is greater than 5 years from the finalization of the Statement of Basis

3.1 Corrective Measures Objectives

3.1.1 On-Site Upper Aquifer Groundwater

Short Term

- Establish and maintain the Groundwater Environmental Indicator (i.e., groundwater migration under control – CA750)
- Prevent exposure to concentrations of site-specific VOCs in on-site groundwater exceeding MCLs
- Initiate source area treatment in the former PSA

Intermediate

- Maintain the Groundwater Environmental Indicator
- Prevent exposure to concentrations of site-specific VOCs in on-site groundwater exceeding MCLs
- Continue source area treatment in the former PSA

Long Term

- Reduce source area concentrations of site-specific VOCs in the former PSA in order to attain groundwater concentrations below residential VISLs for groundwater at property boundary
- Prevent exposure to concentrations of site-specific VOCs in on-site groundwater exceeding MCLs
- Prevent unacceptable vapor intrusion exposure until concentrations of site-specific VOCs in groundwater are below the industrial VISLs for groundwater throughout the site

3.1.2 Off-Site Upper Aquifer Groundwater

Short Term

- Prevent exposure to concentrations of site-specific VOCs in off-site groundwater exceeding MCLs / residential VISLs
- Demonstrate the site-specific VOC plume is delineated and stable and achieves the Groundwater Environmental Indicator

Intermediate

- Prevent exposure to concentrations of site-specific VOCs in off-site groundwater exceeding MCLs / residential VISLs
- Attain concentrations of site-specific VOCs in groundwater below MCLs / residential VISLs throughout off-site groundwater plume

Long Term

- Prevent exposure to concentrations of site-specific VOCs in off-site groundwater exceeding MCLs / residential VISLs
- Attain concentrations of site-specific VOCs in groundwater below MCLs / residential VISLs throughout off-site groundwater plume

3.1.3 On-Site Lower Aquifer Groundwater

Short Term and Intermediate

- Prevent drinking water and process water exposure to concentrations of site-specific VOCs exceeding MCLs

Long Term

- Demonstrate concentration reduction in site-specific VOCs beneath the source area
- Prevent drinking water and process water exposure to concentrations of site-specific VOCs exceeding MCLs
- Meet and maintain MCLs for site-specific VOCs at the property boundary

3.1.4 Off-Site Lower Aquifer Groundwater

Short Term

- Prevent off-site drinking water exposure to concentrations of site-specific VOCs exceeding MCLs

Intermediate

- Prevent off-site drinking water exposure to concentrations of site-specific VOCs exceeding MCLs
- Demonstrate the site-specific VOC groundwater plume is delineated and outside of drinking water well-fields

Long Term

- Demonstrate the site-specific VOC groundwater plume is delineated and stable and achieves the Groundwater Environmental Indicator

- Attain concentrations of site-specific VOCs in groundwater below MCLs throughout off-site groundwater plume

4 Conclusions and Recommendations

This groundwater monitoring report presents the groundwater monitoring activities completed in 2021 at the RACER Trust Moraine Facilities located in Moraine, Ohio. These activities were completed to meet the five objectives presented in **Section 1.2**. Compliance with these objectives is presented for the off-site groundwater monitoring activities, interim measures, closed settling lagoons, and on-going groundwater monitoring in the following sections.

4.1 Off-Site Groundwater Monitoring

Groundwater samples were collected from nine upper aquifer monitoring wells just upgradient of the Miami Shores neighborhood. The wells sampled included upper aquifer wells GM-80, GM-81, RMW-95, RMW-96, and RMW-97, as well as four additional wells (GM-18, GM-49, GM-52, and GM-79) to verify current groundwater conditions in the distal toe of the plume and deeper portion of the upper aquifer. The groundwater site-specific VOC data were screened against the MCLs (**Table 2**) and residential VISLs (**Table 7**). The groundwater analytical results that represent conditions closest to the receptor (i.e., residential properties) did not exceed the residential VISLs. Results from this screening assessment indicate that groundwater concentrations of site-specific VOCs do not present an unacceptable vapor intrusion risk in the Miami Shores neighborhood. With the robust data set and established upper aquifer interim measures, continued groundwater monitoring on an annual basis in this area is not necessary.

4.2 Interim Measures Performance

The approach for RACER Trust in achieving its corrective action goals for the former Moraine Facilities is based on a combination of interim measures (in-situ treatment, hydraulic control, and DGR™) designed to reduce existing plume concentrations thereby achieving plume reduction and migration control. Concentrations of site-specific VOCs in upper aquifer monitoring wells immediately downgradient of the Site to the southwest, as well as concentrations in lower aquifer wells off-site remain above MCLs. However, concentrations of site-specific VOCs within the shallow portion of the upper aquifer off-site are below the respective VISLs except for variation of TCE concentrations along the Great Miami River at GM-51. The active interim measures are operating per the design objectives, and the proposed site-wide remedy will be required to achieve the CMOs.

4.2.1 In-Situ Treatment

Groundwater quality monitoring at and downgradient of the reactive zones indicates that this in-situ treatment program has been effective at reducing chlorinated VOC concentrations in groundwater via anaerobic reductive dechlorination. As observed during the 2021 monitoring, the upper aquifer conditions in the areas downgradient of the in-situ reactive zones have been converted to strongly reducing conditions through the injection of a carbon source, as evidenced by the presence of methane at concentrations above baseline data and further supported qualitatively with field parameter data (e.g., low dissolved oxygen and oxidation-reduction potential). Further, the VOC results indicate that the target compounds (PCE and TCE) have been effectively reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to ethene and ethane.

Injections have been suspended since 2019. This suspension will allow for: a) further assessment of TOC longevity within the in-situ reactive zones; b) initiation of redox restoration process that can support burn out of the

active in-situ reactive zones and oxidation of reduced metals (e.g., iron and manganese) that may complicate ex-situ treatment; and c) an evaluation of residual VOC concentrations in key performance monitoring wells following suspension of the injection activities. It should be noted that the interim suspension of the in-situ reactive zone injections may be modified based on changes in site-specific VOC concentrations (i.e., increases) that may prompt continuation of injection activities.

The 2022 in-situ reactive zone performance monitoring program is recommended to be reduced for IRZ-3 East, IRZ-3 West, and IRZ-4 East, with the focus on immediate downgradient monitoring wells (GM-19S, GM-21, and GM-32) and a downgradient property boundary monitoring well with increasing concentrations (GM-2). As in 2021, the IRZ-1 monitoring wells (GM-23, GM-27, GM-8R, and GM-29) will not be sampled in 2022 as this area is located well within the boundaries of the Site, has had a long history of sampling data analysis, and concentrations of site-specific VOCs have appeared to be consistent from year to year. The data collected in 2022 will be reviewed to determine if there is a significant rebound in site-specific VOC concentrations to the extent that the conceptual design of the diffuse groundwater plume treatment system would significantly change without the interim in-situ reactive zone program. If concentrations increase to the extent that changes to the remedial design for the diffuse plume become likely, the in-situ reactive zone program will resume at those specific in-situ reactive zones. If the site-specific VOC data indicate an immaterial effect on groundwater quality, the in-situ reactive zone program will remain suspended.

4.2.2 Hydraulic Capture

Groundwater elevation monitoring, vertical hydraulic gradients, extraction well DN-13 operation data, and lower aquifer site-specific VOC concentrations indicate that extraction well DN-13 continues to be effective at maintaining capture in the lower aquifer. Based on the continued effective performance and proactive operation and maintenance of the extraction well DN-13 during 2021, the current pumping program at DN-13 is effective and will continue to be implemented in 2022. A capture analysis will be completed in 3 years in 2025 per the recommendations presented in the 2019 report (Arcadis 2020b). Collection of groundwater levels, flow rate, and site-specific VOC concentrations at DN-13 will be maintained on an annual basis to confirm overall conditions. The NDPES permit 1IC00008*KD that allows DN-13 groundwater to be discharged via outfall to the Great Miami River will be renewed in 2022, and extraction well DN-13 will be re-developed to allow for continued achievement of key operational parameters (**Appendix F**).

4.2.3 Phase 1 DGR™

Performance monitoring data collected in 2021 indicates that the system is operating as designed with expected operation and maintenance activities to maintain performance. Concentrations downgradient within the shallow portion of the upper aquifer are below VISLs. In 2022, the annual performance monitoring for the Phase 1 DGR™ interim measure will be reduced and include monitoring wells GM-19S, GM-47, GM-51, GM-63, GM-64, RMW-93, and RMW-94 that are local to system well operation or downgradient. As noted above, GM-19S will also be used to monitor conditions downgradient of IRZ-4 East.

4.3 Post-Closure Monitoring

As proposed in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002), post-closure monitoring data collected at the closed North and South Settling Lagoons were evaluated to determine if these closed units may be contributing site-specific VOCs to groundwater. Since 2003, when post-closure monitoring was initiated,

the annual data evaluations have indicated that the closed North and South Settling Lagoons do not appear to be adversely impacting groundwater quality. To further support this, the upper aquifer PCE and TCE plumes are not present under the closed North Settling Lagoon (**Figures 9** and **10**). While the upper aquifer PCE and TCE plumes are present under the eastern portion of the closed South Settling Lagoon (**Figures 9** and **10**), the robust data set from 19 years of post-closure data collection and evaluation and the numerous years of pre-closure monitoring have indicated that the closed South Settling Lagoon does not appear to be adversely affecting groundwater, and the trajectory of the plume from the upgradient source area to the downgradient closed South Settling Lagoon indicates impacted groundwater in the vicinity of the closed South Settling Lagoon is primarily associated with the untreated, upgradient source area. Given the robust data set, with consistent results indicating that the units are not contributing hazardous constituents to groundwater, additional data collection to evaluate the closed North and South Settling Lagoons is unnecessary and will not be completed in 2022.

4.4 Groundwater Monitoring Upgradient of IRZ-3 West

Groundwater monitoring upgradient of IRZ-3 West was completed to evaluate concentrations of site-specific VOCs in groundwater upgradient of the treatment area. The data is used to evaluate contaminant migration as it approaches the property boundary and whether the Phase 1 DGR™ interim measure affects this portion of the Site. It is proposed that this monitoring be suspended in 2022 as recent data have suggested concentrations are generally consistent.

4.5 2022 Groundwater Monitoring Program

Based on the on-going remedial design tasks and expected remedy implementation, the reduced 2022 groundwater monitoring program, as outlined above, is proposed. The program includes monitoring associated with the in-situ reactive zones, extraction well DN-13, and Phase 1 DGR (**Table 8**). A concise report with tabulated data and a potentiometric surface map for the Phase 1 DGR™ area will be used to communicate the results of the 2022 groundwater monitoring program.

5 References

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Tables

Table 1
Groundwater Monitoring Program for 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Off-Site Downgradient Monitoring Wells Upgradient of Miami Shores Neighborhood (Annual)

Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1]:

GM-18	GM-49	GM-52
GM-79	GM-80	GM-81
RMW-95	RMW-96	RMW-97

Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

Lower aquifer monitoring well analyzed for the site-specific list of VOCs[1]:

DN-13

In-Situ Reactive Zone Performance Monitoring Wells – (Annual)

Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1] and biogeochemical parameters[2]:

GM-2[3]	GM-6	GM-8	GM-19S
GM-21	GM-32	GM-17[4]	WSU-24[4]

Closed North and South Settling Lagoon Monitoring Wells (Annual)

Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1]:

HR-4	W-2-N	W-3-N	W-4-N
HR-17	W-2-S	W-3-S	W-4-S

Phase I DGR™ Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells[5] analyzed for the site-specific list of VOCs[1]:

HR-16	GM-48	GM-63	RMW-92	RMW-98	RMW-101
GM-16	GM-50	GM-64	RMW-93	RMW-99	RMW-102
GM-47	GM-51	RMW-91	RMW-94	RMW-100	WSU-23

Groundwater Monitoring Upgradient of IRZ-3 West (Annual)

Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1]:

GM-35	GM-36	GM-37
GM-38	EAST	WEST

Analytical Methods

Parameter	Analytical Method
Site-specific list of VOCs	SW846 8260B
Total organic carbon	SW846 9060
Ethane, ethene, methane	AM20GAX

NOTES:

1 – Site-specific list of VOCs for 2021 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – GM-17 and WSU-24 to be analyzed for site-specific VOCs only.

5 – Includes monitoring wells HR-17, W-2-S, W-3-S, W-4-S, GM-19S, GM-49, and GM-52.

Field parameters collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2021
RACER Trust Moraine Facilities
Moraine, Ohio

			Downgradient Reactive Zone Performance Monitorng Wells								Closed North Settling Lagoon Monitoring Wells			
			GM-2	GM-6	GM-8	GM-17	GM-19S	GM-21	GM-32	WSU-24	HR-4	W-2-N	W-3-N	W-4-N
		U.S. EPA	10/7/2021	10/7/2021	10/7/2021	10/7/2021	10/7/2021	10/7/2021	10/7/2021	10/8/2021	10/4/2021	10/4/2021	10/4/2021	10/4/2021
	Units	MCL[1]	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Site-Specific Volatile Organic Compounds														
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	8.4	0.86 J	< 1.0 U	1.9	< 1.0 U	< 1.0 U	9.0
1,1-Dichloroethene	µg/L	7	< 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
Benzene	µg/L	5	< 1.0 U	< 1.0 U	1.7	< 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
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	38	9.8	< 1.0 U	< 1.0 U	0.71 J	2.2	13	8.9
Ethylbenzene	µg/L	700	< 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
Tetrachloroethene	µg/L	5	**43**	< 1.0 U	< 1.0 U	**26**	2.9	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 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
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J
Trichloroethene	µg/L	5	3.1	< 1.0 U	< 1.0 U	1.5	2.9	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	**7.0**
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	**7.0**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		46	Not Detected	1.7	28	48	28	0.86	2.0	4.5	3.2	14	26

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
The QA/QC results for 2021 data are shown in Appendix C.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2021
RACER Trust Moraine Facilities
Moraine, Ohio

			Closed South Settling Lagoon Monitoring Wells				Downgradient Off-Site Monitoring Wells								
			HR-17	W-2-S	W-3-S	W-4-S	GM-18	GM-49	GM-52	GM-79	GM-80	GM-81	RMW-95	RMW-96	RMW-97
		U.S. EPA	10/4/2021	10/4/2021	10/4/2021	10/4/2021	11/11/2021	10/6/2021	10/6/2021	10/6/2021	10/7/2021	10/7/2021	10/6/2021	10/6/2021	10/7/2021
	Units	MCL[1]	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Site-Specific Volatile Organic Compounds															
1,1,1-Trichloroethane	µg/L	200	< 2.0 U	1.0	< 2.0 U	< 2.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 2.0 U	0.79 J	< 2.0 U	< 2.0 U	< 1.0 U	1.2	0.76 J	1.3	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
Benzene	µg/L	5	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
cis-1,2-Dichloroethene	µg/L	70	< 2.0 U	2.0	4.6	< 2.0 U	1.7	3.4	1.6	4.3	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
Tetrachloroethene	µg/L	5	**130**	1.0	**92**	**29**	**11**	**28**	**26**	**29**	< 1.0 U	2.8	**8.9**	1.5	2.9
Toluene	µg/L	1,000	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
trans-1,2-Dichloroethene	µg/L	100	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
Trichloroethene	µg/L	5	< 2.0 U	**6.1**	1.6 J	3.5	2.1	**8.9**	1.5	**7.5**	3.0	< 1.0 U	0.69 J	< 1.0 U	0.57 J
Vinyl chloride	µg/L	2	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 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
Xylene (total)	µg/L	10,000	< 4.0 U	< 2.0 U	< 4.0 U	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		130	11	98	33	15	42	30	42	6.0	2.8	9.6	1.5	3.5

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

The QA/QC results for 2021 data are shown in Appendix C.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2021
RACER Trust Moraine Facilities
Moraine, Ohio

			Phase 1 DGR™ System Performance Monitoring Wells					Phase 1 DGR™ System Performance Monitoring Wells							
			HR-16	RMW-91	RMW-92	RMW-93	RMW-94	GM-16	GM-47	GM-48	GM-50	GM-51	GM-63	GM-64	RMW-98
		U.S. EPA	10/6/2021	10/6/2021	10/6/2021	10/5/2021	10/5/2021	10/5/2021	10/5/2021	10/5/2021	11/11/2021	10/5/2021	10/5/2021	10/5/2021	10/6/2021
	Units	MCL[1]	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Site-Specific Volatile Organic Compounds															
1,1,1-Trichloroethane	µg/L	200	< 2.0 U	2.9	1.8 J	< 1.0 U	< 1.0 U	< 1.0 U	0.61 J	< 1.0 U	< 1.0 U	0.81 J	0.59 J	< 1.0 U	1.1 J
1,1-Dichloroethane	µg/L	--	1.5 J	1.6 J	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	0.74 J	0.66 J	1.2	0.70 J	0.75 J	< 2.0 U
1,1-Dichloroethene	µg/L	7	< 2.0 U	< 2.0 U	< 2.0 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	< 2.0 U
Benzene	µg/L	5	< 2.0 U	< 2.0 U	< 2.0 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	< 2.0 U
cis-1,2-Dichloroethene	µg/L	70	< 2.0 U	9.3	0.98 J	< 1.0 U	< 1.0 U	1.2	26	1.5	0.95 J	3.9	0.59 J	3.1	< 2.0 U
Ethylbenzene	µg/L	700	< 2.0 U	< 2.0 U	< 2.0 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	< 2.0 U
Tetrachloroethene	µg/L	5	1.2 J	**93 J**	**55**	**5.5**	**5.3**	**8.3**	**29**	**27**	3.2	**25**	**11**	**7.9**	**50**
Toluene	µg/L	1,000	< 2.0 U	< 2.0 U	< 2.0 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	< 2.0 U
trans-1,2-Dichloroethene	µg/L	100	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Trichloroethene	µg/L	5	1.8 J	**54**	< 2.0 U	< 1.0 U	< 1.0 U	2.9	**17**	1.4	0.56 J	**12**	0.47 J	1.2	< 2.0 U
Vinyl chloride	µg/L	2	< 2.0 U	< 2.0 U	< 2.0 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	< 2.0 U
Xylene (total)	µg/L	10,000	< 4.0 U	< 4.0 U	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
Total Site-Specific VOCs	µg/L		4.5	161	58	5.5	5.3	12	74	31	5.4	43	13	13	51

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

The QA/QC results for 2021 data are shown in Appendix C.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

Table 2
Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2021
RACER Trust Moraine Facilities
Moraine, Ohio

			Phase 1 DGR™ System Performance Monitoring Wells					DN-13 Performance	Monitoring Wells Upgradient of IRZ-3 West					
			RMW-99	RMW-100	RMW-101	RMW-102	WSU-23	DN-13	GM-35	GM-36	GM-37	GM-38	EAST	WEST
		U.S. EPA	10/6/2021	10/5/2021	10/5/2021	10/5/2021	10/5/2021	11/16/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021
	Units	MCL[1]	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Lower Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Site-Specific Volatile Organic Compounds														
1,1,1-Trichloroethane	µg/L	200	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J	0.56 J	< 20 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	0.69 J	< 1.0 U	< 1.0 U	< 2.0 U	1.3	15 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	1.0	< 1.0 U	< 1.0 U	1.1 J	4.5	**78**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	3.0
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	**45**	< 1.0 U	< 1.0 U	**8.7**	**46**	1.4	**18 J**	**17**	**13**	**23**	**22**	**10**
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.8	5.0	**210**	1.2	1.3	3.9	1.8	2.4
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	0.50 J	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 40 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		46	1.7	Not Detected	8.7	53	13	321	18	14	30	24	17

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

The QA/QC results for 2021 data are shown in Appendix C.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

Table 3
DN-13 Monthly Effluent Monitoring for 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Volatile Organic Compound[1]	Units	1/5/2021	2/3/2021	3/3/2021	4/2/2021	5/14/2021	6/1/2021	7/6/2021	8/2/2021	9/3/2021	10/5/2021	11/2/2021	12/10/2021
1,1,1-Trichloroethane	µg/L	0.48 J	< 1.0 U	0.47 J	0.43 J	0.51 J	0.33 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	0.99 J	0.79 J	1.1	0.95 J	0.90 J	0.74 J	0.73 J	0.83 J	0.64 J	0.78 J	0.66 J	0.95 J
Benzene	µg/L	< 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
Chloroethane	µg/L	< 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
cis-1,2-Dichloroethene	µg/L	4.1	3.3	4.3	3.7	3.8	2.7	3.3	3.8	2.9	3.8	3.0	3.0
Ethylbenzene	µg/L	< 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
Tetrachloroethene	µg/L	0.70 J	0.85 J	0.81 J	0.64 J	0.96 J	0.73 J	0.72 J	0.74 J	0.61 J	0.85 J	0.82 J	0.75 J
Toluene	µg/L	< 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
Trichloroethene	µg/L	4.2	3.8	4.1	3.6	4.4	3.2	4.0	4.8	3.1	4.2	3.6	3.6
Vinyl chloride	µg/L	< 1.0 U	< 1.0 U	0.26 J	0.24 J	0.22 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**10**	**8.7**	**11**	**10**	**11**	**7.7**	**8.8**	**10**	**7.3**	**10**	**8.1**	**8.3**

NOTES:
[1] - Analytical method for volatile organic compounds (VOC) analysis is U.S. EPA Method 624.
< - Constituent not detected above laboratory reporting limit shown.
µg/L - Micrograms per Liter.
J - Estimated result less than reporting limit.
U - Constituent not detected above laboratory reporting limit shown.

Table 4
Groundwater Well Construction Details
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Surface Elevation ft amsl	TOC Elevation ft amsl	Vertical Datum Used	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft amsl	Screened Interval ft amsl	Borehole Depth ft bls	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Upper Aquifer Wells												
W-1-N	737.61	739.02	NGVD 29	4	35	70	702.61	667.61	70	625116.3422	1483946.8992	UA:TT
W-2-N	729.68	731.68	NGVD 29	4	35	60	694.68	669.68	60	623866.0756	1483351.7627	UA
W-3-N	731.98	733.66	NGVD 29	4	32	57	699.98	674.98	57	623695.7949	1483607.4206	UA
W-4-N	729.88	731.63	NGVD 29	4	40	65	689.88	664.88	65	623651.7734	1483795.1345	UA:TT
HR-1	730.10	732.71	NGVD 29	2	47	57	683.10	673.10	57	621967.8549	1483377.9900	UA:TT
HR-2	732.62	734.75	NGVD 29	2	47	57	685.62	675.62	58	623649.4613	1484030.9239	UA:TT
HR-3	734.31	736.75	NGVD 29	2	50	60	684.31	674.31	61	623611.9924	1484238.1821	UA:TT
HR-4	740.61	742.60	NGVD 29	2	55	65	685.61	675.61	67	624581.9005	1484003.6807	UA:TT
HR-5	730.95	734.27	NGVD 29	2	44	54	686.95	676.95	59	623354.7012	1483478.7701	UA:TT
HR-6	730.18	732.66	NGVD 29	2	43	53	687.18	677.18	59	622588.7007	1483298.9418	UA:TT
HR-7	731.00	731.73	NGVD 29	2	47	57	684.00	674.00	58	623373.7436	1483168.4377	UA:TT
HR-11	740.90	743.33	NGVD 29	2	60	70	680.90	670.90	75	625682.5579	1485262.8401	UA
HR-16	724.11	726.02	NAVD 88	4	42	62	682.11	662.11	70	621167.5622	1482171.8835	UA:TT
HR-17	724.70	725.42	NAVD 88	4	27	47	697.70	677.70	56	621132.8793	1482765.5781	UA:TT
W-1-S	728.23	729.29	NGVD 29	4	25	60	703.23	668.23	60	621395.9961	1482990.4905	UA:TT
W-2-S	724.38	725.67	NAVD 88	4	30	65	694.38	659.38	65	620607.2655	1482017.2170	UA:TT
W-3-S[1]	726.20	728.16	NAVD 88	4	36	76	690.20	650.20	76	620461.1503	1482167.2361	UA
W-4-S	725.61	726.76	NAVD 88	4	30	70	695.61	655.61	70	620363.7795	1482551.3692	UA
GM-2[2]	732.89	734.76	NAVD 88	2	45	55	687.89	677.89	55	619576.6485	1483413.7313	UA
4S[2]	NM	731.36	NGVD 29	4	30	65	699.00	664.00	65	619578.3189	1483129.7015	UA
GM-6[2]	727.55	729.24	NAVD 88	2	35	45	696.00	686.00	45	619632.5634	1482916.2533	UA:TT
GM-8	732.67	734.40	NAVD 88	2	40	50	692.67	682.67	50	619866.4717	1482965.5616	UA:TT
GM-10[2]	NM	723.90	NGVD 29	2	40	50	681.00	671.00	50	618762.7050	1482667.6948	UA:TT
GM-16[2]	724.49	724.29	NAVD 88	2	48	58	678.00	668.00	58	619424.9146	1482135.0492	UA
GM-17[2]	723.07	722.79	NAVD 88	2	40	50	684.00	674.00	50	619316.6254	1482682.9181	UA
GM-18[2]	722.98	722.71	NAVD 88	2	45	55	679.00	669.00	55	619232.8332	1482506.6521	UA:TT
GM-19S[2]	727.84	729.72	NAVD 88	2	47	57	691.00	681.00	57	620331.9954	1483061.1382	UA:TT
GM-21	725.36	725.00	NGVD 29	2	45	55	680.36	670.36	55	619920.6783	1483764.4734	UA:TT
GM-22	731.84	731.63	NGVD 29	2	44	54	687.84	677.84	54	620840.5066	1484226.4408	UA:TT
GM-23[2]	NM	731.07	NGVD 29	2	24	34	674.00	664.00	34	623699.0734	1484620.0452	UA:TUT
GM-24	747.61	747.29	NAVD 88	2	58	68	689.61	679.61	70	625945.1862	1486991.6799	UA
GM-25	747.05	746.17	NGVD 29	2	48	58	699.05	689.05	58	622786.3571	1486599.7086	UA:TT
GM-26	722.29	722.29	NGVD 29	2	50	60	672.29	662.29	60	617729.9754	1482129.1606	UA
GM-27	731.03	730.57	NGVD 29	2	40	50	691.03	681.03	58	623696.6847	1484630.6938	UA:TT
GM-28[2][3]	NM	736.46	NGVD 29	2	22	32	715.00	705.00	32	623392.5301	1484436.9072	UA:TUT
GM-28R	731.70	731.08	NAVD 88	2	20	30	711.70	701.70	30.5	623340.8523	1484507.2774	UA
GM-29	731.31	731.37	NGVD 29	2	28	38	703.31	693.31	38	623534.5654	1484535.0169	UA:TUT
GM-30[2][4]	NM	734.79	NGVD 29	2	28	38	707.00	697.00	38	623876.3291	1484609.6320	UA:TUT

Table 4
Groundwater Well Construction Details
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Surface Elevation ft amsl	TOC Elevation ft amsl	Vertical Datum Used	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft amsl	Screened Interval ft amsl	Borehole Depth ft bls	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Upper Aquifer Wells												
GM-31[4]	732.05	732.13	NGVD 29	2	51	61	681.05	671.05	62	621336.9494	1483965.1492	UA:TT
GM-32	732.47	732.08	NGVD 29	2	51	61	681.47	671.47	51	620114.1810	1483380.0271	UA:TT
GM-33	729.19	728.94	NAVD 88	2	48	58	681.19	671.19	58	620731.1934	1483641.4943	UA:TT
GM-34	729.95	729.27	NAVD 88	2	26	36	703.95	693.95	36	620730.0924	1483650.2951	UA:WT
GM-35	730.56	730.27	NAVD 88	2	57	67	673.56	663.56	70	620275.4483	1483275.5872	UA:TT
GM-36	731.44	731.11	NGVD 29	2	25	35	706.44	696.44	35	620383.1025	1483300.7238	UA:WT
GM-37	730.36	730.05	NGVD 29	2	46	56	684.36	674.36	56	620407.4613	1483455.9922	UA:TT
GM-38	730.31	729.88	NGVD 29	2	24	34	706.31	696.31	34	620403.1545	1483471.6717	UA:WT
GM-43	729.41	729.00	NGVD 29	2	40	50	689.41	679.41	54	622192.1557	1483441.3758	UA:TT
GM-44	729.30	728.77	NGVD 29	2	51	61	678.30	668.30	62	621686.3979	1483331.5242	UA:TT
GM-45	728.45	728.13	NAVD 88	2	50	60	678.45	668.45	60	621415.3955	1483241.9111	UA:TT
GM-46	728.13	727.79	NGVD 29	2	19.8	29.8	708.33	698.33	29.8	623393.7044	1484776.8931	UA:TUT
GM-47	726.06	725.81	NAVD 88	2	49.4	59.4	676.66	666.66	59.4	620016.5433	1482461.3001	UA:TT
GM-48	727.98	727.68	NAVD 88	2	63.2	73.2	664.78	654.78	73.2	619464.8685	1481739.2763	UA:TT
GM-49	727.22	726.99	NAVD 88	2	66.9	76.9	660.32	650.32	76.9	618612.3745	1481727.8482	UA:TT
GM-50	726.05	725.62	NAVD 88	2	29.7	39.7	696.35	686.35	39.7	620016.4003	1482458.0941	UA:WT
GM-51	727.95	727.45	NAVD 88	2	34.3	44.3	693.65	683.65	44.3	619469.2504	1481738.8331	UA:WT
GM-52	727.11	726.67	NAVD 88	2	34	44	693.11	683.11	44	618608.4894	1481726.9191	UA:WT
GM-53	730.53	730.35	NGVD 29	2	23	33	707.53	697.53	33	621184.8217	1484855.5742	UA:TT
GM-55	719.90	719.86	NGVD 29	2	25	35	694.90	684.90	35	618008.1622	1482441.5884	UA:WT
GM-57[5]	719.41	721.40	NGVD 29	2	25	35	694.41	684.41	35	617724.0893	1482132.1444	UA:WT
GM-59	731.53	731.27	NAVD 88	2	25	35	706.53	696.53	35	622767.2094	1484695.7471	UA:WT
GM-60	731.53	731.27	NAVD 88	2	42	52	689.53	679.53	52	622766.9994	1484695.8173	UA:TT
GM-62R	723.15	723.51	NAVD 88	2	50	60	673.15	663.15	60	618423.9572	1482812.6551	UA
GM-63	725.32	724.86	NAVD 88	2	30	40	695.32	685.32	40	620288.2393	1482671.1783	UA:WT
GM-64	725.46	725.05	NAVD 88	2	50	60	675.46	665.46	60	620289.0605	1482666.2013	UA:TT
GM-65S	723.94	723.58	NGVD 29	2	42	52	681.94	671.94	52	617392.3535	1481382.3676	UA
GM-66	733.50	733.22	NGVD 29	2	45	55	688.50	678.50	57	622780.5074	1484091.4645	UA:TT
GM-67S	732.54	732.06	NGVD 29	2	44	54	688.54	678.54	54	623050.1586	1484547.1769	UA:TT
GM-68S	732.48	732.18	NGVD 29	2	39.5	49.5	692.98	682.977	49.5	622326.0756	1484652.7126	UA:TT
GM-71	736.24	735.83	NAVD 88	2	21	31	715.24	705.24	37	622639.9705	1485205.9213	UA:TUT
GM-72	736.22	735.88	NAVD 88	2	52	62	684.22	674.22	67	622639.3773	1485217.5213	UA:TT
GM-74S	732.52	732.17	NGVD 29	2	40	50	692.52	682.52	50	622444.3916	1484733.7684	UA:TT
GM-75S	737.20	736.67	NAVD 88	2	42	52	695.20	685.20	52	622796.9285	1485021.8931	UA:TT
GM-76S	738.58	738.09	NAVD 88	2	27	37	711.58	701.58	37	623545.3663	1485296.6672	UA:TT
GM-77S	740.55	740.18	NAVD 88	2	33	43	707.55	697.55	43	621583.3135	1485875.9373	UA:TT
GM-78	721.58	721.18	NGVD 29	2	40	50	681.58	671.58	70	618257.6566	1483035.5080	UA
GM-79	717.57	717.02	NAVD 88	2	45	55	672.57	662.57	60	618974.2075	1481032.1012	UA:TT

Table 4
Groundwater Well Construction Details
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Surface Elevation ft amsl	TOC Elevation ft amsl	Vertical Datum Used	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft amsl	Screened Interval ft amsl	Borehole Depth ft bls	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Upper Aquifer Wells												
GM-80	715.37	714.95	NAVD 88	2	15	25	700.37	690.37	25	617955.6603	1480925.8022	UA:WT
GM-81	714.87	714.36	NAVD 88	2	50	60	664.87	654.87	90	617939.2906	1480921.4302	UA
GM-83S	726.44	725.84	NGVD 29	2	44	54	682.44	672.44	54	622568.7569	1482112.8680	UA:TT
RMW-89	738.84	738.50	NAVD 88	2	40.7	50.7	698.14	688.14	65	623394.9330	1484777.0130	UA
RMW-90	727.21	726.84	NAVD 88	2	43.5	53.5	683.71	673.71	100	623394.2373	1484776.9973	UA:TT
RMW-91	723.16	725.50	NAVD 88	2	48	53	675.16	670.16	57	620642.1503	1482814.1912	UA:WT
RMW-92	723.37	725.92	NAVD 88	2	26	36	697.37	687.37	38	620642.2605	1482803.2532	UA
RMW-93	724.66	727.56	NAVD 88	2	50	60	674.66	664.66	60	620378.8205	1482440.7132	UA:TT
RMW-94	724.83	727.53	NAVD 88	2	30	40	694.83	684.83	40	620379.9835	1482432.7103	UA
RMW-95	716.01	715.33	NAVD 88	2	6.3	21.3	709.71	694.71	22	619596.2154	1480976.9852	UA
RMW-96	717.12	716.73	NAVD 88	2	7.5	22.5	709.62	694.62	24	618973.8564	1481026.2131	UA
RMW-97	714.84	714.21	NAVD 88	2	9	24	705.84	690.84	24	618501.5463	1480934.2432	UA
RMW-98	725.40	725.10	NAVD 88	2	52	62	673.40	663.40	65	619768.1714	1481983.4441	UA:TT
RMW-99	725.40	724.95	NAVD 88	2	25	35	700.40	690.40	35	619767.9175	1481979.7421	UA
RMW-100	724.08	723.58	NAVD 88	2	40	50	684.08	674.08	56	619667.5355	1482692.4191	UA:TT
RMW-101	723.74	723.47	NAVD 88	2	25	35	698.74	688.74	35	619669.6103	1482702.1871	UA
RMW-102	724.42	723.98	NAVD 88	2	15	25	709.42	699.42	25	619426.2700	1482141.2680	UA:WT
PW-1S	736.18	735.76	NAVD 88	2	36	51	700.18	685.18	54	622968.4833	1484992.4841	UA
PW-1D	736.18	735.82	NAVD 88	2	51.5	56.5	684.68	679.68	60	622975.6174	1484993.9713	UA:TT
PW-2S/D	736.05	735.34	NAVD 88	2	41	61	695.05	675.05	62.5	622929.6694	1484983.1901	UA:TT
PW-3S	736.13	735.75	NAVD 88	2	36	41	700.13	695.13	70	622949.6336	1484987.7341	UA
PW-3D	736.13	735.79	NAVD 88	2	47	57	689.13	679.13	70	622949.3675	1484987.8601	UA:TT
PW-4S	736.17	735.73	NAVD 88	2	37	47	699.17	689.17	50	622964.5725	1484989.6701	UA
PW-4D	736.18	735.67	NAVD 88	2	50	55	686.18	681.18	55	622971.9665	1484991.4043	UA:TT
PW-5S	735.99	735.52	NAVD 88	2	39	49	696.99	686.99	63	622919.2714	1484979.0700	UA
PW-5D	735.99	735.62	NAVD 88	2	56	61	679.99	674.99	63	622919.0355	1484979.3473	UA:TT
PW-6S	731.35	731.08	NAVD 88	2	25	35	706.35	696.35	35	622831.4373	1484839.3141	UA
PW-6D	731.35	731.04	NAVD 88	2	40	50	691.35	681.35	63.5	622837.3753	1484840.7872	UA:TT
EW-1	725.30	723.55	NAVD 88	8	40	60	685.30	665.30	63	620643.5204	1482283.2113	UA:TT
EW-2	725.80	724.48	NAVD 88	8	39.5	59.5	686.30	666.30	63	620644.8832	1482499.9953	UA:TT
EW-3	723.17	721.98	NAVD 88	8	40	52	683.17	671.17	55.00	620646.3855	1482720.7373	UA:TT
IW-1	726.08	722.84	NAVD 88	8	40	60	686.08	666.08	63.00	620405.0182	1482239.1493	UA:TT
IW-2	725.71	722.20	NAVD 88	8	39.5	59.5	686.21	666.21	63.00	620369.9035	1482502.2951	UA:TT
IW-3	725.50	722.38	NAVD 88	8	25	57	700.50	668.50	59.00	620367.3425	1482636.8894	UA:TT
IW-4	723.41	720.59	NAVD 88	8	25	55	698.41	668.41	57.00	620353.3333	1482784.9193	UA:TT
EAST	NM	730.98	NGVD 29	2	NA	NA	NA	NA	71	620545.7428	1483674.2296	UA:TT

Table 4
Groundwater Well Construction Details
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Surface Elevation ft amsl	TOC Elevation ft amsl	Vertical Datum Used	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft amsl	Screened Interval ft amsl	Borehole Depth ft bls	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Upper Aquifer Wells												
WEST	727.75	729.96	NAVD 88	2	NA	NA	NA	NA	52	620514.8140	1483285.0590	UA:TT
WSU-17	726.93	726.18	NGVD 29	2	11.69	66.9	715.24	659.28	67	619558.3274	1482898.5143	UA:TT
WSU-18	734.18	733.52	NGVD 29	2	29.2	69.2	704.98	664.32	69	619554.9064	1483096.6037	UA:TT
WSU-19	727.28	726.62	NGVD 29	2	33.4	63.4	693.88	663.22	63	619736.8210	1482880.5343	UA:TT
WSU-22	726.21	726.49	NGVD 29	2	NA	NA	NA	NA	52	620311.3992	1482687.1755	UA:TT
WSU-23	723.54	724.00	NAVD 88	2	NA	NA	NA	NA	58	620364.1880	1481954.6150	UA:TT
WSU-24	725.10	724.82	NGVD 29	2	NA	NA	NA	NA	66	619123.9935	1483169.1543	UA:TT
TW-2[2]	NM	733.38	NGVD 29	10	35	45	696.00	686.00	45	619624.0349	1482956.5220	UA:TT
ME-2[4]	731.60	731.28	NGVD 29	2	27	37	704.60	694.60	37	621327.2647	1484014.4997	UA:WT
ME-3[4]	732.23	731.73	NGVD 29	2	29	39	703.23	693.23	39	621288.4112	1483969.5710	UA:WT
ME-4[4]	732.05	732.24	NGVD 29	2	26	36	706.05	696.05	36	621321.5257	1483952.4713	UA:WT
ME-6[4]	733.09	732.68	NGVD 29	2	29	39	704.09	694.09	39	621706.8006	1484056.9183	UA:WT
MW-1[6]	713.60	715.53	NGVD 29	2	61.2	71.2	652.40	642.40	71.7	621420.5218	1480209.1085	UA:TT
MW-4[6]	707.45	707.19	NGVD 29	2	19.6	39.6	687.85	667.85	40	619035.3973	1478050.2153	UA
MW-5[6]	708.62	708.37	NAVD 88	2	22.5	42.5	686.12	666.12	43	618790.0375	1478957.6694	UA
MW-9[6]	712.23	711.93	NAVD 88	2	63	73	649.23	639.23	73.5	617171.4834	1478734.3033	UA

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Groundwater Well Construction Details
RACER Trust Moraine Facilities
Moraine, Ohio

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Lower Aquifer Wells												
GM-1	NM	735.74	NGVD 29	2	90	100	NA	NA	100	619570.5560	1483421.7187	LA
GM-3	NM	730.44	NGVD 29	2	90	100	NA	NA	100	619621.9125	1482926.4692	LA
GM-4	NM	731.46	NGVD 29	2	140	150	NA	NA	150	619602.6754	1482922.7239	LA
GM-5	NM	731.29	NGVD 29	2	90	100	NA	NA	100	619588.5805	1483126.5199	LA
GM-7R	NM	735.61	NGVD 29	2	80	90	NA	NA	91	619863.8661	1482962.0547	LA
GM-9	NM	724.07	NGVD 29	2	90	100	NA	NA	100	618771.6911	1482674.0591	LA
GM-11	NM	723.71	NGVD 29	2	90	100	NA	NA	100	619318.5089	1482694.0850	LA
GM-13	722.88	722.78	NAVD 88	2	90	100	632.88	622.879	100	619238.8323	1482505.1833	LA
GM-14	722.64	722.46	NAVD 88	2	140	150	582.64	572.639	150	619234.0235	1482491.2341	LA
GM-15	724.66	724.46	NAVD 88	2	90	100	634.66	624.655	100	619422.4854	1482146.2630	LA
GM-19D	727.90	729.40	NGVD 29	4	145	150	582.90	577.90	150	620339.8789	1483063.5355	LA
GM-20D	NM	727.26	NGVD 29	4	87	92	NA	NA	92	619177.7112	1483236.8897	LA
GM-39	731.15	730.95	NGVD 29	2	106	116	625.15	615.15	116	623705.4735	1484609.1916	LA
GM-40	727.28	727.04	NGVD 29	2	140	150	587.28	577.28	150	621693.6605	1483084.8346	LA
GM-41	731.22	733.65	NGVD 29	2	104	114	627.22	617.22	114	621635.8247	1484818.2843	LA
GM-42	729.48	729.16	NGVD 29	2	140	150	589.48	579.48	150	620810.1825	1483562.4718	LA
GM-54	730.51	730.29	NGVD 29	2	70	80	660.51	650.51	80	621182.0368	1484848.7664	LA
GM-56	719.75	719.52	NGVD 29	2	75	85	644.75	634.75	85	618006.2067	1482448.5881	LA:NTP
GM-58	735.59	735.46	NGVD 29	2	72	82	663.59	653.59	82	621541.9705	1485308.7484	LA:BT
GM-61	731.56	731.28	NAVD 88	2	70	80	661.56	651.56	80	622768.3373	1484690.5273	LA:BT
GM-65D	723.83	723.54	NGVD 29	2	85	95	638.83	628.83	108	617389.4778	1481380.3420	LA:NTP
GM-67D	731.69	731.23	NAVD 88	2	70	80	661.69	651.69	121	623059.1783	1484516.3633	LA:BT
GM-68D	732.46	732.27	NGVD 29	2	64	74	668.46	658.46	150	622327.6609	1484645.9882	LA:BT
GM-69	732.42	732.08	NGVD 29	2	90	100	642.42	632.42	140	621314.7862	1484401.5369	LA
GM-70	737.47	737.19	NGVD 29	2	72	82	665.47	655.47	120	621944.0698	1485505.8069	LA
GM-73	736.40	736.00	NAVD 88	2	85	95	651.40	641.40	120	622641.7113	1485199.4184	LA
GM-74D	732.49	732.04	NGVD 29	2	69	79	663.49	653.49	120	622450.1864	1484735.5674	LA:BT
GM-75D	737.10	736.65	NAVD 88	2	85	95	652.10	642.10	120	622799.4485	1485010.2344	LA
GM-76D	738.65	737.96	NAVD 88	2	70	80	668.65	658.65	120	623539.9404	1485295.2541	LA:BT
GM-77D	741.52	740.93	NGVD 29	2	75	85	666.52	656.52	100	621574.2863	1485889.4242	LA:BT
GM-82	732.55	732.14	NGVD 29	2	85	95	647.55	637.55	119.5	621972.7596	1484304.8749	LA
GM-83D	726.41	725.77	NGVD 29	2	110	120	616.41	606.41	120	622568.2473	1482120.4571	LA
GM-84	740.44	739.92	NGVD 29	2	96.5	106.5	643.94	633.94	120	620619.4733	1485522.2791	LA:BT
RMW-85[7]	736.01	735.62	NAVD 88	2	85	95	651.01	641.01	105	622913.9673	1484978.1501	LA
RMW-86[7]	728.85	729.22	NGVD 29	2	70	80	658.85	648.85	105	620409.8729	1483253.3868	LA:BT
RMW-87[7]	727.69	728.01	NGVD 29	2	67	77	660.69	650.69	100	621671.7643	1483277.4885	LA:BT
RMW-88	735.824	738.00	NAVD 88	2	90	100	645.82	635.824	100	623617.9875	1484203.4942	LA

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Moraine, Ohio

Well	Surface Elevation ft amsl	TOC Elevation ft amsl	Vertical Datum Used	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft amsl	Screened Interval ft amsl	Borehole Depth ft bls	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Lower Aquifer Wells												
HR-12	741.00	742.64	NGVD 29	4	120	130	621.00	611.00	130	625702.4754	1485249.9932	LA
HR-13	735.82	738.00	NAVD 88	4	75	85	660.82	650.82	85	625052.3203	1484580.6972	LA:BT
HR-14	729.90	731.63	NGVD 29	4	78	88	651.90	641.90	88	623675.3334	1483782.3572	LA
HR-15	732.10	733.74	NGVD 29	4	88	98	644.10	634.10	98	623712.7728	1483595.9249	LA
M73C	NM	716.55	NGVD 29	NA	NA	NA	NA	NA	NA	618973.2997	1482114.3979	LA
MT69[8]	719.84	722.71	NGVD 29	8	NA	NA	NA	NA	158	617772.6174	1450654.7321	LA
MT576M	750.00	751.46	NGVD 29	5	NA	NA	NA	NA	114	622940.3172	1487799.5539	LA
MT596M[9]	759.18	757.73	NGVD 29	5	NA	NA	NA	NA	89	624057.1360	1488849.2693	LA
DN-13	724.09	726.04	NAVD 88	20	110	170	614.09	554.09	170	619198.8520	1482251.2180	LA
11B	744.50	742.56	NGVD 29	NA	NA	NA	NA	NA	158	622501.3482	1485799.8083	LA
A	NM	739.00	NGVD 29	20	155	205	NA	NA	205	624325.4355	1484805.8917	LA
31	NM	734.05	NGVD 29	20	90	122	NA	NA	122	623727.3341	1485049.1907	LA
34	NM	733.46	NGVD 29	20	107	140	NA	NA	140	622178.5003	1485017.7441	LA
39	NM	732.07	NGVD 29	20	117	142	NA	NA	145	623442.5209	1484987.4851	LA
44	733.91	734.62	NGVD 29	24	128	166	605.91	567.91	NA	624519.8827	1483988.9900	LA
FW-1A	NM	739.89	NGVD 29	24	105	166	NA	NA	169	625357.5225	1486090.4582	LA
FW-2	NM	737.48	NGVD 29	20	NA	150	NA	NA	160	622516.4881	1485616.5997	LA
FW-3	NM	739.26	NGVD 29	20	NA	141	NA	NA	200	622674.8976	1484968.9343	LA
FW-4	NM	731.62	NGVD 29	14	NA	136	NA	NA	160	620605.2151	1484338.1978	LA

NOTES:

Survey of well coordinates were originally to a site-specific coordinate system in feet with the vertical datum as the National Geodetic Vertical Datum of 1929 (NGVD 29) using an on-site benchmark.
Base map and well coordinates were converted in 2011 to the Ohio South State Plane coordinate system North American Datum of 1983 (NAD 83) and NGVD 29 was retained as the vertical datum.
In 2019 and 2020, several monitoring wells were re-surveyed using the North American Vertical Datum of 1988 (NAVD 88) and NAD 83.
TOC - Top of Casing.
ft amsl - feet above mean sea level.
ft bls - feet below land surface.
(1) - Ground surface elevation estimated based on a 2-foot height of outer casing stick-up.
(2) - Survey estimated.
(3) - Well flush mount damaged and obstructed at depth.
(4) - Depth of screened interval and total well depth have been modified from the well log due to site construction.
(5) - Well above grade construction damaged in 2011.
(6) - City of Moraine Monitoring Wells.
(7) - TOC elevation is calculated based on adjacent well elevations and field measurements on November 26, 2012.
(8) - Well unusable - collapsed screen.
(9) - Measuring point is top of cement housing.

BT - Below Till (regional clay till).
LA - Lower Aquifer.
NA - Not Available.
NM - Not Measured.
NTP - No Till Present.
TT - Top of Till (regional clay till).
TUT - Top of Upper Till (upper clay till).
UA - Upper Aquifer.
WT - Water Table (screened across the water table interface).

Table 5
Groundwater Level Measurements Collected During 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Measuring Point Elevation (feet AMSL)	Date/Time	Depth-to-Water (feet)	Total Depth (feet)	Groundwater or Surface Water Elevation (feet AMSL)	Survey Datum Used
Upper Aquifer Wells						
EAST	730.98	10/8/21 11:55	22.80	71.00	708.18	NGVD 29
GM-02	734.76	10/5/21 8:05	27.88	NM	706.88	NAVD 88
GM-02	734.76	10/7/21 1:45	28.10	54.81	706.66	NAVD 88
GM-06	729.24	10/7/21 12:15	22.90	45.02	706.34	NAVD 88
GM-08	734.40	10/5/21 8:00	27.67	NM	706.73	NAVD 88
GM-08	734.40	10/7/21 9:45	27.76	59.88	706.64	NAVD 88
GM-16	724.29	10/5/21 1:40	18.32	57.47	705.97	NAVD 88
GM-17	722.79	10/4/21 3:50	16.50	NM	706.29	NAVD 88
GM-17	722.79	10/7/21 4:35	16.65	49.51	706.14	NAVD 88
GM-18	722.71	11/11/21 10:30	16.79	55.00	705.92	NAVD 88
GM-19S	729.72	10/4/21 4:15	22.88	NM	706.84	NAVD 88
GM-19S	729.72	10/7/21 12:00	22.94	56.60	706.78	NAVD 88
GM-21	725.00	10/7/21 2:00	16.96	53.23	708.04	NGVD 29
GM-32	732.08	10/7/21 3:55	24.01	56.56	708.07	NGVD 29
GM-34	729.27	10/4/21 12:56	22.17	NM	707.10	NAVD 88
GM-35	730.27	10/8/21 9:35	23.32	65.73	706.95	NAVD 88
GM-36	731.11	10/8/21 10:40	23.07	34.20	708.04	NGVD 29
GM-37	730.05	10/8/21 10:55	21.82	34.49	708.23	NGVD 29
GM-38	729.88	10/8/21 11:40	21.99	56.10	707.89	NGVD 29
GM-45	728.13	10/4/21 1:15	26.85	NM	701.28	NAVD 88
GM-47	725.81	10/4/21 2:55	19.40	NM	706.41	NAVD 88
GM-47	725.81	10/5/21 9:50	19.45	59.44	706.36	NAVD 88
GM-48	727.68	10/6/21 11:45	21.71	73.15	705.97	NAVD 88
GM-49	726.99	11/11/21 4:45	22.04	74.05	704.95	NAVD 88
GM-50	725.62	10/4/21 14:50	19.47	NM	706.15	NAVD 88
GM-50	725.62	10/5/21 11:00	19.28	39.66	706.34	NAVD 88
GM-51	727.45	10/6/21 10:35	21.97	44.00	705.48	NAVD 88
GM-52	726.67	11/11/21 5:40	22.81	42.48	703.86	NAVD 88
GM-63	724.86	10/4/21 2:40	18.16	NM	706.70	NAVD 88
GM-63	724.86	10/5/21 1:50	18.37	40.07	706.49	NAVD 88
GM-64	725.05	10/5/21 3:10	18.33	59.92	706.72	NAVD 88
GM-79	717.02	10/6/21 4:15	11.91	54.03	705.11	NAVD 88
GM-80	714.95	10/7/21 11:45	10.17	24.31	704.78	NAVD 88
GM-81	714.36	10/7/21 11:00	9.57	59.68	704.79	NAVD 88
HR-04	742.60	10/4/21 11:05	32.86	65.00	709.74	NGVD 29
HR-16	726.02	10/4/21 1:45	19.22	NM	706.80	NAVD 88
HR-16	726.02	10/6/21 9:15	19.35	65.00	706.67	NAVD 88
HR-17	725.42	10/4/21 2:15	18.33	NM	707.09	NAVD 88
HR-17	725.42	10/4/21 3:00	18.33	45.85	707.09	NAVD 88
RMW-100	723.58	10/4/21 3:05	17.20	NM	706.38	NAVD 88
RMW-100	723.58	10/5/21 11:05	17.28	50.00	706.30	NAVD 88
RMW-101	723.47	10/4/21 3:00	17.05	NM	706.42	NAVD 88
RMW-101	723.47	10/5/21 10:05	17.18	34.45	706.29	NAVD 88
RMW-102	723.98	10/4/21 3:40	17.94	NM	706.04	NAVD 88
RMW-102	723.98	10/5/21 12:40	18.02	24.55	705.96	NAVD 88
RMW-91	725.50	10/4/21 2:10	18.84	NM	706.66	NAVD 88
RMW-91	725.50	10/6/21 11:20	18.98	57.00	706.52	NAVD 88
RMW-92	725.92	10/4/21 2:11	19.13	NM	706.79	NAVD 88
RMW-92	725.92	10/6/21 10:20	19.27	38.00	706.65	NAVD 88
RMW-93	727.56	10/4/21 1:55	21.09	NM	706.47	NAVD 88
RMW-93	727.56	10/5/21 3:20	21.19	60.00	706.37	NAVD 88
RMW-94	727.53	10/4/21 1:53	21.02	NM	706.51	NAVD 88
RMW-94	727.53	10/5/21 4:10	21.12	40.00	706.41	NAVD 88
RMW-95	715.33	10/6/21 2:10	9.94	21.30	705.39	NAVD 88
RMW-96	716.73	10/6/21 3:30	11.61	22.50	705.12	NAVD 88
RMW-97	714.21	10/7/21 9:35	9.25	23.09	704.96	NAVD 88
RMW-98	725.10	10/4/21 3:20	19.06	NM	706.04	NAVD 88
RMW-98	725.10	10/6/21 2:20	19.19	59.99	705.91	NAVD 88
RMW-99	724.95	10/4/21 3:15	18.96	NM	705.99	NAVD 88
RMW-99	724.95	10/6/21 3:45	18.98	34.94	705.97	NAVD 88
W-2-N	731.68	10/4/21 1:15	22.41	58.52	709.27	NGVD 29
W-2-S	725.67	10/4/21 1:47	19.31	NM	706.36	NAVD 88
W-2-S	725.67	10/4/21 4:25	19.31	64.87	706.36	NAVD 88
W-3-N	733.66	10/4/21 1:20	24.46	57.72	709.20	NGVD 29
W-3-S	728.16	10/4/21 1:50	21.73	NM	706.43	NAVD 88
W-3-S	728.16	10/4/21 3:00	21.81	73.71	706.35	NAVD 88
W-4-N	731.63	10/4/21 11:20	22.32	66.87	709.31	NGVD 29
W-4-S	726.76	10/4/21 2:05	20.06	NM	706.70	NAVD 88
W-4-S	726.76	10/4/21 4:05	20.16	71.11	706.60	NAVD 88
WEST	729.96	10/4/21 1:25	22.85	NM	707.11	NAVD 88
WEST	729.96	10/8/21 9:35	22.90	51.58	707.06	NAVD 88
WSU-23	724.00	10/4/21 2:45	17.85	NM	706.15	NAVD 88
WSU-23	724.00	10/5/21 4:35	17.77	57.40	706.23	NAVD 88
WSU-24	724.82	11/16/21 10:30	17.34	66.33	707.48	NGVD 29
Lower Aquifer Wells						
DN-13	726.04	11/16/21 12:15	63.82	80.00	662.22	NAVD 88

NOTES:

Elevations are reported in feet above mean sea level (AMSL).

Groundwater levels were measured on October 4 through October 8, November 11, and November 16, 2021 using electronic water level indicators.

Groundwater level measurements are reported in feet below the measuring point.

Measuring point is the top of the well casing or surveyed measuring point.

NM - Not Measured.

Survey of well coordinates were originally to a site-specific coordinate system in feet with the vertical datum as the National Geodetic Vertical Datum of 1929 (NGVD 29) using an on-site benchmark. In 2019 several monitoring wells were re-surveyed using the North American Vertical Datum of 1988 (NAVD 88).

Table 6
Vertical Hydraulic Gradients for 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Vertical Hydraulic Gradients - 2021			
Shallow/Deep Upper Aquifer Wells[1]	**Mid-Screen Distance (ft)**	**Direction (U/D)**	**Gradient**
On-Site - Phase 1 Extraction Well Area - October 4, 2021			
RMW-92 (706.79 ft amsl) / RMW-91 (706.66 ft amsl)	20	D	6.7E-03

NOTES:

U - Upward vertical hydraulic gradient.

D - Downward vertical hydraulic gradient.

amsl - above mean sea level.

ft - feet.

The vertical datum for Off-site/Downgradient wells is NGVD 29.

The vertical datum for Shallow/Deep Upper Aquifer wells is NAVD 88.

1 - vertical gradient is calculated using shallow Upper Aquifer and deep Upper Aquifer well pair.

Table 7
Focused Off-Site Vapor Intrusion Groundwater Screening Results
RACER Trust Moraine Facilities
Moraine, Ohio

	Units	Vapor Intrusion Screening Levels (ug/L)[1,2]	GM-80 10/7/2021	RMW-95 10/7/2021	RMW-96 10/6/2021	RMW-97 10/6/2021
Site-Specific Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	13,600	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	135	1.3	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	320	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	29.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	NL	1.7	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	77.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	122	< 1.0 U	8.9	1.5	2.9
Toluene	µg/L	39,200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	191	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	9.9	3.0	0.69 J	< 1.0 U	0.57 J
Vinyl chloride	µg/L	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	856	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		6.0	10	1.5	3.5

NOTES:

< - Constituent not detected above laboratory reporting limit shown.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

NL - No screening level.

1. The data were screened against the most conservative Ohio EPA screening level; if no value was available, the U.S. EPA site-specific vapor intrusion level was

2. USEPA Vapor Intrusion Screening Levels were used to calculate target residential screening levels for groundwater concentration based a site-specific groundwater temperature of 11 degrees celsius and the lower of either a target cancer risk of 1E-05 or a target hazard index of 1 (per Ohio EPA Sample Collection and Evaluation of Vapor Intrusion to Indoor Air Guidance, March 2020). Screening levels assume 26 year exposure duration, 350 days per year, 24 hours per day.

Table 8
Proposed Groundwater Monitoring Program for 2022
RACER Trust Moraine Facilities
Moraine, Ohio

Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

Lower aquifer monitoring wells to be analyzed for the site-specific list of VOCs[(1)]:

DN-13

In-Situ Reactive Zone Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells to be analyzed for the site-specific list of VOCs[(1)] and biogeochemical parameters[(2)]:

GM-2[(3)]	GM-19S	GM-21	GM-32

Phase I DGR™ Performance Monitoring Wells (Annual)

Upper aquifer monitoring wells[(4)] to be analyzed for the site-specific list of VOCs[(1)]:

GM-47	GM-51	GM-63	GM-64	RMW-93	RMW-94

Analytical Methods

Parameter	Analytical Method
Site-specific list of VOCs	SW846 8260B
Total organic carbon	SW846 9060
Ethane, ethene, methane	AM20GAX

NOTES:

1 – Site-specific list of VOCs for 2021 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – Includes monitoring well GM-19S.

Field parameters will be collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

Figures

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LEGEND

- DRAINAGE DITCH
- FORMER BUILDING/SITE FEATURE
- CURRENT BUILDING
- PROPERTY BOUNDARY

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source: DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/30/2022.

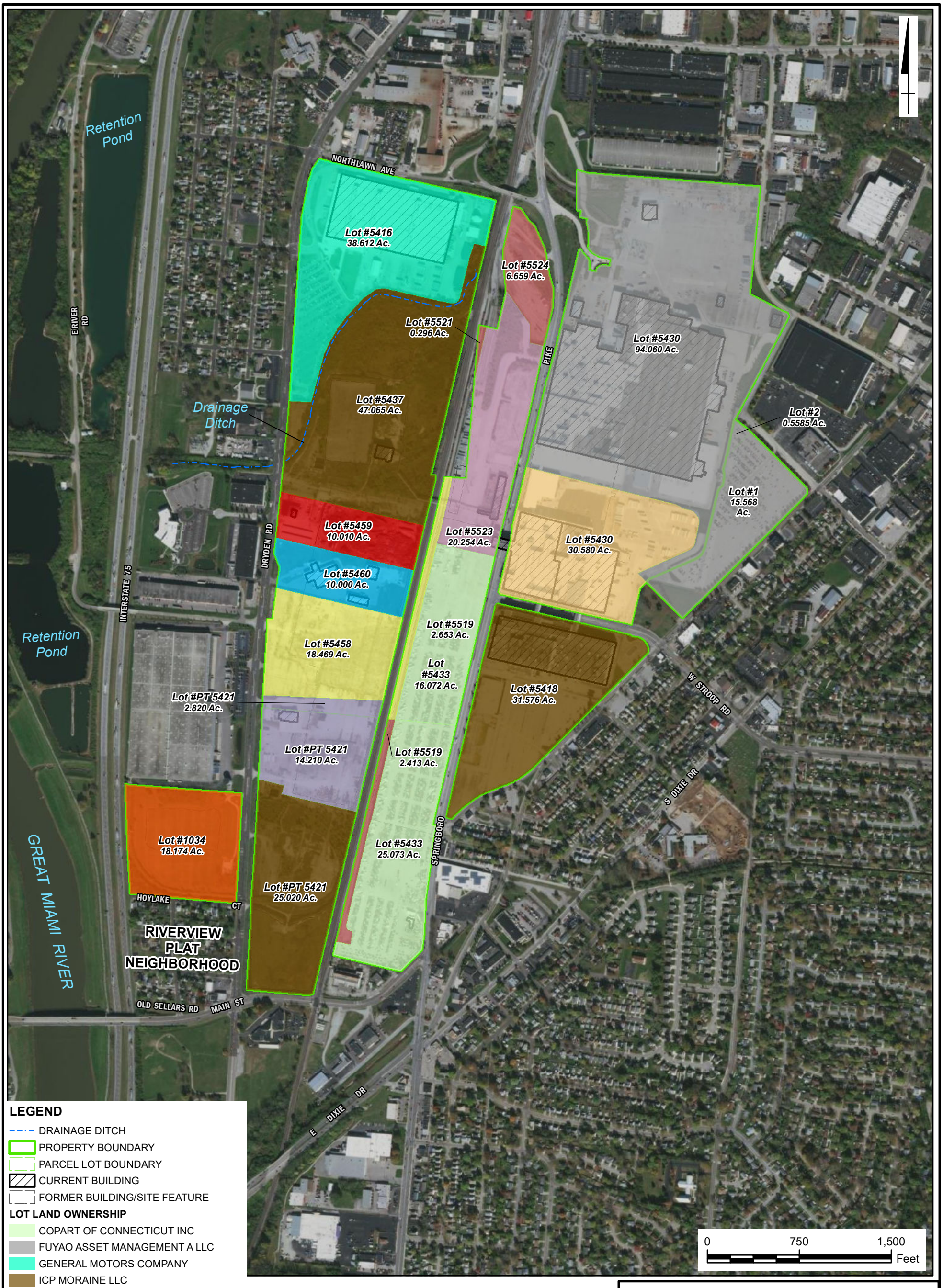
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2021 GROUNDWATER MONITORING REPORT

SITE LAYOUT

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FIGURE
1

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LEGEND

- DRAINAGE DITCH
- PROPERTY BOUNDARY
- PARCEL LOT BOUNDARY
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE

LOT LAND OWNERSHIP

- COPART OF CONNECTICUT INC
- FUYAO ASSET MANAGEMENT A LLC
- GENERAL MOTORS COMPANY
- ICP MORAINE LLC
- ICP MORAINE SPE LLC AND IRG MORAINE SPE LLC
- INLAND PROPERTY MANAGEMENT INC
- IPC MORAINE LLC
- IRG MORAINE LLC
- NORFOLK SOUTHERN RAILWAY CO FKA
- RACER PROPERTIES LLC
- STATE OF OHIO
- WRIGHT WAREHOUSING INC.

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source: DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/19/2022.
3. Lot information was downloaded on 01/12/2022 from http://www.mcauditor.org/downloads/gis_downloads.cfm/.
4. Ac. = Acres

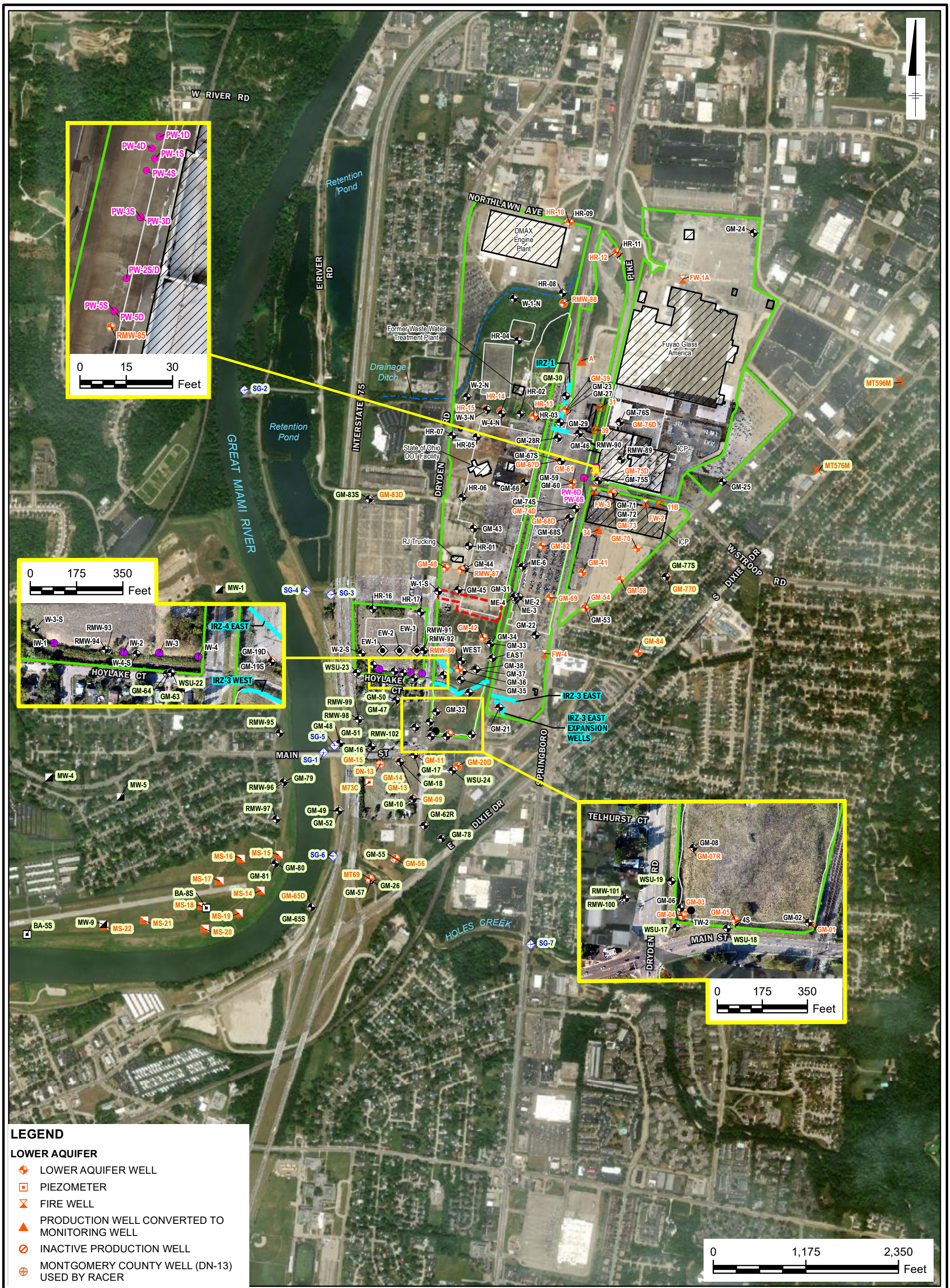
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2021 GROUNDWATER MONITORING REPORT

SITE PARCEL MAP

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FIGURE 2

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LEGEND

LOWER AQUIFER

- LOWER AQUIFER WELL
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (DN-13) USED BY RACER
- MONTGOMERY COUNTY WELL (INACTIVE)
- PRIVATE WELL
- PROPOSED PLAN SITE
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/11/2022.
3. Parcel data downloaded on 01/22/2020 from http://www.mcauditor.org/downloads/gis_downloads.cfm/.
4. Olive-shaded labels indicate offsite wells.

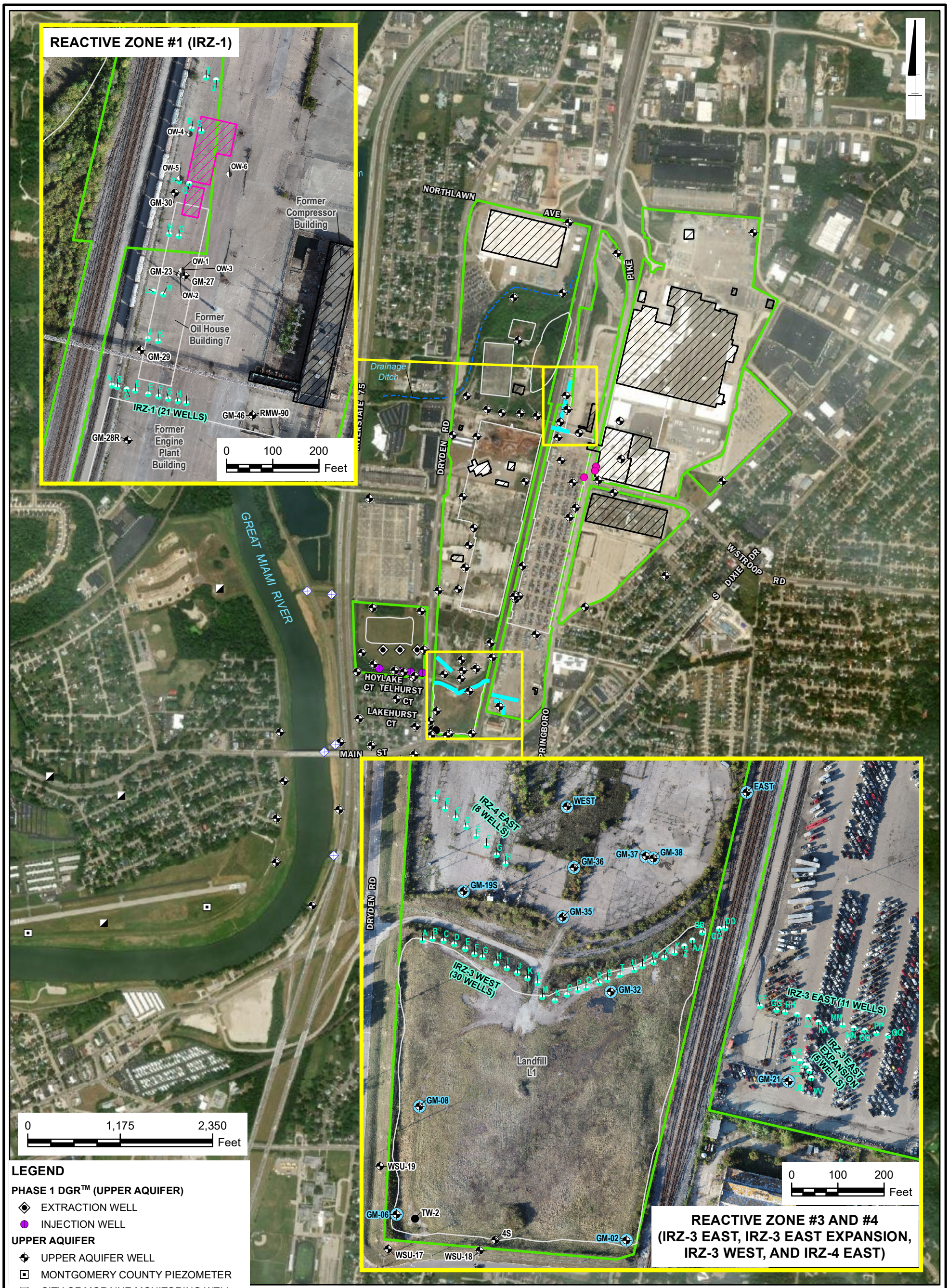
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MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

SITE-WIDE CORRECTIVE MEASURES

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FIGURE 3

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LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)
- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER
- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

ADDITIONAL LEGEND IN INSETS
- OXIDATION WELL (INACTIVE)
- CARBON SOURCE INTRODUCTION WELL
- UPPER AQUIFER MONITORING WELL SAMPLED IN 2021
- APPROXIMATE LOCATION OF FORMER MORAINE ENGINE TANK FARM

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/30/2022.

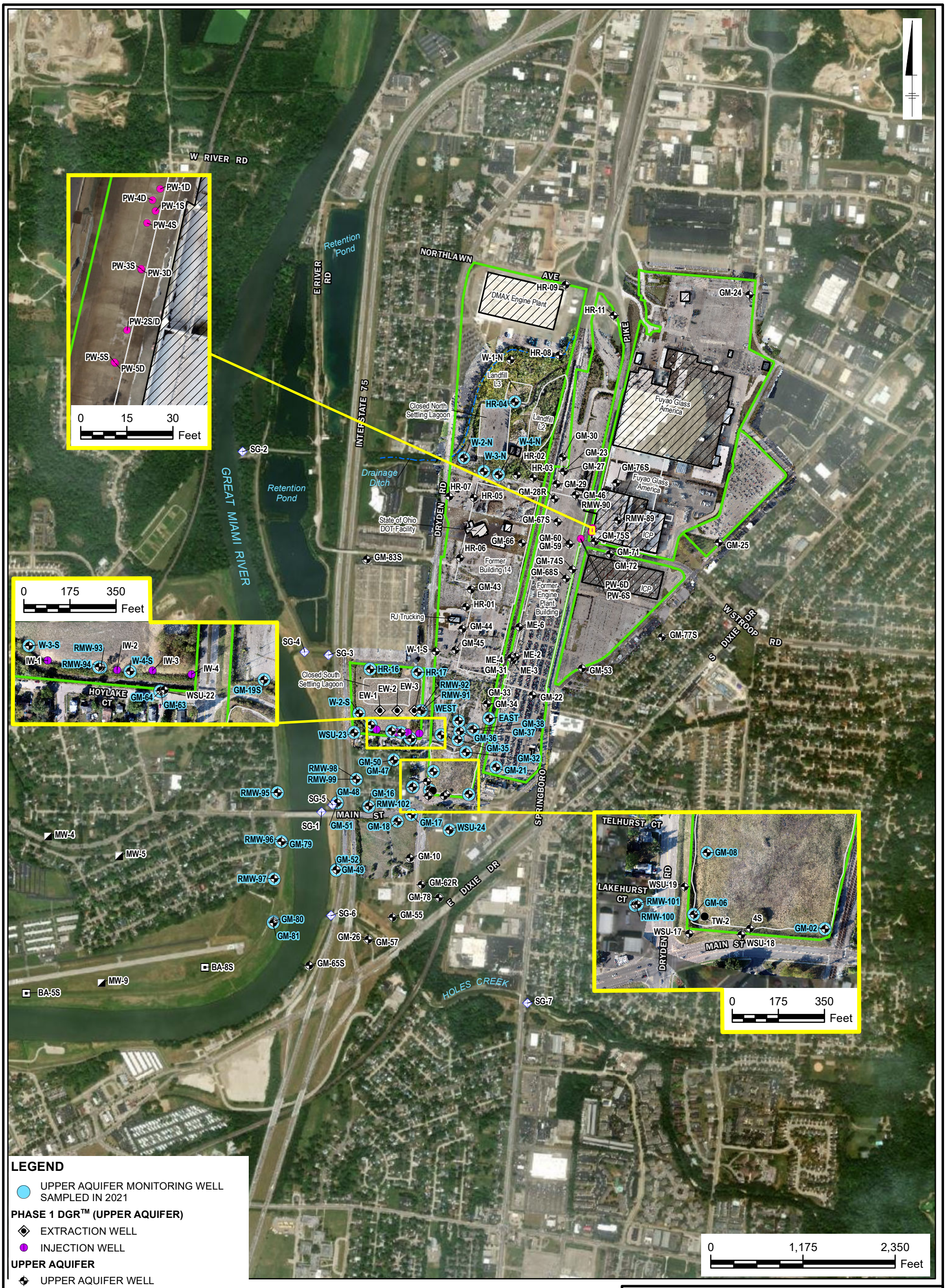
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UPPER AQUIFER REACTIVE ZONES

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FIGURE 4

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LEGEND

- UPPER AQUIFER MONITORING WELL SAMPLED IN 2021

PHASE 1 DGR™ (UPPER AQUIFER)

- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER

- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/11/2022.

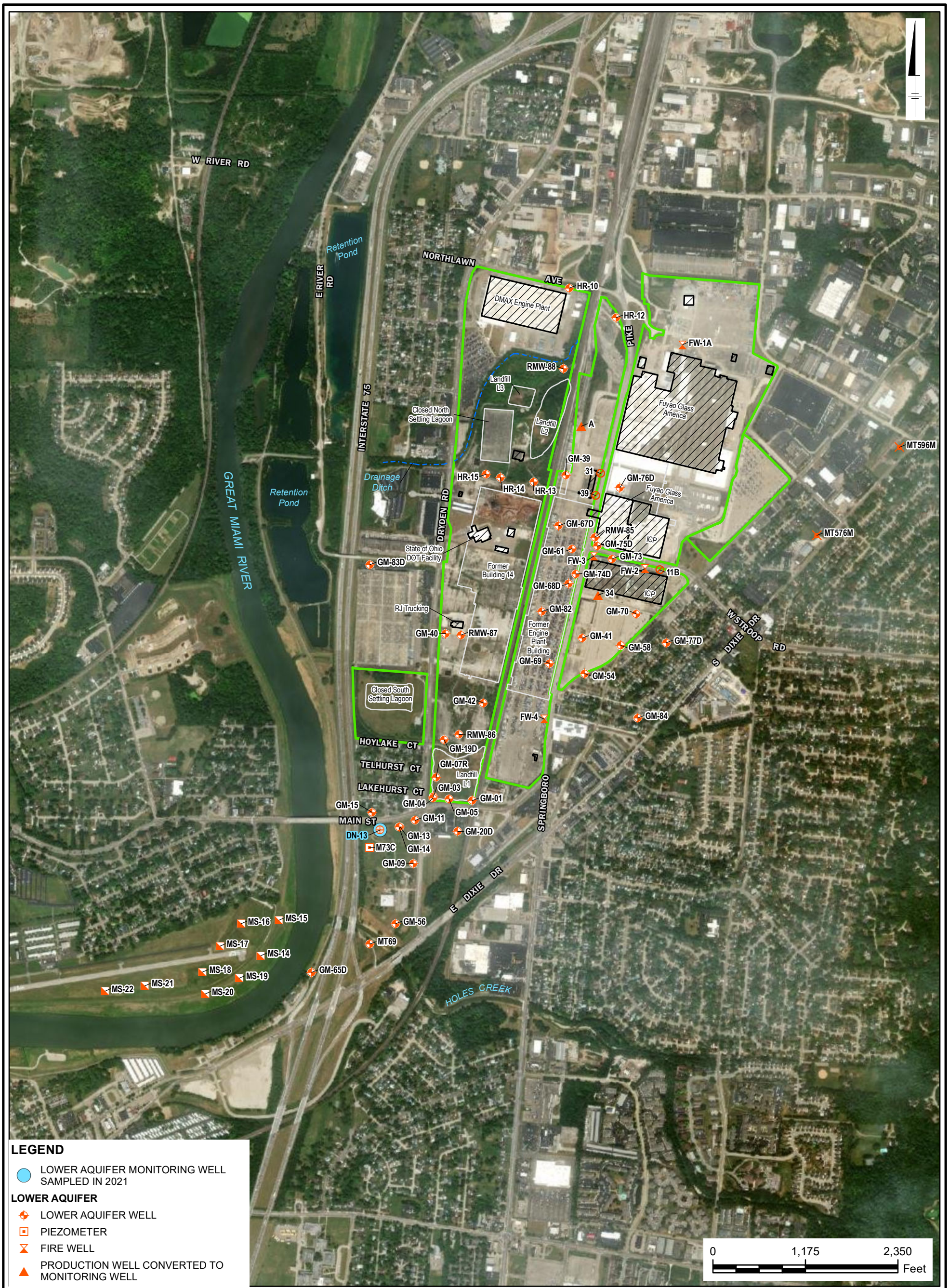
RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

UPPER AQUIFER MONITORING WELLS FOR GROUNDWATER MONITORING

ARCADIS

FIGURE 5

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_GW_MonitoringReport\Fig06_Lower Aquifer MW for GW Monitoring.mxd 1/19/2022 11:52:43 AM



LEGEND

- LOWER AQUIFER MONITORING WELL SAMPLED IN 2021

LOWER AQUIFER

- LOWER AQUIFER WELL
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (DN-13) USED BY RACER
- MONTGOMERY COUNTY WELL (INACTIVE)
- PRIVATE WELL
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/19/2022.

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MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

LOWER AQUIFER MONITORING WELLS FOR GROUNDWATER MONITORING

ARCADIS

FIGURE 6

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_SAPR\Fig07_North Settling Lagoon Upper Aquifer Potentiometric Surface Map.mxd 2/8/2022 10:10:17 AM



LEGEND

- UPPER AQUIFER WELL
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)

W-4-N — WELL IDENTIFIER
709.31 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/8/2022.
3. Groundwater elevations were measured on October 4-5, 2021.
4. AMSL = Above Mean Sea Level

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MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

CLOSED NORTH SETTLING LAGOON
UPPER AQUIFER
POTENTIOMETRIC SURFACE MAP

ARCADIS

FIGURE
7

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_SAPR\Fig08_GW Potentiometric Surface for Phase 1 DGR Area.mxd 2/9/2022 10:54:22 AM



Phase 1 DGR™ System	Average Flow Rate (gpm) (October 4-5, 2021)
EW-1	100.1
EW-2	99.9
EW-3	100.5
IW-1	50.1
IW-2	50.1
IW-3	99.9
IW-4	100.5
Total System	300.5

LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)
- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER
- UPPER AQUIFER WELL
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY
- GM-02 — WELL IDENTIFIER
- 706.88 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/9/2022.
3. Groundwater elevations were measured on October 4-5, 2021.
4. AMSL = Above Mean Sea Level
5. ( ) = not used in contouring
6. gpm = Gallons per Minute

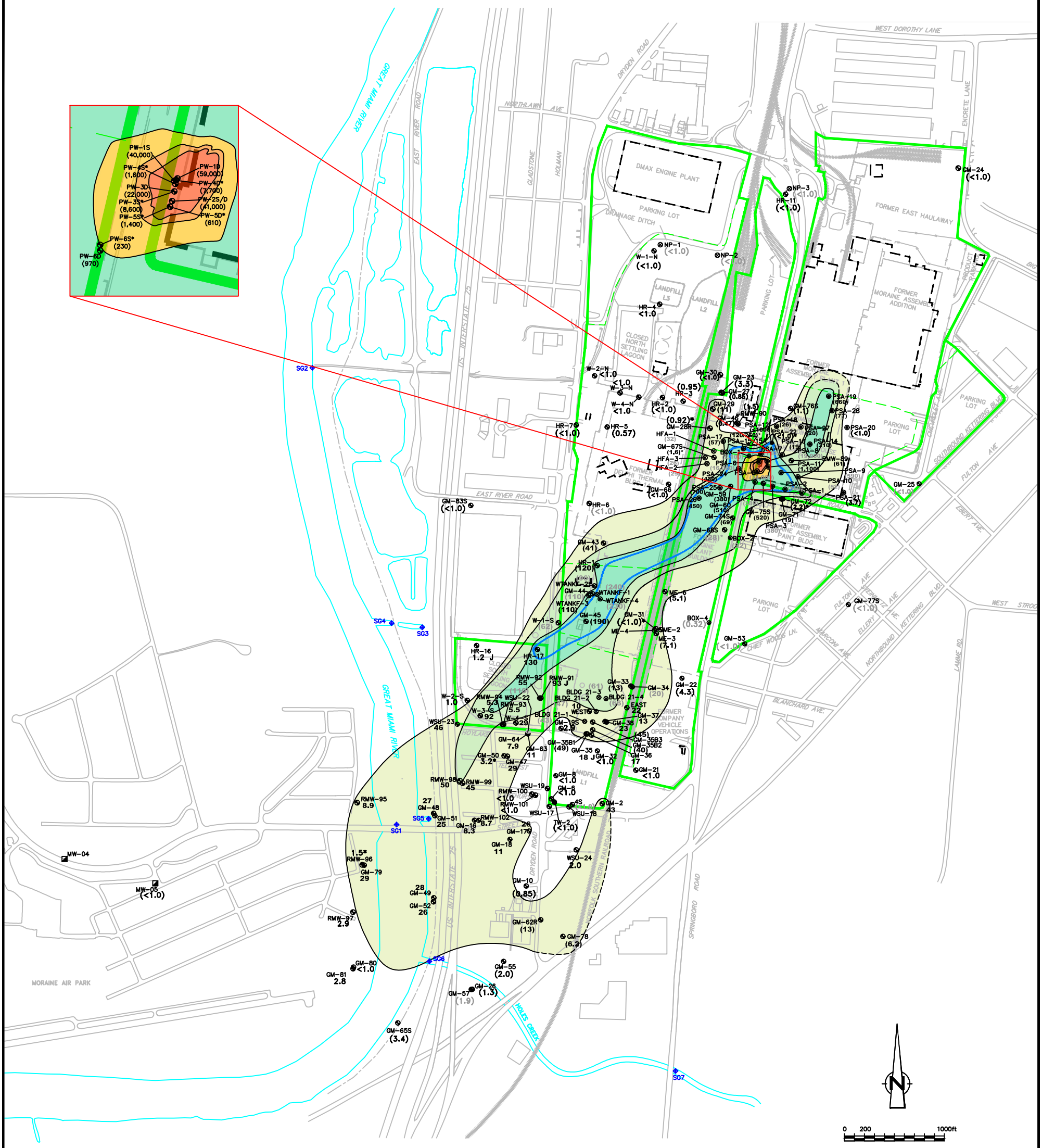
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MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

GROUNDWATER POTENTIOMETRIC SURFACE FOR PHASE 1 DGR™ AREA

ARCADIS

FIGURE 8

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\OneDrive - ARCADIS\BIM360 - OneDrive Sync Location\AUS-RACER TRUST-DRYDEN ROAD-MORAINE Ohio\2022\01-In Progress\01-DWG\GMR 2021- PLUMES-UPPER.dwg LAYOUT: UPPER PCE 2021 SAVED: 2/2/2022 8:19 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/15/2022 7:46 AM BY: SMITH, BOB



LEGEND

- MONITORING WELL (UPPER AQUIFER)
- INACTIVE EXTRACTION WELL (EW-1, EW-2, AND TW-2)
- STREAM GAUGE
- BORING LOCATION
- CITY OF MORAINE MONITORING WELL
- RIVER LEVEE
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- ug/L — MICROGRAMS PER LITER
- <1.0 — CONSTITUENT NOT DETECTED ABOVE LABORATORY LIMIT SHOWN
- MCL — MAXIMUM CONTAMINANT LEVEL
- 2.9 — 2021 CONCENTRATIONS
- (<1.0) — 2020–2013 CONCENTRATIONS
- (<1.0) — PRE–2013 CONCENTRATIONS
- **BOLD** — CONCENTRATION EXCEEDS MCL
- * — DATA NOT USED FOR CONTOURING PURPOSES
- APPROXIMATE PCE EXTENT ABOVE RESIDENTIAL VISL – 122 ug/L (BIASED TO SHALLOWER WELL CONCENTRATIONS)

- >10000 ug/L
- 5000–10000 ug/L
- 1000–5000 ug/L
- 100–1000 ug/L
- 50–100 ug/L
- 5–50 ug/L

NOTES:

1. CONCENTRATIONS POSTED REFLECT 2021 MONITORING WELL RESULTS, 2020 THROUGH 2013 MONITORING WELL RESULTS, PRE–2013 MONITORING WELL RESULTS, AND MAXIMUM CONCENTRATION FROM VERTICAL AQUIFER PROFILING FROM 2011 THROUGH 2015. THE INTERPRETATION OF THE ISOCONCENTRATION INCLUDES THE CONCEPTUAL SITE MODEL UNDERSTANDING (I.E. GROUNDWATER FLOW AND INTERIM MEASURES OPERATION).
2. WHEN SAMPLE RESULT IS NON–DETECT, HALF THE REPORTING LIMIT IS HONORED WITH THE CONTOURING.
3. RELATIVE UNDERSTANDING OF PRE–2013 CONCENTRATIONS (GRAY) WAS USED TO DEVELOP THE OVERALL PLUME GEOMETRY IN THE VICINITY OF THESE WELLS.
4. PCE VAPOR INTRUSION SCREENING LEVEL (VISL) WAS CALCULATED USING THE U.S. EPA VISL CALCULATOR AND BASED ON OHIO EPA DEFAULT GROUNDWATER TEMPERATURE OF 11°C. THE APPROXIMATE PCE GROUNDWATER CONCENTRATION EXTENT ABOVE VISL WAS INTERPRETED AND BIASED TO SHALLOWER SCREENED MONITORING WELLS OR SAMPLES.

SITE–SPECIFIC VOLATILE ORGANIC COMPOUNDS	MCL (ug/L)
1,1,1–Trichloroethane	**200**
1,1–Dichloroethane	**--**
1,1–Dichloroethene	**7**
Benzene	**5**
cis–1,2–Dichloroethene	**70**
Ethylbenzene	**700**
Tetrachloroethene	**5**
Toluene	**1000**
trans–1,2–Dichloroethene	**100**
Trichloroethene	**5**
Vinyl chloride	**2**
Xylene (total)	**10,000**

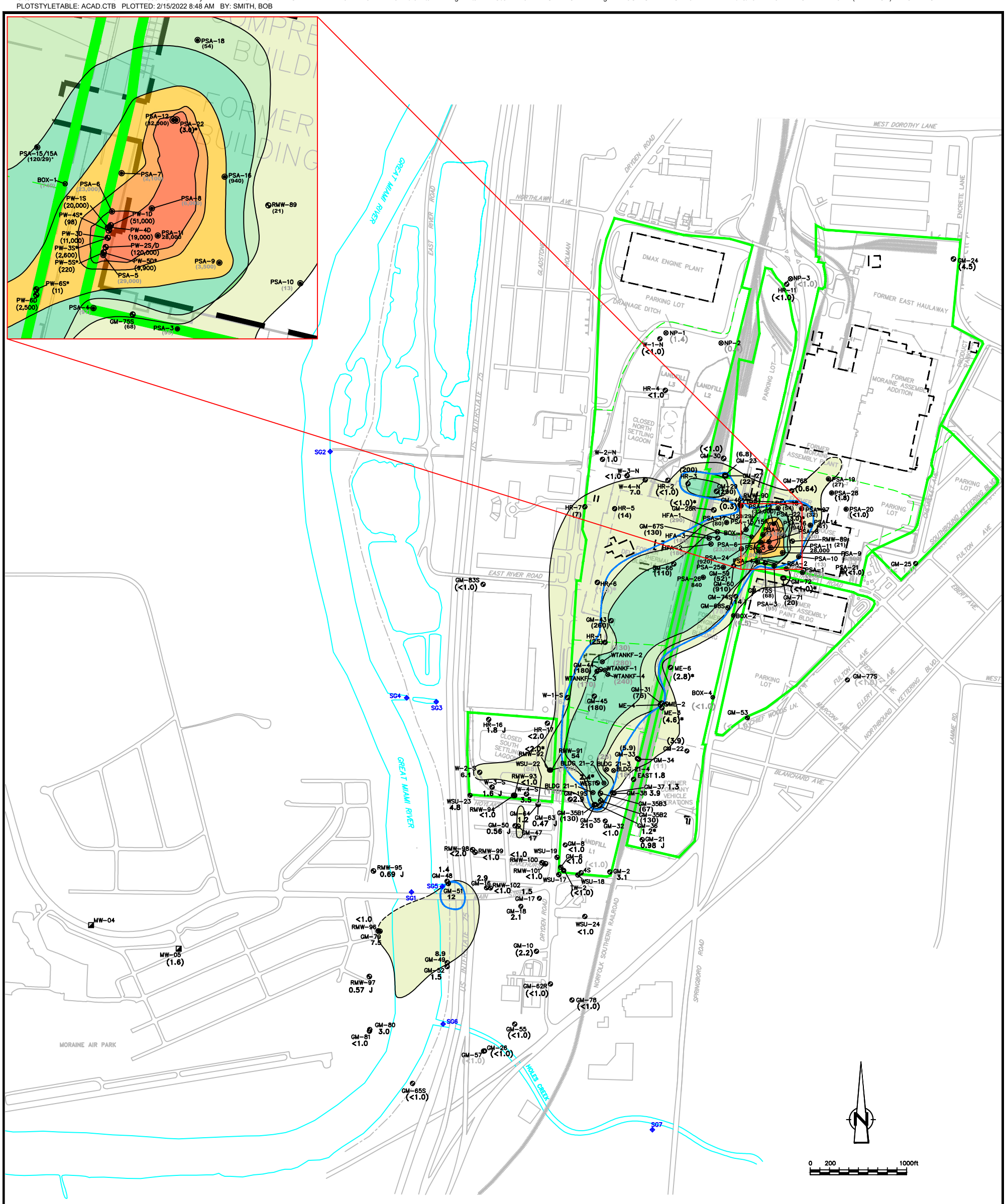
RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

ISOCONCENTRATION MAP (UPPER AQUIFER) TETRACHLOROETHENE - 2021

ARCADIS

FIGURE
9

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\OneDrive - ARCADIS\BIM360 - OneDrive Sync Location\AUS-RACER TRUST-DRYDEN ROAD-MORAINE Ohio\2022\01-In Progress\01-DWG\GMR 2021- PLUMES-UPPER.dwg LAYOUT: UPPER TCE 2021 SAVED: 2/15/2022 7:48 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/15/2022 8:48 AM BY: SMITH, BOB



LEGEND

- MONITORING WELL (UPPER AQUIFER)
- INACTIVE EXTRACTION WELL (EW-1, EW-2, AND TW-2)
- STREAM GAUGE
- BORING LOCATION
- CITY OF MORAINE MONITORING WELL
- RIVER LEVEE
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- ug/L — MICROGRAMS PER LITER
- <1.0 — CONSTITUENT NOT DETECTED ABOVE LABORATORY LIMIT SHOWN
- VISL — VAPOR INTRUSION SCREENING LEVEL
- <1.0 — 2021 CONCENTRATIONS
- (<1.0) — 2020-2013 CONCENTRATIONS
- (<1.0) — PRE-2013 CONCENTRATIONS
- **BOLD** — CONCENTRATION EXCEEDS SCREENING LEVEL
- * — DATA NOT USED FOR CONTOURING PURPOSES
- APPROXIMATE TCE EXTENT ABOVE RESIDENTIAL VISL - 9.9 ug/L (BIASED TO SHALLOWER WELL CONCENTRATIONS)

- >10000 ug/L
- 5000-10000 ug/L
- 1000-5000 ug/L
- 100-1000 ug/L
- 50-100 ug/L
- 5-50 ug/L

NOTE:

1. CONCENTRATIONS POSTED REFLECT 2021 MONITORING WELL RESULTS, 2020 THROUGH 2013 MONITORING WELL RESULTS, PRE-2013 MONITORING WELL RESULTS, AND MAXIMUM CONCENTRATION FROM VERTICAL AQUIFER PROFILING FROM 2011 THROUGH 2015. THE INTERPRETATION OF THE ISOCONCENTRATION INCLUDES THE CONCEPTUAL SITE MODEL UNDERSTANDING (I.E. GROUNDWATER FLOW AND INTERIM MEASURES OPERATION).
2. WHEN SAMPLE RESULT IS NON-DETECT, HALF THE REPORTING LIMIT IS HONORED WITH THE CONTOURING.
3. RELATIVE UNDERSTANDING OF PRE-2013 CONCENTRATIONS (GRAY) WAS USED TO DEVELOP THE OVERALL PLUME GEOMETRY IN THE VICINITY OF THESE WELLS.
4. SCREENING LEVELS BASED ON OHIO EPA GUIDANCE DOCUMENT: RECOMMENDATIONS REGARDING RESPONSE ACTION LEVELS AND TIMEFRAMES FOR COMMON CONTAMINANTS OF CONCERN AT VAPOR INTRUSION SITES IN OHIO - AUGUST 2016. ASSUMES SANDY SOILS. SAME EXPOSURE PARAMETERS AS THE U.S. EPA VALUES; HOWEVER OHIO GUIDANCE INCORPORATES OLDER TOXICITY DATA.
5. TCE VAPOR INTRUSION SCREENING LEVEL (VISL) WAS CALCULATED USING THE U.S. EPA VISL CALCULATOR AND BASED ON THE OHIO EPA DEFAULT GROUNDWATER TEMPERATURE OF 11°C. THE APPROXIMATE TCE GROUNDWATER CONCENTRATION EXTENT ABOVE VISL WAS INTERPRETED AND BIASED TO SHALLOWER SCREENED MONITORING WELLS OR SAMPLES.

SITE-SPECIFIC VOLATILE ORGANIC COMPOUNDS	MCL (ug/L)
1,1,1-Trichloroethane	**200**
1,1-Dichloroethane	**--**
1,1-Dichloroethene	**7**
Benzene	**5**
cis-1,2-Dichloroethene	**70**
Ethylbenzene	**700**
Tetrachloroethene	**5**
Toluene	**1000**
trans-1,2-Dichloroethene	**100**
Trichloroethene	**5**
Vinyl chloride	**2**
Xylene (total)	**10,000**

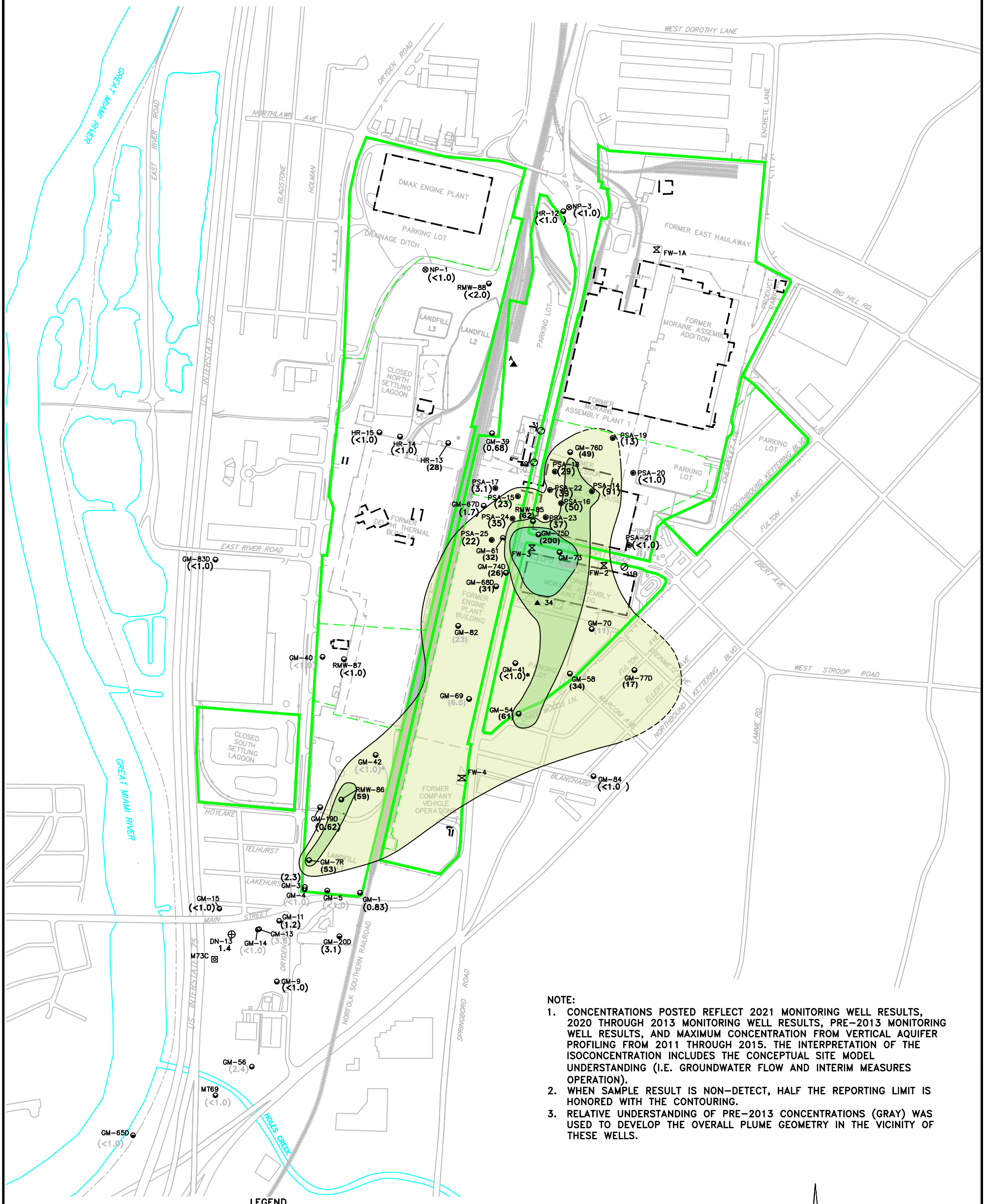
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MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

ISOCONCENTRATION MAP (UPPER AQUIFER) TRICHLOROETHENE - 2021

ARCADIS

FIGURE
10

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\OneDrive - ARCADIS\BIM360 - OneDrive Sync Location\AUS-RACER TRUST-DRYDEN ROAD-MORAINE Ohio\2022\01-In Progress\01-DWG\GMR 2021-PLUMES-LOWER.dwg LAYOUT: PCE 2021 SAVED: 2/1/2022 1:09 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/1/2022 1:16 PM BY: SMITH, BOB



NOTE:
1. CONCENTRATIONS POSTED REFLECT 2021 MONITORING WELL RESULTS, 2020 THROUGH 2013 MONITORING WELL RESULTS, PRE–2013 MONITORING WELL RESULTS, AND MAXIMUM CONCENTRATION FROM VERTICAL AQUIFER PROFILING FROM 2011 THROUGH 2015. THE INTERPRETATION OF THE ISOCONCENTRATION INCLUDES THE CONCEPTUAL SITE MODEL UNDERSTANDING (I.E. GROUNDWATER FLOW AND INTERIM MEASURES OPERATION).
2. WHEN SAMPLE RESULT IS NON–DETECT, HALF THE REPORTING LIMIT IS HONORED WITH THE CONTOURING.
3. RELATIVE UNDERSTANDING OF PRE–2013 CONCENTRATIONS (GRAY) WAS USED TO DEVELOP THE OVERALL PLUME GEOMETRY IN THE VICINITY OF THESE WELLS.

LEGEND

- MONITORING WELL (LOWER AQUIFER)
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL (A, 34)
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (USED BY RACER TRUST AS A LOWER AQUIFER RECOVERY WELL)
- BORING LOCATION
- PRIVATE WELL
- RIVER LEVEE
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- <1.0 CONSTITUENT NOT DETECTED ABOVE LABORATORY LIMIT SHOWN
- ug/L MICROGRAMS PER LITER
- >100 ug/L
- 50–100 ug/L
- 5–50 ug/L

MCL	MAXIMUM CONTAMINANT LEVEL
<1.0	2021 CONCENTRATIONS
(<1.0)	2020–2013 CONCENTRATIONS
(<1.0)	PRE–2013 CONCENTRATIONS
BOLD	CONCENTRATION EXCEEDS MCL
*	DATA NOT USED FOR CONTOURING PURPOSES

SITE–SPECIFIC VOLATILE ORGANIC COMPOUNDS	MCL (ug/L)
1,1,1–Trichloroethane	**200**
1,1–Dichloroethane	**--**
1,1–Dichloroethene	**7**
Benzene	**5**
cis–1,2–Dichloroethene	**70**
Ethylbenzene	**700**
Tetrachloroethene	**5**
Toluene	**1000**
trans–1,2–Dichloroethene	**100**
Trichloroethene	**5**
Vinyl chloride	**2**
Xylene (total)	**10,000**

N

0 100 850ft

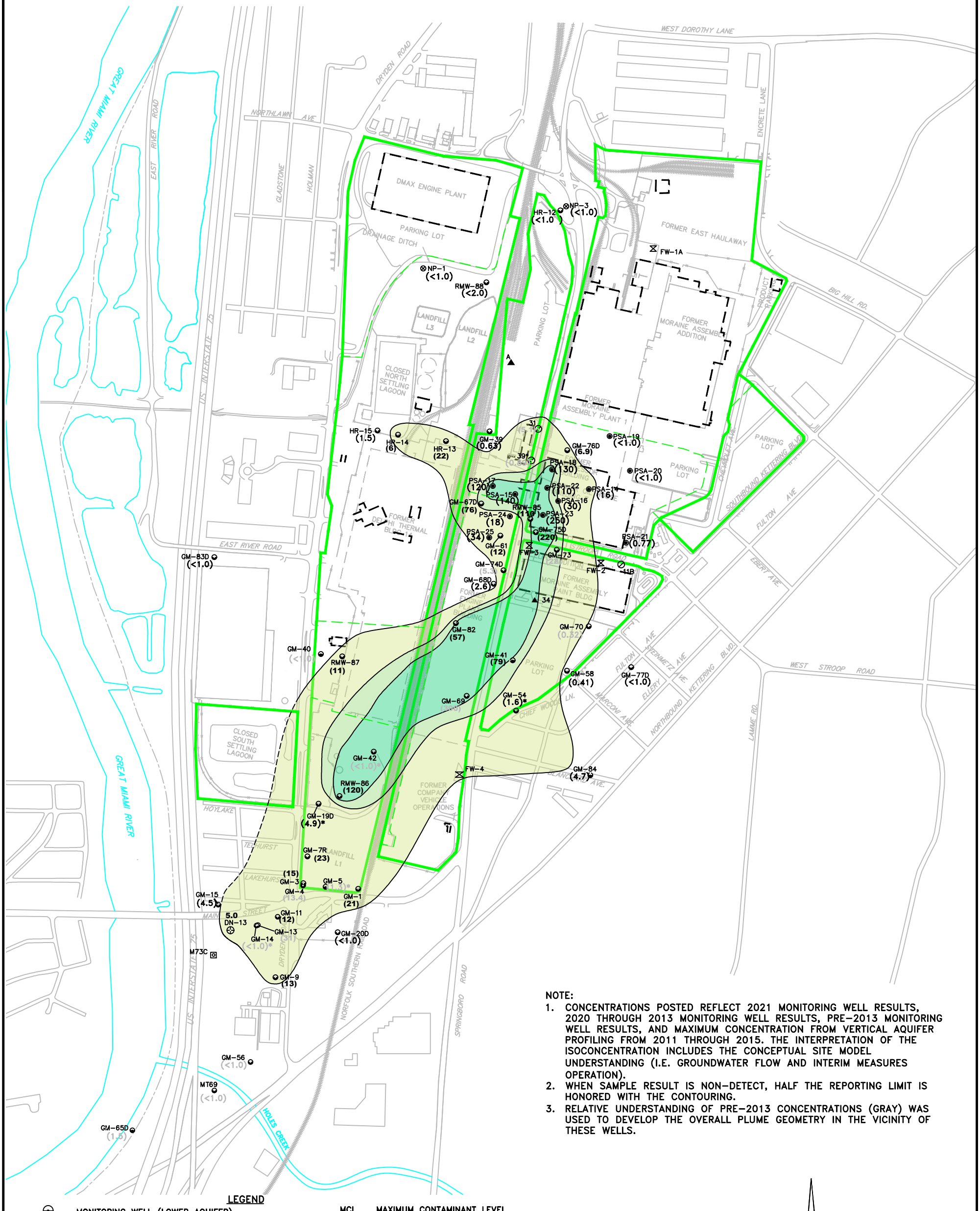
RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

ISOCONCENTRATION MAP (LOWER AQUIFER) TETRACHLOROETHENE - 2021

ARCADIS

FIGURE 11

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
C:\Users\bsmith\OneDrive - ARCADIS\BIM360 - OneDrive Sync Location\AUS-RACER TRUST-DRYDEN ROAD-MORAINE Ohio\2022\01-In Progress\01-DWG\GMR 2021-PLUMES-LOWER.dwg LAYOUT: TCE 2021 SAVED: 2/1/2022 1:09 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/1/2022 1:15 PM BY: SMITH, BOB



NOTE:
1. CONCENTRATIONS POSTED REFLECT 2021 MONITORING WELL RESULTS, 2020 THROUGH 2013 MONITORING WELL RESULTS, PRE-2013 MONITORING WELL RESULTS, AND MAXIMUM CONCENTRATION FROM VERTICAL AQUIFER PROFILING FROM 2011 THROUGH 2015. THE INTERPRETATION OF THE ISOCONCENTRATION INCLUDES THE CONCEPTUAL SITE MODEL UNDERSTANDING (I.E. GROUNDWATER FLOW AND INTERIM MEASURES OPERATION).
2. WHEN SAMPLE RESULT IS NON-DETECT, HALF THE REPORTING LIMIT IS HONORED WITH THE CONTOURING.
3. RELATIVE UNDERSTANDING OF PRE-2013 CONCENTRATIONS (GRAY) WAS USED TO DEVELOP THE OVERALL PLUME GEOMETRY IN THE VICINITY OF THESE WELLS.

LEGEND

- MONITORING WELL (LOWER AQUIFER)
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL (A, 34)
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (USED BY RACER TRUST AS A LOWER AQUIFER RECOVERY WELL)
- BORING LOCATION
- PRIVATE WELL
- RIVER LEVEE
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- <1.0 CONSTITUENT NOT DETECTED ABOVE LABORATORY LIMIT SHOWN
- ug/L MICROGRAMS PER LITER
- >100 ug/L
- 50-100 ug/L
- 5-50 ug/L

MCL	MAXIMUM CONTAMINANT LEVEL
<1.0	2021 CONCENTRATIONS
(<1.0)	2020-2013 CONCENTRATIONS
(<1.0)	PRE-2013 CONCENTRATIONS
BOLD	CONCENTRATION EXCEEDS MCL
*	DATA NOT USED FOR CONTOURING PURPOSES

SITE-SPECIFIC VOLATILE ORGANIC COMPOUNDS	MCL (ug/L)
1,1,1-Trichloroethane	**200**
1,1-Dichloroethane	--
1,1-Dichloroethene	**7**
Benzene	**5**
cis-1,2-Dichloroethene	**70**
Ethylbenzene	**700**
Tetrachloroethene	**5**
Toluene	**1000**
trans-1,2-Dichloroethene	**100**
Trichloroethene	**5**
Vinyl chloride	**2**
Xylene (total)	**10,000**

0 100 850ft

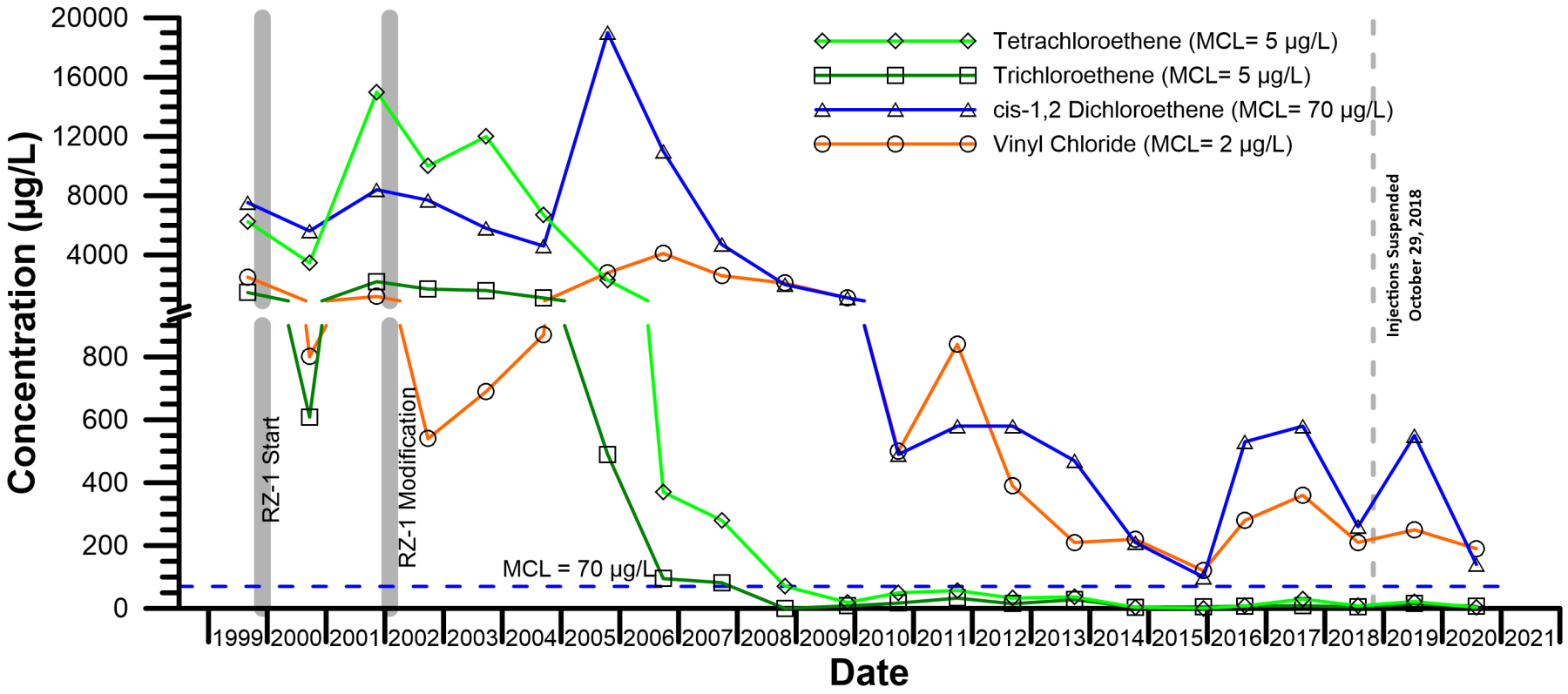
RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

ISOCONCENTRATION MAP (LOWER AQUIFER) TRICHLOROETHENE - 2021

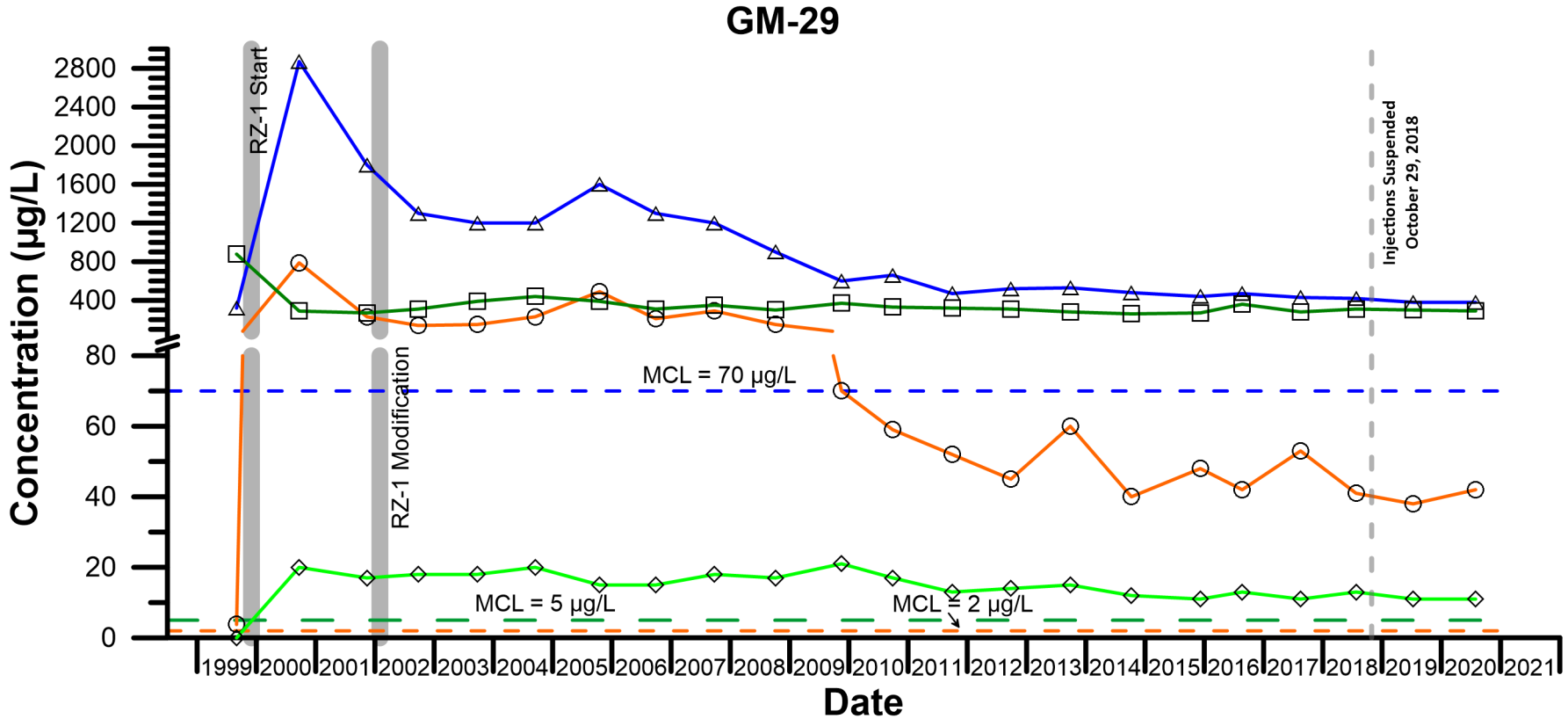
ARCADIS

FIGURE
12

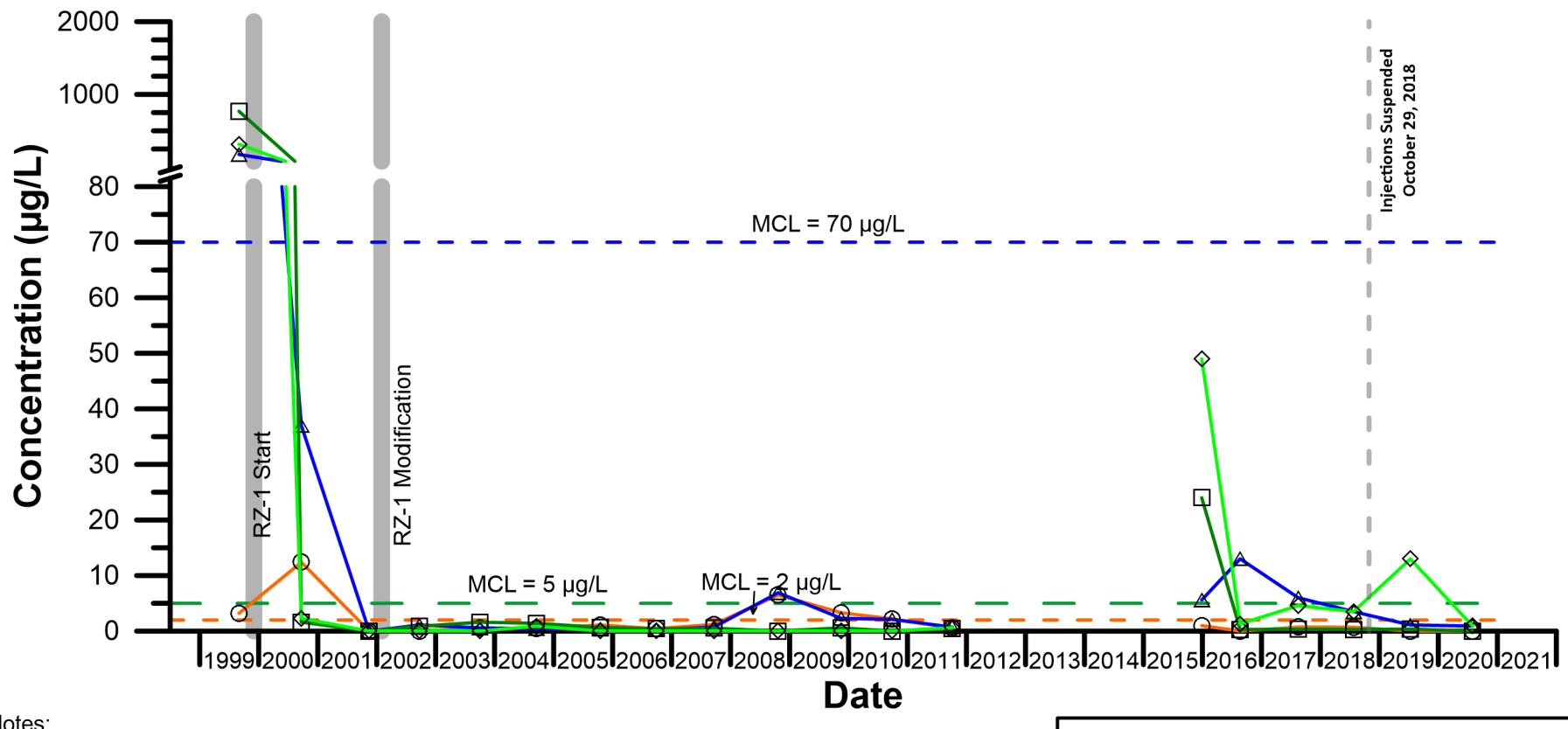
GM-23



GM-29



GM-28[1]



Notes:
MCL = Maximum Contaminant Level
µg/L = micrograms per liter

1 - Performance monitoring well GM-28 was not sampled in 2012 through 2015 due to an obstruction in the well. Monitoring well GM-28R was installed in 2015 as a replacement for GM-28.

Carbon source introductions were not completed in 2021 in IRZ-1.

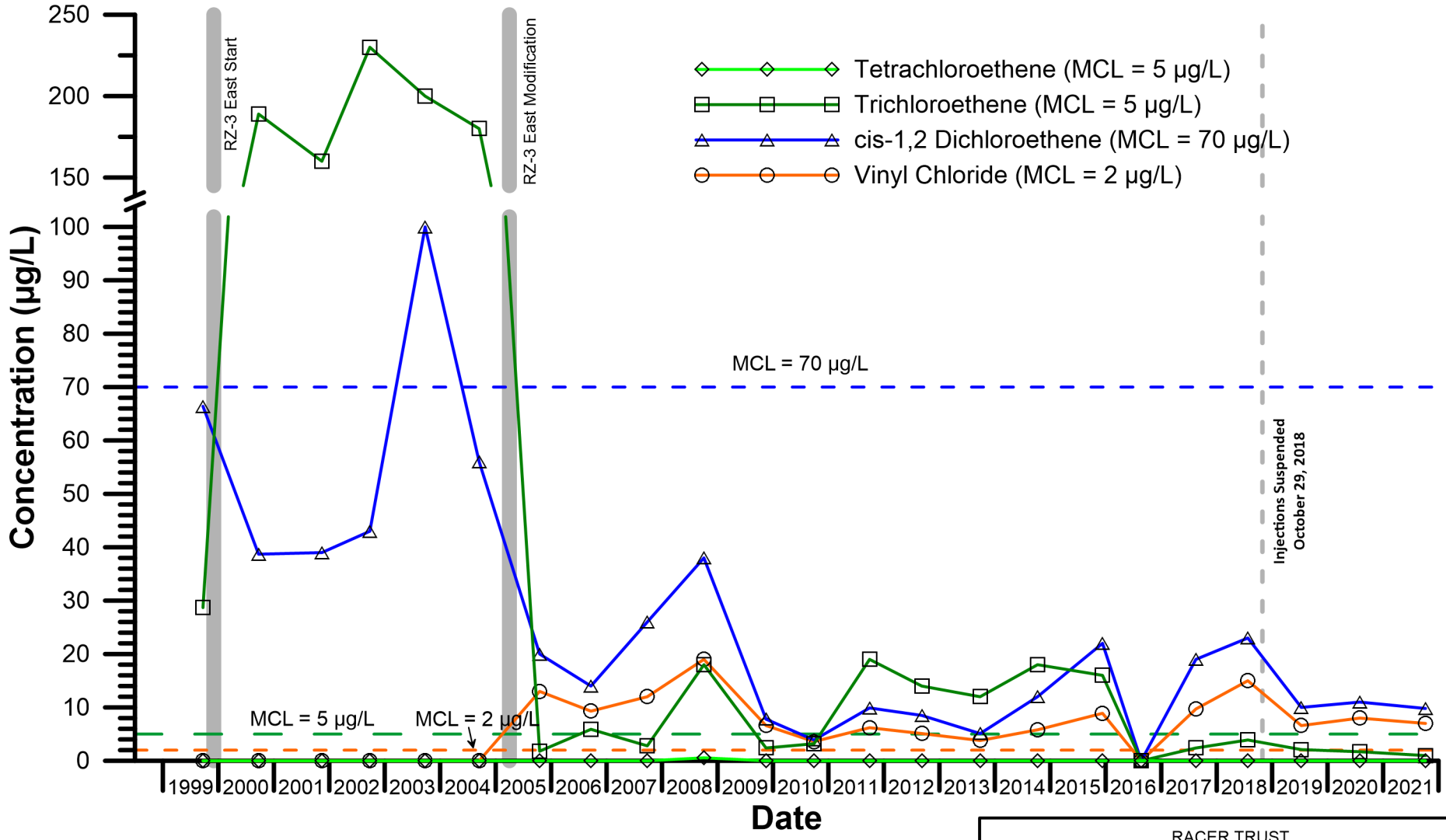
Groundwater samples were not collected from IRZ-1 Area Monitoring Wells in 2021.

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IRZ-1 AREA GROUNDWATER CONCENTRATION GRAPHS

ARCADIS

FIGURE
13



Notes:
MCL = Maximum Contaminant Level
µg/L = micrograms per liter

Carbon source introductions were not completed in 2021 in IRZ-3 East.

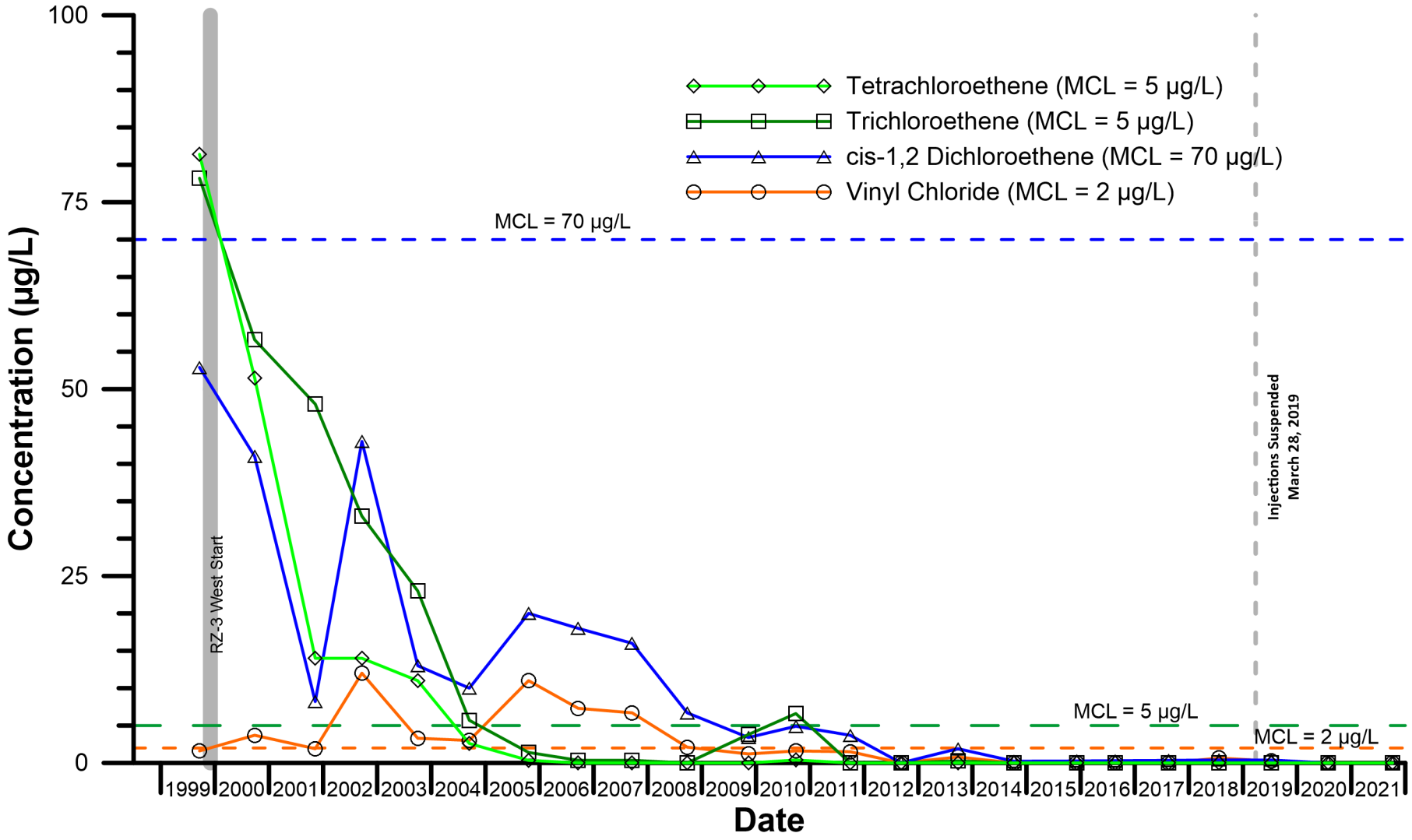
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IRZ-3 EAST AREA GROUNDWATER CONCENTRATION GRAPH

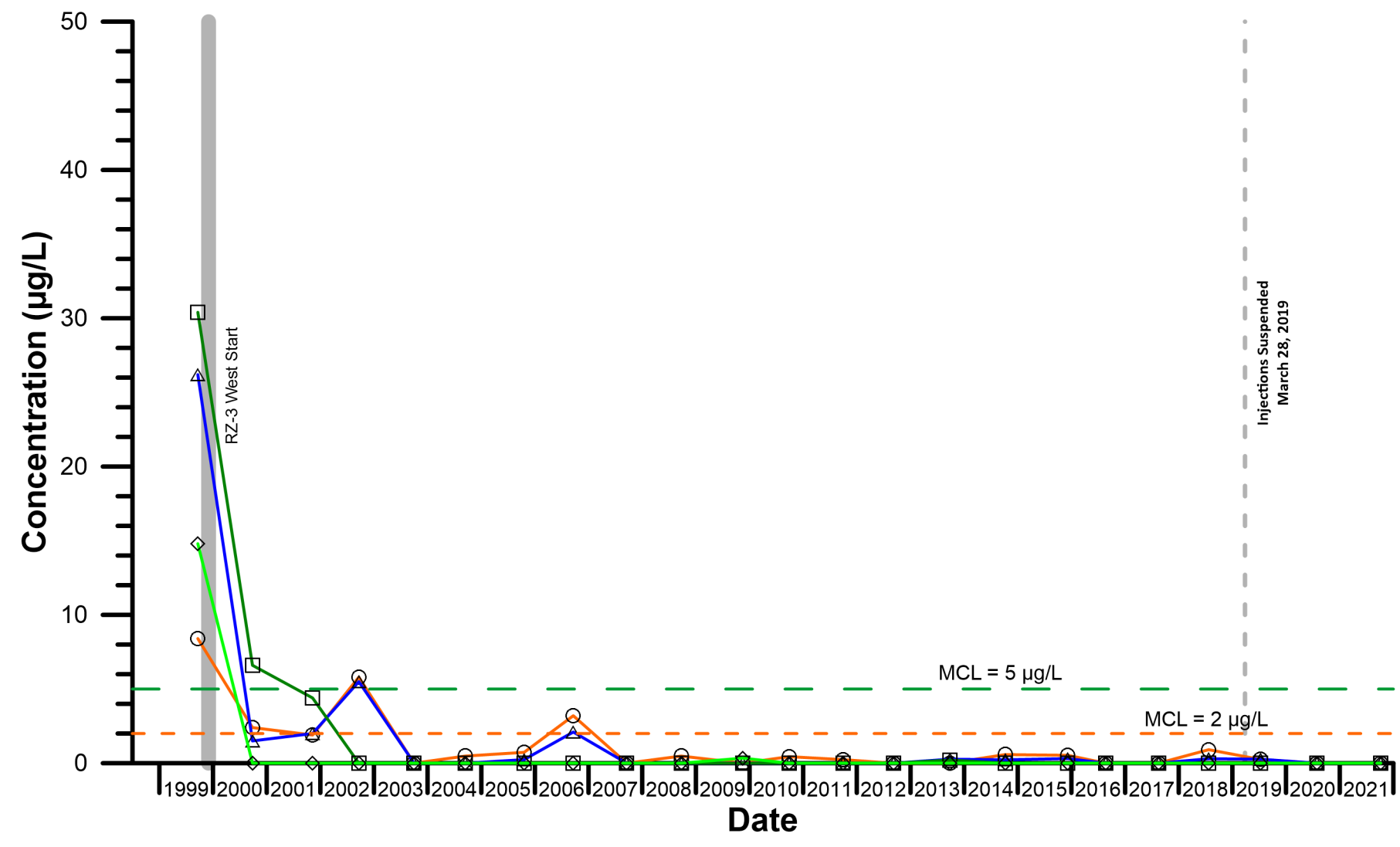
ARCADIS

FIGURE
14

GM-6



GM-8



MCL = Maximum Contaminant Level
µg/L = micrograms per liter

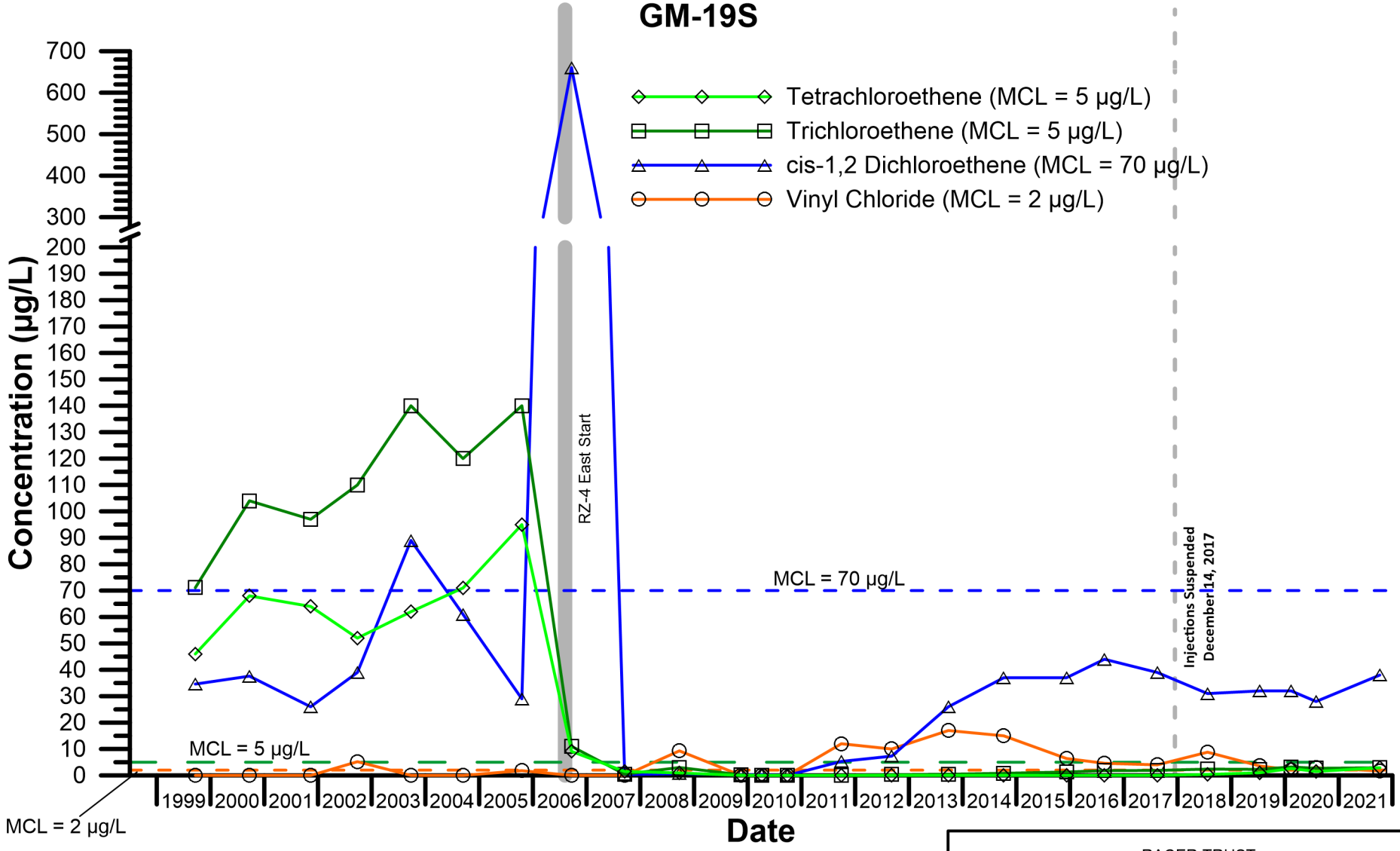
Carbon source introductions were not completed in 2021 in IRZ-3 West.

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2021 Groundwater Monitoring Report

IRZ-3 WEST AREA GROUNDWATER CONCENTRATION GRAPHS

ARCADIS

FIGURE
15



Notes:
MCL = Maximum Contaminant Level
µg/L = micrograms per liter

Carbon source introductions were not completed in 2021 in IRZ-4 East.

RACER TRUST
MORAINE, OHIO
2021 Groundwater Monitoring Report

IRZ-4 EAST AREA GROUNDWATER CONCENTRATION GRAPH

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FIGURE
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Created By: jchen Last Saved By: jchen Charts inserted in Fig17_Phase1DGR-PCE_TCE_ConcentrationTrends in GW.ai
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_GW_MonitoringReport\Fig17_Phase1 DGR PCE and TCE Conc Trends in GW.mxd 2/11/2022 9:23:23 AM



LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)

- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER

- UPPER AQUIFER WELL
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

- TCE CONCENTRATION
- PCE CONCENTRATION
- TCE VISL (9.9 µg/L)
- PCE VISL (122 µg/L)

PCE = Tetrachloroethene
TCE = Trichloroethene
µg/L = Micrograms per Liter
EPA = Environmental Protection Agency
VISL = Vapor Intrusion Screening Level
UA = Upper Aquifer
WT = Water Table
TT = Top of Till (Regional Clay Till)

0 300 600 Feet

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/11/2022.
3. Screening Levels are calculated using U.S. EPA VISL calculator and based on average groundwater temperature of 11°C.

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MORAINE, OHIO

2021 GROUNDWATER MONITORING REPORT

PHASE 1 DGR™ - PCE AND TCE CONCENTRATION TRENDS IN GROUNDWATER

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FIGURE
17

Appendix A

In-Situ Reactive Zones Performance Results

Appendix A

In-Situ Reactive Zones
Performance Results

Reactive Zone Monitoring

As detailed in the 2021 Groundwater Monitoring Report (Report), the enhanced reductive dechlorination (ERD) process, using molasses as the carbon source, was implemented at the Site from 1999 through the first quarter of 2019. ERD was implemented at in-situ reactive zones (IRZ) IRZ-1, IRZ-2, IRZ-3 East, IRZ-3 West, and IRZ-4 East, to address diffuse site-specific volatile organic compound (VOC) impacts at and downgradient of the former Oil House Area. The IRZs are shown on Figure 4 of the Report.

The injection frequency at the different reactive zones has been modified based on site-specific VOC concentrations and the organic carbon degradation trend. In 2018, injections were implemented on a quarterly basis. This frequency was continued in the first quarter of 2019 at IRZ-3 West only. The 2018 Groundwater Monitoring Report (Arcadis 2019) recommended that active injections be suspended on an interim basis to allow for monitoring of rebound and to prepare groundwater conditions for the operation of the Phase 1 Dynamic Groundwater Recirculation (DGR™) interim measure (discussed in the Report and Appendix G). On May 20, 2019, the United States Environmental Protection Agency (U.S. EPA) approved suspension of the injections. Carbon source solution injections have not been completed since the first quarter of 2019. Monitoring to evaluate the need for additional injections is ongoing.

Monitoring of the reactive zones was completed through the collection of field parameter measurements and laboratory analyses of biogeochemical indicator parameters and VOCs, according to the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002) and as modified in subsequent annual monitoring reports. Field parameter measurements included: pH, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and temperature. Biogeochemical parameters, collected at select monitoring wells, included manganese (total and dissolved), iron (total and dissolved), sulfate, sulfide, total organic carbon (TOC), chlorides, light hydrocarbons (ethane and ethene), and methane. In 2020 and 2021, the biogeochemical list was focused and reduced to TOC, ethane, ethene, and methane. The monitored site-specific VOCs included: benzene, toluene, ethylbenzene, xylenes, tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE).

The VOC data collected from the IRZ monitoring wells are presented in **Tables A-1** through **A-4** of this appendix. The bioattenuation parameter data (ethane, ethene, and methane) collected from the IRZ monitoring wells are presented in **Tables A-5** through **A-8**. An evaluation of pertinent monitoring data is presented in the following sections.

The monitoring data highlighted above can be broadly categorized as: (i) “primary” operational monitoring data, which tracks the actual operation of the remediation system and determines whether the operation is proceeding as planned, and (ii) “secondary” operational monitoring data, which assists in any necessary troubleshooting of the system. The secondary data becomes important if degradation of the VOCs is not proceeding as expected, and the cause cannot be

determined from the primary operational monitoring data. The primary operational monitoring data includes pH, TOC, VOCs, ethene, ethane, and methane. Secondary operational monitoring data included dissolved manganese, dissolved iron, sulfate, and ORP. Only ORP is provided in 2021 and going forward as other parameters have been reduced. The primary operational data for select IRZ monitoring wells is discussed below in relation to the suspension of injections in 2019 and presented graphically on **Figures A-1** through **A-3**.

Locations of the performance monitoring wells relative to each reactive zone are shown on Figure 4 of the Report. The following wells are used for performance monitoring of the IRZs.

- At IRZ-1, monitoring wells GM-23, GM-28R, and GM-29 are used for performance monitoring. GM-23 and GM-29 are located within the area of IRZ-1 expansion wells. GM-28, located downgradient of the original IRZ-1 transect, was formerly used for performance monitoring; however, it is no longer sampled due to an obstruction in the well. Replacement well GM-28R was installed in 2015 and is used for performance monitoring. In 2021, performance monitoring was not completed for IRZ-1 as this area is located well within the boundaries of the Site, has had a long history of sampling data analysis, and concentrations of site-specific VOCs appear to be consistent from year to year.
- At IRZ-3 West, monitoring well GM-32, which is within the injection zone due to its location being constrained by the proximity of Landfill L1, is designated as the downgradient monitoring well. Monitoring well GM-32 is typically only analyzed for TOC, as this well is in the early stages of the reactive zone due to its proximity to the introduction wells. However, in 2021 monitoring well GM-32 was sampled for VOCs since injections were suspended in 2019. Monitoring well GM-8, located further downgradient, is utilized to monitor the performance of IRZ-3 West. Additionally, downgradient well GM-6 was also utilized to confirm concentrations in the area.
- For IRZ-3 East, monitoring well GM-21 is designated as the downgradient monitoring well. Additional monitoring downgradient at monitoring well GM-2 is also completed. GM-17 and WSU-24 were utilized to further characterize the concentrations of PCE observed at GM-2 in 2020.
- For IRZ-4 East, monitoring well GM-19S is designated as the downgradient monitoring well.

Analysis of Primary Operational Monitoring Data

The primary operational data are comprised of a limited number of analytes that are monitored at a frequency necessary to supply the information required for the operation of the remediation system. The entire data set is presented in **Tables A-1** through **A-8**. **Figures A-1** through **A-3** present the primary operational data (pH, TOC, methane, VOCs, ethane, and ethene) graphically for downgradient monitoring wells used for monitoring the effectiveness of each of the IRZs (GM-23, GM-29, GM-28R, GM-8, GM-21, and GM-19S). The graphs are organized to allow a simple comparison of the trends in each monitoring well for pH, TOC, methane, VOCs, ethene, ethane, and total parent-daughter compound molarity. A discussion of the primary operational data is provided below.

pH

The preferred pH range for reductive dechlorination is between 6 and 8 standard units (s.u.), and the acceptable pH range extends from 5 to 9 s.u. The pH measurements collected in 2021 from performance monitoring wells were within the acceptable pH range.

Total Organic Carbon and Anaerobic Indicator Parameters

TOC values detected in the performance monitoring wells downgradient of the injection wells are generally similar to background concentrations or decreasing, which is expected for wells located downgradient of the suspended injection line. However, detectable concentrations of methane throughout the downgradient well network for each reactive zone demonstrates that background electron acceptors are being utilized enough to sustain highly anaerobic conditions. **Figures A-1** through **A-3** provide trend graphs of historic concentrations in the performance monitoring wells.

VOC Analytical Results

The groundwater analytical data for the site-specific list of VOCs are presented in **Table A-1** for IRZ-1, **Table A-2** for IRZ-3 West, **Table A-3** for IRZ-3 East, and **Table A-4** for IRZ-4 East. Additionally, the degradation of PCE and TCE (parent compounds) to cis-1,2-DCE, vinyl chloride (daughter products), and ethene and ethane (end products) are provided with the pH, TOC, and methane data for performance monitoring wells associated with IRZ-1 (GM-23, GM-29, and GM-28R; **Figure A-1**), IRZ-3 East/West (GM-21 and GM-8; **Figure A-2**), and IRZ-4 East (GM-19S **Figure A-3**). The figures also show a comparison of degradation end-products ethane and ethene to VOCs per performance well based on molar weight equivalence. For IRZ-3 West, GM-32 was included for sampling of site-specific list of VOCs from 2019 to 2021, but not included in the figures. The site-specific VOC concentrations at GM-32 have been non-detect or below reporting limits for over ten years. For IRZ-3 East, GM-17 and WSU-24 were sampled for site-specific VOCs in 2021 but were not included in the figures as these wells are only sampled periodically for the purpose of confirming that GM-2 increases are isolated, therefore trend analysis is not needed.

Site-specific VOC concentrations in performance monitoring wells downgradient of the injection wells are generally consistent with or less than average concentrations detected over the previous five years. Concentrations of parent compounds (PCE and TCE) are lower at all monitoring wells relative to baseline concentrations and the compounds currently detected at those monitoring wells are primarily biodegradation end products (ethane and ethene) with some continued detections of intermediate biodegradation daughter products (cis-1,2-DCE and vinyl chloride). To date, there has been no indication of rebound of VOC compounds following the injection suspension in the first quarter of 2019. The groundwater concentration data suggests decreasing concentrations of TCE with other site-specific VOC concentrations that are low or non-detect.

An exception in the site-specific VOC concentrations consistency downgradient of the injection wells is at monitoring wells GM-2 and GM-17, located further downgradient of IRZ-3 East. The monitoring well results indicate increasing concentrations of PCE over the past 5 years, and concentrations are currently at 43 micrograms per liter (µg/L) and 26 µg/L in monitoring wells GM-2 and GM-17, respectively. TCE was detected in these wells at concentrations of 3.1 µg/L and 1.5 µg/L, respectively. Note that these PCE and TCE concentrations are below the residential Vapor Intrusion Screening Levels (VISLs) for groundwater of 122 µg/L and 9.9 µg/L, respectively, and the TCE concentrations are also below the Maximum Contaminant Level (MCL) of 5 µg/L. At WSU-24, located further downgradient of GM-2 and GM-17, the PCE concentration was 2.0 µg/L, and TCE was not detected. Daughter products were all non-detect in 2021. Additional monitoring will be completed to further evaluate trends, assess the biodegradation in the downgradient area, and evaluate the need for additional injection events.

Conclusions

The following observations and conclusions can be made:

- Upper aquifer conditions were strongly reducing within and downgradient of the IRZs due to the previous injections of a carbon source (i.e., molasses), as evidenced by the presence of dissolved phase methane.
- The target compounds (PCE and TCE) were largely reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data.
- No significant changes in anaerobic conditions (e.g., the concentration of methane) or treatment effectiveness (e.g., sustained reductions in site-specific VOC concentrations with the observation of elevated concentrations of ethene and/or ethane) were observed as a result of the suspension of injections after the first quarter of 2019.

The 2022 in-situ reactive zone performance monitoring program is recommended to be reduced for IRZ-3 East, IRZ-3 West, and IRZ-4 East, with the focus on immediate downgradient monitoring wells (GM-19S, GM-21, and GM-32) and downgradient property boundary on-site monitoring well with increasing concentrations (GM-2). With the long history of sampling data analysis from 1999 to 2020, the need for additional confirmation sampling at IRZ-1 will be assessed at 5 years in 2025.

The frequency of monitoring events will be on an annual basis for IRZ-3 East, IRZ-3 West, and IRZ-4 West. The data will be reviewed to determine if there is a significant rebound in site-specific VOC concentrations. If warranted, the IRZ program may be resumed. If the overall changes to the site-specific VOC data indicate an immaterial effect on the diffuse groundwater plume system design, the IRZ program will remain suspended.

Appendix A

In-Situ Reactive Zones
Performance Results

References

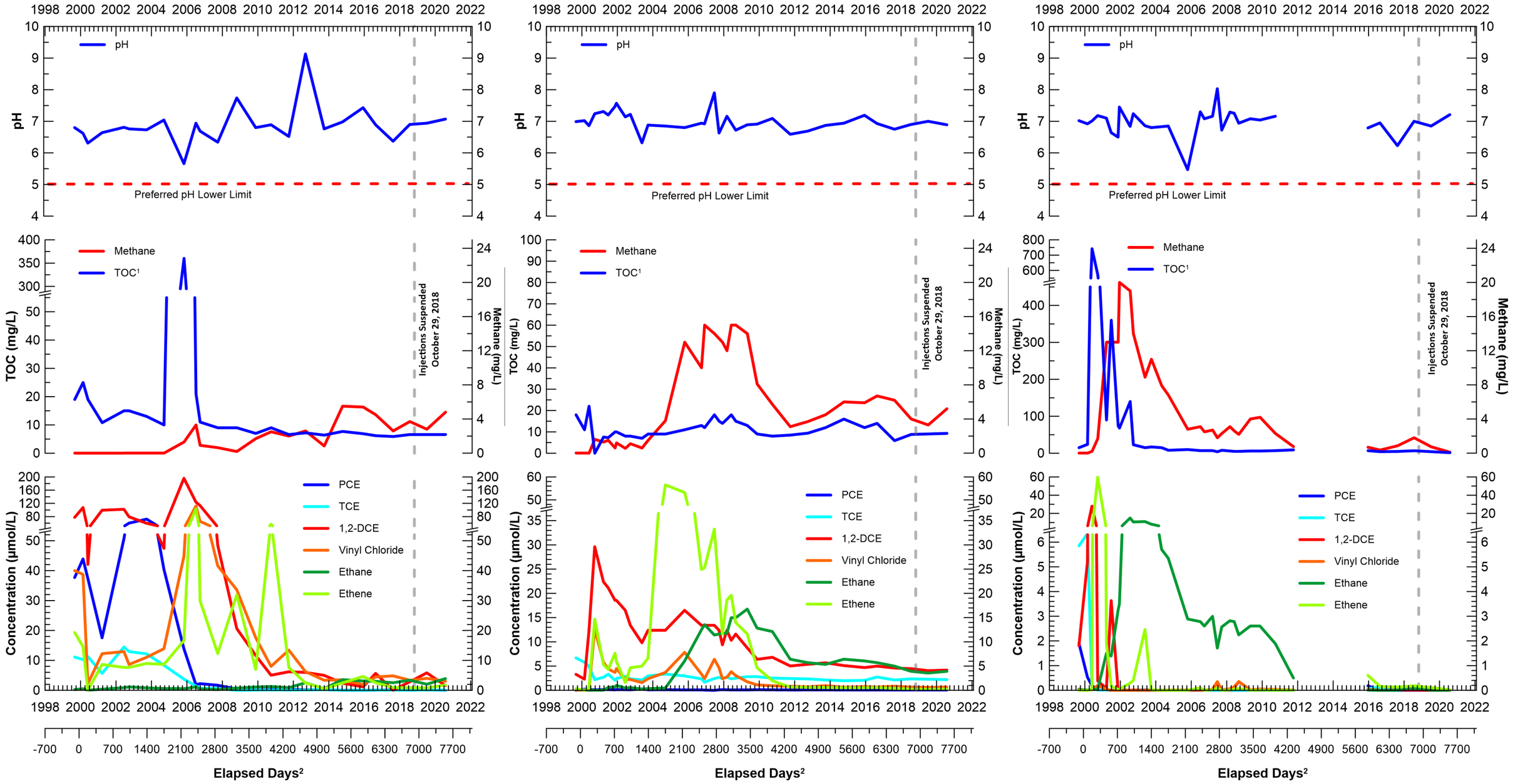
Arcadis Geraghty & Miller, Inc. 2002. Site-Wide Groundwater Monitoring Plan, General Motors Corporation, Moraine, Ohio. May 2002.

Arcadis, Inc. 2019. 2018 Groundwater Monitoring Report, RACER trust, Moraine, Ohio. February 28, 2019.

GM-23 (Former Source Area)

GM-29 (Downgradient)

GM-28 and GM-28R[3] (Downgradient)



1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-1 ERD implementation.
3 - GM-28 has not been sampled since 2011 due to an obstruction in the well. GM-28R was installed in 2015 as a replacement for GM-28.
ERD - Enhanced reductive dechlorination.

pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - Micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
1,2-DCE - cis and trans-1,2-Dichloroethene.

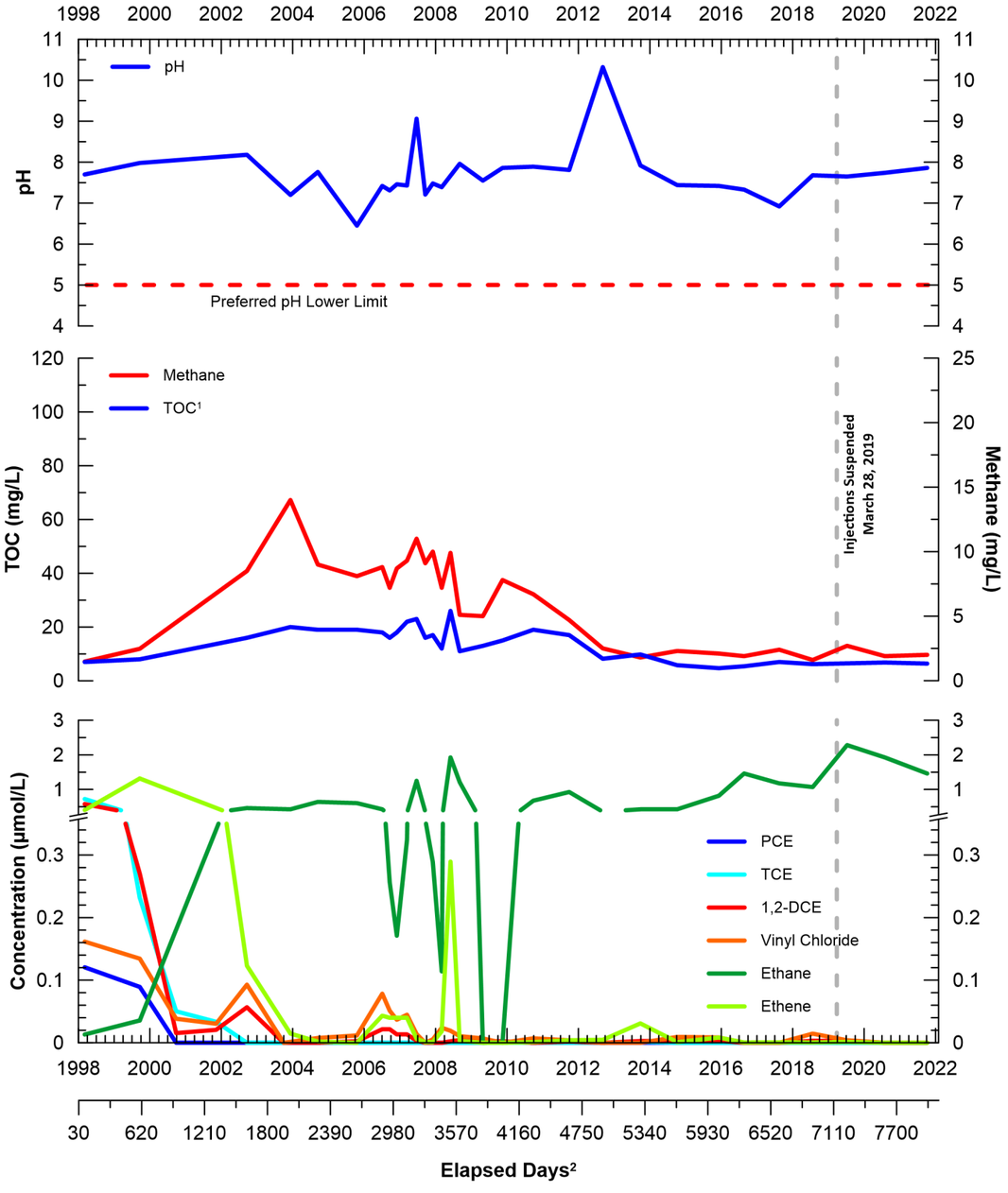
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IRZ-1 ERD ANALYSIS
(GM-23, GM-29, GM-28, GM-28R)

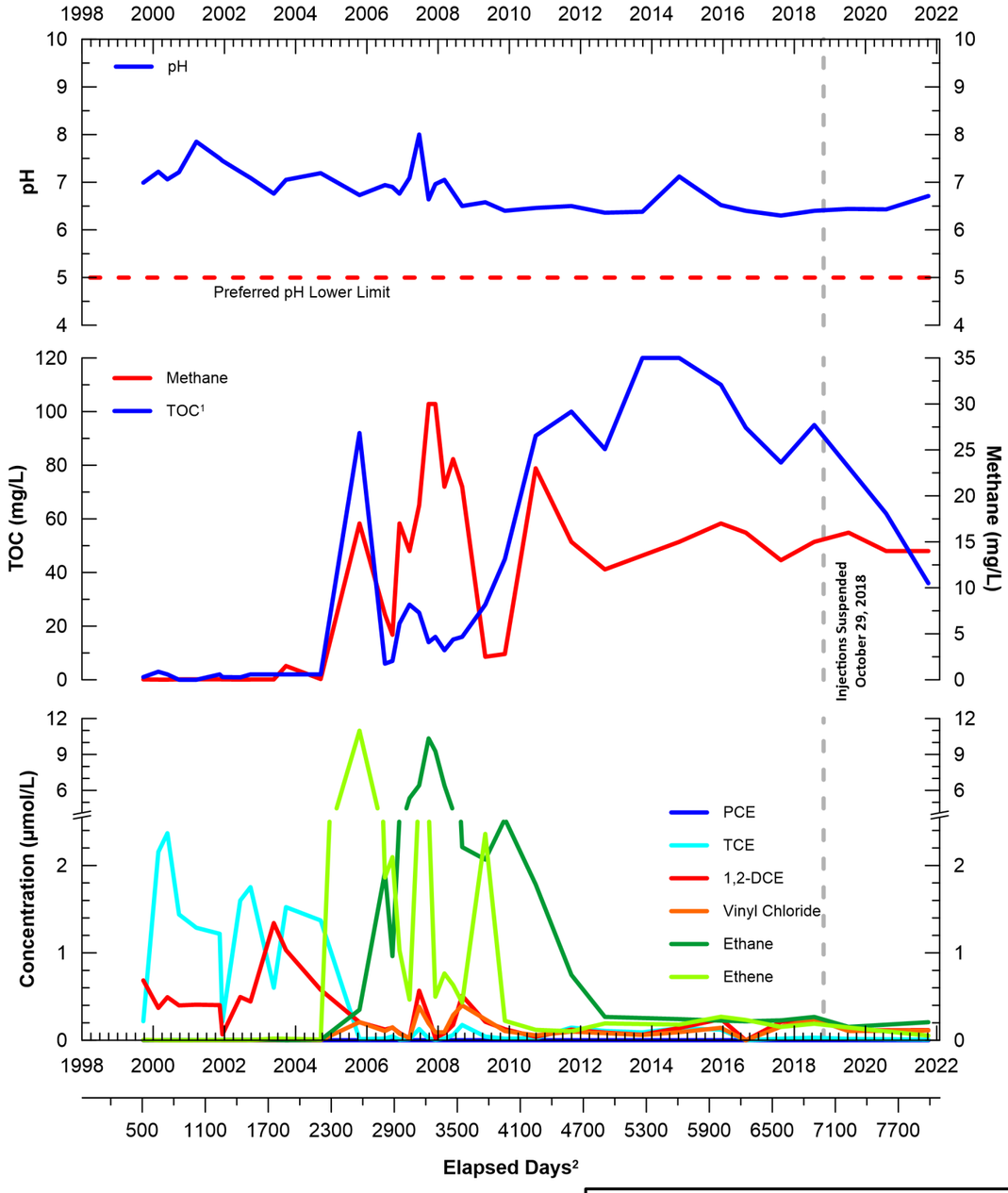
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FIGURE
A-1

GM-8 (Downgradient)



GM-21 (Downgradient)



1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-3 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
1,2-DCE - cis and trans-1,2-Dichloroethene.

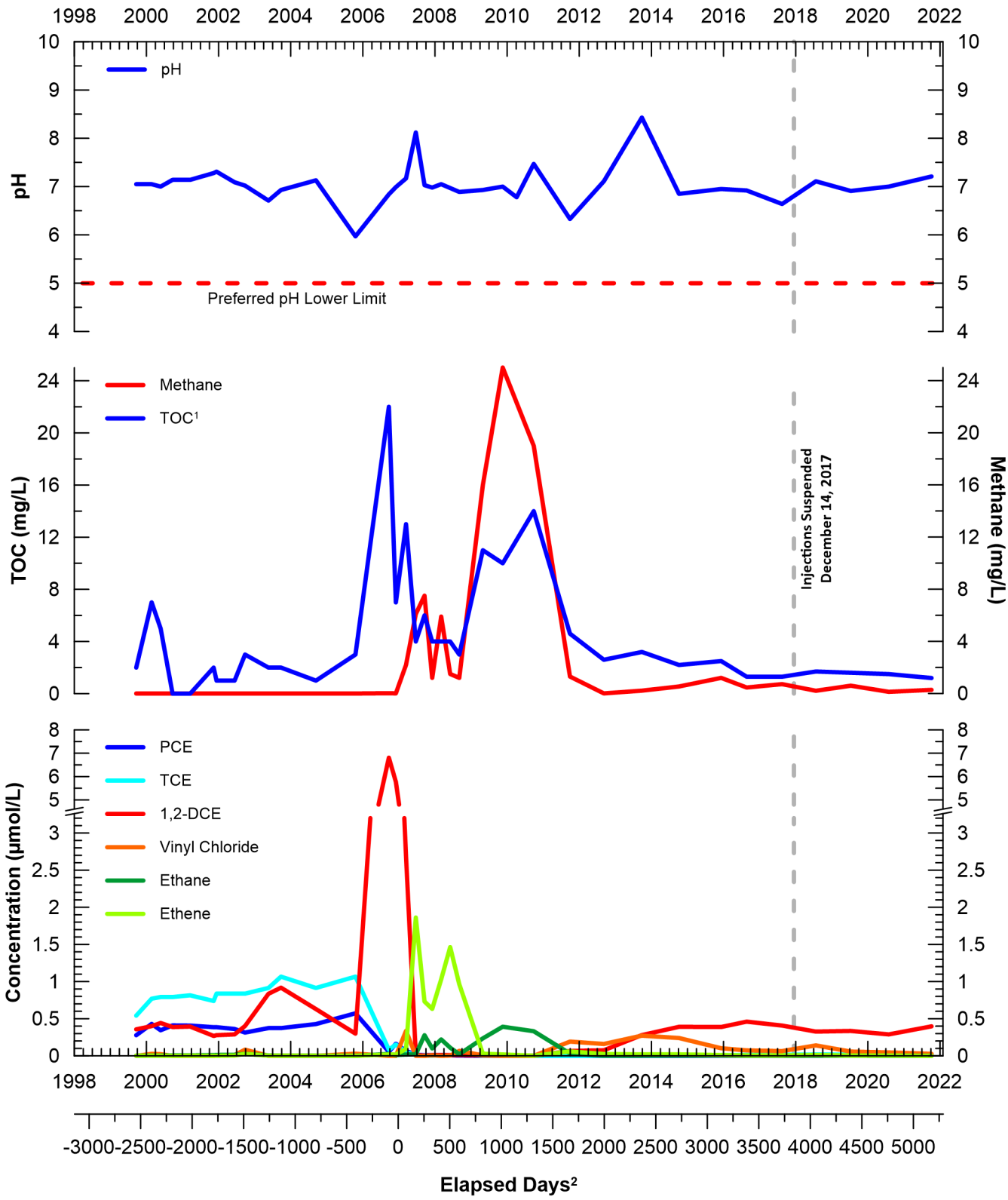
Note: Ethene, ethane, and methane parameters were not collected during the 2013 annual groundwater sampling event at GM-21.

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IRZ-3 WEST/EAST ERD ANALYSIS
GM-8 (WEST), GM-21(EAST)

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FIGURE
A-2



1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-4 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
cis-1,2-DCE - cis-1,2-Dichloroethene.

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IRZ-4 ERD ANALYSIS
(GM-19S - DOWNGRADIENT)

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FIGURE
A-3

Table A-1
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 1 Wells
RACER Trust
Moraine, Ohio

IRZ-1			GM-29																														
Constituents	**Units**	**MCL[1]**	**9/1/99**	**2/22/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/15/04**	**9/29/99**	**2/22/00**	**5/26/00**	**10/17/05**	**9/28/06**	**9/26/07**	**10/6/08**	**11/17/09**	**9/29/10**	**9/30/11**	**9/26/12**	**9/27/13**	**10/9/14**	**12/8/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/19**	**7/31/20**
Volatile Organic Compounds																																	
1,1,1-Trichloroethane	µg/L	200	37.8	36.0	32.5	24.5	27.0	23.8 J	<50 U	19 J	17	16 J	<50 U	18 J	21 J	5.7	<50	<5.0	19 J	17 J	15 J	12 J	18	11 J	11 J	10 J	15	9.1 J	9.9	10	9.6	8.1	8.4 J	7.8
1,1-Dichloroethane	µg/L	--	4.3	4.1	6.3	16.6	10.8	6.3 J	<50 U	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	1.8	<50	<5.0	18 J	15 J	15 J	11 J	12	11 J	8.5 J	8.2 J	12	9.5 J	10	10	13	10	9.2 J	9.5
1,1-Dichloroethene	µg/L	7	1.3	1.1	1.6	3.1	3.5	3.0 J	<50 U	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	<50 U	<50 U	<50 U	<50 U	<33 U	<50 U	<33 U	<10 U	<20 U	<13 U	<20 U	1.7	<14 U	1.2 J	<2.0 U	1.0 J	<2.0 U	< 13 U	< 1.3 U
Benzene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	<50 U	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	<50 U	<50 U	<50 U	<50 U	<33 U	<50 U	<33 U	<10 U	<20 U	< 13 U	<20 U	0.20 J	<14 U	<1.7 U	<2.0 U	< 2.0 U	<2.0 U	< 13 U	< 1.3 U
cis-1,2-Dichloroethene	µg/L	**70**	**320**	**223**	**1,190 J**	**2,871**	**2,170**	**2,050 J**	**1,800**	**1,800**	**1,600**	**1,300**	**950**	**1,200**	**1,200**	**69**	**294**	**688**	**1,600**	**1,300**	**1,200**	**900**	**600**	**660**	**470**	**520**	**530**	**480**	**440**	**470**	**430**	**420**	**380**	**380**
Ethylbenzene	µg/L	700	<1.0 U	1.4	<1.0	<1.0	<1.0 U	<1.0U J	21 J	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	<50 U	<50 U	<50 U	<50 U	<33 U	<50 U	<33 U	<10 U	<20 U	<13 U	<20 U	<1.0 U	<14 U	<1.7 U	<2.0 U	< 2.0 U	<2.0 U	< 13 U	< 1.3 U
Tetrachloroethene	µg/L	**5**	<20	**38.7**	**24.6**	**20.0**	**24.4**	**24.8 J**	**17 J**	**22 J**	**22**	**18 J**	**47J**	**18 J**	**20 J**	**252**	**<50**	**45.4**	**15 J**	**15 J**	**18 J**	**17 J**	**21 J**	**17 J**	**13**	**14 J**	**15**	**12 J**	**11**	**13**	**11**	**13**	**11 J**	**11**
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	2.2	<1.0 U	<1.0 UJ	<50 U	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	<50 U	<50 U	<50 U	<50 U	<33 U	<50 U	<33 U	<10 U	<20 U	<13 U	<20 U	<1.0 U	<14 U	<1.7 U	<2.0 U	< 2.0 U	<2.0 U	< 13 U	< 1.3 U
trans-1,2-Dichloroethene	µg/L	100	11.1	9.1	8.9	14.4	20.4	25.6 J	26	24 J	21	21	<25 U	20	21 J	3.6	<50	5	27 J	20 J	19 J	16 J	20	19 J	17	15 J	20	15	15	14	16	13	13	25
Trichloroethene	µg/L	**5**	**878**	**758**	**649 J**	**289**	**354**	**437 J**	**270**	**320**	**380**	**310**	**280**	**390**	**440**	**158**	**88.5**	**37.9**	**390**	**310**	**350**	**300**	**370**	**330**	**320**	**310**	**280**	**260**	**270**	**360**	**280**	**310**	**300**	**290**
Vinyl chloride	µg/L	**2**	**3.8**	1.0	1.7	**788**	**362**	**276 J**	**230**	**280**	**140**	**140**	**99**	**150**	**230**	**3.3**	**<50**	**43.1**	**490**	**210**	**290**	**150**	**70**	**59**	**52**	**45**	**60**	**40**	**48**	**42**	**53**	**41**	**38**	**42**
Xylenes	µg/L	10,000	<1.0 U	6.0	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ	52	<50 U	<50 U	<40 U	<50 U	<33 U	<50 U	<1.0	<50	<5.0	<100 U	<67 U	<100 U	<67 U	<20 U	<40 U	<25 U	<40 U	<2.0 U	<29 U	<3.3 U	<4.0 U	< 4.0 U	<4.0 U	< 27 U	< 2.7 U
Total VOCs	**µg/L**		**1,256**	**1,078**	**1,915**	**4,029**	**2,972**	**2,847**	**2,416**	**2,465**	**2,180**	**1,805**	**1,376**	**1,796**	**1,932**	**493**	**382.5**	**821.5**	**2,559**	**1,887**	**1,907**	**1,406**	**1,111**	**1,107**	**892**	**922**	**934**	**826**	**805**	**919**	**814**	**815**	**760**	**765**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
(2) Well GM-28R was installed on December 28, 2015.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table A-1
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 1 Wells
RACER Trust
Moraine, Ohio

IRZ-1			GM-23																																
Constituents	**Units**	**MCL[1]**	**9/2/99**	**2/21/00**	**5/31/00**	**9/20/00**	**3/20/01**	**6/26/01**	**11/12/01**	**12/12/01**	**6/13/02**	**9/26/02**	**5/22/03**	**9/23/03**	**9/14/04**	**10/17/05**	**9/28/06**	**9/27/07**	**10/23/08**	**11/17/09**	**9/29/10**	**9/29/99**	**2/22/00**	**5/26/00**	**9/30/11**	**9/7/12**	**9/27/13**	**10/10/14**	**12/8/15**	**8/22/16**	**8/17/17**	**7/26/18**	**7/12/19**	**7/31/20**
Volatile Organic Compounds																																			
1,1,1-Trichloroethane	µg/L	200	7.2	<50 U	< 20	2.0	3.1	1.5	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	<20 U	<22 U	<1.0	<50	<5.0	<20 U	<25 U	<1.0 U	<10 U	<1.0 U	<2.0 U	< 2.0 U	<1.0 U	< 40 U	< 2.5 U
1,1-Dichloroethane	µg/L		32.5	<50 U	12.8 J	16.3	17.9	3.7	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	5.0 J	<22 U	<1.0	<50	<5.0	<20 U	<25 U	2.6	8.4 J	15	8.6	5.4	8.0	< 40 U	9.9
1,1-Dichloroethene	µg/L	7	**17.2**	<50 U	6.6 J	5.1	**15.9**	**16.3**	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	<20 U	<22 U	<1.0	**<50**	<5.0	<20 U	<25 U	1.7	<10 U	0.47 J	1.1 J	1.4 J	0.81 J	< 40 U	< 2.5 U
Benzene	µg/L	5	1.9	<50 U	<20 U	<1.0 U	1.4	<1.0 U	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	<20 U	<22 U	<1.0	**<50**	<5.0	<20 U	<25 U	0.28 J	<10 U	0.69 J	<2.0 U	< 2.0 U	0.47 J	< 40 U	< 2.5 U
cis-1,2-Dichloroethene	µg/L	**70**	**7,530**	**10,400 D**	**4,080 J**	**5,620**	**9,640**	**11,000**	**8,400**	**7,200**	**9,900**	**7,700**	**6,800**	**5,800**	**4,600**	**19,000**	**11,000**	**4,700**	**2,000**	**1,100**	**490**	14.8	**306**	**161**	**580**	**580**	**470**	**210**	**100**	**530**	**580**	**260**	**550**	**140**
Ethylbenzene	µg/L	700	<1.0 U	<50	<20 U	<1.0 U	<1.0 U	<1.0 U	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	<20 U	<22 U	<1.0	<50	2.0	<20 U	<25 U	<1.0 U	<10 U	<1.0 U	<2.0 U	< 2.0 U	<1.0 U	< 40 U	< 2.5 U
Tetrachloroethene	µg/L	**5**	**6,250**	**7,280 J**	**6,200 J**	**3,470**	**2,910**	**8,600**	**15,000**	**14,000**	**8,400**	**10,000**	**12,000**	**12,000**	**6,700**	**2,300**	**370**	**280**	**71**	**19 J**	**50**	**91.5**	**50.5**	**17.5**	**57**	**33**	**37**	3.6 J	0.58 J	**8.0**	**30**	**8.4**	**22 J**	3.3
Toluene	µg/L	1000	<1.0 U	<50 U	<20 U	<1.0 U	<1.0 U	2.3	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<560 U	<330 U	<200 U	<62 U	<20 U	<22 U	<1.0	<50	1.1J	<20 U	<25 U	<1.0 U	<10 U	<1.0 U	<2.0 U	< 2.0 U	0.16 J	< 40 U	< 2.5 U
trans-1,2-Dichloroethene	µg/L	100	54.5	**118 J**	39.8 J	33.2	85.5	60.8	<210 U	<250 U	<170 U	<200 U	< 310 U	< 250 U	< 250 U	<560 U	270 J	130 J	58 J	31	16 J	<1.0	<50	<5.0	21	21 J	15	20	13	18	22	16	16 J	11
Trichloroethene	µg/L	**5**	**1,460**	**1,350 D**	**1,480 J**	**609**	**745**	**1,780 J**	**2,200**	**2,100**	**1,900**	**1,700**	**1,500**	**1,600**	**1,100**	**490 J**	**95 J**	**82 J**	<62 U	**8.3 J**	**17 J**	**44.1**	**<50**	**13.8**	**33**	**15 J**	**28**	4.1 J	5.0	**7.6**	**8.6**	5.0	**15 J**	**6.8**
Vinyl chloride	µg/L	**2**	**2,500**	**2,420 J**	**140 J**	**801**	**765**	**68**	**1200**	<500 U	**810**	**540**	**1700**	**690**	**870**	**2,800**	**4,100**	**2,600**	**2,100**	**1,100**	**500**	<1.0	**<50**	**136.0**	**840**	**390**	**210**	**220**	**120**	**280**	**360**	**210**	**250**	**190**
Xylenes	µg/L	10,000	<1.0 U	<50 U	<20 U	<1.0 U	<1.0 U	1.4	<420 U	<500 U	<330 U	<400 U	< 620 U	<500 U	<500 U	<1100 U	< 670 U	<400 U	<120 U	<40 U	<44 U	<1.0	<50	<5.0	<40 U	<50 U	<2.0 U	<20 U	<2.0 U	<4.0 U	< 4.0 U	<2.0 U	< 80 U	< 5.0 U
Total VOCs	**µg/L**		**17,853**	**21,568**	**11,959**	**10,557**	**14,184**	**21,534**	**26,800**	**23,300**	**21,010**	**19,940**	**22,000**	**20,090**	**13,270**	**24,590**	**15,835**	**7,792**	**4,229**	**2,263**	**1,073**	**150**	**357**	**331**	**1,531**	**1,039**	**764**	**466**	**255**	**853**	**1,007**	**509**	**853**	**361**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
(2) Well GM-28R was installed on December 28, 2015.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table A-1
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 1 Wells
RACER Trust
Moraine, Ohio

IRZ-1			GM-28																				GM-28R[(2)]					
Constituents	**Units**	**MCL[1]**	**9/1/99**	**2/23/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/15/01**	**12/12/01**	**7/21/02**	**9/24/02**	**5/23/03**	**10/1/03**	**4/30/04**	**9/15/04**	**10/18/05**	**9/27/06**	**9/20/07**	**10/22/08**	**11/16/09**	**9/28/10**	**10/5/11**	**12/28/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/19**	**7/31/20**
Volatile Organic Compounds																												
1,1,1-Trichloroethane	µg/L	200	17.7	23.2	18.1	5.0	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 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
1,1-Dichloroethane	µg/L		3.3	4.2	11.8	9.9	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 U	2.7	4.2	3.3	3.5	3.3	4.0	4.2	4.6	2.2 J	3.6	4.6	2.1	0.55 J	<1.0 U	0.25 J	<1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	<1.0 U	<1.0 U	3.8	<1.0 U	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 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
Benzene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 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
cis-1,2-Dichloroethene	µg/L	**70**	**175**	**503**	**2,700**	37.0	7.7	**352**	<5.0 U	<2.2 UJ	<2.0 U	1.1	0.66	0.58	0.45 J	0.41 J	0.32 J	0.26 J	0.72 J	6.9	2.3	2.1	0.72 J	5.6	13	6.0	3.5	1.1	0.91 J
Ethylbenzene	µg/L	700	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 U	<1.0 U	<1.0 U	0.28 J	<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
Tetrachloroethene	µg/L	**5**	**316**	**88.4**	**30.2**	2.3	2.8	<1.0 U	<10 U	<5.0 UJ	<4.0 U	<1.0 U	0.95 J	<1.0 U	<1.0 U	0.88 J	<1.0 U	<1.0 U	<1.0 U	< 5 U	<1.0 U	<1.0 U	0.63 J	**49**	1.3	4.6	3.5	**13**	0.92 J
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<1.8UJ	<4.0 U	<1.3	1.0	1.0	<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
trans-1,2-Dichloroethene	µg/L	100	9.2	9.7	36.5	22.3	17.6	<1.0 U	11	11 J	8.6	11	9.2	4.0	2.2	1.2	0.63 J	0.66 J	0.58 J	1.3 J	1.7	1.5	0.69 J	0.38 J	0.31 J	< 1.0 U	<1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	**5**	**768**	**833**	**14.8**	1.6	1.8	<1.0 U	<10 U	<5.0 UJ	<4.0 U	0.86J	3.1	1.6	1.6	1.4	0.66 J	0.43 J	0.51 J	< 5 U	0.58 J	<1.0 U	0.41 J	**24**	0.29 J	0.33 J	0.30 J	0.35 J	< 1.0 U
Vinyl chloride	µg/L	**2**	**3.2**	<1.0 U	1.9	**12.4**	**2.6**	<1.0 U	<10 U	<5.0 UJ	<4.0 U	<1.0 U	<1.0 U	0.53 J	<1.0 U	0.44 J	1.1	0.42 J	1.2	**6.5**	**3.3**	**2.2**	0.57 J	0.99 J	<1.0 U	0.72 J	0.70 J	< 1.0 U	< 1.0 U
Xylenes	µg/L	10,000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<10 U	<5.0 UJ	<4.0 U	<1.2 U	0.87 J	1.6	<1.0 U	<1.0 U	<2.0 U	<2.0 U	<2.0 U	<10 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**1,292**	**1,462**	**2,817**	**90.5**	**32.5**	**352**	**11.0**	**11.0**	**8.60**	**15.7**	**20.0**	**12.9**	**7.75**	**7.63**	**6.71**	**5.97**	**7.61**	**16.9**	**11.5**	**10.4**	**5.12**	**80.5**	**14.9**	**11.9**	**8.0**	**14.5**	**1.83**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
(2) Well GM-28R was installed on December 28, 2015.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table A-2
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 West Wells
RACER Trust
Moraine, Ohio

IRZ-3 West			GM-32																	
Constituents	**Units**	**MCL[1]**	**9/22/99**	**2/28/00**	**5/30/00**	**9/25/00**	**3/19/01**	**6/25/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/20/02**	**5/23/03**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**7/11/19**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																						
1,1,1-Trichloroethane	µg/L	200	<1.0	<10	<100	<1.0	<50	9.2	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	3.3	101	46.0J	35.9	<50	3.1	6.2	<100	12	9.7J	5.5	5.5	3 J	4.9 J	3.7 J	4.3 J	4 J	0.45 J	0.43 J	0.86 J
1,1-Dichloroethene	µg/L	7	<1.0	<10	<100	<1.0	<50	<1.0	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	<1.0	<10	<100	<1.0	<50	<1.0	4.3J	<100	4.0	<10	1.6	1.5J	< 10 U	< 10 U	< 10 U	1.6 J	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	2.6	<10	<100	<1.0	<50	32.0	<2.5	<50	<10	<5	0.66	<1.0	< 5 U	< 10 U	< 10 U	< 5 U	< 10 U	0.34 J	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	<1.0	<10	<100	<1.0	<50	<1.0	0.79J	<100	<20	<10	0.65J	0.73J	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	1.2	<10	<100	<1.0	<50	37.6	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U*	< 1.0 U
Toluene	µg/L	1000	1.0	20.6	<100	10.4	<50	<1.0	12	<100	4.9	<10	2.2	2.3	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	4.2	111	41.0J	20.3	<50	2.5	2.9	<50	3.0	<5	1.6	1.0	< 5 U	< 10 U	< 10 U	1 J	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	3.2	<10	<100	<1.0	<50	107	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	3.0	<10	<100	<1.0	<50	<1.0	1.1J	<100	3.0	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	0.26 J	< 1.0 U*	< 1.0 U
Xylenes	µg/L	10,000	<1.0	<10	<100	<1.0	<50	<1.0	3.0J	<100	<20	<10	2.1	3.6	< 10 U	< 20 U	< 20 U	3.4 J	< 20 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**18.5**	**232.6**	**87**	**66.6**	**ND**	**191.4**	**30.29**	**ND**	**26.9**	**9.7**	**14.31**	**14.63**	**3**	**4.9**	**3.7**	**10.3**	**4**	**1.05**	**0.43**	**0.86**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.
* - LCS or LCSD is outside acceptable limits.
ND - Not detected

Table A-2
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 West Wells
RACER Trust
Moraine, Ohio

IRZ-3 West			GM-8																						
Constituents	**Units**	**MCL[1]**	**3/6/98**	**9/20/99**	**9/26/00**	**11/9/01**	**9/20/02**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**	**9/29/11**	**9/6/12**	**9/26/13**	**10/7/14**	**12/8/15**	**8/22/16**	**8/16/17**	**7/24/18**	**7/11/19**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																									
1,1,1-Trichloroethane	µg/L	200	6.7	1.9	<1.0 U	0.40 J	<2.0 U	<2.0 U	<1.0 U	<1.0 U	<5.0 U	<2.0 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
1,1-Dichloroethane	µg/L	--	49.3	30.2	36.5	40	63	48	15	16	18	9.1	1.7	2.9	3.0	1.9	0.66 J	0.88 J	0.59 J	0.43 J	0.37 J	.44 J	0.47 J	0.40 J	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	1.0	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<2.0 U	<1.0 U	<1.0 U	<5.0 U	<2.0 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
Benzene	µg/L	5	2.3	3.4	1.1	0.78 J	**5.5**	**5.4**	4.2	3.5	2.1 J	2.4	**6.8**	3.9	4.7	3.5	3.5	1.9	1.2	<1.0 U	0.79 J	0.86 J	1.3	1.6	1.3	1.7
cis-1,2-Dichloroethene	µg/L	70	56.1	26.2	1.5	2.0	5.5	<1.0 U	<0.5 U	0.24 J	2.1 J	<2.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.27 J	0.23 J	0.31 J	<1.0 U	<1.0 U	0.30 J	0.27 J	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	28.9	20.7	12.5	0.40 J	7.5	11	19	29	<5.0 U	1.7 J	8.6	5.5	0.33 J	5.4	<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
Tetrachloroethene	µg/L	5	**20.0**	**14.8**	<1.0 U	<1.0 U	<2.0 U	<2.0 U	<1.0 U	<1.0 U	<5.0 U	<2.0 U	<1.0 U	0.34 J	<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
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.8 J	1.2 J	<1.0 U	0.39 J	<5.0 U	<2.0 U	<1.0 U	0.13 J	0.18 J	<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
trans-1,2-Dichloroethene	µg/L	100	10.1	12.0	5.4	3.6	9	4.4	1.1	0.99 J	1 J	0.9 J	0.27 J	0.22 J	0.29 J	0.20 J	<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
Trichloroethene	µg/L	5	**95.2**	**30.4**	**6.6**	4.4	<2.0	<2.0 U	<1.0 U	<1.0 U	<5.0 U	<2.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.21 J	<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
Vinyl chloride	µg/L	2	**10.1**	**8.4**	**2.4**	1.9	**5.8**	<2.0 U	0.48 J	0.73 J	3.2 J	<2.0 U	0.48 J	<1.0 U	0.44 J	0.24 J	<1.0 U	< 1.0 U	0.58 J	0.53 J	<1.0 U	<1.0 U	0.91 J	0.25 J	< 1.0 U*	< 1.0 U
Xylenes	µg/L	10,000	10.3	2.3	1.9	0.39 J	1.5 J	2.0	1.1	<2.0 U	<10 U	0.9 J	3.9	1.3 J	<2.0 U	0.99 J	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	0.31 J	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**290**	**150**	**67.9**	**53.9**	**99.6**	**72**	**40.9**	**50.9**	**26.4**	**15**	**21.8**	**14.3**	**8.94**	**12.2**	**4.16**	**3.26**	**2.60**	**1.27**	**1.16**	**1.61**	**2.98**	**2.52**	**1.3**	**1.7**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.
* - LCS or LCSD is outside acceptable limits.
ND - Not detected

Table A-2
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 West Wells
RACER Trust
Moraine, Ohio

IRZ-3 West			GM-6																							
Constituents	**Units**	**MCL[1]**	**3/6/98**	**9/20/99**	**9/26/00**	**11/9/01**	**9/20/02**	**10/2/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/24/08**	**11/11/09**	**9/27/10**	**9/29/11**	**9/6/12**	**9/25/13**	**10/7/14**	**12/8/15**	**8/22/16**	**8/16/17**	**7/24/18**	**7/11/19**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																										
1,1,1-Trichloroethane	µg/L	200	36.2	24.6	12.1	3.9	1.4J	0.19J	<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
1,1-Dichloroethane	µg/L	--	35.3	33.2	13.0	14	60	20	18	21	16	26	< 8.4 U	6.9	6.2	4.5	< 1.0 U	0.66 J	0.36 J	<1.0 U	<1.0 U	< 1.0 U	0.26 J	0.23 J	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	<1.0 U	1.2	<1.0 U	<2.0 U	<2.0 U	<1.0 U	< 1 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
Benzene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<2.0 U	2.2	1.0	1.7	0.49 J	<1.0 U	0.42 J	1.2	1.3	1.1	1.0	2.5	<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
cis-1,2-Dichloroethene	µg/L	70	**82.4**	52.9	41.0	8.2	43	13	10	20	18	16	6.7	3.4	4.9	3.7	< 1.0 U	1.9	0.23 J	0.26 J	0.29 J	0.33 J	0.40 J	0.38 J	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	<1.0 U	<10 U	<1.0 U	<2.0 U	<2.0 U	0.22 J	<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
Tetrachloroethene	µg/L	5	**94.0**	**81.4**	**51.5**	**14**	**14**	**11**	2.6	0.34 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.38 J	<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
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<2.0 U	0.83 J	<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
trans-1,2-Dichloroethene	µg/L	100	2.4	2.0	2.2	1.8	8.6	2.5	1.9	2.1	1.6	2.6	1.3	0.68 J	0.89 J	0.84 J	<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
Trichloroethene	µg/L	5	**119**	**78.2**	**56.6**	**48**	**33**	**23**	**5.7**	1.4	0.35 J	0.34 J	<1.0 U	3.8	**6.6**	<1.0 U	<1.0 U	0.26 J	<1.0 U	<1.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	**2.3**	1.6	**3.7**	1.9 J	**12**	**3.3**	**3**	**11**	**7.3**	**6.7**	**2.1**	1.2	1.6	1.5	<1.0 U	0.79 J	<1.0 U	<1.0 U	<1.0 U	< 1.0 U	0.65 J	0.25 J	< 1.0 U*	< 1.0 U
Xylenes	µg/L	10,000	<1.0 U	<10 U	<1.0 U	<2.0 U	<2.0 U	1.0	<1.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**372**	**275**	**180**	**91.8**	**174**	**76.0**	**42.9**	**56.3**	**43.3**	**52.1**	**11.3**	**17.3**	**21.7**	**11.5**	**2.50**	**3.61**	**0.59**	**0.26**	**0.29**	**0.33**	**1.31**	**0.86**	**ND**	**ND**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.
* - LCS or LCSD is outside acceptable limits.
ND - Not detected

Table A-3
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 East Wells
RACER Trust
Moraine, Ohio

IRZ-3 East			GM-21																														
Constituents	**Units**	**MCL[1]**	**9/22/99**	**2/23/00**	**5/26/00**	**9/22/00**	**3/19/01**	**6/25/01**	**11/13/01**	**12/11/01**	**6/12/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**12/1/06**	**9/26/07**	**10/3/08**	**11/16/09**	**9/28/10**	**9/29/11**	**9/7/12**	**9/26/13**	**10/9/14**	**12/11/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/19**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																																	
1,1,1-Trichloroethane	µg/L	200	53.1	15.4	27.9	15.7	7	7.7	6.9	1.2	23	31	18	31	26	4.3	12	4.7	8.5	8.7	2.4	0.75 J	1.0	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	9.0	5.8	6.8	5.6	5.1	4.1	3.8J	0.71 J	5.4	5.0 J	4.1 J	6.9 J	4.2 J	3.4	8.6	6.4	18	15	22	20	16	18	9.5	16	12	<1.0 U	11	9.3	6.3	7	8.4
1,1-Dichloroethene	µg/L	7	3.9	1.6	2.4	1.6	1.2	<1.0 U	<5.0 U	<1.0 U	3.6	2.6 J	<6.7 U	2.0 J	3.1 J	<1.0 U	0.19 J	0.2 J	< 1.4 U	0.33 J	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	<1.0 U	<1.0 U	<1.0 U	< 1.4 U	< 1.4 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	66	36	48	39	40	38	39	6.5	48	43	**130**	**100**	56	20	14	8.2	26	38	7.8	3.9	9.9	8.5	5.1	12	22	<1.0 U	19	23	10	11	9.8
Ethylbenzene	µg/L	700	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	<1.0 U	<1.0 U	<1.0 U	< 1.4 U	< 1.4 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	<1.0 U	<1.0 U	<1.0 U	< 1.4 U	0.56 J	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	<1.0 U	<1.0 U	<1.0 U	< 1.4 U	< 1.4 U	<1.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	<1.0 U	<2.0 U	<1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	7.8	9.3	7.4	13	16	16	15	2.8	8.3	5.1	2.2 J	2.9 J	7.9	22	4.3	4.8	2.5	4.7	4.4	3.0	1.9	1.7 J	1.1	1.6	1.6 J	<1.0 U	1.5	1.6	1	1.3	1.5
Trichloroethene	µg/L	5	**28.7**	**283**	**311**	**189**	**169**	**158**	**160**	**28**	**210**	**230**	**79**	**200**	**180**	1.8	**5.9**	0.8 J	2.8	**18**	2.4	3.2	**19**	**14**	**12**	**18**	**16**	<1.0 U	2.4	3.9	2.1	1.7	0.98 J
Vinyl chloride	µg/L	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	**13**	**9.3**	**4.7**	**12**	**19**	**6.6**	**3.6**	**6.2**	**5.1**	**3.8**	**5.8**	**8.9**	<1.0 U	**9.7**	**15**	**6.6**	**8.0**	**7.0**
Xylenes	µg/L	10000	<1.0 U	2.3	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<5.0 U	<1.0 U	<6.0 U	<6.7 U	<6.7 U	<8.0 U	<9.1 U	<2.0 U	<2.0 U	<2.0 U	<2.9 U	< 2.9 U	<2.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	<2.0 U	<4.0 U	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**169**	**353**	**403**	**264**	**238**	**223**	**225**	**39.2**	**298**	**317**	**233**	**343**	**277**	**64.5**	**54.3**	**29.8**	**69.8**	**104**	**45.6**	**34.5**	**54.0**	**47.3**	**31.5**	**53.4**	**60.5**	**ND**	**43.6**	**52.8**	**26.0**	**29.0**	**27.7**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
J - Value is estimated.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
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ND - Not detected

Table A-3
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 East Wells
RACER Trust
Moraine, Ohio

IRZ-3 East			GM-2																				
Constituents	**Units**	**MCL[1]**	**9/20/99**	**9/25/00**	**11/9/2001**	**9/20/02**	**10/2/03**	**9/14/04**	**10/19/05**	**9/20/06**	**09/18/07**	**9/24/08**	**11/11/09**	**9/27/10**	**9/29/11**	**9/6/12**	**9/25/13**	**10/7/14**	**12/8/15**	**8/19/16**	**7/12/19**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																							
1,1,1-Trichloroethane	µg/L	200	5.5	5.7	6.1	0.75 J	0.21 J	< 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	0.33 J	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	1.4	3.7	6.1	3.4	1.7	1.6	2.0	2.1	1.4	< 1.0 U	1.0	1.2	0.92 J	0.71 J	1.0	< 1.0 U	0.40 J	0.43 J	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 3.3 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
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 3.3 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
cis-1,2-Dichloroethene	µg/L	70	8.4	39	26	7.6	4.7	5.6	6.8	7.7	4.9	6.7	3.2	3.8	9.0	15	13	1.6	3.2	8.9	0.33 J	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	<10	< 1.0 U	< 3.3 U	< 1.0 U	0.21 J	< 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
Tetrachloroethene	µg/L	5	**6.0**	**7.7**	**8.4**	**8.7**	**5.7**	4.0	3.6	2.6	1.6	1.3	0.90 J	0.44 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	3.6	**8.5**	**28**	**30**	**43**
Toluene	µg/L	1000	< 1.0 U	< 1.0 U	< 3.3 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	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	1.3	1.1 J	0.37 J	< 0.50 U	0.23 J	0.26 J	0.34 J	0.28 J	0.19 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	**62**	**83**	**65**	**26**	**13**	**6.2**	4.6	**5.1**	2.3	2.4	1.4	0.95 J	0.75 J	0.96 J	0.70 J	2.9	**6.7**	**6.3**	**7.4**	3.9	3.1
Vinyl chloride	µg/L	2	< 1.0 U	1.7	< 3.3 U	< 1.0 U	0.46 J	< 1.0 U	0.24 J	0.61 J	1.1	< 1.0 U	**2.3**	**2.5**	0.69 J	1.2	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U
Xylenes	µg/L	10000	< 10 U	< 1.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**83.3**	**142**	**113**	**46.8**	**26.0**	**17.6**	**17.5**	**18.5**	**11.6**	**10.6**	**8.8**	**8.9**	**11.4**	**18.3**	**16.6**	**4.5**	**13.9**	**24.1**	**36.1**	**33.9**	**46.1**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
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Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.
ND - Not detected

Table A-3
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 3 East Wells
RACER Trust
Moraine, Ohio

IRZ-3 East			GM-17												WSU-24													
Constituents	**Units**	**MCL[1]**	**9/21/99**	**9/27/00**	**11/8/2001**	**9/19/02**	**9/24/03**	**9/15/04**	**10/20/05**	**9/27/06**	**9/18/07**	**9/24/08**	**9/27/13**	**10/7/21**	**9/23/99**	**9/26/00**	**11/9/2001**	**9/24/02**	**9/22/03**	**9/16/04**	**10/20/05**	**9/26/06**	**9/19/07**	**9/25/08**	**9/25/13**	**12/4/14**	**11/3/15**	**11/16/21**
Volatile Organic Compounds																												
1,1,1-Trichloroethane	µg/L	200	6.4	6.7	6.8	2.3	1.3	1.1	1.4	0.46 J	0.31 J	0.29 J	< 1.0 U	< 1.0 U	2.4	2.1	2.4	1.4	0.67 J	0.58 J	1.5	0.65 J	0.66 J	0.62 J	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	26	24	7.3	6.0	1.2	4	5.5	3.2	1.5	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	0.81 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 3.3 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	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 3.3 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	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	30	42	16	13	2.9	11	9.0	9.5	4.0	< 1.0 U	2.6	0.58 J	< 1.0 U	2.7	4.0	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 3.3 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	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	**25**	**48**	**22**	**12**	3.6	**8.1**	**11**	**7.3**	4.8	2.8	**26**	1.9	1.2.	1.6	1.2	1.0	1.3	1.2	0.81 J	0.89 J	1.7	**13**	**7.2**	**8.4**	2.0
Toluene	µg/L	1000	< 1.0 U	< 1.0 U	< 3.3 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	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	2.6	2.5	1.8	0.67	< 0.50 U	0.64	0.57 J	0.49 J	0.22 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 0.50 U	< 0.50 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	**29**	**48**	**79**	**39**	**24**	**22**	**29**	**24**	**15**	**10**	4.7	1.5	**17**	**17**	**18**	**13**	**7.9**	**8.0**	**11**	**10**	**7.9**	**12 J**	2.5	2.0	1.3	< 1.0 U
Vinyl chloride	µg/L	2	1.4	< 1.0 U	< 3.3 U	0.79 J	< 1.0 U	0.49 J	2.0	0.54 J	< 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
Xylenes	µg/L	10000	< 1.0 U	< 1.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**																											

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
J - Value is estimated.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.
ND - Not detected

Table A-4
Summary of Annual Groundwater Analytical Results from In-Situ Reactive Zone 4 East Wells
RACER Trust
Moraine, Ohio

IRZ-4 East			GM-19S																												
Constituents	**Units**	**MCL[1]**	**9/20/99**	**5/24/00**	**9/22/00**	**3/19/01**	**6/25/01**	**11/12/01**	**6/12/02**	**9/26/02**	**5/21/03**	**09/25/03**	**09/13/04**	**10/18/05**	**09/21/06**	**09/17/07**	**09/23/08**	**11/17/09**	**4/7/10**	**9/27/10**	**9/29/11**	**41158**	**9/26/13**	**10/7/14**	**12/8/15**	**8/22/16**	**8/16/17**	**7/24/18**	**7/12/19**	**2/13/20**	**7/31/20**	**10/7/21**
Volatile Organic Compounds																															
1,1,1-Trichloroethane	µg/L	200	16	17.9	14.5	11.9	9.6	7.6	7.2	6.3	12	13	14	13	9.7 J	0.59 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.4 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
1,1-Dichloroethane	µg/L	--	7.7	7.0	4.4	4.1	2.9	2.9 J	3.7	6.3	8.4	8.3	8.1	9.0	7 J	10	13	12	9.6	9.5	10.0	8.4	8.3	7.6	3.1	3.4	2.3	2.3	1.9	1.2	1.1	1.8
1,1-Dichloroethene	µg/L	7	1.0	1.1	<1.0 U	<1.0 U	<1.0 U	<3.3 U	0.98	<4.0 U	<4.0 U	1.6 J	1.9 J	1.2 J	<22 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	< 1.4 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
Benzene	µg/L	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<3.3 U	0.62	<4.0 U	<4.0 U	<5.0 U	<4.0 U	<1.7 U	<22 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	< 1.4 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
cis-1,2-Dichloroethene	µg/L	70	34.6	42.9	37.6	38.2	31.5	26	28	39	**81**	**89**	61	29	**660**	0.3 J	0.68 J	0.27 J	0.27 J	< 1.0 U	5.3	7.3	26	37	37	44	39	31	32	32	28	38
Ethylbenzene	µg/L	700	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<3.3 U	<3.3 U	<4.0 U	<4.0 U	<5.0 U	<4.0 U	<1.7 U	<22 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	< 1.4 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
Tetrachloroethene	µg/L	5	**46**	**57.1**	**68**	**67.6**	**71.7**	**64**	**60**	**52**	**62**	**62**	**71**	**95**	**9.1 J**	1.5	0.94 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	< 1.4 U	<1.0 U	<1.0 U	< 1.0 U	0.37 J	1.0	2.6	1.5	2.9
Toluene	µg/L	1000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<3.3 U	<3.3 U	<4.0 U	<4.0 U	<5.0 U	<4.0 U	<1.7 U	<22 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	< 1.4 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
trans-1,2-Dichloroethene	µg/L	100	2.3	2.7	2.6	3.0	2.4	2.0	2.3	2.7	2.5	2.9	2.4	1.0 J	10 J	0.29 J	0.52 J	0.37 J	0.45 J	0.46 J	1.1	0.84 J	1.1	0.91 J	0.66 J	0.64 J	0.52 J	0.66 J	0.52 J	0.41 J	< 1.0 U	0.51 J
Trichloroethene	µg/L	5	**71.1**	**104**	**104**	**107**	**121**	**97**	**110**	**110**	**120**	**140**	**120**	**140**	**11 J**	0.46 J	3	0.22 J	<1.0 U	<1.0 U	<1.0 U	0.30 J	0.46 J	0.81 J	1.3	1.8	1.9	2.4	2.3	3.2	2.7	2.9
Vinyl chloride	µg/L	2	<1.0 U	1.4	<1.0 U	<1.0 U	<1.0 U	<3.3 U	0.70	**5.2**	<4.0 U	<5.0 U	<4.0 U	1.8	<22 U	<1.0 U	**9.3**	<1.0 U	<1.0 U	<1.0 U	**12**	**10**	**17**	**15**	**6.4**	**4.6**	**4**	**8.8**	**3.6**	**2.1**	**2.9**	1.7
Xylenes	µg/L	10000	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<3.3 U	<3.3 U	<4.0 U	<4.0 U	<5.0 U	<4.0 U	<3.3 U	<44 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	< 2.9 U	<2.0 U	<2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**		**179**	**234**	**231**	**232**	**239**	**200**	**214**	**222**	**286**	**317**	**278**	**290**	**707**	**13.1**	**27.4**	**12.9**	**10.3**	**10.0**	**28.4**	**26.8**	**52.9**	**61.3**	**48.5**	**54.4**	**47.7**	**45.5**	**41.3**	**41.5**	**36.2**	**47.8**

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) MCL not listed for 1,1-dichloroethene.
Bold - Result above MCL.
Carbon source introductions began in December 1999.
J - Value is estimated.
MCL - Maximum Contaminant Level.
µg/L - Micrograms per Liter.
Samples collected in September and October 1999 represent baseline conditions.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
U - Constituent not detected above laboratory reporting limit shown.

Table A-5
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 1
RACER Trust
Moraine, Ohio

IRZ-1		GM-29																					
Constituents	**Units**	**9/1/99**	**2/22/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/15/04**	**9/29/99**	**2/22/00**	**5/26/00**	**10/17/05**	**9/28/06**	**9/26/07**	**10/6/08**	**11/17/09**	**9/29/10**
Inorganics & TOC																							
Nitrate	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30 U	<0.30 U	<0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.30 U	39.0	37.9	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.552	0.136	0.35	0.248	0.203	0.136	0.17 B	0.17	1.5 B	0.18 B	0.67 J	0.20 J	0.17	0.422	18.7	9.78	0.18	1.3	0.3 J	< 0.19 U	0.296	0.451
Manganese (Dissolved)	mg/L	0.13	0.101	0.177	0.125	0.116	0.128	0.17 B	0.15	0.13 B	0.16 B	0.15 J	0.21 J	0.15	0.203	13.2	10.7	0.14	0.12	0.16 J	< 0.16 U	0.118	0.113
Iron (Total)	mg/L	18	1.43	10.1	8.48	5.84	2.52	3.4	3.8	47.8 B	3.8	28.6	4.9	3.2	6.78	566	374	4.6	<1.0 U	8.9	< 5.4 U	13.8	19.6
Iron (Dissolved)	mg/L	0.24	0.13	2.78	3.09	<0.10 U	2.03	3.3	2.9	2.2 B	2.8	2.4	3.6	2.7	<0.10 U	366	417	3.7	2.9	3.4	< 3.9 U	3.3	2.97
Iron (Ferrous)	mg/L	0.02	0.0	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	90	126	31	29	31	37	65	48	63	76	91 J	52	14 J	61	508	140	51	70	65	< 5 UJ	68	72
Sulfide	mg/L	<4.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.3	<1.0 U	<1.0 U	<1.0 U	0.54 B	1.6	<1.0 U	<1.0 U	<1.0 U	5.18	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.56 J	<1.0 U
Total Organic Carbon	mg/L	18	11	22	<1.0 U	7.57	7.3	10	10	8.0	8.0	7.0	9.0	9.0	6.0	14,100	5550	11	13	15 J	16	9.0	8.0
Chloride	mg/L	254	426	508	373	337	262	600 B	460	490	490	490	560 J	540	397	1,560	1080	370	380	360 J	<1.0 U	210	160
Permanent Gases																							
Carbon Dioxide	mg/L	46.52	49.87	44.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.96	999.4	918.87	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.02	0.66	1.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.23	0.20	0.17	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.29	18.7	15.61	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14.51	7.13	6.19	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.012	0.0077	0.00017	1.62	1.30	1.5	0.610	1.2	0.56	1.1	0.6	1.5	3.8	0.0043	0.026	0.88	13	10	NA	16	8.1	5.7
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																							
Ethane	ng/L	5,641	1,861	751	639	460	17,000	20,000	28,000	14,000	16,000	7,400	9,900	13,000	1218	1495	770	170,000	350,000	NA	370,000	360,000	340,000
Ethene	ng/L	9,769	1,275	12,098	441,796	160,000	130,000	230,000	180,000	48,000	140,000	150,000	200,000	1,700,000	2458	1980	11737	1,600,000 J	750,000	NA	420,000	140,000	59,000
Field Parameters																							
pH	S.U.	6.99	7.02	6.86	7.24	7.31	7.20	7.47	7.57	7.14	7.22	6.32	6.88	6.85	7.24	5.76	5.48	6.80	6.94	6.63	7.1	6.91	7.09
Specific Conductivity	umhos/cm	1,502	3,044	2,388	1,942	1,733	1,291	2,703	2,860	1,977	2,354	2,303	2,278	2,580	2,033	28,360	11,895	2,200	2,170	2,350	1,870	1,264	1,427
Dissolved Oxygen	mg/L	0.35	0.51	0.45	3.44	8.20	0.40	0.22	0.01	3.57	1.40	1.38	0.13	0.04	0.82	2.84	4.32	0.00	0.29	0.4	0.11	0.16	2.00
Redox Potential	mV	-526.6	19.6	-105.4	-35.0	-158.2	-166.4	-129.7	-168	-122.9	-91.3	-157.8	-118.6	-134	175	-118.4	-65.4	-153	-168	-139	-54	-140.1	-163
Temperature	°C	17.8	16.9	17.97	17.64	20.04	20.47	16.42	17.13	19.33	17.63	18.23	16.81	16.4	18.33	20.24	21.74	16.8	16.69	18	16.78	16.50	18.00

NOTES:
< - Constituent not detected above laboratory reporting limit.
(1) Monitoring Well GM-28R was installed on December 21, 2015 as a replacement for well GM-28.
B - Blank Contamination.
°C - Degrees Celsius.
Carbon source introductions began in December 1999.
F2 - MS/MSD RPD (relative perect difference) exceeds control limits.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-5
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 1
RACER Trust
Moraine, Ohio

IRZ-1		GM-29 (Continued)									
Constituents	**Units**	**9/30/11**	**9/26/12**	**9/27/13**	**10/9/14**	**12/8/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/19**	**7/31/20**
Inorganics & TOC											
Nitrate	mg/L	NA	NA	NA	NA	NA	<0.1 U	NA	NA	NA	NA
Nitrite	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	NA	NA	NA	NA	< 0.100 UH	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.18	0.170	0.190	0.190	0.22	0.14	180	0.15	0.12	NA
Manganese (Dissolved)	mg/L	0.11	0.110	0.110	0.130	0.12	0.13	140	0.12	0.17	NA
Iron (Total)	mg/L	6.3	5.0	6.5	6.4	7.3	4.4	5.8	4.6	3.3	NA
Iron (Dissolved)	mg/L	2.4	2.3	2.4	3.6	4.0	4.1	4.1	3.6	4.5	NA
Iron (Ferrous)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	64	58	55	41	49	42	43	49	51	NA
Sulfide	mg/L	<1.0 U	0.80 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	< 1.0 U	<1.0 U	< 1.0 U	NA
Total Organic Carbon	mg/L	8.5	9.4	12	16	12	14	5.9	8.8	NA	9.3
Chloride	mg/L	130	130 B	140	150	150 B	140	140	120	84	NA
Permanent Gases											
Carbon Dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	3.1	3.7	4.5	6.0	5.9	6.7	6.2	4	3.3	5.2
Carbon Monoxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan											
Ethane	ng/L	180,000	160,000	150,000	180,000	170,000	160,000	140,000	110,000	100,000	110,000
Ethene	ng/L	20,000	18,000	17,000	16,000	16,000	17,000	12,000	7,400	6,200	7,500
Field Parameters											
pH	S.U.	6.59	6.69	6.87	6.94	7.19	6.93	6.75	6.90	6.71	6.89
Specific Conductivity	umhos/cm	1,651	960	1,302	1,341	1,460	1,340	1,300	1,090	1,091	989
Dissolved Oxygen	mg/L	0.15	0.70	0.21	0.11	0.00	0.26	3.35	NA	0.29	1.44
Redox Potential	mV	-14.2	-60	-108	-102.1	-124.0	-155.0	-125.0	-183.0	-96.0	-83.1
Temperature	°C	21.1	21.0	24.0	17.2	16.7	10.9	19.5	16.7	17.8	21.8

NOTES:
< - Constituent not detected above laboratory reporting limit.
(1) Monitoring Well GM-28R was installed on December 21, 2015 as a replacement for well GM-28.
B - Blank Contamination.
°C - Degrees Celsius.
Carbon source introductions began in December 1999.
F2 - MS/MSD RPD (relative perect difference) exceeds control limits.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-5
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 1
RACER Trust
Moraine, Ohio

IRZ-1		GM-23																							
Constituents	**Units**	**9/2/99**	**2/21/00**	**5/31/00**	**3/20/01**	**6/13/02**	**9/26/02**	**5/22/03**	**9/23/03**	**9/14/04**	**10/17/05**	**9/28/06**	**9/27/07**	**10/23/08**	**11/17/09**	**9/29/10**	**9/30/11**	**9/7/12**	**9/27/13**	**10/10/14**	**12/5/15**	**8/22/16**	**8/17/17**	**7/26/18**	**7/12/19**	**7/31/20**
Inorganics & TOC																									
Nitrate	mg/L	0.08	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0 U	NA	NA	NA	NA
Nitrite	mg/L	3.83	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30 U	0.94	2.84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.550 H	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	4.71	0.887	0.121	0.469	1.5 J	1.0 J	1.5 J	1.6 J	1.3 J	0.79	1.5	1.4 J	0.89	0.539	0.508	0.57	0.410 B	0.450	0.250 B	0.14	0.18	0.31	0.24	0.33	NA
Manganese (Dissolved)	mg/L	0.346	0.841	0.101	0.311	1.3 J	0.68 J	1.5 J	1.7 J	1.2 J	0.81	1.5	1.3 J	0.90	0.516	0.492	0.5	0.380 B	0.440	0.240 B	0.22	0.17	300	0.22	0.38	NA
Iron (Total)	mg/L	13.6	0.53	0.18	0.48	0.16 J	0.63	0.50	0.14	0.11	30.7	13.6	10.8	10.1	5.51	5.72	7.5	4.8	3.6	4.0 B	4.2	4.5	3.6	3.2	2.8	NA
Iron (Dissolved)	mg/L	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	34.2	13.2	10	10	5.21	5.33	6	4.7	3.7	4.1 B	5.8	4.6	3.2	2.8	2.7	NA
Iron (Ferrous)	mg/L	4.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	72	650	8040	1440	920	810	310 J	650	430 J	120	850	590	490	130	160	200	74	120	34	15	34	61	38	60	NA
Sulfide	mg/L	<4.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.67 B	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.73 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.59 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	< 1.0 U	NA
Total Organic Carbon	mg/L	19	25	19	10.8	15 J	15	15	13	10 J	360	11	9.0	9.0	7.0	9.0	6.6	7.2	6.4	7.7	6.9 B	6.2	5.9	6.6	NA	6.6
Chloride	mg/L	118	143	85	232	180	190	220	140 J	220	260	220	210	220	100	43	65	97 B	39	150 B	180 B	120	71	130	81	NA
Permanent Gases																										
Carbon Dioxide	mg/L	88.47	264.8	323.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	0.96	1.56	17.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.22	13.75	3.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.12	0.72	0.021	0.78	1.6	2.1	2.7	1.8	1.5	1.3	0.91	0.64	1.9	1.7	2.5	2.0	2.6	0.84	5.5	5.4	4.5	2.6	3.7	2.8	4.8
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																										
Ethane	ng/L	6,878	14,644	1,037	11,000	25,000	32,000	44,000	23,000	17,000	16,000	12,000	7,100	21,000	31,000	36,000	25,000	71,000	16,000	100,000	88,000	84,000	71,000	95,000	57,000	110,000
Ethene	ng/L	580,916	439,458	569	260,000	230,000	230,000	1,200,000	270,000	260,000	500,000	900,000	370,000 J	960,000	2,100,000	1,700,000	230,000	74,000	16,000	74,000	140,000	76,000	28,000	26,000	24,000	53,000
Field Parameters																										
pH	S.U.	6.80	6.62	6.31	6.64	6.81	6.76	5.59	6.73	7.04	5.66	6.69	6.34	7.74	6.80	6.89	6.52	9.13	6.76	6.98	7.43	6.89	6.37	6.9	6.94	7.07
Specific Conductivity	umhos/cm	1,160	2,856	6,720	3,448	2,290	2,390	1,683	2,258	2,130	2,570	2,740	2,470	1,465	1,184	1,395	1,812	1,310	1,228	1,321	1,530	1,330	1,110	1,180	890	1,125
Dissolved Oxygen	mg/L	0.65	0.78	10.48	8.38	4.23	0.42	1.76	0.85	0.00	0.00	0.40	0.44	0.11	0.16	0.23	0.54	2.83	0.40	0.23	0.00	0.40	5.20	NA	0.43	1.22
Redox Potential	mV	122.2	158.7	194.2	160.4	346.5	215.6	247.9	198.8	57	-108	-108	-91	189	-90.1	-104.2	-52	-161	-49	-63.8	-79	-114	-164	NA	-61.0	-63.0
Temperature	°C	17.89	17.6	26.45	19.08	16.40	19.06	17.91	17.38	16.30	16.50	16.78	17.50	17.12	17.15	18.89	17.40	22.5	24.7	16.7	16.7	18.5	18.9	16.7	17.3	22.3

NOTES:
< - Constituent not detected above laboratory reporting limit.
(1) Monitoring Well GM-28R was installed on December 21, 2015 as a replacement for well GM-28.
B - Blank Contamination.
°C - Degrees Celsius.
Carbon source introductions began in December 1999.
F2 - MS/MSD RPD (relative perect difference) exceeds control limits.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-5
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 1
RACER Trust
Moraine, Ohio

IRZ-1		GM-28																						GM-28R[1]					
Constituents	**Units**	**9/1/99**	**2/23/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/15/01**	**12/12/01**	**7/21/02**	**9/24/02**	**5/23/03**	**10/1/03**	**4/30/04**	**9/15/04**	**10/18/05**	**9/27/06**	**9/20/07**	**10/22/08**	**11/16/09**	**9/28/10**	**10/5/11**	**12/28/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/2019**	**7/31/20**
Inorganics & TOC																													
Nitrate	mg/L	0.08	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1 U	NA	NA	NA	NA	NA
Nitrite	mg/L	0.06	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30 U	<0.30 U	0.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	3.2	1.15	6.26	4.1	0.594	2.24	0.58	0.47	1.1	0.48 B	0.69 J	0.42 J	0.34	0.37	0.45	0.46	0.44 J	1.4	0.468	0.468	0.72	0.63	0.40	0.32	0.29	0.22	NA
Manganese (Dissolved)	mg/L	0.068	0.449	6.71	3.94	0.477	1.76	0.61	0.49	1.1	0.41 B	0.29 J	0.40 J	0.32	0.36	0.45	0.43	0.43 J	1.5	0.444	0.466	0.49	0.67	0.38	0.30	0.25	0.22	NA
Iron (Total)	mg/L	106	25.3	22.7	58.9	29.6	59	23.6	23.5	36.2	28.7	47.9	23.4 J	17.6	15.7	16.1	14.5	11.7	23.4	11.3	11.6	22	4.6	5.6	5.7	5.9	2.9	NA
Iron (Dissolved)	mg/L	<0.10	0.59	23.3	48.3	2.65	49.8	23.3	23.7	34.7	23.4	16.7	22.4 J	16.4	15.1	15.2	13.1	10.7	23.7	10.2	10.6	5.5	3.5	4.6	3.7	4.5	2.6	NA
Iron (Ferrous)	mg/L	0.0	0.03	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	89	43	<5.0 U	<5.0 U	9.0	106	<5.0 U	<5.0 U	<5.0 U	18	65J	31J	89	93 J	91	75	77	33	55	45	41	33	42	29	24	29	NA
Sulfide	mg/L	<4.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.5	<1.0 U	2.0	4.3	2.5	<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	NA	<1.0 U	<1.0 U	<1.0 U F2	< 1.0 U	NA
Total Organic Carbon	mg/L	15	24	742	571	90.0	360	74	68B	140	23	15	17	15 J	8.0	10	7.0	8.0 J	310	6.0	7.0	9.1	3.9	4.2	4.8	6.7	NA	1.5
Chloride	mg/L	208	664	805	782	1030	508	730B	560	370	450	350	270 J	320	340	320	320	300 J	260	220	170	130	70	61	12	18	NA	NA
Permanent Gases																													
Carbon Dioxide	mg/L	41.52	63.57	16.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	2.32	0.59	0.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	19.42	16.39	19.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.002487	0.001832	0.21	1.70	13.0	13.0	13	20	19	14	8.9	11	7.9	6.6	2.8	2.5	2.3	2.9	4.2	2.3	0.76	0.69	0.36	0.86	1.8	0.74	0.11
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																													
Ethane	ng/L	750	493	865	1,198	42,000	39,000	91,000	98,000	420,000	300,000	310,000	230,000	160,000	150,000	81,000	73,000	72,000	52,000	73,000	53,000	14,000	1,200	290	580	1200	380	230 J
Ethene	ng/L	48	98	646	1,794,606	57,000	5,000	1,100	1,400	8,800	12,000	74,000	430	160	54	<210 U	<25 U	62	9,300	<200 U	150	86	240	27 J	52 J	2200	82 J	< 1000 U
Field Parameters																													
pH	S.U.	7.02	6.92	7.01	7.18	7.1	6.64	6.50	7.45	6.84	7.24	6.86	6.80	NA	6.85	5.47	7.08	6.72	6.49	7.04	7.16	NA	6.79	6.95	6.23	7.00	6.85	7.21
Specific Conductivity	umhos/cm	1,359	3,124	4,402	4,538	3,724	3,216	3,136	3,700	2,187	2,195	2,132	1,501	NA	2,030	2,230	1,880	2	1,428	1,821	1,615	NA	1080	911	681	593	574	444
Dissolved Oxygen	mg/L	0.95	1.45	2.52	6.78	4.36	0.41	0.83	0.20	0.68	0.35	1.41	0.34	NA	0	0	0.29	0.64	0.13	0.20	2.70	NA	0.22	0.29	2.97	NA	0.12	0.97
Redox Potential	mV	90.5	56.0	-93.7	-200.1	-70.6	-177.8	-148.2	-203	-153.3	-135.3	-93.1	-146.9	NA	-165	-166	-183	-152	27	-166.2	-153.5	NA	-78	-126	-111	-177	-86.8	-46.5
Temperature	°C	16.4	18.48	19.24	20.21	18.93	19.04	19.24	18.92	20.44	18.68	16.88	17.97	NA	16.2	15.9	16.33	17.1	16.38	16.65	16.56	NA	16.79	18.1	17.48	19.1	17.5	19.17

NOTES:
< - Constituent not detected above laboratory reporting limit.
(1) Monitoring Well GM-28R was installed on December 21, 2015 as a replacement for well GM-28.
B - Blank Contamination.
°C - Degrees Celsius.
Carbon source introductions began in December 1999.
F2 - MS/MSD RPD (relative perect difference) exceeds control limits.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-6
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 3 West
RACER Trust
Moraine, Ohio

IRZ-3 West		GM-32																												
Constituents	**Units**	**9/22/99**	**2/28/00**	**5/30/00**	**9/25/00**	**3/19/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/20/02**	**5/23/03**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**	**9/29/11**	**9/6/12**	**9/26/13**	**10/8/14**	**12/8/15**	**8/17/16**	**8/16/17**	**7/24/18**	**7/11/19**	**7/31/20**	**10/7/21**
Inorganics & TOC																														
Nitrate	mg/L	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	2.3	2.0	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.15	0.52	0.051	0.30	0.17	0.16 B	0.087 B	0.043 B	0.053 B	0.10 J	0.13 J	0.13 J	0.076	0.088	0.077 J	0.051	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Dissolved)	mg/L	0.05	0.06	0.048	0.31	<0.050 U	0.020 B	0.024 B	0.042 B	0.028 B	0.077 J	0.11 J	0.13 J	0.067	0.078	0.072 J	0.056	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Total)	mg/L	8.14	42.4	18.4	81.0	13	16.5	10.5	7.5	8.4 B	21.3	31.4 J	33.9	22.0	24.7	20	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Dissolved)	mg/L	3.53	0.59	17.1	81.6	3.17	5.2	6.5	8.1	6.8 B	18.7	30.5 J	34.5	19.8	24.5	19.5	13.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (Ferrous)	mg/L	1.8	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	30	<5.0 U	<10 U	<10 U	<20 U	5.0	4.0 J	1.0 J	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/L	<1.0 U	<10 U	<1.0 U	<1.0 U	1.6	<1.0 U	<1.0	0.50 J	1.3	0.86 B	7.3	16	4.1	1.0	14	7.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	mg/L	68	1200	2020	2720	1120	320 B	250	240	160	150	170	240 J	300	260	290 J	95	170	260	71	62	40	22	6.0	4.2	9.2	3.8	3.8	3.0	2.9
Chloride	mg/L	317	638	740	740	798	700 B	630	470	510	390	510 J	530	550	560	560 J	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Permanent Gases																														
Carbon Dioxide	mg/L	39.79	8.94	24.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.67	0.85	<0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	14.93	15.23	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	2.7	7.1	15	17	29	29	38	24	32	24	19	25	30 J	26	26	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.42	0.41
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																														
Ethane	ng/L	1,649	9,965	1,029	189	7,900	42,000	72,000	84,000	94,000	74,000	46,000	57,000	85,000 J	76,000	73,000	58,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500	1,600
Ethene	ng/L	86,509	163,855	472,312	510,593	150,000	130,000	90,000	93,000	49,000	9,900	3,400	2,000	1,900 J	2,400	1,200	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1000 U	< 1000 U
Field Parameters																														
pH	S.U.	7.54	8.59	7.64	7.73	8.36	8.42	8.13	8.55	8.13	6.41	6.81	6.86	6.30	6.84	7.00	7.13	7.02	7.68	7.20	7.15	8.05	7.26	7.04	6.81	6.68	7.15	7.07	7.04	7.60
Specific Conductivity	umhos/cm	2,750	9,030	9,195	9,225	7,483	6,874	6,200	5,432	4,289	3,908	3,192	4,210	4,810	4,510	4,240	3,220	3,540	5,328	3,280	1,998	1,388	1,520	1,380	1,200	1,320	1,140	870	878	1,610
Dissolved Oxygen	mg/L	0.09	0.23	10.82	2.55	0.36	0.07	0.03	1.14	0.22	1.93	0.31	0.00	0.00	0.21	0.45	1.79	0.89	2.4	1.97	0.94	0.42	0.72	0	7.08	6.36	0	0.69	0.6	0.48
Redox Potential	mV	-226.4	-279.1	-213.6	-353.8	-152.5	-222.8	-279	-220.5	-227.1	-204.6	-154.4	-160	-191	-193	-161	-200	-108	-236.9	-244	-72.8	-17	-99	-165	-148	-105	-167	-94	-125.9	-135
Temperature	^{0}C	19.27	19.72	23.48	19.27	19.3	18.84	18.62	20.83	19.81	19.31	18.47	17.20	17.00	17.70	16.70	18.71	16.30	16.79	18.77	21.50	18.36	18.48	15.57	17.96	15.83	16.21	17.80	17.00	16.65

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
^{0}C - Degrees Celsius.
Carbon source introductions began in December 1999.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-6
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 3 West
RACER Trust
Moraine, Ohio

IRZ-3 West		GM-8																					
Constituents	**Units**	**3/6/98**	**9/20/99**	**9/20/02**	**12/9/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**	**9/30/11**	**9/6/12**	**9/26/13**	**10/7/14**	**12/5/15**	**8/22/16**	**8/16/17**	**7/24/18**	**7/11/19**	**7/31/20**	**10/7/21**
Inorganics & TOC																							
Nitrate	mg/L	<4.4 U	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1 U	NA	NA	NA	NA	NA
Nitrite	mg/L	<0.033 U	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	1.69	1.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.100 UH	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.20	0.13	0.085 B	0.21	0.13	0.17	0.16	0.12 J	0.027	0.0617	0.14	0.035	0.025	0.037	0.061	0.086	0.091	0.082	0.068	0.048	NA	NA
Manganese (Dissolved)	mg/L	0.23	0.13	0.084 B	0.21	0.14	0.15	0.15	0.11 J	0.026	0.0643	0.0604	0.031	0.025	0.036	0.061	0.09	0.082	0.08	0.071	0.044	NA	NA
Iron (Total)	mg/L	1.0	0.27	0.55 B	1.9	1.8	3.2	3.4	3.3	0.69	2.2	4.27	1.2	0.830	1.700	2.700	4.1	3.8	3.4	2.9	2.1	NA	NA
Iron (Dissolved)	mg/L	1.2	0.26	0.52 B	1.9	1.8	2.8	3.1	3.0	0.64	2.13	2.05	0.98	0.780	1.200	2.500	4.2	3.2	3.3	3	1.6	NA	NA
Iron (Ferrous)	mg/L	<0.2 U	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	59	54	59	<5.0 U	13 J	27	24	49	32	23	22	24	27	22	28	32	32	29	38	30	NA	NA
Sulfide	mg/L	<1.0 U	<1.0 U	<1.0 U	<1.0 U	2	<1.0 U	1.8	0.86 J	0.54 J	1.2 J	1.4	<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	NA	NA
Total Organic Carbon	mg/L	7.0	8.0	16	20	19 J	19	16	16 J	12	15	19	17	8.2	9.8	5.8	4.7	5.4	7.0	6.2	NA	6.8	6.4
Chloride	mg/L	248	216	180	180 J	190	260	320	360 J	250	230	230	270	190 B	150	150	170 B	130	120	130	NA	NA	NA
Permanent Gases																							
Carbon Dioxide	mg/L	15.8	9.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.1	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	19.7	25.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	1.5	2.5	8.5	14	9.0	8.1 J	7.2	9.1	4.4	7.8	6.7	4.7	2.5	1.8	2.3	2.1	1.9	2.4	1.6	2.7	1.9	2.0
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																							
Ethane	ng/L	370	1,134	13,000	12,000	18,000	17,000 J	7,200	10,000	22,000	11,000	19,000	26,000	10,000	12,000	12,000	23,000	41,000	33,000	30,000	64,000	54,000	41,000
Ethene	ng/L	12,233	39,617	3,700	440	56	< 76 U J	1,200	32	140	< 220 U	33	120	140	930	34	250	15 J	23 J	15 J	39 J	< 1000 U	< 1000 U
Field Parameters																							
pH	S.U.	7.7	7.98	8.18	7.2	7.76	6.45	7.31	7.21	8.1	7.86	7.89	7.81	10.32	7.92	7.44	7.42	7.33	6.92	7.68	7.65	7.74	7.86
Specific Conductivity	umhos/cm	1,539	1,584	1,734	1,870	1,900	2,080	2,120	2,300	2,060	1,920	2,083	2,560	1,690	1,488	1,419	1420	1330	1420	1340	1030	1103	1783
Dissolved Oxygen	mg/L	0.16	0.28	0.37	0.04	0.00	0.00	0.53	0.70	0.00	0.00	3.00	0.60	7.38	0.63	0.55	0	3.97	3.61	0.21	0.28	0.42	0.57
Redox Potential	mV	-145	-49.8	-150.6	-137	-186	-162	-160	-125	-262	-24	-167.7	-115	-209	-42.8	-168.3	-200	-174	-193	-214	-156	-157.4	-198
Temperature	^{0}C	17.53	19.09	19.2	18.17	16.60	16.30	18.10	17.00	17.60	16.00	16.51	21.10	20.34	15.70	15.60	15.89	18.74	16.29	16.03	16.30	16.3	15.83

NOTES:
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mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
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Table A-6
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 3 West
RACER Trust
Moraine, Ohio

IRZ-3 West		GM-6														
Constituents	**Units**	**3/6/98**	**9/20/99**	**9/20/02**	**12/9/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/24/08**	**9/27/10**	**10/7/14**	**12/8/15**	**7/11/19**	**7/31/20**	**10/7/21**
Inorganics & TOC																
Nitrate	mg/L	<4.4	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	<0.033	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.300	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	1.07	1.11	0.27B	0.57	0.43	0.50	0.54	0.4 J	0.14	NA	NA	NA	0.18	NA	NA
Manganese (Dissolved)	mg/L	1	0.958	0.24B	0.53	0.47	0.49	0.54	0.39 J	0.13	NA	NA	NA	0.19	NA	NA
Iron (Total)	mg/L	1.32	0.27	0.40B	5.7	3.2	5.4	5.7	6.7	2.9	NA	NA	NA	5.4	NA	NA
Iron (Dissolved)	mg/L	<0.1	<0.10	0.30B	1.9	3.1	4.8	5.6	6.3	2.6	NA	NA	NA	5.0	NA	NA
Iron (Ferrous)	mg/L	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	93	83	43	27	26 J	52	55	66	26	NA	NA	NA	45	NA	NA
Sulfide	mg/L	<1	<1	<1.0	<1.0	3.4	< 1.0 U	< 1 U	< 1 U	6.5	NA	NA	NA	< 1.0 U	NA	NA
Total Organic Carbon	mg/L	3	4	17	12	16 J	6	7	8 J	14 J	NA	NA	NA	NA	3.2	2.7
Chloride	mg/L	227	247	170	190J	230	290	340	400 J	250	NA	NA	NA	NA	NA	NA
Permanent Gases																
Carbon Dioxide	mg/L	47.4	48.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.57	2.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.5	21.77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.008337	0.006916	7.8	7.8	7.2	4.4 J	3.5	5.3	5.2	NA	NA	NA	3.3	0.49	0.40
Carbon Monoxide	mg/L	<0.4	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																
Ethane	ng/L	47	67	10,000	2,400	5,000	870 J	520	660	13,000	NA	NA	NA	8,500	17,000	18,000
Ethene	ng/L	91	97	4,900	750	2,000	3,600 J	1,700	1,800	680	NA	NA	NA	73 J	< 1000 U	< 1000 U
Field Parameters																
pH	S.U.	7	7.05	7.46	7.76	7.16	6.06	6.8	6.84	7.17	7.27	7.36	7.08	7.00	7.16	7.15
Specific Conductivity	umhos/cm	1,422	1,493	1,658	2,080	1,830	1,880	1,920	2,130	2,160	1,900	1,318	1,410	1,250	992	1619
Dissolved Oxygen	mg/L	0.88	0.48	0.34	0.03	0	0	0.24	0.51	1.43	3.30	0.19	0.00	0.19	0.35	0.83
Redox Potential	mV	57.6	26.5	-27.7	-223	-111	-107	-111	-86	-159	-136.4	-126.5	-148.0	-68.9	-129.2	-128
Temperature	^{0}C	18.49	21.07	19.07	17.71	16.8	16.8	17.3	17.5	16.51	16.10	16.10	15.6	17.0	16.36	15.76

NOTES:
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umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
Samples collected in September 1999 represent baseline conditions.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.

Table A-7
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 3 East
RACER Trust
Moraine, Ohio

IRZ-3 East		GM-21																	
Constituents	**Units**	**9/22/99**	**2/23/00**	**5/26/00**	**9/22/00**	**3/19/01**	**11/13/01**	**12/11/01**	**6/12/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**9/26/07**	**10/3/08**	**11/16/09**	**9/28/10**
Inorganics & TOC																			
Nitrate	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30 U	<0.30 U	<0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.321	0.233	0.215	0.336	0.298	0.30 B	0.30 B	0.31B	0.29B	0.32J	0.37J	0.35 J	0.17	0.19	0.27 J	0.78	0.882	0.758
Manganese (Dissolved)	mg/L	0.273	0.225	0.212	0.312	0.291	0.32 B	0.29 B	0.29B	0.25B	0.26J	0.38J	0.33 J	0.16	0.19	0.27 J	0.77	0.893	0.768
Iron (Total)	mg/L	2.58	0.30	0.83	0.63	0.11	<0.10 U	0.16	0.65	0.56	12.6	0.27	2.3	26.9	10.7	9.2	17.9	19.6	26.1
Iron (Dissolved)	mg/L	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	0.11	<0.10	<0.10	1.4	0.47	< 0.1 U	25.5	10.7	8.9	16.7	20.2	25.6
Iron (Ferrous)	mg/L	0.4	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	103	102	80	102	118	120	100	76	76	55J	82	79 J	< 5 U	35	17	38	19	13
Sulfide	mg/L	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.9	0.50J	0.40J	0.54B	1.5	2.9	< 1.0 U	< 1 U	< 1 U	1.5	4.0 J	<1.0 U
Total Organic Carbon	mg/L	1.0	3.0	2.0	<1.0 U	<1.0 U	2.0 B	1.0	0.9J	2	2	2	2 J	92	7	14 J	18	45	91
Chloride	mg/L	136	145	126	129	165	140	150	170	180	160	190J	190	190	240	260 J	240	220	230
Permanent Gases																			
Carbon Dioxide	mg/L	37.04	37.40	18.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.41	0.99	1.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	23.40	21.67	23.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.037	0.018	0.014	0.042	0.048	0.049	0.035	0.022	0.03	0.031	1.5	0.077	17	4.9	30	28	28	23
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																			
Ethane	ng/L	72	67	84	72	82	76	120	150	120	130	30	140	9,800	27,000	290,000 J	77,000	71,000	50,000
Ethene	ng/L	169	38	70	69	46	46	100	120	64	570	520	250	330,000	63,000	80,000	13,000	6,700	3,600
Field Parameters																			
pH	S.U.	6.99	7.22	7.06	7.21	7.85	7.50	7.45	7.22	7.09	6.76	7.05	7.19	6.73	6.90	6.64	6.05	6.40	6.46
Specific Conductivity	umhos/cm	1,188	1,299	1,048	1,096	1,067	1,190	1,360	1,045	1,245	968	1,181	1,180	1,640	1,580	1,870	1,405	2,088	2,424
Dissolved Oxygen	mg/L	0.66	0.60	0.40	0.99	0.57	0.04	0.04	0.63	0.41	0.83	0.75	0	0	0.25	0.46	0.12	0.24	3.60
Redox Potential	mV	-26.9	113.3	167.1	153.9	218.5	168.8	-25	373.8	238.1	77.1	-26.7	-7	-140	-137	-126	68	-92.1	-95.1
Temperature	^{o}C	20.43	18.43	17.92	19.03	17.59	16.73	15.82	18.67	18.67	17.54	18.39	17.1	16.4	16.94	17.2	16.5	16.32	16.65

NOTES:
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B - Blank Contamination.
^{o}C - Degrees Celsius.
Carbon source introductions began in December 1999.
J - Value is estimated.
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NA - Not Analyzed.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
Samples collected in September 1999 represent baseline conditions.
U - Constituent not detected above laboratory reporting limit shown.

Table A-7
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 3 East
RACER Trust
Moraine, Ohio

IRZ-3 East		GM-21 Continued											GM-2	
Constituents	**Units**	**9/29/11**	**9/7/12**	**9/26/13**	**10/9/14**	**12/11/15**	**8/22/16**	**8/17/17**	**7/25/18**	**7/12/19**	**7/31/20**	**10/7/21**	**7/31/20**	**10/7/21**
Inorganics & TOC														
Nitrate	mg/L	NA	NA	NA	NA	NA	<0.1 U	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	NA	NA	NA	NA	<0.100 UH	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.93	1.100 B	1.1	1.1 B	0.880 B	0.62	0.48	0.57	0.52	NA	NA	NA	NA
Manganese (Dissolved)	mg/L	0.91	1.100 B	1.0	1.1 B	0.890 B	0.61	0.51	0.54	0.55	NA	NA	NA	NA
Iron (Total)	mg/L	32	31	32	34 B	29 B	29	21	27	28	NA	NA	NA	NA
Iron (Dissolved)	mg/L	31	33	32	34 B	29 B	28	22	27	29	NA	NA	NA	NA
Iron (Ferrous)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	23	56	21	<50 U	16	41	47	32	23	NA	NA	NA	NA
Sulfide	mg/L	<1.0 U	14	1.0	1.6	0.47 J	<1.0 U	<1.0 U	0.80 J	< 1.0 U	NA	NA	NA	NA
Total Organic Carbon	mg/L	100	86	120	120	110	94	81	95	NA	62	36	0.92 J	0.90 J
Chloride	mg/L	300	240 B	290	310 B	300 B	240	230	250	NA	NA	NA	NA	NA
Permanent Gases														
Carbon Dioxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	15	12	NA	15	17	16	13	15	16	14	14	<0.005 U	<0.005 U
Carbon Monoxide	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan														
Ethane	ng/L	21,000	7,500	NA	6,800	6,300	6,100	6,400	7,500	4,300	4,500 J	5800	<1,000 U	240 J
Ethene	ng/L	3,100	5,800	NA	5,400	8,100	7,000	4,600	5,700	4,400	2,600 J	1600	<1,000 U	< 1000 U
Field Parameters														
pH	S.U.	6.50	6.36	6.38	7.12	6.95	6.40	6.30	6.40	6.44	6.43	6.71	6.94	6.87
Specific Conductivity	umhos/cm	2,974	2,511	1,373	2,853	1,280	2,560	2,340	2,350	1,740	1,597	1,563	904	1511
Dissolved Oxygen	mg/L	0.30	0.12	0.47	0.28	0	0.64	5.08	NA	0.81	3.45	0.2	0.35	0.47
Redox Potential	mV	-13.7	-12	22.6	-29.3	-151	-93	-76	-116	-44	-25.3	163	22.9	18
Temperature	^{o}C	23.00	22.90	23.70	16.40	16.37	17.32	17.42	17.2	17.2	17.92	18.4	18.09	16.03

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
^{o}C - Degrees Celsius.
Carbon source introductions began in December 1999.
J - Value is estimated.
mg/L - Milligrams per Liter.
mV - Millivolts.
NA - Not Analyzed.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
Samples collected in September 1999 represent baseline conditions.
U - Constituent not detected above laboratory reporting limit shown.

Table A-8
Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zone 4 East
RACER Trust
Moraine, Ohio

IRZ-4 East		GM-19S																												
Constituents	**Units**	**9/20/99**	**2/23/00**	**5/24/00**	**9/22/00**	**3/19/01**	**11/20/01**	**12/11/01**	**6/12/02**	**9/26/02**	**5/21/03**	**9/25/03**	**9/13/04**	**10/18/05**	**9/21/06**	**9/17/07**	**9/23/08**	**11/17/09**	**4/7/10**	**9/27/10**	**9/29/11**	**9/6/12**	**9/26/13**	**10/7/14**	**12/5/15**	**8/22/16**	**8/16/17**	**7/24/18**	**7/12/19**	**7/31/20**	**10/7/21**
Inorganics & TOC																														
Nitrate	mg/L	11	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1 U	NA	NA	NA	NA	NA
Nitrite	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30 U	<0.30 U	<0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.100 UH	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.726	1.09	0.247	0.238	0.191	0.20	0.21 B	0.25 B	0.39 B	0.30 J	0.23 J	0.25	0.24	0.99	0.28 J	0.16	0.0911	NA	0.169	0.17	0.130	0.110	0.15	0.14	0.22	0.26	0.29	0.29	NA	NA
Manganese (Dissolved)	mg/L	0.185	0.205	0.200	0.187	0.155	0.19	0.18 B	0.18 B	0.19 B	0.20 J	0.21 J	0.16	0.2	0.94	0.15 J	0.16	0.0900	NA	0.170	0.14	0.130	0.110	0.15	0.18	0.21	0.22	0.28	0.30	NA	NA
Iron (Total)	mg/L	16.9	39.4	1.19	0.40	0.9	0.091	0.18	0.26	0.44	0.17	0.96	3.0	0.38	1.6	12.7	7.4	15.2	NA	18.9	11	6.7	5.5	7.4	6.7	4.8	5.5	6.0	4.2	NA	NA
Iron (Dissolved)	mg/L	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	<0.10 U	1.4	9.4	7.3	15.1	NA	18.3	9	6.4	5.4	5.7	6.4	4.7	4.2	5.4	4.4	NA	NA
Iron (Ferrous)	mg/L	0.0	0.0	0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	127	131	131	118	113	100	90	110	110	150 J	150	110 J	83	95	63	68	25	NA	21	58	84	76	43	47	39	50	53	49	NA	NA
Sulfide	mg/L	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	0.96J	<1.0 U	<1.0 U	<1.0 U	1.3	1.6	<1.0 U	<1.0 U	<1.0 U	<1.0 U	1.0 J	NA	0.80 J	<1.0 U	0.75 J	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	< 1.0 U	NA	NA
Total Organic Carbon	mg/L	2.0	7.0	5.0	<1.0 U	<1.0 U	2.0 B	1.0	1.0	3.0	2.0	2.0	1.0	3.0	22	6.0 J	3.0	10	NA	14	4.6	2.6	3.2	2.2	2.5	1.3	1.3	1.7	NA	1.5	1.2
Chloride	mg/L	247	197	168	165	158	130 B	150	140	210	270	300J	310	320	350	400 J	390	460	NA	390	340	290 B	230	170	160 B	150	150 B	140	NA	NA	NA
Permanent Gases																														
Carbon Dioxide	mg/L	41.85	57.12	50.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	4.43	1.01	1.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.87	17.07	17.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.0099	0.0027	0.0033	0.0037	0.039	0.0050	0.0088	0.002	0.46	0.0021	0.0022	0.0014	< 0.0065 U	0.025	7.5	0.79	25	NA	19	1.3	0.0090	0.22	0.54	1.2	0.46	0.72	0.21	0.60	0.13	0.28
Carbon Monoxide	mg/L	<0.40 U	<0.40 U	<0.40 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																														
Ethane	ng/L	71	104	139	184	210	300	350	410	730	170	80	48	<250 U	730	7,800	550	11,000	NA	9,300	870	53	85	91	160	37 J	14 J	57 J	77 J	< 1000 U	< 1000 U
Ethene	ng/L	55	45	43	36	61	34	27	130	770	78	45	51	<220 U	550	22,000	30,000	<120 U	NA	72	1,800	760	590	600	330	180	180	390	140	130 J	< 1000 U
Field Parameters																														
pH	S.U.	7.05	7.05	7.00	7.19	7.14	7.28	7.31	7.09	7.02	6.71	6.93	7.13	5.97	6.84	7.03	7.1	6.93	6.78	7.47	6.33	7.11	8.43	6.85	6.95	6.92	6.64	7.11	6.91	7.0	7.21
Specific Conductivity	umhos/cm	1,500	1,784	1,548	1,235	1,097	1,190	1,350	1,052	1,474	1,706	1,726	1,970	1,940	2,150	2,010	2,290	1,951	2,370	1,986	2,150	1,377	1,539	1,280	1,280	1,180	1,180	1,130	1,127	893	1519
Dissolved Oxygen	mg/L	0.92	0.30	1.94	1.36	0.96	1.75	0.06	0.9	0.47	2.01	1.87	0.0	0.0	0.3	0.43	1.87	0.33	0.80	0.67	2.08	0.54	0.54	0.32	0	2.16	3.72	0	1.32	0.61	0.33
Redox Potential	mV	31.3	149.6	200.1	187.7	320.8	195.6	13	446.3	259.6	178.3	135	160	122	-82	-145	-153	-137.9	-157	-112.5	-150	-26	-64.1	-79	-151	-133	-138	-143	-40.7	-107.3	-111.0
Temperature	^{o}C	20.85	18.69	20.80	20.09	20.14	19.24	19.1	20.39	20.36	20.22	19.57	18.6	17.6	17.9	17.5	16.9	16.68	17.73	16.43	17.82	23.90	19.80	15.30	16.37	17.37	17.41	16.87	17.30	17.53	16.37

NOTES:
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
^{o}C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
< - Constituent not detected above laboratory reporting limit.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

Appendix B

Annual Groundwater Sampling Event Field Parameters Data Sheet

Appendix B
Annual Groundwater Sampling Event Field Parameters Data Sheet
RACER Trust Moraine Facilities
Moraine, Ohio

Well ID	*Sample ID*	pH (s.u.)	Temp (°C)	ORP (mV)	Conductivity (mS/cm)	DO (mg/L)	Purge Rate (L/min)	Time Start Purge	Time End Purge	Volume Purged (L)	Sample Date	Time Sampled	Sampler
DN-13	DN-13/111621/	7.15	14.80	196	1.039	0.18	NM	12:00	12:10	NM	11/16/2021	12:10	Steven Clark
EAST	EAST/100821/	6.97	16.01	52	1.150	5.60	0.500	11:35	11:55	15.1	10/8/2021	11:55	Alex von Clausburg
GM-02	GM-02/100721/	6.87	16.03	18	1.511	0.47	0.500	13:10	13:45	20.8	10/7/2021	13:45	Alex von Clausburg
GM-06	GM-06/100721/	7.15	15.76	-128	1.619	0.83	0.500	11:50	12:15	14.8	10/7/2021	12:15	Alex von Clausburg
GM-08	GM-08/100721/	7.86	15.83	-198	1.783	0.57	0.500	9:15	9:45	18.9	10/7/2021	09:45	Alex von Clausburg
GM-16	GM-16/100521/	7.42	15.47	181	0.742	0.26	0.400	13:00	13:35	14.4	10/5/2021	13:35	Hannah Smith
GM-17	GM-17/100721/	7.15	17.78	178	0.970	1.23	0.400	16:05	16:30	10.0	10/7/2021	16:30	Hannah Smith
GM-18	GM-18/111121/	7.08	15.67	160	1.081	0.01	0.100	9:35	10:30	11.0	11/11/2021	10:30	Alex von Clausburg
GM-19S	GM-19S/100721/	7.21	16.37	-111	1.519	0.33	0.300	17:00	17:30	9.0	10/7/2021	17:30	Alex von Clausburg
GM-21	GM-21/100721/	6.71	18.40	163	1.563	0.20	0.400	13:15	13:55	16.4	10/7/2021	13:55	Hannah Smith
GM-32	GM-32/100721/	7.60	16.65	-135	1.610	0.48	0.300	15:20	15:55	18.9	10/7/2021	15:55	Alex von Clausburg
GM-35	GM-35/100821/	8.92	15.91	-187	3.910	0.76	0.500	9:05	9:35	15.8	10/8/2021	09:35	Alex von Clausburg
GM-36	GM-36/100821/	6.92	16.26	43	1.101	2.34	0.500	10:25	10:40	10.0	10/8/2021	10:40	Alex von Clausburg
GM-37	GM-37/100821/	6.83	17.66	204	0.907	1.77	0.500	10:20	10:50	15.7	10/8/2021	10:50	Hannah Smith
GM-38	GM-38/100821/	6.92	16.37	206	0.950	1.50	0.500	11:05	11:35	15.5	10/8/2021	11:35	Hannah Smith
GM-47	GM-47/100521/	6.94	17.20	140	1.537	0.46	0.400	9:20	9:50	12.9	10/5/2021	09:50	Alex von Clausburg
GM-48	GM-48/100621/	7.20	18.20	66	1.308	1.50	0.400	11:10	11:45	15.4	10/6/2021	11:45	Alex von Clausburg
GM-49	GM-49/111121/	7.09	16.05	122	1.093	0.01	0.100	16:20	16:45	3.6	11/11/2021	16:45	Alex von Clausburg
GM-50	GM-50/100521/	6.96	17.70	127	1.471	0.31	0.300	10:25	11:00	10.0	10/5/2021	11:00	Alex von Clausburg
GM-51	GM-51/100621/	7.22	16.79	131	1.345	0.95	0.400	9:45	10:35	18.5	10/6/2021	10:35	Alex von Clausburg
GM-52	GM-52/111121/	7.00	16.61	152	1.032	2.13	0.300	17:20	17:40	5.7	11/11/2021	17:40	Alex von Clausburg
GM-63	GM-63/100521/	7.00	17.26	86	1.444	5.34	0.400	13:10	13:50	14.0	10/5/2021	13:50	Alex von Clausburg
GM-64	GM-64/100521/	7.20	17.00	-70	1.506	0.73	0.400	14:25	15:10	24.6	10/5/2021	15:10	Alex von Clausburg
GM-79	GM-79/100621/	7.19	18.13	188	0.976	0.17	0.400	15:40	16:10	12.4	10/6/2021	16:10	Hannah Smith
GM-80	GM-80/100721/	7.98	18.82	192	0.386	5.01	0.400	11:10	11:40	12.8	10/7/2021	11:40	Hannah Smith
GM-81	GM-81/100721/	7.05	16.00	190	0.934	0.13	0.400	10:30	10:55	11.2	10/7/2021	10:55	Hannah Smith
HR-04	HR-04/100421/	6.89	15.08	152	0.986	8.90	0.500	10:40	11:05	12.5	10/4/2021	11:05	Alex von Clausburg
HR-16	HR-16/100621/	7.03	16.78	190	1.024	0.23	0.500	8:50	9:10	11.0	10/6/2021	9:10	Hannah Smith
HR-17	HR-17/100421/	7.02	17.50	76	1.086	1.53	0.200	14:35	15:00	5.0	10/4/2021	15:00	Alex von Clausburg
RMW-100	RMW-100/100521/	7.21	17.72	181	1.103	0.12	0.400	10:25	11:00	14.0	10/5/2021	11:00	Hannah Smith
RMW-101	RMW-101/100521/	7.84	19.98	190	0.434	4.20	0.400	9:27	10:02	14.0	10/5/2021	10:02	Hannah Smith
RMW-102	RMW-102/100521/	7.69	16.11	179	0.525	5.09	0.400	12:00	12:35	14.0	10/5/2021	12:35	Hannah Smith
RMW-91	RMW-91/100621/	7.17	17.28	196	1.032	0.19	0.400	10:45	11:15	13.2	10/6/2021	11:15	Hannah Smith
RMW-92	RMW-92/100621/	7.16	17.70	192	0.916	0.70	0.400	9:50	10:15	11.2	10/6/2021	10:15	Hannah Smith
RMW-93	RMW-93/100521/	7.19	17.34	180	0.977	0.19	0.400	14:35	15:15	16.4	10/5/2021	15:15	Hannah Smith
RMW-94	RMW-94/100521/	7.18	16.97	181	0.975	0.79	0.400	15:35	16:05	12.0	10/5/2021	16:05	Hannah Smith
RMW-95	RMW-95/100621/	7.27	19.45	185	0.761	0.08	0.400	13:30	14:05	14.4	10/6/2021	14:05	Hannah Smith
RMW-96	RMW-96/100621/	7.21	19.16	186	0.704	0.51	0.400	14:55	15:25	13.2	10/6/2021	15:25	Hannah Smith
RMW-97	RMW-97/100721/	7.14	16.77	187	0.680	0.32	0.400	9:03	9:33	12.4	10/7/2021	09:33	Hannah Smith
RMW-98	RMW-98/100621/	7.16	16.67	71	1.358	1.05	0.500	13:40	14:20	19.8	10/6/2021	14:20	Alex von Clausburg
RMW-99	RMW-99/100621/	7.20	17.24	65	1.295	3.10	0.500	14:55	15:45	26.6	10/6/2021	15:45	Alex von Clausburg
W-2-N	W-2-N/100421/	7.16	15.24	-50	1.035	0.54	0.400	12:40	13:15	15.0	10/4/2021	13:15	Alex von Clausburg
W-2-S	W-2-S/100421/	7.09	16.14	90	0.961	5.01	0.400	15:55	16:25	11.0	10/4/2021	16:25	Alex von Clausburg
W-3-N	W-3-N/100421/	7.22	18.12	150	1.081	0.15	0.400	12:23	13:18	22.0	10/4/2021	13:18	Hannah Smith
W-3-S	W-3-S/100421/	7.03	16.67	174	1.022	0.17	0.400	14:39	14:59	32.0	10/4/2021	14:59	Hannah Smith
W-4-N	W-4-N/100421/	6.98	15.34	171	1.136	0.30	0.400	10:46	11:16	13.5	10/4/2021	11:16	Hannah Smith
W-4-S	W-4-S/100421/	6.93	16.73	172	1.029	0.12	0.300	15:38	16:03	7.5	10/4/2021	16:03	Hannah Smith
WEST	WEST/100821/	6.91	16.75	199	0.916	0.20	0.400	8:59	9:29	12.4	10/8/2021	09:29	Hannah Smith
WSU-23	WSU-23/100521/	7.32	16.25	14	1.457	0.67	0.400	16:15	16:35	9.8	10/5/2021	16:35	Alex von Clausburg
WSU-24	WSU-24/111621/	7.13	12.90	193	1.028	5.72	0.100	9:50	10:20	3.8	11/16/2021	10:20	Steven Clark

Notes:
ºC - Degrees Celsius.
DO - Dissolved Oxygen.
L/min - Liters per Minute.
L - Liters.
mg/L - Milligrams per Liter.
mS/cm - Millisiemens per Centimeter.
mV - Millivolts.
NM - Not Measured.
ORP - Oxidation Reduction Potential.
s.u. - Standard Units.
Temp - Temperature.

Appendix C

Groundwater VOC Analytical Data for 2021 Including QA/QC Samples

Appendix C
Groundwater VOC Analytical Data for 2021 Including QA/QC Samples
RACER Trust Moraine Facilities
Moraine, Ohio

	Units	U.S. EPA MCL[1]	Downgradient Reactive Zone Performance Monitoring Wells						
			GM-2 10/7/2021 Upper Aquifer	GM-6 10/7/2021 Upper Aquifer	GM-8 10/7/2021 Upper Aquifer	GM-19S 10/7/2021 Upper Aquifer	GM-21 10/7/2021 Upper Aquifer	GM-32 10/7/2021 Upper Aquifer	WSU-24 10/8/2021 Upper Aquifer
Site-Specific Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	< 1.0 U	< 1.0 U	1.8	8.4	0.86 J	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	< 1.0 U	< 1.0 U	38	9.8	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	**43**	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	2.0
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	1.5	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	3.1	< 1.0 U	< 1.0 U	2.9	0.98 J	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	1.7	**7.0**	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		46	Not Detected	1.7	48	28	0.86	2.0

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	Downgradient Off-Site Monitoring Wells							
			GM-17 10/7/2021 Upper Aquifer	GM-18 11/11/2021 Upper Aquifer	GM-79 10/6/2021 Upper Aquifer	GM-80 10/7/2021 Upper Aquifer	GM-81 10/7/2021 Upper Aquifer	RMW-95 10/6/2021 Upper Aquifer	RMW-96 10/6/2021 Upper Aquifer	RMW-97 10/7/2021 Upper Aquifer
Site-Specific Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	< 1.0 U	1.3	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	0.58 J	1.7	4.3	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	**26**	**11**	**29**	< 1.0 U	2.8	**8.9**	1.5	2.9
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	1.5	2.1	**7.5**	3.0	< 1.0 U	0.69 J	< 1.0 U	0.57 J
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		28	15	42	6.0	2.8	9.6	1.5	3.5

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	Closed North Settling Lagoon Monitoring Wells				Closed South Settling Lagoon Monitoring Wells			
			HR-4 10/4/2021 Upper Aquifer	W-2-N 10/4/2021 Upper Aquifer	W-3-N 10/4/2021 Upper Aquifer	W-4-N 10/4/2021 Upper Aquifer	HR-17 10/4/2021 Upper Aquifer	W-2-S 10/4/2021 Upper Aquifer	W-3-S 10/4/2021 Upper Aquifer	W-4-S 10/4/2021 Upper Aquifer
Site-Specific Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	200	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	1.0	< 2.0 U	< 2.0 U
1,1-Dichloroethane	µg/L	--	1.9	< 1.0 U	< 1.0 U	9	< 2.0 U	0.79 J	< 2.0 U	< 2.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
cis-1,2-Dichloroethene	µg/L	70	0.71 J	2.2	13	8.9	< 2.0 U	2.0	4.6	< 2.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**130**	1.0	**92**	**29**
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Trichloroethene	µg/L	5	< 1.0 U	1.0	< 1.0 U	**7.0**	< 2.0 U	**6.1**	1.6 J	3.5
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 4.0 U	< 4.0 U
Total Site-Specific VOCs	µg/L		4.5	3.2	14	26	130	11	98	33

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	Phase 1 DGR™ System Performance Monitoring Wells									
			HR-16 10/6/2021 Upper Aquifer	RMW-91 10/6/2021 Upper Aquifer	RMW-92 10/6/2021 Upper Aquifer	RMW-93 10/5/2021 Upper Aquifer	RMW-94 10/5/2021 Upper Aquifer	GM-16 10/5/2021 Upper Aquifer	GM-47 10/5/2021 Upper Aquifer	GM-48 10/5/2021 Upper Aquifer	GM-49 10/6/2021 Upper Aquifer	GM-50 11/11/2021 Upper Aquifer
Site-Specific Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	200	< 2.0 U	2.9	1.8 J	< 1.0 U	< 1.0 U	< 1.0 U	0.61 J	< 1.0 U	0.67 J	< 1.0 U
1,1-Dichloroethane	µg/L	--	1.5 J	1.6 J	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	0.74 J	1.2	0.66 J
1,1-Dichloroethene	µg/L	7	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 2.0 U	9.3	0.98 J	< 1.0 U	< 1.0 U	1.2	26	1.5	3.4	0.95 J
Ethylbenzene	µg/L	700	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	1.2 J	**93 J**	**55**	**5.5**	**5.3**	**8.3**	**29**	**27**	**28**	3.2
Toluene	µg/L	1,000	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	1.8 J	**54**	< 2.0 U	< 1.0 U	< 1.0 U	2.9	**17**	1.4	**8.9**	0.56 J
Vinyl chloride	µg/L	2	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 4.0 U	< 4.0 U	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		4.5	161	58	5.5	5.3	12	74	31	42	5.4

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	Phase 1 DGR™ System Performance Monitoring Wells									
			GM-51 10/5/2021 Upper Aquifer	GM-52 10/6/2021 Upper Aquifer	GM-63 11/11/2021 Upper Aquifer	GM-64 10/5/2021 Upper Aquifer	RMW-98 10/6/2021 Upper Aquifer	RMW-99 10/6/2021 Upper Aquifer	RMW-100 10/5/2021 Upper Aquifer	RMW-101 10/5/2021 Upper Aquifer	RMW-102 10/5/2021 Upper Aquifer	WSU-23 10/5/2021 Upper Aquifer
Site-Specific Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	200	0.81 J	< 1.0 U	0.59 J	< 1.0 U	1.1 J	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J
1,1-Dichloroethane	µg/L	--	1.2	0.76 J	0.70 J	0.75 J	< 2.0 U	< 1.0 U	0.69 J	< 1.0 U	< 1.0 U	< 2.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
cis-1,2-Dichloroethene	µg/L	70	3.9	1.6	0.59 J	3.1	< 2.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	1.1 J
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Tetrachloroethene	µg/L	5	**25**	**26**	**11**	**7.9**	**50**	**45**	< 1.0 U	< 1.0 U	**8.7**	**46**
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Trichloroethene	µg/L	5	**12**	1.5	0.47 J	1.2	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.8
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
Total Site-Specific VOCs	µg/L		43	30	13	13	51	46	1.7	Not Detected	8.7	53

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

Appendix C
Groundwater VOC Analytical Data for 2021 Including QA/QC Samples
RACER Trust Moraine Facilities
Moraine, Ohio

			DN-13 Performance	Monitoring Wells Upgradient of IRZ-3 West						DUPLICATE (HR-04)	DUPLICATE (GM-08)
			DN-13	GM-35	GM-36	GM-37	GM-38	EAST	WEST		
		U.S. EPA	11/16/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/4/2021	10/7/2021
	Units	MCL[1]	Lower Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	QC/QC	QC/QC
Site-Specific Volatile Organic Compounds											
1,1,1-Trichloroethane	µg/L	200	0.56 J	< 20 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	1.7	< 1.0 U
1,1-Dichloroethane	µg/L	--	1.3	15 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	1.9	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7
cis-1,2-Dichloroethene	µg/L	70	4.5	**78**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	3.0	0.77 J	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	1.4	**18 J**	**17**	**13**	**23**	**22**	**10**	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	5.0	**210**	1.2	1.3	3.9	1.8	2.4	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	0.50 J	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 40 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		13	321	18	14	30	24	17	4.4	1.7

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	DUPLICATE (RMW-91) 10/6/2021 QC/QC	EQUIPMENT BLANK 10/4/2021 QC/QC	EQUIPMENT BLANK 10/4/2021 QC/QC	EQUIPMENT BLANK 10/5/2021 QC/QC	EQUIPMENT BLANK 10/5/2021 QC/QC	EQUIPMENT BLANK 10/6/2021 QC/QC	EQUIPMENT BLANK 10/6/2021 QC/QC	EQUIPMENT BLANK 10/7/2021 QC/QC	EQUIPMENT BLANK 10/7/2021 QC/QC	EQUIPMENT BLANK 10/7/2021 QC/QC
Site-Specific Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	200	2.7	< 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
1,1-Dichloroethane	µg/L	--	1.5 J	< 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
1,1-Dichloroethene	µg/L	7	< 2.0 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
Benzene	µg/L	5	< 2.0 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
cis-1,2-Dichloroethene	µg/L	70	9.3	< 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
Ethylbenzene	µg/L	700	< 2.0 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
Tetrachloroethene	µg/L	5	**77**	< 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
Toluene	µg/L	1,000	< 2.0 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
trans-1,2-Dichloroethene	µg/L	100	< 2.0 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
Trichloroethene	µg/L	5	**53**	< 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
Vinyl chloride	µg/L	2	< 2.0 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
Xylene (total)	µg/L	10,000	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		144	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

	Units	U.S. EPA MCL[1]	EQUIPMENT BLANK 10/8/2021 QC/QC	EQUIPMENT BLANK 11/11/2021 QC/QC	TRIP BLANK 10/4/2021 QC/QC	TRIP BLANK 10/6/2021 QC/QC	TRIP BLANK 10/7/2021 QC/QC	TRIP BLANK 10/8/2021 QC/QC	TRIP BLANK 11/11/2021 QC/QC	TRIP BLANK 11/16/2021 QC/QC
Site-Specific Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	200	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	--	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	70	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	700	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	1,000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	100	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	10,000	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total Site-Specific VOCs	µg/L		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

NOTES:

MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.

[1] - An MCL is not listed for 1,1-dichloroethane.

< - Constituent not detected above laboratory reporting limit shown.

BOLD - Result above MCL.

µg/L - Micrograms per Liter.

J - Value is estimated.

U - Constituent not detected above laboratory reporting limit shown.

QA/QC - Quality Assurance/Quality Check

Appendix D

Groundwater VOC Analytical Results from 1999 to 2021

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Upgradient of the Site													
GM-24	9/23/1999	2.7	< 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
	12/11/2015	8.1	0.67 J	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.4	< 1.0 U	< 2.0 U
	8/16/2016	10	0.84 J	< 1.0 U	1.5	1.2	< 1.0 U	< 1.0 U	0.94 J	< 1.0 U	4.5	< 1.0 U	< 2.0 U
HR-11	9/14/1999	< 1.0 U	14	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/18/2000	< 1.0 U	33	< 1.0 U	< 1.0 U	19	< 1.0 U	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.30 J	33	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U
	9/26/2002	< 1.0 U	18	< 1.0 U	< 1.0 U	6.1	< 1.0 U	< 1.0 U	< 1.0 U	0.72	< 1.0 U	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	10	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/15/2004	< 1.0 U	7.3	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	2.2	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/17/2005	< 1.0 U	6.5	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	**6.0**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	6.7	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/19/2007	< 1.0 U	7.1	< 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	< 2.0 U
	9/25/2008	< 1.0 U	5.2	< 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	< 2.0 U
	9/26/2013	< 1.0 U	4.4	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 2.0 U
On-Site													
GM-6	9/20/1999	25	33	1.2	< 1.0 U	53	< 10 U	**81**	< 1.0 U	2.0	**78**	1.6	< 10 U
	9/26/2000	12	13	< 1.0 U	< 1.0 U	41	< 1.0 U	**52**	< 1.0 U	2.2	**57**	**3.7**	< 1.0 U
	11/9/2001	3.9	14	< 2.0 U	< 2.0 U	8.2	< 2.0 U	**14**	< 2.0 U	1.8	**48**	1.9J	< 2.0 U
	9/20/2002	1.4 J	60	< 2.0 U	2.2	43	< 2.0 U	**14**	< 2.0 U	8.6	**33**	**12**	< 2.0 U
	10/2/2003	0.19 J	20	< 1.0 U	1.0	13	0.22 J	**11**	< 1.0 U	2.5	**23**	**3.3**	< 1.0 U
	9/14/2004	< 1.0 U	18	< 1.0 U	1.7	10	< 1.0 U	2.6	< 1.0 U	1.9	**5.7**	**3.0**	< 1.0 U
	10/19/2005	< 1.0 U	21	< 1.0 U	0.49 J	20	< 1.0 U	0.34 J	< 1.0 U	2.1	1.4	**11**	< 2.0 U
	9/19/2006	< 1.0 U	16	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	< 1.0 U	1.6	0.35 J	**7.3**	< 2.0 U
	9/18/2007	< 1.0 U	26	< 1.0 U	0.42 J	16	< 1.0 U	< 1.0 U	< 1.0 U	2.6	0.34 J	**6.7**	< 2.0 U
	9/24/2008	< 1.0 U	< 8.0 U	< 1.0 U	1.2	6.7	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**2.1**	< 2.0 U
	11/11/2009	< 1.0 U	6.9	< 1.0 U	1.3	3.4	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	3.8	1.2	< 2.0 U
	9/27/2010	< 1.0 U	6.2	< 1.0 U	1.1	4.9	< 1.0 U	0.38 J	< 1.0 U	0.89 J	**6.6**	1.6	< 2.0 U
	9/29/2011	< 1.0 U	4.5	< 1.0 U	1.0	3.7	< 1.0 U	< 1.0 U	< 1.0 U	0.84 J	< 1.0 U	1.5	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	0.79 J	< 2.0 U
	10/7/2014	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/22/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.40 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65 J	< 2.0 U
	7/11/2019	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 2.0 U
	7/31/2020	< 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*	< 2.0 U
	10/7/2021	< 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	< 2.0 U
GM-8	9/20/1999	1.9	30.2	< 1.0 U	3.4	26.2	20.7	**14.8**	< 1.0 U	12	**30.4**	**8.4**	2.3
	9/26/2000	< 1.0 U	37	< 1.0 U	1.1	1.5	13	< 1.0 U	< 1.0 U	5.4	**6.6**	**2.4**	1.9
	11/9/2001	0.40 J	40	< 1.0 U	0.78 J	2.0	0.40 J	< 1.0 U	< 1.0 U	3.6	4.4	1.9	0.39J
	9/20/2002	< 2.0 U	63	< 2.0 U	**5.5**	5.5	7.5	< 2.0 U	1.8 J	9	< 2.0 U	**5.8**	1.5J
	10/1/2003	< 2.0 U	48	< 2.0 U	**5.4**	< 1.0 U	11	< 2.0 U	< 2.0 U	4.4	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 1.0 U	15	< 1.0 U	4.2	< 0.50 U	19	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.48 J	1.1
	10/19/2005	< 1.0 U	16	< 1.0 U	3.5	0.24 J	29	< 1.0 U	0.39 J	0.99 J	< 1.0 U	0.73 J	< 2.0 U
	9/19/2006	< 5.0 U	18	< 5.0 U	2.1 J	2.1 J	< 5.0 U	< 5.0 U	< 5.0 U	1.0 J	< 5.0 U	**3.2 J**	< 1.0 U
	9/18/2007	< 2.0 U	9.1	< 2.0 U	2.4	< 2.0 U	1.7 J	< 2.0 U	< 2.0 U	0.9 J	< 2.0 U	< 2.0 U	0.9 J
	9/23/2008	< 1.0 U	1.7	< 1.0 U	**6.8**	< 1.0 U	8.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	0.48 J	3.9
	11/16/2009	< 1.0 U	2.9	< 1.0 U	3.9	< 1.0 U	5.5	0.34 J	0.13 J	0.22 J	< 1.0 U	< 1.0 U	1.3 J
	9/27/2010	< 1.0 U	3.0	< 1.0 U	4.7	< 1.0 U	0.33 J	< 1.0 U	0.18 J	0.29 J	< 1.0 U	0.44 J	< 2.0 U
	9/29/2011	< 1.0 U	1.9	< 1.0 U	3.5	< 1.0 U	5.4	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	0.24 J	0.99 J
	9/6/2012	< 1.0 U	0.66 J	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.88 J	< 1.0 U	1.9	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	0.59 J	< 1.0 U	1.2	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 2.0 U
	12/8/2015	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.53 J	< 2.0 U
	8/22/2016	< 1.0 U	0.37 J	< 1.0 U	0.79 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	0.44 J	< 1.0 U	0.86 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J
	7/24/2018	< 1.0 U	0.47 J	< 1.0 U	1.3	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 2.0 U
	7/11/2019	< 1.0 U	0.40 J	< 1.0 U	1.6	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U*	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-19S	9/20/1999	16	7.7	1.0	< 1.0 U	35	< 10	**46**	< 1.0 U	2.3	**71**	< 1.0 U	< 10
	9/22/2000	15	4.4	< 1.0 U	< 1.0 U	38	< 1.0 U	**68**	< 1.0 U	2.6	**104**	< 1.0 U	< 1.0 U
	11/12/2001	7.6	2.9J	< 3.3 U	< 3.3 U	26	< 3.3 U	**64**	< 3.3 U	2.0	**97**	< 3.3 U	< 3.3 U
	9/26/2002	6.3	6.3	< 4.0 U	< 4.0 U	39	< 4.0 U	**52**	< 4.0 U	2.7	**110**	**5.2**	< 4.0 U
	9/25/2003	13	8.3	1.6 J	< 5.0 U	**89**	< 5.0 U	**62**	< 5.0 U	2.9	**140**	< 5.0 U	< 5.0 U
	9/13/2004	14	8.1	1.9 J	< 4.0 U	61	< 4.0 U	**71**	< 4.0 U	2.4	**120**	< 4.0 U	< 4.0 U
	10/18/2005	13	9.0	1.2 J	< 1.0 U	29	< 1.0 U	**95**	< 1.0 U	1.0 J	**140**	1.8	< 3.3 U
	9/21/2006	9.7 J	7.0 J	< 22 U	< 22 U	**660**	< 22 U	**9.1 J**	< 22 U	10 J	**11 J**	< 22 U	< 4.0 U
	9/17/2007	0.59 J	10	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	1.5	< 1.0 U	0.29 J	0.46 J	< 1.0 U	< 2.0 U
	9/23/2008	< 1.0 U	13	< 1.0 U	< 1.0 U	0.68 J	< 1.0 U	0.94 J	< 1.0 U	0.52 J	3.0	**9.3**	< 2.0 U
	11/17/2009	< 1.0 U	12	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	0.22 J	< 1.0 U	< 2.0 U
	4/7/2010	< 1.0 U	9.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/27/2010	< 1.0 U	9.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	10	< 1.0 U	< 1.0 U	5.3	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**12**	< 2.0 U
	9/6/2012	< 1.0 U	8.4	< 1.0 U	< 1.0 U	7.3	< 1.0 U	< 1.0 U	< 1.0 U	0.84 J	0.30 J	**10**	< 2.0 U
	9/26/2013	< 1.0 U	8.3	< 1.0 U	< 1.0 U	26	< 1.0 U	< 1.0 U	< 1.0 U	1.1	0.46 J	**17**	< 2.0 U
	10/7/2014	< 1.0 U	7.6	< 1.0 U	< 1.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	0.81 J	**15**	< 2.9 U
	12/8/2015	< 1.0 U	3.1	< 1.0 U	< 1.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	1.3	**6.4**	< 2.0 U
	8/22/2016	< 1.0 U	3.4	< 1.0 U	< 1.0 U	44	< 1.0 U	< 1.0 U	< 1.0 U	0.64 J	1.8	**4.6**	< 2.0 U
	8/17/2017	< 1.0 U	2.3	< 1.0 U	< 1.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	1.9	**4.0**	< 2.0 U
	7/24/2018	< 1.0 U	2.3	< 1.0 U	< 1.0 U	31	< 1.0 U	0.37 J	< 1.0 U	0.66 J	2.4	**8.8**	< 2.0 U
	7/12/2019	< 1.0 U	1.9	< 1.0 U	< 1.0 U	32	< 1.0 U	1.0	< 1.0 U	0.52 J	2.3	**3.6**	< 2.0 U
	2/13/2020	< 1.0 U	1.2	< 1.0 U	< 1.0 U	32	< 1.0 U	2.6	< 1.0 U	0.41 J	3.2	**2.1**	< 2.0 U
	7/31/2020	< 1.0 U	1.1	< 1.0 U	< 1.0 U	28	< 1.0 U	1.5	< 1.0 U	< 1.0 U	2.7	**2.9**	< 2.0 U
	10/7/2021	< 1.0 U	1.8	< 1.0 U	< 1.0 U	38	< 1.0 U	2.9	< 1.0 U	0.51 J	2.9	1.7	< 2.0 U
GM-21	9/22/1999	53	9.0	3.9	< 1.0 U	66	< 1.0 U	< 1.0 U	< 1.0 U	7.8	**29**	< 1.0 U	< 1.0 U
	9/22/2000	16	5.6	1.6	< 1.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	13	**189**	< 1.0 U	< 1.0 U
	11/13/2001	6.9	3.8 J	< 5.0 U	< 5.0 U	39	< 5.0 U	< 5.0 U	< 5.0 U	15	**160**	< 5.0 U	< 5.0 U
	9/25/2002	31	5.0 J	2.6 J	< 6.7 U	43	< 6.7 U	< 6.7 U	< 6.7 U	5.1	**230**	< 6.7 U	< 6.7 U
	9/24/2003	31	6.9 J	2.0 J	< 8.0 U	**100**	< 8.0 U	< 8.0 U	< 8.0 U	2.9 J	**200**	< 8.0 U	< 8.0 U
	9/14/2004	26	4.2 J	3.1 J	< 9.1 U	56	< 9.1 U	< 9.1 U	< 9.1 U	7.9	**180**	< 9.1 U	< 9.1 U
	10/17/2005	4.3	3.4	< 1.0 U	< 1.0 U	20	< 1.0 U	< 1.0 U	< 1.0 U	22	1.8	**13**	< 2.0 U
	9/20/2006	12	8.6	0.19 J	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	4.3	**5.9**	**9.3**	< 2.0 U
	9/26/2007	8.5	18	<1.4 U	<1.4 U	26	<1.4 U	<1.4 U	<1.4 U	2.5	2.8	**12**	< 2.9 U
	10/3/2008	8.7	15	0.33 J	< 1.0 U	38	< 1.0 U	0.56 J	< 1.0 U	4.7	**18**	**19**	< 2.9 U
	11/16/2009	2.4	22	< 1.0 U	< 1.0 U	7.8	< 1.0 U	< 1.0 U	< 1.0 U	4.4	2.4	**6.6**	< 2.0 U
	9/28/2010	0.75 J	20	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	3	3.2	**3.6**	< 2.0 U
	9/29/2011	1.0	16	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.9	**19**	**6.2**	< 2.0 U
	9/7/2012	< 2.0 U	18	< 2.0 U	< 2.0 U	8.5	< 2.0 U	< 2.0 U	< 2.0 U	1.7 J	**14**	**5.1**	< 4.0 U
	9/26/2013	< 1.0 U	9.5	< 1.0 U	< 1.0 U	5.1	< 1.0 U	< 1.0 U	< 1.0 U	1.1	**12**	**3.8**	< 2.0 U
	10/9/2014	< 1.0 U	16	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	1.6	**18**	**5.8**	< 2.0 U
	12/11/2015	< 2.0 U	12	< 2.0 U	< 2.0 U	22	< 2.0 U	< 2.0 U	< 2.0 U	1.6 J	**16**	**8.9**	< 4.0 U
	8/22/2016	< 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	< 2.0 U
	8/17/2017	< 1.0 U	11	< 1.0 U	< 1.0 U	19	< 1.0 U	< 1.0 U	< 1.0 U	1.5	2.4	**9.7**	< 2.0 U
	7/25/2018	< 1.0 U	9.3	< 1.0 U	< 1.0 U	23	< 1.0 U	< 1.0 U	< 1.0 U	1.6	3.9	**15**	< 2.0 U
	7/12/2019	< 1.0 U	6.3	< 1.0 U	< 1.0 U	10	< 1.0 U	< 1.0 U	< 1.0 U	1.0	2.1	**6.6**	< 2.0 U
	7/31/2020	< 1.0 U	7.0	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U*	< 1.0 U	1.3	1.7	**8.0**	< 2.0 U
	10/7/2021	< 1.0 U	8.4	< 1.0 U	< 1.0 U	9.8	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.98 J	**7.0**	< 2.0 U
GM-22	9/1/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	4.0	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	2.4	< 1.0 U	< 1.0 U	1.9	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/13/2001	4.4	6.8	0.58J	< 1.0 U	8.5	< 1.0 U	4.9	< 1.0 U	0.17 J	**7.5**	0.60 J	< 1.0 U
	9/25/2002	0.93 J	< 2.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 2.0 U	2.3	< 2.0 U	< 1.0 U	**7.6**	< 2.0 U	< 2.0 U
	9/24/2003	1.2	1.0	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	2.9	< 1.0 U	< 0.50 U	**7.6**	< 1.0 U	< 1.0 U
	9/14/2004	1.7	2.1	< 1.0 U	< 1.0 U	0.9	< 1.0 U	2.9	< 1.0 U	< 0.50 U	**10**	< 1.0 U	< 1.0 U
	10/17/2005	0.96 J	1.0	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	3.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/20/2006	0.47 J	1.1	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
	9/26/2007	0.66 J	0.72 J	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	3.3	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 2.0 U
	10/3/2008	0.73 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.7**	< 1.0 U	< 1.0 U	**5.7**	< 1.0 U	< 2.0 U
	9/26/2013	0.65 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.3	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 2.0 U
GM-23	9/2/1999	7.2	33	**17**	1.9	**7530**	< 1.0 U	**6250**	< 1.0 U	55	**1460**	**2500**	7.0
	9/20/2000	2.0	16	5.1	< 1.0 U	**5620**	< 1.0 U	**3470**	< 1.0 U	33	**609**	**801**	< 1.0 U
	11/12/2001	< 4.0 U20	< 4.0 U20	< 4.0 U20	< 4.0 U20	**8400**	< 4.0 U20	**15000**	< 4.0 U20	< 210	**2200**	**1200**	< 4.0 U20
	9/26/2002	< 4.0 U0	< 4.0 U0	< 4.0 U0	< 4.0 U0	**7700**	< 4.0 U0	**10000**	< 4.0 U0	< 200	**1700**	**540**	< 4.0 U0
	9/23/2003	< 50 U0 U	< 50 U0 U	< 50 U0 U	< 50 U0 U	**5800**	< 50 U0 U	**12000**	< 50 U0 U	< 250 U	**1600**	**690**	< 50 U0 U
	9/14/2004	< 50 U0 U	< 50 U0 U	< 50 U0 U	< 50 U0 U	**4600**	< 50 U0 U	**6700**	< 50 U0 U	< 250 U	**1100**	**870**	< 50 U0 U
	10/17/2005	< 560 U	< 560 U	< 560 U	< 560 U	**19000**	< 560 U	**2300**	< 560 U	< 560 U	**490 J**	**2800**	< 100 U
	9/28/2006	< 330 U	< 330 U	< 330 U	< 330 U	**11000**	< 330 U	**370**	< 330 U	**270 J**	**95 J**	**4100**	< 670 U
	9/27/2007	< 200 U	< 200 U	< 200 U	< 200 U	**4700**	< 200 U	**280**	< 200 U	**130 J**	**82 J**	**2600**	< 4.0 U0 U
	10/23/2008	< 62 U	< 62 U	< 62 U	< 62 U	**2000**	< 62 U	**71**	< 62 U	58 J	< 62 U	**2100**	< 1.0 U
	11/17/2009	< 20 U	5.0 J	< 20 U	< 20 U	**1100**	< 20 U	**19 J**	< 20 U	31	**8.3 J**	**1100**	< 4.0 U
	9/29/2010	< 22 U	< 22 U	< 22 U	< 22 U	**490**	< 22 U	**50**	< 22 U	16 J	**17 J**	**500**	< 4.0 U
	9/30/2011	< 20 U	< 20 U	< 20 U	< 20 U	**580**	< 20 U	**57**	< 20 U	21	**33**	**840**	< 4.0 U
	9/7/2012	< 25 U	< 25 U	< 25 U	< 25 U	**580**	< 25 U	**33**	< 25 U	21 J	**15 J**	**390**	< 50 U
	9/27/2013	< 1.0 U	2.6	1.7	0.28 J	**470**	< 1.0 U	**37**	< 1.0 U	15	**28**	**210**	< 2.0 U
	10/10/2014	< 1.0 U	8.4 J	< 1.0 U	< 1.0 U	**210**	< 1.0 U	3.6 J	< 1.0 U	20	4.1 J	**220**	< 20 U
	12/8/2015	< 1.0 U	15	0.47 J	0.69 J	**100**	< 1.0 U	0.58 J	< 1.0 U	13	5.0	**120**	< 2.0 U
	8/22/2016	< 2.0 U	8.6	1.1 J	< 2.0 U	**530**	< 2.0 U	**8.0**	< 2.0 U	18	**7.6**	**280**	< 4.0 U
	8/17/2017	< 2.0 U	5.4	1.4 J	< 2.0 U	**580**	< 2.0 U	**30**	< 2.0 U	22	**8.6**	**360**	< 4.0 U
	7/26/2018	< 1.0 U	8	0.81 J	0.47 J	**260**	< 1.0 U	**8.4**	0.16 J	16	5.0	**210**	< 2.0 U
	7/12/2019	< 40 U	< 40 U	< 40 U	< 40 U	**550**	< 40 U	**22 J**	< 40 U	16 J	**15 J**	**250**	< 80 U
	7/31/2020	< 2.5 U	9.9	< 2.5 U	< 2.5 U	**140**	< 2.5 U	3.3	< 2.5 U	11	**6.8**	**190**	< 5.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-25	9/22/1999	< 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
	10/21/2010	< 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
GM-27	9/1/1999	< 1.0 U	2.4	< 1.0 U	< 1.0 U	21	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**121**	< 1.0 U	< 1.0 U
	9/20/2000	< 1.0 U	2.2	< 1.0 U	< 1.0 U	14	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**112**	< 1.0 U	< 1.0 U
	11/13/2001	< 3.3 U	1.8 J	< 3.3 U	< 3.3 U	13	< 3.3 U	**6.8**	< 3.3 U	< 1.0 U	**110**	< 3.3 U	< 3.3 U
	9/26/2002	< 3.3 U	1.7 J	< 3.3 U	< 3.3 U	14	< 3.3 U	< 3.3 U	< 3.3 U	< 1.0 U	**100**	< 3.3 U	< 3.3 U
	9/23/2003	< 5.0 U	1.9 J	< 5.0 U	< 5.0 U	12	< 5.0 U	2.1 J	< 5.0 U	< 2.5 U	**100**	< 5.0 U	< 5.0 U
	9/15/2004	< 3.3 U	2.0 J	< 3.3 U	< 3.3 U	13	< 3.3 U	1.8 J	< 3.3 U	< 1.0 U	**81**	< 3.3 U	< 3.3 U
	10/17/2005	< 2.5 U	2.2 J	< 2.5 U	< 2.5 U	14	< 2.5 U	0.94 J	< 2.5 U	0.49 J	**76**	0.82 J	< 5.0 U
	9/28/2006	< 2.5 U	2.6	< 2.5 U	< 2.5 U	14	< 2.5 U	1.0 J	< 2.5 U	1.0 J	**80**	< 2.5 U	< 5.0 U
	9/27/2007	< 2.0 U	2.3	< 2.0 U	< 2.0 U	12	< 2.0 U	0.9 J	< 2.0 U	0.41 J	**70**	< 2.0 U	< 4.0 U
	10/23/2008	< 1.0 U	2	< 1.0 U	< 1.0 U	11	< 1.0 U	0.9 J	< 1.0 U	0.51 J	**57**	0.44 J	< 2.9 U
	9/27/2013	< 1.0 U	2.3	< 1.0 U	< 1.0 U	12	< 1.0 U	1.8	< 1.0 UB	0.51 J	**42**	0.18 J	< 2.0 U
	7/12/2019	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	9.0	< 1.0 U	0.59 J	< 1.0 U	0.37 J	**18**	0.31 J	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	7.7	< 1.0 U	0.85 J*	< 1.0 U	< 1.0 U	**22**	< 1.0 U*	< 2.0 U
GM-28	9/1/1999	18	3.3	< 1.0 U	< 1.0 U	**175**	< 1.0 U	**316**	< 1.0 U	9.2	**768**	**3.2**	< 1.0 U
	9/21/2000	5.0	9.9	< 1.0 U	< 1.0 U	37	< 1.0 U	2.3	< 1.0 U	22	1.6	**12**	< 1.0 U
	11/15/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	2.7	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	11	0.86 J	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	3.3	< 1.0 U	< 1.0 U	0.58	< 1.0 U	< 1.0 U	< 1.0 U	4.0	1.6	0.53 J	< 1.0 U
	9/15/2004	< 1.0 U	3.3	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.88 J	< 1.0 U	1.2	1.4	0.44 J	< 1.0 U
	10/18/2005	< 1.0 U	4.0	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	0.66 J	1.1	< 2.0 U
	9/27/2006	< 1.0 U	4.2	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	0.43 J	0.42 J	< 2.0 U
	9/20/2007	< 1.0 U	4.6	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.51 J	1.2	< 2.0 U
	10/22/2008	< 5.0 U	2.2 J	< 5.0 U	< 5.0 U	6.9	< 5.0 U	< 5.0 U	< 5.0 U	1.3 J	< 5.0 U	**6.5**	< 1.0 U
	11/16/2009	< 1.0 U	3.6	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	1.7	0.58 J	**3.3**	< 2.0 U
	9/28/2010	< 1.0 U	4.6	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**2.2**	< 2.0 U
	10/5/2011	< 1.0 U	2.1	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	0.63 J	< 1.0 U	0.69 J	0.41 J	0.57 J	< 2.0 U
GM-28R	12/28/2015	< 1.0 U	0.55 J	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**49**	< 1.0 U	0.38 J	**24**	0.99 J	< 2.0 U
	8/22/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	1.3	< 1.0 U	0.31 J	0.29 J	< 1.0 U	< 2.0 U
	8/17/2017	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	6.0	< 1.0 U	4.6	< 1.0 U	< 1.0 U	0.33 J	0.72 J	< 2.0 U
	7/25/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	3.5	< 1.0 U	< 1.0 U	0.30 J	0.70 J	< 2.0 U
	7/12/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**13**	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-29	9/1/1999	38	4.3	1.3	< 1.0 U	**320**	< 1.0 U	< 20 U	< 1.0 U	11	**878**	**3.8**	< 1.0 U
	9/21/2000	25	17	3.1	< 1.0 U	**2871**	< 1.0 U	**20**	2.2	14	**289**	**788**	< 1.0 U
	11/13/2001	< 50 U	< 50 U	< 50 U	< 50 U	**1800**	21 J	**17 J**	< 50 U	26	**270**	**230**	52
	9/25/2002	16 J	< 4.0 U	< 4.0 U	< 4.0 U	**1300**	< 4.0 U	**18 J**	< 4.0 U	21	**310**	**140**	< 4.0 U
	9/24/2003	18 J	< 33 U	< 33 U	< 33 U	**1200**	< 33 U	**18 J**	< 33 U	20	**390**	**150**	< 33 U
	9/15/2004	21 J	< 50 U	< 50 U	< 50 U	**1200**	< 50 U	**20 J**	< 50 U	21 J	**440**	**230**	< 50 U
	10/17/2005	19 J	18 J	< 50 U	< 50 U	**1600**	< 50 U	**15 J**	< 50 U	27 J	**390**	**490**	< 1.0 U
	9/28/2006	17 J	15 J	< 33 U	< 33 U	**1300**	< 33 U	**15 J**	< 33 U	20 J	**310**	**210**	< 67 U
	9/26/2007	15 J	15 J	< 50 U	< 50 U	**1200**	< 50 U	**18 J**	< 50 U	19 J	**350**	**290**	< 1.0 U
	10/6/2008	12 J	11 J	< 33 U	< 33 U	**900**	< 33 U	**17 J**	< 33 U	16 J	**300**	**150**	< 67 U
	11/17/2009	18	12	< 1.0 U	< 1.0 U	**600**	< 1.0 U	**21 J**	< 1.0 U	20	**370**	**70**	< 20 U
	9/29/2010	11 J	11 J	< 20 U	< 20 U	**660**	< 20 U	**17 J**	< 20 U	19 J	**330**	**59**	< 4.0 U
	9/30/2011	11 J	8.5 J	< 1.0 U	< 1.0 U	**470**	< 1.0 U	**13**	< 1.0 U	17	**320**	**52**	< 25 U
	9/26/2012	10 J	8.2 J	< 20 U	< 20 U	**520**	< 20 U	**14 J**	< 20 U	15 J	**310**	**45**	< 4.0 U
	9/27/2013	15	12	1.7	0.20 J	**530**	< 1.0 U	**15**	< 1.0 U	20	**280**	**60**	< 2.0 U
	10/9/2014	9.1 J	9.5 J	< 1.0 U	< 1.0 U	**480**	< 1.0 U	**12 J**	< 1.0 U	15	**260**	**40**	< 29 U
	12/8/2015	9.9	10	1.2 J	< 1.7 U	**440**	< 1.7 U	**11**	< 1.7 U	15	**270**	**48**	< 3.3 U
	8/22/2016	10	10	< 2.0 U	< 2.0 U	**470**	< 2.0 U	**13**	< 2.0 U	14	**360**	**42**	< 4.0 U
	8/17/2017	9.6	13	1.0 J	< 2.0 U	**430**	< 2.0 U	**11**	< 2.0 U	16	**280**	**53**	< 4.0 U
	7/25/2018	8.1	10	< 2.0 U	< 2.0 U	**420**	< 2.0 U	**13**	< 2.0 U	13	**310**	**41**	< 4.0 U
	7/12/2019	8.4 J	9.2 J	< 13 U	< 13 U	**380**	< 13 U	**11 J**	< 13 U	13	**300**	**38**	< 27 U
	7/31/2020	7.8	9.5	< 1.3 U	< 1.3 U	**380**	< 1.3 U	**11**	< 1.3 U	25	**290**	**42**	< 2.7 U
GM-30	9/2/1999	< 1.0 U	54 J	< 1.0 U	< 1.0 U	7.5 J	**7030 J**	**9.5 J**	**6950 J**	< 1.0 U	< 1.0 U	< 1.0 U	**23300 J**
	9/20/2000	< 1.0 U	50.6	< 1.0 U	2.7	< 1.0 U	**2290**	< 1.0 U	98.9	< 1.0 U	< 1.0 U	< 1.0 U	6770
	11/13/2001	< 25	31	< 25	< 25	< 1.0 U2	**840**	< 25	5.0 J	< 1.0 U2	**12 J**	< 25	2000
	9/27/2002	< 33	34	< 33	< 33	< 1.0 U7	350	< 33	< 33	< 1.0 U7	< 33	< 33	1400
	9/23/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 62 U	**1000**	< 1.0 U	240	< 62 U	< 1.0 U	< 1.0 U	7000
	9/14/2004	< 4.0 U	33 J	< 4.0 U	< 4.0 U	< 20 U	530	< 4.0 U	< 4.0 U	< 20 U	< 4.0 U	< 4.0 U	3000
	10/17/2005	< 50 U	23 J	< 50 U	< 50 U	< 50 U	620	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	3800
	9/20/2006	< 33 U	25 J	< 33 U	< 33 U	< 33 U	570	< 33 U	5.8 J	< 33 U	< 33 U	< 33 U	2500
	9/26/2007	< 1.0 U	16 J	< 1.0 U	< 1.0 U	< 1.0 U	380	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1300
	10/6/2008	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	300	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	670
	9/27/2013	< 1.0 U	5.3	< 1.0 U	4.0	< 1.0 U	20	0.23 J	1.1	0.63 J	0.28 J	0.34 J	7.2
	10/9/2014	< 1.0 U	3.2	< 1.0 U	2.3	0.29 J	54	< 1.0 U	0.71 J	0.51 J	< 1.0 U	< 1.0 U	12
	12/11/2015	< 2.0 U	3	< 2.0 U	2.9	< 2.0 U	260	< 2.0 U	0.87 J	< 2.0 U	< 2.0 U	< 2.0 U	14
	8/26/2016	< 1.0 U	7.6	< 1.0 U	**8.9**	< 1.0 U	4.7	< 1.0 U	1.1	6.5	< 1.0 U	0.29 J	9.6
GM-31	9/1/1999	< 1.0 U	1.3	< 1.0 U	< 1.0 U	7.8	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**27**	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	1.1	< 1.0 U	< 1.0 U	40	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U
	11/15/2001	< 4.0 U	3.1 J	< 4.0 U	< 4.0 U	**120**	< 4.0 U	< 4.0 U	< 4.0 U	1.8J	**11**	**7.4**	< 4.0 U
	9/24/2002	< 6.0 U	5.9 J	< 6.0 U	< 6.0 U	**200**	< 6.0 U	< 6.0 U	< 6.0 U	3.5	**10**	**19**	< 6.0 U
	10/1/2003	< 5.0 U	6	< 5.0 U	< 5.0 U	**170**	< 5.0 U	< 5.0 U	< 5.0 U	3.5	**28**	**10**	< 5.0 U
	9/15/2004	1.4 J	4 J	< 5.0 U	< 5.0 U	**120**	< 5.0 U	2.5 J	< 5.0 U	2.7	**29**	**2.4 J**	< 5.0 U
	10/18/2005	3.4	6.2	0.42 J	< 2.0 U	**120**	< 2.0 U	< 2.0 U	< 2.0 U	3.7	**67**	**3.1**	< 4.0 U
	9/27/2006	2.3 J	5.1	< 4.0 U	< 4.0 U	**110**	< 4.0 U	< 4.0 U	< 4.0 U	2.9 J	**65**	1.2 J	< 8.0 U
	9/20/2007	3.7	4.8	< 3.3 U	< 3.3 U	**100**	< 3.3 U	< 3.3 U	< 3.3 U	2.8 J	**90**	1.1 J	< 6.7 U
	10/23/2008	2.9	3.2	< 2.5 U	< 2.5 U	**76**	< 2.5 U	< 2.5 U	< 2.5 U	3	**78**	0.9 J	< 5.0 U
	9/27/2013	9.8	2.3	< 1.0 U	< 1.0 U	21	< 1.0 U	0.43 J	< 1.0 U	1.2	**120**	< 1.0 U	< 2.0 U
	10/9/2014	3.8	2.8	< 2.0 U	< 2.0 U	54	< 2.0 U	0.48 J	< 2.0 U	1.6 J	**79**	< 2.0 U	< 4.0 U
	12/8/2015	2.9	2.5	< 1.0 U	< 1.0 U	48	< 1.0 U	< 1.0 U	< 1.0 U	1.5	**75**	0.64 J	< 2.0 U

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Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-32	9/22/1999	< 1.0 U	3.3	< 1.0 U	< 1.0 U	2.6	< 1.0 U	1.2	1.0	4.2	3.2	**3.0**	< 1.0 U
	9/25/2000	< 1.0 U	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	10	20	< 1.0 U	< 1.0 U	< 1.0 U
	11/12/2001	< 5.0 U	6.2	< 5.0 U	4.3 J	< 2.5	0.79 J	< 5.0 U	12	2.9	< 5.0 U	1.1 J	3.0 J
	9/20/2002	< 1.0 U	9.7 J	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 2.0 U	5.5	< 2.0 U	1.5 J	< 1.0 U	< 2.0 U	< 2.0 U	< 2.0 U	1.0	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 1.0 U	3.0 J	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/19/2005	< 1.0 U	4.9 J	< 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	< 20 U
	9/19/2006	< 1.0 U	3.7 J	< 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	< 20 U
	9/18/2007	< 5.0 U	4.3 J	< 5.0 U	1.6 J	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	1.0 J	< 5.0 U	< 5.0 U	3.4 J
	9/23/2008	< 1.0 U	4.0 J	< 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	< 20 U
	7/11/2019	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 2.0 U
	7/31/2020	< 1.0 U	0.43 J	< 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*	< 2.0 U
	10/7/2021	< 1.0 U	0.86 J	< 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	< 2.0 U
GM-33	9/25/2003	21	8.4	1.0 J	< 2.5 U	19	< 2.5 U	**37**	< 2.5 U	0.72 J	**75**	< 2.5 U	< 2.5 U
	9/13/2004	17	5.4	1.1 J	< 2.0 U	9.5	< 2.0 U	**37**	< 2.0 U	0.45 J	**55**	< 2.0 U	< 2.0 U
	10/18/2005	18	6.4	0.69 J	< 1.0 U	7.4	< 1.0 U	**50**	< 1.0 U	0.36 J	**71**	1.0	< 2.0 U
	9/21/2006	18	4.5	1.1 J	< 1.0 U	6.9	< 1.0 U	**37**	< 1.0 U	0.44 J	**64**	< 1.0 U	< 3.3 U
	9/24/2007	15	4.9	0.68 J	< 1.0 U	5.5	< 1.0 U	**32**	< 1.0 U	0.34 J	**49**	< 1.0 U	< 3.3 U
	10/23/2008	8.4	2.9	0.58 J	< 1.0 U	4.1	< 1.0 U	**38**	< 1.0 U	< 1.0 U	**36**	< 1.0 U	< 2.9 U
	9/26/2013	3.4	1.1	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 2.0 U
	8/24/2015	0.61 J	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
GM-34	8/7/2002	4.8	2.7	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**20**	< 1.0 U	0.4 J	**11**	< 1.0 U	< 1.0 U
GM-35	9/25/2003	17	46	4.0 J	< 8.0 U	**300**	< 8.0 U	**21**	< 8.0 U	12	**270**	**59**	< 8.0 U
	9/13/2004	17	36	4.1 J	< 1.0 U	**270**	< 1.0 U	**21**	< 1.0 U	9.1	**230**	**50**	< 1.0 U
	10/18/2005	12	36	1.8 J	< 5.0 U	**190**	< 5.0 U	**29**	< 5.0 U	9.3	**240**	**23**	< 1.0 U
	9/22/2006	5.5 J	26 J	< 5.0 UJ	< 5.0 UJ	**160 J**	< 5.0 UJ	**14 J**	< 5.0 UJ	11 J	**130 J**	**13 J**	< 1.0 UJ
	9/24/2007	5.8 J	26	< 1.0 U	< 1.0 U	**140**	< 1.0 U	**22**	< 1.0 U	8 J	**110**	**12**	< 20 U
	9/29/2008	4.6 J	20	< 1.0 U	< 1.0 U	**92**	< 1.0 U	**20**	< 1.0 U	9.4 J	**88**	**7.9 J**	< 20 U
	11/13/2009	4.7	17	1.0 J	< 3.3 U	**74**	< 3.3 U	**33**	< 3.3 U	8.2	**120**	**4.6**	< 6.7 U
	9/27/2010	4.8	19	0.97 J	< 4.0 U	**73**	< 4.0 U	**37**	< 4.0 U	8.9	**120**	**4.3**	< 8.0 U
	9/30/2011	2.6 J	20	0.64 J	< 3.3 U	66	< 3.3 U	**17**	< 3.3 U	11	**59**	**7.7**	< 6.7 U
	9/6/2012	< 20 U	27	< 20 U	< 20 U	**84**	< 20 U	< 20 U	< 20 U	17 J	**9.9 J**	**14 J**	< 4.0 U
	9/26/2013	< 50 U	30 J	< 50 U	< 50 U	69	< 50 U	< 50 U	< 50 U	18 J	**18 J**	**11 J**	< 1.0 U
	10/8/2014	< 25 U	22 J	< 25 U	< 25 U	57	< 25 U	**6.0 J**	< 25 U	14 J	**28**	< 25 U	< 50 U
	11/4/2015	4	34	3.7	0.52 J	**300**	< 1.0 U	**47**	< 1.0 U	19	**200**	**14**	< 2.0 U
	8/23/2016	<50 U	19 J	<50 U	<50 U	**120**	<50 U	**27 J**	<50 U	<50 U	**120**	<50 U	<100 U
	7/30/2020	< 20 U	19 J	< 20 U	< 20 U	**92 F1**	< 20 U	**13 J**	< 20 U	9.0 J	**150**	< 20 U	< 40 U
	10/8/2021	< 20 U	15 J	< 20 U	< 20 U	**78**	< 20 U	**18 J**	< 20 U	< 20 U	**210**	< 20 U	< 40 U
GM-36	8/5/2002	5.5	21	< 2.0 U	< 2.0 U	55	< 2.0 U	**54**	< 2.0 U	1.6 J	**50**	< 2.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
GM-37	8/6/2002	17	7.1	0.98 J	< 2.5 U	41	< 2.5 U	**58**	< 2.5 U	1.6	**84**	< 2.5 U	< 2.5 U
	8/24/2015	2.0	0.65 J	< 1.0 U	< 1.0 U	5.9	< 1.0 U	**24**	< 1.0 U	< 1.0 U	**48**	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.7**	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
GM-38	8/6/2002	6	6.5	< 2.0 U	< 2.0 U	22	< 2.0 U	**50**	< 2.0 U	1	**25**	< 2.0 U	< 2.0 U
	7/30/2020	1.4	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**20**	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 2.0 U
	10/8/2021	1.0	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	**23**	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 2.0 U
GM-43	8/19/2004	< 9.1 U	6.9 J	< 9.1 U	< 9.1 U	**210**	< 9.1 U	**16**	< 9.1 U	8.7	**100**	**2.8 J**	< 9.1 U
	9/22/2006	< 5.0 UJ	3.7 J	< 5.0 UJ	< 5.0 UJ	**120 J**	< 5.0 UJ	**21 J**	< 5.0 UJ	5.7 J	**98 J**	< 5.0 UJ	< 1.0 UJ
	11/17/2009	2.5	5.7	0.74 J	< 2.5 U	**150**	<2.5 U	**28 J**	<2.5 U	6.2	**180**	1.0 J	<5.0 U
	9/24/2010	< 8.0 U	6.8 J	< 8.0 U	< 8.0 U	**220**	< 8.0 U	**26**	< 8.0 U	8.1	**170**	< 8.0 U	< 1.0 U
	9/30/2011	< 4.0 U	4.2	1.0 J	< 4.0 U	**130**	< 4.0 U	**22**	< 4.0 U	5.3	**180**	1.0 J	< 8.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**79**	< 1.0 U	**28**	< 1.0 U	4.1 J	**230**	< 1.0 U	< 20 U
	9/26/2013	1.0	2.0	< 1.0 U	< 1.0 U	32	< 1.0 U	**22**	< 1.0 U	3.7	**170**	0.21 J	< 2.0 U
	10/8/2014	1.8 J	< 5.7 U	< 5.7 U	< 5.7 U	25	< 5.7 U	**35**	< 5.7 U	1.5 J	**220**	< 5.7 U	< 1.0 U
	11/5/2015	1.4	0.63 J	< 1.0 U	< 1.0 U	14	< 1.0 U	**42**	< 1.0 U	0.89 J	**270**	< 1.0 U	< 2.0 U
	8/23/2016	1.6 J	0.72 J	< 2.0 U	< 2.0 U	11	< 2.0 U	**41**	< 2.0 U	0.83 J	**260**	< 2.0 U	< 4.0 U
GM-44	8/19/2004	4 J	3.3 J	< 6.0 U	< 6.0 U	**130**	< 6.0 U	**57**	< 6.0 U	4.4	**140**	< 6.0 U	< 6.0 U
	4/9/2010	1.8 J	2.5 J	0.70 J	< 3.3 U	48	< 3.3 U	**70**	< 3.3 U	4.4	**110**	< 3.3 U	< 6.7 U
	10/8/2014	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	16	< 6.7 U	**100**	< 6.7 U	< 6.7 U	**180**	< 6.7 U	< 1.0 U
	11/5/2015	1.5	0.94 J	< 1.0 U	< 1.0 U	18	< 1.0 U	**110**	< 1.0 U	0.81 J	**180**	< 1.0 U	< 2.0 U
GM-45	8/19/2004	5.8 J	8.5 J	< 9.1 U	< 9.1 U	**79**	< 9.1 U	**220**	< 9.1 U	3.5 J	**220**	< 9.1 U	< 9.1 U
	9/22/2006	3.5 J	3.1 J	< 8.0 UJ	< 8.0 UJ	54 J	< 8.0 UJ	**230 J**	< 8.0 UJ	2.7 J	**230 J**	< 8.0 UJ	< 1.0 UJ
	4/9/2010	2.7 J	2.5 J	< 5.7 U	< 5.7 U	36	< 5.7 U	**200**	< 5.7 U	3.3 J	**180**	< 5.7 U	< 1.0 U
	10/8/2014	3.2 J	2.2 J	< 4.0 U	< 4.0 U	37	< 4.0 U	**150**	< 4.0 U	2.0 J	**140**	< 4.0 U	< 8.0 U
	11/4/2015	6.5	3.3	< 1.0 U	< 1.0 U	36	< 1.0 U	**190**	< 1.0 U	2.7	**180**	0.50 J	< 2.0 U
GM-46	3/2/2006	< 1.0 U	2.7	< 1.0 U	< 1.0 U	6.8	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	22	1.9	< 2.0 U
	11/30/2006	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	1.5	1.5	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 2.0 U
GM-53	9/14/2006	< 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	< 2.0 U
GM-59	9/15/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.0 J	< 1.0 U	**310**	< 1.0 U	< 1.0 U	**94**	< 1.0 U	< 29 U
	10/3/2008	< 33 U	< 33 U	< 33 U	< 33 U	41	< 33 U	**750**	< 33 U	< 33 U	**750**	< 33 U	< 67 U
	11/17/2009	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	3.3 J	< 6.7 U	**500 J**	< 6.7 U	< 6.7 U	**170**	< 6.7 U	< 1.0 U
	4/8/2010	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	2.9 J	< 8.0 U	**280**	< 8.0 U	< 8.0 U	**69**	< 8.0 U	< 1.0 U
	9/29/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.7 J	< 1.0 U	**520**	< 1.0 U	< 1.0 U	**350**	< 1.0 U	< 31 U
	9/30/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.4 J	< 1.0 U	**520**	< 1.0 U	< 1.0 U	**510**	< 1.0 U	< 25 U
	9/7/2012	< 50 U	< 50 U	< 50 U	< 50 U	16 J	< 50 U	**800**	< 50 U	< 50 U	**710**	< 50 U	< 1.0 U
	9/27/2013	1.0	< 1.0 U	< 1.0 U	< 1.0 U	11	< 1.0 U	**1000**	< 1.0 U	0.56 J	**1100**	< 1.0 U	< 2.0 U
	10/10/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.7 J	< 1.0 U	**420**	< 1.0 U	< 1.0 U	**110**	< 1.0 U	< 27 U
	12/8/2015	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**270**	< 1.0 U	0.34 J	**97**	< 1.0 U	< 2.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	2.6	< 2.0 U	**280**	< 2.0 U	< 2.0 U	**170**	< 2.0 U	< 4.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-60	9/15/2006	< 25 U	< 25 U	< 25 U	< 25 U	**220**	< 25 U	**510**	< 25 U	< 25 U	**570**	< 25 U	< 50 U
	10/3/2008	< 25 U	< 25 U	< 25 U	< 25 U	**360**	< 25 U	**900**	< 25 U	< 25 U	**920**	< 25 U	< 50 U
	11/17/2009	< 20 U	< 20 U	< 20 U	< 20 U	**160**	< 20 U	**1100 J**	< 20 U	< 20 U	**1400**	< 20 U	< 4.0 U
	4/8/2010	< 22 U	< 22 U	< 22 U	< 22 U	17 J	< 22 U	**820**	< 22 U	< 22 U	**740**	< 22 U	< 4.0 U
	9/29/2010	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**940**	< 4.0 U	**970**	< 4.0 U	10 J	**1300**	**18 J**	< 8.0 U
	9/30/2011	< 20 U	< 20 U	< 20 U	< 20 U	**370**	< 20 U	**620**	< 20 U	3.8 J	**810**	**11 J**	< 4.0 U
	9/7/2012	< 59 U	< 59 U	< 59 U	< 59 U	**480**	< 59 U	**610**	< 59 U	< 59 U	**980**	< 59 U	< 1.0 U
	9/27/2013	1.4	1.3	1.5	< 1.0 U	**400**	< 1.0 U	**670**	< 1.0 U	4.2	**1100**	**2.1**	< 2.0 U
	10/9/2014	< 67 U	< 67 U	< 67 U	< 67 U	**96**	< 67 U	**860**	< 67 U	< 67 U	**1400**	< 67 U	< 1.0 U
	11/5/2015	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	16	< 4.0 U	**770**	< 4.0 U	< 4.0 U	**910**	< 4.0 U	< 8.0 U
	8/23/2016	1.1 J	0.69 J	< 2.0 U	< 2.0 U	12	< 2.0 U	**530**	< 2.0 U	< 2.0 U	**700**	< 2.0 U	< 4.0 U
GM-66	5/2/2007	< 2.9 U	8.3	< 2.9 U	< 2.9 U	**84**	< 2.9 U	< 2.9 U	< 2.9 U	3.3	**31**	**4.1**	< 5.7 U
	10/8/2014	< 1.0 U	12	< 1.0 U	< 1.0 U	**280**	< 1.0 U	< 1.0 U	< 1.0 U	11	**110**	**3.0 J**	< 20 U
	12/8/2015	< 1.0 U	12	2.5	< 1.0 U	**280**	< 1.0 U	< 1.0 U	< 1.0 U	11	**110**	**3.0**	< 2.0 U
GM-67S	5/3/2007	< 5.7 U	2.8 J	< 5.7 U	< 5.7 U	5.2 J	< 5.7 U	1.1 J	< 5.7 U	< 5.7 U	**140**	< 5.7 U	< 1.0 U
	10/10/2014	< 5.0 U	1.6 J	< 5.0 U	< 5.0 U	2.3 J	< 5.0 U	1.1 J	< 5.0 U	< 5.0 U	**140**	< 5.0 U	< 1.0 U
	11/4/2015	< 1.0 U	2.1	< 1.0 U	< 1.0 U	2.3	< 1.0 U	1.6	< 1.0 U	0.34 J	**130**	< 1.0 U	< 2.0 UJ
GM-68S	5/4/2007	0.62 J	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**28**	< 2.5 U	< 2.5 U	**78**	< 2.5 U	< 5.0 U
GM-71	5/3/2007	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**11**	< 2.0 U	< 4.0 U
	10/9/2014	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	**19**	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	11/3/2015	0.51 J	0.35 J	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	**19**	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 2.0 U
GM-72	5/3/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**53**	< 1.0 U	< 1.0 U	0.66 J	< 1.0 U	< 3.3 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-74S	9/27/2007	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**140**	< 4.0 U	< 4.0 U	**83**	< 4.0 U	< 8.0 U
	4/9/2010	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**200**	< 5.7 U	< 5.7 U	**44**	< 5.7 U	< 1.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**69**	< 2.0 U	< 2.0 U	**14 K**	< 2.0 U	< 4.0 U
GM-75S	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**490**	< 1.0 U	< 1.0 U	**210**	< 1.0 U	< 29 U
	10/6/2008	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	**690**	< 20 U	< 20 U	**250**	< 20 U	< 4.0 U
	11/16/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.9 J	< 1.0 U	**640**	< 1.0 U	< 1.0 U	**260**	< 1.0 U	< 20 U
	9/29/2010	< 29 U	< 29 U	< 29 U	< 29 U	14 J	< 29 U	**650**	< 29 U	< 29 U	**890**	< 29 U	< 57 U
	9/30/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.4 J	< 1.0 U	**430**	< 1.0 U	< 1.0 U	**720**	< 1.0 U	< 33 U
	9/7/2012	< 29 U	< 29 U	< 29 U	< 29 U	< 29 U	< 29 U	**420**	< 29 U	< 29 U	**250**	< 29 U	< 57 U
	9/27/2013	1.8	0.53 J	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**480**	< 1.0 U	0.29 J	**350**	< 1.0 U	< 2.0 U
	10/9/2014	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	**460**	< 20 U	< 20 U	**170**	< 20 U	< 4.0 U
	12/11/2015	0.58 J	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	< 1.3 U	**420**	< 1.3 U	< 1.3 U	**68**	< 1.3 U	< 2.5 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**520**	< 2.0 U	< 2.0 U	**68**	< 2.0 U	< 4.0 U
GM-76S	9/23/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.64 J	< 1.0 U	< 2.0 U
GM-83S	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	0.18 J	0.3 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.19 J	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-1	9/16/1999	1.6	2.4	< 1.0 U	< 1.0 U	5.8	< 1.0 U	**44**	< 1.0 U	3.9	**56**	< 1.0 U	< 1.0 U
	9/25/2000	1.3	2.4	< 1.0 U	< 1.0 U	8.5	< 1.0 U	**33**	< 1.0 U	3.2	**56**	< 1.0 U	< 1.0 U
	11/8/2001	2.2 J	2.8 J	< 3.3 U	< 3.3 U	9.9	< 3.3 U	**36**	< 3.3 U	2.8	**86 B**	< 3.3 U	< 3.3 U
	9/23/2002	< 2.0 U	2.8	< 2.0 U	< 2.0 U	4.5	< 2.0 U	**33**	< 2.0 U	3.2	**33**	< 2.0 U	< 2.0 U
	9/18/2003	1 J	2.6	< 2.0 U	< 2.0 U	2.3	< 2.0 U	**27**	< 2.0 U	3.2	**56**	< 2.0 U	< 2.0 U
	9/13/2004	0.56 J	2.5	< 1.0 U	< 1.0 U	24	< 1.0 U	**23**	< 1.0 U	2.3	**30**	0.55 J	< 1.0 U
	10/18/2005	1.2	2.7	< 1.0 U	< 1.0 U	19	< 1.0 U	**28**	< 1.0 U	2.3	**43**	1.1	< 2.0 U
	9/25/2006	0.57 J	1.7	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	1.4 J	**50**	< 1.0 U	< 3.3 U
	9/24/2007	0.45 J	2.2	0.21J	< 1.0 U	9.5	< 1.0 U	**20**	< 1.0 U	1.9	**40**	< 1.0 U	< 2.0 U
	9/29/2008	0.77 J	1.8 J	< 2.5 U	< 2.5 U	5	< 2.5 U	**27**	< 2.5 U	2 J	**70**	< 2.5 U	< 5.0 U
	9/26/2013	0.99 J	1.2	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**30**	< 1.0 U	0.90 J	**100**	< 1.0 U	< 2.0 U
	10/8/2014	1.3 J	1.4 J	< 5.0 U	< 5.0 U	20	< 5.0 U	**36**	< 5.0 U	1.5 J	**120**	< 5.0 U	< 1.0 U
	11/5/2015	1.2	0.51 J	< 1.0 U	< 1.0 U	6.6	< 1.0 U	**76**	< 1.0 U	0.43 J	**210**	< 1.0 U	< 2.0 U
	8/23/2016	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	3.3	< 2.0 U	**63**	< 2.0 U	< 2.0 U	**190**	< 2.0 U	< 4.0 U
	8/17/2017	1.0	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	**56**	< 1.0 U	< 1.0 U	0.65 J	< 1.0 U	< 2.0 U
	7/25/2018	0.77 J	0.96 J	< 1.0 U	< 1.0 U	20	< 1.0 U	**99**	< 1.0 U	1.3	**40**	< 1.0 U	< 2.0 U
	7/29/2020	< 10 U	< 10 U	< 10 U	< 10 U	20	< 10 U	**120**	< 10 U	< 10 U	**25**	< 10 U	< 20 U
HR-2	9/16/1999	< 1.0 U	3.9	< 1.0 U	< 1.0 U	9.6	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	4.6	< 1.0 U	< 1.0 U	8.6	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U
	11/7/2001	< 1.0 U	4.2	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	1.1	0.56 J	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	4.9	< 1.0 U	< 1.0 U	8.8	< 1.0 U	< 1.0 U	< 1.0 U	1.2	0.46 J	< 1.0 U	< 1.0 U
	9/16/2003	< 1.0 U	4.5	< 1.0 U	< 1.0 U	7.2	< 1.0 U	< 1.0 U	< 1.0 U	0.96	0.40 J	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	5.6	< 1.0 U	< 1.0 U	7.8	< 1.0 U	0.37 J	< 1.0 U	1.1	0.53 J	0.23 J	< 1.0 U
	10/20/2005	< 1.0 U	4.4	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	0.35 J	0.29 J	< 2.0 U
	9/25/2006	< 1.0 U	5.2	< 1.0 U	< 1.0 U	5.6	< 1.0 U	< 1.0 U	< 1.0 U	0.79 J	0.48 J	< 1.0 U	< 2.0 U
	9/26/2007	< 1.0 U	5.3	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.76 J	0.45 J	< 1.0 U	< 2.0 U
	10/1/2008	< 1.0 U	4.6	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	0.36 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	5.6	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.45 J	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	5.6	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	0.39 J	< 1.0 U	< 1.0 U
	9/28/2011	< 1.0 U	6.4	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	0.43 J	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	7.7	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	0.41 J	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	7.5	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	0.40 J	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	7.3	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 1.0 UB	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	8.3	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	< 2.0 U
	8/25/2016	< 1.0 U	9.5	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 UB	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
HR-3	9/16/1999	< 1.0 U	6.2	< 1.0 U	< 1.0 U	6.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	5.1	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/7/2001	< 1.0 U	6.9	< 1.0 U	< 1.0 U	5.1	< 1.0 U	< 1.0 U	< 1.0 U	0.60	0.66 J	< 1.0 U	< 1.0 U
	9/24/2002	< 1.0 U	15	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.0	1.4	< 1.0 U	< 1.0 U
	9/16/2003	< 1.0 U	13	< 1.0 U	< 1.0 U	9.9	< 1.0 U	< 1.0 U	< 1.0 U	1.1	1.6	< 1.0 U	< 1.0 U
	9/16/2004	0.27 J	23	< 1.0 U	< 1.0 U	18	< 1.0 U	0.32 J	< 1.0 U	1.8	**8.1**	< 1.0 U	< 1.0 U
	10/20/2005	0.34 J	18	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	1.5	**10**	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	10	< 1.0 U	< 1.0 U	8.2	< 1.0 U	< 1.0 U	< 1.0 U	0.99 J	**7.2**	< 1.0 U	< 2.0 U
	10/2/2008	0.84 J	16	0.27 J	< 1.0 UJ	17	< 1.0 U	< 1.0 U	< 1.0 U	1.6	**32**	**2.2**	< 2.0 U
	9/27/2013	6.9	12	0.51 J	< 1.0 U	59	< 1.0 U	< 1.0 U	< 1.0 U	2.2	**190**	0.93 J	< 2.0 U
	10/8/2014	7.6 J	11	< 1.0 U	< 1.0 U	**82**	< 1.0 U	< 1.0 U	< 1.0 U	2.7 J	**220**	**6.4 J**	< 2.0 U
	11/4/2015	7.3	9.6	0.68 J	< 1.0 U	**82**	< 1.0 U	< 1.0 U	< 1.0 U	2.6	**200**	**13**	< 2.0 U
	8/25/2016	7.1	6.6	< 2.0 U	< 2.0 U	**93**	< 2.0 U	0.95 J	< 2.0 U	2.5	**200**	**4.2**	< 4.0 U
HR-4	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U
	9/20/2000	< 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
	11/6/2001	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 0.50 U	1.0	< 1.0 U	< 1.0 U
	9/27/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.59 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	0.77 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	0.50 J	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 2.0 U
	9/26/2007	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	9/30/2008	< 1.0 U	4.1	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	5.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	4.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	9/7/2012	0.23 J	5	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/27/2013	0.29 J	3.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	10/7/2014	0.71 J	2.0	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	10/30/2015	1.2	1.6	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 2.0 U
	8/19/2016	2	1.6	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	8/16/2017	1.9	2.1	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/24/2018	1.6	1.6	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/9/2019	2.2	1.7	0.19 J	< 1.0 U	0.56 J	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/29/2020	1.9	1.3	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	10/4/2021	1.9	1.9	< 1.0 U	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-5	9/16/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	10.5	< 1.0 U	< 1.0 U	< 1.0 U	1.1	**12**	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.6	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**8.1**	< 1.0 U	2.0
	11/7/2001	0.17 J	0.55 J	< 1.0 U	< 1.0 U	7.8	< 1.0 U	< 1.0 U	< 1.0 U	0.74	**11**	< 1.0 U	< 1.0 U
	9/23/2002	< 1.0 U	0.55 J	< 1.0 U	< 1.0 U	7.5	< 1.0 U	< 1.0 U	< 1.0 U	0.58	**13**	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	**11**	< 1.0 U	< 1.0 U
	9/13/2004	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	4.8	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	**11**	< 1.0 U	< 1.0 U
	10/18/2005	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	**13**	1.1	< 2.0 U
	9/22/2006	< 1.0 UJ	0.41 J	< 1.0 UJ	< 1.0 UJ	5.2 J	< 1.0 UJ	0.27 J	< 1.0 UJ	0.46 J	**13 J**	0.22 J	< 2.0 UJ
	9/24/2007	< 1.0 U	0.51J	< 1.0 U	< 1.0 U	5.4	< 1.0 U	< 1.0 U	< 1.0 U	0.41J	**13**	< 1.0 U	< 2.0 U
	9/29/2008	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	5.4	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	**13**	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	7.0	< 1.0 U	0.57 J	< 1.0 U	0.63 J	**14**	0.36 J	< 2.0 U
HR-6	9/16/1999	< 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	2.0	< 1.0 U	< 1.0 U
	9/23/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
HR-7	9/17/1999	< 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	**9.8**	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**9.4**	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**9.4**	< 1.0 U	< 1.0 U
	2/26/2008	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 2.0 U
	9/23/2010	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.0**	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	< 1.0 U	< 1.0 UF2J	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.9**	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.0**	< 1.0 U	< 2.0 U
HR-16	9/23/1999	< 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	2.7	< 1.0 U	< 1.0 U
	9/18/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.46J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
	1/21/2008	< 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	1.3	< 1.0 U	< 2.0 U
	9/6/2012	0.62 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
	9/25/2013	0.61 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	10/7/2014	0.58 J	0.64 J	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	2.7	< 1.0 U	< 2.0 U
	8/22/2016	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	3.6	< 1.0 U	< 2.0 U
	7/9/2019	0.36 J	0.75 J	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U	0.17 J	< 1.0 U	0.21 J	2.9	< 1.0 U	< 2.0 U
	7/29/2020	0.52 J	0.67 J	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	10/6/2021	< 2.0 U	1.5 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	1.2 J	< 2.0 U	< 2.0 U	1.8 J	< 2.0 U	< 4.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
HR-17	9/23/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.2	< 1.0 U	**16**	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U
	9/28/2000	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	4.4	< 1.0 U	< 1.0 U
	11/8/2001	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	3.3	< 1.0 U	< 0.50 U	4.2 B	< 1.0 U	< 1.0 U
	9/18/2002	0.39 J	1.5	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**22**	< 1.0 U	1.4	**12**	< 1.0 U	< 1.0 U
	9/25/2003	< 2.0 U	0.75 J	< 2.0 U	< 2.0 U	2.2	< 2.0 U	**64**	< 2.0 U	0.7 J	**10**	< 2.0 U	< 2.0 U
	9/17/2004	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	7.1	< 5.0 U	**82**	< 5.0 U	1.6 J	**18**	< 5.0 U	< 5.0 U
	10/19/2005	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**45**	< 1.0 U	0.57 J	**8.3**	< 1.0 U	< 3.7 U
	9/18/2006	< 1.0 U	0.6 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	**34**	< 1.0 U	0.46 J	**5.6**	< 1.0 U	< 2.0 U
	9/25/2007	< 2.5 U	1.2 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**51**	< 2.5 U	0.69 J	**16**	< 2.5 U	< 5.0 U
	9/26/2008	< 4.0 U	1.1 J	< 4.0 U	< 4.0 U	2.7 J	< 4.0 U	**120**	< 4.0 U	1.0 J	**31**	< 4.0 U	< 8.0 U
	11/12/2009	< 2.5 U	1.7 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**85**	< 2.5 U	1.3 J	**21**	< 2.5 U	< 5.0 U
	9/23/2010	< 1.0 U	1.9	< 1.0 U	< 1.0 U	2.2	< 1.0 U	**60**	< 1.0 U	1.2 J	**18**	< 1.0 U	< 3.3 U
	9/29/2011	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**110**	< 5.7 U	< 5.7 U	**57**	< 5.7 U	< 1.0 U
	9/6/2012	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	2.4 J	< 9.1 U	**140**	< 9.1 U	< 9.1 U	**75**	< 9.1 U	< 1.0 U
	9/25/2013	1.3	0.93 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**150**	< 1.0 U	0.92 J	**100**	< 1.0 U	< 2.0 U
	10/7/2014	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	2.2 J	< 5.0 U	**170**	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 1.0 U
	11/4/2015	1.5	0.61 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**150**	< 1.0 U	0.73 J	**160**	< 1.0 U	< 2.0 U
	8/25/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**170**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	8/17/2017	0.80 J	0.60 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**150**	< 1.0 U	< 1.0 U	**24**	< 1.0 U	< 2.0 U
	7/25/2018	4.8	2.2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**180**	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 2.0 U
	7/9/2019	7.4	1.6	0.54 J	< 1.0 U	1.2	< 1.0 U	**150**	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 2.0 U
	2/13/2020	1.7	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	**170**	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 2.0 U
	7/29/2020	3.6	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**160**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**130**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
ME-1	8/31/1999	14	2.4	< 1.0 U	< 1.0 U	38	< 1.0 U	**84**	< 1.0 U	1.5	**292**	**36**	< 1.0 U
ME-3	8/31/1999	43	6.1	< 1.0 U	< 1.0 U	5.7	< 1.0 U	**58**	< 1.0 U	< 1.0 U	**48**	< 1.0 U	< 1.0 U
	9/21/2000	6.4	3.4	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	1.4	2.9	< 1.0 U	**2.1**	< 1.0 U
	11/15/2001	1.6	5.9	< 1.0 U	< 1.0 U	16	< 1.0 U	1.3	0.34 J	2.7	3.8	**7.3**	< 1.0 U
	9/24/2002	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 1.0 U	< 2.5 U	< 2.5 U	< 2.5 U	< 1.0 U	< 2.5 U	< 2.5 U	< 2.5 U
	10/1/2003	0.31 J	24	< 1.0 U	0.6 J	0.96	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.5	< 1.0 U	< 1.0 U
	9/15/2004	0.53 J	18	< 1.0 U	< 1.0 U	2.2	< 1.0 U	0.21 J	< 1.0 U	< 0.50 U	1.5	1.1	< 1.0 U
	10/18/2005	1.6	15	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	1.6	< 2.0 U
	9/27/2006	1.1	8.5	< 1.0 U	< 1.0 U	3.5	< 1.0 U	1.9	< 1.0 U	0.34 J	2.4	**2.2**	< 2.0 U
	9/20/2007	2.0	3.8	< 1.0 U	< 1.0 U	1.2	< 1.0 U	**5.2**	< 1.0 U	< 1.0 U	3.6	0.82 J	< 2.0 U
	10/22/2008	2.1	1.8	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**8.1**	< 1.0 U	< 1.0 U	4.9	0.7 J	< 2.0 U
	9/27/2013	1.0	0.41 J	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	**7.1**	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 2.0 U
ME-6	8/31/1999	2.9	< 1.0 U	< 1.0 U	< 1.0 U	**255**	< 1.0 U	**213**	< 1.0 U	< 1.0 U	**474**	< 1.0 U	< 1.0 U
	9/21/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**99**	< 1.0 U	**6.7**	1.9	2.5	**19**	**6.1**	< 1.0 U
	11/15/2001	2.2	2.7	< 2.0 U	< 2.0 U	65	< 2.0 U	**8.2**	0.42 J	1.8	**23**	**13**	< 2.0 U
	9/25/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.2	< 1.0 U	< 1.0 U	6.6J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	13	7.2	< 2.0 U	0.46 J	20	< 2.0 U	**12**	< 2.0 U	< 1.0 U	**31**	**2.9**	< 2.0 U
	9/15/2004	4.1	6.3	0.26 J	< 1.0 U	14	< 1.0 U	**5.3**	< 1.0 U	0.56	**9.2**	**2.4**	< 1.0 U
	10/18/2005	2.2	7.0	< 1.0 U	< 1.0 U	13	< 1.0 U	**9.8**	< 1.0 U	0.93 J	**25**	**5.6**	< 2.0 U
	9/27/2006	1.4	6.3	< 1.0 U	< 1.0 U	27	< 1.0 U	**13**	< 1.0 U	1.3 J	**32**	**11**	< 2.9 U
	9/20/2007	0.61 J	6.4	< 1.0 U	< 1.0 U	9.2	< 1.0 U	4.5	< 1.0 U	0.51 J	**12**	**4.5**	< 2.0 U
	10/22/2008	2.7	11	< 1.0 U	< 1.0 U	5.2	< 1.0 U	**7.7**	< 1.0 U	0.25 J	**9**	1.7	< 2.0 U
	9/27/2013	5.9	20	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**5.1**	< 1.0 U	< 1.0 U	2.8	0.28 J	< 2.0 U
RMW-89	1/15/2016	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**46**	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.4	< 2.0 U	**61**	< 2.0 U	< 2.0 U	**21**	< 2.0 U	< 4.0 U
RMW-90	1/15/2016	7.1	8.7	0.49 J	< 1.0 U	38	< 1.0 U	0.86 J	< 1.0 U	1.0	**29**	1.0	< 2.0 U
	8/17/2016	12	8.4	0.96 J	< 1.0 U	31	< 1.0 U	1.5	< 1.0 U	0.99 J	**55**	0.81 J	< 2.0 U
RMW-91	7/11/2019	1.8 J	2.5 J	< 5.0 U	< 5.0 U	25	< 5.0 U	**130**	< 5.0 U	2.3 J	**62**	< 5.0 U	< 10 U
	2/14/2020	2.8	1.8	< 1.0 U	< 1.0 U	12	< 1.0 U	**100**	< 1.0 U	1.1	**59**	< 1.0 U	< 2.0 U
	7/28/2020	1.8 J	< 5.0 U	< 5.0 U	< 5.0 U	8.9	< 5.0 U	**83**	< 5.0 U	< 5.0 U	**53**	< 5.0 U	< 10 U
	10/6/2021	2.9	1.6 J	< 2.0 U	< 2.0 U	9.3	< 2.0 U	**93 J**	< 2.0 U	< 2.0 U	**54**	< 2.0 U	< 4.0 U
RMW-92	7/11/2019	1.6	0.55 J	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	**57**	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	2/14/2020	1.4 J	0.56 J	< 2.0 U	< 2.0 U	0.84 J	< 2.0 U	**54**	< 2.0 U	< 2.0 U	1.0 J	< 2.0 U	< 4.0 U
	7/28/2020	1.3 J	< 2.0 U	< 2.0 U	< 2.0 U	0.79 J	< 2.0 U	**50**	< 2.0 U	< 2.0 U	0.96 J	< 2.0 U	< 4.0 U
	10/6/2021	1.8 J	< 2.0 U	< 2.0 U	< 2.0 U	0.98 J	< 2.0 U	**55**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
RMW-93	7/11/2019	2.0 J	0.66 J	< 2.5 U	< 2.5 U	1.7 J	< 2.5 U	**90**	< 2.5 U	< 2.5 U	**7.2**	< 2.5 U	< 5.0 U
	2/13/2020	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**50**	< 2.0 U	< 2.0 U	3.7	< 2.0 U	< 4.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 1.0 U	0.86 J	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-94	7/11/2019	1.2 J	0.39 J	< 1.7 U	< 1.7 U	0.40 J	< 1.7 U	**58**	< 1.7 U	< 1.7 U	0.71 J	< 1.7 U	< 3.3 U
	2/13/2020	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**38**	< 2.0 U	< 2.0 U	0.39 J	< 2.0 U	< 4.0 U
	7/28/2020	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	**27**	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 3.3 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RZ-1A	9/29/1999	5.7	1.8	< 1.0 U	< 1.0 U	68.6	< 1.0 U	**252**	< 1.0 U	3.6	**158**	**3.3**	< 1.0 U
RZ-1G	9/29/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14.8	< 1.0 U	**91.5**	< 1.0 U	< 1.0 U	**44.1**	< 1.0 U	< 1.0 U
RZ-3E	9/30/1999	28.4	20.9	1.6	< 1.0 U	**112**	< 1.0 U	**58.2**	< 1.0 U	2.0	**124**	**2.7**	< 1.0 U
RZ-3L	9/30/1999	2.4	59.7	< 1.0 U	**8.2**	**96.6**	22.1	< 1.0 U	124	2.0	**18.2**	**14.1**	182.4
RZ-3PP	10/8/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	1.3	< 1.0 U	**14.7**	< 1.0 U	< 1.0 U
RZ-3T	9/30/1999	7.2	4.9	< 1.0 U	< 1.0 U	23.8	< 1.0 U	**19.8**	< 1.0 U	< 1.0 U	**97.3**	< 1.0 U	< 1.0 U
RZ-3Z	9/29/1999	3.8	1.5	< 1.0 U	< 1.0 U	3.2	< 1.0 U	**20.6**	< 1.0 U	< 1.0 U	**33.9**	< 1.0 U	< 1.0 U
RZ-4B	8/3/2006	6.1	3.7 J	< 4.0 U	< 4.0 U	11	< 4.0 U	**89**	< 4.0 U	1.1 J	**93**	< 4.0 U	< 8.0 U
RZ-4O	8/3/2006	3.8 J	2.6 J	< 4.0 U	< 4.0 U	13	< 4.0 U	**110**	< 4.0 U	1.6 J	**82**	< 4.0 U	< 8.0 U
W-1-N	9/17/1999	< 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
	9/19/2002	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/27/2013	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	1.8	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	4.2	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 2.0 U
	8/18/2016	< 1.0 U	4.8	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
W-2-N	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.48 J	0.33 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.3	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.4	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/16/2004	0.30 J	0.36 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	0.31 J	< 1.0 U	0.20 J	1.4	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 2.0 U
	9/22/2006	0.25 J	0.29 J	< 1.0 UJ	< 1.0 U	1.4 J	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	0.18 J	1 J	< 1.0 UJ	< 2.0 UJ
	9/25/2007	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 2.0 U
	9/29/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U
	9/24/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	8/15/2017	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/24/2018	0.38 J	0.31 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	1.9	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	1.1	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.79 J	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 2.0 U
W-3-N	9/17/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**291**	< 1.0 U	2.5	< 1.0 U	2.6	< 1.0 U	**13**	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**282**	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	**24**	< 1.0 U
	11/7/2001	< 5.6 U	< 5.6 U	< 5.6 U	< 5.6 U	**160**	< 5.6 U	**9.0**	< 5.6 U	2.2 J	2.1 J	**7.6**	< 5.6 U
	9/23/2002	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**150**	< 6.7 U	< 6.7 U	< 6.7 U	< 3.3 U	< 6.7 U	**6.5 J**	< 6.7 U
	9/17/2003	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**100**	< 4.0 U	**5.1**	< 4.0 U	1.6 J	1.7 J	**6.6**	< 4.0 U
	9/16/2004	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**120**	< 4.0 U	0.94 J	< 4.0 U	1.6 J	< 4.0 U	**6.1**	< 4.0 U
	10/20/2005	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**84**	< 4.0 U	1.4 J	< 4.0 U	1.0 J	< 4.0 U	**8.0**	< 8.0 U
	9/25/2006	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**140**	< 5.0 U	< 5.0 U	< 5.0 U	1.9 J	< 5.0 U	**9.6**	< 1.0 U
	9/26/2007	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**110**	< 4.0 U	< 4.0 U	< 4.0 U	1.4 J	< 4.0 U	**5.6**	< 8.0 U
	9/29/2008	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**98**	< 3.3 U	< 3.3 U	< 3.3 U	1.4 J	< 3.3 U	**3.8**	< 6.7 U
	11/13/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**72**	< 2.0 U	< 2.0 U	< 2.0 U	0.99 J	< 2.0 U	**3.2**	< 4.0 U
	9/24/2010	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	56	< 2.0 U	< 2.0 U	< 2.0 U	0.79 J	< 2.0 U	**2.4**	< 4.0 U
	9/28/2011	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	53	< 2.5 U	0.94 J	< 2.5 U	0.80 J	< 2.5 U	**2.7**	< 5.0 U
	9/6/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	41	< 2.0 U	0.60 J	< 2.0 U	0.79 J	< 2.0 U	1.4 J	< 4.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	34	< 1.0 U	0.96 J	< 1.0 U	0.64 J	< 1.0 U	1.6	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	31	< 1.0 U	0.52 J	< 1.0 U	0.47 J	< 1.0 U	1.0	< 2.0 U
	11/4/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	29	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	1.3	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	22	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	1.9	< 2.0 U
	8/15/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	24	< 1.0 U	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	1.4	< 2.0 U
	7/24/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	16	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	1.1	< 2.0 U
	7/9/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.81 J	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.88 J	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 2.0 U
W-4-N	9/17/1999	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**9.8**	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 1.0 U
	11/7/2001	0.33 J	0.89 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.92 J	< 1.0 U	< 0.50 U	**7.1**	< 1.0 U	< 1.0 U
	9/24/2002	0.44 J	1.7	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.94 J	< 1.0 U	0.33 J	**8.5**	0.77 J	< 1.0 U
	9/17/2003	0.26 J	0.94 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	1.1	< 1.0 U	< 0.50 U	**8.1**	0.48 J	< 1.0 U
	9/16/2004	0.40 J	1.7	< 1.0 U	< 1.0 U	5.8	< 1.0 U	1.7	< 1.0 U	0.38 J	**12**	0.49 J	< 1.0 U
	10/20/2005	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**7.2**	0.54 J	< 2.0 U
	9/25/2006	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.4	< 1.0 U	0.96 J	< 1.0 U	0.19 J	**7.6**	0.56 J	< 2.0 U
	9/26/2007	0.34 J	1.6	< 1.0 U	< 1.0 U	2.6	< 1.0 U	0.88 J	< 1.0 U	0.24 J	**10**	0.96 J	< 2.0 U
	9/29/2008	0.39 J	1.9	< 1.0 U	< 1.0 U	11	< 1.0 U	0.38 J	< 1.0 U	0.92 J	**8.4**	0.34 J	< 2.0 U
	11/13/2009	0.47 J	1.6	< 1.0 U	< 1.0 U	5.7	< 1.0 U	0.68 J	< 1.0 U	0.39 J	**15**	0.25 J	< 2.0 U
	9/24/2010	0.41 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.67 J	< 1.0 U	0.51 J	**13**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	2.4	< 1.0 U	< 1.0 U	9.7	< 1.0 U	1.1	< 1.0 U	0.59 J	**9.9**	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	5.6	< 1.0 U	< 1.0 U	14	< 1.0 U	0.52 J	< 1.0 U	1.2	**6.3**	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	7.1	< 1.0 U	< 1.0 U	11	< 1.0 U	0.63 J	< 1.0 U	0.76 J	**7.4**	0.18 J	< 2.0 U
	10/7/2014	< 1.0 U	5.7	< 1.0 U	< 1.0 U	11	< 1.0 U	0.49 J	< 1.0 U	0.69 J	**9.2**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	4.2	< 1.0 U	< 1.0 U	7.0	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	**12**	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	4.6	< 1.0 U	< 1.0 U	9.5	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	**10**	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	6.5	< 1.0 U	< 1.0 U	9.2	< 1.0 U	0.38 J	< 1.0 U	0.64 J	**8.8**	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	6.9	< 1.0 U	< 1.0 U	8.7	< 1.0 U	0.26 J	< 1.0 U	1.3	**6.1**	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	7.6	< 1.0 U	< 1.0 U	6.6	< 1.0 U	0.72 J	< 1.0 U	0.88 J	**9.2**	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	7.3	< 1.0 U	< 1.0 U	8.2	< 1.0 U	0.81 J	< 1.0 U	0.55 J	**6.9**	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	9.0	< 1.0 U	< 1.0 U	8.9	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	**7.0**	< 1.0 U	< 2.0 U
W-1-S	9/22/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	8.0	< 1.0 U	**31**	< 1.0 U	1.1	**11.6**	< 1.0 U	< 1.0 U
	9/19/2002	< 2.0 U	0.97 J	< 2.0 U	< 2.0 U	6.0	< 2.0 U	**62**	< 2.0 U	1.3	**16**	< 2.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
W-2-S	9/23/1999	1.9 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 1.0 U
	9/27/2000	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U
	11/8/2001	1.7	0.58 J	< 1.0 U	< 1.0 U	0.49 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.2 B**	< 1.0 U	< 1.0 U
	9/18/2002	1.5	0.98 J	< 1.0 U	< 1.0 U	0.90	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.9	< 1.0 U	< 1.0 U
	9/26/2003	1.4	0.99 J	< 1.0 U	< 1.0 U	0.74	< 1.0 U	< 1.0 U	0.25 J	< 0.50 U	**5.5**	< 1.0 U	< 1.0 U
	9/17/2004	1.5	1.3	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	**6.0**	< 1.0 U	< 1.0 U
	10/19/2005	1.6	1.2	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	**5.4**	< 1.0 U	< 2.0 U
	9/18/2006	1.8	1.2	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	9/24/2007	1.4	1.1	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	9/25/2008	1.4	0.92 J	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.2**	< 1.0 U	< 2.0 U
	11/12/2009	1.7	1.2	< 1.0 U	0.43 J	0.90 J	< 1.0 UJ	0.35 J	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/24/2010	1.4	1.1	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/29/2011	1.6	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 2.0 U
	9/6/2012	1.6	1.1	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	9/25/2013	1.8	0.86 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	**6.4**	< 1.0 U	< 2.0 U
	10/7/2014	0.79 J	0.80 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.33 J	< 1.0 U	0.34 J	5.0	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.36 J	< 1.0 U	0.47 J	**23**	< 1.0 U	< 2.0 U
	8/23/2016	1.4	1.0	< 1.0 U	< 1.0 U	1.9	< 1.0 U	0.34 J	< 1.0 U	0.30 J	**6.6**	< 1.0 U	< 2.0 U
	8/16/2017	1.3	1.1	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	**5.9**	< 1.0 U	< 2.0 U
	7/25/2018	0.98 J	0.83 J	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.0	< 1.0 U	0.32 J	4.6	< 1.0 U	< 2.0 U
	7/9/2019	0.60 J	0.23 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	**20**	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	2/12/2020	1.3	0.79 J	< 1.0 U	< 1.0 U	1.2	< 1.0 U	1.0	< 1.0 U	0.25 J	**5.9**	< 1.0 U	< 2.0 U
	7/29/2020	0.85 J	0.60 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**6.3**	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 2.0 U
	10/4/2021	1.0	0.79 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
W-3-S	9/23/1999	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U
	9/28/2000	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U
	11/8/2001	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.44 J	< 1.0 U	< 0.50 U	1.5 B	< 1.0 U	< 1.0 U
	9/18/2002	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.61 J	< 1.0 U	< 0.50 U	2.4	< 1.0 U	< 1.0 U
	9/26/2003	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	0.81 J	< 1.0 U	< 0.50 U	2.0	< 1.0 U	< 1.0 U
	9/17/2004	2.4	0.21 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.2	< 1.0 U	< 0.50 U	2.9	< 1.0 U	< 1.0 U
	10/19/2005	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
	9/18/2006	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 2.0 U
	9/24/2007	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	9/26/2008	1.2	0.21 J	< 1.0 U	< 1.0 U	0.52 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	11/12/2009	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 UJ	0.87 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	9/23/2010	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.95 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/29/2011	0.51 J	0.38 J	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	2.8	< 1.0 U	0.19 J	2.6	< 1.0 U	< 2.0 U
	9/6/2012	0.60 J	0.89 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	4.4	< 1.0 U	0.49 J	**5.7**	< 1.0 U	< 2.0 U
	9/25/2013	0.49 J	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**25**	< 1.0 U	0.59 J	**21**	< 1.0 U	< 2.0 U
	10/7/2014	0.76 J	0.96 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**38**	< 1.0 U	0.59 J	**35**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	**65**	< 1.0 U	0.31 J	**97**	< 1.0 U	< 2.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	2.1	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**11**	< 2.0 U	< 4.0 U
	8/16/2017	0.62 J	0.66 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	**68**	< 1.0 U	< 1.0 U	**7.6**	< 1.0 U	< 2.0 U
	7/25/2018	0.87 J	0.61 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**19**	< 1.0 U	0.19 J	**27**	< 1.0 U	< 2.0 U
	7/9/2019	2.5	0.83 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**81**	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	2/13/2020	1.9	0.28 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**140**	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/29/2020	1.6	0.48 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	**110**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.6	< 2.0 U	**92**	< 2.0 U	< 2.0 U	1.6 J	< 2.0 U	< 4.0 U
W-4-S	9/23/1999	3.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**31 J**	< 1.0 U	< 1.0 U	**15 J**	< 1.0 U	< 1.0 U
	9/28/2000	3.0	1.0	< 1.0 U	< 1.0 U	4.0	< 1.0 U	**15**	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U
	11/8/2001	2.9	1.1	< 1.0 U	< 1.0 U	3.3	< 1.0 U	**13**	< 1.0 U	0.43 J	**8.9 B**	< 1.0 U	< 1.0 U
	9/18/2002	2.3	0.87 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**17**	< 1.0 U	0.60	**9.8**	< 1.0 U	< 1.0 U
	9/26/2003	2.0	0.92 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**24**	0.25 J	0.78	**13**	< 1.0 U	< 1.0 U
	9/17/2004	2.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**18**	< 1.0 U	0.97	**13**	< 1.0 U	< 1.0 U
	10/19/2005	2.4	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**20**	< 1.0 U	1.1	**13**	< 1.0 U	< 2.0 U
	9/19/2006	1.7	1.3	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**18**	< 1.0 U	1.0	**12**	< 1.0 U	< 2.0 U
	9/24/2007	1.5	1.8	< 1.0 U	< 1.0 U	5.9	< 1.0 U	**26**	< 1.0 U	1.3	**16**	< 1.0 U	< 2.0 U
	9/26/2008	0.95 J	1.3	0.21 J	< 1.0 U	6	< 1.0 U	**32**	< 1.0 U	1.2	**16**	< 1.0 U	< 2.0 U
	11/12/2009	1.3	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**39**	< 1.0 U	1.5	**23**	< 1.0 U	< 2.0 U
	9/23/2010	1.1	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**31**	< 1.0 U	1.5	**20**	< 1.0 U	< 2.0 U
	9/29/2011	1.1	1.5	< 1.0 U	< 1.0 U	8.9	< 1.0 U	**31**	< 1.0 U	1.4	**21**	< 1.0 U	< 2.0 U
	9/6/2012	1.0 J	1.6 J	< 1.0 U	< 1.0 U	9.4	< 1.0 U	**26**	< 1.0 U	1.4 J	**21**	< 1.0 U	< 3.3 U
	9/25/2013	1.6	1.9	< 1.0 U	< 1.0 U	6.3	< 1.0 U	**60**	< 1.0 U	1.2	**50**	< 1.0 U	< 2.0 U
	10/7/2014	1.4 J	1.3 J	< 2.5 U	< 2.5 U	6.1	< 2.5 U	**65**	< 2.5 U	1.1 J	**63**	< 2.5 U	< 5.0 U
	11/4/2015	1.9 J	2.3	< 2.0 U	< 2.0 U	9.7	< 2.0 U	**74**	< 2.0 U	1.4 J	**72**	< 2.0 U	< 4.0 U
	8/23/2016	1.6 J	1.7 J	< 2.0 U	< 2.0 U	12	< 2.0 U	**54**	< 2.0 U	1.1 J	**45**	< 2.0 U	< 4.0 U
	8/16/2017	1.5	2.7	< 1.0 U	< 1.0 U	22	< 1.0 U	**39**	< 1.0 U	2.1	**40**	< 1.0 U	< 2.0 U
	7/25/2018	1.8	2.1	< 1.0 U	< 1.0 U	17	< 1.0 U	**68**	< 1.0 U	1.5	**42**	< 1.0 U	< 2.0 U
	7/9/2019	1.7	1.6	< 1.0 U	< 1.0 U	13	< 1.0 U	**70**	< 1.0 U	1.2	**33**	< 1.0 U	< 2.0 U
	2/13/2020	1.7 J	0.72 J	< 2.0 U	< 2.0 U	9.4	< 2.0 U	**43**	< 2.0 U	0.79 J	**48**	< 2.0 U	< 4.0 U
	7/29/2020	0.71 J	< 2.0 U	< 2.0 U	< 2.0 U	1.0 J	< 2.0 U	**37**	< 2.0 U	< 2.0 U	**9.1**	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**29**	< 2.0 U	< 2.0 U	3.5	< 2.0 U	< 4.0 U
EAST	9/21/1999	21	5.4	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**61**	< 1.0 U	< 1.0 U	**56**	< 1.0 U	< 1.0 U
	9/22/2000	22	7.7	1.2	< 1.0 U	**77**	< 1.0 U	**56**	< 1.0 U	1.8	**97**	**3.0**	< 1.0 U
	11/12/2001	13	6.2	0.90 J	< 3.3 U	51	< 3.3 U	**56**	< 3.3 U	2.7	**92**	1.5 J	< 3.3 U
	9/23/2002	10	3.9	0.73 J	< 2.0 U	8.8	< 2.0 U	**49**	< 2.0 U	< 1.0 U	**46**	< 2.0 U	< 2.0 U
	9/25/2003	7.1	2.3	< 2.0 U	< 2.0 U	4.3	< 2.0 U	**47**	< 2.0 U	< 1.0 U	**35**	< 2.0 U	< 2.0 U
	9/13/2004	5.7	0.72 J	0.34 J	< 1.0 U	1.6	< 1.0 U	**40**	< 1.0 U	< 0.50 U	**23**	< 1.0 U	< 1.0 U
	10/18/2005	5.9	3.0	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**47**	< 1.0 U	< 1.0 U	**23**	1.2	< 2.0 U
	9/21/2006	10	3.2	0.59 J	< 1.0 U	4.1	< 1.0 U	**41**	< 1.0 U	< 1.0 U	**29**	< 1.0 U	< 2.9 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/8/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**22**	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
WEST	9/21/1999	24.8	25.6	< 1.0 U	< 1.0 U	**125**	< 1.0 U	**41**	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 1.0 U
	7/30/2020	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	**13**	< 1.0 U	< 1.0 U	4.4	0.98 J	< 2.0 U
	10/8/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**10**	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 2.0 U
Downgradient of the Site													
4S	9/20/1999	< 1.0 U	1.6	< 1.0 U	1.6	< 1.0 U	<10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U
	10/2/2003	< 2.0 U	7.0	< 2.0 U	1.6 J	< 1.0 U	1.7 J	< 2.0 U	< 2.0 U	1.7	< 2.0 U	< 2.0 U	< 2.0 U
	9/14/2004	< 5.0 U	7.5	< 5.0 U	4.5 J	< 2.5 U	4.7 J	< 5.0 U	1.1 J	< 2.5 U	< 5.0 U	< 5.0 U	2.4 J
	10/19/2005	< 4.0 U	2.3 J	< 4.0 U	1.6 J	< 4.0 U	1.6 J	< 4.0 U	< 4.0 U	0.95 J	< 4.0 U	< 4.0 U	< 8.0 U
	9/20/2006	< 1.0 U	5.6	< 1.0 U	0.7 J	0.25 J	0.52 J	< 1.0 U	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	< 2.0 U
GM-2	9/20/1999	5.5	1.4	< 1.0 U	< 1.0 U	8.4	<10	**6.0**	< 1.0 U	< 1.0 U	**62**	< 1.0 U	< 10 U
	9/25/2000	5.7	3.7	< 1.0 U	< 1.0 U	39	< 1.0 U	**7.7**	< 1.0 U	1.3	**83**	1.7	< 1.0 U
	11/9/2001	6.1	6.1	< 3.3 U	< 3.3 U	26	< 3.3 U	**8.4**	< 3.3 U	1.1J	**65**	< 3.3 U	< 3.3 U
	9/20/2002	0.75 J	3.4	< 1.0 U	< 1.0 U	7.6	< 1.0 U	**8.7**	< 1.0 U	0.37J	**26**	< 1.0 U	< 1.0 U
	10/2/2003	0.21 J	1.7	< 1.0 U	< 1.0 U	4.7	0.21 J	**5.7**	< 1.0 U	< 0.50 U	**13**	0.46 J	< 1.0 U
	9/14/2004	< 1.0 U	1.6	< 1.0 U	< 1.0 U	5.6	< 1.0 U	4.0	< 1.0 U	0.23 J	**6.2**	< 1.0 U	< 1.0 U
	10/19/2005	< 1.0 U	2.0	< 1.0 U	< 1.0 U	6.8	< 1.0 U	3.6	< 1.0 U	0.26 J	4.6	0.24 J	< 2.0 U
	9/20/2006	< 1.0 U	2.1	< 1.0 U	< 1.0 U	7.7	< 1.0 U	2.6	< 1.0 U	0.34 J	**5.1**	0.61 J	< 2.0 U
	9/18/2007	< 1.0 U	1.4	< 1.0 U	< 1.0 U	4.9	< 1.0 U	1.6	< 1.0 U	0.28 J	2.3	1.1	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.7	< 1.0 U	1.3	< 1.0 U	0.19 J	2.4	< 1.0 U	< 2.0 U
	11/11/2009	< 1.0 U	1.0	< 1.0 U	< 1.0 U	3.2	< 1.0 U	0.90 J	< 1.0 U	< 1.0 U	1.4	**2.3**	< 2.0 U
	9/27/2010	< 1.0 U	1.2	< 1.0 U	< 1.0 U	3.8	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.95 J	**2.5**	< 2.0 U
	9/29/2011	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	9.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	0.69 J	< 2.0 U
	9/6/2012	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	15	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	0.96 J	1.2	< 2.0 U
	9/25/2013	< 1.0 U	1.0	< 1.0 U	< 1.0 U	13	< 1.0 U	0.31 J	< 1.0 U	0.26 J	0.70 J	1.3	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	0.40 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	3.6	< 1.0 U	< 1.0 U	**6.7**	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	8.9	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U	**6.3**	< 1.0 U	< 2.0 U
	7/12/2019	0.33 J	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 2.0 U
	7/31/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**30**	< 1.0 U	< 1.0 U	3.9	< 1.0 U*	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**43**	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
GM-10	9/21/1999	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U
	9/27/2000	2.5	1.4	< 1.0 U	< 1.0 U	5.7	< 1.0 U	1.4	< 1.0 U	< 1.0 U	**23**	< 1.0 U	< 1.0 U
	11/8/2001	2.7	3.4	< 1.0 U	< 1.0 U	16	< 1.0 U	1.9	< 1.0 U	0.93	**27**	1.2	< 1.0 U
	9/18/2002	1.8	0.61 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	1.1	< 1.0 U	< 0.50 U	**19**	< 1.0 U	< 1.0 U
	9/24/2003	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	9/14/2004	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	1.5	< 1.0 U	< 0.50 U	**15**	< 1.0 U	< 1.0 U
	10/20/2005	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	9/27/2006	0.90 J	0.29 J	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	0.98 J	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	9/19/2007	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	0.93 J	< 1.0 U	< 1.0 U	**8.8**	< 1.0 U	< 2.0 U
	9/24/2008	0.53 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/25/2013	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
GM-16	9/21/1999	2.2	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**44**	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 1.0 U
	9/26/2000	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**16**	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U
	11/8/2001	2.2	0.31 J	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	**17**	< 1.0 U	< 0.50 U	3.6	< 1.0 U	< 1.0 U
	9/24/2002	1.4 J	4.1	< 2.0 U	< 2.0 U	6.2	< 2.0 U	**63**	< 2.0 U	1.6	**28**	< 2.0 U	< 2.0 U
	9/22/2003	1.9 J	2.8 J	< 4.0 U	< 4.0 U	5.8	< 4.0 U	**110**	< 4.0 U	1.1 J	**57**	< 4.0 U	< 4.0 U
	9/16/2004	3.1 J	4.3	< 3.3 U	< 3.3 U	7.4	< 3.3 U	**130**	< 3.3 U	1.0 J	**90**	< 3.3 U	< 3.3 U
	10/19/2005	1.7 J	1.1 J	< 3.3 U	< 3.3 U	2.8 J	< 3.3 U	**100**	< 3.3 U	0.90 J	**55**	< 3.3 U	< 6.7 U
	9/18/2006	2.1	1.1 J	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**98**	< 1.0 U	1 J	**51**	< 1.0 U	< 2.9 U
	9/25/2007	1.4 J	1.5 J	< 4.0 U	< 4.0 U	43	< 4.0 U	**94**	< 4.0 U	1.3 J	**52**	< 4.0 U	< 8.0 U
	9/30/2008	1.8 J	3.8	< 3.3 U	< 3.3 U	20	< 3.3 U	**100**	< 3.3 U	1.1 J	**48**	< 3.3 U	< 6.7 U
	11/16/2009	1.4 J	1.6 J	< 3.3 U	< 3.3 U	12	< 3.3 U	**110**	< 3.3 U	1.5 J	**74**	< 3.3 U	< 6.7 U
	9/23/2010	1.1 J	1.3 J	< 4.0 U	< 4.0 U	2.2 J	< 4.0 U	**110**	< 4.0 U	1.2 J	**75**	< 4.0 U	< 8.0 U
	9/29/2011	< 3.3 U	5.5	< 3.3 U	< 3.3 U	23	< 3.3 U	**64**	< 3.3 U	0.77 J	**45**	1.2 J	< 6.7 U
	9/5/2012	0.94 J	3.8 J	< 4.0 U	< 4.0 U	12	< 4.0 U	**66**	< 4.0 U	< 4.0 U	**41**	< 4.0 U	< 8.0 U
	9/25/2013	0.36 J	4.4	< 1.0 U	< 1.0 U	12	< 1.0 U	**51**	< 1.0 U	0.40 J	**17**	0.55 J	< 2.0 U
	10/7/2014	< 1.0 U	1.4	< 1.0 U	< 1.0 U	7.7	< 1.0 U	**31**	< 1.0 U	0.26 J	**7.5**	0.97 J	< 2.0 U
	11/4/2015	< 1.0 U	1.5	< 1.0 U	< 1.0 U	12	< 1.0 U	**35**	< 1.0 U	0.34 J	**8.3**	**10**	< 2.0 U
	8/18/2016	< 1.0 U	1.8	< 1.0 U	< 1.0 U	7.4	< 1.0 U	**23**	< 1.0 U	< 1.0 U	**5.7**	0.31 J	< 2.0 U
	7/8/2019	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**13**	< 1.0 U	< 1.0 U	3.0	0.45 J	< 2.0 U
	2/11/2020	< 1.0 U	2.3	< 1.0 U	< 1.0 U	6.2	< 1.0 U	**10**	< 1.0 U	< 1.0 U	3.1	0.52 J	< 2.0 U
	7/28/2020	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**12**	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	**8.3**	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
GM-17	9/21/1999	6.4	26	< 1.0 U	< 1.0 U	30	< 1.0 U	< 1.0 U	< 1.0 U	2.6	**29**	1.4	< 1.0 U
	9/27/2000	6.7	24	< 1.0 U	< 1.0 U	42	< 1.0 U	**25**	< 1.0 U	2.5	**48**	< 1.0 U	< 1.0 U
	11/8/2001	6.8	7.3	< 3.3 U	< 3.3 U	16	< 3.3 U	**48**	< 3.3 U	1.8	**79**	< 3.3 U	< 3.3 U
	9/19/2002	2.3	6.0	< 1.0 U	< 1.0 U	13	< 1.0 U	**22**	< 1.0 U	0.67	**39**	0.79 J	< 1.0 U
	9/24/2003	1.3	1.2	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**12**	< 1.0 U	< 0.50 U	**24**	< 1.0 U	< 1.0 U
	9/15/2004	1.1	4	< 1.0 U	< 1.0 U	11	< 1.0 U	3.6	< 1.0 U	0.64	**22**	0.49 J	< 1.0 U
	10/20/2005	1.4	5.5	< 1.0 U	< 1.0 U	9.0	< 1.0 U	**8.1**	< 1.0 U	0.57 J	**29**	2.0	< 2.0 U
	9/27/2006	0.46 J	3.2	< 1.0 U	< 1.0 U	9.5	< 1.0 U	**11**	< 1.0 U	0.49 J	**24**	0.54 J	< 2.0 U
	9/18/2007	0.31 J	1.5	< 1.0 U	< 1.0 U	4.0	< 1.0 U	**7.3**	< 1.0 U	0.22 J	**15**	< 1.0 U	< 2.0 U
	9/24/2008	0.29 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.8	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	2.8	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U

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Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-18	9/22/1999	43	23	1.3	< 1.0 U	35	< 1.0 U	4.9	< 1.0 U	2.2	**131**	< 1.0 U	< 1.0 U
	9/27/2000	32	10	< 1.0 U	< 1.0 U	24	< 1.0 U	**7.8**	< 1.0 U	1.8	**115**	< 1.0 U	< 1.0 U
	11/8/2001	23	3.3	1.3J	< 3.3 U	14	< 3.3 U	**12**	< 3.3 U	1.6 J	**93**	< 3.3 U	< 3.3 U
	9/19/2002	18	6.0	< 3.3 U	< 3.3 U	15	< 3.3 U	**28**	< 3.3 U	1.6 J	**98**	< 3.3 U	< 3.3 U
	9/22/2003	10	3.7	< 2.0 U	< 2.0 U	8.8	< 2.0 U	**24**	< 2.0 U	< 1.0 U	**77**	0.75 J	< 2.0 U
	9/15/2004	5.2	2.2	0.46 J	< 2.0 U	5.9	< 2.0 U	**20**	< 2.0 U	< 1.0 U	**53**	< 2.0 U	< 2.0 U
	10/20/2005	7.0	15	0.30 J	< 1.0 U	14	< 1.0 U	**21**	< 1.0 U	1.2	**70 J**	**3.0**	< 2.0 U
	9/27/2006	6.2	17	< 2.9 U	< 2.9 U	21	< 2.9 U	**15**	< 2.9 U	2 J	**72**	**2.5 J**	< 5.7 U
	9/19/2007	5.4	13	< 2.5 U	< 2.5 U	19	< 2.5 U	**14**	< 2.5 U	1.2 J	**64**	1.1 J	< 5.0 U
	9/24/2008	2.3	< 6.1 U	< 1.0 U	< 1.0 U	13	< 1.0 U	**16**	< 1.0 U	0.79 J	**38**	< 1.0 U	< 2.9 U
	9/25/2013	0.22 J	0.68 J	< 1.0 U	< 1.0 U	3.7	< 1.0 U	**17**	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	12/11/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	**6.2**	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	11/11/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**11**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
GM-25	9/22/1999	< 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
	10/21/2010	< 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	< 2.0 U
GM-26	9/22/1999	< 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
	9/27/2000	< 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
	11/12/2001	0.19 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.1	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/25/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.92 J	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.85 J	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/21/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/27/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/1/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-46	3/2/2006	< 1.0 U	2.7	< 1.0 U	< 1.0 U	6.8	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	**22**	1.9	< 2.0 U
	11/30/2006	< 1.0 U	0.43 J	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	1.5	1.5	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 2.0 U
GM-47	3/1/2006	2.2	1.8	< 1.0 U	< 1.0 U	7.2	< 1.0 U	**78**	0.28 J	1.5	**50**	< 1.0 U	< 2.0 U
	9/19/2006	2.2	1.7 J	< 2.0 U	< 2.0 U	9.5	< 2.0 U	**64**	< 2.0 U	1.4 J	**44**	< 2.0 U	< 4.0 U
	11/30/2006	1.9 J	1.7 J	< 2.0 U	< 2.0 U	8.9	< 2.0 U	**69**	< 2.0 U	1.4 J	**51**	< 2.0 U	< 4.0 U
	9/25/2007	2.2 J	2.4 J	< 7.1 U	< 7.1 U	**170**	< 7.1 U	**71**	< 7.1 U	4.6 J	**53**	< 7.1 U	< 1.0 U
	10/1/2008	1.4 J	2 J	< 5.0 U	< 5.0 U	**160**	< 5.0 U	**86**	< 5.0 U	3.9 J	**36**	1.9 J	< 1.0 U
	11/13/2009	1.0 J	2.4 J	< 2.5 U	< 2.5 U	61	< 2.5 U	**61**	< 2.5 U	2.8	**29**	0.66 J	< 5.0 U
	1/28/2010	0.85 J	2.3 J	< 2.5 U	< 2.5 U	51	< 2.5 U	**60**	< 2.5 U	2.5	**24**	< 2.5 U	< 5.0 U
	9/23/2010	0.77 J	2.7	< 1.0 U	< 1.0 U	42	< 1.0 U	**60**	< 1.0 U	2.4	**22**	0.39 J	< 3.3 U
	9/29/2011	< 2.5 U	2.9	< 2.5 U	< 2.5 U	34	< 2.5 U	**52**	< 2.5 U	2.3 J	**18**	< 2.5 U	< 5.0 U
	9/6/2012	< 2.5 U	3.0	< 2.5 U	< 2.5 U	23	< 2.5 U	**42**	< 2.5 U	2.0 J	**13**	< 2.5 U	< 5.0 U
	9/25/2013	0.65 J	3.7	< 1.0 U	< 1.0 U	26	< 1.0 U	**47**	< 1.0 U	2.4	**14**	0.42 J	< 2.0 U
	10/7/2014	< 1.0 U	4.5	< 1.0 U	< 1.0 U	28	< 1.0 U	**46**	< 1.0 U	1.8	**8.1**	< 1.0 U	< 3.3 U
	11/4/2015	< 1.7 U	4.9	< 1.7 U	< 1.0 U	46	< 1.7 U	**49**	< 1.7 U	2.3	**8.3**	< 1.7 U	< 3.3 U
	8/24/2016	< 2.0 U	3.8	< 2.0 U	< 2.0 U	38	< 2.0 U	**39**	< 2.0 U	1.8 J	4.4	< 2.0 U	< 4.0 U
	7/10/2019	< 1.0 U	5.2	< 1.0 U	< 1.0 U	29	< 1.0 U	**40**	< 1.0 U	0.81 J	**9.3**	0.60 J	< 2.0 U
	2/12/2020	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	9.3	< 1.0 U	3.3	< 1.0 U	< 1.0 U	1.1	0.33 J	< 2.0 U
	7/27/2020	< 2.0 U	2.7	< 2.0 U	< 2.0 U	38	< 2.0 U	**33**	< 2.0 U	< 2.0 U	**10**	< 2.0 U	< 4.0 U
	10/5/2021	0.61 J	1.0	< 1.0 U	< 1.0 U	26	< 1.0 U	**29**	< 1.0 U	0.59 J	**17**	< 1.0 U	< 2.0 U
GM-48	3/1/2006	0.62 J	0.71 J	< 1.0 U	< 1.0 U	0.7 J	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	11/30/2006	0.97 J	0.72 J	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	0.26 J	< 1.0 U	0.19 J	2.4	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	2/12/2020	0.85 J	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	7/27/2020	0.57 J	1.3	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	0.74 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**27**	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
GM-49	3/1/2006	2.4	3.4	< 1.0 U	< 1.0 U	4.7	< 1.0 U	2.5	0.25 J	0.66 J	**8.4**	< 1.0 U	< 2.0 U
	11/30/2006	1.8	2.6	< 1.0 U	< 1.0 U	3.8	< 1.0 U	3.1	< 1.0 U	0.53 J	**11**	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 2.0 U
	7/27/2020	1.2	0.75 J	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**14**	< 1.0 U	< 1.0 U	**28**	< 1.0 U	< 2.0 U
	11/11/2021	0.67 J	1.2	< 1.0 U	< 1.0 U	3.4	< 1.0 U	**28**	< 1.0 U	< 1.0 U	**8.9**	< 1.0 U	< 2.0 U
GM-50	4/28/2006	2.4 J	1.9 J	< 5.0 U	< 5.0 U	5.2	< 5.0 U	**180**	< 5.0 U	1.6 J	**120**	< 5.0 U	< 1.0 U
	9/19/2006	1.4 J	1.5 J	< 5.6 U	< 5.6 U	13	< 5.6 U	**150**	< 5.6 U	1.7 J	**84**	< 5.6 U	< 1.0 U
	11/30/2006	1.6 J	1.5 J	< 5.0 U	< 5.0 U	34	< 5.0 U	**140**	< 5.0 U	1.5 J	**86**	< 5.0 U	< 1.0 U
	9/25/2007	1.4 J	1.9 J	< 5.9 U	< 5.9 U	**130**	< 5.9 U	**100**	< 5.9 U	2.5 J	**44**	< 5.9 U	< 1.0 U
	10/1/2008	1.6 J	1.7 J	< 2.5 U	< 2.5 U	13	< 2.5 U	**82**	< 2.5 U	0.68 J	**54**	< 2.5 U	< 5.0 U
	11/13/2009	1.8 J	1.3 J	< 5.0 U	< 5.0 U	11	< 5.0 U	**110**	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 1.0 U
	1/28/2010	1.5 J	1.2 J	< 5.0 U	< 5.0 U	8.1	< 5.0 U	**130**	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 1.0 U
	9/23/2010	1.6 J	< 5.0 U	< 5.0 U	< 5.0 U	4.0 J	< 5.0 U	**130**	< 5.0 U	0.95 J	**140**	< 5.0 U	< 1.0 U
	9/30/2011	1.7 J	2.3	< 2.0 U	< 2.0 U	7.1	< 2.0 U	**95**	< 2.0 U	0.62 J	**86**	< 2.0 U	< 4.0 U
	9/6/2012	2.7 J	< 5.0 U	< 5.0 U	< 5.0 U	3.4 J	< 5.0 U	**84**	< 5.0 U	< 5.0 U	**63**	< 5.0 U	< 1.0 U
	9/25/2013	2.5	3.5	< 1.0 U	< 1.0 U	5.7	< 1.0 U	**73**	< 1.0 U	0.29 J	**40**	0.30 J	< 2.0 U
	10/7/2014	< 1.0 U	7.1	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**39**	< 1.0 U	< 1.0 U	**5.5**	1.8	< 2.9 U
	11/4/2015	< 1.0 U	4.0	< 1.0 U	< 1.0 U	5.6	< 1.0 U	**26**	< 1.0 U	< 1.0 U	4.0	1.7	< 2.0 U
	8/23/2016	< 1.0 U	2.1	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**14**	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	7.4	< 1.0 U	< 1.0 U	7.4	< 1.0 U	2.2	< 1.0 U	0.20 J	0.39 J	1.8	< 2.0 U
	2/12/2020	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	8.3	< 1.0 U	3.6	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	2.2	< 1.0 U	< 1.0 U	7.0	< 1.0 U	1.9	< 1.0 U	< 1.0 U	0.75 J	1.4	< 2.0 U
	10/5/2021	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U	0.95 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	0.56 J	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-51	4/28/2006	0.9 J	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	**6.7**	< 1.0 U	< 1.0 U	4.9	< 1.0 U	< 2.0 U
	11/30/2006	0.76 J	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	**6.6**	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 2.0 U
	9/27/2007	0.61 J	0.23 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	**7.2**	0.29 J	< 1.0 U	3.9	< 1.0 U	< 2.0 U
	9/30/2008	0.6 J	0.78 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**9.3**	< 1.0 U	0.70 J	**7.7**	< 1.0 U	< 2.0 U
	9/25/2013	1.9	1.8	< 1.0 U	< 1.0 U	2.8	< 1.0 U	**46**	< 1.0 U	0.30 J	**64**	< 1.0 U	< 2.0 U
	10/6/2014	0.70 J	1.7 J	< 2.0 U	< 2.0 U	5.0	< 2.0 U	**67**	< 2.0 U	< 2.0 U	**33**	< 2.0 U	< 4.0 U
	10/30/2015	< 2.0 U	2.8	< 2.0 U	< 2.0 U	6.5	< 2.0 U	**63**	< 2.0 U	< 2.0 U	**16**	< 2.0 U	< 4.0 U
	8/25/2016	1.2	2.5	< 1.0 U	< 1.0 U	6.4	< 1.0 U	**6.5**	< 1.0 U	< 1.0 U	**33**	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	1.9	< 1.0 U	< 1.0 U	6.1	< 1.0 U	**44**	< 1.0 U	0.22 J	**5.0**	< 1.0 U	< 2.0 U
	2/12/2020	< 1.0 U	2.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	1.1	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**25**	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 2.0 U
	10/6/2021	0.81 J	1.2	< 1.0 U	< 1.0 U	3.9	< 1.0 U	**25**	< 1.0 U	< 1.0 U	12	< 1.0 U	< 2.0 U
GM-52	4/28/2006	2.0	0.94 J	< 2.0 U	< 2.0 U	1.9 J	< 2.0 U	**75**	< 2.0 U	0.67 J	**61**	< 2.0 U	< 4.0 U
	11/30/2006	1.3 J	0.93 J	< 2.0 U	< 2.0 U	2.7	< 2.0 U	**67**	< 2.0 U	0.76 J	**47**	< 2.0 U	< 4.0 U
	9/26/2007	1.3 J	1.5 J	< 2.5 U	< 2.5 U	18	< 2.5 U	**88**	< 2.5 U	1.0 J	**47**	< 2.5 U	< 5.0 U
	9/30/2008	1.9 J	3.0	< 2.5 U	< 2.5 U	14	< 2.5 U	**88**	< 2.5 U	< 2.5 U	**43**	< 2.5 U	< 5.0 U
	11/12/2009	1.1 J	1.1 J	< 2.5 U	< 2.5 U	1.5 J	< 2.5 U	**94**	< 2.5 U	0.83 J	**43**	< 2.5 U	< 5.0 U
	1/27/2010	1.0 J	1.0 J	< 4.0 U	< 4.0 U	1.6 J	< 4.0 U	**94**	< 4.0 U	0.99 J	**42**	< 4.0 U	< 8.0 U
	9/22/2010	0.92 J	0.94 J	< 3.3 U	< 3.3 U	1.8 J	< 3.3 U	**90**	< 3.3 U	0.74 J	**50**	< 3.3 U	< 6.7 U
	9/29/2011	< 4.0 U	1.9 J	< 4.0 U	< 4.0 U	4.2	< 4.0 U	**73**	< 4.0 U	< 4.0 U	**38**	< 4.0 U	< 8.0 U
	9/5/2012	< 4.0 U	4.1	< 4.0 U	< 4.0 U	7.9	< 4.0 U	**66**	< 4.0 U	< 4.0 U	**29**	< 4.0 U	< 8.0 U
	9/25/2013	0.47 J	1.2	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**53**	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	10/6/2014	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**44**	< 2.0 U	< 2.0 U	**8.2**	< 2.0 U	< 4.0 U
	10/30/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**32**	< 2.0 U	< 2.0 U	**5.8**	< 2.0 U	< 4.0 U
	8/25/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	**30**	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	7/10/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 2.0 U
	11/11/2021	< 1.0 U	0.76 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	**26**	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
GM-55	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	**7.7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	**7.2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.6	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.3	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-57	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	1.9	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-62(1)	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	4/8/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-63	9/14/2006	2.3 J	1.9 J	< 5.0 U	< 5.0 U	5.6	< 5.0 U	**160**	< 5.0 U	1.4 J	**120**	< 5.0 U	< 1.0 U
	12/1/2006	2.3 J	1.9 J	< 4.0 U	< 4.0 U	8.8	< 4.0 U	**140**	< 4.0 U	1.3 J	**100**	< 4.0 U	< 8.0 U
	9/25/2007	2.7 J	1.8 J	< 6.7 U	< 6.7 U	5.0 J	< 6.7 U	**130**	< 6.7 U	< 6.7 U	**120**	< 6.7 U	< 1.0 U
	10/1/2008	4.0 J	2.2 J	< 5.0 U	< 5.0 U	4.9 J	< 5.0 U	**140**	< 5.0 U	< 5.0 U	**92**	< 5.0 U	< 1.0 U
	1/28/2010	2.0 J	< 5.7 U	< 5.7 U	< 5.7 U	3.2 J	< 5.7 U	**150**	< 5.7 U	< 5.7 U	**140**	< 5.7 U	< 1.0 U
	9/6/2012	3.2 J	1.6 J	< 5.7 U	< 5.7 U	2.2 J	< 5.7 U	**89**	< 5.7 U	< 5.7 U	**58**	< 5.7 U	< 1.0 U
	9/25/2013	4.4	1.6	< 1.0 U	< 1.0 U	1.9	< 1.0 U	**81**	< 1.0 U	0.33 J	**48**	< 1.0 U	< 2.0 U
	10/7/2014	2.8	1.9	< 1.0 U	< 1.0 U	2.4	< 1.0 U	**53**	< 1.0 U	< 1.0 U	**20**	< 1.0 U	< 2.9 U
	11/4/2015	2.2	1.9	< 1.7 U	< 1.7 U	3.4	< 1.7 U	**46**	< 1.7 U	< 1.7 U	**19**	< 1.7 U	< 3.3 U
	8/24/2016	2.2	0.84 J	< 1.7 U	< 1.7 U	1.2 J	< 1.7 U	**38**	< 1.7 U	< 1.7 U	5.0	< 1.7 U	< 3.3 U
	7/10/2019	< 1.0 U	1.6	< 1.0 U	< 1.0 U	2.6	< 1.0 U	**12**	< 1.0 U	< 1.0 U	3.7	0.31 J	< 2.0 U
	2/11/2020	1.0 J	< 2.0 U	< 2.0 U	< 2.0 U	5.3	< 2.0 U	**51**	< 2.0 U	< 2.0 U	1.5 J	< 2.0 U	< 4.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	**37**	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
	10/5/2021	0.59 J	0.70 J	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 2.0 U
GM-64	9/14/2006	1.8 J	1.8 J	< 2.5 U	< 2.5 U	16	< 2.5 U	**77**	< 2.5 U	1.6 J	**34**	< 2.5 U	< 5.0 U
	12/1/2006	2.1 J	2.1 J	< 2.5 U	< 2.5 U	42	< 2.5 U	**85**	< 2.5 U	2 J	**35**	< 2.5 U	< 5.0 U
	9/25/2007	< 3.3 U	2.7 J	< 3.3 U	< 3.3 U	**74**	< 3.3 U	**11**	< 3.3 U	6.6	4.5	**18**	< 6.7 U
	10/1/2008	0.55 J	2.7	< 1.0 U	< 1.0 U	15	< 1.0 U	**31**	< 1.0 U	2.3	**14**	**2.3**	< 2.0 U
	9/26/2013	0.71 J	4.2	< 1.0 U	< 1.0 U	44	< 1.0 U	**41**	< 1.0 U	2.8	**31**	**5.8**	< 2.0 U
	7/10/2019	0.65 J	2.5	< 1.0 U	< 1.0 U	40	< 1.0 U	**15**	< 1.0 U	0.87 J	**31**	1.3	< 2.0 U
	2/11/2020	< 2.0 U	2.1	< 2.0 U	< 2.0 U	57	< 2.0 U	**24**	< 2.0 U	0.80 J	**24**	**2.7**	< 4.0 U
	7/28/2020	< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	29	< 1.0 U	**14**	< 1.0 U	0.46 J	4.3	1.5	< 2.0 U
	10/5/2021	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**7.9**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
GM-65S	5/2/2007	0.62 J	0.78 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**11**	< 1.0 U	< 1.0 U	**8.0**	< 1.0 U	< 2.0 U
	1/21/2008	0.58 J	0.54 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**7.9**	< 1.0 U	< 2.0 U
	10/6/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.7**	< 1.0 U	< 1.0 U	3.8	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	**11**	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	1/27/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	< 1.0 U	**13**	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	9/22/2010	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	**9.9**	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.8**	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.4**	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/14/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-77S	9/27/2007	< 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	< 2.0 U
	10/21/2010	< 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	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-78	10/23/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.9**	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	1/21/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.3	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.5**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/25/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-79	10/23/2007	0.66 J	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	10/2/2008	0.65 J	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 2.0 U
	11/12/2009	0.72 J	0.31 J	< 1.0 U	0.48 J	0.28 J	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	9/22/2010	0.51 J	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	0.19 J	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	9/5/2012	0.72 J	0.94 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	2.2	< 1.0 U	< 2.0 U
	9/25/2013	0.88 J	1.1	< 1.0 U	< 1.0 U	1.4	< 1.0 U	0.31 J	< 1.0 U	0.42 J	3.9	< 1.0 U	< 2.0 U
	10/6/2014	1.0	3.2	< 1.0 U	< 1.0 U	8.4	< 1.0 U	1.0	< 1.0 U	0.43 J	**23**	< 1.0 U	< 2.0 U
	11/4/2015	0.71 J	2.2	< 1.4 U	< 1.4 U	7.4	< 1.4 U	0.97 J	< 1.4 U	< 1.4 U	**31**	< 1.4 U	< 2.9 U
	10/27/2016	0.70 J	2.6	< 1.0 U	< 1.0 U	7.4	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**36**	< 1.0 U	< 2.0 U
	8/1/2017	0.60 J	2.3	< 1.0 U	< 1.0 U	5.4	< 1.0 U	4.3	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	7/23/2018	0.39 J	1.7	< 1.0 U	< 1.0 U	4.5	< 1.0 U	**13**	< 1.0 U	< 1.0 U	**21**	0.27 J	< 2.0 U
	10/6/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**29**	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
GM-80	10/23/2007	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	0.68 J	< 1.0 U	0.21 J	4.0	< 1.0 U	< 2.0 U
	9/22/2008	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	0.93 J	< 1.0 U	0.19 J	**5.4**	< 1.0 U	< 2.0 U
	11/12/2009	0.24 J	0.55 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	1.6	< 1.0 U	0.25 J	**9.8**	< 1.0 U	< 2.0 U
	4/9/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	1.9	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/21/2010	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	2.6	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	4.1	< 1.0 U	0.24 J	**5.9**	< 1.0 U	< 2.0 U
	9/5/2012	0.43 J	1.7	< 1.0 U	< 1.0 U	8.3	< 1.0 U	**5.2**	< 1.0 U	0.30 J	**13**	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.7**	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 2.0 U
	10/6/2014	0.50 J	0.66 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	3.5	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	0.96 J	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 2.0 U
	10/27/2016	0.54 J	0.60 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**20**	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	8/1/2017	0.32 J	0.38 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**20**	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	**18**	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.76 J	< 1.0 U	**15**	< 1.0 U	< 1.0 U	3.6 B	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	**12**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
GM-81	10/23/2007	0.22 J	0.93 J	< 1.0 U	< 1.0 U	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.61 J	< 1.0 U	< 2.0 U
	4/9/2010	0.23 J	0.92 J	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/31/2017	0.26 J	1.1	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	1.1	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.19 J	1.5	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-5	7/31/2017	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	1.1 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7 J	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.64 J	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	<1.0 U	1.6	< 1.0 U	< 2.0 U
RMW-95	8/1/2017	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.57 J	< 1.0 U	0.13 J	0.38 J	0.13 J	3.4	0.33 J	< 1.0 U	1.6	< 1.0 U	0.19 J
	3/27/2019	0.43 J	0.35 J	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	2.6	< 1.0 U	< 1.0 U	0.63 JB	< 1.0 U	< 2.0 U
	7/30/2020	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.4**	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.9**	< 1.0 U	< 1.0 U	0.69 J	< 1.0 U	< 2.0 U
RMW-96	8/2/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.95 J	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/23/2018	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	0.80 J	< 1.0 U	**7.0**	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.43 J	< 1.0 U	2.0	< 1.0 U	< 1.0 U	0.44 JB	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/6/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-97	8/1/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.62 J	< 1.0 U	3.2	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U
	7/23/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.93 J	< 1.0 U	4.7	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	3/27/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	0.26 JB	< 1.0 U	< 2.0 U
	7/30/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/7/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	< 2.0 U
RMW-98	7/10/2019	1.2	1.6	< 1.0 U	< 1.0 U	6.8	< 1.0 U	**35**	< 1.0 U	0.29 J	**8.5**	0.27 J	< 2.0 U
	2/14/2020	2.0	0.45 J	< 2.0 U	< 2.0 U	1.2 J	< 2.0 U	**62**	< 2.0 U	< 2.0 U	3.4	< 2.0 U	< 4.0 U
	7/28/2020	0.55 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**42**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	10/6/2021	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**50**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
RMW-99	7/10/2019	0.77 J	2.1	< 1.0 U	< 1.0 U	2.9	< 1.0 U	**35**	< 1.0 U	< 1.0 U	2.3	0.26 J	< 2.0 U
	2/14/2020	1.2 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**52**	< 2.0 U	< 2.0 U	1.7 J	< 2.0 U	< 4.0 U
	7/28/2020	0.51 J	< 2.0 U	< 2.0 U	< 2.0 U	1.8 J	< 2.0 U	**46**	< 2.0 U	< 2.0 U	0.73 J	< 2.0 U	< 4.0 U
	10/6/2021	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**45**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-100	7/8/2019	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.50 J	< 2.0 U
	2/11/2020	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	0.69 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-101	7/8/2019	< 1.0 U	1.3	< 1.0 U	0.13 J	6.7	< 1.0 U	0.49 J	< 1.0 U	0.30 J	1.9	0.61 J	< 2.0 U
	2/11/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	0.14 J	< 1.0 U	< 2.0 U
	7/27/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/5/2021	< 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	< 2.0 U
RMW-102	7/8/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 2.0 U
	2/11/2020	< 1.0 U	1.6	< 1.0 U	< 1.0 U	10	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.63 J	0.30 J	< 2.0 U
	7/28/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U
	10/5/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.7**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Table D-1
Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
TW-2	9/26/2000	4.5	27.8	< 1.0 U	< 1.0 U	23	10	5.0	< 1.0 U	2.9	**43**	**5.9**	3.2
	11/9/2001	3.9	20	< 2.0 U	< 2.0 U	8.8	0.38 J	**8.5**	< 2.0 U	2.4	**48**	**2.7**	< 2.0 U
	9/20/2002	2.2	9.0	< 2.0 U	< 2.0 U	26	< 2.0 U	**5.9**	< 2.0 U	1.4	**70**	**2.5**	< 2.0 U
	10/2/2003	0.66 J	5.7	< 1.0 U	1.5	8.3	0.86 J	4.7	< 1.0 U	0.59	**24**	1.4	< 1.0 U
	9/14/2004	< 1.0 U	22	< 1.0 U	2.9	5.5	< 1.0 U	< 1.0 U	< 1.0 U	2.0	1.5	**2.5**	< 1.0 U
	10/20/2005	< 1.0 U	12	< 1.0 U	2.5	5.3	12	< 1.0 U	3.4	1.4	< 1.0 U	**4.4**	5.0
	9/19/2006	0.55 J	3.4	< 1.0 U	< 1.0 U	11	< 1.0 U	**7.0**	< 1.0 U	0.38 J	**32**	0.27 J	< 2.0 U
	9/18/2007	< 1.0 U	1.7	< 1.0 U	0.81 J	7.9	< 1.0 U	1.9	< 1.0 U	0.25 J	**24**	0.97 J	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 5.2 U	0.76 J	1.4	< 1.0 U	0.36 J	**7.5**	1.0	< 2.0 U
	11/11/2009	< 2.5 U	1.1 J	< 2.5 U	< 2.5 U	1.6 J	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	1.1 J	< 2.5 U	< 5.0 U
	9/28/2010	< 1.0 U	2.0	< 1.0 U	1.2	2.1	< 1.0 U	0.52 J	< 1.0 U	0.30 J	1.6	0.71 J	< 2.0 U
	9/28/2011	< 1.0 U	1.8	< 1.0 U	1.2	5.7	0.45 J	1.2	< 1.0 U	0.25 J	**5.9**	1.1	< 2.0 U
	9/6/2012	< 1.0 U	1.3	< 1.0 U	0.51 J	3.6	< 1.0 U	< 1.0 U	0.18 J	0.23 J	0.26 J	0.56 J	< 2.0 U
	9/25/2013	< 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	< 2.0 U
	10/9/2014	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	0.56 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	0.64 J	< 2.0 U
	11/4/2015	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.29 J	< 2.0 U
	8/17/2016	< 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	< 2.0 U
WSU-22	3/1/2006	3.1	1.7	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**110**	< 1.0 U	1.2 J	**88**	< 1.0 U	< 3.3 U
WSU-23	3/1/2006	2.5	0.97 J	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 2.0 U
	11/30/2006	2.1	0.73 J	0.2 J	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	7/10/2019	1.7	0.86 J	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	**28**	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 2.0 U
	2/13/2020	1.4	0.62 J	< 1.0 U	< 1.0 U	0.65 J	< 1.0 U	**5.3**	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	7/28/2020	1.3 J	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**73**	< 4.0 U	< 4.0 U	3.5 J	< 4.0 U	< 8.0 U
	10/5/2021	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	1.1 J	< 2.0 U	**46**	< 2.0 U	< 2.0 U	4.8	< 2.0 U	< 4.0 U
WSU-24	9/23/1999	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	9/26/2000	2.1	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	1.2.	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	11/9/2001	2.4	0.81 J	< 1.0 U	< 1.0 U	4.0	< 1.0 U	1.6	< 1.0 U	< 0.50 U	**18**	< 1.0 U	< 1.0 U
	9/24/2002	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.2	< 1.0 U	< 0.50 U	**13**	< 1.0 U	< 1.0 U
	9/22/2003	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.0	< 1.0 U	< 0.50 U	**7.9**	< 1.0 U	< 1.0 U
	9/16/2004	0.58 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	**8.0**	< 1.0 U	< 1.0 U
	10/20/2005	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 2.0 U
	9/26/2006	0.65 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.81 J	< 1.0 U	< 1.0 U	**10**	< 1.0 U	< 2.0 U
	9/19/2007	0.66 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	**7.9**	< 1.0 U	< 2.0 U
	9/25/2008	0.62 J	0.85 J	< 1.0 U	< 1.0 U	2.4 J	< 1.0 U	1.7	< 1.0 U	0.35 J	**12 J**	< 1.0 U	< 2.0 U
	9/25/2013	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	12/4/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.2**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**8.4**	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 2.0 U
	11/16/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
BOLD - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
µg/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Upgradient of the Site													
HR-12	9/14/1999	< 1.0 UJ	2.7	< 1.0 U	1.2	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U
	9/28/2000	< 1.0 U	2.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.5**	< 1.0 U
	11/14/2001	< 1.0 U	3.6	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	0.23	< 1.0 U	**3.8**	< 1.0 U
	9/26/2002	< 1.0 U	2.4	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.7	< 1.0 U
	9/18/2003	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.6	< 1.0 U
	9/21/2004	< 1.0 U	1.8	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.1	< 1.0 U
	10/24/2005	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 2.0 U
	9/26/2006	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/19/2007	< 1.0 U	2.2	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/25/2008	0.39 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	2.8	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	2.1	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	1.8	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	3.4	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	12/8/2015	< 1.0 U	2.4	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 2.0 U
	8/16/2016	< 1.0 U	3.1	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
RMW-88	9/26/2012	< 1.4 U	17	< 1.4 U	< 1.4 U	43	< 1.4 U	< 1.4 U	0.21 J	1.5	< 1.4 U	1.1 J	< 2.9 U
	9/27/2013	< 1.0 U	35	< 1.0 U	< 1.0 U	**75**	< 1.0 U	< 1.0 U	< 1.0 U	4.5	< 1.0 U	2.0	< 2.0 U
	10/8/2014	< 2.5 U	32	< 2.5 U	< 2.5 U	**78**	< 2.5 U	< 2.5 U	< 2.5 U	4.3	< 2.5 U	1.2 J	< 5.0 U
	8/26/2015	< 1.0 U	30	< 1.0 U	< 1.0 U	60	< 1.0 U	< 1.0 U	< 1.0 U	3.8	< 1.0 U	**3.3**	< 2.0 U
	10/30/2015	< 2.0 U	27	< 2.0 U	< 2.0 U	61	< 2.0 U	< 2.0 U	< 2.0 U	3.2	< 2.0 U	1.5 J	< 4.0 U
	8/26/2016	< 2.0 U	24	< 2.0 U	< 2.0 U	55	< 2.0 U	< 2.0 U	< 2.0 U	3.2	< 2.0 U	< 2.0 U	< 4.0 U
On-Site													
31	9/29/2000	< 1.0 U	7.4	< 1.0 U	< 1.0 U	8.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12.9**	**4.4**	< 1.0 U
	11/15/2001	< 1.0 U	3.1	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.1**	**2.5**	< 1.0 U
39	9/27/2002	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.8	0.51J	< 1.0 U
	9/24/2003	< 1.0 U	0.58 J	< 1.0 U	< 1.0 U	0.71	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.89 J	< 1.0 U	< 1.0 U
GM-7R	9/28/1999	4.2	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**76.1**	< 1.0 U	< 1.0 U
	8/25/2015	< 1.0 U	0.86 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**53**	< 1.0 U	0.47 J	**23**	0.60 J	< 2.0 U
GM-19D	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13.5**	1.5	< 1.0 U
	10/2/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	**15.7**	< 1.0 U
	11/14/2001	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	0.92	< 1.0 U	< 1.0 U	0.38J	< 0.50 U	3.7	**13**	< 1.0 U
	9/26/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.81	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.1	0.36 J	< 1.0 U
	9/25/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.24 J	**17**	< 1.0 U
	9/20/2004	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	3.5	**18**	< 1.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	**15**	< 2.0 U
	9/26/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	**18**	< 2.0 U
	9/17/2007	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.2	**16**	< 2.0 U
	9/23/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.8**	< 2.0 U
	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	**14**	< 2.0 U
	9/27/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.98 J	**9.9**	< 2.0 U
	9/29/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	**8.6**	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	**7.4**	**2.4**	0.32 J
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	**7.8**	< 2.0 U
	10/7/2014	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	5.8	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	5.0	**4.1**	< 2.0 U
	11/4/2015	< 2.0 U	3	< 2.0 U	< 2.0 U	39	< 2.0 U	**11**	< 2.0 U	1.0 J	**69**	**1.0 J**	< 4.0 U
	8/16/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	< 1.0 U	0.62 J	< 1.0 U	< 1.0 U	4.9	**6.2**	< 2.0 U
GM-39	12/10/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	0.18 J	< 0.50 U	< 1.0 U	1.3	< 1.0 U
	9/20/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.8	< 1.0 U
	10/24/2005	< 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	0.77 J	< 2.0 U
	9/27/2006	< 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	1.7	< 2.0 U
	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	19 J	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	1.6	< 2.0 U
	10/1/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**3.2**	< 2.0 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	< 1.0 U	< 1.0 U	0.63 J	1.5	< 2.0 U
GM-40	12/10/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	**3.1**	< 1.0 U
	9/20/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	**3.2**	< 1.0 U
	10/25/2005	< 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	**2.9**	< 2.0 U
	9/26/2006	< 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	**3.9**	< 2.0 U
	9/25/2007	< 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	**4.0**	< 2.0 U
	9/30/2008	< 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	**3.6**	< 2.0 U
GM-41	12/10/2003	< 11 U	< 11 U	< 11 U	< 1.0 U	10	< 11 U	< 11 U	< 11 U	< 5.6 U	**320**	< 11 U	< 11 U
	9/21/2004	< 6.2 U	< 6.2 U	< 6.2 U	< 6.2 U	24	< 6.2 U	< 6.2 U	< 6.2 U	< 3.1 U	**180**	< 6.2 U	< 6.2 U
	10/24/2005	< 10 U	< 10 U	< 10 U	< 10 U	16	< 10 U	< 10 U	< 10 U	< 10 U	**250**	< 10 U	< 20 U
	9/18/2006	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	11	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**210**	< 4.0 U	< 8.0 U
	5/3/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	15	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**170**	**2.4 J**	< 13 U
	9/20/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	17	< 6.7 U	< 6.7 U	< 6.7 U	1.4 J	**230**	1.9 J	< 13 U
	9/26/2008	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	11	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	**180**	< 7.1 U	< 14 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	**79**	1.9	< 2.0 U
GM-42	12/9/2003	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	11	< 1.0 U	0.27 J	< 1.0 U	0.34 J	0.37 J	1.0	< 1.0 U
	9/20/2004	< 1.0 U	0.70 J	0.25 J	< 1.0 U	16	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	0.43 J	0.92 J	< 1.0 U
	10/25/2005	< 1.0 U	0.64 J	0.21 J	< 1.0 U	17	< 1.0 U	0.19 J	< 1.0 U	0.59 J	0.85 J	0.56 J	< 2.0 U
	9/26/2006	< 1.0 U	0.50 J	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	0.64 J	0.45 J	< 2.0 U
	9/25/2007	< 1.0 U	0.67 J	< 1.0 U	< 1.0 U	18	< 1.0 U	< 1.0 U	0.18 J	0.69 J	2.2	0.44 J	< 2.0 U
	9/30/2008	< 1.0 U	0.66 J	0.53 J	< 1.0 U	20	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	**9.9**	0.31 J	< 2.0 U
	9/6/2012	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	**6.4**	< 2.0 U

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-54	9/14/2006	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**180**	< 6.7 U	< 6.7 U	3.2 J	< 6.7 U	< 13 U
	5/2/2007	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 5.0 U	2.9 J	< 5.0 U	< 10 U
	9/20/2007	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**150**	< 5.0 U	< 5.0 U	2.4 J	< 5.0 U	< 10 U
	9/30/2008	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**190**	< 5.7 U	< 5.7 U	2.5 J	< 5.7 U	< 11 U
	11/13/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	2.9 J	< 5.0 U	< 10 U
	1/28/2010	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**120**	< 5.0 U	< 5.0 U	2.4 J	< 5.0 U	< 10 U
	9/23/2010	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**92**	< 2.5 U	< 2.5 U	2.2 J	< 2.5 U	< 5.0 U
	9/29/2011	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**83**	< 4.0 U	< 4.0 U	2.6 J	< 4.0 U	< 8.0 U
	9/7/2012	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**64**	< 4.0 U	< 4.0 U	2.8 J	< 4.0 U	< 8.0 U
	9/26/2013	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**69**	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 2.0 U
	10/8/2014	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	**66**	< 1.7 U	< 1.7 U	< 1.7 UB	< 1.7 U	< 3.3 U
	11/3/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**62**	< 2.0 U	< 2.0 U	1.3 J	< 2.0 U	< 4.0 U
	8/18/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**61**	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
GM-58	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.73 J	< 1.0 U	4.4	0.4 J	< 1.0 U	0.72 J	< 1.0 U	< 2.0 U
	11/30/2006	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**85**	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 6.7 U
	5/3/2007	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	**82**	< 2.9 U	< 2.9 U	< 2.9 U	< 2.9 U	< 5.7 U
	9/20/2007	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**69**	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 6.7 U
	9/26/2008	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	**80**	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 5.0 U
	9/27/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	< 2.0 U
GM-61	9/15/2006	0.5.0 J	2.2	< 1.7 U	< 1.7 U	2.6	< 1.7 U	**20**	0.44 J	< 1.7 U	**36**	< 1.7 U	< 3.3 U
	9/26/2007	0.59 J	1.6 J	< 1.7 U	< 1.7 U	3.9	< 1.7 U	**28**	< 1.7 U	< 1.7 U	**56**	< 1.7 U	< 3.3 U
	10/1/2008	< 1.0 U	0.94 J	0.19 J	< 1.0 U	20	< 1.0 U	**13**	< 1.0 U	0.92 J	**23**	0.75 J	< 2.0 U
	9/26/2013	< 1.0 U	1.3	< 1.0 U	< 1.0 U	17	< 1.0 U	**7.2**	< 1.0 U	1.1	**5.2**	1.2	< 2.0 U
	8/26/2015	< 1.0 U	3.3	< 1.0 U	< 1.0 U	25	< 1.0 U	**32**	< 1.0 U	1.5	**12**	0.45 J	< 2.0 U
GM-67D	5/3/2007	0.59 J	3.0	0.36 J	< 1.7 U	23	< 1.7 U	**54**	< 1.7 U	0.83 J	**45**	< 1.7 U	< 3.3 U
	10/10/2014	1.2 J	3.7	< 3.3 U	< 3.3 U	**120**	< 3.3 U	0.84 J	< 3.3 U	2.6 J	**15.0**	**3.5**	< 6.7 U
	11/4/2015	2.5	6.8	1.8	< 1.0 U	**140 F1K**	< 1.0 U	1.7	< 1.0 U	4.6	**76**	0.70 J	< 2.0 U
GM-68D	5/4/2007	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**1500**	< 50 U	< 50 U	**750**	< 50 U	< 100 U
	10/3/2008	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	14	< 5.0 U	**190**	< 5.0 U	< 5.0 U	**46**	< 5.0 U	< 10 U
	11/16/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.5	< 2.0 U	**130 J**	< 2.0 U	< 2.0 U	**35**	< 2.0 U	< 4.0 U
	9/29/2010	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	3.0 J	< 3.3 U	**100**	< 3.3 U	< 3.3 U	**22**	< 3.3 U	< 6.7 U
	9/30/2011	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	1.5 J	< 1.7 U	**62**	< 1.7 U	< 1.7 U	**13**	< 1.7 U	< 3.3 U
	9/7/2012	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**49**	< 3.3 U	< 3.3 U	**6.9**	< 3.3 U	< 6.7 U
	9/26/2013	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	**45**	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	10/10/2014	0.71 J	< 1.4 U	< 1.4 U	< 1.4 U	1.1 J	< 1.4 U	**36**	< 1.4 U	< 1.4 U	3.7	< 1.4 U	< 2.9 U
	11/3/2015	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**30**	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 2.0 U
	8/17/2016	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 2.0 U
GM-69	5/3/2007	< 12 U	8.7 J	< 12 U	< 12 U	29	< 12 U	**6.5 J**	< 12 U	< 12 U	**300**	< 12 U	< 24 U
GM-70	5/3/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
GM-73	10/23/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**160**	< 6.7 U	< 6.7 U	**22**	< 6.7 U	< 13 U
GM-74D	9/27/2007	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	< 8.0 U	**250**	< 8.0 U	< 8.0 U	**130**	< 8.0 U	< 16 U
	4/9/2010	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	8.0	< 2.5 U	**98**	< 2.5 U	< 2.5 U	**50**	< 2.5 U	< 5.0 U
	8/24/2015	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	**26**	< 1.0 U	< 1.0 U	**5.3**	1.3	< 2.0 U
GM-75D	9/26/2007	< 50 U	< 50 U	< 50 U	< 50 U	24 J	< 50 U	**470**	< 50 U	< 50 U	**1700 J**	< 50 U	< 100 U
	10/6/2008	< 33 U	< 33 U	< 33 U	< 33 U	**120**	< 33 U	**220**	< 33 U	< 33 U	**750**	< 33 U	< 67 U
	11/16/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	15	< 5.0 U	**320**	< 5.0 U	< 5.0 U	**210**	< 5.0 U	< 10 U
	4/8/2010	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	19	< 9.1 U	**320**	< 9.1 U	< 9.1 U	**200**	< 9.1 U	< 18 U
	9/29/2010	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	12	< 9.1 U	**260**	< 9.1 U	< 9.1 U	**190**	< 9.1 U	< 18 U
	9/30/2011	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	12	< 4.0 U	**200**	< 4.0 U	< 4.0 U	**180**	**2.1 J**	< 8.0 U
	9/7/2012	< 11 U	< 11 U	< 11 U	< 11 U	31	< 11 U	**150**	< 11 U	< 11 U	**150**	**4.7 J**	< 22 U
	9/27/2013	< 1.0 U	0.40 J	0.28 J	< 1.0 U	25	< 1.0 U	**180**	< 1.0 U	0.58 J	**180**	**3.2**	< 2.0 U
	12/4/2014	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	11	< 5.7 U	**190**	< 5.7 U	< 5.7 U	**180**	< 5.7 U	< 11 U
	12/8/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	22	< 1.0 U	**140**	< 1.0 U	0.38 J	**150**	0.37 J	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	9.6	< 2.0 U	**200**	< 2.0 U	< 2.0 U	**220**	< 2.0 U	< 4.0 U
GM-76D	9/23/2007	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 2.0 U
	10/9/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	**35**	< 1.0 U	< 1.0 U	**8.5**	< 1.0 U	< 2.0 U
	8/24/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	**27**	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	10/30/2015	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**49**	< 2.0 U	< 2.0 U	**6.9**	< 2.0 U	< 4.0 U
GM-82	2/26/2008	< 2.0 U	2.3	< 2.0 U	< 2.0 U	47	< 2.0 U	**60**	< 2.0 U	1.9 J	**91**	< 2.0 U	< 4.0 U
	10/2/2008	1.0 J	2.4 J	0.64 J	< 3.3 U	46	< 3.3 U	**51**	< 3.3 U	2.0 J	**100**	< 3.3 U	< 6.7 U
	9/26/2013	0.49 J	1.4	0.60 J	< 1.0 U	41	< 1.0 U	**20**	< 1.0 U	1.3	**56**	**7.4**	< 2.0 U
	12/11/2015	< 2.0 U	1.5 J	< 2.0 U	< 2.0 U	30	< 2.0 U	**23**	< 2.0 U	1.2 J	**57**	0.63 J	< 4.0 U
GM-83D	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 2.0 U
	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**2.1**	< 2.0 U
	9/22/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 2.0 U
	9/28/2011	< 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	1.8	< 2.0 U
	9/7/2012	< 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	1.7	< 2.0 U
	9/26/2013	< 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	1.9	< 2.0 U
	10/9/2014	< 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	**2.6**	< 2.0 U
	10/30/2015	< 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	**2.0**	< 2.0 U
	8/19/2016	< 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	**3.1**	< 2.0 U

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-84	2/26/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	**5.5**	< 1.0 U	< 2.0 U
	10/2/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	11/16/2009	< 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	**6.3**	< 1.0 U	< 2.0 U
	1/27/2010	< 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	**6.4**	< 1.0 U	< 2.0 U
	9/23/2010	< 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	**5.9**	< 1.0 U	< 2.0 U
	9/29/2011	< 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	**5.7**	< 1.0 U	< 2.0 U
	9/7/2012	< 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	4.9	< 1.0 U	< 2.0 U
	9/26/2013	< 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	3.6	< 1.0 U	< 2.0 U
	10/8/2014	< 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	4.9	< 1.0 U	< 2.0 U
	10/30/2015	< 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	< 1.0 U	< 2.0 U
	8/17/2016	< 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	4.7	< 1.0 U	< 2.0 U
HR-13	9/15/1999	< 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	4.7	< 1.0 U	< 2.0 U
	9/29/2000	< 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	4.7	< 1.0 U	< 2.0 U
	11/14/2001	< 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	4.7	< 1.0 U	< 2.0 U
	9/30/2002	< 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	4.7	< 1.0 U	< 2.0 U
	9/16/2003	< 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	4.7	< 1.0 U	< 2.0 U
	9/21/2004	< 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	4.7	< 1.0 U	< 2.0 U
	10/25/2005	< 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	4.7	< 1.0 U	< 2.0 U
	9/25/2006	< 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	4.7	< 1.0 U	< 2.0 U
	8/26/2015	< 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	4.7	< 1.0 U	< 2.0 U
HR-14	9/15/1999	< 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	4.7	< 1.0 U	< 2.0 U
	9/30/2002	< 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	4.7	< 1.0 U	< 2.0 U
	8/26/2015	< 1.0 U	4.0	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.0**	0.40 J	< 2.0 U
HR-15	9/15/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U
	9/29/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	< 1.0 U
	11/14/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.86	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/30/2002	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/17/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.29 J	**14**	< 1.0 U
	9/21/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	0.38 J	**19**	< 1.0 U
	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	**14**	< 2.0 U
	9/25/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.50 J	**13**	< 2.0 U
	9/26/2007	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	**15**	< 2.0 U
	9/29/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	**9.7**	< 2.0 U
	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.70 J	**6.5**	< 2.0 U
	9/24/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	**3.8**	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	**2.4**	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.87 J	1.1	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	1.4	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.71 J	1.9	< 2.0 U
	11/4/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.78 J	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	0.90 J	< 2.0 U
RMW-85	9/26/2012	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	**280**	< 10 U	< 10 U	**120**	< 10 U	< 20 U
	9/27/2013	0.19 J	0.84 J	0.26 J	< 1.0 U	60	< 1.0 U	**61**	< 1.0 U	0.48 J	**95**	0.31 J	< 2.0 U
	10/9/2014	< 2.0 U	< 2.0 U	< 2.0 U	0.75 J	55	< 2.0 U	**40**	< 2.0 U	1.8 J	**78**	**5.0**	< 4.0 U
	12/8/2015	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	18	< 1.0 U	**49**	< 1.0 U	< 1.0 U	**82**	0.31 J	< 2.0 U
	8/24/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	18	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**110**	< 2.0 U	< 4.0 U
RMW-86	9/26/2012	12	13	1.6 J	< 6.7 U	52	< 6.7 U	**48**	< 6.7 U	1.6 J	**190**	< 6.7 U	< 13 U
	9/26/2013	15	16	2.3	< 1.0 U	**110**	< 1.0 U	**41**	< 1.0 U	2.9	**190**	1.3	< 2.0 U
	10/8/2014	9.4	7.6	< 6.7 U	< 6.7 U	33	< 6.7 U	**29**	< 6.7 U	< 6.7 U	**140**	< 6.7 U	< 13 U
	12/8/2015	6.1	11	1.6	< 1.0 U	37	< 1.0 U	**40**	< 1.0 U	1.3	**110**	0.45 J	< 2.0 U
	8/17/2016	7.9	13	1.9	< 1.0 U	39	< 1.0 U	**59**	< 1.0 U	1.6	**120**	0.42 J	< 2.0 U
RMW-87	9/26/2012	< 1.0 U	15	< 1.0 U	0.13 J	23	< 1.0 U	< 1.0 U	0.39 J	1.3	**7.5**	0.93 J	< 2.0 U
	9/26/2013	< 1.0 U	18	< 1.0 U	< 1.0 U	43	< 1.0 U	< 1.0 U	< 1.0 U	2.2	**9.8**	1.3	< 2.0 U
	10/9/2014	< 2.2 U	13	< 2.2 U	< 2.2 U	62	< 2.2 U	< 2.2 U	< 2.2 U	2.7	**10**	< 2.2 U	< 4.4 U
	11/5/2015	< 1.0 U	7.8	< 1.0 U	< 1.0 U	58	< 1.0 U	< 1.0 U	< 1.0 U	2.1	**10**	0.42 J	< 2.0 U
	8/19/2016	< 1.0 U	7.8	< 1.0 U	< 1.0 U	43 K	< 1.0 U	< 1.0 U	< 1.0 U	2.3	**11**	0.35 J	< 2.0 U

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
Downgradient of the Site													
DN-13	11/14/2001	1.1	2.5	< 1.0 U	< 1.0 U	6.2	< 1.0 U	< 1.0 U	< 1.0 U	0.37J	5.0	1.2	< 1.0 U
	9/27/2002	1.1	2.5	< 1.0 U	< 1.0 U	7.3	< 1.0 U	< 1.0 U	< 1.0 U	0.48J	**6.1**	1.3	< 1.0 U
	9/22/2003	1.1	2.4	< 1.0 U	< 1.0 U	6.8	< 1.0 U	0.31 J	< 1.0 U	0.4 J	**6.4**	1.1	< 1.0 U
	9/16/2004	0.84 J	2.2	< 1.0 U	< 1.0 U	6.7	< 1.0 U	0.44 J	< 1.0 U	0.49 J	**6.8**	**2.1**	< 1.0 U
	10/20/2005	1.5	2.0	< 1.0 U	< 1.0 U	5.5	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	**7.2**	**2.6**	< 2.0 U
	9/27/2006	0.51 J	1.5	< 1.0 U	< 1.0 U	6.1	< 1.0 U	0.33 J	< 1.0 U	0.41 J	**5.7**	**2.3**	< 2.0 U
	9/19/2007	0.48 J	2.0	< 1.0 U	< 1.0 U	6.4	< 1.0 U	< 1.0 U	< 1.0 U	0.4 J	3.3	**2.6**	< 2.0 U
	9/24/2008	0.63 J	< 1.7 U	< 1.0 U	< 1.0 U	6.2	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	4.5	1.4	< 2.0 U
	11/11/2009	0.77 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.33 J	< 1.0 U	0.50 J	**6.5**	1.7	< 2.0 U
	9/22/2010	0.48 J	1.6	< 1.0 U	< 1.0 U	6.9	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	5.0	1.3	< 2.0 U
	9/28/2011	< 1.0 U	1.5	< 1.0 U	< 1.0 U	6.3	< 1.0 U	0.40 J	< 1.0 U	0.38 J	4.8	1.3	< 2.0 U
	9/6/2012	0.99 J	2.0	< 1.0 U	< 1.0 U	7.5	< 1.0 U	0.76 J	< 1.0 U	0.47 J	**7.9**	1.2	< 2.0 U
	9/27/2013	0.93 J	1.9	< 1.0 U	< 1.0 U	6.9	< 1.0 U	0.58 J	< 1.0 U	0.55 J	**8.4**	1.1	< 2.0 U
	12/4/2014	0.86 J	1.6	< 1.0 U	< 1.0 U	5.9	< 1.0 U	3.5	< 1.0 U	0.41 J	**10**	0.79 J	< 2.0 U
	11/5/2015	0.81 J	1.3	< 1.0 U	< 1.0 U	5.5	< 1.0 U	2.5	< 1.0 U	0.42 J	**9.0**	0.70 J	< 2.0 U
	8/25/2016	0.97 J	1.3	< 1.0 U	< 1.0 U	5.6	< 1.0 U	1.5	< 1.0 U	0.37 J	**8.1**	< 1.0 U	< 2.0 U
	8/15/2017	0.93 J	1.5	< 1.0 U	< 1.0 U	5.8	< 1.0 U	2.1	< 1.0 U	0.43 J	**8.0**	0.86 J	< 2.0 U
	7/24/2018	0.52 J	1.1	< 1.0 U	< 1.0 U	4.7	< 1.0 U	1.4	< 1.0 U	0.28 J	**6.2**	0.53 J	< 2.0 U
	7/11/2019	0.66 J	1.0	< 1.0 U	< 1.0 U	4.4	< 1.0 U	0.87 J	< 1.0 U	0.23 J	**5.6**	0.30 J	< 2.0 U
	7/28/2020	0.56 J	0.96 J	< 1.0 U	< 1.0 U	4.2	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	11/16/2021	0.56 J	1.3	< 1.0 U	< 1.0 U	4.5	< 1.0 U	1.4	< 1.0 U	< 1.0 U	5.0	0.50 J	< 2.0 U
GM-1	9/28/1999	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	5.2	< 1.0 U	**31**	< 1.0 U	< 1.0 U
	10/2/2000	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 1.0 U
	11/14/2001	0.80J	0.29J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	**19**	< 1.0 U	< 1.0 U
	10/1/2002	1.3 J	0.48 J	< 1.4 U	< 1.4 U	0.95	< 1.4 U	2.3	< 1.4 U	< 0.72 U	**39**	< 1.4 U	< 1.4 U
	10/2/2003	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.0	< 1.0 U	< 0.50 U	**34**	< 1.0 U	< 1.0 U
	9/21/2004	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.1	< 1.0 U	< 0.50 U	**35**	< 1.0 U	< 1.0 U
	10/25/2005	0.95 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/20/2006	0.76 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/18/2007	0.74 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**32**	< 1.0 U	< 2.0 U
	9/24/2008	0.69 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	9/5/2012	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	**26**	< 1.0 U	< 2.0 U
	9/25/2013	0.41 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.83 J	< 1.0 U	< 1.0 U	**21**	< 1.0 U	< 2.0 U
GM-3	9/28/1999	1.7	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**7.5**	< 1.0 U	< 1.0 U
	10/2/2000	1.0	2.1	< 1.0 U	< 1.0 U	8.3	< 1.0 U	1.5	< 1.0 U	1.1	**9.4**	< 1.0 U	< 1.0 U
	11/14/2001	0.16 J	0.95 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	0.48 J	< 1.0 U	0.25 J	2.9	< 1.0 U	< 1.0 U
	10/1/2002	0.74 J	1.8	< 1.0 U	< 1.0 U	8.9	< 1.0 U	1.4	< 1.0 U	1.2	**9.5**	0.63 J	< 1.0 U
	10/2/2003	0.96 J	1.6	< 1.0 U	< 1.0 U	5.5	0.26 J	1.7	< 1.0 U	0.77	**12**	< 1.0 U	< 1.0 U
	9/21/2004	1.0	1.8	< 1.0 U	< 1.0 U	4.9	< 1.0 U	2.0	< 1.0 U	0.75	**13**	< 1.0 U	< 1.0 U
	10/25/2005	0.83 J	1.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	2.0	< 1.0 U	0.66 J	**14**	< 1.0 U	< 2.0 U
	9/22/2006	0.59 J	2.0 J	< 1.0 UJ	< 1.0 UJ	6.1 J	< 1.0 UJ	2.1 J	< 1.0 UJ	1.0 J	**13 J**	0.27 J	< 2.0 UJ
	9/18/2007	0.67 J	1.5	< 1.0 U	< 1.0 U	3.8	< 1.0 U	1.9	< 1.0 U	0.77 J	**14**	< 1.0 U	< 2.0 U
	9/24/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 UJ	< 1.0 U	< 2.0 U
	9/25/2013	0.54 J	0.86 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	2.3	< 1.0 U	0.29 J	**15**	< 1.0 U	< 2.0 U
GM-4	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13.4**	< 1.0 U	< 1.0 U
GM-5	9/28/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	1.3	< 1.0 U	< 1.0 U
GM-9	9/24/1999	1.0	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U
	10/3/2000	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U
	11/14/2001	0.48J	0.58J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.38 J	< 1.0 U	< 0.50 U	**8.6**	< 1.0 U	< 1.0 U
	9/30/2002	0.99J	0.48J	< 1.0 U	< 1.0 U	0.66	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**16**	< 1.0 U	< 1.0 U
	9/24/2003	1.3	0.45 J	< 1.0 U	< 1.0 U	0.56	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**20**	< 1.0 U	< 1.0 U
	9/21/2004	1.1	0.6 J	< 1.0 U	< 1.0 U	0.97	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**16**	< 1.0 U	< 1.0 U
	10/26/2005	0.85 J	0.59 J	< 1.0 U	< 1.0 U	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 2.0 U
	9/25/2006	0.44 J	0.48 J	< 1.0 U	< 1.0 U	0.85 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/19/2007	1.2	0.48 J	< 1.0 U	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	9/24/2008	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 2.0 U
	9/22/2010	1.0	0.35 J	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 UJ	< 1.0 U	< 1.0 U	**17 J**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	0.50 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	9/5/2012	24	<22 U	<22 U	<22 U	7.9 J	<22 U	<22 U	<22 U	<22 U	**340**	<22 U	<44 U
	9/26/2012	1.1	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**16**	< 1.0 U	< 2.0 U
	9/25/2013	1.4	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**19**	< 1.0 U	< 2.0 U
	10/6/2014	1.2	0.39 J	< 1.0 U	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 2.0 U
	12/11/2015	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
	8/17/2016	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	08/15/2017	0.84 J	< 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**	< 1.0 U	< 2.0 U
	7/24/2018	0.49 J	0.18 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**9.1**	< 1.0 U	< 2.0 U
	7/11/2019	0.51 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.0**	< 1.0 U	< 2.0 U
	7/20/2020	0.90 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
GM-11	9/24/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**15**	< 1.0 U	< 1.0 U
	10/2/2000	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 1.0 U	**41**	< 1.0 U	< 1.0 U
	11/14/2001	0.33J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.0	< 1.0 U	< 0.50 U	**12**	< 1.0 U	< 1.0 U
	10/1/2002	1.0	0.34J	< 1.0 U	< 1.0 U	0.62	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**35**	< 1.0 U	< 1.0 U
	9/24/2003	0.96 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.2	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	9/21/2004	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	2.1	< 1.0 U	< 0.50 U	**33**	< 1.0 U	< 1.0 U
	10/26/2005	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**32**	< 1.0 U	< 2.0 U
	9/25/2006	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	**34**	< 1.0 U	< 2.0 U
	9/18/2007	0.6 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**35**	< 1.0 U	< 2.0 U
	9/24/2008	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	11/12/2009	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	**37**	< 1.0 U	< 2.0 U
	9/22/2010	0.36 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	1.1 J	< 1.4 U	< 1.4 U	**24**	< 1.4 U	< 2.9 U
	9/5/2012	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**25**	< 1.0 U	< 2.0 U
	9/25/2013	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**23**	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	**13**	< 1.0 U	< 2.0 U
	8/18/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 2.0 U
GM-13	9/24/1999	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 1.0 U	**31**	< 1.0 U	< 1.0 U
GM-14	9/24/1999	< 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
GM-15	9/24/1999	< 1.0 U	2.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 1.0 U
	10/2/2000	< 1.0 U	2.3	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 1.0 U
	11/14/2001	< 1.0 U	1.4	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.9	< 1.0 U	< 1.0 U
	9/27/2002	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.7	< 1.0 U	< 1.0 U
	9/22/2003	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.9**	< 1.0 U	< 1.0 U
	9/20/2004	< 1.0 U	1.8	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.8**	< 1.0 U	< 1.0 U
	10/26/2005	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/18/2006	< 1.0 U	1.6	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.3**	< 1.0 U	< 2.0 U
	9/25/2007	< 1.0 U	1.5	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	9/30/2008	< 1.0 U	1.1	< 1.0 U	< 1.0 U	0.79 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.2**	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/23/2010	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/29/2011	< 1.0 U	1.1	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
	9/5/2012	0.23 J	1.3	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	0.33 J	0.31 J	**6.1**	< 1.0 U	< 2.0 U
	9/25/2013	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	4.5	0.19 J	< 2.0 U
	10/7/2014	< 1.0 U	1.5	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	4.1	0.38 J	< 2.0 U
	11/4/2015	< 1.0 U	1.8	< 1.0 U	< 1.0 U	7.7	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	**6.6**	0.47 J	< 2.0 U
	8/18/2016	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	7/31/2017	< 1.0 U	2.1	< 1.0 U	< 1.0 U	7.7	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	**5.7**	0.58 J	< 2.0 U
	7/24/2018	< 1.0 U	1.9	< 1.0 U	< 1.0 U	6.6	< 1.0 U	< 1.0 U	< 1.0 U	0.66 J	**5.8**	0.50 J	< 2.0 U
	7/8/2019	< 1.0 U	2.3	< 1.0 U	< 1.0 U	9.4	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	**5.7**	0.68 J	< 2.0 U
	7/29/2020	< 1.0 U	2.6	< 1.0 U	< 1.0 U	12	< 1.0 U	< 1.0 U	< 1.0 U	0.64 J	4.5	0.56 J	< 2.0 U
GM-20D	9/24/1999	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	10/3/2000	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	11/14/2001	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/30/2002	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/22/2003	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/21/2004	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	10/26/2005	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/26/2006	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/19/2007	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/25/2008	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	11/13/2009	< 1.0 U	2.0	< 1.0 U	< 1.0 U	8.3	< 1.0 U	< 1.0 U	< 1.0 U	0.75 J	**6.3**	0.69 J	< 2.0 U
	9/22/2010	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	**6.5**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 2.0 U
	9/5/2012	< 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	3.7	< 1.0 U	< 2.0 U
	9/25/2013	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	10/6/2014	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
	08/15/2017	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	0.63 J	< 1.0 U	< 2.0 U
	7/11/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	0.48 J	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-56	9/14/2006	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.57 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/5/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.4	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J
GM-65D	5/2/2007	0.40 J	1.4	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	1.3	< 1.0 U	< 2.0 U
	1/21/2008	0.32 J	0.94 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 2.0 U
	1/27/2010	0.88 J	1.2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 2.0 U
	9/14/2018	1.7	0.33 J	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.0	< 1.0 U	< 2.0 U
GM-77D	9/27/2007	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	**45**	< 1.4 U	< 1.4 U	< 1.4 U	< 1.4 U	< 2.9 U
	1/28/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**11**	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**12**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/8/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**14**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	11/3/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**18**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	8/17/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**17**	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Table D-2
Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999-2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (ug/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
	MCL	200	--	7	5	70	700	5	1000	100	5	2	10,000
MT-69 (1)	9/24/1999	< 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
	10/3/2000	< 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
	11/15/2001	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/30/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/1/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/27/2004	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	10/24/2005	< 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	< 2.0 U
	9/26/2006	< 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	< 2.0 U
	9/27/2007	< 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	< 2.0 U

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
BOLD - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
ug/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

Appendix E

2021 Supplemental Annual Report

MEMO

ARCADIS Design & Consultancy for natural and built assets

To:
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From:
Arcadis U.S., Inc.

Date:
February 28, 2022

Arcadis Project No.:
30121854.0004B

Subject:
2021 Supplementary Annual Report

This Supplementary Annual Report was prepared to summarize the groundwater evaluations for the closed North Settling Lagoon (NSL) and closed South Settling Lagoon (SSL) at the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) Moraine Facilities site in Moraine, Ohio (Site). The objective of the Supplemental Annual Report is to evaluate the potential for hazardous constituents from the closed NSL and SSL to impact groundwater.

The property line interim measure, Phase 1 Dynamic Groundwater Recirculation (DGR™), was implemented within the closed SSL footprint in 2019 to reduce site-specific volatile organic compounds (VOCs) in groundwater within the Riverview Plat neighborhood to concentrations below the MCLs within 5 years of operation. The direct benefit of addressing total site-specific VOCs within the neighborhood is a reduced vapor intrusion risk for structures within the neighborhood that have not provided access for installation of a vapor intrusion mitigation system. This interim measure includes upgradient extraction wells (EW-1, EW-2, and EW-3), located in the central portion of the closed SSL, and treated water injection wells (IW-1, IW-2, IW-3, and IW-4), located on the southern edge of the closed SSL. The active groundwater remediation in this area interferes with the evaluation of potential impacts to groundwater from the closed SSL. The below evaluation summarizes these implications.

OHIO EPA COMMENTS AND RESPONSES

On May 20, 2021, the Ohio Environmental Protection Agency (Ohio EPA) provided comments regarding the 2020 Supplemental Annual Groundwater Monitoring Report (Ohio EPA, 2021). The Ohio EPA indicated that Tables E1 and E2 and Figures E1 through E24 were missing from the report. On May 20,

2021, a revised report with the missing tables and figures was provided to the Ohio EPA via an electronic file transfer, and on May 24, 2021, RACER Trust submitted the Response to Ohio EPA Comments on the Supplemental Annual Report (RACER Trust, 2021).

GROUNDWATER SAMPLING PROGRAM

The Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc., 2002) was developed to meet the objectives of the Ohio EPA post-closure monitoring for the closed NSL and SSL. For 2021, the site-specific VOC groundwater data is summarized in Table 2 of the Report. The following sections summarize collection of the annual groundwater elevation measurements, groundwater monitoring, and statistical evaluation.

Groundwater samples were analyzed for the site-specific VOC parameter list using SW846 Method 8260B. This parameter list was developed after evaluating data from the September 1999 baseline groundwater sampling event and the one-time sampling event conducted in September/October 2000 (which included analysis of Appendix IX VOCs, cis-1,2-DCE, SVOCs, and metals) as part of the Former Oil House Area interim measures. The site-specific VOCs include benzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, and xylenes. The groundwater samples were submitted to Eurofins TestAmerica Laboratories, Inc. in North Canton, Ohio.

The following sections include the information that is required by the Ohio EPA.

SECTIONS 1 THROUGH 5 – EXCEL WORKSHEETS

The Excel Worksheets containing required information regarding the facility, wells, sampling, parameters, and groundwater data are included in **Attachment E-1**.

SECTION 6 – OTHER REQUIRED INFORMATION:

1. Signed Certification Statement per OAC Rules 3745-50-58(K) and 3745-50-42

OHIO EPA

SUPPLEMENTARY ANNUAL REPORT

FOR 2021 GROUNDWATER

MONITORING INFORMATION

February 28, 2022

Prepared by Arcadis

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Pamela L. Barnett

Cleanup Manager

RACER Trust

2. Groundwater Flow Data

Groundwater levels for the upper aquifer well network associated with the closed NSL and SSL were measured on October 4, 2021. Groundwater levels were measured in accordance with procedures defined in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002), Standard Operating Procedure (SOP) #4.

Monitoring results indicate that groundwater flow is generally from northeast to southwest. The potentiometric surface for the closed NSL and SSL are illustrated in **Figures E-1** and **E-2**, respectively.

The horizontal hydraulic gradient within the upper aquifer in the closed NSL area were consistent with past values at 4.9×10^{-4}. These calculations were not completed for the closed SSL due to the operation of Phase 1 DGR™ which induces hydraulic gradient control with extraction and treated water injection. According to the 2012 Corrective Measures Proposal (Arcadis, 2012), using the range in hydraulic conductivity values measured for the sand and gravel facies of the upper aquifer (180 to 3,500 feet/day), long-term site-wide horizontal hydraulic gradient of 4.7×10^{-4}, and effective porosity of 10%, the estimated advective groundwater velocity ranges from 0.8 to 16 feet/day for most of the upper aquifer.

3. Sampling Data and 4. Lab Data

In 2021, the following wells were sampled to assess the groundwater monitoring program objectives:

- Closed NSL: HR-4, W-2-N, W-3-N, and W-4-N
- Closed SSL: HR-17, W-2-S, W-3-S, and W-4-S

A summary of the 2021 groundwater monitoring activities, including the number of monitoring wells and analytical parameters, is presented on Table 1 in the Report. Well construction data for the monitoring wells used in the program are presented in Table 4 in the Report.

Groundwater samples were collected from the specified wells using the low-flow methodology and following procedures outlined in SOP #21 (Arcadis G&M, Inc., 2002). Field parameters including pH, specific conductance, temperature, oxidation/reduction potential, and dissolved oxygen were measured during purging of each well using a multi-parameter groundwater quality meter connected to a flow-through cell (Appendix B in the Report). The groundwater sampling details are provided on the groundwater sampling forms included in **Attachment E-2**. The analytical results are summarized below and are included in this report as **Attachment E-1** and in Table 2 of the Report.

The groundwater samples were collected and managed under standard chain-of-custody procedures and validated in accordance with the approved Supplemental RFI Work Plan and the RFI Quality Assurance Project Plan (Geraghty & Miller, Inc. 1997) and as presented in the draft Amended Quality Assurance Project Plan (Arcadis, Inc. 2011). The data quality assessment was completed on January 14, 2022 for all samples collected in October, November, and December for the annual groundwater sampling event. The

review was conducted as a Tier III evaluation and included review of data package completeness as required under U.S. EPA Region III M3 validation. Some issues were identified during the data review; however, the quality exceedances were minor, and no sample results were rejected as unusable. Therefore, the sample data are considered usable as qualified and are acceptable to support site decisions. The data validation report is provided as **Attachment E-3,** historical data table as **Attachment E-4**, and laboratory results as **Attachment E-5**.

Closed NSL

- Concentrations of site-specific VOCs were detected at relatively low concentrations or below reporting limits in monitoring wells HR-4, W-2-N, and W-3-N in 2021.
- Concentrations of PCE and vinyl chloride in monitoring well W-4-N have been relatively low or below reporting limits since 1999. TCE had a peak concentration of 15 micrograms per liter (µg/L) in 2009 and has remained relatively consistent, with a concentration of 7.0 µg/L in October 2021. Concentrations of cis-1,2-DCE have also remained relatively consistent with a concentration of 8.9 µg/L in October 2021. The other site-specific VOCs were detected at relatively low concentrations or below reporting limits.

Closed SSL

- Concentrations of PCE in monitoring well HR-17 have been relatively consistent since 2011 with a concentration of 130 µg/L in October 2021. Concentrations of the other site-specific VOCs were below reporting limits in monitoring well HR-17 in 2021.
- Concentrations of PCE in monitoring well W-2-S were relatively consistent prior to 2019 when the concentration increased to 20 µg/L. In October 2021, the concentration decreased to 1.0 µg/L, which is similar to pre-2019 concentrations. The concentration of TCE at W-2-S increased to 6.1 µg/L in 2021. All other concentrations of site-specific VOCs at W-2-S were detected at relatively low concentrations or below reporting limits in 2021.
- The PCE concentration at monitoring well W-3-S in October 2021 was detected at 92 µg/L. The other site-specific VOCs were detected at relatively low concentrations or below reporting limits in 2021.
- The PCE concentration detected at monitoring well W-4-S in October 2021 was 29 µg/L. The concentration of TCE decreased to 3.5 µg/L, and the other site-specific VOCs were below reporting limits in 2021.

Well HR-1 Data Summary

HR-1 was sampled in 2020 as part of the annual groundwater sampling program for the closed SSL. Monitoring well HR-1 was historically sampled from 1999 through 2008 and was sampled from 2013 to 2020 for additional upgradient data for the closed SSL to support verification of increasing trends at upgradient well HR-17 and downgradient well W-4-S. HR-1 data has been supplied for upgradient concentration comparison purposes only, and not used as part of the statistical evaluations in the past. The removal of HR-1 from the annual groundwater monitoring program for 2021 was based on review of historical data and current groundwater concentration distribution. The 2020 concentrations confirmed this understanding. HR-1 is located approximately 1,000 feet upgradient from the closed SSL and on the margins of the identified Site plume centerline. Well HR-17 is situated immediately upgradient of the closed SSL, thus providing a more representative upgradient well for other source-generated groundwater concentrations. HR-1 may be sampled in future sampling events to assist in the determination of groundwater VOC concentrations within the plume.

5. Tables

The statistical results described in the below Section 7 are provided as **Tables E-1** and **E-2**.

6. Maps

The position of the wells relative to the lagoons and the potentiometric surface for the closed NSL and closed SSL are illustrated in **Figures E-1** and **E-2**, respectively.

7. Calculations

Calculations are not applicable.

SECTION 7 STATISTICAL EVALUATION

Methods

The 2021 groundwater monitoring program was completed to meet the objectives of RCRA corrective action and the post-closure groundwater monitoring requirements for the closed lagoons. The program monitors potentially significant contributions of hazardous waste constituents to existing groundwater quality from the closed lagoons. To determine if the closed lagoons may be significant contributors of hazardous waste constituents to existing groundwater concentrations, monitoring data collected from the designated post-closure monitoring wells located downgradient of each of the closed lagoons are evaluated for temporal trends. This assessment includes, as an initial approach, the application of linear regression to determine if the concentration data for site-specific VOCs suggests a strong positive correlation with time as indicated by the coefficient of determination (R^2). Further statistical assessment of these well constituent concentrations was performed using the Mann-Kendall trend test and the Sen's slope estimator test (**Table E-1**).

Results

Data considered in the evaluation included results through the October 2021 monitoring event and data ranging back to the initial post-closure monitoring event conducted in November 2001. Current and historical data used in the statistical analysis is included in **Attachment E-4**. Laboratory reports are included as **Attachment E-5**. For the Mann-Kendall trend analysis, values below the reporting limit were replaced by a common value lower than the minimum detected value equal to half the minimum reporting limit for each dataset (USEPA, 2009). If half the minimum reporting limit was greater than the minimum detected value, then half the minimum detected value was assigned. This non-detect replacement ensures that any pair of tied values or any pair of non-detects is simply given a score of zero in the calculation of the Mann-Kendall statistic *S*. For consistency in data analysis, the same substitution method is used for the Sen's slope estimator and linear regression analyses. Field duplicate results were not included.

As proposed in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc., 2002), post-closure monitoring data collected from those wells assigned to the closed lagoons were reviewed for temporal trends. Summary statistics and results from the statistical trend tests for each dataset are presented in **Table E-1**. A summary matrix of trend test results is presented in **Table E-2**. The data plots for key constituents are provided on **Figure E-3** for the closed NSL and **Figure E-4** for the closed SSL. Individual time series plots for each dataset together with results from the Mann-Kendall and Sen's slope estimator trend tests are presented in **Figures E-5 to E-23**.

Closed NSL

For the wells used to assess conditions at the closed NSL, the Mann-Kendall trend test identified increasing trends for 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in downgradient well W-4-N (**Figures E-6**, **E-9**, and **E-10**, respectively). As detailed in **Table E-1**, the magnitude of these trends was also statistically significant using the Sen's slope estimator trend test. The coefficient of determination (R^2) was greater than 0.5 for 1,1-DCA but not for cis-1,2-DCE or trans-1,2-DCE. Concentrations of cis-1,2-DCE and trans-1,2-DCE were much less than the applicable maximum contaminant level (MCL) (no MCL is available for 1,1-DCA). An increasing trend was observed for cis-1,2-DCE in downgradient well W-2-N (**Figure E-8**). The magnitude of this trend was not statistically significant using the Sen's slope estimator trend test and the R^2 was less than 0.5. Increasing trends were not observed in downgradient monitoring well W-3-N.

In the upgradient well HR-04, increasing trends were identified for 1,1,1-TCA and cis-1,2-DCE by the Mann-Kendall trend test (**Figures E-5** and **E-7**, respectively). The magnitude of these trends was statistically significant using the Sen's slope estimator trend test. The R^2 was greater than 0.5 for 1,1,1-TCA and cis-1,2-DCE. Concentrations of these constituents were significantly less than the MCL.

In summary, the closed NSL data indicate a statistically significant increasing trend in 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in downgradient monitoring well W-4-N and in cis-1,2-DCE in downgradient monitoring well W-2-N. The following observations suggest a source (upgradient) other than the closed NSL for 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in monitoring well W-4-N and cis-1,2-DCE in monitoring well W-2-N:

- The absence of concentrations of cis-1,2-DCE and trans-1,2-DCE greater than MCLs and the low-level detection of 1,1-DCA (9.0 µg/L with no MCL available).
- The fact that these constituents (1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE) are daughter products of VOCs that have been detected upgradient of the closed NSL.

Closed SSL

For the wells used to assess conditions at the closed SSL, increasing trends were identified in the four wells for at least one to five of the following five constituents: 1,1-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE, and TCE (**Tables E-1** and **E-2**, **Figure E-4**).

- **Upgradient well HR-17**. A statistically significant increasing trend for PCE was identified with both the Mann-Kendall and Sen's slope estimator trend tests, and the R^2 was greater than 0.5. PCE concentrations over the past five sampling events ranged from 130 µg/L to 180 µg/L which were greater than the MCL of 5 µg/L (**Figure E-16**).
- **W-2-S**. Statistically significant increasing trends for cis-1,2-DCE and PCE were identified with both the Mann-Kendall and Sen's slope estimator trend tests, but the R^2 was less than 0.5. A statistically significant increasing trend for trans-1,2-DCE was identified with the Mann-Kendall, but the magnitude was not confirmed by the Sen's slope estimator trend tests – the R^2 values were also less than 0.5. Concentrations for cis-1,2-DCE and trans-1,2-DCE were both less than the MCL (**Figures E-13** and **E-20**, respectively). The most recent concentration for PCE was also less than the MCL following two MCL exceedances in 2019 and 2020 (**Figure E-17**)
- **W-3-S**. Statistically significant increasing trends for cis-1,2-DCE and PCE were identified by the Mann-Kendall and Sen's slope estimator trend tests, and the R^2 was greater than 0.5 (**Figures E-14** and **E-18**, respectively). Statistically significant increasing trends for 1,1-DCA and TCE were identified with the

Mann-Kendall, but the magnitude was not confirmed by the Sen's slope estimator trend tests, and the R^2 was less than 0.5 (**Figures E-11 and E-22**). Concentrations for all constituents but PCE were less than the applicable MCL. Concentrations of PCE over the past five sampling events ranged from 19 to 110 µg/L and were greater than the MCL of 5 µg/L.

- **W-4-S**. A statistically significant increasing trend for cis-1,2-DCE (**Figure E-15**), PCE (**Figure E-19**), and TCE (**Figure E-23**) was identified with both the Mann-Kendall and Sen's slope estimator trend tests, and the R^2 was greater than 0.5 for PCE. A statistically significant increasing trend for 1,1-DCA (**Figure E-12**) and trans-1,2-DCE (**Figure E-21**) was identified with the Mann-Kendall, but the magnitude was not confirmed by the Sen's slope estimator trend tests, and the R^2 was less than 0.5. Concentrations for all constituents but PCE were less than the applicable MCL. Concentrations of PCE over the past five sampling events ranged from 29 to 70 µg/L and were greater than the MCL of 5 µg/L. Although the most recent concentration of TCE was less than the MCL of 5 µg/L, concentrations over the previous four sampling events ranged from 9.1 to 42 µg/L and were greater than the MCL of 5 µg/L.

The detected concentration for PCE in the upgradient monitoring well HR-17 during the 2021 sampling event was 130 µg/L, and TCE was not detected at or above the laboratory reporting limit. A statistically significant increasing trend for PCE was identified by the Mann-Kendall and Sen's slope estimator trend tests, and the R^2 was greater than 0.5 (**Figure E-16**). A statistically significant increasing trend for TCE was not identified by the Mann-Kendall trend test or the Sen's slope estimator trend tests – the R^2 was less than 0.5 (**Table E-1**). The observed concentration increase identified in downgradient monitoring well W-4-S for PCE and TCE appears to correlate with the concentrations and increasing trends also observed in upgradient well HR-17. The correlations between concentrations in upgradient well HR-17 and downgradient well W-4-S for TCE and PCE were tested statistically using Pearson correlation coefficients and were found to be statistically correlated at the 5% significance level (**Figure E-24**). This correlation suggests a source (upgradient) other than the closed SSL for the TCE and PCE increases. Although the concentrations for cis-1,2-DCE, trans-1,2-DCE, and 1,1-DCA in wells W-4-S and HR-17 are not statistically correlated, the concentrations are still less than applicable drinking water standards. The presence of daughter products 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE is expected from the natural attenuation processes.

The operation of the Phase 1 DGR™ system since October 2019 may have had an influence on diffuse VOC concentration distribution locally, causing temporary increases or decreases that are not representative of ambient groundwater conditions without operation of an interim measure. It is expected that site-specific VOC concentrations will decrease overall as operation of Phase 1 DGR™ (i.e., extraction of impacted groundwater upgradient and injection of treated water downgradient) continues. The influence that Phase 1 DGR™ has on groundwater concentrations within the closed SSL area departs from the statistical analysis purpose of evaluating the potential for hazardous constituents to be leaching from the closed waste units. For these reasons, additional statistical analyses while Phase 1 DGR™ is operational are inappropriate.

CONCLUSIONS AND RECOMMENDATIONS

The closed NSL and SSL have been monitored for over 35 years, and evaluation of the monitoring data indicates that the closed lagoons do not appear to be contributing hazardous waste constituents to groundwater in the area. As mentioned above, the Phase 1 DGR™ system was installed in October 2019 in the central and southern portion of the closed SSL. The DGR™ system involves hydraulic containment of the dissolved-phase site-specific VOCs with groundwater extraction in combination with treated groundwater injection to enhance advective flushing by creating the dynamic gradients required to reverse

the processes of plume development. The objective of the Phase 1 DGR™ system is to reduce site-specific VOCs (from an upgradient source not related to the closed SSL) in groundwater downgradient of the closed SSL to concentrations below MCLs within 5 years of initiating full-scale operation. As stated above, the operation of the Phase 1 DGR™ system since October 2019 may have had an influence on diffuse VOC concentration distribution locally, causing temporary increases or decreases that are not representative of ambient groundwater conditions without operation of an interim measure. It is expected that site-specific VOC concentrations will decrease overall as operation of Phase 1 DGR™ continues. The active groundwater remediation in this area interferes with the evaluation for the potential impacts to groundwater from the closed SSL. Given the robust data set collected over the past several decades which indicates that the closed NSL and SSL do not appear to be contributing hazardous constituents to groundwater, additional groundwater sampling and evaluation for these units is unnecessary and is not planned for 2022.

Tables

Table E-1 – Summary Statistics and Trend Results

Table E-2 – Matrix of Trend Results

Figures

Figure E-1 – Closed North Settling Lagoon Upper Aquifer Potentiometric Surface Map – October 2021

Figure E-2 – Closed South Settling Lagoon Upper Aquifer Potentiometric Surface Map – October 2021

Figure E-3 – North Settling Lagoon (NSL) Data Plots for Key Constituents

Figure E-4 – South Settling Lagoon (SSL) Data Plots for Key Constituents

Figures E-5 through E-23 – Temporal Data Plots of Select Concentrations

Figure E-24 – PCE and TCE Concentrations in SSL Upgradient vs. Downgradient Wells

Attachments

Attachment E-1 – Ohio EPA eBusiness Excel Worksheet

Attachment E-2 – Groundwater Sampling Forms

Attachment E-3 – Laboratory Data Review Report

Attachment E-4 – Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021

Attachment E-5 – Laboratory Analytical Reports

References

Arcadis, Inc. 2012. Corrective Measures Proposal, RACER Trust, Moraine, Ohio. December 31, 2012.

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Tables

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TABLE E-1
Summary Statistics and Trend Results
RACER Trust
Moraine, Ohio
February 2022

Well ID	Up or Down Gradient	Analyte	Figure	Date Range	FOD	Detected Results Summary (µg/L)			MCL (µg/L)	Linear Correlation R^2	Mann-Kendall Test			Sen's Estimator of Slope	
						Range	Mean	SD			Result	P-Value	S Value	Result	Slope (Units/Day)
HR-04	North	1,1,1-Trichloroethane	E-5	11/01 - 10/21	11 / 21	0.17 - 2.2	1.3	0.79	200	**0.734**	UP	<0.001	128	UP	0.000277
W-2-N	North	1,1,1-Trichloroethane	--	11/01 - 10/21	5 / 21	0.25 - 0.48	0.34	0.093	200	0.0461	NST	0.220	-20	NT	0
W-3-N	North	1,1,1-Trichloroethane	--	11/01 - 10/21	0 / 21	--	--	--	200	--	--	--	--	--	--
W-4-N	North	1,1,1-Trichloroethane	--	11/01 - 10/21	8 / 21	0.26 - 0.47	0.38	0.067	200	0.403	DWN	0.004	-78	NT	-0.00000339
HR-04	North	1,1-Dichloroethane	--	11/01 - 10/21	18 / 21	0.77 - 5.5	2.6	1.4	--	0.0144	NST	0.137	37	NT	0.000128
W-2-N	North	1,1-Dichloroethane	--	11/01 - 10/21	8 / 21	0.19 - 0.36	0.29	0.056	--	0.271	DWN	0.011	-67	NT	0
W-3-N	North	1,1-Dichloroethane	--	11/01 - 10/21	0 / 21	--	--	--	--	--	--	--	--	--	--
W-4-N	North	1,1-Dichloroethane	E-6	11/01 - 10/21	21 / 21	0.89 - 9	3.9	2.7	--	**0.832**	UP	<0.001	168	UP	0.00105
HR-04	North	1,1-Dichloroethene	--	11/01 - 10/21	1 / 21	0.19 - 0.19	0.19	0	7	0.0844	NST	0.108	16	NT	0
W-2-N	North	1,1-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	7	--	--	--	--	--	--
W-3-N	North	1,1-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	7	--	--	--	--	--	--
W-4-N	North	1,1-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	7	--	--	--	--	--	--
HR-04	North	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
W-2-N	North	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
W-3-N	North	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
W-4-N	North	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
HR-04	North	cis-1,2-Dichloroethene	E-7	11/01 - 10/21	12 / 21	0.23 - 0.71	0.39	0.14	70	**0.602**	UP	<0.001	115	UP	0.0000596
W-2-N	North	cis-1,2-Dichloroethene	E-8	11/01 - 10/21	21 / 21	0.89 - 2.8	1.6	0.48	70	0.274	UP	0.024	66	NT	0.0000859
W-3-N	North	cis-1,2-Dichloroethene	--	11/01 - 10/21	21 / 21	13 - 160	65.7	48.9	70	0.879	DWN	<0.001	-193	DWN	-0.0187
W-4-N	North	cis-1,2-Dichloroethene	E-9	11/01 - 10/21	21 / 21	1.6 - 14	7.1	3.6	70	0.382	UP	0.007	83	UP	0.000909
HR-04	North	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-2-N	North	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-3-N	North	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-4-N	North	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
HR-04	North	Tetrachloroethene	--	11/01 - 10/21	14 / 21	0.16 - 1.3	0.46	0.3	5	0.575	DWN	<0.001	-137	DWN	-0.0000792
W-2-N	North	Tetrachloroethene	--	11/01 - 10/21	1 / 21	0.31 - 0.31	0.31	0	5	0.068	NST	0.142	-14	NT	0
W-3-N	North	Tetrachloroethene	--	11/01 - 10/21	8 / 21	0.52 - 9	2.4	3	5	0.259	DWN	0.009	-69	NT	0
W-4-N	North	Tetrachloroethene	--	11/01 - 10/21	18 / 21	0.26 - 1.7	0.79	0.34	5	0.463	DWN	<0.001	-107	DWN	-0.000127
HR-04	North	Toluene	--	11/01 - 10/21	0 / 21	--	--	--	1000	--	--	--	--	--	--
W-2-N	North	Toluene	--	11/01 - 10/21	1 / 21	0.28 - 0.28	0.28	0	1000	0.022	NST	0.282	-8	NT	0
W-3-N	North	Toluene	--	11/01 - 10/21	0 / 21	--	--	--	1000	--	--	--	--	--	--
W-4-N	North	Toluene	--	11/01 - 10/21	0 / 21	--	--	--	1000	--	--	--	--	--	--
HR-04	North	trans-1,2-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	100	--	--	--	--	--	--
W-2-N	North	trans-1,2-Dichloroethene	--	11/01 - 10/21	4 / 21	0.18 - 0.28	0.22	0.043	100	0.0263	NST	0.378	8	NT	0
W-3-N	North	trans-1,2-Dichloroethene	--	11/01 - 10/21	18 / 21	0.23 - 2.2	0.96	0.59	100	0.589	DWN	<0.001	-156	DWN	-0.000239
W-4-N	North	trans-1,2-Dichloroethene	E-10	11/01 - 10/21	18 / 21	0.19 - 1.3	0.63	0.3	100	0.416	UP	<0.001	110	UP	0.000093
HR-04	North	Trichloroethene	--	11/01 - 10/21	17 / 21	0.27 - 1	0.41	0.21	5	0.451	DWN	0.004	-88	DWN	-0.0000409
W-2-N	North	Trichloroethene	--	11/01 - 10/21	16 / 21	0.2 - 1.9	0.99	0.49	5	0.00238	NST	0.464	-4	NT	0
W-3-N	North	Trichloroethene	--	11/01 - 10/21	2 / 21	1.7 - 2.1	1.9	0.28	5	0.235	DWN	0.016	-37	NT	0
W-4-N	North	Trichloroethene	--	11/01 - 10/21	21 / 21	6.1 - 15	9	2.3	5	0.0158	NST	0.293	-19	NT	-0.000101
HR-04	North	Vinyl chloride	--	11/01 - 10/21	0 / 21	--	--	--	2	--	--	--	--	--	--
W-2-N	North	Vinyl chloride	--	11/01 - 10/21	0 / 21	--	--	--	2	--	--	--	--	--	--
W-3-N	North	Vinyl chloride	--	11/01 - 10/21	21 / 21	0.81 - 9.6	3.6	2.8	2	0.764	DWN	<0.001	-159	DWN	-0.000996
W-4-N	North	Vinyl chloride	--	11/01 - 10/21	9 / 21	0.18 - 0.96	0.51	0.24	2	0.437	DWN	<0.001	-98	NT	-0.0000639
HR-04	North	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-2-N	North	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-3-N	North	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-4-N	North	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
HR-17	South	1,1,1-Trichloroethane	--	11/01 - 10/21	8 / 21	0.39 - 7.4	2.7	2.4	200	0.249	NST	0.051	48	NT	0
W-2-S	South	1,1,1-Trichloroethane	--	11/01 - 10/21	20 / 21	0.6 - 1.8	1.4	0.35	200	0.437	DWN	0.004	-88	DWN	-0.000101
W-3-S	South	1,1,1-Trichloroethane	--	11/01 - 10/21	18 / 21	0.49 - 2.5	1.4	0.74	200	0.295	DWN	0.005	-87	DWN	-0.000241
W-4-S	South	1,1,1-Trichloroethane	--	11/01 - 10/21	24 / 25	0.71 - 2.9	1.7	0.51	200	0.41	DWN	<0.001	-141	DWN	-0.000204
HR-17	South	1,1-Dichloroethane	--	11/01 - 10/21	15 / 21	0.6 - 2.2	1.3	0.58	--	0.00376	NST	0.291	-19	NT	-0.000019
W-2-S	South	1,1-Dichloroethane	--	11/01 - 10/21	21 / 21	0.23 - 1.3	0.94	0.27	--	0.211	DWN	0.013	-74	NT	-0.0000544
W-3-S	South	1,1-Dichloroethane	E-11	11/01 - 10/21	11 / 21	0.21 - 1.2	0.62	0.32	--	0.251	UP	0.010	74	NT	0.0000649
W-4-S	South	1,1-Dichloroethane	E-12	11/01 - 10/21	23 / 25	0.87 - 2.7	1.6	0.42	--	0.0351	UP	0.010	99	NT	0.000115
HR-17	South	1,1-Dichloroethene	--	11/01 - 10/21	1 / 21	0.54 - 0.54	0.54	0	7	0.0843	NST	0.108	16	NT	0
W-2-S	South	1,1-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	7	--	--	--	--	--	--
W-3-S	South	1,1-Dichloroethene	--	11/01 - 10/21	0 / 21	--	--	--	7	--	--	--	--	--	--
W-4-S	South	1,1-Dichloroethene	--	11/01 - 10/21	1 / 25	0.21 - 0.21	0.21	0	7	0.00664	NST	0.472	-2	NT	0

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TABLE E-1
Summary Statistics and Trend Results
RACER Trust
Moraine, Ohio
February 2022

Well ID	Up or Down Gradient	Analyte	Figure	Date Range	FOD	Detected Results Summary (µg/L)			MCL (µg/L)	Linear Correlation R^2	Mann-Kendall Test			Sen's Estimator of Slope	
						Range	Mean	SD			Result	P-Value	S Value	Result	Slope (Units/Day)
Table E-1 continued															
HR-17	South	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
W-2-S	South	Benzene	--	11/01 - 10/21	1 / 21	0.43 - 0.43	0.43	0	5	0.00475	NST	0.402	-4	NT	0
W-3-S	South	Benzene	--	11/01 - 10/21	0 / 21	--	--	--	5	--	--	--	--	--	--
W-4-S	South	Benzene	--	11/01 - 10/21	0 / 25	--	--	--	5	--	--	--	--	--	--
HR-17	South	cis-1,2-Dichloroethene	--	11/01 - 10/21	16 / 21	1.1 - 7.1	2.7	1.6	70	0.315	DWN	0.003	-92	DWN	-0.000403
W-2-S	South	cis-1,2-Dichloroethene	E-13	11/01 - 10/21	20 / 21	0.29 - 2.4	1.2	0.58	70	0.333	UP	0.002	94	UP	0.000156
W-3-S	South	cis-1,2-Dichloroethene	E-14	11/01 - 10/21	14 / 21	0.33 - 4.6	1.5	1.1	70	**0.593**	UP	<0.001	134	UP	0.000272
W-4-S	South	cis-1,2-Dichloroethene	E-15	11/01 - 10/21	24 / 25	1 - 22	7.5	4.8	70	0.194	UP	<0.001	158	UP	0.00144
HR-17	South	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-2-S	South	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-3-S	South	Ethylbenzene	--	11/01 - 10/21	0 / 21	--	--	--	700	--	--	--	--	--	--
W-4-S	South	Ethylbenzene	--	11/01 - 10/21	0 / 25	--	--	--	700	--	--	--	--	--	--
HR-17	South	Tetrachloroethene	E-16	11/01 - 10/21	21 / 21	3.3 - 180	106	55.5	5	**0.759**	UP	<0.001	141	UP	0.0218
W-2-S	South	Tetrachloroethene	E-17	11/01 - 10/21	14 / 21	0.31 - 20	2.4	5.3	5	0.177	UP	0.004	88	UP	0.0000644
W-3-S	South	Tetrachloroethene	E-18	11/01 - 10/21	21 / 21	0.44 - 110	27.4	36.4	5	**0.705**	UP	<0.001	168	UP	0.0125
W-4-S	South	Tetrachloroethene	E-19	11/01 - 10/21	25 / 25	13 - 74	35.4	18.6	5	**0.516**	UP	<0.001	195	UP	0.00641
HR-17	South	Toluene	--	11/01 - 10/21	0 / 21	--	--	--	1000	--	--	--	--	--	--
W-2-S	South	Toluene	--	11/01 - 10/21	1 / 21	0.25 - 0.25	0.25	0	1000	0.0883	NST	0.108	-16	NT	0
W-3-S	South	Toluene	--	11/01 - 10/21	0 / 21	--	--	--	1000	--	--	--	--	--	--
W-4-S	South	Toluene	--	11/01 - 10/21	1 / 25	0.25 - 0.25	0.25	0	1000	0.0673	NST	0.094	-20	NT	0
HR-17	South	trans-1,2-Dichloroethene	--	11/01 - 10/21	11 / 21	0.46 - 1.6	0.96	0.37	100	0.293	DWN	0.005	-81	NT	-0.0000761
W-2-S	South	trans-1,2-Dichloroethene	E-20	11/01 - 10/21	5 / 21	0.3 - 0.47	0.37	0.069	100	0.146	UP	0.028	48	NT	0
W-3-S	South	trans-1,2-Dichloroethene	--	11/01 - 10/21	6 / 21	0.19 - 0.59	0.39	0.19	100	0.0464	NST	0.111	33	NT	0
W-4-S	South	trans-1,2-Dichloroethene	E-21	11/01 - 10/21	23 / 25	0.43 - 2.1	1.2	0.34	100	0.00993	UP	0.038	76	NT	0.0000771
HR-17	South	Trichloroethene	--	11/01 - 10/21	18 / 21	0.92 - 160	40.3	51	5	0.0253	NST	0.476	3	NT	0
W-2-S	South	Trichloroethene	--	11/01 - 10/21	21 / 21	2.8 - 23	6.3	4	5	0.0104	NST	0.416	8	NT	0.0000285
W-3-S	South	Trichloroethene	E-22	11/01 - 10/21	21 / 21	1.5 - 97	11.4	21.7	5	0.0875	UP	0.028	64	NT	0.000706
W-4-S	South	Trichloroethene	E-23	11/01 - 10/21	25 / 25	3.5 - 72	24	18	5	0.235	UP	<0.001	136	UP	0.00386
HR-17	South	Vinyl chloride	--	11/01 - 10/21	0 / 21	--	--	--	2	--	--	--	--	--	--
W-2-S	South	Vinyl chloride	--	11/01 - 10/21	0 / 21	--	--	--	2	--	--	--	--	--	--
W-3-S	South	Vinyl chloride	--	11/01 - 10/21	0 / 21	--	--	--	2	--	--	--	--	--	--
W-4-S	South	Vinyl chloride	--	11/01 - 10/21	0 / 25	--	--	--	2	--	--	--	--	--	--
HR-17	South	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-2-S	South	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-3-S	South	Xylene (total)	--	11/01 - 10/21	0 / 21	--	--	--	10000	--	--	--	--	--	--
W-4-S	South	Xylene (total)	--	11/01 - 10/21	0 / 25	--	--	--	10000	--	--	--	--	--	--

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TABLE E-1
Summary Statistics and Trend Results
RACER Trust
Moraine, Ohio
February 2022

Abbreviations:

--	: insufficient data for calculating statistics (n < 4)	NST	: no significant trend
FOD	: frequency of detection (# detects / # samples)	NT	: no trend
MCL	: maximum contaminant level	DWN	: downward trend
mean	: arithmetic mean	UP	: upward trend
R^2	: linear regression coefficient of determination		
SD	: standard deviation		

Notes:

1. All analytical results are in µg/L. Result values less than 10 are reported to 2 significant figures; values greater than 10 are reported to 3 significant figures. P-values are reported to 3 decimal places.
2. Trend results are presented when at least four samples and one detected value are available.
3. Non-detects were assigned a common value less than the minimum detected value, equal to half the minimum reporting limit (RL) in the dataset (USEPA, 2009). If half the minimum RL was greater than the minimum detected value, then half the minimum detect was assigned.
4. Statistically significant trend defined as having p-value ≤ 0.05, or 95% confidence.
5. Field duplicate results were not included.
6. Statistical testing of the null hypothesis: no significant trend (slope = 0) and the alternative hypothesis: significant trend (slope ≠ 0) with 95% confidence.
7. R^2 values are bolded if R^2>0.5 and MK results shows siginficant upward trend.

Reference:

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Unified Guidance. EPA/530/R-09/007, 2009.

TABLE E-2
Matrix of Trend Results
RACER Trust
Moraine, Ohio
February 2022

Lagoon:	North											
Well:	HR-04			W-2-N			W-3-N			W-4-N		
VOC Constituent	R^2	MK	SSE	R^2	MK	SSE	R^2	MK	SSE	R^2	MK	SSE
1,1,1-Trichloroethane	>0.5	▲	▲	--	↔	↔	--	ND	ND	--	▼	↔
1,1-Dichloroethane	--	↔	↔	--	▼	↔	--	ND	ND	>0.5	▲	▲
1,1-Dichloroethene	--	↔	↔	--	ND	ND	--	ND	ND	--	ND	ND
Benzene	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND
cis-1,2-Dichloroethene	>0.5	▲	▲	--	▲	↔	>0.5	▼	▼	--	▲	▲
Ethylbenzene	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND
Tetrachloroethene	>0.5	▼	▼	--	↔	↔	--	▼	↔	--	▼	▼
Toluene	--	ND	ND	--	↔	↔	--	ND	ND	--	ND	ND
trans-1,2-Dichloroethene	--	ND	ND	--	↔	↔	>0.5	▼	▼	--	▲	▲
Trichloroethene	--	▼	▼	--	↔	↔	--	▼	↔	--	↔	↔
Vinyl chloride	--	ND	ND	--	ND	ND	>0.5	▼	▼	--	▼	↔
Xylene (total)	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND
Lagoon:	South											
Well:	HR-17			W-2-S			W-3-S			W-4-S		
VOC Constituent	R^2	MK	SSE	R^2	MK	SSE	R^2	MK	SSE	R^2	MK	SSE
1,1,1-Trichloroethane	--	↔	↔	--	▼	▼	--	▼	▼	--	▼	▼
1,1-Dichloroethane	--	↔	↔	--	▼	↔	--	▲	↔	--	▲	↔
1,1-Dichloroethene	--	↔	↔	--	ND	ND	--	ND	ND	--	↔	↔
Benzene	--	ND	ND	--	↔	↔	--	ND	ND	--	ND	ND
cis-1,2-Dichloroethene	--	▼	▼	--	▲	▲	>0.5	▲	▲	--	▲	▲
Ethylbenzene	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND
Tetrachloroethene	>0.5	▲	▲	--	▲	▲	>0.5	▲	▲	>0.5	▲	▲
Toluene	--	ND	ND	--	↔	↔	--	ND	ND	--	↔	↔
trans-1,2-Dichloroethene	--	▼	↔	--	▲	↔	--	↔	↔	--	▲	↔
Trichloroethene	--	↔	↔	--	↔	↔	--	▲	↔	--	▲	▲
Vinyl chloride	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND
Xylene (total)	--	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND

Abbreviations:

R2 : Linear regression coefficient of determination
MK : Mann-Kendall
SSE : Sen's Slope Estimator
-- : R2 less than 0.5
▲ : Increasing trend (alpha = 0.05)
▼ : Decreasing trend (alpha = 0.05)
ND : 100% Non-detect
↔ : No trend

Figures

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_SAPR\FigE-1_North Settling Lagoon Upper Aquifer Potentiometric Surface Map.mxd 2/11/2022 10:31:22 AM



LEGEND

- UPPER AQUIFER WELL
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)

W-4-N — WELL IDENTIFIER
709.31 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/11/2022.
3. Groundwater elevations were measured on October 4, 2021.
4. AMSL = Above Mean Sea Level

RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

CLOSED NORTH SETTLING LAGOON
UPPER AQUIFER
POTENTIOMETRIC SURFACE MAP

ARCADIS

FIGURE
E-1

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_SAPR\FigE-2_South Settling Lagoon Upper Aquifer Potentiometric Surface Map.mxd 2/11/2022 10:42:58 AM



Phase 1 DGR™ System	Average Flow Rate (gpm) (October 4-5, 2021)
EW-1	100.1
EW-2	99.9
EW-3	100.5
IW-1	50.1
IW-2	50.1
IW-3	99.9
IW-4	100.5
Total System	300.5

LEGEND

UPPER AQUIFER
- UPPER AQUIFER WELL

PHASE 1 DGR™ (UPPER AQUIFER)
- EXTRACTION WELL
- INJECTION WELL
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

W-4-S (WELL IDENTIFIER)
706.60 (GROUNDWATER ELEVATION (FEET AMSL))

Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/11/2022.
3. Groundwater elevations were measured on October 4, 2021.
4. AMSL = Above Mean Sea Level
5. gpm = Gallons Per Minute

RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

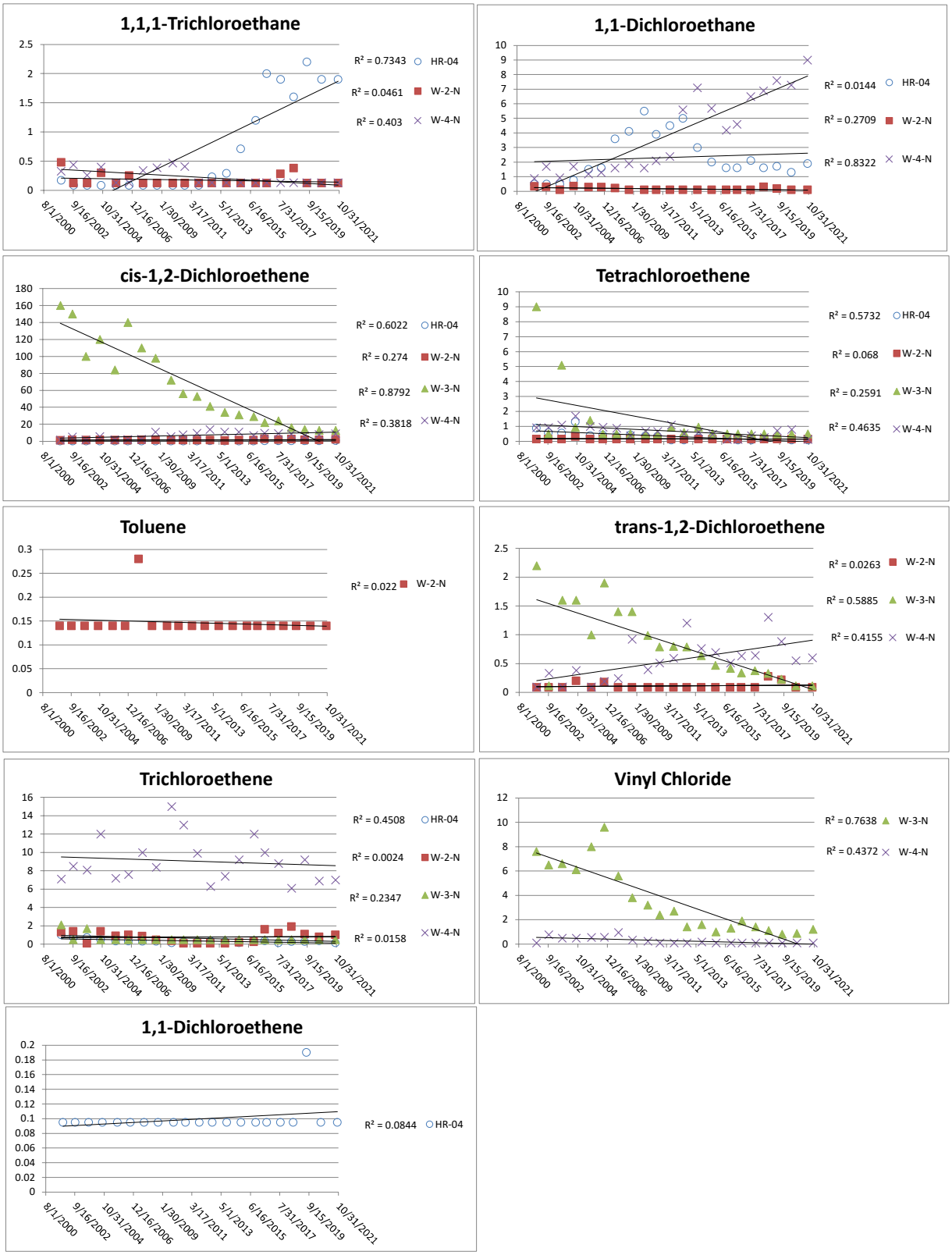
CLOSED SOUTH SETTLING LAGOON
UPPER AQUIFER
POTENTIOMETRIC SURFACE MAP

ARCADIS

FIGURE
E-2

ARCADIS

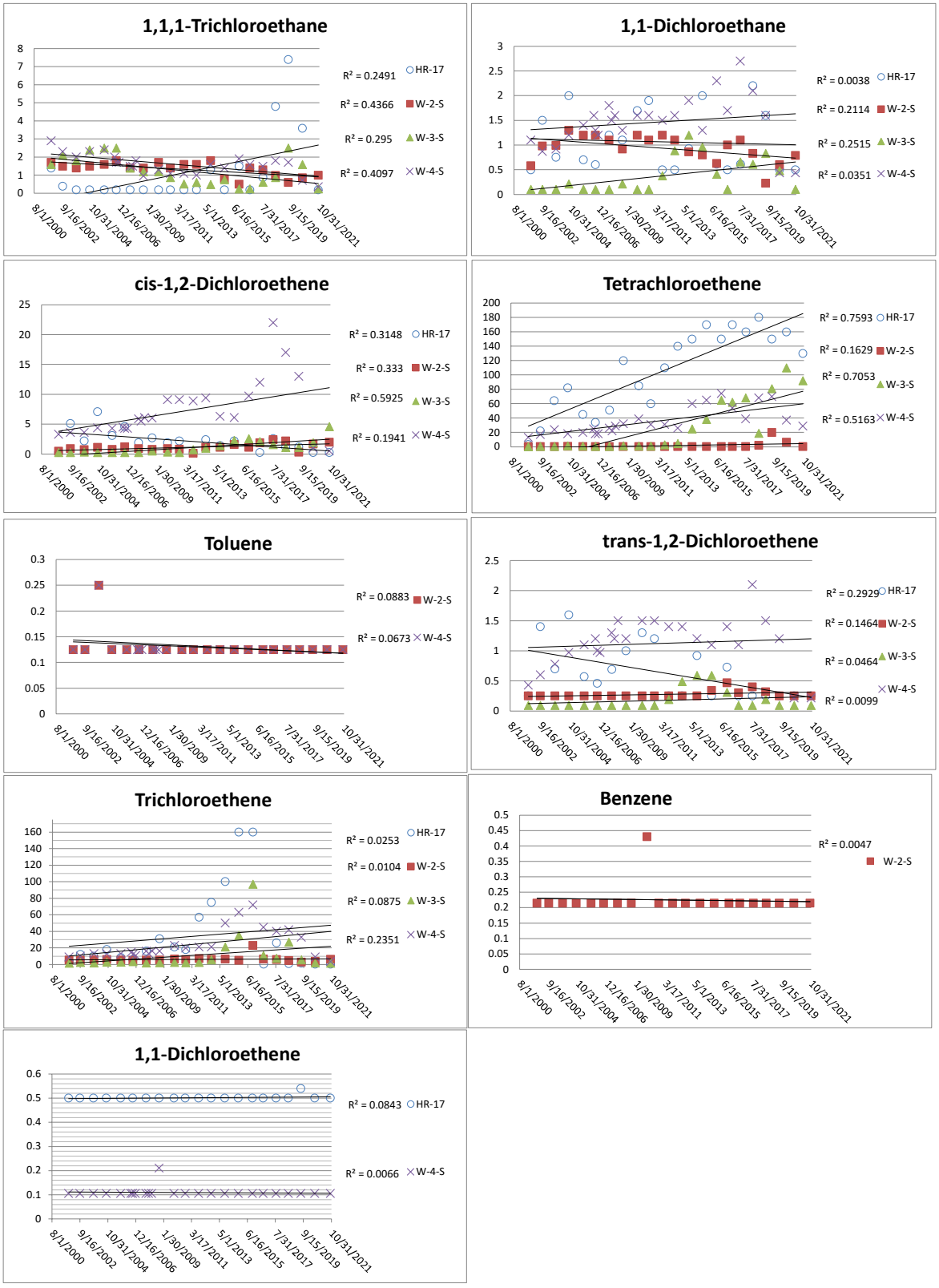
Figure E-3:
North Settling Lagoon



Notes:
All results are in micrograms per liter.
Only datasets with at least one detected value are shown.
There were no detections for benzene, ethylbenzene, or total xylenes.

ARCADIS

Figure E-4
South Settling Lagoon

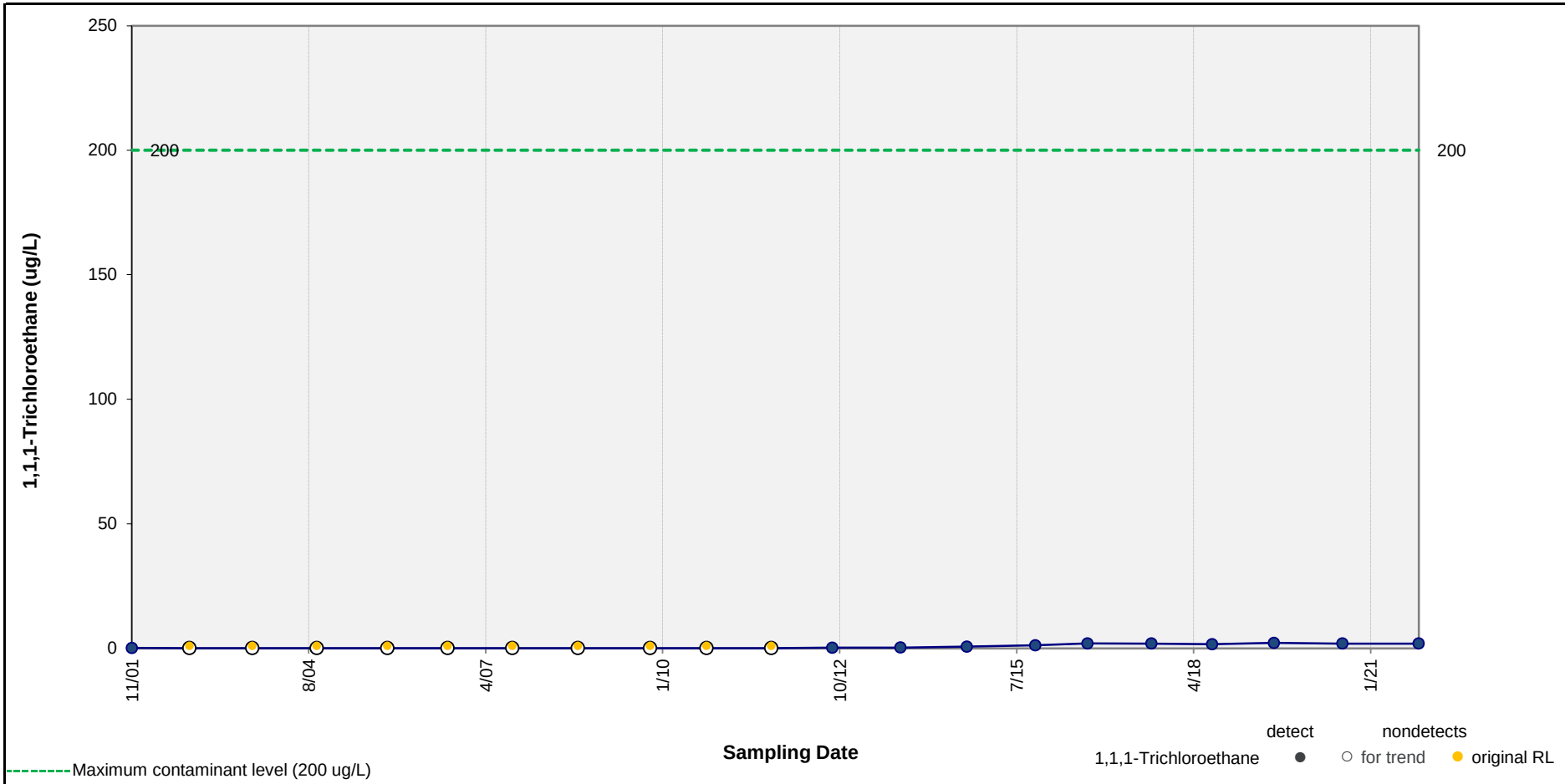


Notes:

All results are in micrograms per liter.

Only datasets with at least one detected value are shown.

There were no detections for ethylbenzene, vinyl chloride, or total xylenes.



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 2.8E-04 ug/L Per Day

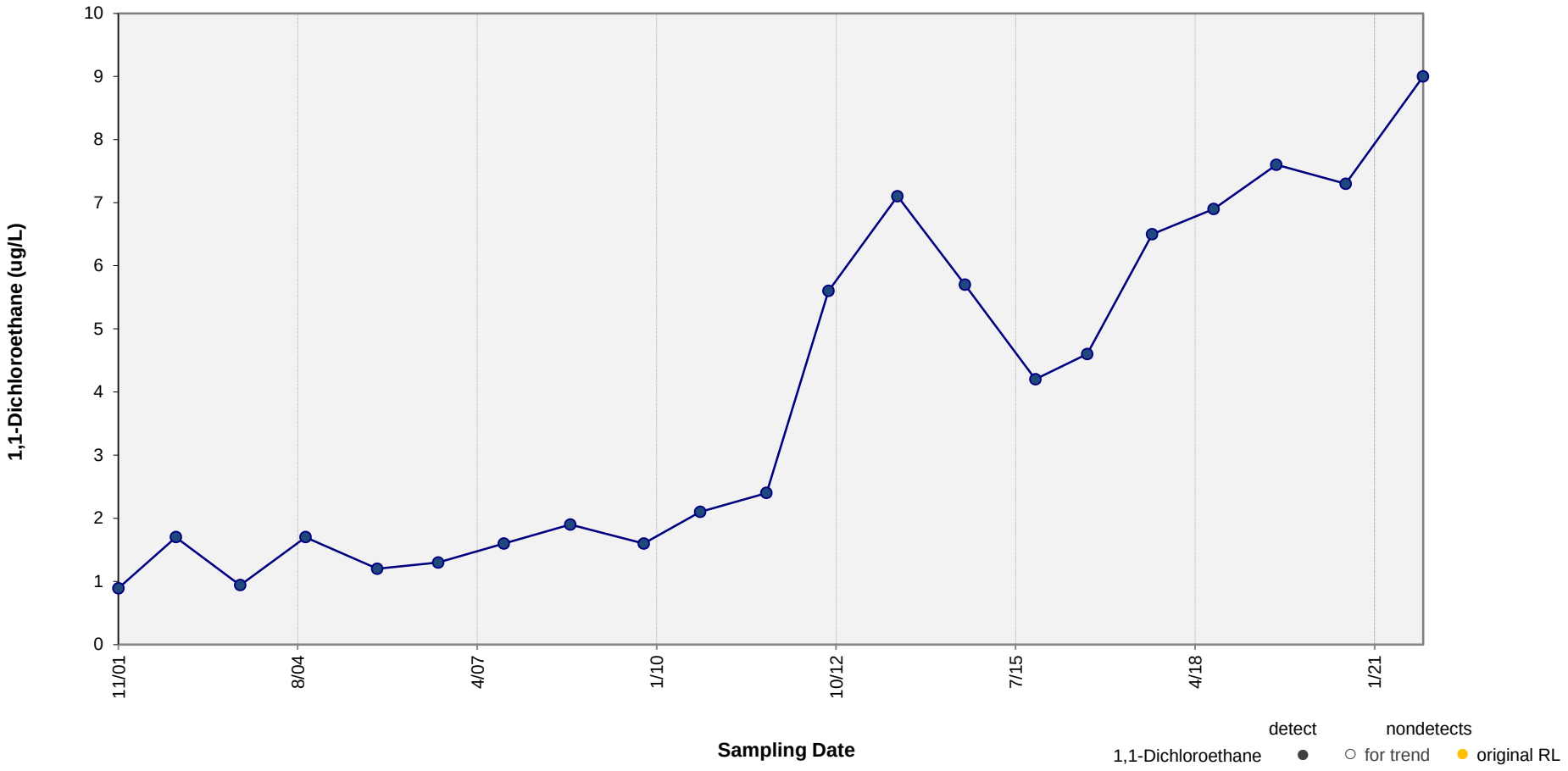
95% Confidence Interval = 6.4E-05 to 3.8E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – 1,1,1-Trichloroethane in Well HR-04

RACER Trust, Moraine, Ohio

FIGURE E-5



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 1.0E-03 ug/L Per Day

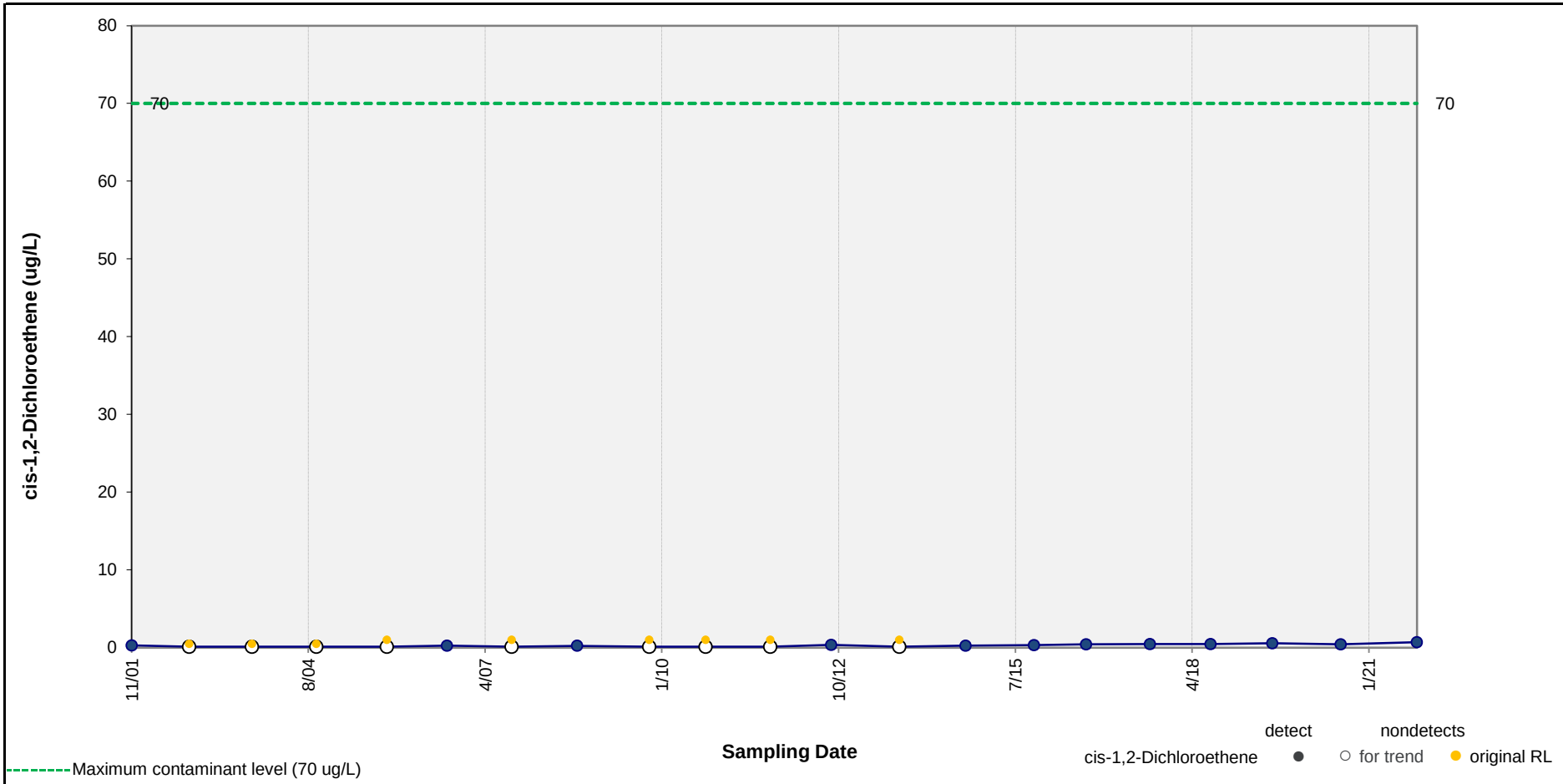
95% Confidence Interval = 7.5E-04 to 1.3E-03 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – 1,1-Dichloroethane in Well W-4-N

RACER Trust, Moraine, Ohio

FIGURE E-6



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 6.0E-05 ug/L Per Day

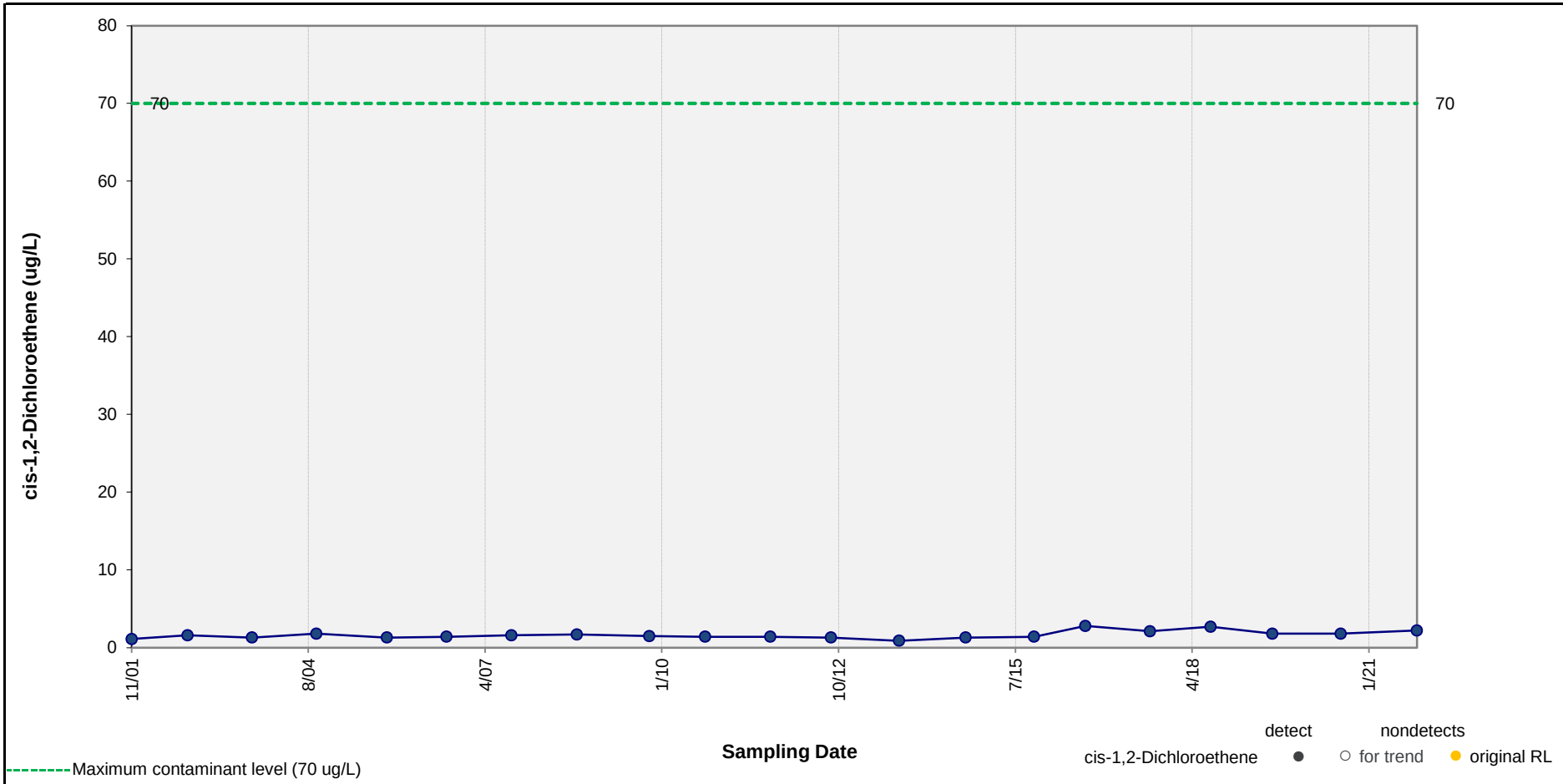
95% Confidence Interval = 2.6E-05 to 8.3E-05 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well HR-04

RACER Trust, Moraine, Ohio

FIGURE E-7



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.024 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 8.6E-05 ug/L Per Day

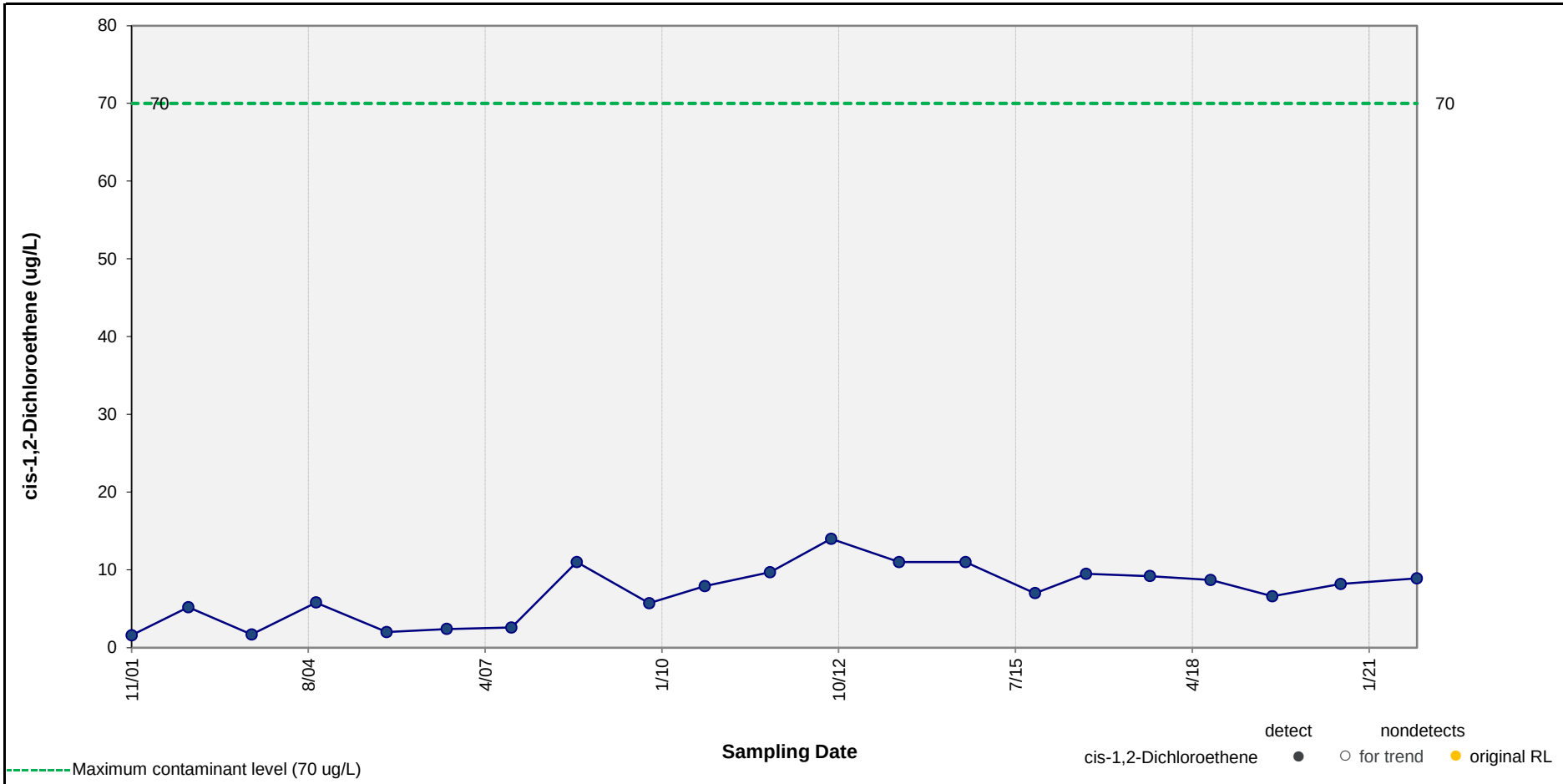
95% Confidence Interval = 0.0E+00 to 1.7E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-2-N

RACER Trust, Moraine, Ohio

FIGURE E-8



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.007 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 9.1E-04 ug/L Per Day

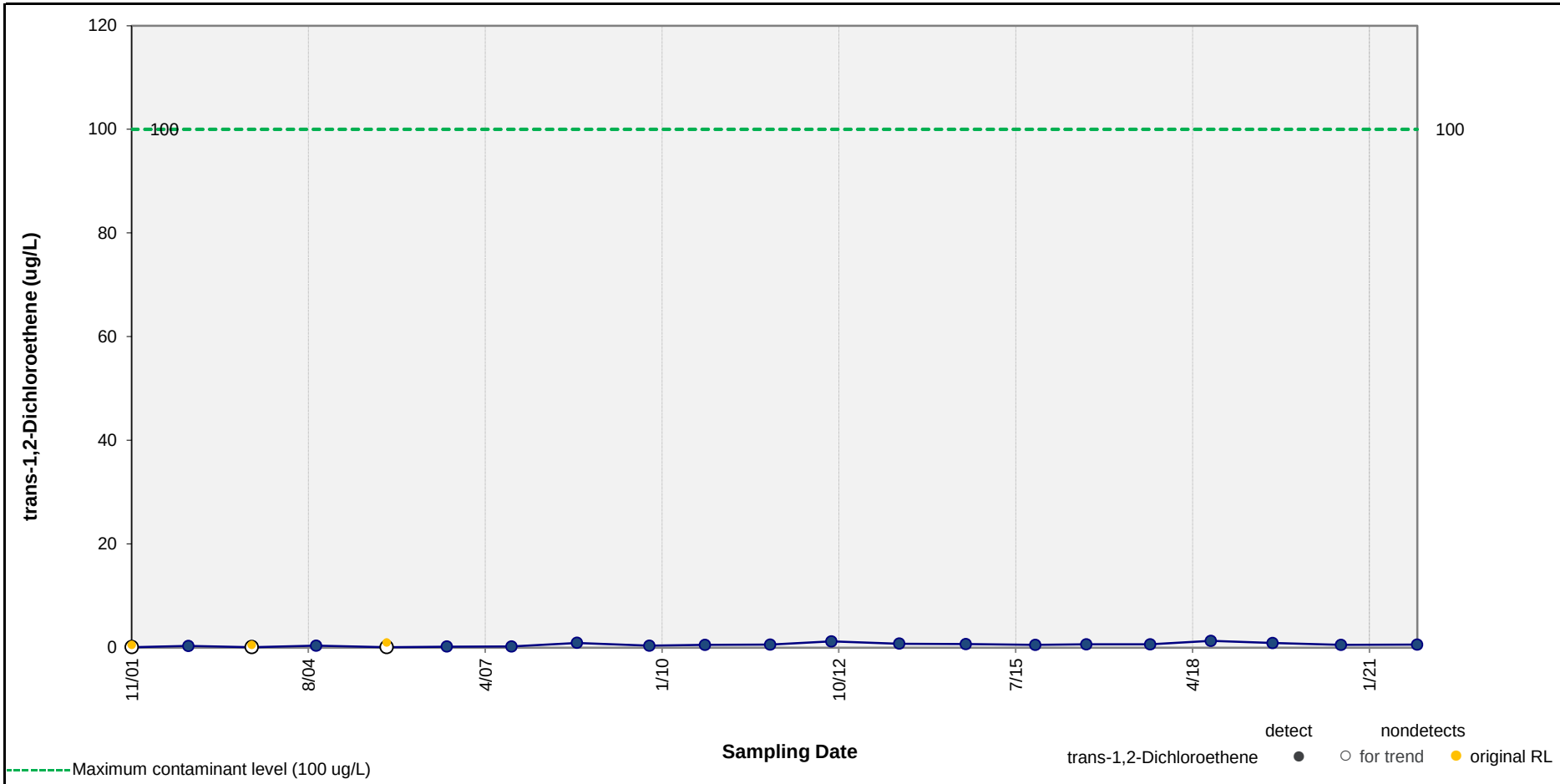
95% Confidence Interval = 2.5E-04 to 1.5E-03 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-4-N

RACER Trust, Moraine, Ohio

FIGURE E-9



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 9.3E-05 ug/L Per Day

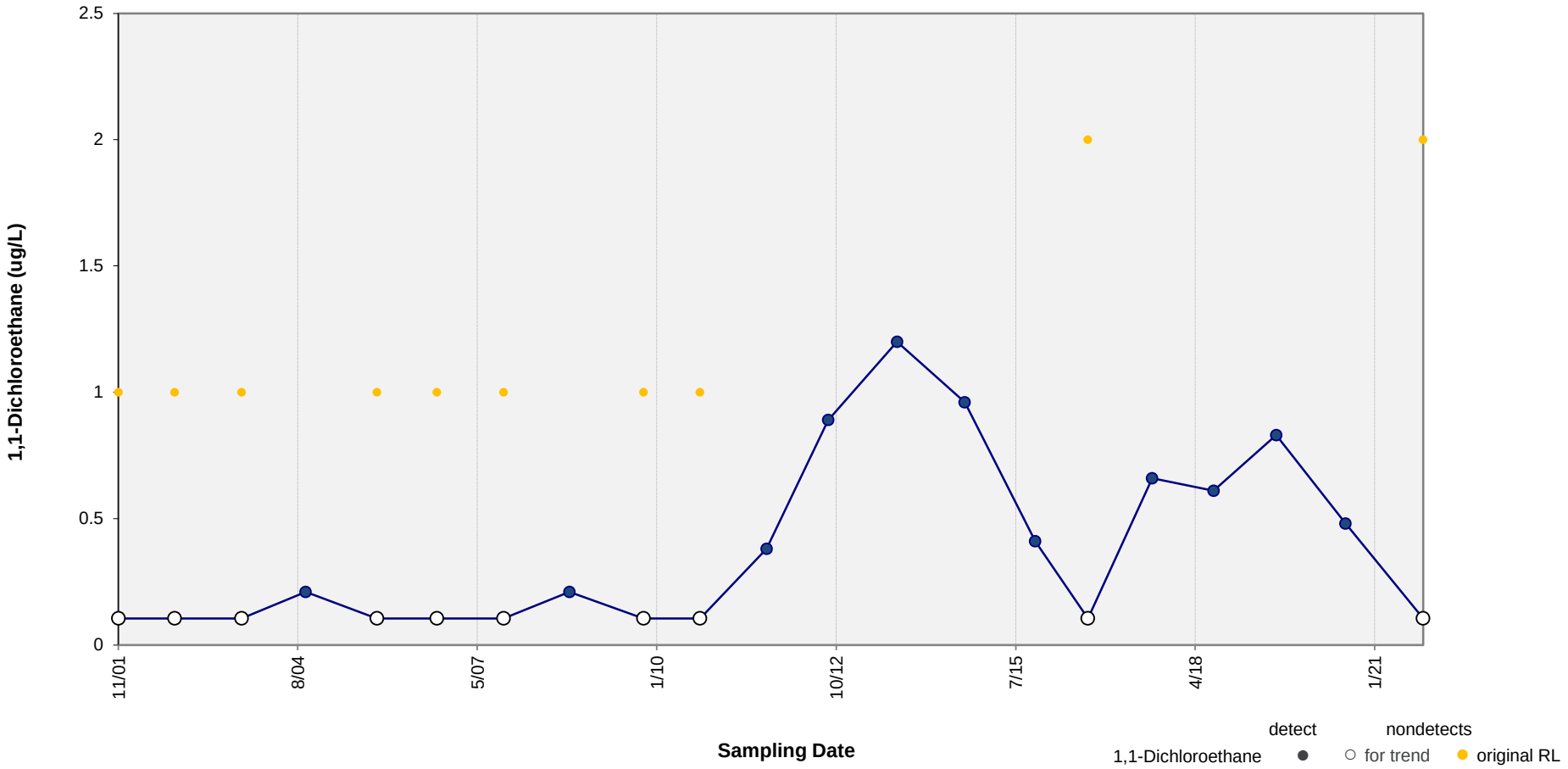
95% Confidence Interval = 5.3E-05 to 1.4E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – trans-1,2-Dichloroethene in Well W-4-N

RACER Trust, Moraine, Ohio

FIGURE E-10



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.010 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 6.5E-05 ug/L Per Day

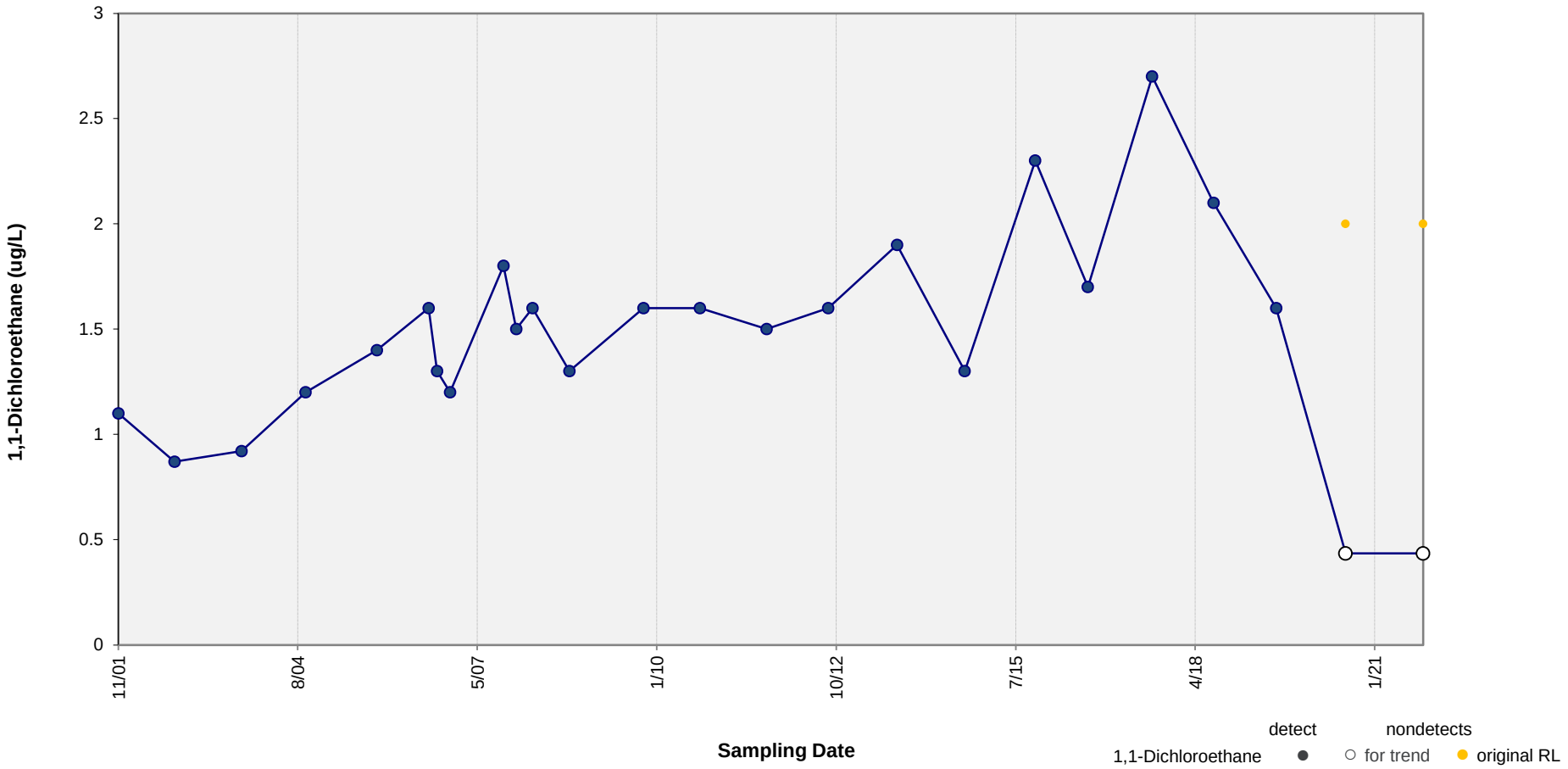
95% Confidence Interval = 0.0E+00 to 1.2E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – 1,1-Dichloroethane in Well W-3-S

RACER Trust, Moraine, Ohio

FIGURE E-11



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.010 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 1.1E-04 ug/L Per Day

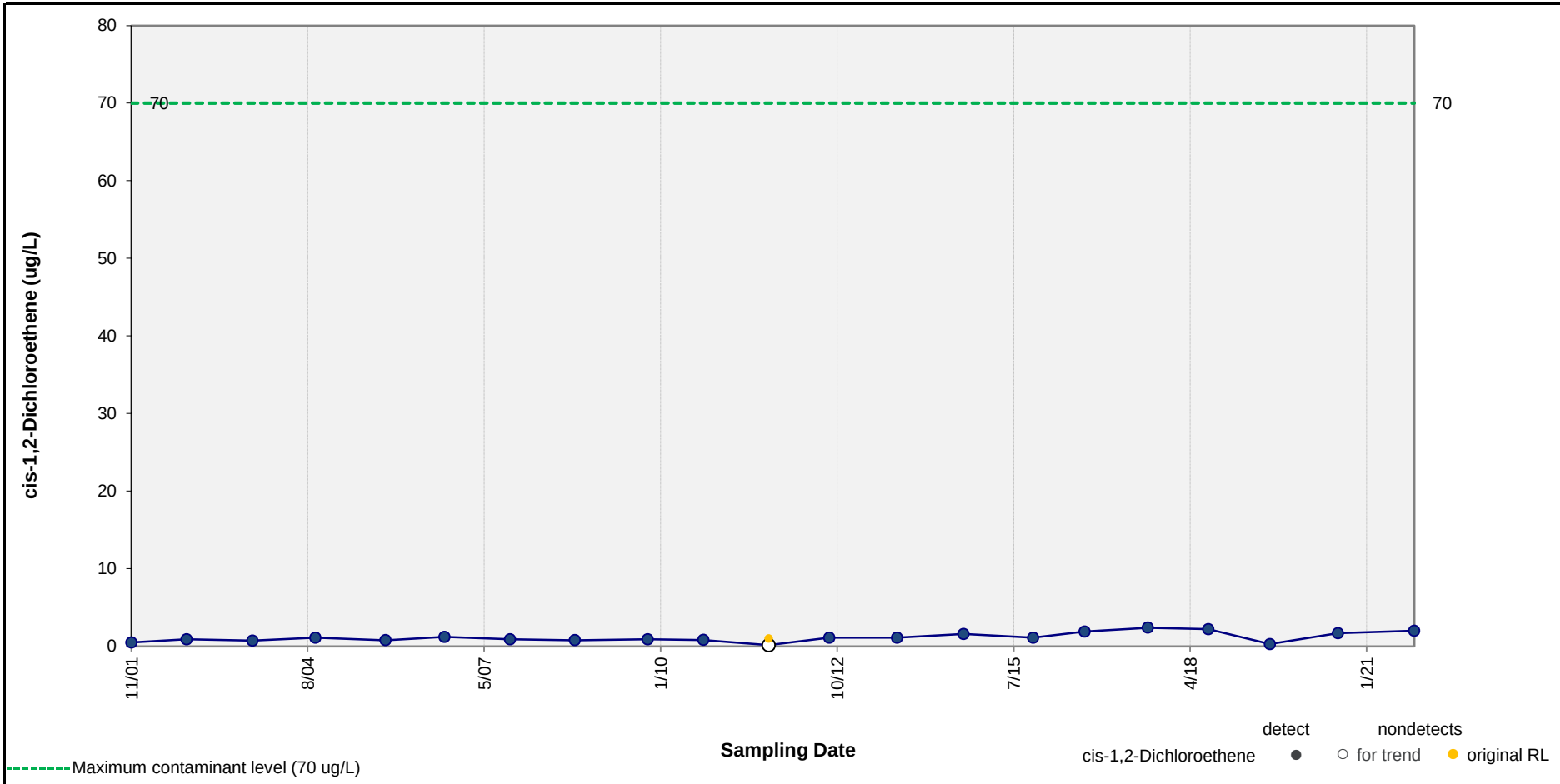
95% Confidence Interval = 0.0E+00 to 2.0E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – 1,1-Dichloroethane in Well W-4-S

RACER Trust, Moraine, Ohio

FIGURE E-12



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.002 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 1.6E-04 ug/L Per Day

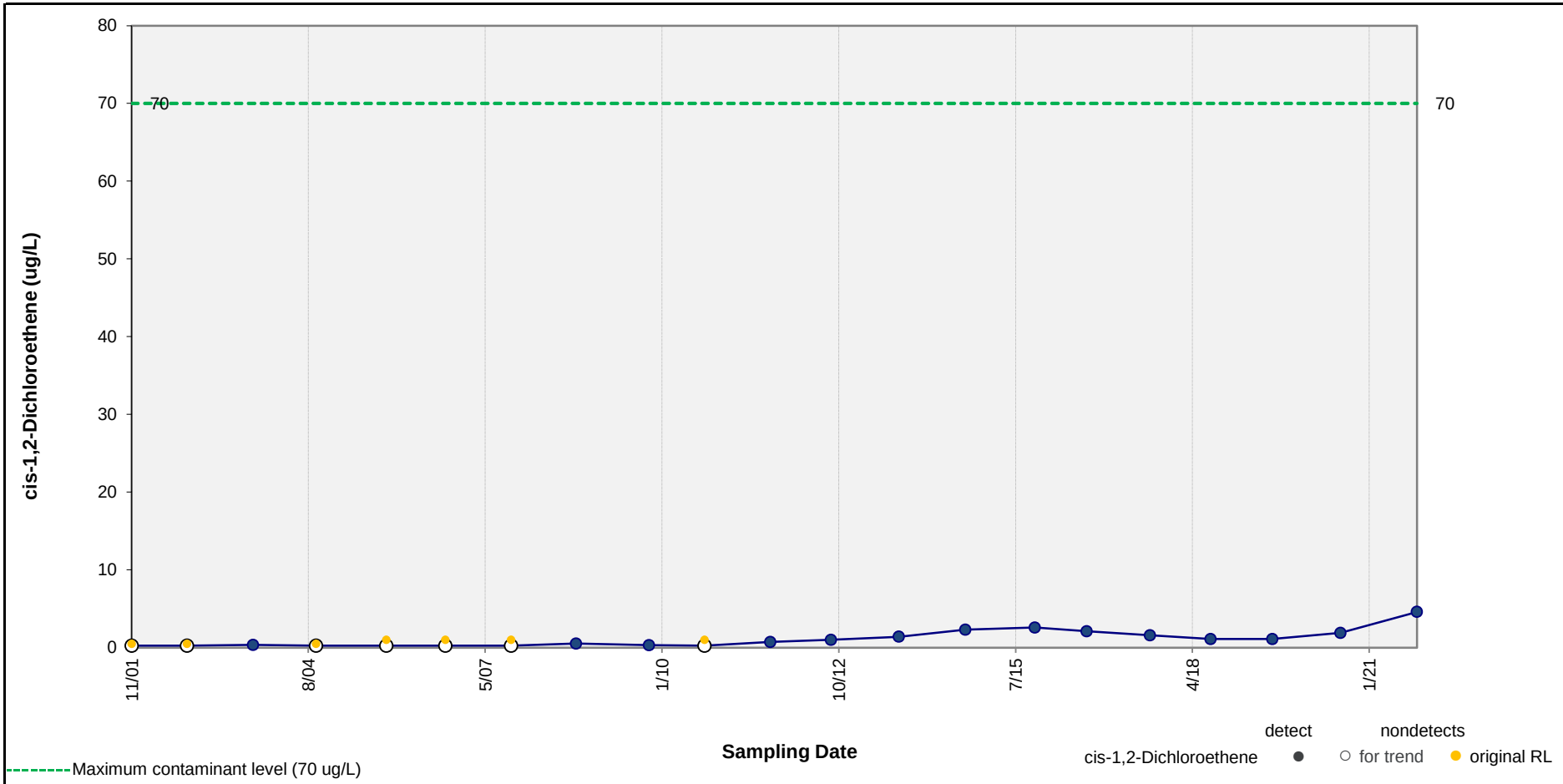
95% Confidence Interval = 5.4E-05 to 2.5E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-2-S

RACER Trust, Moraine, Ohio

FIGURE E-13



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 2.7E-04 ug/L Per Day

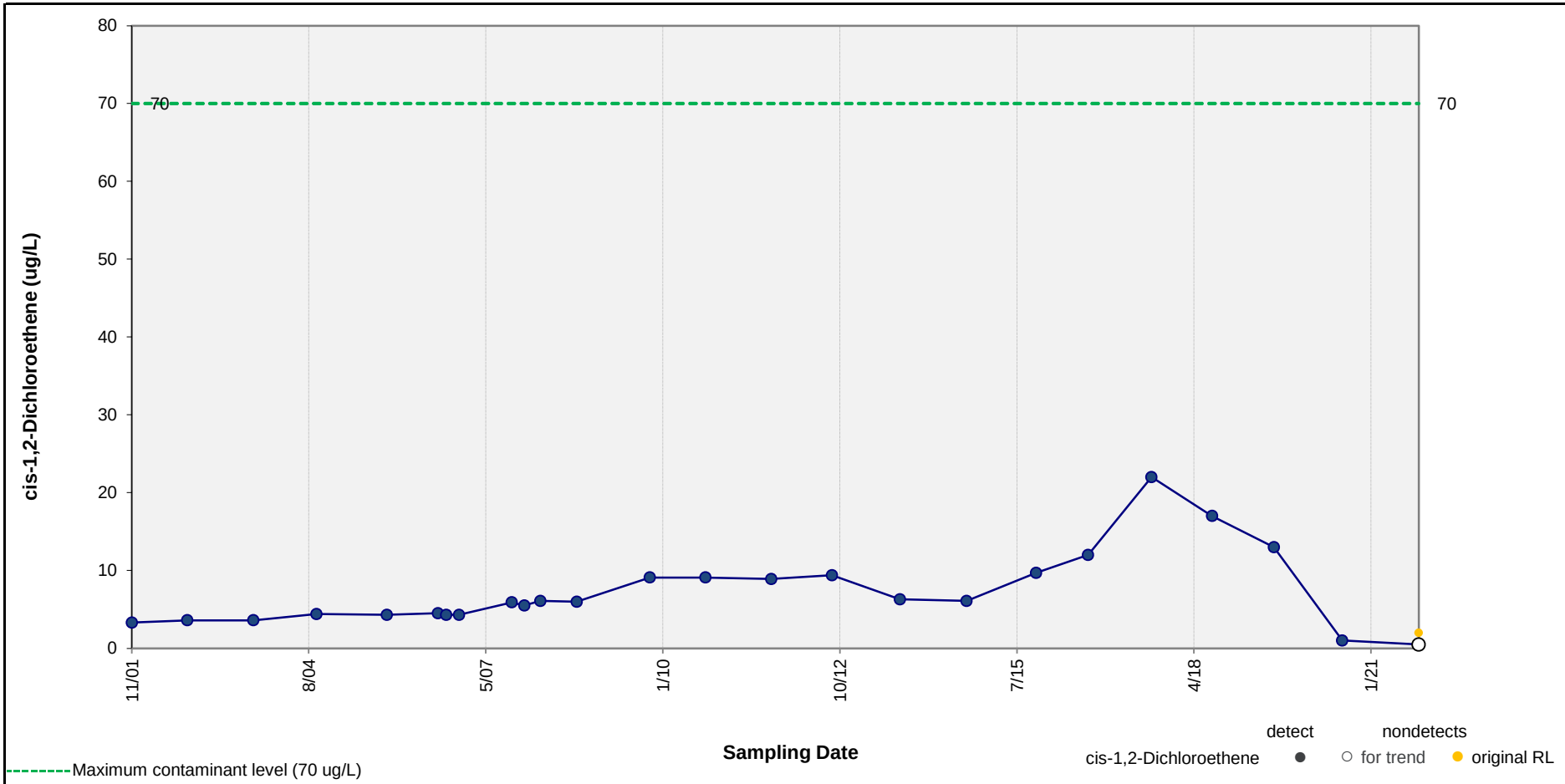
95% Confidence Interval = 1.5E-04 to 4.3E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-3-S

RACER Trust, Moraine, Ohio

FIGURE E-14



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 1.4E-03 ug/L Per Day

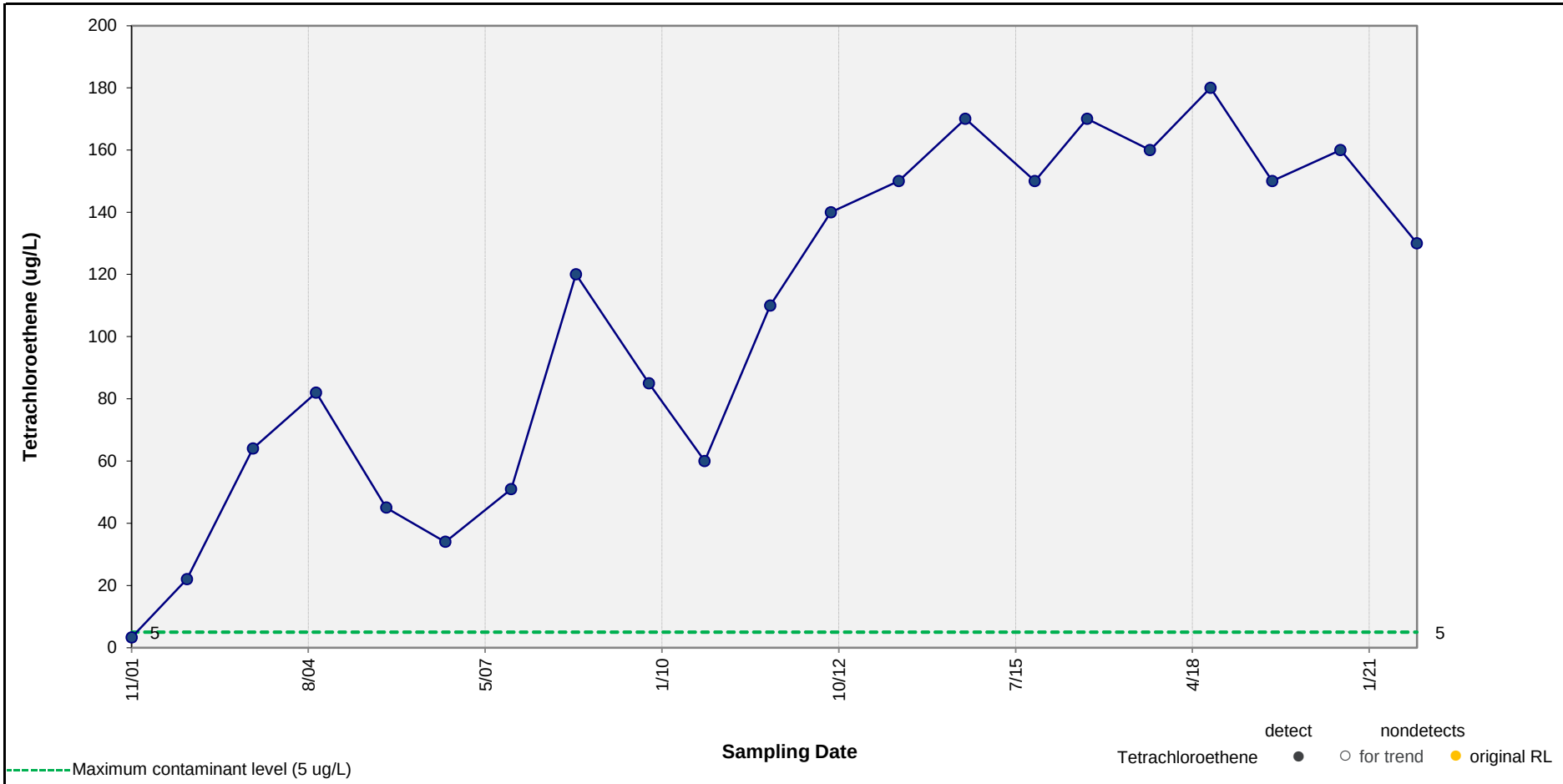
95% Confidence Interval = 6.7E-04 to 1.9E-03 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-4-S

RACER Trust, Moraine, Ohio

FIGURE E-15



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 2.2E-02 ug/L Per Day

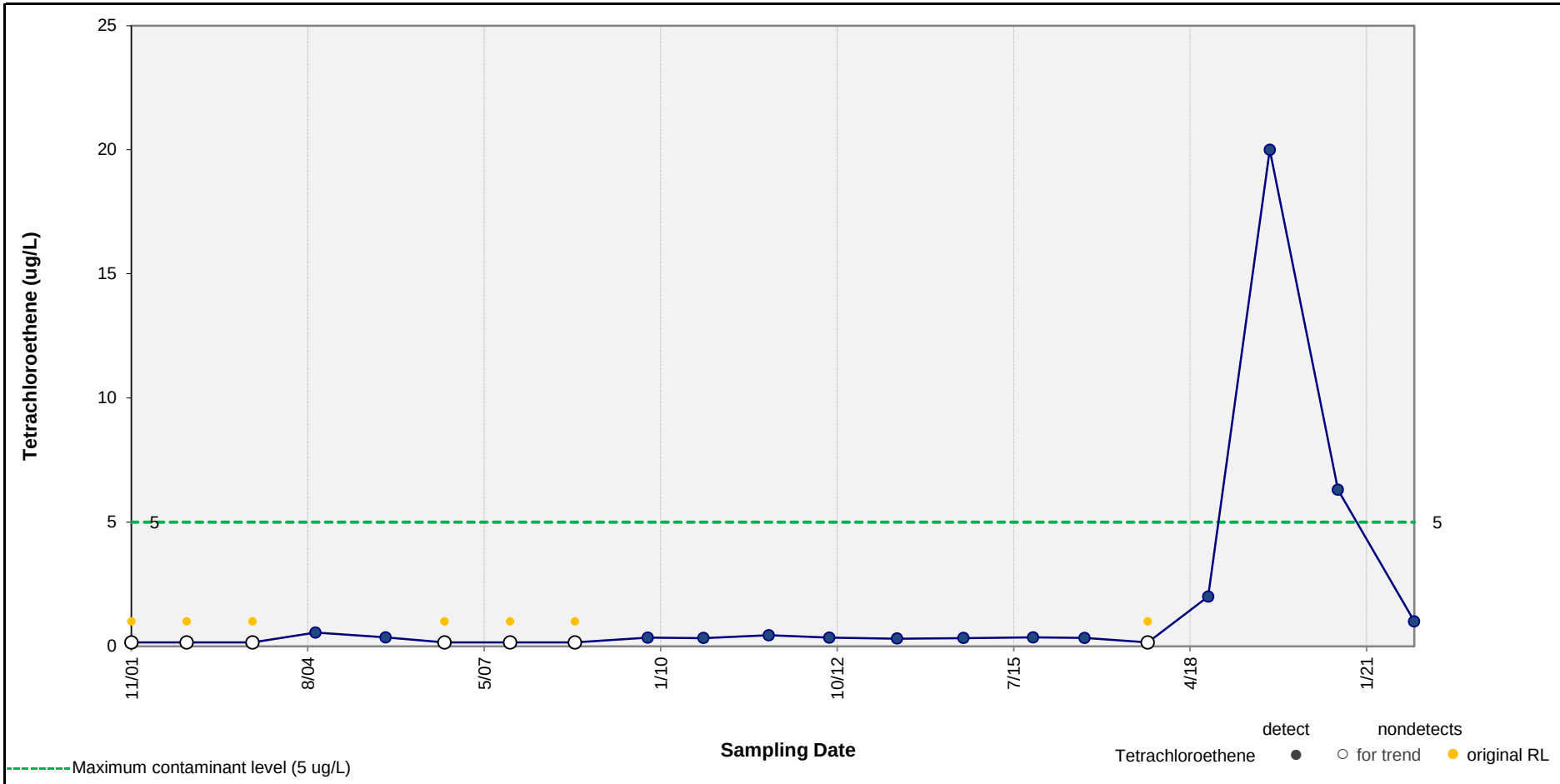
95% Confidence Interval = 1.6E-02 to 2.9E-02 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – Tetrachloroethene in Well HR-17

RACER Trust, Moraine, Ohio

FIGURE E-16



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.004 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 6.4E-05 ug/L Per Day

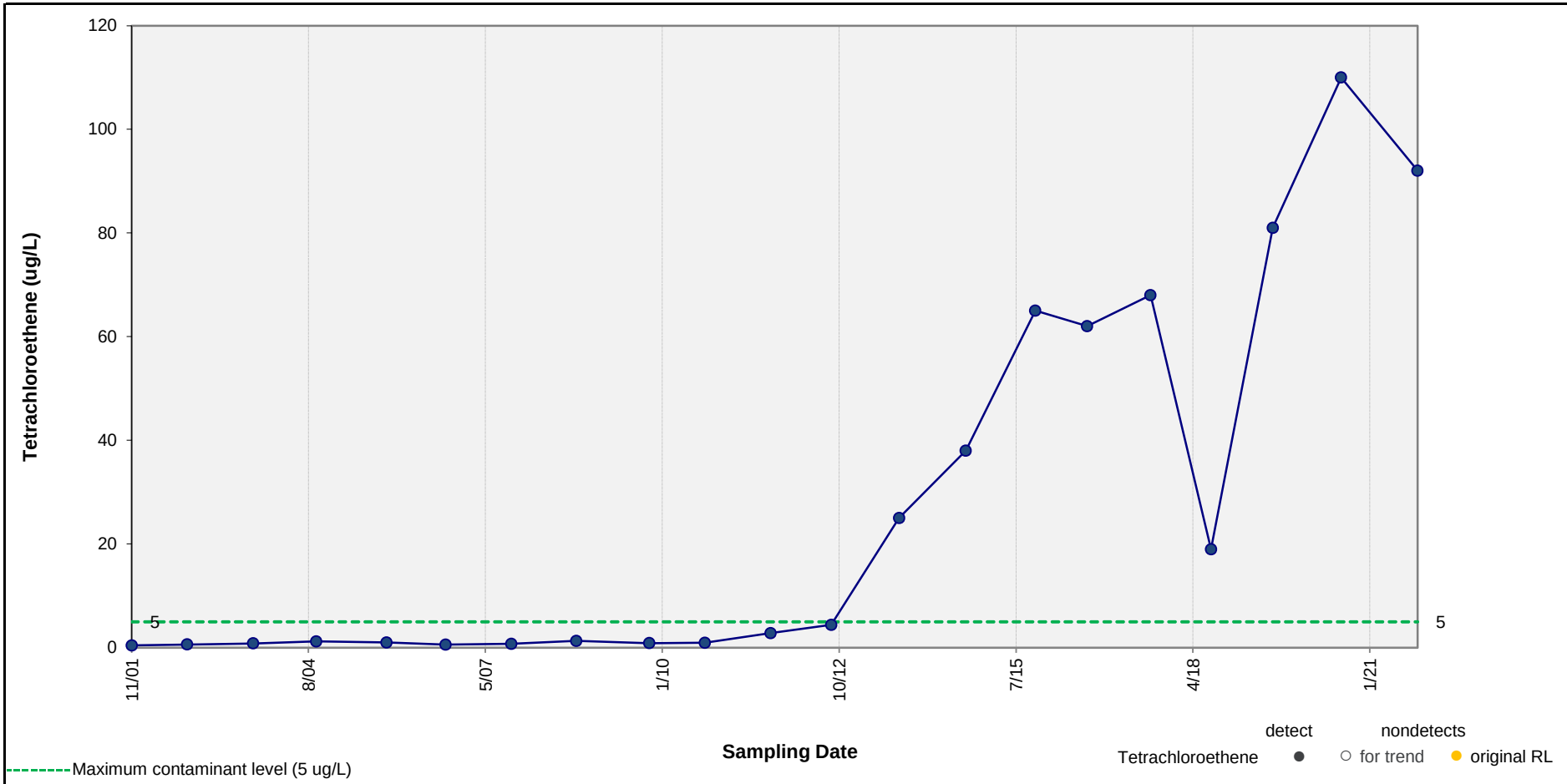
95% Confidence Interval = 1.2E-06 to 1.6E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – Tetrachloroethene in Well W-2-S

RACER Trust, Moraine, Ohio

FIGURE E-17



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 1.3E-02 ug/L Per Day

95% Confidence Interval = 3.4E-03 to 1.7E-02 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – Tetrachloroethene in Well W-3-S

RACER Trust, Moraine, Ohio

FIGURE E-18



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 6.4E-03 ug/L Per Day

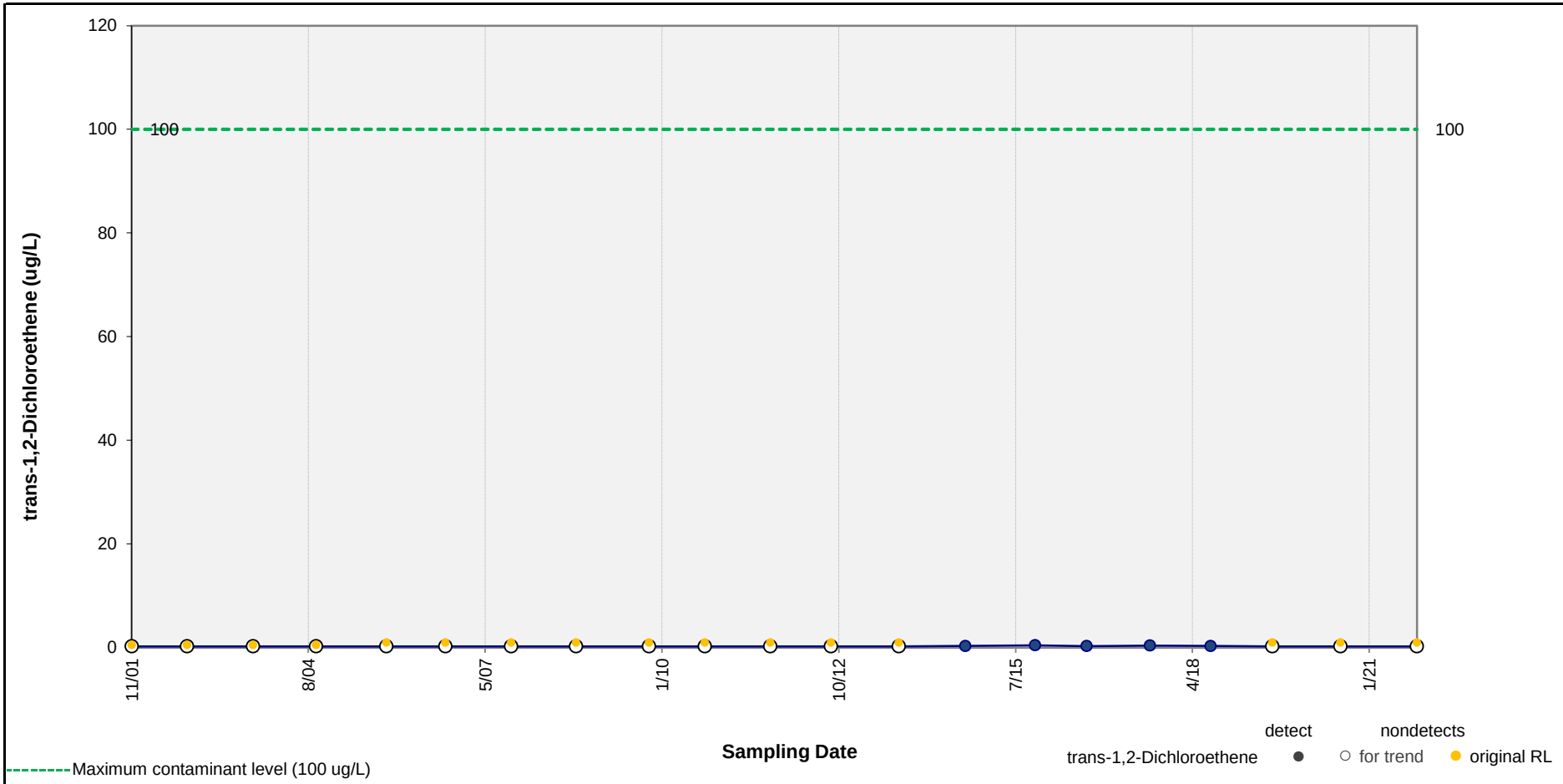
95% Confidence Interval = 3.3E-03 to 9.9E-03 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – Tetrachloroethene in Well W-4-S

RACER Trust, Moraine, Ohio

FIGURE E-19



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.028 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 0.0E+00 ug/L Per Day

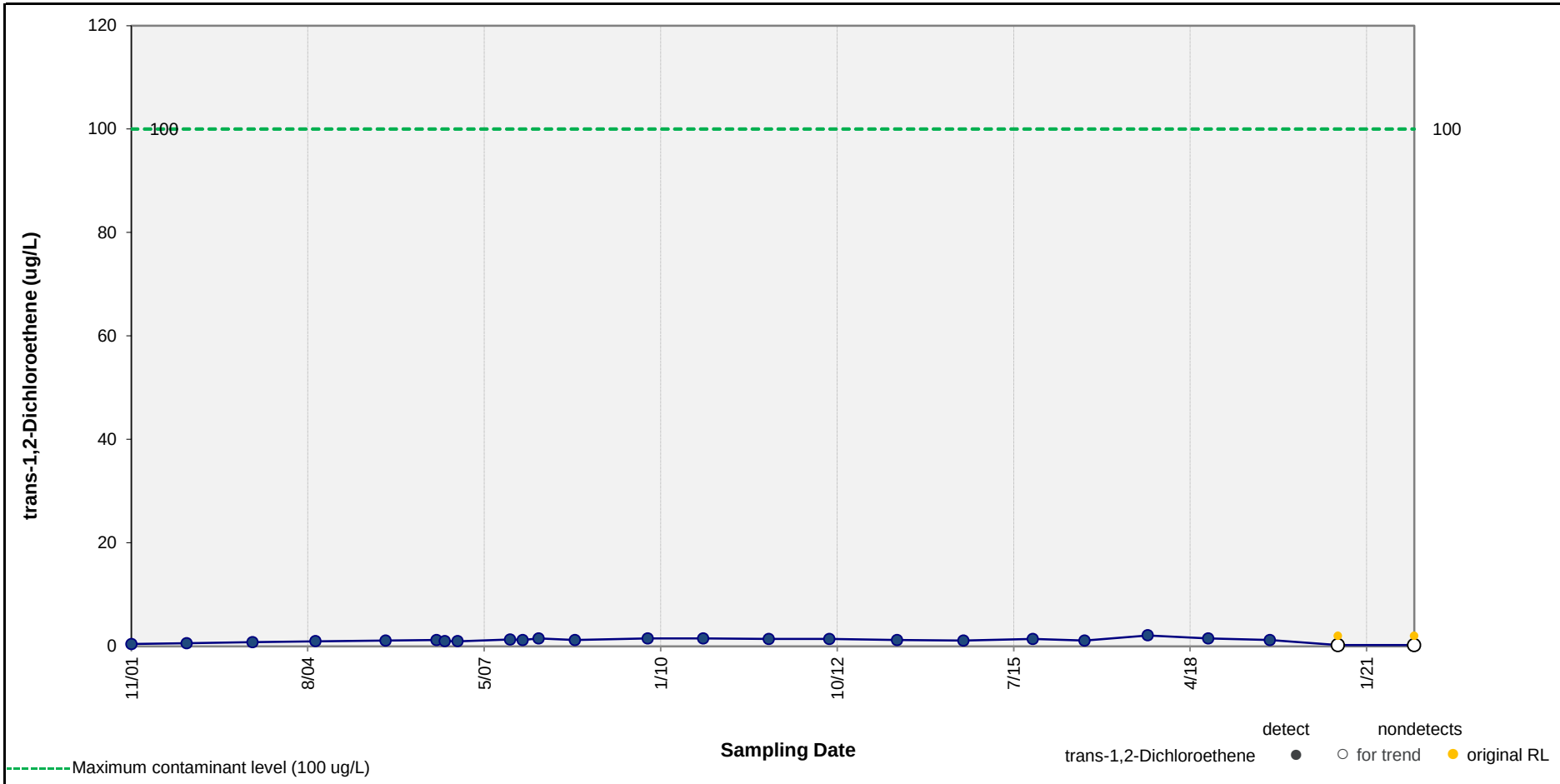
95% Confidence Interval = 0.0E+00 to 0.0E+00 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – trans-1,2-Dichloroethene in Well W-2-S

RACER Trust, Moraine, Ohio

FIGURE E-20



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.038 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 7.7E-05 ug/L Per Day

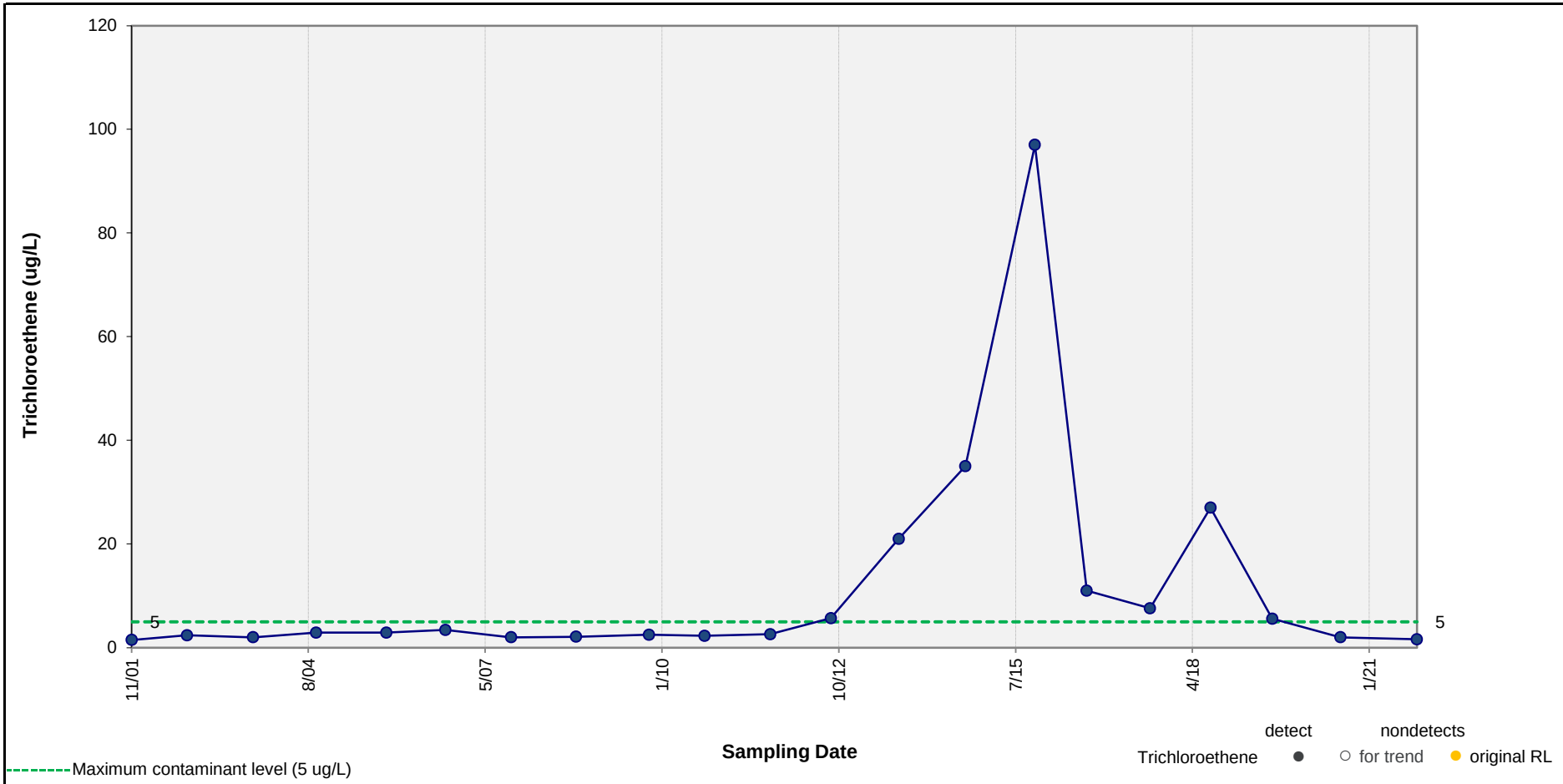
95% Confidence Interval = 0.0E+00 to 1.7E-04 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – trans-1,2-Dichloroethene in Well W-4-S

RACER Trust, Moraine, Ohio

FIGURE E-21



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = 0.028 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **No trend**

Median Slope Estimate = 7.1E-04 ug/L Per Day

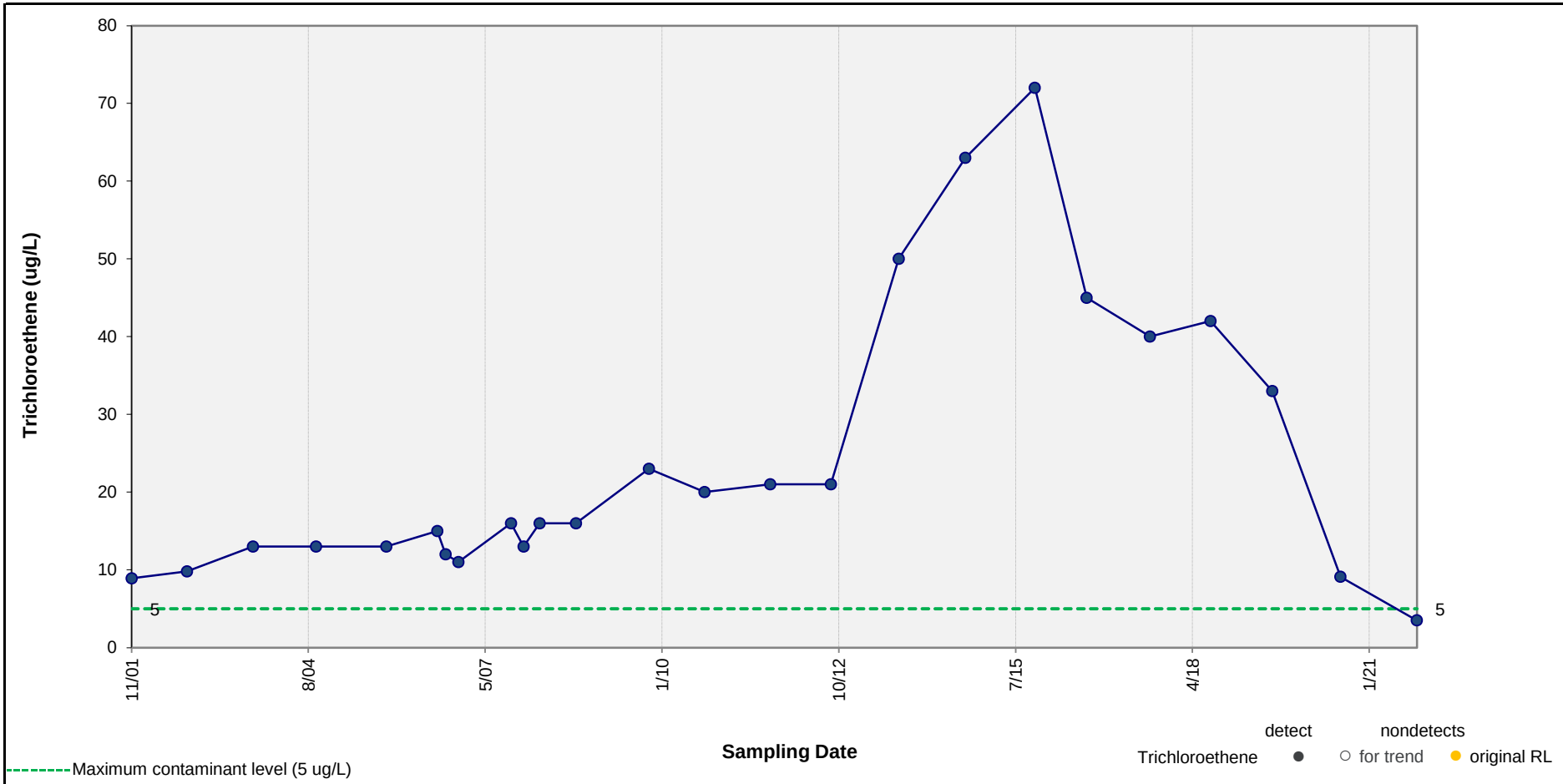
95% Confidence Interval = 0.0E+00 to 1.8E-03 ug/L Per Day

ARCADIS

Concentration vs. Time Plot – Trichloroethene in Well W-3-S

RACER Trust, Moraine, Ohio

FIGURE E-22



Results of Mann-Kendall Test for Trend: **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

Results of Sen's Estimator of Slope: **INCREASING TREND**

Median Slope Estimate = 3.9E-03 ug/L Per Day

95% Confidence Interval = 2.7E-03 to 6.0E-03 ug/L Per Day

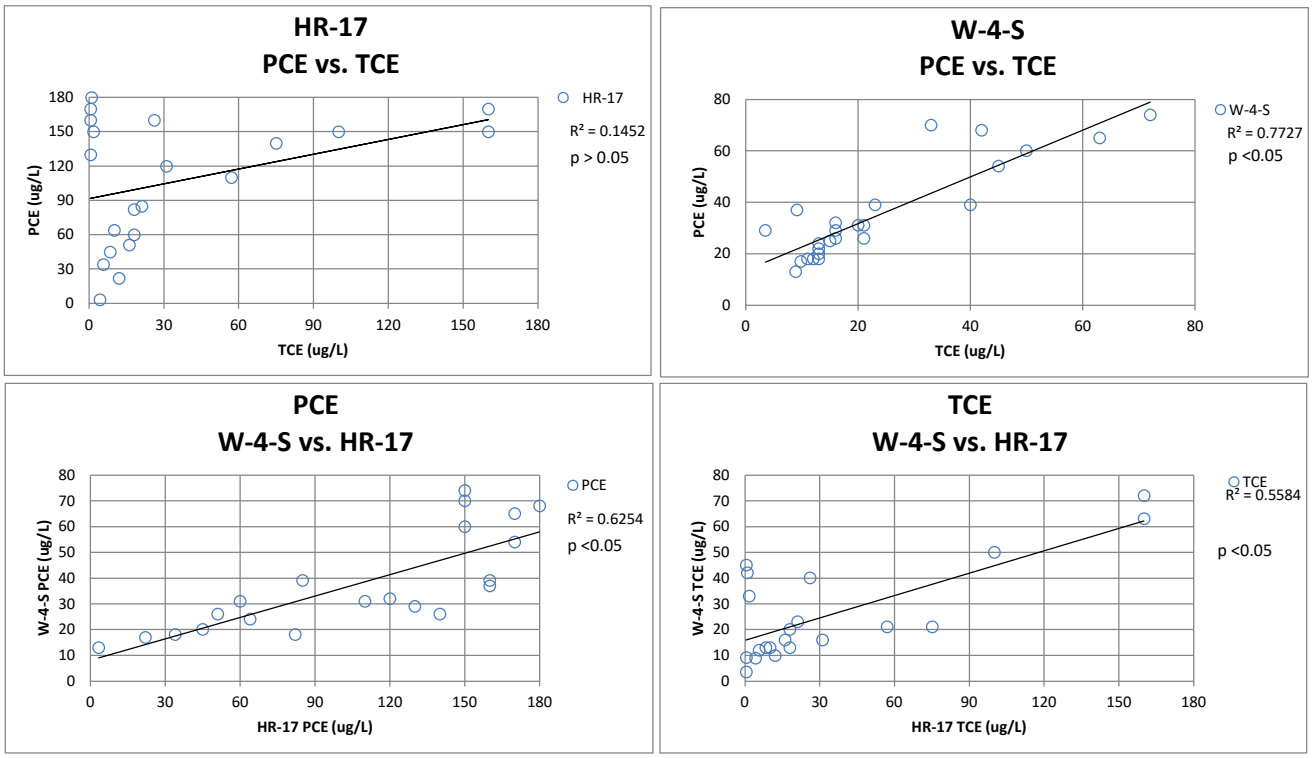
ARCADIS

Concentration vs. Time Plot – Trichloroethene in Well W-4-S

RACER Trust, Moraine, Ohio

FIGURE E-23

Figure E-24
South Settling Lagoon Upgradient vs Downgradient Wells



Notes:

All results are in micrograms per liter.

Coefficient of determination was calculated in Excel 2016.

Pearson product moment correlation significance was tested using Excel 2016.

PCE : Tetrachloroethene

TCE : Trichloroethene

p : p-value for significance of the correlation

R2 : coeffiecient of determination

Attachment E-1

Ohio EPA eBusiness Excel Worksheet

FACILITY	FCID	ADDR1	ADDR2	CITY	STATE	ZIP	PHONE	CONTACT	LATITUDE	LONGITUDE	GEOG_METHOD	NUM_WELLS	COUNTY
Former Delphi Harrison Thermal Systems	OHD000817577	3600 Dryden Road		MORAINE	OH	45439	937.751.8635	Pam Barnett	39.6923750	-84.2261690	A	8	Montgomery

FACILITY	FCID	WELL_ID	DATUM	DEPTH	TOP_CAS_ELV	TOP_SCR_ELV	BOT_SCR_ELV	GRADIENT	CAS_MATERL	PIPE_DIA	COMMENT	SURFACE_ELV	LATITUDE	LONGITUDE	X_VAR	Y_VAR	GEOG_METHOD	ELEV_METHOD	WELL_USE	WELL_LOG_T	DATE_INSTL	DPTH_INSTL	DTW_INSTL	GWL_INSTL
Former Delphi Harrison Thermal Systems	OHD000817577	HR-04	MSL	66.80	742.60	685.61	675.61	U	PVC	2		740.61	39.7021650	-84.2220680			S	C	8A	M	07/15/83	66.80	41.00	699.61
Former Delphi Harrison Thermal Systems	OHD000817577	W-2-N	MSL	59.70	731.68	694.68	669.68	D	PVC	4		729.68	39.7001660	-84.2243360			S	C	8A	M	09/22/81	59.70	32.00	697.68
Former Delphi Harrison Thermal Systems	OHD000817577	W-3-N	MSL	57.60	733.66	699.98	674.98	D	PVC	4		731.98	39.6997120	-84.2234160			S	C	8A	M	09/09/81	57.60	25.50	706.48
Former Delphi Harrison Thermal Systems	OHD000817577	W-4-N	MSL	66.60	731.63	689.88	664.88	D	PVC	4		729.88	39.6996010	-84.2227460			S	C	8A	M	09/24/81	66.60	32.00	697.88
Former Delphi Harrison Thermal Systems	OHD000817577	HR-17	NAVD	59.55	725.42	697.70	677.70	U	PVC	4		724.70	39.6926330	-84.2262332			S	C	8A	M	11/13/89	59.55	20.87	704.53
Former Delphi Harrison Thermal Systems	OHD000817577	W-2-S	NAVD	67.00	725.67	694.38	659.38	D	PVC	4		724.38	39.6911509	-84.2288564			S	C	8A	M	09/21/81	67.00	35.50	689.51
Former Delphi Harrison Thermal Systems	OHD000817577	W-3-S	NAVD	76.40	728.16	690.20	650.20	D	PVC	4		726.20	39.6907577	-84.2283135			S	C	8A	M	09/23/81	76.40	41.00	686.54
Former Delphi Harrison Thermal Systems	OHD000817577	W-4-S	NAVD	72.50	726.76	695.51	655.61	D	PVC	4		725.61	39.6905106	-84.2269421			S	C	8A	M	09/28/81	72.50	37.50	689.16
Former Delphi Harrison Thermal Systems	OHD000817577	TB-01/100421/									Trip Blank dated 10/04/21 submitted with samples collected on 10/04/21.													
Former Delphi Harrison Thermal Systems	OHD000817577	DUP-1/100421/									Duplicate collected on 10/04/21 with Parent HR-4.													
Former Delphi Harrison Thermal Systems	OHD000817577	EB-01/100421/									Equipment Blank collected 10/04/21 from equipment set 1.													
		EB-02/100421/									Equipment Blank collected 10/04/21 from equipment set 2.													

FACILITY	FCID	SAMP_DATE	SAMP_SCHEM	COMMENT
Former Delphi Harrison Thermal Systems	OHD000817577	10/04/21	A	Annual Sampling Event - 10/04/21

FACILITY	FCID	NAME	UNITS	DET_LMT	ACL	MCL	METH_CODE
Former Delphi Harrison Thermal Systems	OHD000817577	111Tri	ug/l	0.96			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	11-DCEE	ug/l	0.98			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	11DCA	ug/l	0.94			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	Benzene	ug/l	0.84			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	EthBenz	ug/l	0.84			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	TetCEthy	ug/l	4.40			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	Toluen	ug/l	0.88			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	TCE	ug/l	0.88			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	VC	ug/l	0.90			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	Xylene	ug/l	0.84			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	CisDCEE	ug/l	0.92			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	TranDCEE	ug/l	1.00			8260B
Former Delphi Harrison Thermal Systems	OHD000817577	pH F	SU	0.01			field
Former Delphi Harrison Thermal Systems	OHD000817577	GWL	feet	0.01			field
Former Delphi Harrison Thermal Systems	OHD000817577	Temp F	C	0.1			field
Former Delphi Harrison Thermal Systems	OHD000817577	Cond F	mS/cm	0.01			field
Former Delphi Harrison Thermal Systems	OHD000817577	Turb F	NTU	1			field
Former Delphi Harrison Thermal Systems	OHD000817577	Dis O2 F	mg/L	0.01			field
Former Delphi Harrison Thermal Systems	OHD000817577	ORP F	mV	1			field

FACILITY	FCID	WELL_ID	PARAMETER	SAMP_DATE	CHR_DATA	REAL_DATA	UNITS	DUP_CODE	REP_CODE	METH_CODE	DATA_QUAL
Former Delph	OHD000817577	HR-04	111Tri	10/04/21	1.7	1.7	ug/L	DUP		SW8260B	
Former Delph	OHD000817577	HR-04	11DCA	10/04/21	1.9	1.9	ug/L	DUP		SW8260B	
Former Delph	OHD000817577	HR-04	11-DCEE	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	Benzene	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	CisDCEE	10/04/21	0.77	0.77	ug/L	DUP		SW8260B	J
Former Delph	OHD000817577	HR-04	EthBenz	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	TCE	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	TetCEthy	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	Toluen	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	TranDCEE	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	VC	10/04/21	ND<1.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	Xylene	10/04/21	ND<2.0	ND	ug/L	DUP		SW8260B	U
Former Delph	OHD000817577	HR-04	111Tri	10/04/21	1.9	1.9	ug/L			SW8260B	
Former Delph	OHD000817577	HR-04	11DCA	10/04/21	1.9	1.9	ug/L			SW8260B	
Former Delph	OHD000817577	HR-04	11-DCEE	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	Benzene	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	CisDCEE	10/04/21	0.71	0.71	ug/L			SW8260B	J
Former Delph	OHD000817577	HR-04	EthBenz	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	TCE	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	TetCEthy	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	Toluen	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	TranDCEE	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	VC	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	Xylene	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-04	pH F	10/04/21	6.89	6.89	SU			Field	
Former Delph	OHD000817577	HR-04	GWL	10/04/21	709.74	709.74	feet			Field	
Former Delph	OHD000817577	HR-04	Temp	10/04/21	15.08	15.08	C			Field	
Former Delph	OHD000817577	HR-04	Cond	10/04/21	0.986	0.986	ms/cm			Field	
Former Delph	OHD000817577	HR-04	Turb	10/04/21	3.0	3.0	NTU			Field	
Former Delph	OHD000817577	HR-04	DO	10/04/21	8.90	8.90	mg/L			Field	
Former Delph	OHD000817577	HR-04	Redox	10/04/21	151.9	151.9	mV			Field	
Former Delph	OHD000817577	HR-17	111Tri	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	11DCA	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	11-DCEE	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	Benzene	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	CisDCEE	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	EthBenz	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	TCE	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	TetCEthy	10/04/21	130	130	ug/L			SW8260B	
Former Delph	OHD000817577	HR-17	Toluen	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	TranDCEE	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	VC	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	Xylene	10/04/21	ND<4.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	HR-17	pH F	10/04/21	7.02	7.02	SU			Field	
Former Delph	OHD000817577	HR-17	GWL	10/04/21	707.09	707.09	feet			Field	
Former Delph	OHD000817577	HR-17	Temp	10/04/21	17.50	17.50	C			Field	
Former Delph	OHD000817577	HR-17	Cond	10/04/21	1.086	1.086	ms/cm			Field	
Former Delph	OHD000817577	HR-17	Turb	10/04/21	9.8	9.8	NTU			Field	
Former Delph	OHD000817577	HR-17	DO	10/04/21	1.53	1.53	mg/L			Field	
Former Delph	OHD000817577	HR-17	Redox	10/04/21	76.2	76.2	mV			Field	
Former Delph	OHD000817577	W-2-N	111Tri	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	11DCA	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	11-DCEE	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	Benzene	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	CisDCEE	10/04/21	2.2	2.2	ug/L			SW8260B	
Former Delph	OHD000817577	W-2-N	EthBenz	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	TCE	10/04/21	1.0	1.0	ug/L			SW8260B	
Former Delph	OHD000817577	W-2-N	TetCEthy	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	Toluen	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	TranDCEE	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	VC	10/04/21	ND<1.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	Xylene	10/04/21	ND<2.0	ND	ug/L			SW8260B	U
Former Delph	OHD000817577	W-2-N	pH F	10/04/21	7.16	7.16	SU			Field	
Former Delph	OHD000817577	W-2-N	GWL	10/04/21	709.27	709.27	feet			Field	
Former Delph	OHD000817577	W-2-N	Temp	10/04/21	15.24	15.24	C			Field	
Former Delph	OHD000817577	W-2-N	Cond	10/04/21	1.035	1.035	ms/cm			Field	
Former Delph	OHD000817577	W-2-N	Turb	10/04/21	56.2	56.2	NTU			Field	
Former Delph	OHD000817577	W-2-N	DO	10/04/21	0.54	0.54	mg/L			Field	

Former Delph	OHD000817577	W-2-N	Redox	10/04/21	-49.9	-49.9	mV	Field	
Former Delph	OHD000817577	W-2-S	111Tri	10/04/21	1.0	1.0	ug/L	SW8260B	
Former Delph	OHD000817577	W-2-S	11DCA	10/04/21	0.79	0.79	ug/L	SW8260B	J
Former Delph	OHD000817577	W-2-S	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	CisDCEE	10/04/21	2.0	2.0	ug/L	SW8260B	
Former Delph	OHD000817577	W-2-S	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	TCE	10/04/21	6.1	6.1	ug/L	SW8260B	
Former Delph	OHD000817577	W-2-S	TetCEthy	10/04/21	1.0	1.0	ug/L	SW8260B	
Former Delph	OHD000817577	W-2-S	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	TranDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	VC	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-2-S	pH F	10/04/21	7.09	7.09	SU	Field	
Former Delph	OHD000817577	W-2-S	GWL	10/04/21	706.36	706.36	feet	Field	
Former Delph	OHD000817577	W-2-S	Temp	10/04/21	16.14	16.14	C	Field	
Former Delph	OHD000817577	W-2-S	Cond	10/04/21	0.961	0.961	ms/cm	Field	
Former Delph	OHD000817577	W-2-S	Turb	10/04/21	12.8	12.8	NTU	Field	
Former Delph	OHD000817577	W-2-S	DO	10/04/21	5.01	5.01	mg/L	Field	
Former Delph	OHD000817577	W-2-S	Redox	10/04/21	90.1	90.1	mV	Field	
Former Delph	OHD000817577	W-3-N	111Tri	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	11DCA	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	CisDCEE	10/04/21	13	13	ug/L	SW8260B	
Former Delph	OHD000817577	W-3-N	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	TCE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	TetCEthy	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	TranDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	VC	10/04/21	1.2	1.2	ug/L	SW8260B	
Former Delph	OHD000817577	W-3-N	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-N	pH F	10/04/21	7.22	7.22	SU	Field	
Former Delph	OHD000817577	W-3-N	GWL	10/04/21	709.20	709.20	feet	Field	
Former Delph	OHD000817577	W-3-N	Temp	10/04/21	18.12	18.12	C	Field	
Former Delph	OHD000817577	W-3-N	Cond	10/04/21	1.081	1.081	ms/cm	Field	
Former Delph	OHD000817577	W-3-N	Turb	10/04/21	174.0	174.0	NTU	Field	
Former Delph	OHD000817577	W-3-N	DO	10/04/21	0.15	0.15	mg/L	Field	
Former Delph	OHD000817577	W-3-N	Redox	10/04/21	149.9	149.9	mV	Field	
Former Delph	OHD000817577	W-3-S	111Tri	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	11DCA	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	11-DCEE	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	Benzene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	CisDCEE	10/04/21	4.6	4.6	ug/L	SW8260B	
Former Delph	OHD000817577	W-3-S	EthBenz	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	TCE	10/04/21	1.6	1.6	ug/L	SW8260B	J
Former Delph	OHD000817577	W-3-S	TetCEthy	10/04/21	92	92	ug/L	SW8260B	
Former Delph	OHD000817577	W-3-S	Toluen	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	TranDCEE	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	VC	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	Xylene	10/04/21	ND<4.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-3-S	pH F	10/04/21	7.03	7.03	SU	Field	
Former Delph	OHD000817577	W-3-S	GWL	10/04/21	706.35	706.35	feet	Field	
Former Delph	OHD000817577	W-3-S	Temp	10/04/21	16.67	16.67	C	Field	
Former Delph	OHD000817577	W-3-S	Cond	10/04/21	1.022	1.022	ms/cm	Field	
Former Delph	OHD000817577	W-3-S	Turb	10/04/21	2.21	2.21	NTU	Field	
Former Delph	OHD000817577	W-3-S	DO	10/04/21	0.17	0.17	mg/L	Field	
Former Delph	OHD000817577	W-3-S	Redox	10/04/21	173.7	173.7	mV	Field	
Former Delph	OHD000817577	W-4-N	111Tri	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	11DCA	10/04/21	9	9	ug/L	SW8260B	
Former Delph	OHD000817577	W-4-N	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	CisDCEE	10/04/21	8.9	8.9	ug/L	SW8260B	
Former Delph	OHD000817577	W-4-N	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	TCE	10/04/21	7.0	7.0	ug/L	SW8260B	
Former Delph	OHD000817577	W-4-N	TetCEthy	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	TranDCEE	10/04/21	0.60	0.60	ug/L	SW8260B	J
Former Delph	OHD000817577	W-4-N	VC	10/04/21	ND<1.0	ND	ug/L	SW8260B	U

Former Delph	OHD000817577	W-4-N	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-N	pH F	10/04/21	6.98	6.98	SU	Field	
Former Delph	OHD000817577	W-4-N	GWL	10/04/21	709.31	709.31	feet	Field	
Former Delph	OHD000817577	W-4-N	Temp	10/04/21	15.34	15.34	C	Field	
Former Delph	OHD000817577	W-4-N	Cond	10/04/21	1.136	1.136	ms/cm	Field	
Former Delph	OHD000817577	W-4-N	Turb	10/04/21	68.0	68.0	NTU	Field	
Former Delph	OHD000817577	W-4-N	DO	10/04/21	0.30	0.30	mg/L	Field	
Former Delph	OHD000817577	W-4-N	Redox	10/04/21	171.4	171.4	mV	Field	
Former Delph	OHD000817577	W-4-S	111Tri	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	11DCA	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	11-DCEE	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	Benzene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	CisDCEE	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	EthBenz	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	TCE	10/04/21	3.5	3.5	ug/L	SW8260B	
Former Delph	OHD000817577	W-4-S	TetCEthy	10/04/21	29	29	ug/L	SW8260B	
Former Delph	OHD000817577	W-4-S	Toluen	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	TranDCEE	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	VC	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	Xylene	10/04/21	ND<4.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	W-4-S	pH F	10/04/21	6.93	6.93	SU	Field	
Former Delph	OHD000817577	W-4-S	GWL	10/04/21	706.60	706.60	feet	Field	
Former Delph	OHD000817577	W-4-S	Temp	10/04/21	16.73	16.73	C	Field	
Former Delph	OHD000817577	W-4-S	Cond	10/04/21	1.029	1.029	ms/cm	Field	
Former Delph	OHD000817577	W-4-S	Turb	10/04/21	11.1	11.1	NTU	Field	
Former Delph	OHD000817577	W-4-S	DO	10/04/21	0.12	0.12	mg/L	Field	
Former Delph	OHD000817577	W-4-S	Redox	10/04/21	172.3	172.3	mV	Field	
Former Delph	OHD000817577	TB-01	111Tri	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	11DCA	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	CisDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	TCE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	TetCEthy	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	TranDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	VC	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	TB-01	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	111Tri	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	11DCA	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	CisDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	TCE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	TetCEthy	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	TranDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	VC	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-01	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	111Tri	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	11DCA	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	11-DCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	Benzene	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	CisDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	EthBenz	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	TCE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	TetCEthy	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	Toluen	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	TranDCEE	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	VC	10/04/21	ND<1.0	ND	ug/L	SW8260B	U
Former Delph	OHD000817577	EB-02	Xylene	10/04/21	ND<2.0	ND	ug/L	SW8260B	U

Attachment E-2

Groundwater Sampling Forms

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	HR-4			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	64.0 degrees F and Fog/Mist. The wind is blowing W/SW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	55-65	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	32.86	**Total Depth (ft-bmp)**	67	**Water Column(ft)**	32.14	**Gallons in Well**	5.22
MP Elevation	742.60	**Pump Intake (ft-bmp)**	62	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	11:05	**Volumes Purged**	0.53	**Sample ID**	HR-4/100421/	**Sampled by**	Alex von Clausburg
Purge Start	10:35	**Gallons Purged**	2.77	**Replicate/ Code No.**	DUP-01 MS/MSD	**Sample Type**	Grab
Purge End	11:20						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:40	5	5	200	32.86	0.26	6.53	0.987	34.5	21.60	15.29	159.7	Clear	None
10:45	5	10	200	32.89	0.53	6.60	0.985	3.1	19.40	15.44	156.8	Clear	None
10:50	5	15	300	32.9	0.92	6.75	0.985	3.0	10.80	15.36	152.1	Clear	None
10:55	5	20	400	32.91	1.45	6.83	0.986	3.0	9.30	15.29	150.5	Clear	None
11:00	5	25	500	32.91	2.11	6.88	0.985	3.0	8.90	15.13	151.1	Clear	None
11:05	5	30	500	32.91	2.77	6.89	0.986	3.0	8.90	15.08	151.9	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	6	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: North Settling Lagoon
Condition of Well: Good
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts
ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	HR-17			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	69.1 degrees F and Cloudy. The wind is blowing SW at 8.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	27-47	**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	18.33	**Total Depth (ft-bmp)**	45.85	**Water Column(ft)**	27.52	**Gallons in Well**	17.89
MP Elevation	725.42	**Pump Intake (ft-bmp)**	40	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	15:00	**Volumes Purged**	0.10	**Sample ID**	HR-17/100421/	**Sampled by**	Alex von Clausburg
Purge Start	14:30	**Gallons Purged**	1.85	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	15:00						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:35	5	5	400	18.36	0.53	7.17	1.085	16.7	4.84	17.41	58.3	Clear	None
14:40	5	10	200	18.37	0.79	7.17	1.083	11.3	1.63	17.56	65.5	Clear	None
14:45	5	15	200	18.37	1.06	7.07	1.080	9.8	1.31	17.60	71.5	Clear	None
14:50	5	20	200	18.37	1.32	7.06	1.085	10.2	1.50	17.52	75.0	Clear	None
14:59	9	29	200	18.38	1.59	7.06	1.085	9.9	1.53	17.51	76.1	Clear	None
15:00	1	30	200	18.38	1.85	7.02	1.086	9.8	1.53	17.50	76.2	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: South Settling Lagoon

Condition of Well: Good

Well Completion: NA

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-2-N			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	64.0 degrees F and Fog/Mist. The wind is blowing W/SW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	35-60	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	22.41	**Total Depth (ft-bmp)**	58.52	**Water Column(ft)**	36.11	**Gallons in Well**	5.87
MP Elevation	731.68	**Pump Intake (ft-bmp)**	54	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	13:15	**Volumes Purged**	0.68	**Sample ID**	W-2-N/100421/	**Sampled by**	Alex von Clausburg
Purge Start	12:35	**Gallons Purged**	3.96	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	13:15						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:40	5	5	300	22.43	0.40	7.45	1.056	56.1	1.36	16.17	-39.6	Grayish Brown	None
12:45	5	10	300	22.44	0.79	7.44	1.054	86.7	1.24	16.20	-40.1	Grayish Brown	None
12:50	5	15	400	22.45	1.32	7.34	1.053	55.0	0.60	16.14	-43.3	Grayish Brown	None
12:55	5	20	400	22.45	1.85	7.33	1.05	55.9	0.54	16.23	-48.8	Grayish Brown	None
13:00	5	25	400	22.47	2.38	7.30	1.045	56.3	0.57	16.95	-50.7	Grayish Brown	None
13:05	5	30	400	22.48	2.91	7.17	1.036	55.8	0.52	15.25	-50.3	Grayish Brown	None
13:11	6	36	400	22.48	3.43	7.16	1.039	56.0	0.53	15.25	-49.8	Grayish Brown	None
13:15	4	40	400	22.48	3.96	7.16	1.035	56.2	0.54	15.24	-49.9	Grayish Brown	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: North Settling Lagoon
Condition of Well: Good
Well Completion: NA
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts
ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-3-N			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	70.0 degrees F and Cloudy. The wind is blowing SW at 8.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	35-57	**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	24.46	**Total Depth (ft-bmp)**	57.72	**Water Column(ft)**	33.26	**Gallons in Well**	21.62
MP Elevation	733.66	**Pump Intake (ft-bmp)**	44.5	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	13:20	**Volumes Purged**	0.29	**Sample ID**	W-3-N/100421/	**Sampled by**	Hannah Smith
Purge Start	12:23	**Gallons Purged**	6.34	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	13:25						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
12:23	5	5	400	24.5	0.53	7.17	1.085	77.8	2.26	17.80	165.0	Yellow	None
12:28	5	10	400	24.5	1.06	7.13	1.078	110.0	1.17	16.75	153.7	Yellow	None
12:33	5	15	400	24.5	1.59	7.16	1.069	76.5	0.12	15.99	148.1	Yellow	None
12:38	5	20	400	24.5	2.11	7.19	1.069	86.6	0.11	16.56	149.6	Yellow	None
12:43	5	25	400	24.5	2.64	7.20	1.07	98.8	0.11	16.48	148.1	Yellow	None
12:48	5	30	400	24.5	3.17	7.21	1.073	108.0	0.14	16.38	148.7	Yellow	None
12:53	5	35	400	24.5	3.70	7.19	1.073	195.0	0.20	16.09	147.8	Yellow	None
12:58	5	40	400	24.5	4.23	7.20	1.072	172.0	0.17	16.70	148.3	Yellow	None
13:03	5	45	400	24.5	4.76	7.25	1.074	154.0	0.15	17.31	147.8	Yellow	None
13:08	5	50	400	24.5	5.28	7.24	1.074	178.0	0.15	18.00	148.4	Yellow	None
13:13	5	55	400	24.5	5.81	7.23	1.079	170.0	0.16	18.10	149.8	Yellow	None
13:18	5	60	400	24.5	6.34	7.22	1.081	174.0	0.15	18.12	149.9	Yellow	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: North Settling Lagoon

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: no

Well Locked at Departure: no

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-4-N			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	70.0 degrees F and Cloudy. The wind is blowing SW at 8.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	40-65	**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	22.32	**Total Depth (ft-bmp)**	66.87	**Water Column(ft)**	44.55	**Gallons in Well**	28.96
MP Elevation	731.63	**Pump Intake (ft-bmp)**	58	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	11:20	**Volumes Purged**	0.10	**Sample ID**	W-4-N/100421/	**Sampled by**	Hannah Smith
Purge Start	10:36	**Gallons Purged**	2.84	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	11:23						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
10:46	5	5	150	22.32	0.20	6.44	1.151	90.9	0.23	15.08	169.0	--	None
10:56	10	15	400	22.32	0.73	6.80	1.144	85.1	0.18	15.12	169.5	--	None
11:01	5	20	400	22.32	1.25	6.88	1.142	76.2	0.20	15.27	170.1	--	None
11:06	5	25	400	22.32	1.78	6.93	1.139	72.6	0.29	15.32	170.9	--	None
11:11	5	30	400	22.32	2.31	6.96	1.138	71.1	0.32	15.33	171.3	--	None
11:16	5	35	400	22.32	2.84	6.98	1.136	68.0	0.30	15.34	171.4	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: North Settling Lagoon

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-2-S			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	72.0 degrees F and Mostly Cloudy. The wind is blowing at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	30-65	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	19.31	**Total Depth (ft-bmp)**	64.87	**Water Column(ft)**	45.56	**Gallons in Well**	7.40
MP Elevation	725.67	**Pump Intake (ft-bmp)**	60	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	16:25	**Volumes Purged**	0.39	**Sample ID**	W-2-S/100421/	**Sampled by**	Alex von Clausburg
Purge Start	15:50	**Gallons Purged**	2.91	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	16:25						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:55	5	5	200	19.33	0.26	7.20	0.966	28.4	4.19	16.63	96.6	Clear	None
16:00	5	10	200	19.33	0.53	7.17	0.965	12.5	4.97	17.05	114.1	Clear	None
16:05	5	15	200	19.34	0.79	7.14	0.983	12.5	4.91	16.55	112.2	Clear	None
16:10	5	20	400	19.35	1.32	7.12	0.964	12.9	4.91	16.19	96.9	Clear	None
16:15	5	25	400	19.37	1.85	7.11	0.963	13.0	5.00	16.18	96.5	Clear	None
16:20	5	30	400	19.37	2.38	7.10	0.963	12.8	5.01	16.15	95.0	Clear	None
16:25	5	35	400	19.38	2.91	7.09	0.961	12.8	5.01	16.14	90.1	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: South Settling Lagoon

Condition of Well: Good

Well Completion: NA

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-3-S			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	70.0 degrees F and Cloudy. The wind is blowing SW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	36-76	**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	21.81	**Total Depth (ft-bmp)**	73.71	**Water Column(ft)**	51.9	**Gallons in Well**	33.73
MP Elevation	728.16	**Pump Intake (ft-bmp)**	56	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	15:00	**Volumes Purged**	0.08	**Sample ID**	W-3-S/100421/	**Sampled by**	Hannah Smith
Purge Start	14:36	**Gallons Purged**	2.64	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	15:09						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
14:39	5	5	400	21.87	0.53	6.70	1.063	27.60	1.02	16.57	196.0	Clear	None
14:44	5	10	400	21.87	1.06	6.91	1.041	4.69	0.21	16.42	192.6	Clear	None
14:49	5	15	400	21.86	1.59	6.98	1.033	1.71	0.16	16.74	182.4	Clear	None
14:54	5	20	400	21.86	2.11	7.01	1.028	2.10	0.16	16.99	172.4	Clear	None
14:59	5	25	400	21.86	2.64	7.03	1.022	2.21	0.17	16.67	173.7	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: South Settling Lagoon

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Groundwater Sampling Form

ARCADIS

Project Number	30075938	**Well ID**	W-4-S			**Date**	10/04/2021
Project Name/Location	RACER Moraine		**Weather(°F)**	70.0 degrees F and Cloudy. The wind is blowing SW at 5.8 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bgs)**	30-70	**Casing Diameter (in)**	4	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	20.16	**Total Depth (ft-bmp)**	71.11	**Water Column(ft)**	50.95	**Gallons in Well**	33.12
MP Elevation	726.76	**Pump Intake (ft-bmp)**	50	**Purge Method**	Low-Flow	**Purge Equipment**	Submersible
Sample Time	16:05	**Volumes Purged**	0.07	**Sample ID**	W-4-S	**Sampled by**	Hannah Smith
Purge Start	15:36	**Gallons Purged**	2.38	**Replicate/ Code No.**	NA	**Sample Type**	Grab
Purge End	16:08						

Time	Minutes Elapsed	Total Elapsed Minutes	Rate mL/min	Depth to Water (ft)	Gallons Purged	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)	Appearance	
												Color	Odor
15:38	5	5	300	20.17	0.40	6.83	1.046	12.6	0.90	17.31	181.1	Clear	None
15:43	5	10	300	20.17	0.79	6.93	1.033	13.8	0.21	16.98	174.3	Clear	None
15:48	5	15	300	20.17	1.19	6.94	1.032	13.6	0.16	16.95	169.7	Clear	None
15:53	5	20	300	20.17	1.59	6.93	1.030	12.0	0.12	16.80	171.6	Clear	None
15:58	5	25	300	20.17	1.98	6.93	1.029	11.6	0.12	16.79	172.1	Clear	None
16:03	5	30	300	20.17	2.38	6.93	1.029	11.1	0.12	16.73	172.3	Clear	None

Constituent Sampled	Container	Number	Preservative
VOCs	40 mL glass vial	3	HCl

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
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mg/L = milligrams per liter
mV = millivolts

ft-bgs = feet below ground surface

Attachment E-3

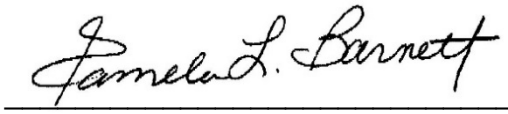
Laboratory Data Review Report

OHIO EPA
SUPPLEMENTARY ANNUAL REPORT
FOR 2021 GROUNDWATER
MONITORING DATA

February 28, 2022

Prepared by Arcadis

I certify under penalty of law that the groundwater sample data provided in this report, to the best of my knowledge and belief, is representative, valid, and usable for its intended purpose. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Pamela L. Barnett
Cleanup Manager
RACER Trust

ARCADIS Design & Consultancy for natural and built assets

RACER TRUST

DATA REVIEW

Moraine, Ohio

Volatile Organic Compounds, Dissolved Gases, and Total Organic Carbon Analyses

SDGs: 240-157468-1, 240-157476-1, 240-157477-1, 240-157592-1, 240-157684-1, 240-157686-1, 240-157764-1, 240-160029-1, 240-160215-1, and 221101130

Analyses Performed By:
Eurofins TestAmerica
North Canton, Ohio

Validation Report: 44187R
Review Level: Tier III
Project: 30075938.0004B

SUMMARY

This data quality assessment summarizes the review of the following laboratory Sample Delivery Groups (SDGs) for samples collected in association with the RACER Trust site in Moraine, Ohio. The review was conducted as a Tier III evaluation and included review of data package completeness as required under USEPA Region III M3 validation. Only analytical data as reported by the laboratory were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain-of-custody records (COCs).

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						VOC	Diss. Gas	TOC
240-157468-1	RMW-101/100521/	240-157468-1	Water	10/5/2021		X		
	RMW-100/100521/	240-157468-2	Water	10/5/2021		X		
	RMW-102/100521/	240-157468-3	Water	10/5/2021		X		
	GM-50/100521/	240-157468-4	Water	10/5/2021		X		
	GM-47/100521/	240-157468-5	Water	10/5/2021		X		
	GM-16/100521/	240-157468-6	Water	10/5/2021		X		
240-157476-1	HR-17/100421/	240-157476-1	Water	10/4/2021		X		
	W-2-S/100421/	240-157476-2	Water	10/4/2021		X		
	W-3-S/100421/	240-157476-3	Water	10/4/2021		X		
	W-4-S/100421/	240-157476-4	Water	10/4/2021		X		
	EB-01/100421/	240-157476-5	Water	10/4/2021		X		
	EB-02/100421/	240-157476-6	Water	10/4/2021		X		
	TB-01/100421/	240-157476-7	Water	10/4/2021		X		
240-157477-1	W-3-N/100421/	240-157477-1	Water	10/4/2021		X		
	W-4-N/100421/	240-157477-2	Water	10/4/2021		X		
	W-2-N/100421/	240-157477-3	Water	10/4/2021		X		
	HR-4/100421/	240-157477-4	Water	10/4/2021		X		
	DUP-1/100421/	240-157477-5	Water	10/4/2021	HR-4 /100421/	X		
240-157592-1	RMW-93/100521/	240-157592-1	Water	10/5/2021		X		
	RMW-94/100521/	240-157592-2	Water	10/5/2021		X		
	EB-03/100521/	240-157592-3	Water	10/5/2021		X		
	HR-16/100621/	240-157592-4	Water	10/6/2021		X		
	RMW-92/100621/	240-157592-5	Water	10/6/2021		X		
	RMW-91/100621/	240-157592-6	Water	10/6/2021		X		
	DUP-02/100621/	240-157592-7	Water	10/6/2021	RMW-91 /100621/	X		
	TB-02/100621/	240-157592-8	Water	10/6/2021		X		
	GM-63/100521/	240-157592-9	Water	10/5/2021		X		

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						VOC	Diss. Gas	TOC
240-157592-1	GM-64/100521/	240-157592-10	Water	10/5/2021		X		
	WSU-23/100521/	240-157592-11	Water	10/5/2021		X		
	EB-04/1005211/	240-157592-12	Water	10/5/2021		X		
240-157684-1	GM-81/100721/	240-157684-1	Water	10/7/2021		X		
	GM-80/100721/	240-157684-2	Water	10/7/2021		X		
240-157686-1	RMW-95/100621/	240-157686-1	Water	10/6/2021		X		
	RMW-96/100621/	240-157686-2	Water	10/6/2021		X		
	GM-79/100621/	240-157686-3	Water	10/6/2021		X		
	EB-05/100621/	240-157686-4	Water	10/6/2021		X		
	GM-48/100621/	240-157686-5	Water	10/6/2021		X		
	GM-51/100621/	240-157686-6	Water	10/6/2021		X		
	RMW-98/100621/	240-157686-7	Water	10/6/2021		X		
	RMW-99/100621/	240-157686-8	Water	10/6/2021		X		
	EB-06/100621/	240-157686-9	Water	10/6/2021		X		
	TB-03/100721/	240-157686-10	Water	10/7/2021		X		
	RMW-97/100721/	240-157686-11	Water	10/7/2021		X		
240-157764-1	GM-21/100721/	240-157764-1	Water	10/7/2021		X		X
	GM-17/100721/	240-157764-2	Water	10/7/2021		X		
	EB-07/100721/	240-157764-3	Water	10/7/2021		X		
	WEST/100821/	240-157764-4	Water	10/8/2021		X		
	GM-37/100821/	240-157764-5	Water	10/8/2021		X		
	GM-38/100821/	240-157764-6	Water	10/8/2021		X		
	EB-09/100821/	240-157764-7	Water	10/8/2021		X		
	TB-04/100821/	240-157764-8	Water	10/8/2021		X		
	GM-35/100821/	240-157764-9	Water	10/8/2021		X		
	GM-36/100821/	240-157764-10	Water	10/8/2021		X		
	EAST/100821/	240-157764-11	Water	10/8/2021		X		
	GM-8/100721/	240-157764-12	Water	10/7/2021		X		X
	GM-6/100721/	240-157764-13	Water	10/7/2021		X		X
	GM-2/100721/	240-157764-14	Water	10/7/2021		X		X
	GM-32/100721/	240-157764-15	Water	10/7/2021		X		X
	GM-19S/100721/	240-157764-16	Water	10/7/2021		X		X
	DUP-03/100721/	240-157764-17	Water	10/7/2021	GM-8 /100721/	X		X
	EB-08/100721/	240-157764-18	Water	10/7/2021		X		X
	EB-10/100721/	240-157764-19	Water	10/7/2021		X		

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						VOC	Diss. Gas	TOC
221101130	GM-8/100721/	22110113001	Water	10/7/2021			X	
	GM-6/100721/	22110113002	Water	10/7/2021			X	
	GM-2/100721/	22110113003	Water	10/7/2021			X	
	GM-32/100721/	22110113004	Water	10/7/2021			X	
	GM-19S/100721/	22110113005	Water	10/7/2021			X	
	DUP-03/100721/	22110113006	Water	10/7/2021	GM-8 /100721/		X	
	GM-21/100721/	22110113007	Water	10/7/2021			X	
	EB-08/100721/	22110113008	Water	10/7/2021			X	
240-160029-1	GM-18/111121/	240-160029-1	Water	11/11/2021		X		
	EB-1	240-160029-2	Water	11/11/2021		X		
	TRIP BLANK	240-160029-3	Water	11/11/2021		X		
	GM-49/111121/	240-160029-4	Water	11/11/2021		X		
	GM-52/111121/	240-160029-5	Water	11/11/2021		X		
240-160215-1	DN-13/111621/	240-160215-1	Water	11/16/2021		X		
	WSU-24/111621/	240-160215-2	Water	11/16/2021		X		
	TB-01/111621/	240-160215-3	Water	11/16/2021		X		

Notes: 1. As specified on the COCs, samples HR-4/100421/, RMW-91/100621/, and GM-8/100721/ were used in the MS/MSD analyses.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of quality assurance (QA) or sample problems provided		X		X	
12. Data package completeness and compliance		X		X	

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method 624.1, SW-846 Method 8260B, and Pace Analytical method AM20GAX (modified USEPA Method RSK175). Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Data Review (October 1999) and Quality Assurance Project Plan (QAPP) for Motors Liquidation Company (MLC) Moraine Facilities (November 19, 2010).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected as unusable. The compound may or may not be present in the sample.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
USEPA 624.1, SW-846 8260B	Water	14 days from collection to analysis (preserved)	Cool to < 6 °C; pH < 2 with HCl
		7 days from collection to analysis (unpreserved)	Cool to < 6 °C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and field blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field blanks also measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Mass Spectrometer Tuning

GC/MS tuning is performed to ensure mass resolution, identification, and to some degree, sensitivity. The tuning compound (4-bromofluorobenzene) analysis must be performed at the beginning of each 12-hour period during which calibration standards and samples are analyzed and must meet the ion-abundance criteria specified in the analytical method.

GC/MS performance was acceptable, and all analyses were initiated within 12 hours of each instrument tune check.

4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable (linear or quadratic) performance at the beginning of the analytical sequence. The continuing calibration verifies that the day-to-day instrument performance is satisfactory.

4.1 Initial Calibration (ICV)

Each target compound in the initial calibration must exhibit a relative response factor (RRF) greater than the control limit of 0.05 and either a percent relative standard deviation (%RSD) within the control limit of 20% or a correlation coefficient greater than 0.99.

All compounds associated with the initial calibration were within the specified control limits.

4.2 Continuing Calibration (CCV)

Each target compound associated with the continuing calibration standard must exhibit a percent difference (%D) within the control limit of 20%, and a RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, except for the compounds presented in the following table.

Sample	Initial / Continuing	Compound	Criteria
RMW-101/100521/ RMW-100/100521/ RMW-102/100521/ GM-50/100521/ GM-47/100521/ GM-16/100521/ W-2-S/100421/ EB-01/100421/ EB-02/100421/ TB-01/100421/ W-4-N/100421/ W-2-N/100421/ HR-4/100421/	CCV %D	Vinyl chloride	+24.6 %
HR-16/100621/ DUP-02/100621/ GM-81/100721/ GM-79/100621/ RMW-97/100721/	CCV %D	1,1-Dichloroethane	+25.9 %
		1,1-Dichloroethene	+33.9 %
		cis-1,2-Dichloroethene	+24.9 %
		Tetrachloroethene	+24.2 %
		Toluene	+33.3 %
		trans-1,2-Dichloroethene	+27.2 %
GM-18/111121/ EB-1 (11/11/2021)	CCV %D	1,1-Dichloroethane	+24.9 %
		Toluene	+28.6 %
DN-13/111621/	CCV %D	1,1-Dichloroethane	+25.3 %
WSU-24/111621/ TB-01/111621/	CCV %D	1,1-Dichloroethane	+20.7 %

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF < 0.05	Non-detect	R
		Detect	J
	RRF > 0.05	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 20% or a correlation coefficient < 0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D > 20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D < 20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All samples exhibited surrogate recoveries within the control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC analysis exhibit area counts that are within a factor of two (i.e. 50% - 200%) of the area counts of the associated continuing calibration standard.

All internal standard area counts were within the control limits.

7. Matrix Spike / Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The spiked compounds used in the MS/MSD analysis must exhibit recoveries within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSDs performed on samples where the compound concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Samples HR-4/100421/, RMW-91/100621/, EAST/100821/, and GM-8/100721/ were used in the MS/MSD analyses. Samples associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

SDG	Sample	Compound	MS Recovery	MSD Recovery
240-157592-1	RMW-91/100621/	Tetrachloroethene	< LL but > 10%	Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table; in the case of MS/MSD deviations, the sample results are qualified as documented.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > 4x the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The spiked compounds used in the LCS analysis must exhibit recoveries within the laboratory-established acceptance limits.

Samples associated with LCS analyses exhibiting recoveries outside of the control limits are presented in the following table.

SDG	Samples	Compounds	LCS Recovery
2401600291	GM-18/111121/ EB-1	Toluene	> UL

The criteria used to evaluate the LCS recoveries are presented in the following table; in the case of any LCS deviations, the sample results are qualified as documented.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Sample Analysis

The field duplicate analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL is applied to the difference between the results for water matrices.

Detected results for the field duplicate sample results are summarized in the following tables.

Sample and Field Duplicate Sample: HR-4/100421/ and DUP-1/100421/						
Compound	Sample Result	Duplicate Result	RPD	Difference	RL	Evaluation
1,1-Dichloroethane	1.9	1.9	N/A	0.0	1.0	Acceptable
cis-1,2-Dichloroethene	0.71 J	0.77 J	N/A	0.06	1.0	Acceptable

Sample and Field Duplicate Sample: RMW-91/100621/ and DUP-02/100621/						
Compound	Sample Result	Duplicate Result	RPD	Difference	RL	Evaluation
1,1-Dichloroethane	1.6 J	1.5 J	N/A	0.1	2.0	Acceptable
cis-1,2-Dichloroethene	9.3	9.3	N/A	0.0	2.0	Acceptable
Tetrachloroethene	93	77	18.8 %	N/A	5.0	Acceptable
Trichloroethene	54	53	1.9 %	N/A	2.0	Acceptable

Sample and Field Duplicate Sample: GM-8/100721/ and DUP-03/100721/						
Compound	Sample Result	Duplicate Result	RPD	Difference	RL	Evaluation
Benzene	1.7	1.7	N/A	0.0	1.0	Acceptable

Notes: N/A = Not applicable
U = Not detected
J = Estimated (result is < RL)

The field duplicate samples exhibited acceptable results.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCS

VOCs: SW-846 8260B	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas Chromatography/Mass Spectrometry (GC/MS)					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Method Blanks		X	X		
B. Equipment/Field Blanks		X	X		
C. Trip Blanks		X		X	
Surrogates Accuracy (%R)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD Precision (RPD)	X				X
Laboratory Duplicate Sample RPD	X				X
Field Duplicate Sample RPD		X		X	
Dilution Factor		X		X	
Tier III Validation					
System Performance and Column Resolution		X		X	
Initial Calibration %RSD		X		X	
Continuing Calibration RRF		X		X	
Continuing Calibration %D		X	X		
Instrument Tune and Performance Check		X		X	
Ion Abundance Criteria for Each Instrument Used		X		X	
Internal Standard		X		X	
Compound Identification and Quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Quantitation transcriptions/calculations		X		X	
E. Reporting limits adjusted for sample dilutions		X		X	

%R - Percent recovery
RPD - Relative percent difference
%RSD - Relative standard deviation
%D - Percent difference

DISSOLVED GASES ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Dissolved Gases by AM20GAX	Water	14 days from collection to analysis	Cool to < 6 °C; pH < 2 with HCl

All samples were analyzed within the specified holding time criteria. However, they were received at the laboratory at 14.2 degrees Celsius, five days after sampling. The dissolved gases results were therefore qualified as estimated for all samples.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target analytes were not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable (linear or quadratic) performance at the beginning of the analytical sequence. The continuing calibration verifies that the day-to-day instrument performance is satisfactory.

3.1 Initial Calibration (ICV)

Each target compound in the initial calibration must exhibit a percent relative standard deviation (%RSD) within the control limit of 20% or a correlation coefficient greater than 0.99.

All compounds associated with the initial calibration were within the specified control limits.

3.2 Continuing Calibration (CCV)

Each target compound associated with the continuing calibration standard must exhibit a percent difference (%D) within the control limit of 20%.

All compounds associated with the continuing calibrations were within the specified control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit recoveries within the laboratory-established

acceptance limits. The relative percent difference (RPD) between the MS and MSD results must be within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on samples where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD analysis was not performed on a sample from within these SDGs.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analyses exhibited recoveries and RPDs within the control limits.

6. Field Duplicate Sample Analysis

The field duplicate analysis is used to assess the precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL is applied to the difference between the results for water matrices.

Results for the field duplicate sample results are summarized in the following table.

Sample and Field Duplicate Sample: GM-8/100721/ and DUP-03/100721/						
Compound	Sample Result	Duplicate Result	RPD	Difference	RL	Evaluation
Ethane	41	43	4.8 %	N/A	1.0	Acceptable
Methane	2000	2000	0.0 %	N/A	5.0	Acceptable

Notes: N/A = Not applicable

The field duplicate samples exhibited acceptable results.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR DISSOLVED GASES

Dissolved Gases: AM20GAX	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas Chromatography/Thermal Conductivity Detector (GC/TCD)					
Tier II Validation					
Holding Times/Temperature/Preservation		X		X	
Reporting Limits (units)		X		X	
Blanks					
A. Method/Calibration Blanks		X		X	
B. Equipment and/or Field Blanks		X		X	
C. Trip Blanks	X				X
Matrix Spike Sample (MS) Accuracy (%R)	X				X
Matrix Spike Duplicate Sample (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R		X		X	
LCS/LCSD RPD		X		X	
Laboratory Duplicate Sample RPD	X				X
Field Duplicate Sample RPD		X		X	
Dilution Factor		X		X	
Tier III Validation					
Initial Calibration %RSDs		X		X	
Continuing Calibration %Ds		X		X	
System Performance and Column Resolution		X		X	
Compound Identification and Quantitation					
A. Quantitation Reports		X		X	
B. RT of Sample Compounds Within Established RT Windows		X		X	
C. Transcription/Calculation Errors Present		X		X	
D. Reporting Limits adjusted for Sample Dilutions		X		X	

%R - Percent recovery
RPD - Relative percent difference
%RSD - Relative standard deviation
%D - Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 9060. Data were reviewed in accordance with USEPA National Functional Guidelines for Inorganic Data Review (October 2004) and Quality Assurance Project Plan (QAPP) for Motors Liquidation Company (MLC) Moraine Facilities (November 19, 2010).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within the control limits.

  * Duplicate analysis is not within the control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Organic Carbon (TOC) by SW-846 9060	Water	28 days from collection to analysis	Cool to < 6 °C; pH < 2

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e. laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

TOC was not detected above the MDL in the associated blanks; therefore, detected sample results are not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) and Laboratory Duplicate Sample Analysis

MS/MSD and laboratory duplicate sample data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. All metal analytes must exhibit recoveries within the established acceptance limits of 75% to 125%. The relative percent difference (RPD) between the MS and MSD results must be no greater than the established acceptance limit of 20%. The MS/MSD control limits do not apply for MS/MSDs performed on samples where the analyte's concentration detected in the parent sample exceeds the MS/MSD spiking concentration by a factor of four or greater. In instance where this is true, the data will not be qualified, and any laboratory qualifiers will be removed. Sample results associated with MS/MSD exceedances where the parent samples are not site-specific are not qualified.

Sample GM-8/100721/ was used in the MS/MSD analysis. The MS/MSD analyses exhibited acceptable results.

4.2 Laboratory Duplicate Sample Analysis

The laboratory duplicate sample RPD criterion is applied when parent and duplicate sample concentrations are at least five times the reporting limit (RL). A control limit of 20% for water matrices and 35% for soil and sediment matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of one times the RL for water matrices and two times the RL for soil and sediment matrices is applied to the difference between the results.

MS/MSD analysis was performed instead of the laboratory duplicate sample analysis. The MS/MSD analyses exhibited acceptable RPDs.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit recoveries between the control limits of 80% and 120%.

All analytes associated with the LCS analyses exhibited recoveries within the control limits.

6. Field Duplicate Sample Analysis

The field duplicate sample analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPDs between the parent sample and the field duplicate sample results. In the instance when the parent and/or duplicate sample concentrations are less than or equal to five times the RL, a control limit of two times the RL for water matrices is applied to the difference between the results.

Results for the field duplicate samples are summarized in the following table.

Sample and Field Duplicate Sample: GM-8/100721/ and DUP-03/100721/						
Compound	Sample Result	Duplicate Result	RPD	Difference	RL	Evaluation
Total organic carbon (TOC)	6.4	6.1	4.8 %	N/A	1.0	Acceptable

Notes: N/A = Not applicable

The field duplicate samples exhibited acceptable results.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SW-846 9060	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding Times		X		X	
Reporting Limits (Units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X		X	
C. Equipment and/or Field Blanks	X				X
Matrix Spike (MS) Accuracy (%R)		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate (LCSD) %R	X				X
LCS/LCSD RPD	X				X
Laboratory Duplicate Sample RPD		X		X	
Field Duplicate Sample RPD		X		X	
Dilution Factor		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %D		X		X	
Raw Data		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

Notes:
%RSD – relative standard deviation
%R - percent recovery
RPD - relative percent difference
%D – difference

Validation Performed By:	Dennis Dyke
Signature:	
Date:	January 12, 2022
Peer Review:	Dennis Capria
Date:	January 14, 2022

CHAIN OF CUSTODY AND CORRECTED SAMPLE ANALYSIS DATA SHEETS

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

2-7/2.2

eurofins | Environment Testing America

Client Information	Sampler: H. Smith, A. VanCleaf	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.6
Client Contact: Carolyn Grogan	Phone: 937-264-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~6 of 8~~ 1 of 1
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	8260B - VOC's 100 dilution	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S			
RMW-101/100521/	10.5.21	1005	G	Water	N	N	X		X	4	10x dilution
RMW-100/100521/	10.5.21	1105	G	Water	N	N	X			3	
RMW-102/100521/	10.5.21	1240	G	Water	N	N	X			3	
GM-50/100521/	10.5.21	1100	G	Water	N	N	X			3	
GM-47/100521/	10.5.21	0950	G	Water	N	N	X			3	
GM-16/100521/	10.5.21	1340	G	Water	N	N	X			3	
				Water							
				Water							
				Water							
				Water							
				Water							

240-157468 Chain of Custody

210 Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Hannah Smith/AVanCleaf	10.05.21/1400	Arcadis	ME Miley	10-5-21 1400	ETA
2	ME Miley	10-5-21 1600	ETA	Tammy Porter	10-6-21 800	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Client Sample ID: RMW-101/100521/ Lab Sample ID: 240-157468-1

Date Collected: 10/05/21 10:05 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 14:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 14:35	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 14:35	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 14:35	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 14:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 14:35	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 14:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 14:35	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 14:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 14:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 14:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 14:35*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 14:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/08/21 14:35*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 14:35*	*1*

Client Sample ID: RMW-100/100521/ Lab Sample ID: 240-157468-2

Date Collected: 10/05/21 11:05 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 14:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 14:57	1
1,1-Dichloroethane	**0.69**	**J**	1.0	0.47	ug/L			10/08/21 14:57	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 14:57	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 14:57	1
cis-1,2-Dichloroethene	**1.0**		1.0	0.46	ug/L			10/08/21 14:57	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 14:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 14:57	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 14:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 14:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 14:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*10/08/21 14:57*	*1*
Dibromofluoromethane (Surr)	*90*		*73 - 120*		*10/08/21 14:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*62 - 137*		*10/08/21 14:57*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/08/21 14:57*	*1*

Client Sample ID: RMW-102/100521/ Lab Sample ID: 240-157468-3

Date Collected: 10/05/21 12:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 15:18	1

Client Sample ID: RMW-102/100521/ Lab Sample ID: 240-157468-3

Date Collected: 10/05/21 12:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 15:18	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 15:18	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 15:18	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 15:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 15:18	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 15:18	1
Tetrachloroethene	**8.7**		1.0	0.44	ug/L			10/08/21 15:18	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 15:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 15:18	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 15:18	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*10/08/21 15:18*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/08/21 15:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*62 - 137*		*10/08/21 15:18*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 15:18*	*1*

Client Sample ID: GM-50/100521/ Lab Sample ID: 240-157468-4

Date Collected: 10/05/21 11:00 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 16:08	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 16:08	1
1,1-Dichloroethane	**0.66**	**J**	1.0	0.47	ug/L			10/08/21 16:08	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 16:08	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:08	1
cis-1,2-Dichloroethene	**0.95**	**J**	1.0	0.46	ug/L			10/08/21 16:08	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:08	1
Tetrachloroethene	**3.2**		1.0	0.44	ug/L			10/08/21 16:08	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 16:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 16:08	1
Trichloroethene	**0.56**	**J**	1.0	0.44	ug/L			10/08/21 16:08	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 16:08*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/08/21 16:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 16:08*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*10/08/21 16:08*	*1*

Client Sample ID: GM-47/100521/ Lab Sample ID: 240-157468-5

Date Collected: 10/05/21 09:50 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 16:29	1
1,1,1-Trichloroethane	**0.61**	**J**	1.0	0.48	ug/L			10/08/21 16:29	1

Client Sample ID: GM-47/100521/ Lab Sample ID: 240-157468-5

Date Collected: 10/05/21 09:50 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**1.0**		1.0	0.47	ug/L			10/08/21 16:29	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 16:29	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:29	1
cis-1,2-Dichloroethene	**26**		1.0	0.46	ug/L			10/08/21 16:29	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:29	1
Tetrachloroethene	**29**		1.0	0.44	ug/L			10/08/21 16:29	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 16:29	1
trans-1,2-Dichloroethene	**0.59**	**J**	1.0	0.51	ug/L			10/08/21 16:29	1
Trichloroethene	**17**		1.0	0.44	ug/L			10/08/21 16:29	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 16:29*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 16:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*62 - 137*		*10/08/21 16:29*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 16:29*	*1*

Client Sample ID: GM-16/100521/ Lab Sample ID: 240-157468-6

Date Collected: 10/05/21 13:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 16:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 16:51	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 16:51	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 16:51	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:51	1
cis-1,2-Dichloroethene	**1.2**		1.0	0.46	ug/L			10/08/21 16:51	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 16:51	1
Tetrachloroethene	**8.3**		1.0	0.44	ug/L			10/08/21 16:51	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 16:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 16:51	1
Trichloroethene	**2.9**		1.0	0.44	ug/L			10/08/21 16:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 16:51*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/08/21 16:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/08/21 16:51*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/08/21 16:51*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

2.7/28

eurofins | Environment Testing America

Client Information	Sampler: H Smith, A. Vaicl	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.4
Client Contact: Carolyn Grogan	Phone: 937-266-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer moraine	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	8260B - VOC 5 ml 10x dilution	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S			
HR-17 | 100421 |	10.4.21	1500	G	Water	N		X		X	4	10x dilution
W-2-S | 100421 |	10.4.21	1625	G	Water	N		X			3	
W-3-S | 100421 |	10.4.21	1500	G	Water	N		X		X	4	10x dilution
W-4-S | 100421 |	10.4.21	1605	G	Water	N		X		X	4	10x dilution
EB-01 | 100421 |	10.4.21	1640	G	Water	N		X				
EB-02 | 100421 |	10.4.21	1640	G	Water	N		X				
TB-01 | 100421 |	10.4.21	—	G	Water	N		X				
				Water							
				Water							
				Water							
				Water							

210

Dayton

240-157476 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Hannah Smith/Hannah Smith	10.5.21 / ~~0900~~ 1400 MS	ARCADIS	ME Riley	10-5-21 1400	ETA
ME Riley	10-5-21 1600	ETA	Tammy Boyer	10-6-21 800	ETA
	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

10/18/2021

Client Sample ID: HR-17/100421/
Lab Sample ID: 240-157476-1

Date Collected: 10/04/21 15:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 18:35	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/12/21 18:35	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 18:35	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 18:35	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 18:35	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/12/21 18:35	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 18:35	2
Tetrachloroethene	**130**		10	4.4	ug/L			10/11/21 15:55	10
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 18:35	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 18:35	2
Trichloroethene	2.0	U	2.0	0.88	ug/L			10/12/21 18:35	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 18:35	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/11/21 15:55*	*10*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/12/21 18:35*	*2*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/11/21 15:55*	*10*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/12/21 18:35*	*2*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/11/21 15:55*	*10*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/12/21 18:35*	*2*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/11/21 15:55*	*10*
Toluene-d8 (Surr)	*88*		*78 - 122*		*10/12/21 18:35*	*2*

Client Sample ID: W-2-S/100421/
Lab Sample ID: 240-157476-2

Date Collected: 10/04/21 16:25
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:13	1
1,1,1-Trichloroethane	**1.0**		1.0	0.48	ug/L			10/08/21 17:13	1
1,1-Dichloroethane	**0.79**	**J**	1.0	0.47	ug/L			10/08/21 17:13	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:13	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:13	1
cis-1,2-Dichloroethene	**2.0**		1.0	0.46	ug/L			10/08/21 17:13	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:13	1
Tetrachloroethene	**1.0**		1.0	0.44	ug/L			10/08/21 17:13	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:13	1
Trichloroethene	**6.1**		1.0	0.44	ug/L			10/08/21 17:13	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/08/21 17:13*	*1*
Dibromofluoromethane (Surr)	*90*		*73 - 120*		*10/08/21 17:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/08/21 17:13*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/08/21 17:13*	*1*

Client Sample ID: W-3-S/100421/
Lab Sample ID: 240-157476-3
Date Collected: 10/04/21 15:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 19:04	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/12/21 19:04	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 19:04	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 19:04	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 19:04	2
cis-1,2-Dichloroethene	**4.6**		2.0	0.92	ug/L			10/12/21 19:04	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 19:04	2
Tetrachloroethene	**92**		5.0	2.2	ug/L			10/11/21 16:16	5
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 19:04	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 19:04	2
Trichloroethene	**1.6**	**J**	2.0	0.88	ug/L			10/12/21 19:04	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 19:04	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*56 - 136*		*10/11/21 16:16*	*5*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/12/21 19:04*	*2*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/11/21 16:16*	*5*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/12/21 19:04*	*2*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/11/21 16:16*	*5*
1,2-Dichloroethane-d4 (Surr)	*111*		*62 - 137*		*10/12/21 19:04*	*2*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/11/21 16:16*	*5*
Toluene-d8 (Surr)	*88*		*78 - 122*		*10/12/21 19:04*	*2*

Client Sample ID: W-4-S/100421/
Lab Sample ID: 240-157476-4
Date Collected: 10/04/21 16:05
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/11/21 14:05	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/11/21 14:05	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/11/21 14:05	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/11/21 14:05	2
Benzene	2.0	U	2.0	0.84	ug/L			10/11/21 14:05	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/11/21 14:05	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/11/21 14:05	2
Tetrachloroethene	**29**		2.0	0.88	ug/L			10/11/21 14:05	2
Toluene	2.0	U	2.0	0.88	ug/L			10/11/21 14:05	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/11/21 14:05	2
Trichloroethene	**3.5**		2.0	0.88	ug/L			10/11/21 14:05	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/11/21 14:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*56 - 136*		*10/11/21 14:05*	*2*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:05*	*2*
1,2-Dichloroethane-d4 (Surr)	*118*		*62 - 137*		*10/11/21 14:05*	*2*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/11/21 14:05*	*2*

Client Sample ID: EB-01/100421/ Lab Sample ID: 240-157476-5

Date Collected: 10/04/21 16:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 17:35	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 17:35	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:35	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 17:35	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*56 - 136*		*10/08/21 17:35*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 17:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 17:35*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/08/21 17:35*	*1*

Client Sample ID: EB-02/100421/ Lab Sample ID: 240-157476-6

Date Collected: 10/04/21 16:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 17:57	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 17:57	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:57	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 17:57	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 17:57*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*10/08/21 17:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/08/21 17:57*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*10/08/21 17:57*	*1*

Client Sample ID: TB-01/100421/ Lab Sample ID: 240-157476-7

Date Collected: 10/04/21 00:00 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 18:19	1

Client Sample ID: TB-01/100421/
Date Collected: 10/04/21 00:00
Date Received: 10/06/21 08:00

Lab Sample ID: 240-157476-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 18:19	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 18:19	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 18:19	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 18:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 18:19	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 18:19	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 18:19	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/08/21 18:19*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/08/21 18:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 18:19*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 18:19*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

2-7/2-E

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Client Information	Sampler: H. Smith, A. DonClausbourg	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.5
Client Contact: Carolyn Grogan	Phone: 937-269-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~5 of 8~~ 2 of 2
Company: ARCADIS U.S., Inc.	PWSID:	Analysis Requested		Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Columbus	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			Other:
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S		
W-3-N/100421/	10.4.21	1320	G	Water	N	N	X		3	
W-4-N/100421/	10.4.21	1120	G	Water	N	N	X		3	
W-2-N/100421/	10.4.21	1315	G	Water	N	N	X		3	
TRIP-4/100421/	10.4.21	1115	G	Water	N	Y	X		9	MS/MSD
Dup-1/100421/	10.4.21	-	G	Water	N	N	X		3	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

240-157477 Chain of Custody

210 Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Hannah Smith/Hmalkan	10.5.21 ~~0800~~ 1400 MS	ARCADIS	K Riley	10-5-21 1400	ETA
Relinquished by: K Riley	Date/Time: 10-5-21 1600	Company ETA	Received by: Tammy Royer	Date/Time: 10-6-21 800	Company ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

10/18/2021

Client Sample ID: W-3-N/100421/ Lab Sample ID: 240-157477-1

Date Collected: 10/04/21 13:20 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 14:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 14:27	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 14:27	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 14:27	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:27	1
cis-1,2-Dichloroethene	**13**		1.0	0.46	ug/L			10/11/21 14:27	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:27	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 14:27	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
Vinyl chloride	**1.2**		1.0	0.45	ug/L			10/11/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/11/21 14:27*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/11/21 14:27*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/11/21 14:27*	*1*

Client Sample ID: W-4-N/100421/ Lab Sample ID: 240-157477-2

Date Collected: 10/04/21 11:20 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 19:02	1
1,1-Dichloroethane	**9.0**		1.0	0.47	ug/L			10/08/21 19:02	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:02	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:02	1
cis-1,2-Dichloroethene	**8.9**		1.0	0.46	ug/L			10/08/21 19:02	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:02	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:02	1
trans-1,2-Dichloroethene	**0.60**	**J**	1.0	0.51	ug/L			10/08/21 19:02	1
Trichloroethene	**7.0**		1.0	0.44	ug/L			10/08/21 19:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/08/21 19:02*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/08/21 19:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/08/21 19:02*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/08/21 19:02*	*1*

Client Sample ID: W-2-N/100421/ Lab Sample ID: 240-157477-3

Date Collected: 10/04/21 13:15 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:24	1

Client Sample ID: W-2-N/100421/
Lab Sample ID: 240-157477-3
Date Collected: 10/04/21 13:15
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 19:24	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 19:24	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:24	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:24	1
cis-1,2-Dichloroethene	**2.2**		1.0	0.46	ug/L			10/08/21 19:24	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:24	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:24	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 19:24	1
Trichloroethene	**1.0**		1.0	0.44	ug/L			10/08/21 19:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/08/21 19:24*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 19:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/08/21 19:24*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 19:24*	*1*

Client Sample ID: HR-4/100421/
Lab Sample ID: 240-157477-4
Date Collected: 10/04/21 11:15
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:46	1
1,1,1-Trichloroethane	**1.9**		1.0	0.48	ug/L			10/08/21 19:46	1
1,1-Dichloroethane	**1.9**		1.0	0.47	ug/L			10/08/21 19:46	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:46	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:46	1
cis-1,2-Dichloroethene	**0.71**	**J**	1.0	0.46	ug/L			10/08/21 19:46	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:46	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 19:46	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/08/21 19:46*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/08/21 19:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 19:46*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/08/21 19:46*	*1*

Client Sample ID: DUP-1/100421/
Lab Sample ID: 240-157477-5
Date Collected: 10/04/21 00:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 14:49	1
1,1,1-Trichloroethane	**1.7**		1.0	0.48	ug/L			10/11/21 14:49	1

Client Sample ID: DUP-1/100421/
Date Collected: 10/04/21 00:00
Date Received: 10/06/21 08:00

Lab Sample ID: 240-157477-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**1.9**		1.0	0.47	ug/L			10/11/21 14:49	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 14:49	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:49	1
cis-1,2-Dichloroethene	**0.77**	**J**	1.0	0.46	ug/L			10/11/21 14:49	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:49	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 14:49	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/11/21 14:49*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/11/21 14:49*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/11/21 14:49*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

3/2/33

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Client Information	Sampler: H. Smith, A. VanClansburg	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.7
Client Contact: Carolyn Grogan	Phone: 937-269-6271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~2 of 8~~ 1 of 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	8260B - VOCs 10x dilution	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S			
RMW-93/100521/	10.5.21	1520	G	Water	N	N	X			3	
RMW-94/100521/	10.5.21	1610	G	Water	N	N	X			3	
EB-03/100521/	10.5.21	1630	G	Water	N	N	X			3	
HR-16/100621/	10.6.21	0915	G	Water	N	N	X			3	
RMW-92/100621/	10.6.21	1020	G	Water	N	N	X			3	
RMW-91/100621/	10.6.21	1120	G	Water	N	Y	X		X	10	MS/MSD 10x dilution
DUP-02/100621/	10.6.21	—	G	Water	N	N	X			3	
TB-02/100621/	10.6.21	—	G	Water	N	N	X			2	
GM-63/100521/	10.5.21	1350	G	Water	N	N	X			3	
GM-64/100521/	10.5.21	1510	G	Water	N	N	X			3	
WSU-23/100521/	10.5.21	1635	G	Water	N	N	X		X	4	10x dilution

240-157592 Chain of Custody

210 Dayton

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Hannah Smith/Alex VanClansburg	10.6.21 / 1245	ARCADIS	ME Lilley	10-6-21 1245	ETA
2	ME Lilley	10-6-21 1600	ETA		10-7-21 900	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

3.2/3.3

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Client Information	Sampler: A. VanClausberg, H. Sinn	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.8
Client Contact: Carolyn Grogan	Phone: 937-269-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~8 of 8~~ 2 of 2
Company: ARCADIS U.S., Inc.	PWSID:	Analysis Requested		Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Columbus	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			Other:
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S		
EB-04/1005211	10.05.21	1655	G	Water	N	N	X		3	
				Water						
				Water						
				Water						

210
Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Shannon Shipley/Fedex	10.6.21/1245	ARCADIS	ME Lilley	10-6-21 1245	ETA
2	ME Lilley	10-6-21 1600	ETA	[illegible]	10-7-21 800	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Client Sample ID: RMW-93/100521/ — Lab Sample ID: 240-157592-1

Date Collected: 10/05/21 15:20 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 16:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 16:56	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 16:56	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 16:56	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 16:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/11/21 16:56	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 16:56	1
Tetrachloroethene	**5.5**		1.0	0.44	ug/L			10/11/21 16:56	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 16:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 16:56	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 16:56	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/11/21 16:56*	*1*
Dibromofluoromethane (Surr)	*112*		*73 - 120*		*10/11/21 16:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/11/21 16:56*	*1*
Toluene-d8 (Surr)	*111*		*78 - 122*		*10/11/21 16:56*	*1*

Client Sample ID: RMW-94/100521/ — Lab Sample ID: 240-157592-2

Date Collected: 10/05/21 16:10 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 17:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 17:19	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 17:19	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 17:19	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 17:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/11/21 17:19	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 17:19	1
Tetrachloroethene	**5.3**		1.0	0.44	ug/L			10/11/21 17:19	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 17:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 17:19	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 17:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*56 - 136*		*10/11/21 17:19*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 120*		*10/11/21 17:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*62 - 137*		*10/11/21 17:19*	*1*
Toluene-d8 (Surr)	*100*		*78 - 122*		*10/11/21 17:19*	*1*

Client Sample ID: EB-03/100521/ — Lab Sample ID: 240-157592-3

Date Collected: 10/05/21 16:30 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 17:41	1

Client Sample ID: EB-03/100521/ Lab Sample ID: 240-157592-3

Date Collected: 10/05/21 16:30 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 17:41	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 17:41	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 17:41	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 17:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/11/21 17:41	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 17:41	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 17:41	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 17:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 17:41	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 17:41	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/11/21 17:41*	*1*
Dibromofluoromethane (Surr)	*104*		*73 - 120*		*10/11/21 17:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/11/21 17:41*	*1*
Toluene-d8 (Surr)	*98*		*78 - 122*		*10/11/21 17:41*	*1*

Client Sample ID: HR-16/100621/ Lab Sample ID: 240-157592-4

Date Collected: 10/06/21 09:15 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/13/21 12:01	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/13/21 12:01	2
1,1-Dichloroethane	**1.5**	**J**	2.0	0.94	ug/L			10/13/21 12:01	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/13/21 12:01	2
Benzene	2.0	U	2.0	0.84	ug/L			10/13/21 12:01	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/13/21 12:01	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/13/21 12:01	2
Tetrachloroethene	**1.2**	**J**	2.0	0.88	ug/L			10/13/21 12:01	2
Toluene	2.0	U	2.0	0.88	ug/L			10/13/21 12:01	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/13/21 12:01	2
Trichloroethene	**1.8**	**J**	2.0	0.88	ug/L			10/13/21 12:01	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/13/21 12:01	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*10/13/21 12:01*	*2*
Dibromofluoromethane (Surr)	*104*		*73 - 120*		*10/13/21 12:01*	*2*
1,2-Dichloroethane-d4 (Surr)	*95*		*62 - 137*		*10/13/21 12:01*	*2*
Toluene-d8 (Surr)	*112*		*78 - 122*		*10/13/21 12:01*	*2*

Client Sample ID: RMW-92/100621/ Lab Sample ID: 240-157592-5

Date Collected: 10/06/21 10:20 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 13:09	2
1,1,1-Trichloroethane	**1.8**	**J**	2.0	0.96	ug/L			10/12/21 13:09	2

Client Sample ID: RMW-92/100621/ Lab Sample ID: 240-157592-5

Date Collected: 10/06/21 10:20 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 13:09	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 13:09	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 13:09	2
cis-1,2-Dichloroethene	**0.98**	**J**	2.0	0.92	ug/L			10/12/21 13:09	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 13:09	2
Tetrachloroethene	**55**		2.0	0.88	ug/L			10/12/21 13:09	2
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 13:09	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 13:09	2
Trichloroethene	2.0	U	2.0	0.88	ug/L			10/12/21 13:09	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 13:09	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 13:09*	*2*
Dibromofluoromethane (Surr)	*120*		*73 - 120*		*10/12/21 13:09*	*2*
1,2-Dichloroethane-d4 (Surr)	*109*		*62 - 137*		*10/12/21 13:09*	*2*
Toluene-d8 (Surr)	*113*		*78 - 122*		*10/12/21 13:09*	*2*

Client Sample ID: RMW-91/100621/ Lab Sample ID: 240-157592-6

Date Collected: 10/06/21 11:20 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 17:39	2
1,1,1-Trichloroethane	**2.9**		2.0	0.96	ug/L			10/12/21 17:39	2
1,1-Dichloroethane	**1.6**	**J**	2.0	0.94	ug/L			10/12/21 17:39	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 17:39	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 17:39	2
cis-1,2-Dichloroethene	**9.3**		2.0	0.92	ug/L			10/12/21 17:39	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 17:39	2
Tetrachloroethene	**93**	~~F1~~ J	5.0	2.2	ug/L			10/12/21 13:32	5
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 17:39	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 17:39	2
Trichloroethene	**54**		2.0	0.88	ug/L			10/12/21 17:39	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 17:39	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/12/21 13:32*	*5*
4-Bromofluorobenzene (Surr)	*73*		*56 - 136*		*10/12/21 17:39*	*2*
Dibromofluoromethane (Surr)	*113*		*73 - 120*		*10/12/21 13:32*	*5*
Dibromofluoromethane (Surr)	*105*		*73 - 120*		*10/12/21 17:39*	*2*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/12/21 13:32*	*5*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/12/21 17:39*	*2*
Toluene-d8 (Surr)	*112*		*78 - 122*		*10/12/21 13:32*	*5*
Toluene-d8 (Surr)	*105*		*78 - 122*		*10/12/21 17:39*	*2*

Client Sample ID: DUP-02/100621/ Lab Sample ID: 240-157592-7

Date Collected: 10/06/21 00:00 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/13/21 12:23	2
1,1,1-Trichloroethane	**2.7**		2.0	0.96	ug/L			10/13/21 12:23	2
1,1-Dichloroethane	**1.5**	**J**	2.0	0.94	ug/L			10/13/21 12:23	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/13/21 12:23	2
Benzene	2.0	U	2.0	0.84	ug/L			10/13/21 12:23	2
cis-1,2-Dichloroethene	**9.3**		2.0	0.92	ug/L			10/13/21 12:23	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/13/21 12:23	2
Tetrachloroethene	**77**		4.0	1.8	ug/L			10/14/21 10:48	4
Toluene	2.0	U	2.0	0.88	ug/L			10/13/21 12:23	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/13/21 12:23	2
Trichloroethene	**53**		2.0	0.88	ug/L			10/13/21 12:23	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/13/21 12:23	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/13/21 12:23*	*2*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/14/21 10:48*	*4*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*10/13/21 12:23*	*2*
Dibromofluoromethane (Surr)	*90*		*73 - 120*		*10/14/21 10:48*	*4*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/13/21 12:23*	*2*
1,2-Dichloroethane-d4 (Surr)	*115*		*62 - 137*		*10/14/21 10:48*	*4*
Toluene-d8 (Surr)	*112*		*78 - 122*		*10/13/21 12:23*	*2*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/14/21 10:48*	*4*

Client Sample ID: TB-02/100621/ Lab Sample ID: 240-157592-8

Date Collected: 10/06/21 00:00 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 13:54	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 13:54	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 13:54	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 13:54	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 13:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 13:54	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 13:54	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 13:54	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 13:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 13:54	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 13:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*		*56 - 136*		*10/12/21 13:54*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/12/21 13:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*85*		*62 - 137*		*10/12/21 13:54*	*1*
Toluene-d8 (Surr)	*97*		*78 - 122*		*10/12/21 13:54*	*1*

Client Sample ID: GM-63/100521/ — Lab Sample ID: 240-157592-9

Date Collected: 10/05/21 13:50 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 14:17	1
1,1,1-Trichloroethane	**0.59**	**J**	1.0	0.48	ug/L			10/12/21 14:17	1
1,1-Dichloroethane	**0.70**	**J**	1.0	0.47	ug/L			10/12/21 14:17	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 14:17	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:17	1
cis-1,2-Dichloroethene	**0.59**	**J**	1.0	0.46	ug/L			10/12/21 14:17	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:17	1
Tetrachloroethene	**11**		1.0	0.44	ug/L			10/12/21 14:17	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 14:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 14:17	1
Trichloroethene	**0.47**	**J**	1.0	0.44	ug/L			10/12/21 14:17	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/12/21 14:17*	*1*
Dibromofluoromethane (Surr)	*104*		*73 - 120*		*10/12/21 14:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*62 - 137*		*10/12/21 14:17*	*1*
Toluene-d8 (Surr)	*105*		*78 - 122*		*10/12/21 14:17*	*1*

Client Sample ID: GM-64/100521/ — Lab Sample ID: 240-157592-10

Date Collected: 10/05/21 15:10 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 14:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 14:40	1
1,1-Dichloroethane	**0.75**	**J**	1.0	0.47	ug/L			10/12/21 14:40	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 14:40	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:40	1
cis-1,2-Dichloroethene	**3.1**		1.0	0.46	ug/L			10/12/21 14:40	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:40	1
Tetrachloroethene	**7.9**		1.0	0.44	ug/L			10/12/21 14:40	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 14:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 14:40	1
Trichloroethene	**1.2**		1.0	0.44	ug/L			10/12/21 14:40	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*56 - 136*		*10/12/21 14:40*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 120*		*10/12/21 14:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*62 - 137*		*10/12/21 14:40*	*1*
Toluene-d8 (Surr)	*98*		*78 - 122*		*10/12/21 14:40*	*1*

Client Sample ID: WSU-23/100521/ — Lab Sample ID: 240-157592-11

Date Collected: 10/05/21 16:35 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 15:02	2

Client Sample ID: WSU-23/100521/ Lab Sample ID: 240-157592-11

Date Collected: 10/05/21 16:35 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.1**	**J**	2.0	0.96	ug/L			10/12/21 15:02	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 15:02	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 15:02	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 15:02	2
cis-1,2-Dichloroethene	**1.1**	**J**	2.0	0.92	ug/L			10/12/21 15:02	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 15:02	2
Tetrachloroethene	**46**		2.0	0.88	ug/L			10/12/21 15:02	2
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 15:02	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 15:02	2
Trichloroethene	**4.8**		2.0	0.88	ug/L			10/12/21 15:02	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 15:02	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/12/21 15:02*	*2*
Dibromofluoromethane (Surr)	*109*		*73 - 120*		*10/12/21 15:02*	*2*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/12/21 15:02*	*2*
Toluene-d8 (Surr)	*108*		*78 - 122*		*10/12/21 15:02*	*2*

Client Sample ID: EB-04/1005211/ Lab Sample ID: 240-157592-12

Date Collected: 10/05/21 16:55 **Matrix: Water**
Date Received: 10/07/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 15:25	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 15:25	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 15:25	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 15:25	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 15:25	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:25	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 15:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 15:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*56 - 136*		*10/12/21 15:25*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*10/12/21 15:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*62 - 137*		*10/12/21 15:25*	*1*
Toluene-d8 (Surr)	*114*		*78 - 122*		*10/12/21 15:25*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information	Sampler: H. Smith, R. VanLaanen	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.3
Client Contact: Carolyn Grogan	Phone: 937-266-9211	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~2 of 3~~ 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	S		
GM-81/100721/	10.7.21	9100	G	Water	N	N	X		3	
GM-80/100721/	10.7.21	1148	G	Water	N	N	X		3	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

240-157684 Chain of Custody

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Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data package

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Hannah Smith/	10.07.21/1205	ARCADIS	ME Riley	10-7-21 1205	ETA
2	ME Riley	10-7-21 1600	ETA	[illegible]	10-8-21 0800	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Client Sample ID: GM-81/100721/ Lab Sample ID: 240-157684-1

Date Collected: 10/07/21 11:00 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 12:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 12:46	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 12:46	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 12:46	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 12:46	1
Tetrachloroethene	**2.8**		1.0	0.44	ug/L			10/13/21 12:46	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 12:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 12:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 12:46	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 12:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 12:46	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/13/21 12:46*	*1*
Dibromofluoromethane (Surr)	*113*		*73 - 120*		*10/13/21 12:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/13/21 12:46*	*1*
Toluene-d8 (Surr)	*120*		*78 - 122*		*10/13/21 12:46*	*1*

Client Sample ID: GM-80/100721/ Lab Sample ID: 240-157684-2

Date Collected: 10/07/21 11:48 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/14/21 11:10	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.46	ug/L			10/14/21 11:10	1
1,1-Dichloroethane	**1.3**		1.0	0.47	ug/L			10/14/21 11:10	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/14/21 11:10	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/14/21 11:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/14/21 11:10	1
Toluene	1.0	U	1.0	0.44	ug/L			10/14/21 11:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/14/21 11:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/14/21 11:10	1
Trichloroethene	**3.0**		1.0	0.44	ug/L			10/14/21 11:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/14/21 11:10	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/14/21 11:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/14/21 11:10*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/14/21 11:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/14/21 11:10*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*10/14/21 11:10*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information	Sampler: H Smith, M Vorcheimer	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.1
Client Contact: Carolyn Grogan	Phone: 937-269-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~1 of 3~~ 1 of 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

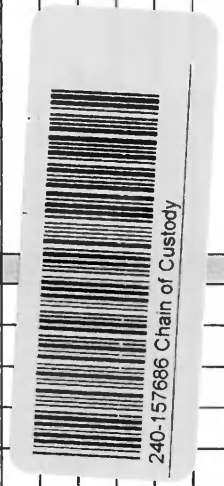
Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
Preservation Code:							A	S		
RMW-95/100621/	10.6.21	1410	G	Water	N	N	X		3	
RMW-96/100621/	10.6.21	1530	G	Water	N	N	X		3	
GM-79/100621/	10.6.21	1615	G	Water	N	N	X		3	
EB-05/100621/	10.6.21	1650	G	Water	N	N	X		3	
GM-48/100621/	10.6.21	1145	G	Water	N	N	X		3	
GM-51/100621/	10.6.21	1075	G	Water	N	N	X		3	
RMW-98/100621/	10.6.21	1420	G	Water	N	N	X		3	
RMW-99/100621/	10.6.21	1545	G	Water	N	N	X		3	
EB-06/100621/	10.6.21	1630	G	Water	N	N	X		3	
TB-03/100721/	10.7.21	-	G	Water	N	N	X		2	
RMW-97/100721/	10.7.21	0935	G	Water	N	N	X		3	



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Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Hannah Smith	10.7.21/1205	Arcadis	ME Riley	10-7-21 1205	ETA
2	ME Riley	10.7.21 1600	ETA	JH	10-8-21 0800	ETA
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Client Sample ID: RMW-95/100621/ — Lab Sample ID: 240-157686-1

Date Collected: 10/06/21 14:10 — **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 15:51	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 15:51	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 15:51	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:51	1
Tetrachloroethene	**8.9**		1.0	0.44	ug/L			10/12/21 15:51	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 15:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 15:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 15:51	1
Trichloroethene	**0.69**	**J**	1.0	0.44	ug/L			10/12/21 15:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 15:51	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 15:51*	*1*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/12/21 15:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/12/21 15:51*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/12/21 15:51*	*1*

Client Sample ID: RMW-96/100621/ — Lab Sample ID: 240-157686-2

Date Collected: 10/06/21 15:30 — **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 16:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 16:17	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 16:17	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 16:17	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 16:17	1
Tetrachloroethene	**1.5**		1.0	0.44	ug/L			10/12/21 16:17	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 16:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 16:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 16:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 16:17	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 16:17	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/12/21 16:17*	*1*
Dibromofluoromethane (Surr)	*96*		*73 - 120*		*10/12/21 16:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/12/21 16:17*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/12/21 16:17*	*1*

Client Sample ID: GM-79/100621/ — Lab Sample ID: 240-157686-3

Date Collected: 10/06/21 16:15 — **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 13:31	1

Client Sample ID: GM-79/100621/ Lab Sample ID: 240-157686-3

Date Collected: 10/06/21 16:15 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**4.3**		1.0	0.46	ug/L			10/13/21 13:31	1
1,1-Dichloroethane	**1.3**		1.0	0.47	ug/L			10/13/21 13:31	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 13:31	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 13:31	1
Tetrachloroethene	**29**		1.0	0.44	ug/L			10/13/21 13:31	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 13:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 13:31	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 13:31	1
Trichloroethene	**7.5**		1.0	0.44	ug/L			10/13/21 13:31	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 13:31	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*56 - 136*		*10/13/21 13:31*	*1*
Dibromofluoromethane (Surr)	*111*		*73 - 120*		*10/13/21 13:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/13/21 13:31*	*1*
Toluene-d8 (Surr)	*117*		*78 - 122*		*10/13/21 13:31*	*1*

Client Sample ID: EB-05/100621/ Lab Sample ID: 240-157686-4

Date Collected: 10/06/21 16:50 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 16:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 16:42	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 16:42	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 16:42	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 16:42	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 16:42	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 16:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 16:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 16:42	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 16:42	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 16:42	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/12/21 16:42*	*1*
Dibromofluoromethane (Surr)	*100*		*73 - 120*		*10/12/21 16:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/12/21 16:42*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/12/21 16:42*	*1*

Client Sample ID: GM-48/100621/ Lab Sample ID: 240-157686-5

Date Collected: 10/06/21 11:45 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 17:07	1
cis-1,2-Dichloroethene	**1.5**		1.0	0.46	ug/L			10/12/21 17:07	1

Client Sample ID: GM-48/100621/ Lab Sample ID: 240-157686-5

Date Collected: 10/06/21 11:45 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.74**	**J**	1.0	0.47	ug/L			10/12/21 17:07	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 17:07	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 17:07	1
Tetrachloroethene	**27**		1.0	0.44	ug/L			10/12/21 17:07	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 17:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 17:07	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 17:07	1
Trichloroethene	**1.4**		1.0	0.44	ug/L			10/12/21 17:07	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 17:07	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/12/21 17:07*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/12/21 17:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*10/12/21 17:07*	*1*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/12/21 17:07*	*1*

Client Sample ID: GM-51/100621/ Lab Sample ID: 240-157686-6

Date Collected: 10/06/21 10:35 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 17:32	1
cis-1,2-Dichloroethene	**3.9**		1.0	0.46	ug/L			10/12/21 17:32	1
1,1-Dichloroethane	**1.2**		1.0	0.47	ug/L			10/12/21 17:32	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 17:32	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 17:32	1
Tetrachloroethene	**25**		1.0	0.44	ug/L			10/12/21 17:32	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 17:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 17:32	1
1,1,1-Trichloroethane	**0.81**	**J**	1.0	0.48	ug/L			10/12/21 17:32	1
Trichloroethene	**12**		1.0	0.44	ug/L			10/12/21 17:32	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 17:32	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*56 - 136*		*10/12/21 17:32*	*1*
Dibromofluoromethane (Surr)	*100*		*73 - 120*		*10/12/21 17:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*62 - 137*		*10/12/21 17:32*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/12/21 17:32*	*1*

Client Sample ID: RMW-98/100621/ Lab Sample ID: 240-157686-7

Date Collected: 10/06/21 14:20 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 20:29	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/12/21 20:29	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 20:29	2

Client Sample ID: RMW-98/100621/ Lab Sample ID: 240-157686-7

Date Collected: 10/06/21 14:20 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 20:29	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 20:29	2
Tetrachloroethene	**50**		2.0	0.88	ug/L			10/12/21 20:29	2
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 20:29	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 20:29	2
1,1,1-Trichloroethane	**1.1**	**J**	2.0	0.96	ug/L			10/12/21 20:29	2
Trichloroethene	2.0	U	2.0	0.88	ug/L			10/12/21 20:29	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 20:29	2
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 20:29	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 20:29*	*2*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*10/12/21 20:29*	*2*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*10/12/21 20:29*	*2*
Toluene-d8 (Surr)	*89*		*78 - 122*		*10/12/21 20:29*	*2*

Client Sample ID: RMW-99/100621/ Lab Sample ID: 240-157686-8

Date Collected: 10/06/21 15:45 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 16:33	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 16:33	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 16:33	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:33	1
Tetrachloroethene	**45**		1.0	0.44	ug/L			10/13/21 16:33	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 16:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 16:33	1
1,1,1-Trichloroethane	**0.87**	**J**	1.0	0.48	ug/L			10/13/21 16:33	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 16:33	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 16:33	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*56 - 136*		*10/13/21 16:33*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/13/21 16:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/13/21 16:33*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/13/21 16:33*	*1*

Client Sample ID: EB-06/100621/ Lab Sample ID: 240-157686-9

Date Collected: 10/06/21 16:30 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 14:35	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 14:35	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 14:35	1

Client Sample ID: EB-06/100621/ — Lab Sample ID: 240-157686-9

Date Collected: 10/06/21 16:30 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 14:35	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 14:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 14:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 14:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 14:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 14:35	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/12/21 14:35*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/12/21 14:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/12/21 14:35*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/12/21 14:35*	*1*

Client Sample ID: TB-03/100721/ — Lab Sample ID: 240-157686-10

Date Collected: 10/07/21 00:00 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 13:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 13:45	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 13:45	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 13:45	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 13:45	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 13:45	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 13:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 13:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 13:45	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 13:45	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 13:45	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/12/21 13:45*	*1*
Dibromofluoromethane (Surr)	*96*		*73 - 120*		*10/12/21 13:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/12/21 13:45*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/12/21 13:45*	*1*

Client Sample ID: RMW-97/100721/ — Lab Sample ID: 240-157686-11

Date Collected: 10/07/21 09:35 **Matrix: Water**
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 13:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 13:53	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 13:53	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 13:53	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 13:53	1

Client Sample ID: RMW-97/100721/
Lab Sample ID: 240-157686-11
Date Collected: 10/07/21 09:35
Matrix: Water
Date Received: 10/08/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**2.9**		1.0	0.44	ug/L			10/13/21 13:53	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 13:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 13:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 13:53	1
Trichloroethene	**0.57**	**J**	1.0	0.44	ug/L			10/13/21 13:53	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 13:53	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*56 - 136*		*10/13/21 13:53*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*10/13/21 13:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*62 - 137*		*10/13/21 13:53*	*1*
Toluene-d8 (Surr)	*109*		*78 - 122*		*10/13/21 13:53*	*1*

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32137

Chain of Custody Record

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Client Information	Sampler: H. Shuck, A. VanClausburg	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.4
Client Contact: Carolyn Grogan	Phone: 937-269-4271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~1 of 8~~ 1 of 2
Company: ARCADIS U.S., Inc.	PWSID:	Analysis Requested		Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Columbus	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	8260B-VOC's 10X dilution	Total # of containers	Special Instructions/Note:
			Preservation Code:				A	S			
GM-21/100721/	10.07.21	1400	G	Water	N	N	X	X		5	
GM-17/100721/	10.07.21	1635	G	Water	N	N	X			3	
EB-07/100721/	10.07.21	1725	G	Water	N	N	X			3	
WEST/100821/	10.08.21	0855	G	Water	N	N	X			3	
GM-37/100821/	10.08.21	1055	G	Water	N	N	X			3	
GM-38/100821/	10.08.21	1140	G	Water	N	N	X			3	
EB-09/100821/	10.08.21	1200	G	Water	N	N	X			3	
TB-04/100821/	10.08.21	—	G	Water	N	N	X			2	
GM-35/100921/	10.09.21	0940	G	Water	N	N	X		X	4	10X dilution
GM-36/100821/	10.09.21	1040	G	Water	N	N	X			3	
EAST/100821/	10.08.21	1155	G	Water	N	N	X			3	

240-157764 Chain of Custody

210 Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	10/8/21 1315	Arcadis	[signature]	10-8-21 1315	ETA
2	[signature]	10-8-21 1600	ETA	[signature]	10-9-21 800	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

3-2/33

eurofins | Environment Testing America

Client Information	Sampler: H. Smith, A. VanClaw	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.7
Client Contact: Carolyn Grogan	Phone: 937-216-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~2 of 8~~ 2 of 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer moraine	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S		
GM-8/100721/	10.7.21	0945	G	Water	N	Y	X	X	11	MS/MSD
GM-6/100721/	10.7.21	1015	G	Water	N	N	X	X	5	
GM-2/100721/	10.7.21	1345	G	Water	N	N	X	X	5	
GM-32/100721/	10.7.21	1555	G	Water	N	N	X	X	5	
GM-145/100721/	10.7.21	1730	G	Water	N	N	X	X	5	
Dup-03/100721/	10.7.21	—	G	Water	N	N	X	X	5	
EB-08/100721/	10.7.21	1800	G	Water	N	N	X	X	5	
EB-10/100821/	10.8.21	1300	G	Water	N	N	X		3	
				Water						
				Water						
				Water						

210 Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	10/8/21 1315	Arcadis	[signature]	10-8-21 1315	ETA
[signature]	10-8-21 1600	ETA	[signature]	10-9-21 800	ETA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

10/25/2021

Client Sample ID: GM-21/100721/
Lab Sample ID: 240-157764-1
Date Collected: 10/07/21 14:00
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 15:42	1
1,1-Dichloroethane	**8.4**		1.0	0.47	ug/L			10/13/21 15:42	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 15:42	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:42	1
cis-1,2-Dichloroethene	**9.8**		1.0	0.46	ug/L			10/13/21 15:42	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:42	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 15:42	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 15:42	1
trans-1,2-Dichloroethene	**1.5**		1.0	0.51	ug/L			10/13/21 15:42	1
Trichloroethene	**0.98**	**J**	1.0	0.44	ug/L			10/13/21 15:42	1
Vinyl chloride	**7.0**		1.0	0.45	ug/L			10/13/21 15:42	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/13/21 15:42*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/13/21 15:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/13/21 15:42*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/13/21 15:42*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**36**		1.0	0.35	mg/L			10/12/21 09:44	1

Client Sample ID: GM-17/100721/
Lab Sample ID: 240-157764-2
Date Collected: 10/07/21 16:35
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 16:08	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 16:08	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 16:08	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:08	1
cis-1,2-Dichloroethene	**0.58**	**J**	1.0	0.46	ug/L			10/13/21 16:08	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:08	1
Tetrachloroethene	**26**		1.0	0.44	ug/L			10/13/21 16:08	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 16:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 16:08	1
Trichloroethene	**1.5**		1.0	0.44	ug/L			10/13/21 16:08	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 16:08	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/13/21 16:08*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/13/21 16:08*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/13/21 16:08*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/13/21 16:08*	*1*

Client Sample ID: EB-07/100721/ — Lab Sample ID: 240-157764-3

Date Collected: 10/07/21 17:25 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 15:01	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 15:01	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 15:01	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 15:01	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:01	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:01	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 15:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 15:01	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:01	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 15:01	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*56 - 136*		*10/12/21 15:01*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*10/12/21 15:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/12/21 15:01*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/12/21 15:01*	*1*

Client Sample ID: WEST/100821/ — Lab Sample ID: 240-157764-4

Date Collected: 10/08/21 09:35 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 15:01	1
1,1-Dichloroethane	**1.3**		1.0	0.47	ug/L			10/13/21 15:01	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 15:01	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:01	1
cis-1,2-Dichloroethene	**3.0**		1.0	0.46	ug/L			10/13/21 15:01	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:01	1
Tetrachloroethene	**10**		1.0	0.44	ug/L			10/13/21 15:01	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 15:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 15:01	1
Trichloroethene	**2.4**		1.0	0.44	ug/L			10/13/21 15:01	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 15:01	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/13/21 15:01*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*10/13/21 15:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/13/21 15:01*	*1*
Toluene-d8 (Surr)	*113*		*78 - 122*		*10/13/21 15:01*	*1*

Client Sample ID: GM-37/100821/ — Lab Sample ID: 240-157764-5

Date Collected: 10/08/21 10:55 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 15:23	1

Client Sample ID: GM-37/100821/ Lab Sample ID: 240-157764-5

Date Collected: 10/08/21 10:55 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 15:23	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 15:23	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 15:23	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:23	1
Tetrachloroethene	**13**		1.0	0.44	ug/L			10/13/21 15:23	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 15:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 15:23	1
Trichloroethene	**1.3**		1.0	0.44	ug/L			10/13/21 15:23	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 15:23	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/13/21 15:23*	*1*
Dibromofluoromethane (Surr)	*105*		*73 - 120*		*10/13/21 15:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/13/21 15:23*	*1*
Toluene-d8 (Surr)	*112*		*78 - 122*		*10/13/21 15:23*	*1*

Client Sample ID: GM-38/100821/ Lab Sample ID: 240-157764-6

Date Collected: 10/08/21 11:40 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.0**		1.0	0.48	ug/L			10/13/21 15:46	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 15:46	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 15:46	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:46	1
cis-1,2-Dichloroethene	**2.1**		1.0	0.46	ug/L			10/13/21 15:46	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:46	1
Tetrachloroethene	**23**		1.0	0.44	ug/L			10/13/21 15:46	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 15:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 15:46	1
Trichloroethene	**3.9**		1.0	0.44	ug/L			10/13/21 15:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 15:46	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*56 - 136*		*10/13/21 15:46*	*1*
Dibromofluoromethane (Surr)	*113*		*73 - 120*		*10/13/21 15:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/13/21 15:46*	*1*
Toluene-d8 (Surr)	*117*		*78 - 122*		*10/13/21 15:46*	*1*

Client Sample ID: EB-09/100821/ Lab Sample ID: 240-157764-7

Date Collected: 10/08/21 12:00 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 15:26	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 15:26	1

Client Sample ID: EB-09/100821/ Lab Sample ID: 240-157764-7

Date Collected: 10/08/21 12:00 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 15:26	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 15:26	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 15:26	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:26	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 15:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 15:26	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 15:26	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 15:26	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 15:26*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*10/12/21 15:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/12/21 15:26*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/12/21 15:26*	*1*

Client Sample ID: TB-04/100821/ Lab Sample ID: 240-157764-8

Date Collected: 10/08/21 00:00 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 14:10	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 14:10	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 14:10	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 14:10	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 14:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 14:10	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 14:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 14:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 14:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 14:10	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/12/21 14:10*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/12/21 14:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*62 - 137*		*10/12/21 14:10*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/12/21 14:10*	*1*

Client Sample ID: GM-35/100821/ Lab Sample ID: 240-157764-9

Date Collected: 10/08/21 09:40 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	20	U	20	9.6	ug/L			10/13/21 16:09	20
1,1-Dichloroethane	**15**	**J**	20	9.4	ug/L			10/13/21 16:09	20
1,1-Dichloroethene	20	U	20	9.8	ug/L			10/13/21 16:09	20

Client Sample ID: GM-35/100821/
Lab Sample ID: 240-157764-9
Date Collected: 10/08/21 09:40
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	20	U	20	8.4	ug/L			10/13/21 16:09	20
cis-1,2-Dichloroethene	**78**		20	9.2	ug/L			10/13/21 16:09	20
Ethylbenzene	20	U	20	8.4	ug/L			10/13/21 16:09	20
Tetrachloroethene	**18**	**J**	20	8.8	ug/L			10/13/21 16:09	20
Toluene	20	U	20	8.8	ug/L			10/13/21 16:09	20
trans-1,2-Dichloroethene	20	U	20	10	ug/L			10/13/21 16:09	20
Trichloroethene	**210**		20	8.8	ug/L			10/13/21 16:09	20
Vinyl chloride	20	U	20	9.0	ug/L			10/13/21 16:09	20
Xylenes, Total	40	U	40	8.4	ug/L			10/13/21 16:09	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/13/21 16:09*	*20*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*10/13/21 16:09*	*20*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/13/21 16:09*	*20*
Toluene-d8 (Surr)	*110*		*78 - 122*		*10/13/21 16:09*	*20*

Client Sample ID: GM-36/100821/
Lab Sample ID: 240-157764-10
Date Collected: 10/08/21 10:40
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 16:31	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 16:31	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 16:31	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:31	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 16:31	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:31	1
Tetrachloroethene	**17**		1.0	0.44	ug/L			10/13/21 16:31	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 16:31	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 16:31	1
Trichloroethene	**1.2**		1.0	0.44	ug/L			10/13/21 16:31	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 16:31	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/13/21 16:31*	*1*
Dibromofluoromethane (Surr)	*113*		*73 - 120*		*10/13/21 16:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/13/21 16:31*	*1*
Toluene-d8 (Surr)	*115*		*78 - 122*		*10/13/21 16:31*	*1*

Client Sample ID: EAST/100821/
Lab Sample ID: 240-157764-11
Date Collected: 10/08/21 11:55
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 16:54	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 16:54	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 16:54	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:54	1

Client Sample ID: EAST/100821/ — Lab Sample ID: 240-157764-11

Date Collected: 10/08/21 11:55 — **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 16:54	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 16:54	1
Tetrachloroethene	**22**		1.0	0.44	ug/L			10/13/21 16:54	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 16:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 16:54	1
Trichloroethene	**1.8**		1.0	0.44	ug/L			10/13/21 16:54	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 16:54	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/13/21 16:54*	*1*
Dibromofluoromethane (Surr)	*108*		*73 - 120*		*10/13/21 16:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/13/21 16:54*	*1*
Toluene-d8 (Surr)	*109*		*78 - 122*		*10/13/21 16:54*	*1*

Client Sample ID: GM-8/100721/ — Lab Sample ID: 240-157764-12

Date Collected: 10/07/21 09:45 — **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 17:58	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 17:58	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 17:58	1
Benzene	**1.7**		1.0	0.42	ug/L			10/12/21 17:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 17:58	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 17:58	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 17:58	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 17:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 17:58	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 17:58	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 17:58	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/12/21 17:58*	*1*
Dibromofluoromethane (Surr)	*100*		*73 - 120*		*10/12/21 17:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*10/12/21 17:58*	*1*
Toluene-d8 (Surr)	*89*		*78 - 122*		*10/12/21 17:58*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.4**		1.0	0.35	mg/L			10/12/21 11:51	1

Client Sample ID: GM-6/100721/ — Lab Sample ID: 240-157764-13

Date Collected: 10/07/21 10:15 — **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 18:23	1

Client Sample ID: GM-6/100721/ Lab Sample ID: 240-157764-13

Date Collected: 10/07/21 10:15 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 18:23	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 18:23	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 18:23	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 18:23	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 18:23	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 18:23	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 18:23	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 18:23	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 18:23	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 18:23	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 18:23*	*1*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/12/21 18:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/12/21 18:23*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/12/21 18:23*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.7**		1.0	0.35	mg/L			10/12/21 09:03	1

Client Sample ID: GM-2/100721/ Lab Sample ID: 240-157764-14

Date Collected: 10/07/21 13:45 **Matrix: Water**
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 18:48	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 18:48	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 18:48	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 18:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 18:48	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 18:48	1
Tetrachloroethene	**43**		1.0	0.44	ug/L			10/12/21 18:48	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 18:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 18:48	1
Trichloroethene	**3.1**		1.0	0.44	ug/L			10/12/21 18:48	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 18:48	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/12/21 18:48*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*10/12/21 18:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*62 - 137*		*10/12/21 18:48*	*1*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/12/21 18:48*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.90**	**J**	1.0	0.35	mg/L			10/12/21 10:11	1

Client Sample ID: GM-32/100721/
Lab Sample ID: 240-157764-15
Date Collected: 10/07/21 15:55
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 19:13	1
1,1-Dichloroethane	**0.86**	**J**	1.0	0.47	ug/L			10/12/21 19:13	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 19:13	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 19:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 19:13	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 19:13	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 19:13	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 19:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 19:13	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 19:13	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 19:13	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 19:13*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 120*		*10/12/21 19:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/12/21 19:13*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/12/21 19:13*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**2.9**		1.0	0.35	mg/L			10/12/21 10:37	1

Client Sample ID: GM-19S/100721/
Lab Sample ID: 240-157764-16
Date Collected: 10/07/21 17:30
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 19:38	1
1,1-Dichloroethane	**1.8**		1.0	0.47	ug/L			10/12/21 19:38	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 19:38	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 19:38	1
cis-1,2-Dichloroethene	**38**		1.0	0.46	ug/L			10/12/21 19:38	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 19:38	1
Tetrachloroethene	**2.9**		1.0	0.44	ug/L			10/12/21 19:38	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 19:38	1
trans-1,2-Dichloroethene	**0.51**	**J**	1.0	0.51	ug/L			10/12/21 19:38	1
Trichloroethene	**2.9**		1.0	0.44	ug/L			10/12/21 19:38	1
Vinyl chloride	**1.7**		1.0	0.45	ug/L			10/12/21 19:38	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*56 - 136*		*10/12/21 19:38*	*1*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/12/21 19:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/12/21 19:38*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/12/21 19:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**1.2**		1.0	0.35	mg/L			10/12/21 11:02	1

Client Sample ID: DUP-03/100721/
Lab Sample ID: 240-157764-17
Date Collected: 10/07/21 00:00
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 20:04	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 20:04	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 20:04	1
Benzene	**1.7**		1.0	0.42	ug/L			10/12/21 20:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 20:04	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 20:04	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 20:04	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 20:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 20:04	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 20:04	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 20:04	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*10/12/21 20:04*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*10/12/21 20:04*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*10/12/21 20:04*	*1*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/12/21 20:04*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**6.1**		1.0	0.35	mg/L			10/12/21 11:26	1

Client Sample ID: EB-08/100721/
Lab Sample ID: 240-157764-18
Date Collected: 10/07/21 18:00
Matrix: Water
Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 14:52	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 14:52	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 14:52	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 14:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 14:52	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 14:52	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 14:52	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 14:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 14:52	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 14:52	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 14:52	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/13/21 14:52*	*1*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/13/21 14:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*		*10/13/21 14:52*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/13/21 14:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	1.0	U	1.0	0.35	mg/L			10/12/21 12:33	1

Client Sample ID: EB-10/100721/
Lab Sample ID: 240-157764-19

Date Collected: 10/07/21 13:00
Matrix: Water

Date Received: 10/09/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/13/21 15:17	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/13/21 15:17	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/13/21 15:17	1
Benzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/13/21 15:17	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/13/21 15:17	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 15:17	1
Toluene	1.0	U	1.0	0.44	ug/L			10/13/21 15:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/13/21 15:17	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/13/21 15:17	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/13/21 15:17	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/13/21 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/13/21 15:17*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*10/13/21 15:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*10/13/21 15:17*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/13/21 15:17*	*1*

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton OH 44720
Phone 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

eurofins

Environment Testing America

Client Information	Sampler: Alex von Clausburg	Lab PM: DelMonico Michael	Carrier Tracking No(s):	COC No: 240-88761-33735 1
Client Contact: Carolyn Grogan	Phone: 614-634-0122	E Mail: Michael DelMonico@Eurofinset.com	State of Origin	Page: Page 1 of 1
Company: ARCADIS U S Inc.	PWSID:			Job #:

Address: 100 E Campus View Blvd Suite 200	Due Date Requested	Analysis Requested
City: Columbus	TAT Requested (days)	
State Zip: OH 43235	Compliance Project. Δ Yes Δ No	
Phone:	PO #: 30075938 0004B	
Email: carolyn grogan@arcadis.com	WO #:	
Project Name: Racer Moraine Annual	Project #: 24006917 ETA number	
Site	SSOW#:	

Preservation Codes

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	Total Number of containers	Special Instructions/Note
			Preservation Code:				A		
GM-18/111121/	11/11/21	1030	G	Water	N	N	3	3	
EB-1	11/11/21	1400	G	Water	N	N	3	3	
Trip Blank				Water			2	2	
GM-49/111121/	11/11/21	1645	G	Water	N	N	3	3	
GM-52/111121/	11/11/21	1740	G	Water	N	N	3	3	
				Water					

240-160029 Chain of Custody

Dayton

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Alex von Clausburg	11/11/21 1500	Arcadis	Jennifer Mills	11/12/21 1002	ETA
2	J Mills	11/12/21 1700	ETA		11-13-21 ETA	800
3						

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Client Sample ID: GM-18/111121/
Lab Sample ID: 240-160029-1
Date Collected: 11/11/21 10:30
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/24/21 13:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/24/21 13:51	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			11/24/21 13:51	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/24/21 13:51	1
Benzene	1.0	U	1.0	0.42	ug/L			11/24/21 13:51	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.46	ug/L			11/24/21 13:51	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/24/21 13:51	1
Tetrachloroethene	**11**		1.0	0.44	ug/L			11/24/21 13:51	1
Toluene	1.0	~~U *+~~ U	1.0	0.44	ug/L			11/24/21 13:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/24/21 13:51	1
Trichloroethene	**2.1**		1.0	0.44	ug/L			11/24/21 13:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/24/21 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*11/24/21 13:51*	*1*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*11/24/21 13:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*62 - 137*		*11/24/21 13:51*	*1*
Toluene-d8 (Surr)	*115*		*78 - 122*		*11/24/21 13:51*	*1*

Client Sample ID: EB-1
Lab Sample ID: 240-160029-2
Date Collected: 11/11/21 14:00
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/24/21 14:13	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/24/21 14:13	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			11/24/21 14:13	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/24/21 14:13	1
Benzene	1.0	U	1.0	0.42	ug/L			11/24/21 14:13	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/24/21 14:13	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/24/21 14:13	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/24/21 14:13	1
Toluene	1.0	~~U *+~~ U	1.0	0.44	ug/L			11/24/21 14:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/24/21 14:13	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/24/21 14:13	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/24/21 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*11/24/21 14:13*	*1*
Dibromofluoromethane (Surr)	*89*		*73 - 120*		*11/24/21 14:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*11/24/21 14:13*	*1*
Toluene-d8 (Surr)	*106*		*78 - 122*		*11/24/21 14:13*	*1*

Client Sample ID: TRIP BLANK
Lab Sample ID: 240-160029-3
Date Collected: 11/11/21 00:00
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/24/21 01:34	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 240-160029-3

Date Collected: 11/11/21 00:00
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/24/21 01:34	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			11/24/21 01:34	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/24/21 01:34	1
Benzene	1.0	U	1.0	0.42	ug/L			11/24/21 01:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/24/21 01:34	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/24/21 01:34	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/24/21 01:34	1
Toluene	1.0	U	1.0	0.44	ug/L			11/24/21 01:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/24/21 01:34	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/24/21 01:34	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/24/21 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*		*56 - 136*		*11/24/21 01:34*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*11/24/21 01:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*11/24/21 01:34*	*1*
Toluene-d8 (Surr)	*108*		*78 - 122*		*11/24/21 01:34*	*1*

Client Sample ID: GM-49/111121/
Lab Sample ID: 240-160029-4

Date Collected: 11/11/21 16:45
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/24/21 01:56	1
1,1,1-Trichloroethane	**0.67**	**J**	1.0	0.48	ug/L			11/24/21 01:56	1
1,1-Dichloroethane	**1.2**		1.0	0.47	ug/L			11/24/21 01:56	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/24/21 01:56	1
Benzene	1.0	U	1.0	0.42	ug/L			11/24/21 01:56	1
cis-1,2-Dichloroethene	**3.4**		1.0	0.46	ug/L			11/24/21 01:56	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/24/21 01:56	1
Tetrachloroethene	**28**		1.0	0.44	ug/L			11/24/21 01:56	1
Toluene	1.0	U	1.0	0.44	ug/L			11/24/21 01:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/24/21 01:56	1
Trichloroethene	**8.9**		1.0	0.44	ug/L			11/24/21 01:56	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/24/21 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*11/24/21 01:56*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*11/24/21 01:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*62 - 137*		*11/24/21 01:56*	*1*
Toluene-d8 (Surr)	*111*		*78 - 122*		*11/24/21 01:56*	*1*

Client Sample ID: GM-52/111121/
Lab Sample ID: 240-160029-5

Date Collected: 11/11/21 17:40
Matrix: Water
Date Received: 11/13/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/24/21 02:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/24/21 02:19	1

Client Sample ID: GM-52/111121/
Date Collected: 11/11/21 17:40
Date Received: 11/13/21 08:00

Lab Sample ID: 240-160029-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**0.76**	**J**	1.0	0.47	ug/L			11/24/21 02:19	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/24/21 02:19	1
Benzene	1.0	U	1.0	0.42	ug/L			11/24/21 02:19	1
cis-1,2-Dichloroethene	**1.6**		1.0	0.46	ug/L			11/24/21 02:19	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/24/21 02:19	1
Tetrachloroethene	**26**		1.0	0.44	ug/L			11/24/21 02:19	1
Toluene	1.0	U	1.0	0.44	ug/L			11/24/21 02:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/24/21 02:19	1
Trichloroethene	**1.5**		1.0	0.44	ug/L			11/24/21 02:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/24/21 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*11/24/21 02:19*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*11/24/21 02:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*62 - 137*		*11/24/21 02:19*	*1*
Toluene-d8 (Surr)	*106*		*78 - 122*		*11/24/21 02:19*	*1*

3.6/3.7

Chain of Custody Record

405384

eurofins | Environment Testing TestAmerica

24006917

Address: _____

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

TAL-8210

Client Contact	Project Manager: C GROGAN	Site Contact: S CLARK	Date:	COC No:
Company Name: ARCADIS US INC	Tel/Email: CAROLYN.GROGAN@ARCADIS.COM	Lab Contact: M. DELMONTE	Carrier:	1 of 1 COCs
Address: 100 E CAMPUS VIEW	Analysis Turnaround Time			Sampler: S CLARK
City/State/Zip: COLUMBUS, OH 43235	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below STANDARD			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: RACER MORAINE ANNUAL	☐ 1 week			
Site: RACER MORAINE	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260B-TCL-OLM03.2 1/4.2 VOLATILE ANALYTE LIST				Sample Specific Notes:
DW-13/111621/	111621	1215	G	WT	3			3				
WSW-24/111621/	111621	1030	G	WT	3			3				
TB-01/111621/	111621		G	WT	2			2				

240-160215 Chain of Custody

210 Dayton

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

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

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

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

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

LEVEL IV DATA PACKAGE

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ARCADIS	111621 1445	[signature]	ETA	11-16-21 14:45
Relinquished by: [signature]	Company: ETA	Date/Time: 11/16-21 1420	Received by: [signature]	Company: ETA	Date/Time: 11-17-21 800
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Client Sample ID: DN-13/111621/
Lab Sample ID: 240-160215-1
Date Collected: 11/16/21 12:15
Matrix: Water
Date Received: 11/17/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.56**	**J**	1.0	0.48	ug/L			11/27/21 01:40	1
1,1-Dichloroethane	**1.3**		1.0	0.47	ug/L			11/27/21 01:40	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/27/21 01:40	1
Benzene	1.0	U	1.0	0.42	ug/L			11/27/21 01:40	1
cis-1,2-Dichloroethene	**4.5**		1.0	0.46	ug/L			11/27/21 01:40	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/27/21 01:40	1
Tetrachloroethene	**1.4**		1.0	0.44	ug/L			11/27/21 01:40	1
Toluene	1.0	U	1.0	0.44	ug/L			11/27/21 01:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/27/21 01:40	1
Trichloroethene	**5.0**		1.0	0.44	ug/L			11/27/21 01:40	1
Vinyl chloride	**0.50**	**J**	1.0	0.45	ug/L			11/27/21 01:40	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/27/21 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*11/27/21 01:40*	*1*
Dibromofluoromethane (Surr)	*89*		*73 - 120*		*11/27/21 01:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*11/27/21 01:40*	*1*
Toluene-d8 (Surr)	*108*		*78 - 122*		*11/27/21 01:40*	*1*

Client Sample ID: WSU-24/111621/
Lab Sample ID: 240-160215-2
Date Collected: 11/16/21 10:30
Matrix: Water
Date Received: 11/17/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/28/21 03:07	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			11/28/21 03:07	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/28/21 03:07	1
Benzene	1.0	U	1.0	0.42	ug/L			11/28/21 03:07	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/28/21 03:07	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/28/21 03:07	1
Tetrachloroethene	**2.0**		1.0	0.44	ug/L			11/28/21 03:07	1
Toluene	1.0	U	1.0	0.44	ug/L			11/28/21 03:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/28/21 03:07	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/28/21 03:07	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/28/21 03:07	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/28/21 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*11/28/21 03:07*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*11/28/21 03:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*62 - 137*		*11/28/21 03:07*	*1*
Toluene-d8 (Surr)	*110*		*78 - 122*		*11/28/21 03:07*	*1*

Client Sample ID: TB-01/111621/
Lab Sample ID: 240-160215-3
Date Collected: 11/16/21 00:00
Matrix: Water
Date Received: 11/17/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			11/28/21 03:29	1

Client Sample ID: TB-01/111621/
Date Collected: 11/16/21 00:00
Date Received: 11/17/21 08:00

Lab Sample ID: 240-160215-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			11/28/21 03:29	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			11/28/21 03:29	1
Benzene	1.0	U	1.0	0.42	ug/L			11/28/21 03:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			11/28/21 03:29	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			11/28/21 03:29	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			11/28/21 03:29	1
Toluene	1.0	U	1.0	0.44	ug/L			11/28/21 03:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			11/28/21 03:29	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			11/28/21 03:29	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			11/28/21 03:29	1
Xylenes, Total	2.0	U	2.0	0.42	ug/L			11/28/21 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*11/28/21 03:29*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*11/28/21 03:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*11/28/21 03:29*	*1*
Toluene-d8 (Surr)	*109*		*78 - 122*		*11/28/21 03:29*	*1*

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label

ALL SHAD

Client ID: AGM-D - Arcadis - Columbus, OH
SDG: 221101130
PM: RWe

Company: Arcadis	Billing Information: Arcadis Accounts Payable 630 Plaza Dr #100 Highlands Ranch, CO 80129
Address: 100 E Campus Blvd suite 230	
Report To: Carolyn Corogan	Email To: Carolyn.Grogan@arcadis.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: Racc Moraine 30042873.0048	State: OH County/City: Moraine Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: Email:	Site/Facility ID #: Racc Moraine Compliance Monitoring? [X] Yes [ ] No
Collected By (print): H Smith, A. VanClaster	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: Standard Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type: 6

** Preservative Types: (1) nitric acid, (2) sulfu... (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other TSP Sodium Phosphate

Analyses: Cr(VI) by Ion Chromatography (LUFT)

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Cr(VI)	Lab Sample # / Comments
GM-8 /100721/	GW	G	10/7/21	0945				3	X	1
GM-6 /100721/	GW	G	10/7/21	1215				3	X	2
GM-2 /100721/	GW	G	10/7/21	1345				3	X	3
GM-32 /100721/	GW	G	10/7/21	1555				3	X	4
GM-19S /100721/	GW	G	10/7/21	1730				3	X	5
DUP-03 /100721/	GW	G	10/7/21	-				3	X	6
GM-21 /100721/	GW	G	10/7/21	1400				3	X	7
EB-08 /100721/	GW	G	10/7/21	1800				3	X	8

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: 2846 4987 2077

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2682421

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:
3.7-B4

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Hannah Smith/Arcadis	10.7.21/1830		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
FedEx	10-8-21 1152	Dodi McCune	10-8-21 1152
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-8 / 100721/
Collect Date:	10/07/21 Time: 0945	GCAL Sample ID:	22110113001
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7006
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1139
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	ANALYTE	RESULT	Q	DL	LOQ
74-84-0	Ethane	41		0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	2000		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-6 / 100721/
Collect Date:	10/07/21 Time: 1215	GCAL Sample ID:	22110113002
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7007
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1149
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	***ANALYTE***	***RESULT***	***Q***	***DL***	***LOQ***
74-84-0	Ethane	18		0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	400		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-2 / 100721/
Collect Date:	10/07/21 Time: 1345	GCAL Sample ID:	22110113003
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7008
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1201
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	***ANALYTE***	***RESULT***	***Q***	***DL***	***LOQ***
74-84-0	Ethane	0.24	J	0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	5.0	U	2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-32 / 100721/
Collect Date:	10/07/21 Time: 1555	GCAL Sample ID:	22110113004
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7009
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1212
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	*ANALYTE*	*RESULT*	*Q*	*DL*	*LOQ*
74-84-0	Ethane	1.6		0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	410		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-19S / 100721/
Collect Date:	10/07/21 Time: 1730	GCAL Sample ID:	22110113005
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7010
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1223
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	***ANALYTE***	***RESULT***	***Q***	***DL***	***LOQ***
74-84-0	Ethane	1.0	U	0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	280		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	DUP-03 / 100721/
Collect Date:	10/07/21 Time: 0001	GCAL Sample ID:	22110113006
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7011
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1235
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	ANALYTE	RESULT	Q	DL	LOQ
74-84-0	Ethane	43		0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	2000		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	GM-21 / 100721/
Collect Date:	10/07/21 Time: 1400	GCAL Sample ID:	22110113007
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7012
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1246
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	***ANALYTE***	***RESULT***	***Q***	***DL***	***LOQ***
74-84-0	Ethane	5.8		0.17	1.0
74-85-1	Ethene	1.6		0.24	1.0
74-82-8	Methane	14000		2.0	5.0

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ORGANICS ANALYSIS DATA SHEET

Report No:	221101130	Client Sample ID:	EB-08 /100721/
Collect Date:	10/07/21 Time: 1800	GCAL Sample ID:	22110113008
Matrix:	Water % Moisture: NA	Instrument ID:	GCV7A
Sample Amt:	1 mL	Lab File ID:	2211020/v7013
Injection Vol.:	1 (µL)	GC Column:	GS-Q 30M ID .53 (mm)
Prep Final Vol.:	NA (µL)	Dilution Factor:	1 Analyst: AWE
Prep Date:	NA	Analysis Date:	10/20/21 Time: 1257
Prep Batch:	NA	Analytical Batch:	724239
Prep Method:	NA	Analytical Method:	AM20GAx

CONCENTRATION UNITS: ug/L

CAS	***ANALYTE***	***RESULT***	***Q***	***DL***	***LOQ***
74-84-0	Ethane	1.0	U	0.17	1.0
74-85-1	Ethene	1.0	U	0.24	1.0
74-82-8	Methane	6.8		2.0	5.0

FORM I ORG-1

Attachment E-4

Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021

Attachment E-4
Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
MCL		200		7	5	70	700	5	1000	100	5	2	10,000
North Settling Lagoon Monitoring Wells													
HR-4	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U
	9/20/2000	< 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
	11/6/2001	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 0.50 U	1.0	< 1.0 U	< 1.0 U
	9/27/2002	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.59 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	0.71 J	< 1.0 U	< 1.0 U
	9/16/2004	< 1.0 U	0.77 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.3	< 1.0 U	< 0.50 U	0.50 J	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/25/2006	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 2.0 U
	9/26/2007	< 1.0 U	3.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	9/30/2008	< 1.0 U	4.1	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	5.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2010	< 1.0 U	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	4.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	9/7/2012	0.23 J	5	< 1.0 U	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
	9/27/2013	0.29 J	3.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 2.0 U
	10/7/2014	0.71 J	2.0	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	< 1.0 UB	< 1.0 U	< 2.0 U
	10/30/2015	1.2	1.6	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 2.0 U
	8/19/2016	2	1.6	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	8/16/2017	1.9	2.1	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	7/24/2018	1.6	1.6	< 1.0 U	< 1.0 U	0.45 J	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/9/2019	2.2	1.7	0.19 J	< 1.0 U	0.56 J	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	< 2.0 U
	7/29/2020	1.9	1.3	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 2.0 U
	10/4/2021	1.7	1.9	< 1.0 U	< 1.0 U	0.77 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/4/2021	1.9	1.9	< 1.0 U	< 1.0 U	0.71 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
W-2-N	9/14/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
	11/6/2001	0.48 J	0.33 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.3	< 1.0 U	< 1.0 U
	9/19/2002	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	1.4	< 1.0 U	< 1.0 U
	9/18/2003	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	< 1.0 U	< 1.0 U
	9/16/2004	0.30 J	0.36 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	0.31 J	< 1.0 U	0.20 J	1.4	< 1.0 U	< 1.0 U
	10/20/2005	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 2.0 U
	9/22/2006	0.25 J	0.29 J	< 1.0 UJ	< 1.0 U	1.4 J	< 1.0 UJ	< 1.0 UJ	< 1.0 UJ	0.18 J	1 J	< 1.0 UJ	< 2.0 UJ
	9/25/2007	< 1.0 U	0.22 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	0.28 J	< 1.0 U	0.88 J	< 1.0 U	< 2.0 U
	9/29/2008	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 2.0 U
	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U
	9/24/2010	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/6/2012	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 2.0 U
	10/30/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 2.0 U
	8/15/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 2.0 U
	8/15/2017	0.28 J	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 2.0 U
	7/24/2018	0.38 J	0.31 J	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	0.28 J	1.9	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.22 J	1.1	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.79 J	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 2.0 U

Attachment E-4
Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
MCL		200		7	5	70	700	5	1000	100	5	2	10,000
W-3-N	9/17/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**291**	< 1.0 U	2.5	< 1.0 U	2.6	< 1.0 U	**13**	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**282**	< 1.0 U	< 1.0 U	< 1.0 U	3.9	< 1.0 U	**24**	< 1.0 U
	11/7/2001	< 5.6 U	< 5.6 U	< 5.6 U	< 5.6 U	**160**	< 5.6 U	**9.0**	< 5.6 U	2.2 J	2.1 J	**7.6**	< 5.6 U
	9/23/2002	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	**150**	< 6.7 U	< 6.7 U	< 6.7 U	< 3.3 U	< 6.7 U	**6.5 J**	< 6.7 U
	9/17/2003	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**100**	< 4.0 U	**5.1**	< 4.0 U	1.6 J	1.7 J	**6.6**	< 4.0 U
	9/16/2004	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**120**	< 4.0 U	0.94 J	< 4.0 U	1.6 J	< 4.0 U	**6.1**	< 4.0 U
	10/20/2005	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**84**	< 4.0 U	1.4 J	< 4.0 U	1.0 J	< 4.0 U	**8.0**	< 8.0 U
	9/25/2006	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	**140**	< 5.0 U	< 5.0 U	< 5.0 U	1.9 J	< 5.0 U	**9.6**	< 1.0 U
	9/26/2007	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	**110**	< 4.0 U	< 4.0 U	< 4.0 U	1.4 J	< 4.0 U	**5.6**	< 8.0 U
	9/29/2008	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	**98**	< 3.3 U	< 3.3 U	< 3.3 U	1.4 J	< 3.3 U	**3.8**	< 6.7 U
	11/13/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**72**	< 2.0 U	< 2.0 U	< 2.0 U	0.99 J	< 2.0 U	**3.2**	< 4.0 U
	9/24/2010	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	56	< 2.0 U	< 2.0 U	< 2.0 U	0.79 J	< 2.0 U	**2.4**	< 4.0 U
	9/28/2011	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	53	< 2.5 U	0.94 J	< 2.5 U	0.80 J	< 2.5 U	**2.7**	< 5.0 U
	9/6/2012	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	41	< 2.0 U	0.60 J	< 2.0 U	0.79 J	< 2.0 U	1.4 J	< 4.0 U
	9/26/2013	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	34	< 1.0 U	0.96 J	< 1.0 U	0.64 J	< 1.0 U	1.6	< 2.0 U
	10/7/2014	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	31	< 1.0 U	0.52 J	< 1.0 U	0.47 J	< 1.0 U	1.0	< 2.0 U
	11/4/2015	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	29	< 1.0 U	< 1.0 U	< 1.0 U	0.42 J	< 1.0 U	1.3	< 2.0 U
	8/19/2016	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	22	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	1.9	< 2.0 U
	8/15/2017	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	24	< 1.0 U	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	1.4	< 2.0 U
	7/24/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	16	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	1.1	< 2.0 U
	7/9/2019	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	0.81 J	< 2.0 U
	7/29/2020	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.88 J	< 2.0 U
	10/4/2021	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	13	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 2.0 U
W-4-N	9/17/1999	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.1	< 1.0 U	< 1.0 U	**9.8**	< 1.0 U	< 1.0 U
	9/19/2000	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**7.3**	< 1.0 U	< 1.0 U
	11/7/2001	0.33 J	0.89 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.92 J	< 1.0 U	< 0.50 U	**7.1**	< 1.0 U	< 1.0 U
	9/24/2002	0.44 J	1.7	< 1.0 U	< 1.0 U	5.2	< 1.0 U	0.94 J	< 1.0 U	0.33 J	**8.5**	0.77 J	< 1.0 U
	9/17/2003	0.26 J	0.94 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	1.1	< 1.0 U	< 0.50 U	**8.1**	0.48 J	< 1.0 U
	9/16/2004	0.40 J	1.7	< 1.0 U	< 1.0 U	5.8	< 1.0 U	1.7	< 1.0 U	0.38 J	**12**	0.49 J	< 1.0 U
	10/20/2005	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**7.2**	0.54 J	< 2.0 U
	9/25/2006	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.4	< 1.0 U	0.96 J	< 1.0 U	0.19 J	**7.6**	0.56 J	< 2.0 U
	9/26/2007	0.34 J	1.6	< 1.0 U	< 1.0 U	2.6	< 1.0 U	0.88 J	< 1.0 U	0.24 J	**10**	0.96 J	< 2.0 U
	9/29/2008	0.39 J	1.9	< 1.0 U	< 1.0 U	11	< 1.0 U	0.38 J	< 1.0 U	0.92 J	**8.4**	0.34 J	< 2.0 U
	11/13/2009	0.47 J	1.6	< 1.0 U	< 1.0 U	5.7	< 1.0 U	0.68 J	< 1.0 U	0.39 J	**15**	0.25 J	< 2.0 U
	9/24/2010	0.41 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.67 J	< 1.0 U	0.51 J	**13**	< 1.0 U	< 2.0 U
	9/28/2011	< 1.0 U	2.4	< 1.0 U	< 1.0 U	9.7	< 1.0 U	1.1	< 1.0 U	0.59 J	**9.9**	< 1.0 U	< 2.0 U
	9/7/2012	< 1.0 U	5.6	< 1.0 U	< 1.0 U	14	< 1.0 U	0.52 J	< 1.0 U	1.2	**6.3**	< 1.0 U	< 2.0 U
	9/27/2013	< 1.0 U	7.1	< 1.0 U	< 1.0 U	11	< 1.0 U	0.63 J	< 1.0 U	0.76 J	**7.4**	0.18 J	< 2.0 U
	10/7/2014	< 1.0 U	5.7	< 1.0 U	< 1.0 U	11	< 1.0 U	0.49 J	< 1.0 U	0.69 J	**9.2**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	4.2	< 1.0 U	< 1.0 U	7.0	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	**12**	< 1.0 U	< 2.0 U
	8/19/2016	< 1.0 U	4.6	< 1.0 U	< 1.0 U	9.5	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	**10**	< 1.0 U	< 2.0 U
	8/16/2017	< 1.0 U	6.5	< 1.0 U	< 1.0 U	9.2	< 1.0 U	0.38 J	< 1.0 U	0.64 J	**8.8**	< 1.0 U	< 2.0 U
	7/24/2018	< 1.0 U	6.9	< 1.0 U	< 1.0 U	8.7	< 1.0 U	0.26 J	< 1.0 U	1.3	**6.1**	< 1.0 U	< 2.0 U
	7/9/2019	< 1.0 U	7.6	< 1.0 U	< 1.0 U	6.6	< 1.0 U	0.72 J	< 1.0 U	0.88 J	**9.2**	< 1.0 U	< 2.0 U
	7/29/2020	< 1.0 U	7.3	< 1.0 U	< 1.0 U	8.2	< 1.0 U	0.81 J	< 1.0 U	0.55 J	**6.9**	< 1.0 U	< 2.0 U
	10/4/2021	< 1.0 U	9.0	< 1.0 U	< 1.0 U	8.9	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	**7.0**	< 1.0 U	< 2.0 U

Attachment E-4
Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
MCL		200		7	5	70	700	5	1000	100	5	2	10,000
South Settling Lagoon Monitoring Wells													
HR-17	9/23/1999	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.2	< 1.0 U	**16**	< 1.0 U	< 1.0 U	**7.4**	< 1.0 U	< 1.0 U
	9/28/2000	1.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	4.4	< 1.0 U	< 1.0 U
	11/8/2001	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	3.3	< 1.0 U	< 0.50 U	4.2 B	< 1.0 U	< 1.0 U
	9/18/2002	0.39 J	1.5	< 1.0 U	< 1.0 U	5.1	< 1.0 U	**22**	< 1.0 U	1.4	**12**	< 1.0 U	< 1.0 U
	9/25/2003	< 2.0 U	0.75 J	< 2.0 U	< 2.0 U	2.2	< 2.0 U	**64**	< 2.0 U	0.7 J	**10**	< 2.0 U	< 2.0 U
	9/17/2004	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	7.1	< 5.0 U	**82**	< 5.0 U	1.6 J	**18**	< 5.0 U	< 5.0 U
	10/19/2005	< 1.0 U	0.70 J	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**45**	< 1.0 U	0.57 J	**8.3**	< 1.0 U	< 3.7 U
	9/18/2006	< 1.0 U	0.6 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	**34**	< 1.0 U	0.46 J	**5.6**	< 1.0 U	< 2.0 U
	9/25/2007	< 2.5 U	1.2 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**51**	< 2.5 U	0.69 J	**16**	< 2.5 U	< 5.0 U
	9/26/2008	< 4.0 U	1.1 J	< 4.0 U	< 4.0 U	2.7 J	< 4.0 U	**120**	< 4.0 U	1.0 J	**31**	< 4.0 U	< 8.0 U
	11/12/2009	< 2.5 U	1.7 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	**85**	< 2.5 U	1.3 J	**21**	< 2.5 U	< 5.0 U
	9/23/2010	< 1.0 U	1.9	< 1.0 U	< 1.0 U	2.2	< 1.0 U	**60**	< 1.0 U	1.2 J	**18**	< 1.0 U	< 3.3 U
	9/29/2011	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	**110**	< 5.7 U	< 5.7 U	**57**	< 5.7 U	< 1.0 U
	9/6/2012	< 9.1 U	< 9.1 U	< 9.1 U	< 9.1 U	2.4 J	< 9.1 U	**140**	< 9.1 U	< 9.1 U	**75**	< 9.1 U	< 1.0 U
	9/25/2013	1.3	0.93 J	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**150**	< 1.0 U	0.92 J	**100**	< 1.0 U	< 2.0 U
	10/7/2014	< 5.0 U	2.0 J	< 5.0 U	< 5.0 U	2.2 J	< 5.0 U	**170**	< 5.0 U	< 5.0 U	**160**	< 5.0 U	< 1.0 U
	11/4/2015	1.5	0.61 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**150**	< 1.0 U	0.73 J	**160**	< 1.0 U	< 2.0 U
	8/25/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**170**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	8/17/2017	0.80 J	0.60 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**150**	< 1.0 U	< 1.0 U	**24**	< 1.0 U	< 2.0 U
	7/25/2018	4.8	2.2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**180**	< 1.0 U	< 1.0 U	0.92 J	< 1.0 U	< 2.0 U
	7/9/2019	7.4	1.6	0.54 J	< 1.0 U	1.2	< 1.0 U	**150**	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 2.0 U
	7/29/2020	3.6	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**160**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**130**	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
W-2-S	9/23/1999	1.9 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 1.0 U
	9/27/2000	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U
	11/8/2001	1.7	0.58 J	< 1.0 U	< 1.0 U	0.49 J	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	**5.2 B**	< 1.0 U	< 1.0 U
	9/18/2002	1.5	0.98 J	< 1.0 U	< 1.0 U	0.90	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	4.9	< 1.0 U	< 1.0 U
	9/26/2003	1.4	0.99 J	< 1.0 U	< 1.0 U	0.74	< 1.0 U	< 1.0 U	0.25 J	< 0.50 U	**5.5**	< 1.0 U	< 1.0 U
	9/17/2004	1.5	1.3	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.55 J	< 1.0 U	< 0.50 U	**6.0**	< 1.0 U	< 1.0 U
	10/19/2005	1.6	1.2	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	**5.4**	< 1.0 U	< 2.0 U
	9/18/2006	1.8	1.2	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.1**	< 1.0 U	< 2.0 U
	9/24/2007	1.4	1.1	< 1.0 U	< 1.0 U	0.89 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.3**	< 1.0 U	< 2.0 U
	9/25/2008	1.4	0.92 J	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	**5.2**	< 1.0 U	< 2.0 U
	11/12/2009	1.7	1.2	< 1.0 U	0.43 J	0.90 J	< 1.0 UJ	0.35 J	< 1.0 U	< 1.0 U	**6.6**	< 1.0 U	< 2.0 U
	9/24/2010	1.4	1.1	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U	**5.9**	< 1.0 U	< 2.0 U
	9/29/2011	1.6	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	**7.1**	< 1.0 U	< 2.0 U
	9/6/2012	1.6	1.1	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.35 J	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U
	9/25/2013	1.8	0.86 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	**6.4**	< 1.0 U	< 2.0 U
	10/7/2014	0.79 J	0.80 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	0.33 J	< 1.0 U	0.34 J	5.0	< 1.0 U	< 2.0 U
	11/5/2015	< 1.0 U	0.63 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	0.36 J	< 1.0 U	0.47 J	**23**	< 1.0 U	< 2.0 U
	8/23/2016	1.4	1.0	< 1.0 U	< 1.0 U	1.9	< 1.0 U	0.34 J	< 1.0 U	0.30 J	**6.6**	< 1.0 U	< 2.0 U
	8/16/2017	1.3	1.1	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	**5.9**	< 1.0 U	< 2.0 U
	7/25/2018	0.98 J	0.83 J	< 1.0 U	< 1.0 U	2.2	< 1.0 U	2.0	< 1.0 U	0.32 J	4.6	< 1.0 U	< 2.0 U
	7/9/2019	0.60 J	0.23 J	< 1.0 U	< 1.0 U	0.29 J	< 1.0 U	**20**	< 1.0 U	< 1.0 U	2.8	< 1.0 U	< 2.0 U
	7/29/2020	0.85 J	0.60 J	< 1.0 U	< 1.0 U	1.7	< 1.0 U	**6.3**	< 1.0 U	< 1.0 U	3.6	< 1.0 U	< 2.0 U
	10/4/2021	1.0	0.79 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	**6.1**	< 1.0 U	< 2.0 U

Attachment E-4
Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
MCL		200		7	5	70	700	5	1000	100	5	2	10,000
W-3-S	9/23/1999	3.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	2.6	< 1.0 U	< 1.0 U
	9/28/2000	2.8	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U
	11/8/2001	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.44 J	< 1.0 U	< 0.50 U	1.5 B	< 1.0 U	< 1.0 U
	9/18/2002	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	0.61 J	< 1.0 U	< 0.50 U	2.4	< 1.0 U	< 1.0 U
	9/26/2003	1.8	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	0.81 J	< 1.0 U	< 0.50 U	2.0	< 1.0 U	< 1.0 U
	9/17/2004	2.4	0.21 J	< 1.0 U	< 1.0 U	< 0.50 U	< 1.0 U	1.2	< 1.0 U	< 0.50 U	2.9	< 1.0 U	< 1.0 U
	10/19/2005	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
	9/18/2006	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.60 J	< 1.0 U	< 1.0 U	3.4	< 1.0 U	< 2.0 U
	9/24/2007	1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	9/26/2008	1.2	0.21 J	< 1.0 U	< 1.0 U	0.52 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
	11/12/2009	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 UJ	0.87 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
	9/23/2010	0.87 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.95 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 2.0 U
	9/29/2011	0.51 J	0.38 J	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	2.8	< 1.0 U	0.19 J	2.6	< 1.0 U	< 2.0 U
	9/6/2012	0.60 J	0.89 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	4.4	< 1.0 U	0.49 J	**5.7**	< 1.0 U	< 2.0 U
	9/25/2013	0.49 J	1.2	< 1.0 U	< 1.0 U	1.4	< 1.0 U	**25**	< 1.0 U	0.59 J	**21**	< 1.0 U	< 2.0 U
	10/7/2014	0.76 J	0.96 J	< 1.0 U	< 1.0 U	2.3	< 1.0 U	**38**	< 1.0 U	0.59 J	**35**	< 1.0 U	< 2.0 U
	11/4/2015	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U	2.6	< 1.0 U	**65**	< 1.0 U	0.31 J	**97**	< 1.0 U	< 2.0 U
	8/23/2016	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	2.1	< 2.0 U	**62**	< 2.0 U	< 2.0 U	**11**	< 2.0 U	< 4.0 U
	8/16/2017	0.62 J	0.66 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	**68**	< 1.0 U	< 1.0 U	**7.6**	< 1.0 U	< 2.0 U
	7/25/2018	0.87 J	0.61 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**19**	< 1.0 U	0.19 J	**27**	< 1.0 U	< 2.0 U
	7/9/2019	2.5	0.83 J	< 1.0 U	< 1.0 U	1.1	< 1.0 U	**81**	< 1.0 U	< 1.0 U	**5.6**	< 1.0 U	< 2.0 U
	7/29/2020	1.6	0.48 J	< 1.0 U	< 1.0 U	1.9	< 1.0 U	**110**	< 1.0 U	< 1.0 U	2.0	< 1.0 U	< 2.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.6	< 2.0 U	**92**	< 2.0 U	< 2.0 U	1.6 J	< 2.0 U	< 4.0 U
W-4-S	9/23/1999	3.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**31 J**	< 1.0 U	< 1.0 U	**15 J**	< 1.0 U	< 1.0 U
	9/28/2000	3.0	1.0	< 1.0 U	< 1.0 U	4.0	< 1.0 U	**15**	< 1.0 U	< 1.0 U	**11**	< 1.0 U	< 1.0 U
	11/8/2001	2.9	1.1	< 1.0 U	< 1.0 U	3.3	< 1.0 U	**13**	< 1.0 U	0.43 J	**8.9 B**	< 1.0 U	< 1.0 U
	9/18/2002	2.3	0.87 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**17**	< 1.0 U	0.60	**9.8**	< 1.0 U	< 1.0 U
	9/26/2003	2.0	0.92 J	< 1.0 U	< 1.0 U	3.6	< 1.0 U	**24**	0.25 J	0.78	**13**	< 1.0 U	< 1.0 U
	9/17/2004	2.3	1.2	< 1.0 U	< 1.0 U	4.4	< 1.0 U	**18**	< 1.0 U	0.97	**13**	< 1.0 U	< 1.0 U
	10/19/2005	2.4	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**20**	< 1.0 U	1.1	**13**	< 1.0 U	< 2.0 U
	9/19/2006	1.7	1.3	< 1.0 U	< 1.0 U	4.3	< 1.0 U	**18**	< 1.0 U	1.0	**12**	< 1.0 U	< 2.0 U
	9/24/2007	1.5	1.8	< 1.0 U	< 1.0 U	5.9	< 1.0 U	**26**	< 1.0 U	1.3	**16**	< 1.0 U	< 2.0 U
	9/26/2008	0.95 J	1.3	0.21 J	< 1.0 U	6	< 1.0 U	**32**	< 1.0 U	1.2	**16**	< 1.0 U	< 2.0 U
	11/12/2009	1.3	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**39**	< 1.0 U	1.5	**23**	< 1.0 U	< 2.0 U
	9/23/2010	1.1	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	**31**	< 1.0 U	1.5	**20**	< 1.0 U	< 2.0 U
	9/29/2011	1.1	1.5	< 1.0 U	< 1.0 U	8.9	< 1.0 U	**31**	< 1.0 U	1.4	**21**	< 1.0 U	< 2.0 U
	9/6/2012	1.0 J	1.6 J	< 1.0 U	< 1.0 U	9.4	< 1.0 U	**26**	< 1.0 U	1.4 J	**21**	< 1.0 U	< 3.3 U
	9/25/2013	1.6	1.9	< 1.0 U	< 1.0 U	6.3	< 1.0 U	**60**	< 1.0 U	1.2	**50**	< 1.0 U	< 2.0 U
	10/7/2014	1.4 J	1.3 J	< 2.5 U	< 2.5 U	6.1	< 2.5 U	**65**	< 2.5 U	1.1 J	**63**	< 2.5 U	< 5.0 U
	11/4/2015	1.9 J	2.3	< 2.0 U	< 2.0 U	9.7	< 2.0 U	**74**	< 2.0 U	1.4 J	**72**	< 2.0 U	< 4.0 U
	8/23/2016	1.6 J	1.7 J	< 2.0 U	< 2.0 U	12	< 2.0 U	**54**	< 2.0 U	1.1 J	**45**	< 2.0 U	< 4.0 U
	8/16/2017	1.5	2.7	< 1.0 U	< 1.0 U	22	< 1.0 U	**39**	< 1.0 U	2.1	**40**	< 1.0 U	< 2.0 U
	7/25/2018	1.8	2.1	< 1.0 U	< 1.0 U	17	< 1.0 U	**68**	< 1.0 U	1.5	**42**	< 1.0 U	< 2.0 U
	7/9/2019	1.7	1.6	< 1.0 U	< 1.0 U	13	< 1.0 U	**70**	< 1.0 U	1.2	**33**	< 1.0 U	< 2.0 U
	7/29/2020	0.71 J	< 2.0 U	< 2.0 U	< 2.0 U	1.0 J	< 2.0 U	**37**	< 2.0 U	< 2.0 U	**9.1**	< 2.0 U	< 4.0 U
	10/4/2021	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	**29**	< 2.0 U	< 2.0 U	3.5	< 2.0 U	< 4.0 U

Attachment E-4
Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2021
RACER Trust Moraine Facilities
Moraine, Ohio

Well	Date	VOCs (µg/L)											
		1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes (total)
MCL		200		7	5	70	700	5	1000	100	5	2	10,000
HR-1	9/16/1999	1.6	2.4	< 1.0 U	< 1.0 U	5.8	< 1.0 U	**44**	< 1.0 U	3.9	**56**	< 1.0 U	< 1.0 U
	9/25/2000	1.3	2.4	< 1.0 U	< 1.0 U	8.5	< 1.0 U	**33**	< 1.0 U	3.2	**56**	< 1.0 U	< 1.0 U
	11/8/2001	2.2 J	2.8 J	< 3.3 U	< 3.3 U	9.9	< 3.3 U	**36**	< 3.3 U	2.8	**86 B**	< 3.3 U	< 3.3 U
	9/23/2002	< 2.0 U	2.8	< 2.0 U	< 2.0 U	4.5	< 2.0 U	**33**	< 2.0 U	3.2	**33**	< 2.0 U	< 2.0 U
	9/18/2003	1 J	2.6	< 2.0 U	< 2.0 U	2.3	< 2.0 U	**27**	< 2.0 U	3.2	**56**	< 2.0 U	< 2.0 U
	9/13/2004	0.56 J	2.5	< 1.0 U	< 1.0 U	24	< 1.0 U	**23**	< 1.0 U	2.3	**30**	0.55 J	< 1.0 U
	10/18/2005	1.2	2.7	< 1.0 U	< 1.0 U	19	< 1.0 U	**28**	< 1.0 U	2.3	**43**	1.1	< 2.0 U
	9/25/2006	0.57 J	1.7	< 1.0 U	< 1.0 U	14	< 1.0 U	< 1.0 U	< 1.0 U	1.4 J	**50**	< 1.0 U	< 3.3 U
	9/24/2007	0.45 J	2.2	0.21J	< 1.0 U	9.5	< 1.0 U	**20**	< 1.0 U	1.9	**40**	< 1.0 U	< 2.0 U
	9/29/2008	0.77 J	1.8 J	< 2.5 U	< 2.5 U	5	< 2.5 U	**27**	< 2.5 U	2 J	**70**	< 2.5 U	< 5.0 U
	9/26/2013	0.99 J	1.2	< 1.0 U	< 1.0 U	3.1	< 1.0 U	**30**	< 1.0 U	0.90 J	**100**	< 1.0 U	< 2.0 U
	10/8/2014	1.3 J	1.4 J	< 5.0 U	< 5.0 U	20	< 5.0 U	**36**	< 5.0 U	1.5 J	**120**	< 5.0 U	< 1.0 U
	11/5/2015	1.2	0.51 J	< 1.0 U	< 1.0 U	6.6	< 1.0 U	**76**	< 1.0 U	0.43 J	**210**	< 1.0 U	< 2.0 U
	8/23/2016	1.1 J	< 2.0 U	< 2.0 U	< 2.0 U	3.3	< 2.0 U	**63**	< 2.0 U	< 2.0 U	**190**	< 2.0 U	< 4.0 U
	8/17/2017	1.0	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	**56**	< 1.0 U	< 1.0 U	0.65 J	< 1.0 U	< 2.0 U
	7/25/2018	0.77 J	0.96 J	< 1.0 U	< 1.0 U	20	< 1.0 U	**99**	< 1.0 U	1.3	**40**	< 1.0 U	< 2.0 U
	7/29/2020	< 10 U	< 10 U	< 10 U	< 10 U	20	< 10 U	**120**	< 10 U	< 10 U	**25**	< 10 U	< 20 U

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
BOLD - Result above MCL.
J - Value is estimated.
B - Compound was found in the blank and sample.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.

1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
cis-1,2-DCE - cis-1,1-Dichloroethene.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.

Attachment E-5

Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Job Number: 240-157476-1

Job Description: Racer Moraine Annual

For:
ARCADIS U.S., Inc.
100 E. Campus View Blvd
Suite 200
Columbus, OH 43235

Attention: Carolyn Grogan



Approved for release.
Michael DelMonico
Project Manager I
2/15/2022 11:02 AM

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02/15/2022
Revision: 1

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
240-157476-1

Comments
No additional comments.

Receipt
The samples were received on 10/6/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 507379 recovered above the upper control limit for Vinyl Chloride and/or 1,2-Dichloropropane. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data have been reported. The associated samples are impacted: W-2-S/100421/ (240-157476-2), EB-01/100421/ (240-157476-5), EB-02/100421/ (240-157476-6) and TB-01/100421/ (240-157476-7).

Method 8260B: The continuing calibration verification (CCV) associated with batch 507592 recovered above the upper control limit for 1,2-Dichloropropane. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated sample is impacted: W-4-S/100421/ (240-157476-4).

Method 8260B: The continuing calibration verification (CCV) associated with batch 507764 recovered above the upper control limit for 1,2-Dichloropropane. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated samples are impacted: HR-17/100421/ (240-157476-1) and W-3-S/100421/ (240-157476-3).

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

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

Detection Summary

Client: ARCADIS U.S., Inc.
Job ID: 240-157476-1
Project/Site: Racer Moraine Annual

Client Sample ID: HR-17/100421/ — Lab Sample ID: 240-157476-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	130		10	4.4	ug/L	10		8260B	Total/NA

Client Sample ID: W-2-S/100421/ — Lab Sample ID: 240-157476-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.0		1.0	0.48	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	0.79	J	1.0	0.47	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	2.0		1.0	0.46	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.0		1.0	0.44	ug/L	1		8260B	Total/NA
Trichloroethene	6.1		1.0	0.44	ug/L	1		8260B	Total/NA

Client Sample ID: W-3-S/100421/ — Lab Sample ID: 240-157476-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	4.6		2.0	0.92	ug/L	2		8260B	Total/NA
Tetrachloroethene	92		5.0	2.2	ug/L	5		8260B	Total/NA
Trichloroethene	1.6	J	2.0	0.88	ug/L	2		8260B	Total/NA

Client Sample ID: W-4-S/100421/ — Lab Sample ID: 240-157476-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	29		2.0	0.88	ug/L	2		8260B	Total/NA
Trichloroethene	3.5		2.0	0.88	ug/L	2		8260B	Total/NA

Client Sample ID: EB-01/100421/ — Lab Sample ID: 240-157476-5

No Detections.

Client Sample ID: EB-02/100421/ — Lab Sample ID: 240-157476-6

No Detections.

Client Sample ID: TB-01/100421/ — Lab Sample ID: 240-157476-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: HR-17/100421/
Lab Sample ID: 240-157476-1

Date Collected: 10/04/21 15:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 18:35	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/12/21 18:35	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 18:35	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 18:35	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 18:35	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/12/21 18:35	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 18:35	2
Tetrachloroethene	**130**		10	4.4	ug/L			10/11/21 15:55	10
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 18:35	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 18:35	2
Trichloroethene	2.0	U	2.0	0.88	ug/L			10/12/21 18:35	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 18:35	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/11/21 15:55*	*10*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/12/21 18:35*	*2*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/11/21 15:55*	*10*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*10/12/21 18:35*	*2*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/11/21 15:55*	*10*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/12/21 18:35*	*2*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/11/21 15:55*	*10*
Toluene-d8 (Surr)	*88*		*78 - 122*		*10/12/21 18:35*	*2*

Client Sample ID: W-2-S/100421/
Lab Sample ID: 240-157476-2

Date Collected: 10/04/21 16:25
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:13	1
1,1,1-Trichloroethane	**1.0**		1.0	0.48	ug/L			10/08/21 17:13	1
1,1-Dichloroethane	**0.79**	**J**	1.0	0.47	ug/L			10/08/21 17:13	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:13	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:13	1
cis-1,2-Dichloroethene	**2.0**		1.0	0.46	ug/L			10/08/21 17:13	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:13	1
Tetrachloroethene	**1.0**		1.0	0.44	ug/L			10/08/21 17:13	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:13	1
Trichloroethene	**6.1**		1.0	0.44	ug/L			10/08/21 17:13	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/08/21 17:13*	*1*
Dibromofluoromethane (Surr)	*90*		*73 - 120*		*10/08/21 17:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/08/21 17:13*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/08/21 17:13*	*1*

Client Sample ID: W-3-S/100421/
Lab Sample ID: 240-157476-3
Date Collected: 10/04/21 15:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/12/21 19:04	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/12/21 19:04	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/12/21 19:04	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/12/21 19:04	2
Benzene	2.0	U	2.0	0.84	ug/L			10/12/21 19:04	2
cis-1,2-Dichloroethene	**4.6**		2.0	0.92	ug/L			10/12/21 19:04	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/12/21 19:04	2
Tetrachloroethene	**92**		5.0	2.2	ug/L			10/11/21 16:16	5
Toluene	2.0	U	2.0	0.88	ug/L			10/12/21 19:04	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/12/21 19:04	2
Trichloroethene	**1.6**	**J**	2.0	0.88	ug/L			10/12/21 19:04	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/12/21 19:04	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*56 - 136*		*10/11/21 16:16*	*5*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/12/21 19:04*	*2*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/11/21 16:16*	*5*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/12/21 19:04*	*2*
1,2-Dichloroethane-d4 (Surr)	*123*		*62 - 137*		*10/11/21 16:16*	*5*
1,2-Dichloroethane-d4 (Surr)	*111*		*62 - 137*		*10/12/21 19:04*	*2*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/11/21 16:16*	*5*
Toluene-d8 (Surr)	*88*		*78 - 122*		*10/12/21 19:04*	*2*

Client Sample ID: W-4-S/100421/
Lab Sample ID: 240-157476-4
Date Collected: 10/04/21 16:05
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	4.0	U	4.0	0.84	ug/L			10/11/21 14:05	2
1,1,1-Trichloroethane	2.0	U	2.0	0.96	ug/L			10/11/21 14:05	2
1,1-Dichloroethane	2.0	U	2.0	0.94	ug/L			10/11/21 14:05	2
1,1-Dichloroethene	2.0	U	2.0	0.98	ug/L			10/11/21 14:05	2
Benzene	2.0	U	2.0	0.84	ug/L			10/11/21 14:05	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.92	ug/L			10/11/21 14:05	2
Ethylbenzene	2.0	U	2.0	0.84	ug/L			10/11/21 14:05	2
Tetrachloroethene	**29**		2.0	0.88	ug/L			10/11/21 14:05	2
Toluene	2.0	U	2.0	0.88	ug/L			10/11/21 14:05	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.0	ug/L			10/11/21 14:05	2
Trichloroethene	**3.5**		2.0	0.88	ug/L			10/11/21 14:05	2
Vinyl chloride	2.0	U	2.0	0.90	ug/L			10/11/21 14:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*56 - 136*		*10/11/21 14:05*	*2*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:05*	*2*
1,2-Dichloroethane-d4 (Surr)	*118*		*62 - 137*		*10/11/21 14:05*	*2*
Toluene-d8 (Surr)	*90*		*78 - 122*		*10/11/21 14:05*	*2*

Client Sample ID: EB-01/100421/ Lab Sample ID: 240-157476-5

Date Collected: 10/04/21 16:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:35	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 17:35	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 17:35	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:35	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 17:35	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*56 - 136*		*10/08/21 17:35*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 17:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 17:35*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/08/21 17:35*	*1*

Client Sample ID: EB-02/100421/ Lab Sample ID: 240-157476-6

Date Collected: 10/04/21 16:40 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 17:57	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 17:57	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 17:57	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 17:57	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 17:57	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 17:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 17:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 17:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*56 - 136*		*10/08/21 17:57*	*1*
Dibromofluoromethane (Surr)	*91*		*73 - 120*		*10/08/21 17:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/08/21 17:57*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*10/08/21 17:57*	*1*

Client Sample ID: TB-01/100421/ Lab Sample ID: 240-157476-7

Date Collected: 10/04/21 00:00 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 18:19	1

Client Sample ID: TB-01/100421/
Date Collected: 10/04/21 00:00
Date Received: 10/06/21 08:00

Lab Sample ID: 240-157476-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 18:19	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 18:19	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 18:19	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 18:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 18:19	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 18:19	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 18:19	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 18:19	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/08/21 18:19*	*1*
Dibromofluoromethane (Surr)	*94*		*73 - 120*		*10/08/21 18:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 18:19*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 18:19*	*1*

Default Detection Limits

Client: ARCADIS U.S., Inc.
Job ID: 240-157476-1
Project/Site: Racer Moraine Annual

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

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	1.0	0.48	ug/L
1,1-Dichloroethane	1.0	0.47	ug/L
1,1-Dichloroethene	1.0	0.49	ug/L
Benzene	1.0	0.42	ug/L
cis-1,2-Dichloroethene	1.0	0.46	ug/L
Ethylbenzene	1.0	0.42	ug/L
Tetrachloroethene	1.0	0.44	ug/L
Toluene	1.0	0.44	ug/L
trans-1,2-Dichloroethene	1.0	0.51	ug/L
Trichloroethene	1.0	0.44	ug/L
Vinyl chloride	1.0	0.45	ug/L
Xylenes, Total	2.0	0.42	ug/L

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157476-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(56-136)	(73-120)	(62-137)	(78-122)
240-157476-1	HR-17/100421/	75	93	123	90
240-157476-1	HR-17/100421/	74	97	123	88
240-157476-2	W-2-S/100421/	77	90	119	92
240-157476-3	W-3-S/100421/	72	95	123	91
240-157476-3	W-3-S/100421/	76	94	111	88
240-157476-4	W-4-S/100421/	73	92	118	90
240-157476-5	EB-01/100421/	80	93	122	93
240-157476-6	EB-02/100421/	79	91	120	95
240-157476-7	TB-01/100421/	77	94	122	94
LCS 240-507379/4	Lab Control Sample	100	88	108	100
LCS 240-507592/4	Lab Control Sample	99	87	107	101
LCS 240-507764/4	Lab Control Sample	98	88	109	98
MB 240-507379/7	Method Blank	84	87	114	94
MB 240-507592/7	Method Blank	82	88	117	93
MB 240-507764/7	Method Blank	77	89	118	92

Surrogate Legend

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

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

Lab Sample ID: MB 240-507379/7
Matrix: Water
Analysis Batch: 507379

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 12:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 12:02	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 12:02	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 12:02	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 12:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 12:02	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 12:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 12:02	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/08/21 12:02*	*1*
Dibromofluoromethane (Surr)	*87*		*73 - 120*		*10/08/21 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*62 - 137*		*10/08/21 12:02*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 12:02*	*1*

Lab Sample ID: LCS 240-507379/4
Matrix: Water
Analysis Batch: 507379

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			20.0	20.5		ug/L		102	80 - 121		
1,1,1-Trichloroethane			10.0	9.11		ug/L		91	64 - 131		
1,1-Dichloroethane			10.0	10.9		ug/L		109	72 - 127		
1,1-Dichloroethene			10.0	9.14		ug/L		91	63 - 134		
Benzene			10.0	10.5		ug/L		105	77 - 123		
cis-1,2-Dichloroethene			10.0	9.75		ug/L		97	77 - 123		
Ethylbenzene			10.0	10.4		ug/L		104	80 - 121		
Tetrachloroethene			10.0	9.21		ug/L		92	76 - 123		
Toluene			10.0	10.7		ug/L		107	80 - 123		
trans-1,2-Dichloroethene			10.0	9.80		ug/L		98	75 - 124		
Trichloroethene			10.0	9.29		ug/L		93	70 - 122		
Vinyl chloride			10.0	8.25		ug/L		83	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*56 - 136*
Dibromofluoromethane (Surr)	*88*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*108*		*62 - 137*
Toluene-d8 (Surr)	*100*		*78 - 122*

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

Lab Sample ID: MB 240-507592/7
Matrix: Water
Analysis Batch: 507592

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 11:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 11:10	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 11:10	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 11:10	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 11:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/11/21 11:10	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 11:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 11:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/11/21 11:10*	*1*
Dibromofluoromethane (Surr)	*88*		*73 - 120*		*10/11/21 11:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*117*		*62 - 137*		*10/11/21 11:10*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/11/21 11:10*	*1*

Lab Sample ID: LCS 240-507592/4
Matrix: Water
Analysis Batch: 507592

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			20.0	20.9		ug/L		105	80 - 121		
1,1,1-Trichloroethane			10.0	9.39		ug/L		94	64 - 131		
1,1-Dichloroethane			10.0	11.0		ug/L		110	72 - 127		
1,1-Dichloroethene			10.0	9.30		ug/L		93	63 - 134		
Benzene			10.0	11.1		ug/L		111	77 - 123		
cis-1,2-Dichloroethene			10.0	10.1		ug/L		101	77 - 123		
Ethylbenzene			10.0	10.6		ug/L		106	80 - 121		
Tetrachloroethene			10.0	9.55		ug/L		96	76 - 123		
Toluene			10.0	11.2		ug/L		112	80 - 123		
trans-1,2-Dichloroethene			10.0	10.0		ug/L		100	75 - 124		
Trichloroethene			10.0	9.69		ug/L		97	70 - 122		
Vinyl chloride			10.0	10.3		ug/L		103	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*56 - 136*
Dibromofluoromethane (Surr)	*87*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*107*		*62 - 137*
Toluene-d8 (Surr)	*101*		*78 - 122*

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

Lab Sample ID: MB 240-507764/7
Matrix: Water
Analysis Batch: 507764

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/12/21 10:51	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/12/21 10:51	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/12/21 10:51	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/12/21 10:51	1
Benzene	1.0	U	1.0	0.42	ug/L			10/12/21 10:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/12/21 10:51	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/12/21 10:51	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 10:51	1
Toluene	1.0	U	1.0	0.44	ug/L			10/12/21 10:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/12/21 10:51	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/12/21 10:51	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/12/21 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*56 - 136*		*10/12/21 10:51*	*1*
Dibromofluoromethane (Surr)	*89*		*73 - 120*		*10/12/21 10:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*118*		*62 - 137*		*10/12/21 10:51*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/12/21 10:51*	*1*

Lab Sample ID: LCS 240-507764/4
Matrix: Water
Analysis Batch: 507764

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	20.0	19.9		ug/L		99	80 - 121
1,1,1-Trichloroethane	10.0	9.11		ug/L		91	64 - 131
1,1-Dichloroethane	10.0	11.1		ug/L		111	72 - 127
1,1-Dichloroethene	10.0	9.34		ug/L		93	63 - 134
Benzene	10.0	11.0		ug/L		110	77 - 123
cis-1,2-Dichloroethene	10.0	9.93		ug/L		99	77 - 123
Ethylbenzene	10.0	10.3		ug/L		103	80 - 121
Tetrachloroethene	10.0	9.50		ug/L		95	76 - 123
Toluene	10.0	10.8		ug/L		108	80 - 123
trans-1,2-Dichloroethene	10.0	10.2		ug/L		102	75 - 124
Trichloroethene	10.0	9.44		ug/L		94	70 - 122
Vinyl chloride	10.0	10.3		ug/L		103	60 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*56 - 136*
Dibromofluoromethane (Surr)	*88*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*109*		*62 - 137*
Toluene-d8 (Surr)	*98*		*78 - 122*

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157476-1

GC/MS VOA

Analysis Batch: 507379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-157476-2	W-2-S/100421/	Total/NA	Water	8260B	
240-157476-5	EB-01/100421/	Total/NA	Water	8260B	
240-157476-6	EB-02/100421/	Total/NA	Water	8260B	
240-157476-7	TB-01/100421/	Total/NA	Water	8260B	
MB 240-507379/7	Method Blank	Total/NA	Water	8260B	
LCS 240-507379/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 507592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-157476-1	HR-17/100421/	Total/NA	Water	8260B	
240-157476-3	W-3-S/100421/	Total/NA	Water	8260B	
240-157476-4	W-4-S/100421/	Total/NA	Water	8260B	
MB 240-507592/7	Method Blank	Total/NA	Water	8260B	
LCS 240-507592/4	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 507764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-157476-1	HR-17/100421/	Total/NA	Water	8260B	
240-157476-3	W-3-S/100421/	Total/NA	Water	8260B	
MB 240-507764/7	Method Blank	Total/NA	Water	8260B	
LCS 240-507764/4	Lab Control Sample	Total/NA	Water	8260B	

Client Sample ID: HR-17/100421/ — Lab Sample ID: 240-157476-1

Date Collected: 10/04/21 15:00 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	507592	10/11/21 15:55	LEE	TAL CAN
Total/NA	Analysis	8260B		2	507764	10/12/21 18:35	LEE	TAL CAN

Client Sample ID: W-2-S/100421/ — Lab Sample ID: 240-157476-2

Date Collected: 10/04/21 16:25 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 17:13	LEE	TAL CAN

Client Sample ID: W-3-S/100421/ — Lab Sample ID: 240-157476-3

Date Collected: 10/04/21 15:00 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	507592	10/11/21 16:16	LEE	TAL CAN
Total/NA	Analysis	8260B		2	507764	10/12/21 19:04	LEE	TAL CAN

Client Sample ID: W-4-S/100421/ — Lab Sample ID: 240-157476-4

Date Collected: 10/04/21 16:05 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	507592	10/11/21 14:05	LEE	TAL CAN

Client Sample ID: EB-01/100421/ — Lab Sample ID: 240-157476-5

Date Collected: 10/04/21 16:40 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 17:35	LEE	TAL CAN

Client Sample ID: EB-02/100421/ — Lab Sample ID: 240-157476-6

Date Collected: 10/04/21 16:40 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 17:57	LEE	TAL CAN

Client Sample ID: TB-01/100421/ — Lab Sample ID: 240-157476-7

Date Collected: 10/04/21 00:00 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 18:19	LEE	TAL CAN

Client: ARCADIS U.S., Inc.
Job ID: 240-157476-1
Project/Site: Racer Moraine Annual

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 240-157476-1
Project/Site: Racer Moraine Annual

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	01-26-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	12-31-21
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	039-999-348	12-27-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	11-04-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	12-06-21
Pennsylvania	NELAP	68-00340	12-13-21
Texas	NELAP	T104704517-21-14	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-21-21

Method Summary

Client: ARCADIS U.S., Inc.
Job ID: 240-157476-1
Project/Site: Racer Moraine Annual

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157476-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-157476-1	HR-17/100421/	Water	10/04/21 15:00	10/06/21 08:00
240-157476-2	W-2-S/100421/	Water	10/04/21 16:25	10/06/21 08:00
240-157476-3	W-3-S/100421/	Water	10/04/21 15:00	10/06/21 08:00
240-157476-4	W-4-S/100421/	Water	10/04/21 16:05	10/06/21 08:00
240-157476-5	EB-01/100421/	Water	10/04/21 16:40	10/06/21 08:00
240-157476-6	EB-02/100421/	Water	10/04/21 16:40	10/06/21 08:00
240-157476-7	TB-01/100421/	Water	10/04/21 00:00	10/06/21 08:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Canton Job No.: 240-157476-1

SDG No.:

Instrument ID: A3UX15 Analysis Batch Number: 507764

Lab Sample ID: 240-157476-3 Client Sample ID: W-3-S/100421/

Date Analyzed: 10/12/21 19:04 Lab File ID: UXC0002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide		Invalid Compound ID	evansle	10/13/21 08:48

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VM50IS_00086	05/27/21	11/27/20	MEOH, Lot 177891	50 mL	VM568718_00019	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00019	12/31/24		restek, Lot A0156016		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
vm50is_00089	12/28/21	06/28/21	MEOH, Lot 177891	50 mL	VM568718_00021	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00021	07/31/25		restek, Lot A0162545		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
VM50IS_00090	03/22/22	09/22/21	MEOH, Lot 177891	50 mL	VM568718_00021	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00021	07/31/25		restek, Lot A0162545		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
vm50ss_stk_00086	03/28/21	09/28/20	MEOH, Lot 0000230446	200 mL	VM567650_00033	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00033	11/30/23		Restek, Lot A0143613		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00088	12/18/21	06/18/21	MEOH, Lot 0000273166	200 mL	VM567650_00035	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00035	11/30/23		Restek, Lot A0143613		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMAROLISTDW_00384	03/23/21	03/16/21	MEOH, Lot na	5 mL	VMACROLSTD_00093	5 mL	Acrolein	250 ug/mL
.VMACROLSTD_00093	04/09/21	03/09/21	MEOH, Lot +230910000258810JD	20 mL	VM568720_00040	0.25 mL	Acrolein	250 ug/mL
..VM568720_00040	07/31/21		restek, Lot A0161364		(Purchased Reagent)		Acrolein	20000 ug/mL
vmbfb_00026							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
vmbfb_00027							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
VMFASGW_00399	03/17/21	03/10/21	MEOH, Lot NA	5 mL	VMFASG_00104	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00104	04/10/21	03/10/21	MEOH, Lot 0000258810	100 mL	vm569722S_00008	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00008	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00427	10/08/21	10/01/21	MEOH, Lot NA	5 mL	VMFASG_00110	5 mL	Vinyl chloride	50 ug/mL
.VMFASG_00110	10/15/21	09/15/21	MEOH, Lot 0000273166	100 mL	vm569722S_00009	2 mL	Vinyl chloride	50 ug/mL
..vm569722S_00009	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Vinyl chloride	2500 ug/mL
VMFASGW_00428	10/15/21	10/09/21	MEOH, Lot NA	5 mL	VMFASG_00110	5 mL	Vinyl chloride	50 ug/mL
.VMFASG_00110	10/15/21	09/15/21	MEOH, Lot 0000273166	100 mL	vm569722S_00009	2 mL	Vinyl chloride	50 ug/mL
..vm569722S_00009	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Vinyl chloride	2500 ug/mL
VMFASPW_00390	03/23/21	03/16/21	MEOH, Lot n/a	5 mL	VMRFASP_00072	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00072	06/30/21	12/31/20	MEOH, Lot 0000258810	100 mL	VM569721S_00006	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00007	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00006	11/30/21		Restek, Lot A0143456		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00007	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00417	10/12/21	10/05/21	MEOH, Lot n/a	5 mL	VMRFASP_00077	5 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							Ethylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00077	10/31/21	08/31/21	MEOH, Lot 0000273166	100 mL	VM571992S_00008	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							Ethylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM571992S_00008	06/30/23		Restek, Lot A0167172		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMRGAS_00377	03/21/21	03/14/21	MEOH, Lot 0000258810	10 mL	vm569722_00015	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00015	11/30/22		Restek, Lot A0154679		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00402	10/08/21	10/01/21	MEOH, Lot 0000273166	10 mL	vm569722_00019	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00019	03/31/23		Restek, Lot A0159085		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00403	10/16/21	10/09/21	MEOH, Lot 0000273166	10 mL	vm569722_00019	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm569722_00019	03/31/23		Restek, Lot A0159085		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRPRIMW_00427	03/23/21	03/16/21	MEOH, Lot NA	5 mL	VMRPRIM_00049	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00049	06/01/21	03/01/21	MEOH, Lot 0000258810	50 mL	VM569721_00007	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00024	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00004	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00007	09/30/22		Restek, Lot A0152956		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00024	07/31/21		Restek, Lot A0156559		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00004	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMRPRIMW_00427	03/23/21	03/16/21	MEOH, Lot NA	5 mL	VMRPRIM_00049	5 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00049	06/01/21	03/01/21	MEOH, Lot 0000258810	50 mL	VM571992_00004	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00004	06/30/21	Restek, Lot A0143774			(Purchased Reagent)		Xylenes, Total	5000 ug/mL
VMRPRIMW_00454	10/11/21	10/04/21	MEOH, Lot NA	5 mL	VMRPRIM_00052	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VMRPRIM_00052	10/31/21	08/02/21	MEOH, Lot 0000273166	50 mL	VM569721_00007	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00005	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00007	09/30/22		Restek, Lot A0152956		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
..VM571992_00005	10/31/22		Restek, Lot A0159680		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMRPRIMW_00455	10/19/21	10/12/21	MEOH, Lot NA	5 mL	VMRPRIM_00052	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRPRIM_00052	10/31/21	08/02/21	MEOH, Lot 0000273166	50 mL	VM569721_00007	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00005	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00007	09/30/22		Restek, Lot A0152956		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992_00005	10/31/22		Restek, Lot A0159680		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL

Reagent

vm30026_00003

Rec: 11/28/18
VM30026-00063

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30026 **Lot No.:** A0141187

Description : 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,004.7 µg/mL	+/- 11.7645	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 112.4110	µg/mL	Unstressed
	Purity 99%		+/- 115.0408	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00033

VM567650_00033 Rec: 4/9/19

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0143613

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	2,506.4 µg/mL	+/- 14.5724 µg/mL +/- 140.5314 µg/mL +/- 143.8196 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.8 µg/mL	+/- 14.5570 µg/mL +/- 140.3828 µg/mL +/- 143.6676 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	2,512.2 µg/mL	+/- 14.6059 µg/mL +/- 140.8538 µg/mL +/- 144.1496 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00035

Rec: 12/4/19
VM567650_00035

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0143613

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	2,506.4 µg/mL	+/- 14.5724 µg/mL +/- 140.5314 µg/mL +/- 143.8196 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.8 µg/mL	+/- 14.5570 µg/mL +/- 140.3828 µg/mL +/- 143.6676 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	2,512.2 µg/mL	+/- 14.6059 µg/mL +/- 140.8538 µg/mL +/- 144.1496 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM568718_00019

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0156016

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2024 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol		5,002.2 µg/mL	+/- 29.0815 µg/mL		Gravimetric
	CAS # 25725-11-5	(Lot CD-107)		+/- 107.0965 µg/mL		Unstressed
	Purity 98%			+/- 110.2100 µg/mL		Stressed
2	2-Butanone-d5		1,252.7 µg/mL	+/- 7.2833 µg/mL		Gravimetric
	CAS # 24313-50-6	(Lot M-276)		+/- 26.8205 µg/mL		Unstressed
	Purity 99%			+/- 27.6002 µg/mL		Stressed
3	Fluorobenzene		251.8 µg/mL	+/- 1.4674 µg/mL		Gravimetric
	CAS # 462-06-6	(Lot BCBZ5549)		+/- 5.3920 µg/mL		Unstressed
	Purity 99%			+/- 5.5487 µg/mL		Stressed
4	1,4-Dioxane-d8		5,003.8 µg/mL	+/- 29.0907 µg/mL		Gravimetric
	CAS # 17647-74-4	(Lot I-19942)		+/- 107.1305 µg/mL		Unstressed
	Purity 99%			+/- 110.2450 µg/mL		Stressed
5	Chlorobenzene-d5		250.8 µg/mL	+/- 1.4613 µg/mL		Gravimetric
	CAS # 3114-55-4	(Lot PR-29571)		+/- 5.3695 µg/mL		Unstressed
	Purity 99%			+/- 5.5256 µg/mL		Stressed
6	1,4-Dichlorobenzene-d4		250.5 µg/mL	+/- 1.4595 µg/mL		Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 5.3631 µg/mL		Unstressed
	Purity 99%			+/- 5.5189 µg/mL		Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

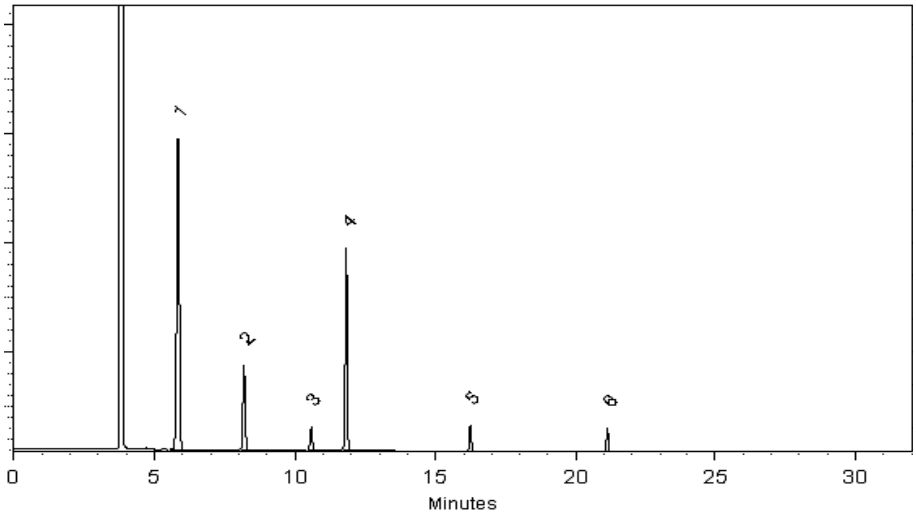
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 20-Dec-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-Dec-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

VM568718_00021

Rec: 12/2/20
VM568718_00021

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0162545

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 **Purity** 99%	(Lot CD-107)	5,010.4 µg/mL	+/- 29.1309 µg/mL +/- 107.2733 µg/mL +/- 110.3919 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 **Purity** 99%	(Lot M-276)	1,252.7 µg/mL	+/- 7.2833 µg/mL +/- 26.8205 µg/mL +/- 27.6002 µg/mL	Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBZ5549)	250.8 µg/mL	+/- 1.4615 µg/mL +/- 5.3706 µg/mL +/- 5.5267 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 **Purity** 99%	(Lot I19942-0122JM)	5,010.4 µg/mL	+/- 29.1309 µg/mL +/- 107.2733 µg/mL +/- 110.3919 µg/mL	Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	250.0 µg/mL	+/- 1.4569 µg/mL +/- 5.3534 µg/mL +/- 5.5090 µg/mL	Gravimetric Unstressed Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	252.4 µg/mL	+/- 1.4709 µg/mL +/- 5.4048 µg/mL +/- 5.5619 µg/mL	Gravimetric Unstressed Stressed

Reagent

VM568720_00040

Rc'd 9/17/21 VM 568720_ 00040

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0156859

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acrolein		19,830.0	µg/mL	+/-	116.1090	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot D0012019-1219)			+/-	396.1504	µg/mL	Unstressed
	Purity 99%				+/-	888.7531	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM569721_00007

Rec: 2-21-20

VM569721-00007

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0152956

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone **CAS #** 67-64-1 (Lot SHBK6362) **Purity** 99%	12,546.0 µg/mL	+/- 73.4596 +/- 757.0057 +/- 758.8027	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBK5945) **Purity** 99%	12,564.0 µg/mL	+/- 73.5650 +/- 758.0918 +/- 759.8914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBK5017) **Purity** 99%	12,558.0 µg/mL	+/- 73.5299 +/- 757.7297 +/- 759.5285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKCD9048) **Purity** 99%	12,562.0 µg/mL	+/- 73.5533 +/- 757.9711 +/- 759.7704	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00006

Rec: 2-21-20

VM569721S-00006

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.SEC **Lot No.:** A0143456

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,524.5 µg/mL	+/- 72.8185 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot U13B039)		+/- 755.6586 µg/mL	Unstressed
	Purity 99%		+/- 757.4526 µg/mL	Stressed
2	2-Butanone (MEK)	12,527.8 µg/mL	+/- 72.8374 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/- 755.8547 µg/mL	Unstressed
	Purity 99%		+/- 757.6492 µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,515.3 µg/mL	+/- 72.7647 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 755.1005 µg/mL	Unstressed
	Purity 99%		+/- 756.8932 µg/mL	Stressed
4	2-Hexanone	12,516.8 µg/mL	+/- 72.7738 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/- 755.1943 µg/mL	Unstressed
	Purity 98%		+/- 756.9873 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

vm569722_00015

Rec: 4/14/20
VM569722_0005

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0154679

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,502.7 µg/mL	+/- 18.2705 +/- 140.7566 +/- 144.0300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,500.3 µg/mL	+/- 18.7547 +/- 140.6865 +/- 143.9553	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,501.1 µg/mL	+/- 18.5858 +/- 140.7083 +/- 143.9787	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,497.1 µg/mL	+/- 17.5808 +/- 140.3628 +/- 143.6309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.8 µg/mL	+/- 23.3138 +/- 141.3956 +/- 144.6498	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,499.0 µg/mL	+/- 21.4252 +/- 140.9973 +/- 144.2558	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 140.1725 +/- 143.4524	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,499.6	µg/mL	+/-	21.2368	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot 25931)			+/-	141.0019	µg/mL	Unstressed
	Purity 99%				+/-	144.2618	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

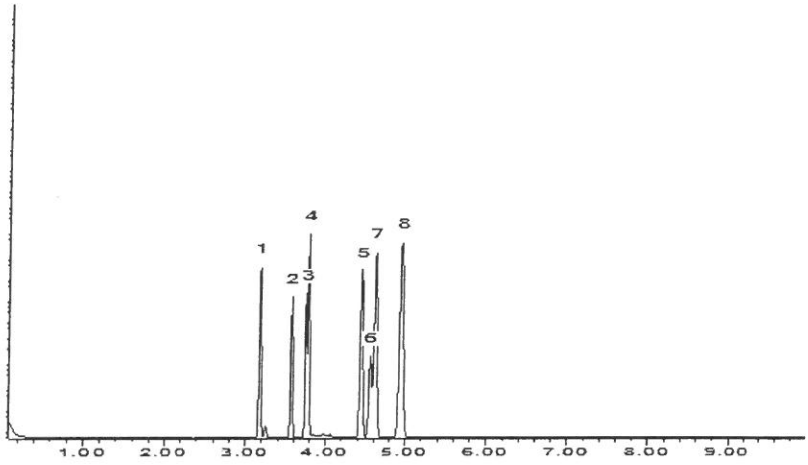
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 04-Nov-2019 **Balance:** B707717271

Feng-Yun Lo - QC Analyst

Date Passed: 10-Nov-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722_00019

Rec: 1/20/21
VMS69722_00019

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0159085

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,502.3 µg/mL	+/- 16.4178 µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/- 140.5076 µg/mL	Unstressed
	Purity 99%		+/- 143.7858 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.6 µg/mL	+/- 16.3299 µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/- 140.4038 µg/mL	Unstressed
	Purity 99%		+/- 143.6799 µg/mL	Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/- 17.2154 µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/- 140.4890 µg/mL	Unstressed
	Purity 99%		+/- 143.7623 µg/mL	Stressed
4	1,3-Butadiene	2,500.7 µg/mL	+/- 17.6652 µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/- 140.5681 µg/mL	Unstressed
	Purity 99%		+/- 143.8406 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,501.2 µg/mL	+/- 16.4034 µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/- 140.4450 µg/mL	Unstressed
	Purity 99%		+/- 143.7217 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/- 17.7279 µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/- 140.5555 µg/mL	Unstressed
	Purity 99%		+/- 143.8274 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/- 14.5352 µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 8582700)		+/- 140.1725 µg/mL	Unstressed
	Purity 99%		+/- 143.4524 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.4	µg/mL	+/-	16.0800	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot MKCJ8658)			+/-	140.4203	µg/mL	Unstressed
	Purity 99%				+/-	143.6982	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

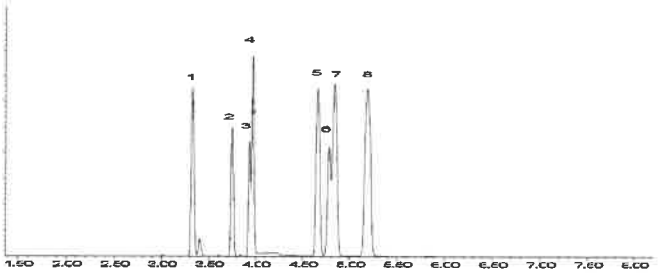
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 23-Mar-2020 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 26-Mar-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00008

Rec: 7/17/20
VM569722S-00008

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0159768

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 26165) **Purity** 99%	2,501.8 µg/mL	+/- 19.9803 +/- 140.9385 +/- 144.2054	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,510.1 µg/mL	+/- 18.7758 +/- 141.2337 +/- 144.5155	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,518.3 µg/mL	+/- 19.4159 +/- 141.7727 +/- 145.0634	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 24033) **Purity** 99%	2,510.8 µg/mL	+/- 17.5328 +/- 141.1137 +/- 144.4001	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot 00017022) **Purity** 99%	2,506.4 µg/mL	+/- 23.4232 +/- 141.7223 +/- 144.9835	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,523.5 µg/mL	+/- 21.4589 +/- 142.3524 +/- 145.6434	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 * (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 140.1725 +/- 143.4524	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,496.5	µg/mL	+/-	17.7311	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)			+/-	140.3462	µg/mL	Unstressed
	Purity 99%				+/-	143.6131	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

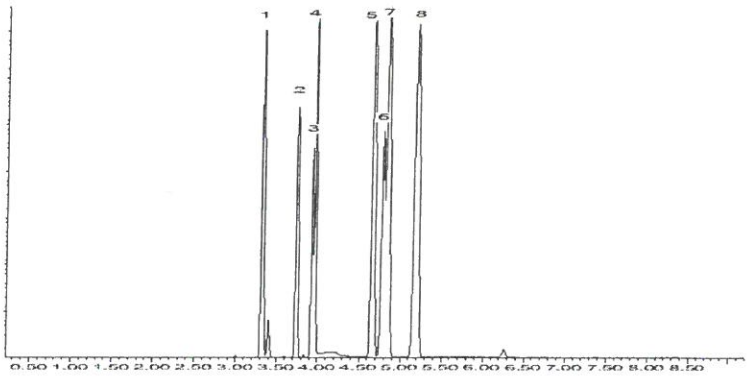
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 09-Apr-2020 **Balance:** 1127510105

Feng-Yun Lo - QC Analyst

Date Passed: 24-Apr-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00009

Rec: 12/2/20

VM569722S-00009

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0159768

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 26165) **Purity** 99%	2,501.8 µg/mL	+/- 19.9803 µg/mL +/- 140.9385 µg/mL +/- 144.2054 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,510.1 µg/mL	+/- 18.7758 µg/mL +/- 141.2337 µg/mL +/- 144.5155 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,518.3 µg/mL	+/- 19.4159 µg/mL +/- 141.7727 µg/mL +/- 145.0634 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 24033) **Purity** 99%	2,510.8 µg/mL	+/- 17.5328 µg/mL +/- 141.1137 µg/mL +/- 144.4001 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot 00017022) **Purity** 99%	2,506.4 µg/mL	+/- 23.4232 µg/mL +/- 141.7223 µg/mL +/- 144.9835 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,523.5 µg/mL	+/- 21.4589 µg/mL +/- 142.3524 µg/mL +/- 145.6434 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 * (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,496.5	µg/mL	+/-	17.7311	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)			+/-	140.3462	µg/mL	Unstressed
	Purity 99%				+/-	143.6131	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

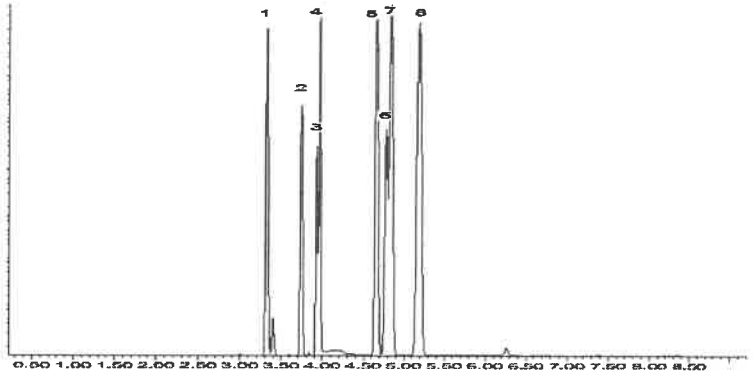
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 09-Apr-2020 **Balance:** 1127510105

Feng-Yun Lo - QC Analyst

Date Passed: 24-Apr-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM569723_00008

Rec: 9/9/19
VM569723-00008

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0146250

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBS6526V)		+/- 53.5253	µg/mL	Unstressed
	Purity 99%		+/- 55.0814	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569724_00024

Rcd 4-20-20 VM569724_00024

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0156559

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate		5,040.0 µg/mL	+/- 29.5103	µg/mL	Gravimetric
	CAS # 108-05-4	(Lot 192709KJ)		+/- 304.1056	µg/mL	Unstressed
	Purity 99%			+/- 304.8275	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from July 31, 2020 to July 31, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM571992_00004

VMS71992-00004 Rec: 2-21-20

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Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0143774

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBJ5713) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,501.6 µg/mL	+/- 14.5447 µg/mL +/- 150.9341 µg/mL +/- 151.2925 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,501.9 µg/mL	+/- 14.5461 µg/mL +/- 150.9492 µg/mL +/- 151.3076 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBJ9404) **Purity** 99%	25,008.1 µg/mL	+/- 145.3918 µg/mL +/- 1,508.8503 µg/mL +/- 1,512.4325 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.8 µg/mL	+/- 29.0748 µg/mL +/- 301.7174 µg/mL +/- 302.4337 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBH4362V) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot WXBB7852V) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 µg/mL +/- 150.9567 µg/mL +/- 151.3151 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBK5095)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot U22D706)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot R15D047)	25,010.4	µg/mL	+/- 145.4049 +/- 1,508.9860 +/- 1,512.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot SHBH9526)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	(Lot MKBX5945V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBH8106)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 99%	(Lot 462600)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBT5124)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBK0551)	62,500.9	µg/mL	+/- 363.3665 +/- 3,770.9529 +/- 3,779.9058	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot SHBJ9076)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5 **Purity** 98%	(Lot 00008541)	2,500.6	µg/mL	+/- 14.5387 +/- 150.8718 +/- 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBJ6179)	5,000.6	µg/mL	+/- 29.0741 +/- 301.7099 +/- 302.4262	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15W12061)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKCC9660)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot 180531JLM)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBJ2110)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
25	n-Heptane (C7)		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBJ2424)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot SHBJ0707)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
27	Benzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBJ5344)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
28	Trichloroethene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBH1955V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
29	Methylcyclohexane		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBJ0457)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
30	1,2-Dichloropropane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
31	1,4-Dioxane		50,001.1	µg/mL	+/-	290.6957	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBJ7415)			+/-	3,016.7880	µg/mL	Unstressed
	Purity 99%				+/-	3,023.9503	µg/mL	Stressed
32	Dibromomethane		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 25076)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
34	Toluene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBJ5659)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
35	Ethyl methacrylate		2,502.8	µg/mL	+/-	14.5512	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot 69796APV)			+/-	151.0020	µg/mL	Unstressed
	Purity 99%				+/-	151.3605	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,500.6	µg/mL	+/-	14.5387	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot C797620)			+/-	150.8718	µg/mL	Unstressed
	Purity 98%				+/-	151.2300	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
38	1,3-Dichloropropane		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
39	Tetrachloroethene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBH9691)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed

40	dibromochloromethane **CAS #** 124-48-1 **Purity** 98%	(Lot MKCC0877)	2,502.4 µg/mL	+/- 14.5493 +/- 150.9827 +/- 151.3411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBH3877V)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBH4459V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBJ2338)	1,251.5 µg/mL	+/- 7.2763 +/- 75.5085 +/- 75.6878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	1,250.1 µg/mL	+/- 7.2683 +/- 75.4256 +/- 75.6047	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH7231)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKCC9766)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBG3138V)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane **CAS #** 75-27-4 **Purity** 99%	(Lot MKCF8470)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene **CAS #** 110-57-6 **Purity** 94%	(Lot MKBX7788V)	2,500.0 µg/mL	+/- 14.5355 +/- 150.8389 +/- 151.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot WXBC3346V)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot WXBC5147V)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBS7648V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
58	2-Chlorotoluene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
59	4-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,499.9	µg/mL	+/-	14.5348	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBH5027V)			+/-	150.8320	µg/mL	Unstressed
	Purity 97%				+/-	151.1901	µg/mL	Stressed
62	sec-Butylbenzene		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
63	p-Isopropyltoluene (p-Cymene)		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBV3556V)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
66	n-Butylbenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/-	151.0095	µg/mL	Unstressed
	Purity 99%				+/-	151.3681	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.1	µg/mL	+/-	14.5476	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/-	150.9643	µg/mL	Unstressed
	Purity 99%				+/-	151.3227	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
71	Naphthalene		2,502.8	µg/mL	+/-	14.5512	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/-	151.0020	µg/mL	Unstressed
	Purity 99%				+/-	151.3605	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,502.5 µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)		+/-	150.9869	µg/mL	Unstressed
	Purity 99%			+/-	151.3454	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

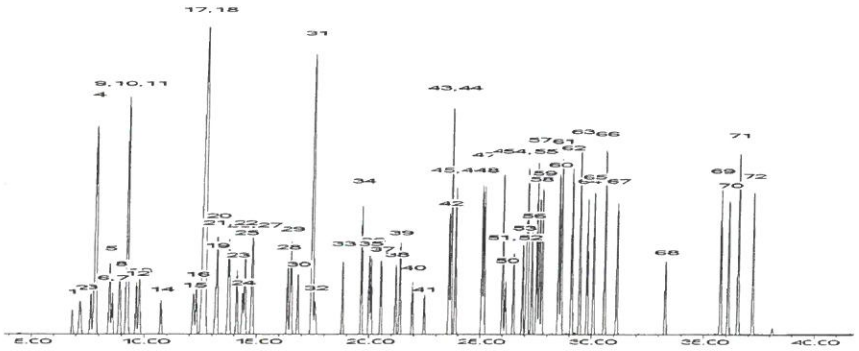
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 05-Dec-2018 **Balance:** B251644995

Diane Shaffer - Operations Tech-ARM QC **Date Passed:** 21-Dec-2018

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

VM571992_00005

Rc'd 4/19/21 VM571992_00005

RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0159680

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBK7710) **Purity** 99%	2,518.8 µg/mL	+/- 14.6442 +/- 151.9673 +/- 152.3281	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00016133) **Purity** 99%	2,523.8 µg/mL	+/- 14.6733 +/- 152.2690 +/- 152.6305	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBK2437) **Purity** 99%	2,517.5 µg/mL	+/- 14.6370 +/- 151.8919 +/- 152.2525	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBL0592) **Purity** 99%	25,122.1 µg/mL	+/- 146.0546 +/- 1,515.7284 +/- 1,519.3270	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBK5436) **Purity** 99%	5,041.4 µg/mL	+/- 29.3110 +/- 304.1685 +/- 304.8906	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot D4406-0122JM) **Purity** 99%	2,520.5 µg/mL	+/- 14.6544 +/- 152.0729 +/- 152.4340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot 191118KJ) **Purity** 99%	2,521.0 µg/mL	+/- 14.6573 +/- 152.1031 +/- 152.4642	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Reagent

VM571992S_00007

VM571992S-00007 Rec; 2-21-20

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ilac-MRA

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0144202

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,517.0 µg/mL	+/- 14.6339 +/- 151.8598 +/- 152.2203	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,503.3 µg/mL	+/- 14.5546 +/- 151.0372 +/- 151.3958	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.8 µg/mL	+/- 145.3491 +/- 1,508.4071 +/- 1,511.9883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,002.3 µg/mL	+/- 29.0840 +/- 301.8129 +/- 302.5295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,511.7 µg/mL	+/- 14.6030 +/- 151.5400 +/- 151.8998	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane)		2,506.7	µg/mL	+/-	14.5740	µg/mL	Gravimetric
	CAS # 75-09-2.SEC	(Lot FGM02)			+/-	151.2383	µg/mL	Unstressed
	Purity 99%				+/-	151.5974	µg/mL	Stressed
9	Carbon disulfide		2,500.7	µg/mL	+/-	14.5391	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	150.8763	µg/mL	Unstressed
	Purity 99%				+/-	151.2345	µg/mL	Stressed
10	Acrylonitrile		25,001.2	µg/mL	+/-	145.3513	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot UERIL)			+/-	1,508.4304	µg/mL	Unstressed
	Purity 99%				+/-	1,512.0117	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZHKYA)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
12	cis-1,2-Dichloroethene		2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	150.9137	µg/mL	Unstressed
	Purity 98%				+/-	151.2720	µg/mL	Stressed
13	n-Hexane (C6)		2,503.2	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot K24W001)			+/-	151.0320	µg/mL	Unstressed
	Purity 97%				+/-	151.3905	µg/mL	Stressed
14	1,1-Dichloroethane		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 75-34-3.SEC	(Lot 5379000)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
15	2,2-Dichloropropane		2,503.2	µg/mL	+/-	14.5541	µg/mL	Gravimetric
	CAS # 594-20-7.SEC	(Lot I7E8E)			+/-	151.0320	µg/mL	Unstressed
	Purity 98%				+/-	151.3905	µg/mL	Stressed
16	trans-1,2-Dichloroethene		2,501.0	µg/mL	+/-	14.5409	µg/mL	Gravimetric
	CAS # 156-60-5.SEC	(Lot TS5UB)			+/-	150.8954	µg/mL	Unstressed
	Purity 97%				+/-	151.2537	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,508.3	µg/mL	+/-	363.4098	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot PH2XK)			+/-	3,771.4029	µg/mL	Unstressed
	Purity 99%				+/-	3,780.3569	µg/mL	Stressed
18	Chloroform		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 67-66-3.SEC	(Lot 1297547)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
19	Bromochloromethane		2,507.0	µg/mL	+/-	14.5759	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 5670200)			+/-	151.2584	µg/mL	Unstressed
	Purity 99%				+/-	151.6175	µg/mL	Stressed
20	Tetrahydrofuran		5,006.7	µg/mL	+/-	29.1092	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot 8DAOJ)			+/-	302.0744	µg/mL	Unstressed
	Purity 99%				+/-	302.7916	µg/mL	Stressed
21	1,1,1-Trichloroethane		2,507.7	µg/mL	+/-	14.5798	µg/mL	Gravimetric
	CAS # 71-55-6.SEC	(Lot 7998000)			+/-	151.2986	µg/mL	Unstressed
	Purity 99%				+/-	151.6579	µg/mL	Stressed
22	Cyclohexane		2,508.0	µg/mL	+/-	14.5817	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	151.3188	µg/mL	Unstressed
	Purity 99%				+/-	151.6780	µg/mL	Stressed
23	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5492	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 5221100)			+/-	150.9809	µg/mL	Unstressed
	Purity 96%				+/-	151.3393	µg/mL	Stressed

24	Carbon tetrachloride		2,510.3	µg/mL	+/-	14.5953	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	151.4595	µg/mL	Unstressed
	Purity 99%				+/-	151.8191	µg/mL	Stressed
25	n-Heptane (C7)		2,511.8	µg/mL	+/-	14.6040	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	151.5500	µg/mL	Unstressed
	Purity 99%				+/-	151.9098	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5430	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.9165	µg/mL	Unstressed
	Purity 99%				+/-	151.2748	µg/mL	Stressed
27	Benzene		2,504.8	µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	151.1277	µg/mL	Unstressed
	Purity 99%				+/-	151.4865	µg/mL	Stressed
28	Trichloroethene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
29	Methylcyclohexane		2,504.5	µg/mL	+/-	14.5614	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot Q02QG)			+/-	151.1076	µg/mL	Unstressed
	Purity 99%				+/-	151.4663	µg/mL	Stressed
30	1,2-Dichloropropane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	151.0774	µg/mL	Unstressed
	Purity 99%				+/-	151.4361	µg/mL	Stressed
31	1,4-Dioxane		50,008.0	µg/mL	+/-	290.7356	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot YVP2C)			+/-	3,017.2028	µg/mL	Unstressed
	Purity 99%				+/-	3,024.3661	µg/mL	Stressed
32	Dibromomethane		2,509.5	µg/mL	+/-	14.5904	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	151.4093	µg/mL	Unstressed
	Purity 99%				+/-	151.7687	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
34	Toluene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
35	Ethyl methacrylate		2,508.8	µg/mL	+/-	14.5866	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	151.3690	µg/mL	Unstressed
	Purity 99%				+/-	151.7284	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,502.9	µg/mL	+/-	14.5520	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	151.0098	µg/mL	Unstressed
	Purity 96%				+/-	151.3684	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
38	1,3-Dichloropropane		2,502.7	µg/mL	+/-	14.5507	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.9970	µg/mL	Unstressed
	Purity 99%				+/-	151.3555	µg/mL	Stressed
39	Tetrachloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed

40	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	(Lot 10206360)	2,502.4 µg/mL	+/- 14.5494 +/- 150.9832 +/- 151.3417	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	(Lot 3505900)	2,503.3 µg/mL	+/- 14.5546 +/- 151.0372 +/- 151.3958	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	(Lot 1161936)	2,504.8 µg/mL	+/- 14.5633 +/- 151.1277 +/- 151.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	(Lot OUKMG-GB)	1,251.7 µg/mL	+/- 7.2941 +/- 75.5202 +/- 75.6995	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	(Lot GM01)	1,253.7 µg/mL	+/- 7.3058 +/- 75.6409 +/- 75.8205	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4.SEC **Purity** 99%	(Lot PI4SE)	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	(Lot GC01)	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	(Lot FGL01)	2,504.2 µg/mL	+/- 14.5594 +/- 151.0875 +/- 151.4462	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5.SEC **Purity** 99%	(Lot OFIOL-IA)	2,507.2 µg/mL	+/- 14.5769 +/- 151.2685 +/- 151.6276	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8.SEC **Purity** 99%	(Lot 2PHXG-IH)	2,505.2 µg/mL	+/- 14.5653 +/- 151.1478 +/- 151.5067	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform **CAS #** 75-25-2.SEC **Purity** 97%	(Lot 5461400)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8661 +/- 151.2243	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 98%	(Lot 13780)	2,501.3 µg/mL	+/- 14.5427 +/- 150.9137 +/- 151.2720	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5.SEC **Purity** 99%	(Lot CFA4D-AQ)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4.SEC **Purity** 99%	(Lot GUHZN)	2,505.7 µg/mL	+/- 14.5682 +/- 151.1780 +/- 151.5369	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene **CAS #** 110-57-6.SEC **Purity** 98%	(Lot 100700-3)	2,514.2 µg/mL	+/- 14.6177 +/- 151.6922 +/- 152.0524	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1.SEC **Purity** 99%	(Lot T2HFC)	2,503.7 µg/mL	+/- 14.5565 +/- 151.0573 +/- 151.4159	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,506.2	µg/mL	+/-	14.5711	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	151.2081	µg/mL	Unstressed
	Purity 99%				+/-	151.5671	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
58	2-Chlorotoluene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
59	4-Chlorotoluene		2,509.2	µg/mL	+/-	14.5885	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	151.3891	µg/mL	Unstressed
	Purity 99%				+/-	151.7486	µg/mL	Stressed
60	tert-Butylbenzene		2,505.8	µg/mL	+/-	14.5691	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/-	151.1880	µg/mL	Unstressed
	Purity 99%				+/-	151.5470	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
62	sec-Butylbenzene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,500.3	µg/mL	+/-	14.5372	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/-	150.8562	µg/mL	Unstressed
	Purity 99%				+/-	151.2143	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,506.3	µg/mL	+/-	14.5720	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	151.2182	µg/mL	Unstressed
	Purity 99%				+/-	151.5772	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,509.8	µg/mL	+/-	14.5924	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	151.4294	µg/mL	Unstressed
	Purity 99%				+/-	151.7889	µg/mL	Stressed
66	n-Butylbenzene		2,513.7	µg/mL	+/-	14.6147	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/-	151.6607	µg/mL	Unstressed
	Purity 99%				+/-	152.0207	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.8	µg/mL	+/-	14.5459	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.9467	µg/mL	Unstressed
	Purity 99%				+/-	151.3051	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.5	µg/mL	+/-	14.5845	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	151.3473	µg/mL	Unstressed
	Purity 98%				+/-	151.7066	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
70	Hexachlorobutadiene		2,504.4	µg/mL	+/-	14.5607	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	151.1002	µg/mL	Unstressed
	Purity 97%				+/-	151.4590	µg/mL	Stressed
71	Naphthalene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,512.2	µg/mL	+/-	14.6063	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	151.5740	µg/mL	Unstressed
	Purity 98%				+/-	151.9338	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

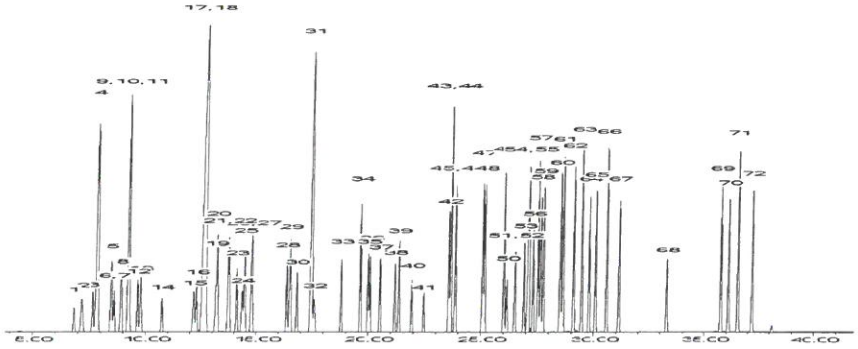
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 21-Dec-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

VM571992S_00008

Rec'd 6/10/21 VM571992S 00058

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0167172

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2023 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Nominal Concentration (weight/volume)	Expanded Uncertainty (95% C.L., k=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 99%	2,501.7 µg/mL	+/- 14.5449 +/- 150.9366 +/- 151.2950	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,500.8 µg/mL	+/- 14.5401 +/- 150.8864 +/- 151.2446	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,501.2 µg/mL	+/- 14.5420 +/- 150.9065 +/- 151.2647	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot HGCHN) **Purity** 99%	25,001.2 µg/mL	+/- 145.3513 +/- 1,508.4304 +/- 1,512.0117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,000.2 µg/mL	+/- 29.0714 +/- 301.6822 +/- 302.3985	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,501.7 µg/mL	+/- 14.5449 +/- 150.9366 +/- 151.2950	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HR-17/100421/	240-157476-1	93	123	90	75
HR-17/100421/	240-157476-1	97	123	88	74
W-2-S/100421/	240-157476-2	90	119	92	77
W-3-S/100421/	240-157476-3	95	123	91	72
W-3-S/100421/	240-157476-3	94	111	88	76
W-4-S/100421/	240-157476-4	92	118	90	73
EB-01/100421/	240-157476-5	93	122	93	80
EB-02/100421/	240-157476-6	91	120	95	79
TB-01/100421/	240-157476-7	94	122	94	77
	MB 240-507379/7	87	114	94	84
	MB 240-507592/7	88	117	93	82
	MB 240-507764/7	89	118	92	77
	LCS 240-507379/4	88	108	100	100
	LCS 240-507592/4	87	107	101	99
	LCS 240-507764/4	88	109	98	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	73-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-137
TOL = Toluene-d8 (Surr)	78-122
BFB = 4-Bromofluorobenzene (Surr)	56-136

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9917.D

Lab ID: LCS 240-507379/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	20.5	102	80-121	
1,1,1-Trichloroethane	10.0	9.11	91	64-131	
1,1-Dichloroethane	10.0	10.9	109	72-127	
1,1-Dichloroethene	10.0	9.14	91	63-134	
Benzene	10.0	10.5	105	77-123	
cis-1,2-Dichloroethene	10.0	9.75	97	77-123	
Ethylbenzene	10.0	10.4	104	80-121	
Tetrachloroethene	10.0	9.21	92	76-123	
Toluene	10.0	10.7	107	80-123	
trans-1,2-Dichloroethene	10.0	9.80	98	75-124	
Trichloroethene	10.0	9.29	93	70-122	
Vinyl chloride	10.0	8.25	83	60-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9946.D

Lab ID: LCS 240-507592/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	20.9	105	80-121	
1,1,1-Trichloroethane	10.0	9.39	94	64-131	
1,1-Dichloroethane	10.0	11.0	110	72-127	
1,1-Dichloroethene	10.0	9.30	93	63-134	
Benzene	10.0	11.1	111	77-123	
cis-1,2-Dichloroethene	10.0	10.1	101	77-123	
Ethylbenzene	10.0	10.6	106	80-121	
Tetrachloroethene	10.0	9.55	96	76-123	
Toluene	10.0	11.2	112	80-123	
trans-1,2-Dichloroethene	10.0	10.0	100	75-124	
Trichloroethene	10.0	9.69	97	70-122	
Vinyl chloride	10.0	10.3	103	60-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9976.D

Lab ID: LCS 240-507764/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	19.9	99	80-121	
1,1,1-Trichloroethane	10.0	9.11	91	64-131	
1,1-Dichloroethane	10.0	11.1	111	72-127	
1,1-Dichloroethene	10.0	9.34	93	63-134	
Benzene	10.0	11.0	110	77-123	
cis-1,2-Dichloroethene	10.0	9.93	99	77-123	
Ethylbenzene	10.0	10.3	103	80-121	
Tetrachloroethene	10.0	9.50	95	76-123	
Toluene	10.0	10.8	108	80-123	
trans-1,2-Dichloroethene	10.0	10.2	102	75-124	
Trichloroethene	10.0	9.44	94	70-122	
Vinyl chloride	10.0	10.3	103	60-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: UXC9921.D Lab Sample ID: MB 240-507379/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 10/08/2021 12:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-507379/4	UXC9917.D	10/08/2021 10:34
W-2-S/100421/	240-157476-2	UXC9934.D	10/08/2021 17:13
EB-01/100421/	240-157476-5	UXC9935.D	10/08/2021 17:35
EB-02/100421/	240-157476-6	UXC9936.D	10/08/2021 17:57
TB-01/100421/	240-157476-7	UXC9937.D	10/08/2021 18:19

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: UXC9950.D Lab Sample ID: MB 240-507592/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 10/11/2021 11:10

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-507592/4	UXC9946.D	10/11/2021 09:43
W-4-S/100421/	240-157476-4	UXC9958.D	10/11/2021 14:05
HR-17/100421/	240-157476-1	UXC9963.D	10/11/2021 15:55
W-3-S/100421/	240-157476-3	UXC9964.D	10/11/2021 16:16

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: UXC9980.D Lab Sample ID: MB 240-507764/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 10/12/2021 10:51

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-507764/4	UXC9976.D	10/12/2021 08:42
HR-17/100421/	240-157476-1	UXC0001.D	10/12/2021 18:35
W-3-S/100421/	240-157476-3	UXC0002.D	10/12/2021 19:04

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: BFB210316.D BFB Injection Date: 03/16/2021

Instrument ID: A3UX15 BFB Injection Time: 07:33

Analysis Batch No.: 476941

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.8	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	Greater than 50% of mass 95	92.8	
175	5.0 - 9.0 % of mass 174	6.1	(6.6) 1
176	95.0 - 101.0 % of mass 174	90.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-476941/2	UXC5644.D	03/16/2021	8:36
	STD8260 240-476941/3	UXC5645.D	03/16/2021	8:58
	STD8260 240-476941/4	UXC5646.D	03/16/2021	9:20
	STD8260 240-476941/5	UXC5647.D	03/16/2021	9:42
	STD8260 240-476941/6	UXC5648.D	03/16/2021	10:17
	STD8260 240-476941/7	UXC5649.D	03/16/2021	10:39
	ICV 240-476941/14	UXC5650.D	03/16/2021	11:01
	ICV 240-476941/15	UXC5657.D	03/16/2021	13:34

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: BFB1008.D BFB Injection Date: 10/08/2021

Instrument ID: A3UX15 BFB Injection Time: 09:43

Analysis Batch No.: 507379

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.5	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	Greater than 50% of mass 95	80.1	
175	5.0 - 9.0 % of mass 174	5.3	(6.7) 1
176	95.0 - 101.0 % of mass 174	77.0	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-507379/2	UXC9916.D	10/08/2021	10:12
	LCS 240-507379/4	UXC9917.D	10/08/2021	10:34
	CCV 240-507379/3	UXC9918.D	10/08/2021	10:56
	MB 240-507379/7	UXC9921.D	10/08/2021	12:02
W-2-S/100421/	240-157476-2	UXC9934.D	10/08/2021	17:13
EB-01/100421/	240-157476-5	UXC9935.D	10/08/2021	17:35
EB-02/100421/	240-157476-6	UXC9936.D	10/08/2021	17:57
TB-01/100421/	240-157476-7	UXC9937.D	10/08/2021	18:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: BFB1011.D BFB Injection Date: 10/11/2021

Instrument ID: A3UX15 BFB Injection Time: 08:54

Analysis Batch No.: 507592

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	Greater than 50% of mass 95	78.4	
175	5.0 - 9.0 % of mass 174	5.2	(6.7) 1
176	95.0 - 101.0 % of mass 174	76.1	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.9	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-507592/2	UXC9945.D	10/11/2021	9:21
	LCS 240-507592/4	UXC9946.D	10/11/2021	9:43
	CCV 240-507592/3	UXC9947.D	10/11/2021	10:05
	MB 240-507592/7	UXC9950.D	10/11/2021	11:10
W-4-S/100421/	240-157476-4	UXC9958.D	10/11/2021	14:05
HR-17/100421/	240-157476-1	UXC9963.D	10/11/2021	15:55
W-3-S/100421/	240-157476-3	UXC9964.D	10/11/2021	16:16

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab File ID: BFB1012.D BFB Injection Date: 10/12/2021

Instrument ID: A3UX15 BFB Injection Time: 07:54

Analysis Batch No.: 507764

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.5	
75	30.0 - 60.0 % of mass 95	51.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.3	(0.4) 1
174	Greater than 50% of mass 95	73.8	
175	5.0 - 9.0 % of mass 174	5.0	(6.8) 1
176	95.0 - 101.0 % of mass 174	70.7	(95.9) 1
177	5.0 - 9.0 % of mass 176	4.6	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-507764/2	UXC9975.D	10/12/2021	8:20
	LCS 240-507764/4	UXC9976.D	10/12/2021	8:42
	CCV 240-507764/3	UXC9977.D	10/12/2021	9:04
	MB 240-507764/7	UXC9980.D	10/12/2021	10:51
HR-17/100421/	240-157476-1	UXC0001.D	10/12/2021	18:35
W-3-S/100421/	240-157476-3	UXC0002.D	10/12/2021	19:04

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Sample No.: STD8260 240-476941/4 Date Analyzed: 03/16/2021 09:20

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC5646.D Heated Purge: (Y/N) N

Calibration ID: 60823

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1635381	5.00	1083691	7.66	639882	9.90
UPPER LIMIT		3270762	5.50	2167382	8.16	1279764	10.40
LOWER LIMIT		817691	4.50	541846	7.16	319941	9.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-476941/14		1567389	5.00	1054688	7.66	623148	9.90
ICV 240-476941/15		1522004	5.00	1034257	7.66	604775	9.90
CCVIS 240-507379/2		1775696	4.99	1282332	7.66	700798	9.89
CCVIS 240-507592/2		1948739	4.99	1425825	7.66	774100	9.89
CCVIS 240-507764/2		1868411	4.99	1377291	7.66	768703	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Sample No.: CCVIS 240-507379/2 Date Analyzed: 10/08/2021 10:12

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9916.D Heated Purge: (Y/N) N

Calibration ID: 60825

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1775696	4.99	1282332	7.66	700798	9.89
UPPER LIMIT		3551392	5.49	2564664	8.16	1401596	10.39
LOWER LIMIT		887848	4.49	641166	7.16	350399	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-507379/4		1734705	4.99	1259192	7.66	701641	9.89
CCV 240-507379/3		1681250	4.99	1271056	7.66	609374	9.89
MB 240-507379/7		1606868	4.99	1187492	7.66	587709	9.89
240-157476-2	W-2-S/100421/	1500726	4.99	1097666	7.66	513925	9.89
240-157476-5	EB-01/100421/	1489508	4.99	1101814	7.66	538821	9.89
240-157476-6	EB-02/100421/	1467633	5.00	1042016	7.66	505316	9.89
240-157476-7	TB-01/100421/	1435257	4.99	1017719	7.66	482861	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Sample No.: CCVIS 240-507592/2 Date Analyzed: 10/11/2021 09:21

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9945.D Heated Purge: (Y/N) N

Calibration ID: 60825

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1948739	4.99	1425825	7.66	774100	9.89
UPPER LIMIT		3897478	5.49	2851650	8.16	1548200	10.39
LOWER LIMIT		974370	4.49	712913	7.16	387050	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-507592/4		1889156	4.99	1368722	7.66	754760	9.89
CCV 240-507592/3		1789126	4.99	1395909	7.66	669327	9.89
MB 240-507592/7		1633823	4.99	1222030	7.66	610519	9.89
240-157476-4	W-4-S/100421/	1493868	4.99	1105633	7.66	511094	9.89
240-157476-1	HR-17/100421/	1494890	4.99	1120511	7.66	510834	9.89
240-157476-3	W-3-S/100421/	1466227	4.99	1095020	7.66	505961	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Sample No.: CCVIS 240-507764/2 Date Analyzed: 10/12/2021 08:20

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9975.D Heated Purge: (Y/N) N

Calibration ID: 60825

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1868411	4.99	1377291	7.66	768703	9.89
UPPER LIMIT		3736822	5.49	2754582	8.16	1537406	10.39
LOWER LIMIT		934206	4.49	688646	7.16	384352	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-507764/4		1861670	4.99	1362324	7.66	766187	9.89
CCV 240-507764/3		1870121	4.99	1457585	7.66	669580	9.89
MB 240-507764/7		1617587	4.99	1210836	7.66	571986	9.89
240-157476-1	HR-17/100421/	1455214	4.99	1124176	7.66	506583	9.89
240-157476-3	W-3-S/100421/	1521960	4.99	1151148	7.66	531855	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: HR-17/100421/ | Lab Sample ID: 240-157476-1

Matrix: Water | Lab File ID: UXC0001.D

Analysis Method: 8260B | Date Collected: 10/04/2021 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/12/2021 18:35

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507764 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	4.0	U	4.0	0.84
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	0.96
75-34-3	1,1-Dichloroethane	2.0	U	2.0	0.94
75-35-4	1,1-Dichloroethene	2.0	U	2.0	0.98
71-43-2	Benzene	2.0	U	2.0	0.84
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	0.92
100-41-4	Ethylbenzene	2.0	U	2.0	0.84
108-88-3	Toluene	2.0	U	2.0	0.88
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	1.0
79-01-6	Trichloroethene	2.0	U	2.0	0.88
75-01-4	Vinyl chloride	2.0	U	2.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	74		56-136
1868-53-7	Dibromofluoromethane (Surr)	97		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		62-137
2037-26-5	Toluene-d8 (Surr)	88		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0001.D
Lims ID: 240-157476-A-1
Client ID: HR-17/100421/
Sample Type: Client
Inject. Date: 12-Oct-2021 18:35:30 ALS Bottle#: 27 Worklist Smp#: 52
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 240-0114014-052
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

First Level Reviewer: evansle Date: 13-Oct-2021 08:47:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	98	1455214	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1124176	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	506583	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	329777	9.70	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	0.000	100	473054	12.3	
$ 6 Toluene-d8 (Surr)	98	6.353	6.341	0.012	94	1208890	8.77	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	344921	7.40	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62		1.645				ND	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		1.989				ND	
16 Trichlorofluoromethane	101		2.203				ND	7
19 1,1-Dichloroethene	96		2.606				ND	
20 112TCTFE	151	2.617	2.618	-0.001	93	37165	1.06	
21 Acetone	58	2.653	2.641	0.012	97	6404	2.18	
24 Carbon disulfide	76		2.807				ND	7
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		2.997				ND	
31 Methyl tert-butyl ether	73		3.210				ND	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	94	4491	0.1069	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	21794	0.3275	
41 cis-1,2-Dichloroethene	96	4.040	4.041	-0.001	77	11883	0.2678	
40 2-Butanone (MEK)	72		4.052				ND	
48 Chloroform	83		4.301				ND	7
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	96	22761	0.3815	
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	90	24003	0.1504	
56 1,2-Dichloroethane	62		4.776				ND	
60 Trichloroethene	130	5.297	5.298	-0.001	91	8571	0.1998	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.400				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.898	6.898	0.000	98	2272179	64.9	E
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.606				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

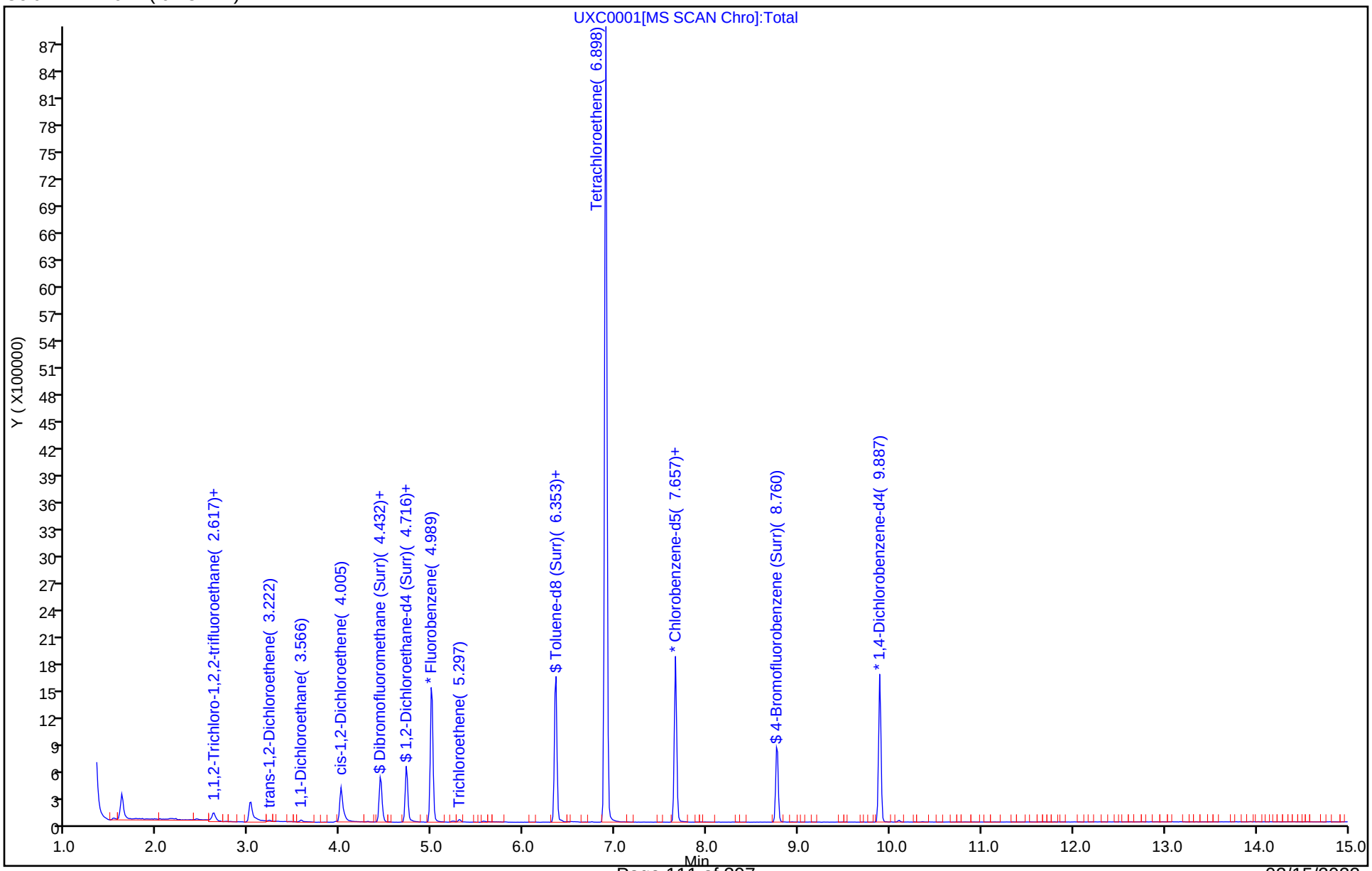
Report Date: 13-Oct-2021 08:54:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0001.D

Injection Date:	12-Oct-2021 18:35:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-A-1	Lab Sample ID:	240-157476-1	Worklist Smp#:	52
Client ID:	HR-17/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	27
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0001.D
Lims ID: 240-157476-A-1
Client ID: HR-17/100421/
Sample Type: Client
Inject. Date: 12-Oct-2021 18:35:30 ALS Bottle#: 27 Worklist Smp#: 52
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 240-0114014-052
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

First Level Reviewer: evansle Date: 13-Oct-2021 08:47:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.70	96.95
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.3	123.45
$ 6 Toluene-d8 (Surr)	10.0	8.77	87.75
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.40	74.01

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: HR-17/100421/ | Lab Sample ID: 240-157476-1

Matrix: Water | Lab File ID: UXC9963.D

Analysis Method: 8260B | Date Collected: 10/04/2021 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 15:55

Soil Aliquot Vol: | Dilution Factor: 10

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	130		10	4.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	75		56-136
1868-53-7	Dibromofluoromethane (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		62-137
2037-26-5	Toluene-d8 (Surr)	90		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9963.D
Lims ID: 240-157476-C-1
Client ID: HR-17/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 15:55:30 ALS Bottle#: 19 Worklist Smp#: 43
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 240-0113979-043
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:57:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1494890	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1120511	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	510834	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	326000	9.33	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	99	483211	12.3	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1239884	9.03	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	347379	7.48	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62	1.657	1.657	0.000	94	14024	0.3195	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		2.001				ND	
16 Trichlorofluoromethane	101		2.214				ND	
19 1,1-Dichloroethene	96		2.618				ND	
20 112TCTFE	151	2.618	2.618	0.000	89	7661	0.2126	
21 Acetone	58	2.653	2.641	0.012	99	1676	0.5544	
24 Carbon disulfide	76		2.819				ND	
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		2.997				ND	
31 Methyl tert-butyl ether	73		3.222				ND	
32 trans-1,2-Dichloroethene	96		3.222				ND	
35 1,1-Dichloroethane	63		3.566				ND	7
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	73	5322	0.1168	
40 2-Butanone (MEK)	72		4.053				ND	
48 Chloroform	83		4.302				ND	
49 1,1,1-Trichloroethane	97		4.456				ND	7
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	94	20552	0.1253	
56 1,2-Dichloroethane	62		4.788				ND	
60 Trichloroethene	130		5.298				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.725				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.899	6.899	-0.001	98	463802	13.3	
78 2-Hexanone	43		6.982				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

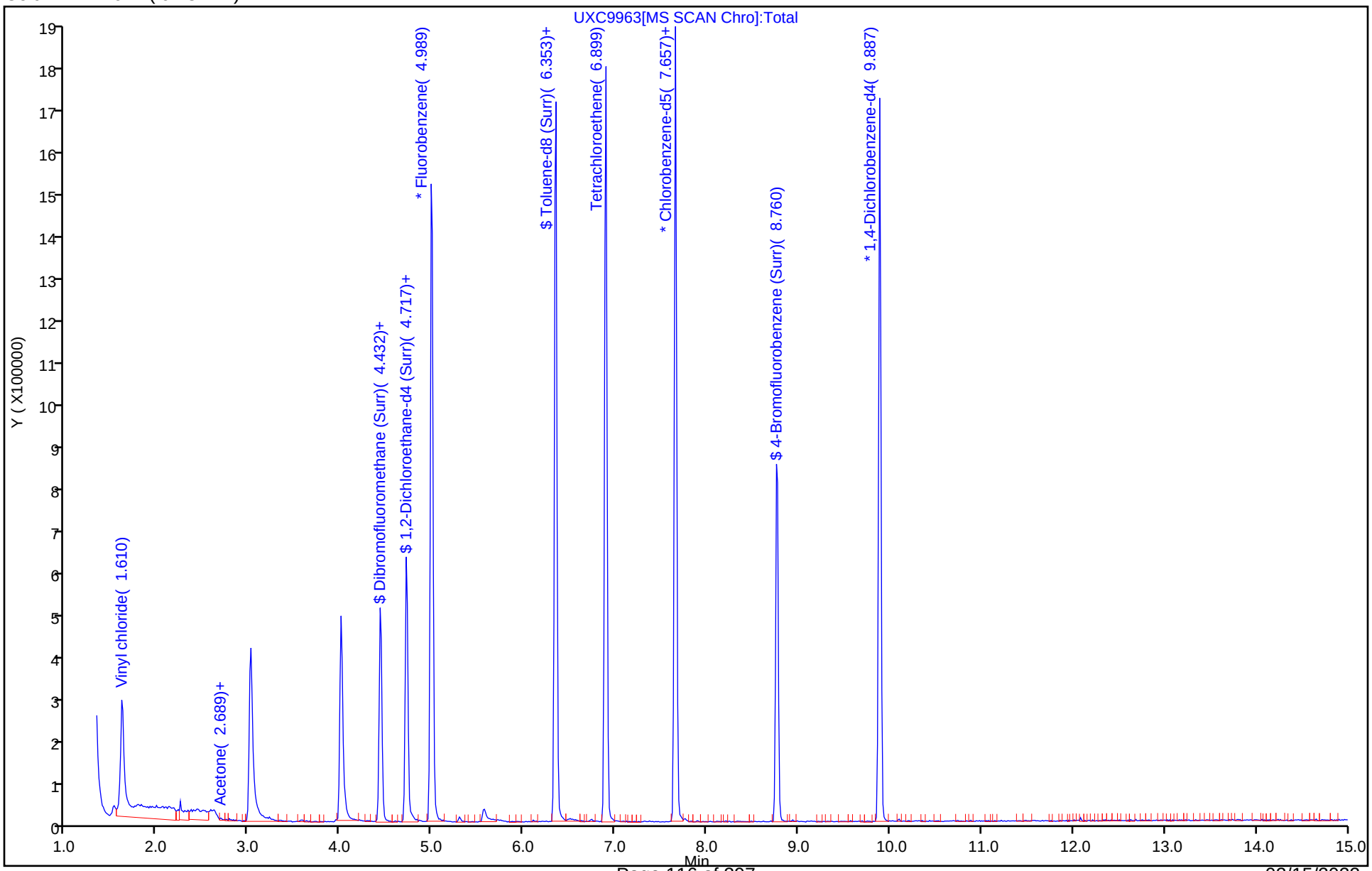
Report Date: 12-Oct-2021 11:13:56 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9963.D

Injection Date:	11-Oct-2021 15:55:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-C-1	Lab Sample ID:	240-157476-1	Worklist Smp#:	43
Client ID:	HR-17/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	19
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9963.D				
Lims ID:	240-157476-C-1				
Client ID:	HR-17/100421/				
Sample Type:	Client				
Inject. Date:	11-Oct-2021 15:55:30	ALS Bottle#:	19	Worklist Smp#:	43
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Sample Info:	240-0113979-043				
Misc. Info.:	C211011A,8260LLUX15,,43582				
Operator ID:	43582	Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	12-Oct-2021 11:12:57	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1669				

First Level Reviewer: evansle Date: 12-Oct-2021 10:57:18

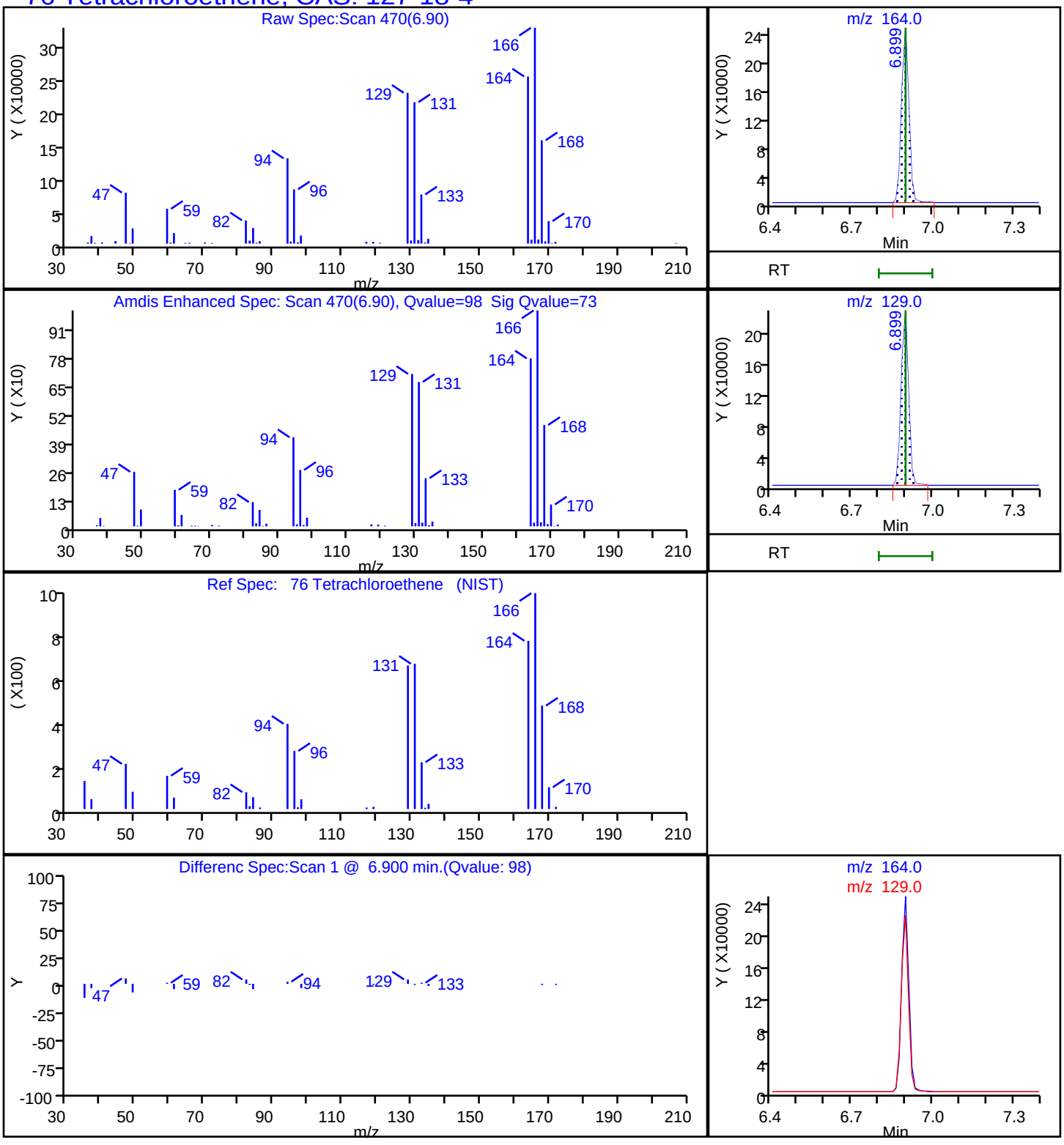
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.33	93.30
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.3	122.76
$ 6 Toluene-d8 (Surr)	10.0	9.03	90.29
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.48	74.79

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9963.D

Injection Date:	11-Oct-2021 15:55:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-C-1	Lab Sample ID:	240-157476-1		
Client ID:	HR-17/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	43
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

76 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: W-2-S/100421/ | Lab Sample ID: 240-157476-2

Matrix: Water | Lab File ID: UXC9934.D

Analysis Method: 8260B | Date Collected: 10/04/2021 16:25

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 17:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0		1.0	0.48
75-34-3	1,1-Dichloroethane	0.79	J	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	2.0		1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0		1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	6.1		1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	77		56-136
1868-53-7	Dibromofluoromethane (Surr)	90		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		62-137
2037-26-5	Toluene-d8 (Surr)	92		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D
Lims ID: 240-157476-B-2
Client ID: W-2-S/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:13:30 ALS Bottle#: 19 Worklist Smp#: 55
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-055
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:43:11

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1500726	10.0	
*	2 Chlorobenzene-d5	117	7.658	7.657	0.001	87	1097666	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	97	513925	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	92	315948	9.01	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	99	471776	11.9	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1241426	9.23	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	348214	7.65	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62	1.657	1.657	0.000	46	4776	0.1084	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		1.989				ND	
	16 Trichlorofluoromethane	101	2.203	2.202	0.001	69	11665	0.1491	
	19 1,1-Dichloroethene	96		2.606				ND	
	20 112TCTFE	151	2.618	2.617	0.001	93	18270	0.5051	
	21 Acetone	58	2.653	2.641	0.012	98	4603	1.52	
	24 Carbon disulfide	76		2.807				ND	
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		3.009				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	8150	0.1881	
	35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	54457	0.7935	
	41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	80	93574	2.05	
	40 2-Butanone (MEK)	72		4.052				ND	
	48 Chloroform	83		4.301				ND	
	49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	95	62163	1.01	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.776	4.764	0.012	95	25685	0.1560	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130	5.298	5.297	0.001	97	271340	6.13	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.899	6.898	0.001	96	34064	1.00	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

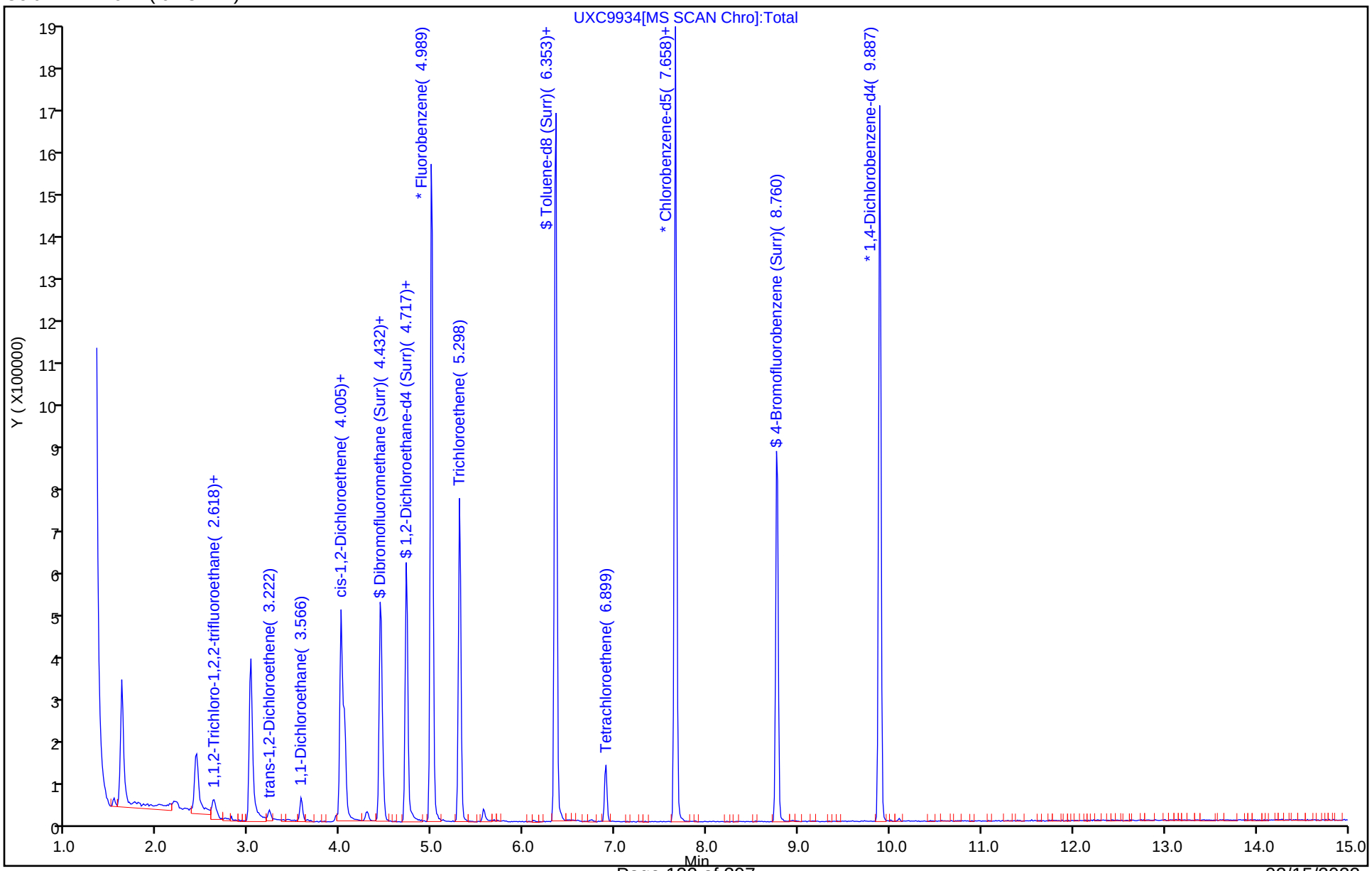
Report Date: 11-Oct-2021 07:47:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D

Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2	Worklist Smp#:	55
Client ID:	W-2-S/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D
Lims ID: 240-157476-B-2
Client ID: W-2-S/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:13:30 ALS Bottle#: 19 Worklist Smp#: 55
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-055
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

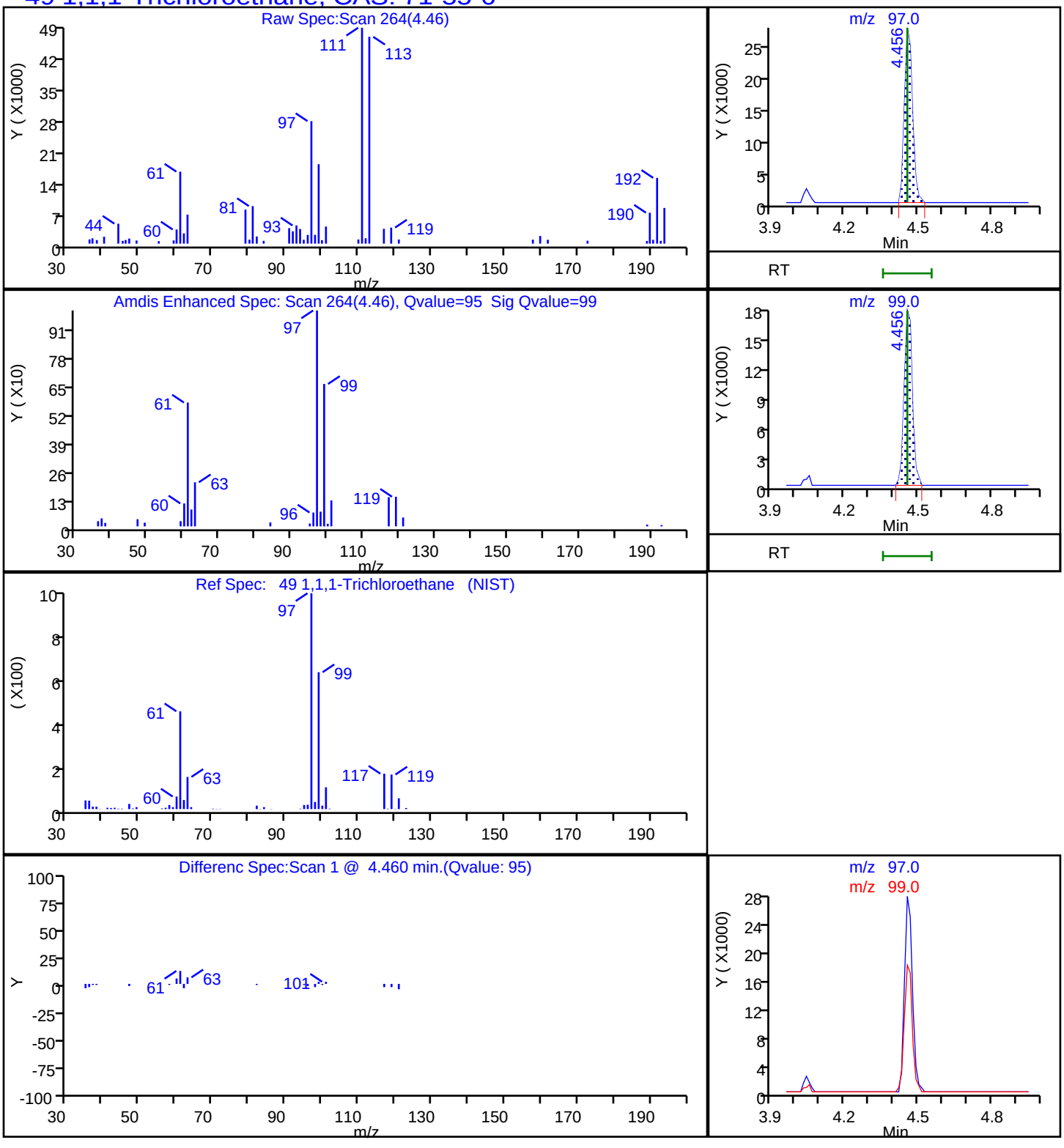
First Level Reviewer: evansle Date: 11-Oct-2021 07:43:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.01	90.07
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.9	119.39
$ 6 Toluene-d8 (Surr)	10.0	9.23	92.28
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.65	76.53

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D				
Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2		
Client ID:	W-2-S/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	55
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

49 1,1,1-Trichloroethane, CAS: 71-55-6

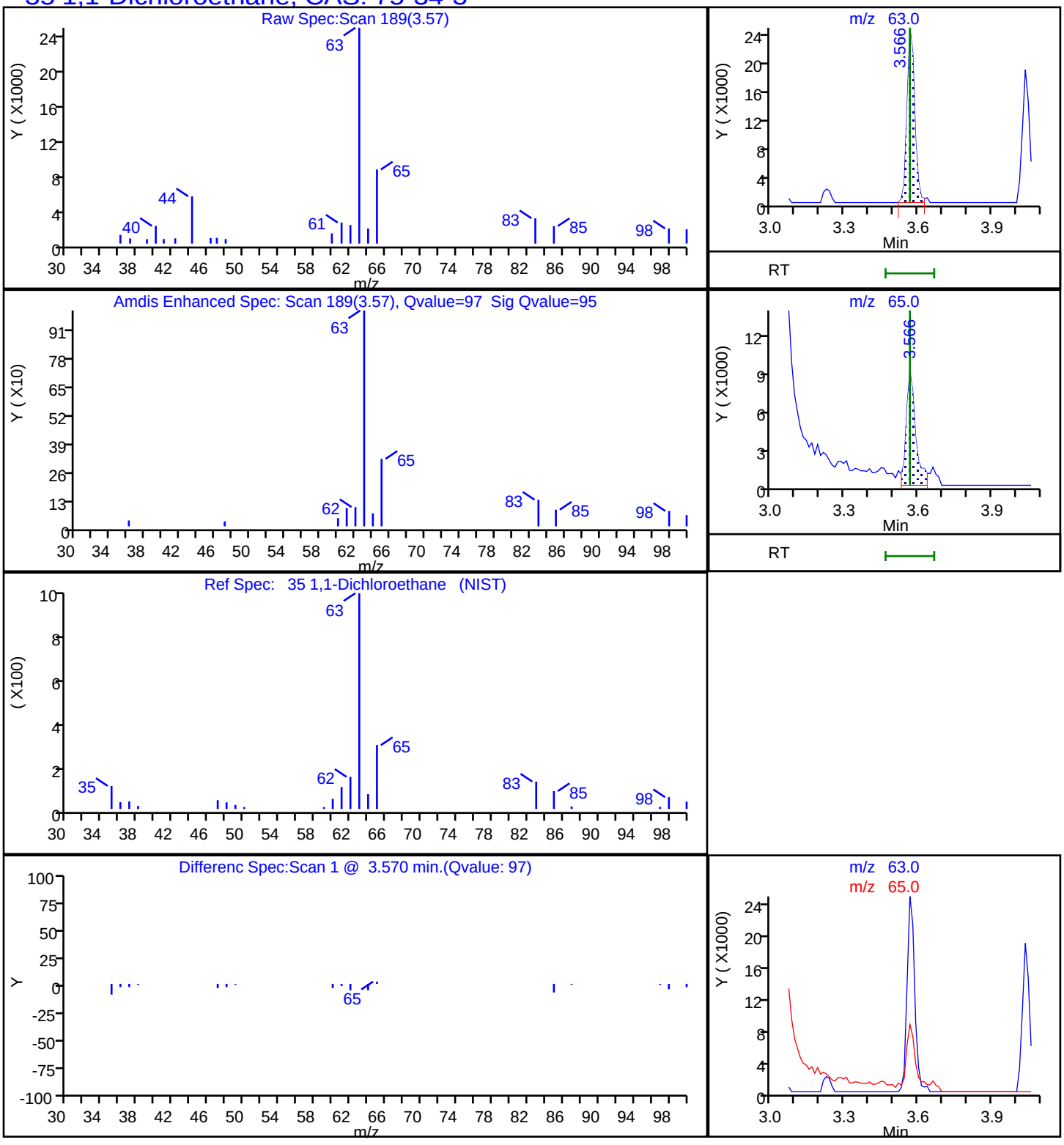


Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D

Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2		
Client ID:	W-2-S/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	55
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

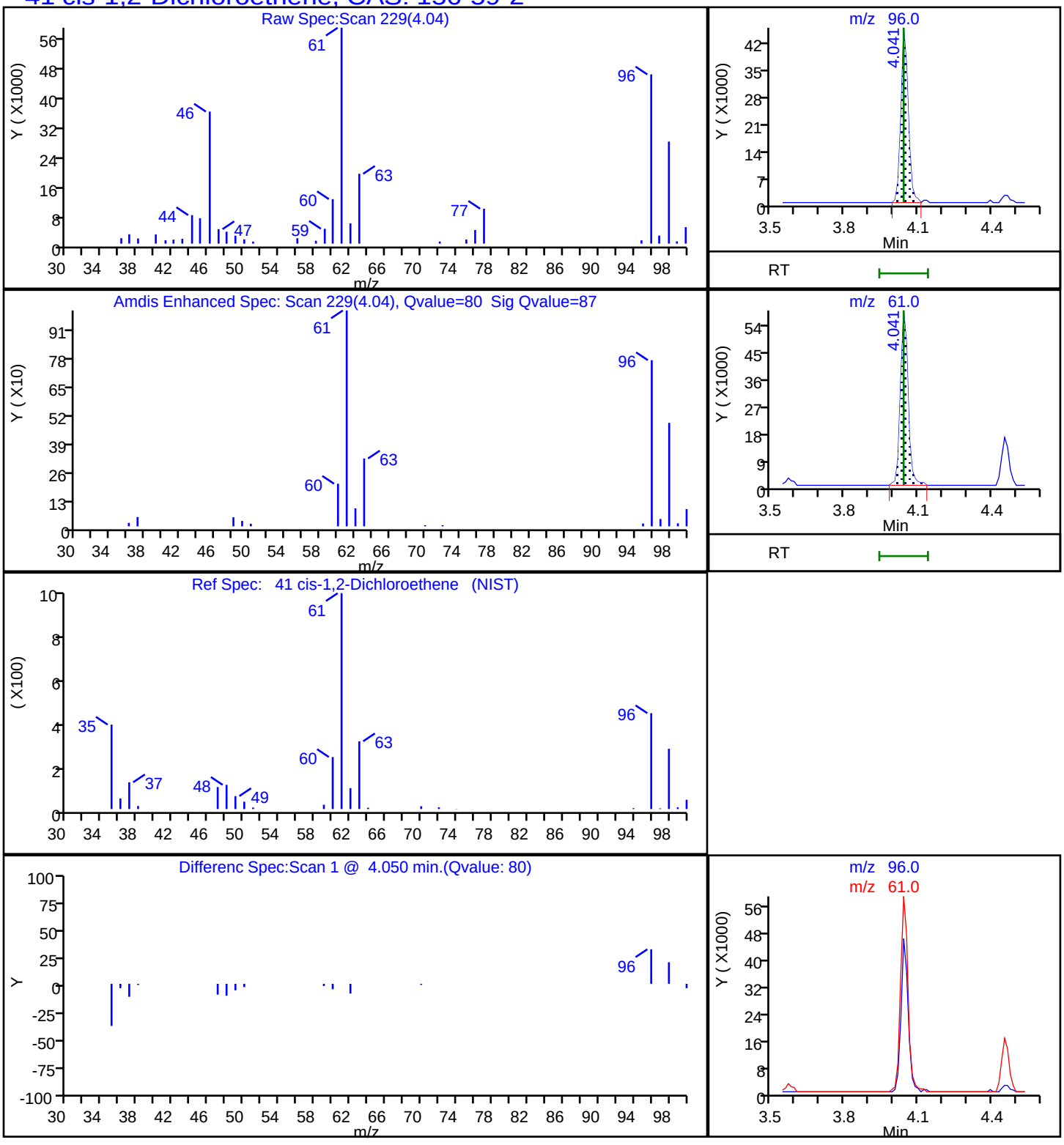
35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D				
Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2		
Client ID:	W-2-S/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	55
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

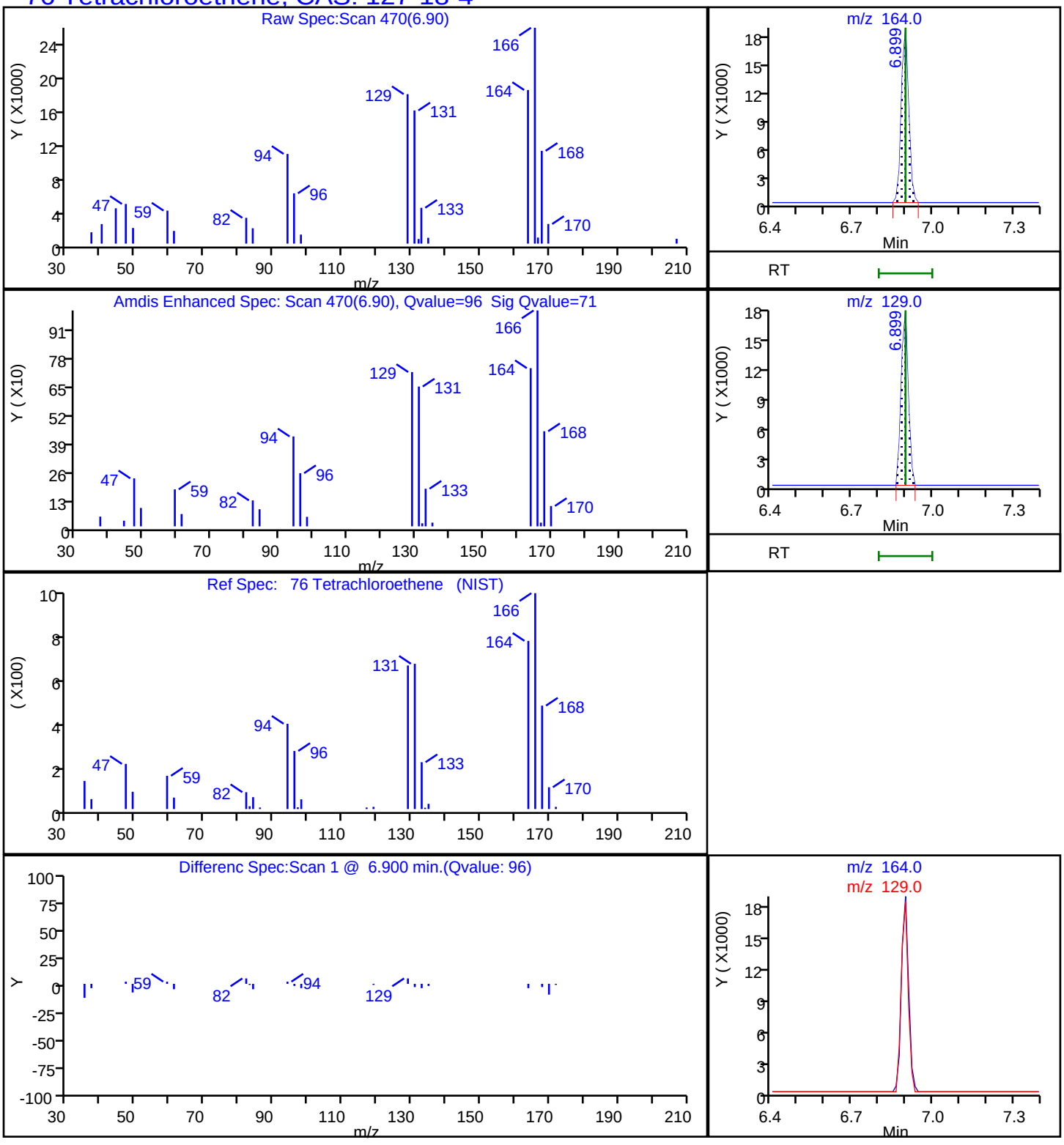
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D				
Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2		
Client ID:	W-2-S/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	55
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

76 Tetrachloroethene, CAS: 127-18-4



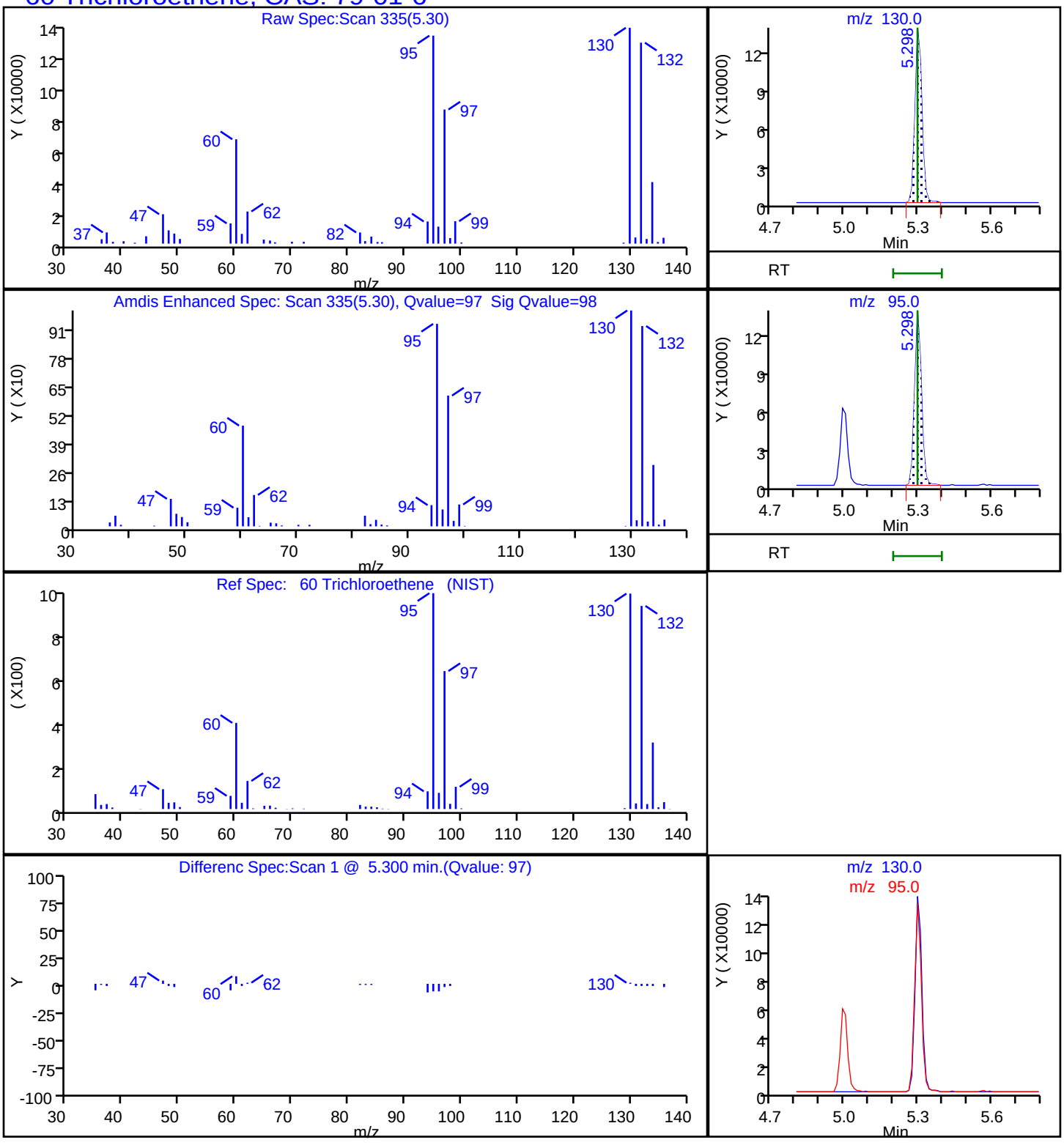
Report Date: 11-Oct-2021 07:47:43 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9934.D

Injection Date:	08-Oct-2021 17:13:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-2	Lab Sample ID:	240-157476-2		
Client ID:	W-2-S/100421/				
Operator ID:	43582	ALS Bottle#:	19	Worklist Smp#:	55
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: W-3-S/100421/ | Lab Sample ID: 240-157476-3

Matrix: Water | Lab File ID: UXC0002.D

Analysis Method: 8260B | Date Collected: 10/04/2021 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/12/2021 19:04

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507764 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	4.0	U	4.0	0.84
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	0.96
75-34-3	1,1-Dichloroethane	2.0	U	2.0	0.94
75-35-4	1,1-Dichloroethene	2.0	U	2.0	0.98
71-43-2	Benzene	2.0	U	2.0	0.84
156-59-2	cis-1,2-Dichloroethene	4.6		2.0	0.92
100-41-4	Ethylbenzene	2.0	U	2.0	0.84
108-88-3	Toluene	2.0	U	2.0	0.88
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	1.0
79-01-6	Trichloroethene	1.6	J	2.0	0.88
75-01-4	Vinyl chloride	2.0	U	2.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	76		56-136
1868-53-7	Dibromofluoromethane (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		62-137
2037-26-5	Toluene-d8 (Surr)	88		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0002.D
Lims ID: 240-157476-C-3
Client ID: W-3-S/100421/
Sample Type: Client
Inject. Date: 12-Oct-2021 19:04:30 ALS Bottle#: 28 Worklist Smp#: 53
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 240-0114014-053
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

First Level Reviewer: evansle Date: 13-Oct-2021 08:48:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1521960	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1151148	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	97	531855	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	333473	9.37	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	0.000	100	445299	11.1	
$ 6 Toluene-d8 (Surr)	98	6.353	6.341	0.012	94	1241215	8.80	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	364356	7.64	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62	1.645	1.645	0.000	95	13318	0.2980	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		1.989				ND	
16 Trichlorofluoromethane	101		2.203				ND	
19 1,1-Dichloroethene	96		2.606				ND	
20 112TCTFE	151	2.618	2.618	0.000	93	31153	0.8493	
21 Acetone	58	2.641	2.641	0.000	94	4335	1.41	
24 Carbon disulfide	76		2.807				ND	U
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		2.997				ND	
31 Methyl tert-butyl ether	73		3.210				ND	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	92	9768	0.2223	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	20568	0.2955	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	79	106982	2.31	
40 2-Butanone (MEK)	72		4.052				ND	
48 Chloroform	83		4.301				ND	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	94	26134	0.4189	
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	96	18374	0.1101	
56 1,2-Dichloroethane	62		4.776				ND	7
60 Trichloroethene	130	5.298	5.298	0.000	95	36877	0.8219	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.400				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.898	6.898	0.000	98	2301757	64.2	E
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	7
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.606				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

Report Date: 13-Oct-2021 08:54:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0002.D

Injection Date:	12-Oct-2021 19:04:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-C-3	Lab Sample ID:	240-157476-3	Worklist Smp#:	53
Client ID:	W-3-S/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	28
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0002.D				
Lims ID:	240-157476-C-3				
Client ID:	W-3-S/100421/				
Sample Type:	Client				
Inject. Date:	12-Oct-2021 19:04:30	ALS Bottle#:	28	Worklist Smp#:	53
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Sample Info:	240-0114014-053				
Misc. Info.:	C211012A,8260LLUX15,,43582				
Operator ID:	43582	Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	13-Oct-2021 08:53:53	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1658				

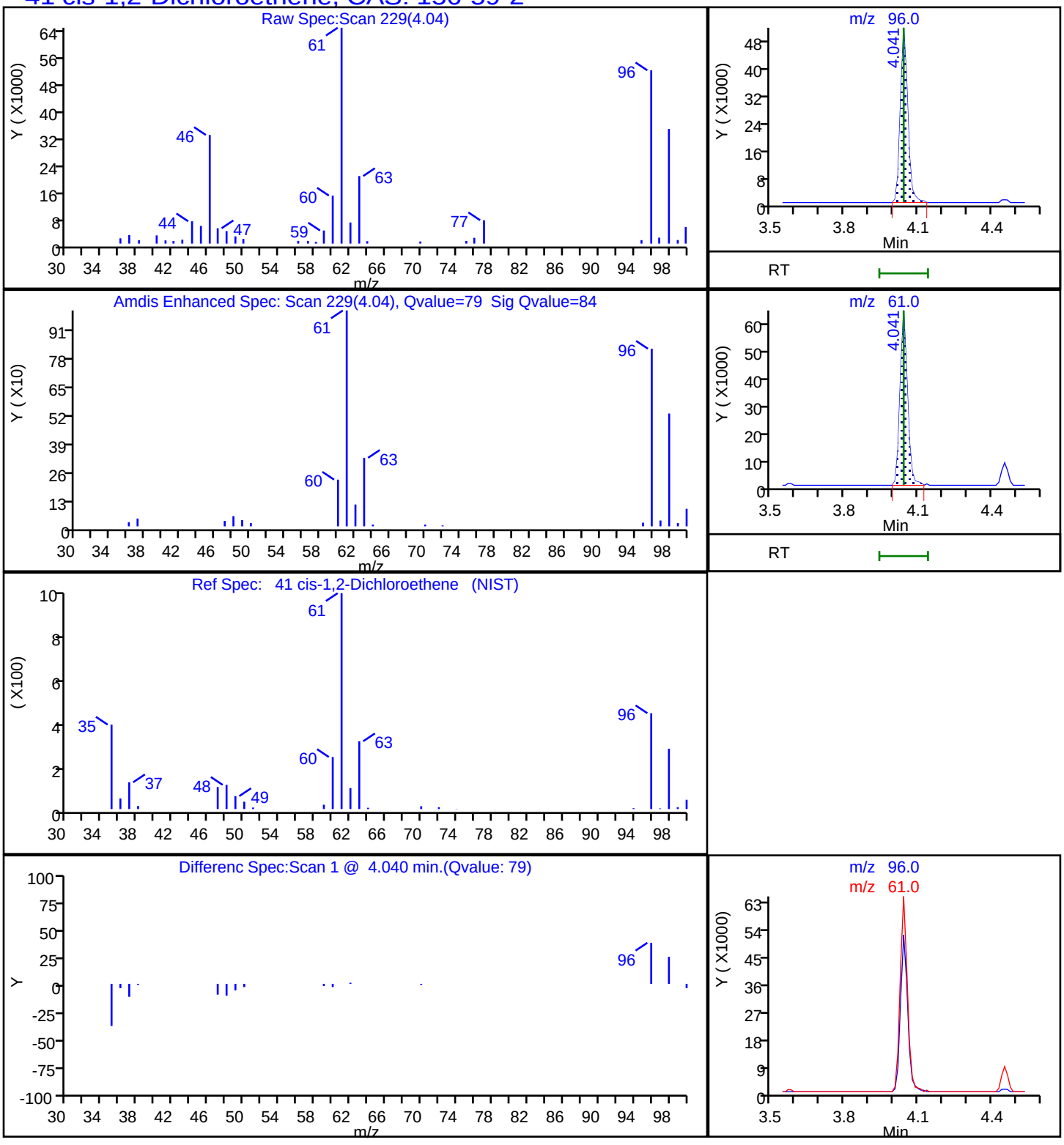
First Level Reviewer: evansle Date: 13-Oct-2021 08:48:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.37	93.74
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.1	111.11
$ 6 Toluene-d8 (Surr)	10.0	8.80	87.98
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.64	76.35

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0002.D				
Injection Date:	12-Oct-2021 19:04:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-C-3	Lab Sample ID:	240-157476-3		
Client ID:	W-3-S/100421/				
Operator ID:	43582	ALS Bottle#:	28	Worklist Smp#:	53
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

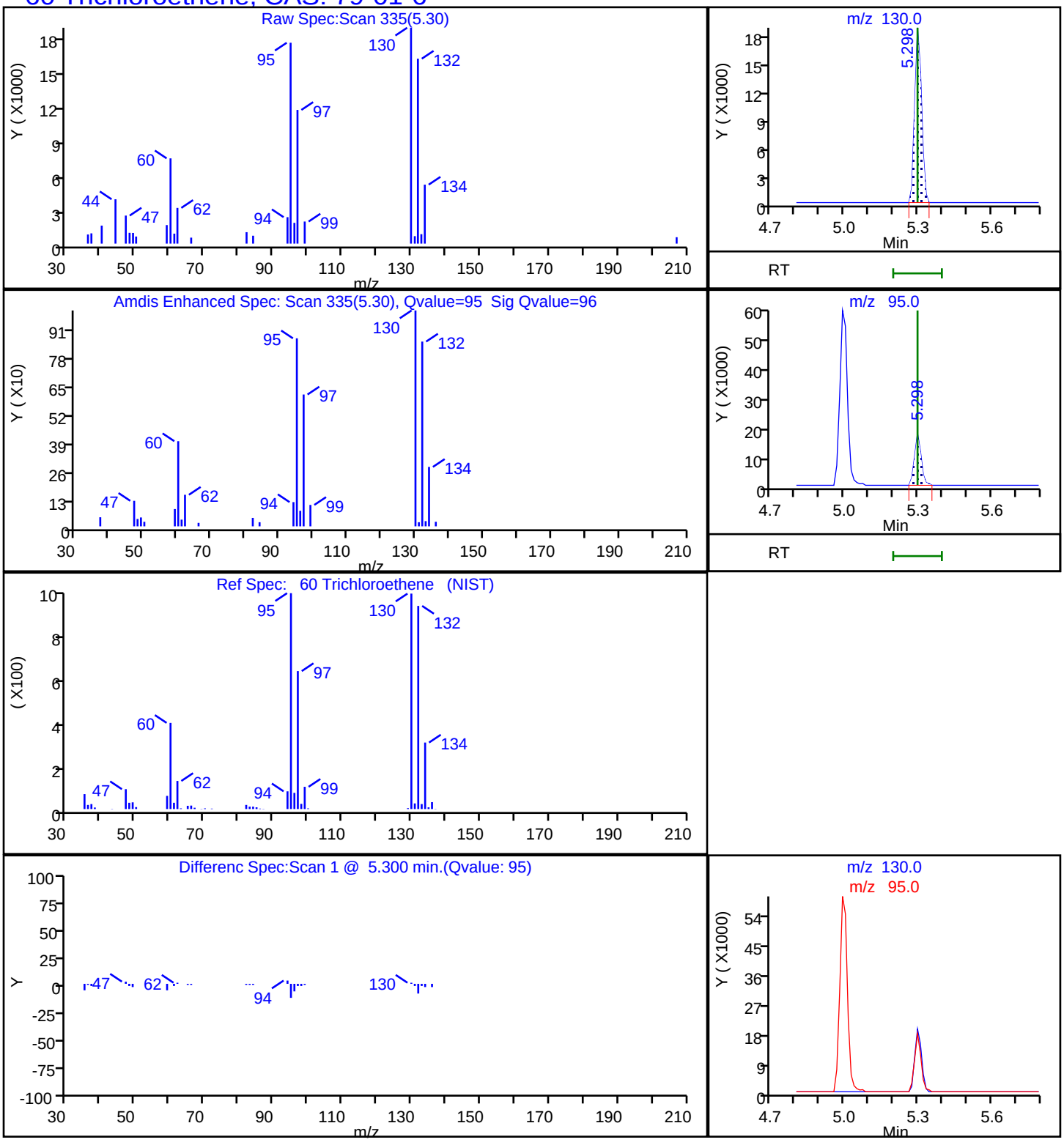


Report Date: 13-Oct-2021 08:54:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC0002.D				
Injection Date:	12-Oct-2021 19:04:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-C-3	Lab Sample ID:	240-157476-3		
Client ID:	W-3-S/100421/				
Operator ID:	43582	ALS Bottle#:	28	Worklist Smp#:	53
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: W-3-S/100421/ | Lab Sample ID: 240-157476-3

Matrix: Water | Lab File ID: UXC9964.D

Analysis Method: 8260B | Date Collected: 10/04/2021 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 16:16

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	92		5.0	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	72		56-136
1868-53-7	Dibromofluoromethane (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		62-137
2037-26-5	Toluene-d8 (Surr)	91		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9964.D
Lims ID: 240-157476-B-3
Client ID: W-3-S/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 16:16:30 ALS Bottle#: 20 Worklist Smp#: 44
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0113979-044
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:57:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	98	1466227	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1095020	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	505961	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	324937	9.48	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	475553	12.3	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1221129	9.10	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	326686	7.20	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62	1.657	1.657	0.000	94	9958	0.2313	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		2.001				ND	
16 Trichlorofluoromethane	101		2.214				ND	
19 1,1-Dichloroethene	96		2.618				ND	
20 112TCTFE	151	2.618	2.618	0.000	87	6439	0.1822	
21 Acetone	58	2.653	2.641	0.012	98	1622	0.5470	
24 Carbon disulfide	76		2.819				ND	7
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		2.997				ND	
31 Methyl tert-butyl ether	73		3.222				ND	
32 trans-1,2-Dichloroethene	96		3.222				ND	
35 1,1-Dichloroethane	63		3.566				ND	7
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	79	36086	0.8073	
40 2-Butanone (MEK)	72		4.053				ND	
48 Chloroform	83		4.302				ND	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	35	7088	0.1179	
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	86	18659	0.1160	
56 1,2-Dichloroethane	62		4.788				ND	
60 Trichloroethene	130	5.298	5.298	0.000	88	13578	0.3141	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.725				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.899	6.899	0.000	98	626715	18.4	
78 2-Hexanone	43		6.982				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

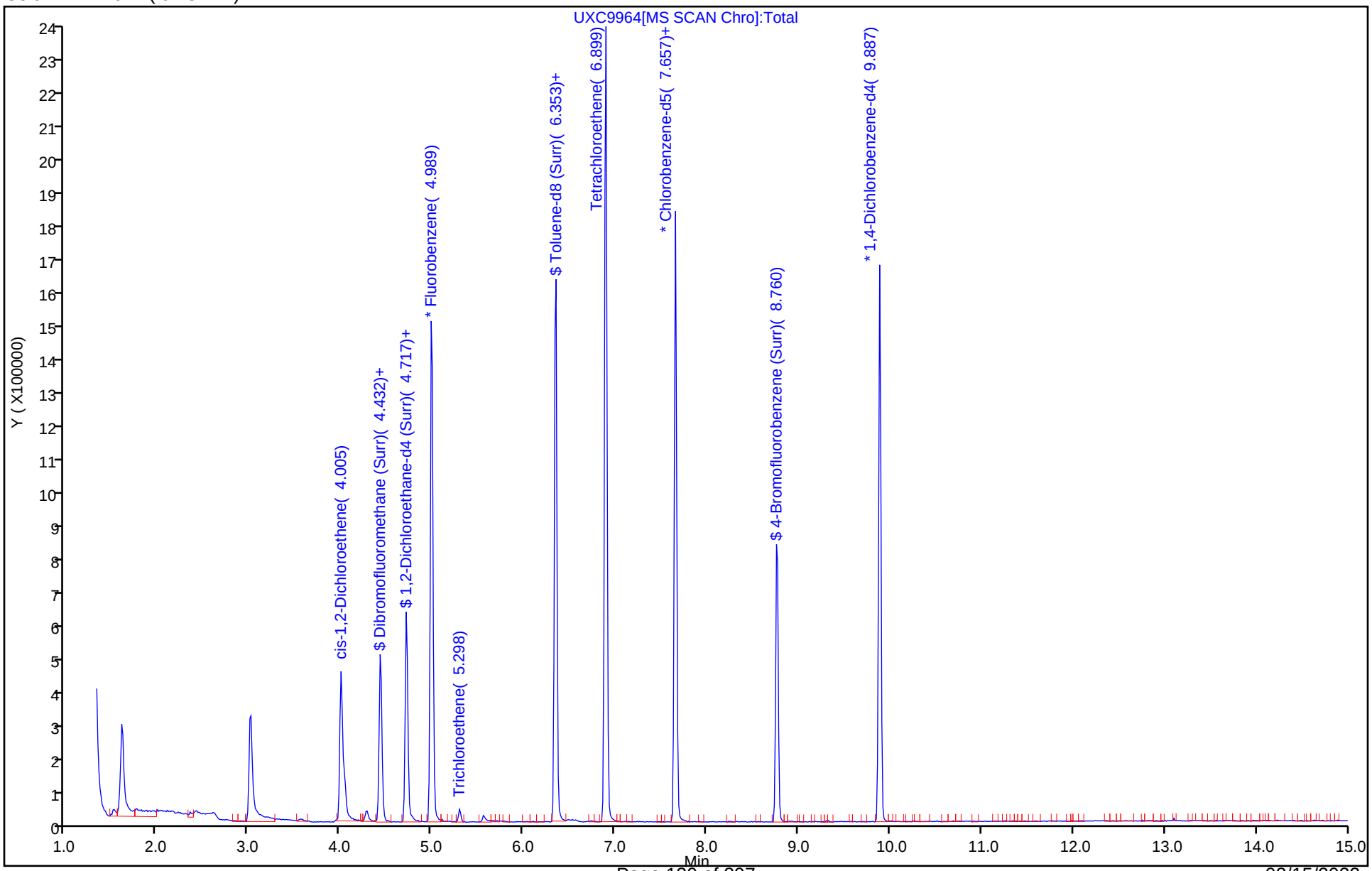
Report Date: 12-Oct-2021 11:13:57 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9964.D

Injection Date:	11-Oct-2021 16:16:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-B-3	Lab Sample ID:	240-157476-3	Worklist Smp#:	44
Client ID:	W-3-S/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	20
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



02/15/2022

Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9964.D
Lims ID: 240-157476-B-3
Client ID: W-3-S/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 16:16:30 ALS Bottle#: 20 Worklist Smp#: 44
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0113979-044
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

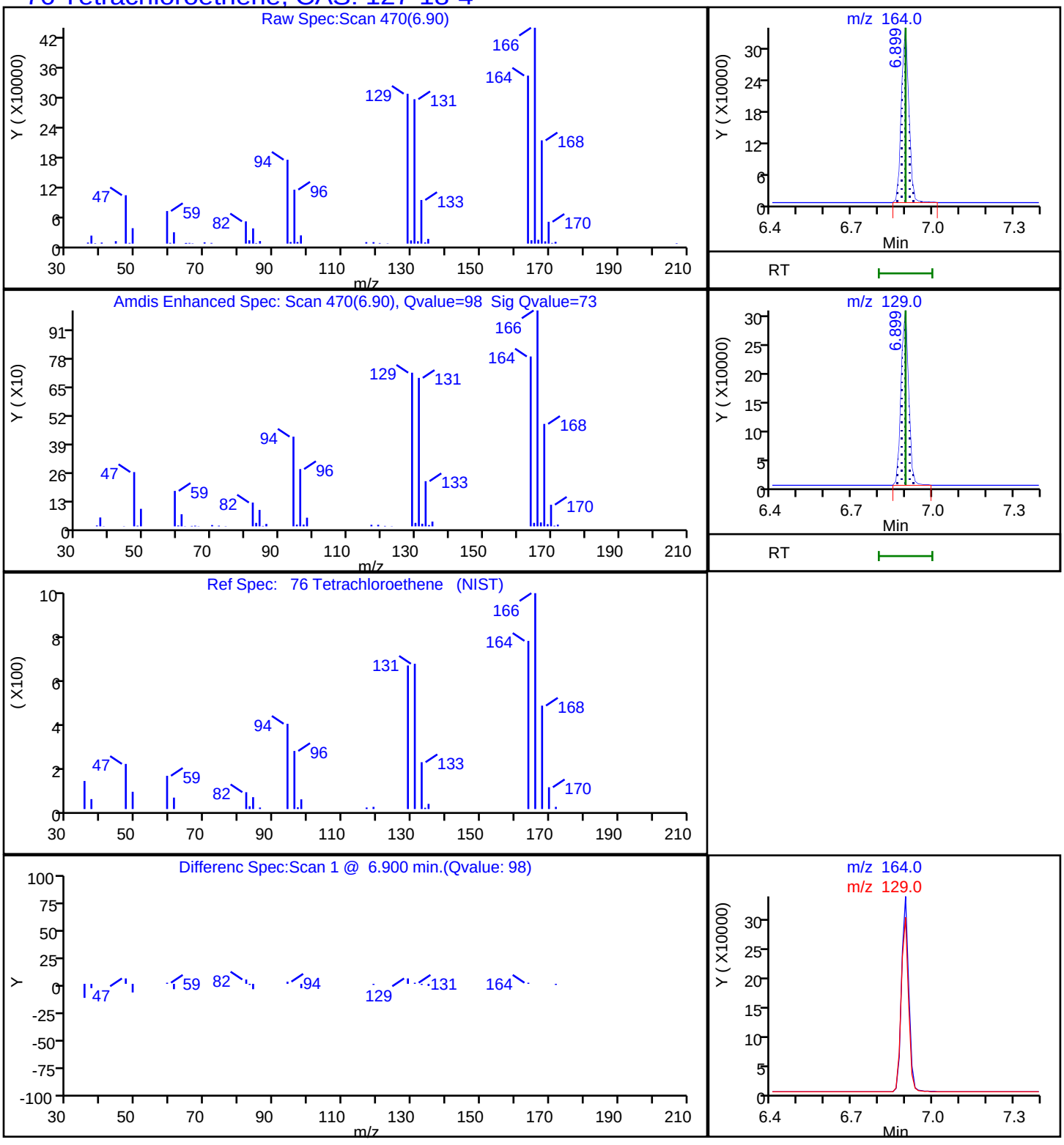
First Level Reviewer: evansle Date: 12-Oct-2021 10:57:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.48	94.81
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.3	123.17
$ 6 Toluene-d8 (Surr)	10.0	9.10	91.00
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.20	71.97

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9964.D
Injection Date: 11-Oct-2021 16:16:30 Instrument ID: A3UX15
Lims ID: 240-157476-B-3 Lab Sample ID: 240-157476-3
Client ID: W-3-S/100421/
Operator ID: 43582 ALS Bottle#: 20 Worklist Smp#: 44
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

76 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: W-4-S/100421/ | Lab Sample ID: 240-157476-4

Matrix: Water | Lab File ID: UXC9958.D

Analysis Method: 8260B | Date Collected: 10/04/2021 16:05

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 14:05

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	4.0	U	4.0	0.84
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	0.96
75-34-3	1,1-Dichloroethane	2.0	U	2.0	0.94
75-35-4	1,1-Dichloroethene	2.0	U	2.0	0.98
71-43-2	Benzene	2.0	U	2.0	0.84
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	0.92
100-41-4	Ethylbenzene	2.0	U	2.0	0.84
127-18-4	Tetrachloroethene	29		2.0	0.88
108-88-3	Toluene	2.0	U	2.0	0.88
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	1.0
79-01-6	Trichloroethene	3.5		2.0	0.88
75-01-4	Vinyl chloride	2.0	U	2.0	0.90

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	73		56-136
1868-53-7	Dibromofluoromethane (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		62-137
2037-26-5	Toluene-d8 (Surr)	90		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9958.D
Lims ID: 240-157476-B-4
Client ID: W-4-S/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:05:30 ALS Bottle#: 14 Worklist Smp#: 45
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 240-0113979-045
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:58:17

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1493868	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1105633	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	511094	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	322734	9.24	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	99	463265	11.8	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1219165	9.00	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	336239	7.34	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62		1.657				ND	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		2.001				ND	
	16 Trichlorofluoromethane	101		2.214				ND	
	19 1,1-Dichloroethene	96		2.618				ND	
	20 112TCTFE	151	2.617	2.618	-0.001	93	188835	5.25	
	21 Acetone	58	2.653	2.641	0.012	97	3917	1.30	
	24 Carbon disulfide	76		2.819				ND	
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		2.997				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96		3.222				ND	7
	35 1,1-Dichloroethane	63	3.566	3.566	0.000	92	11868	0.1737	
	41 cis-1,2-Dichloroethene	96	4.040	4.041	-0.001	75	13558	0.2977	
	40 2-Butanone (MEK)	72		4.053				ND	
	48 Chloroform	83		4.302				ND	7
	49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	95	20852	0.3405	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.776	4.764	0.012	89	20402	0.1245	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130	5.297	5.298	-0.001	98	77481	1.76	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.725				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	505465	14.7	
78 2-Hexanone	43		6.982				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

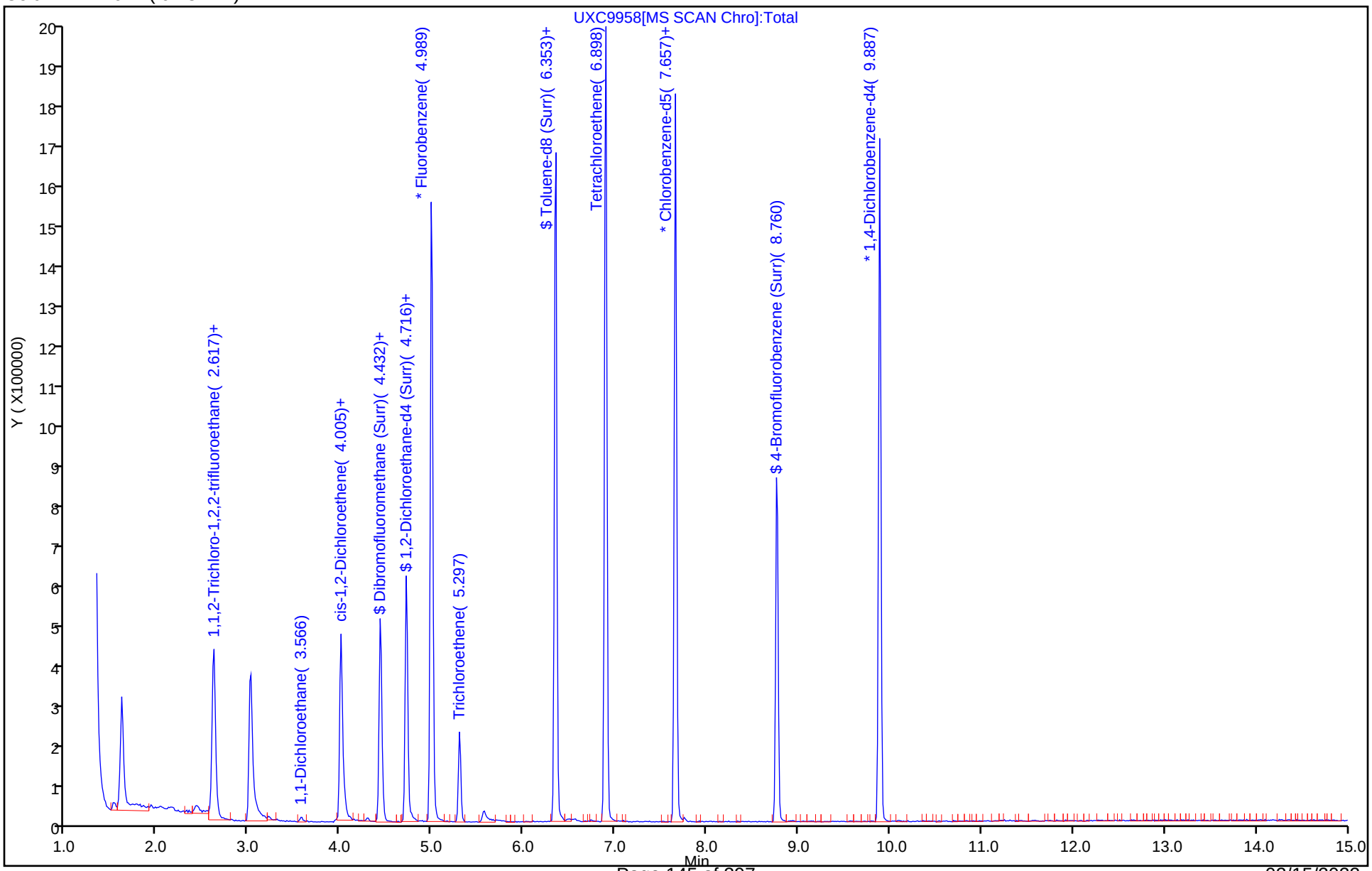
Report Date: 12-Oct-2021 11:13:58 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9958.D

Injection Date:	11-Oct-2021 14:05:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-B-4	Lab Sample ID:	240-157476-4	Worklist Smp#:	45
Client ID:	W-4-S/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	14
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9958.D
Lims ID: 240-157476-B-4
Client ID: W-4-S/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:05:30 ALS Bottle#: 14 Worklist Smp#: 45
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 240-0113979-045
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

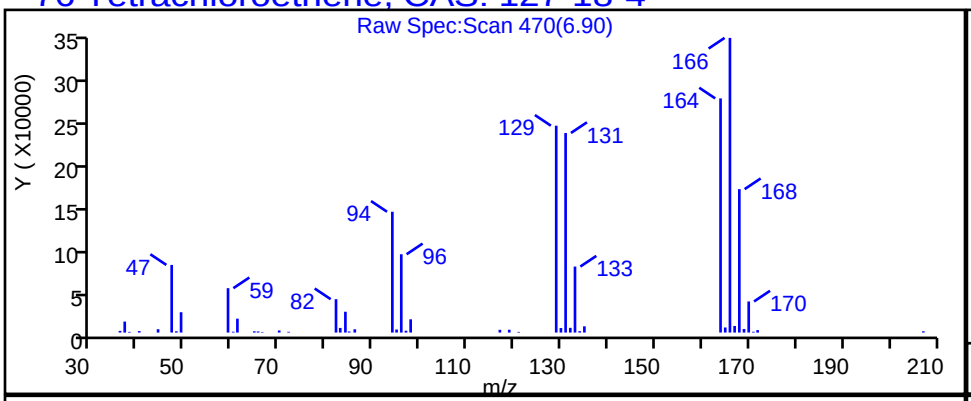
First Level Reviewer: evansle Date: 12-Oct-2021 10:58:17

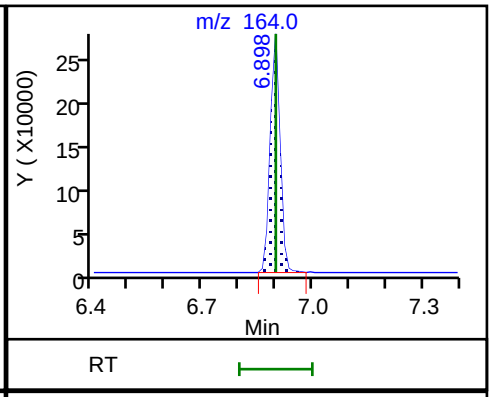
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.24	92.43
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.8	117.77
$ 6 Toluene-d8 (Surr)	10.0	9.00	89.98
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.34	73.36

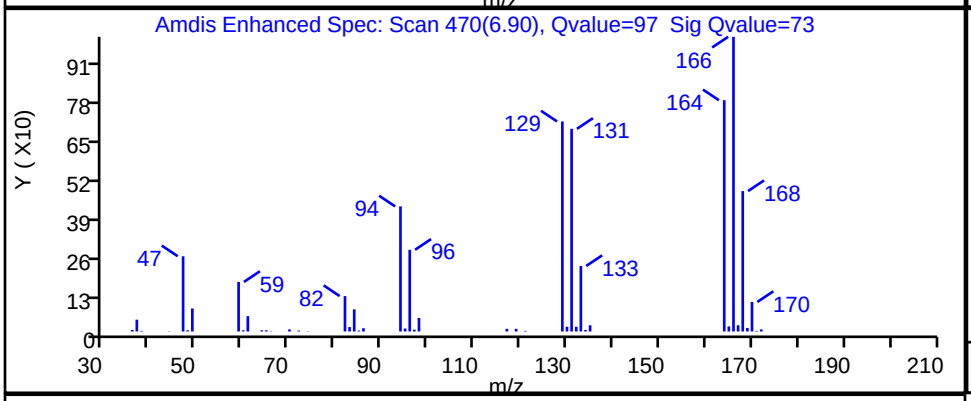
Eurofins TestAmerica, Canton

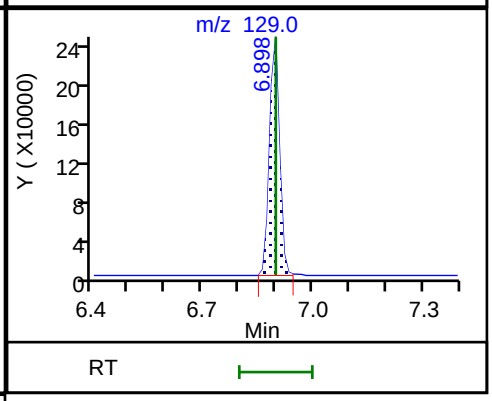
Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9958.D		
Injection Date:	11-Oct-2021 14:05:30	Instrument ID:	A3UX15
Lims ID:	240-157476-B-4	Lab Sample ID:	240-157476-4
Client ID:	W-4-S/100421/		
Operator ID:	43582	ALS Bottle#:	14 Worklist Smp#: 45
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	8260_15	Limit Group:	MSV 8260B ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

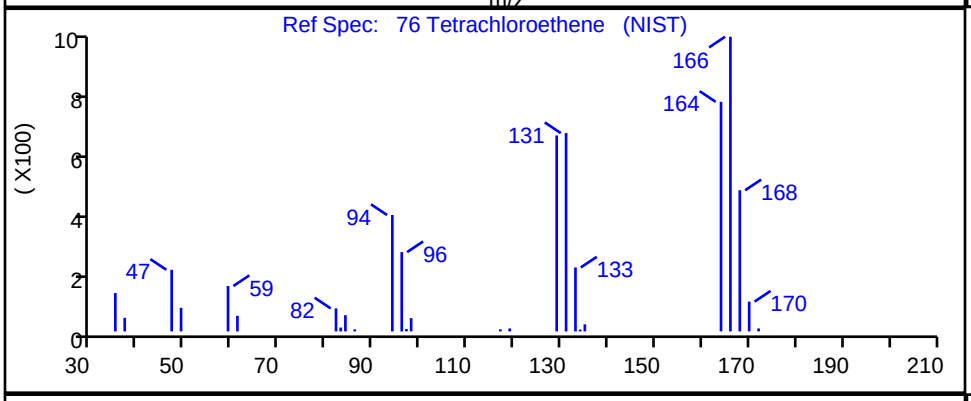
76 Tetrachloroethene, CAS: 127-18-4

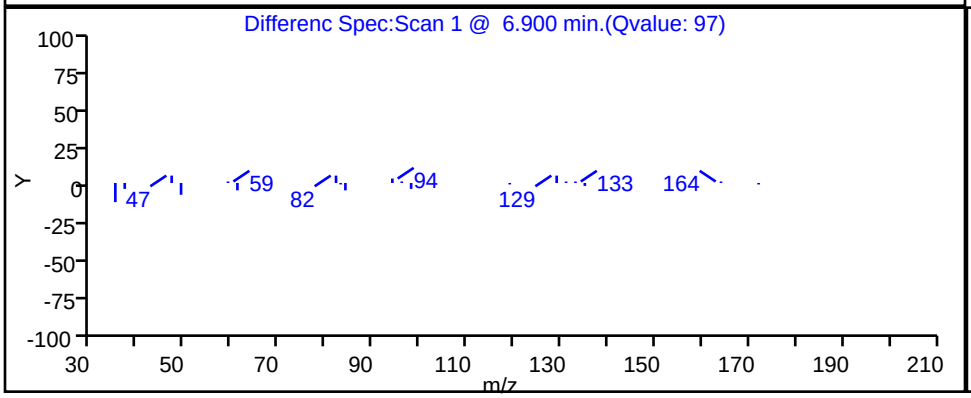


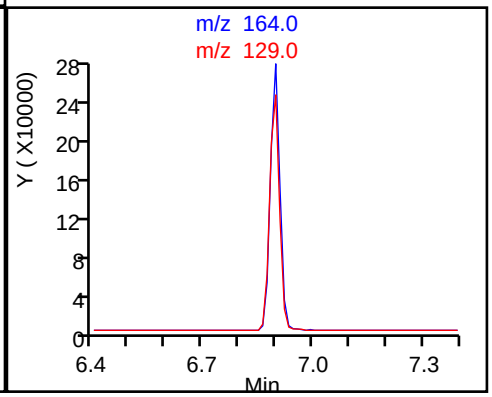












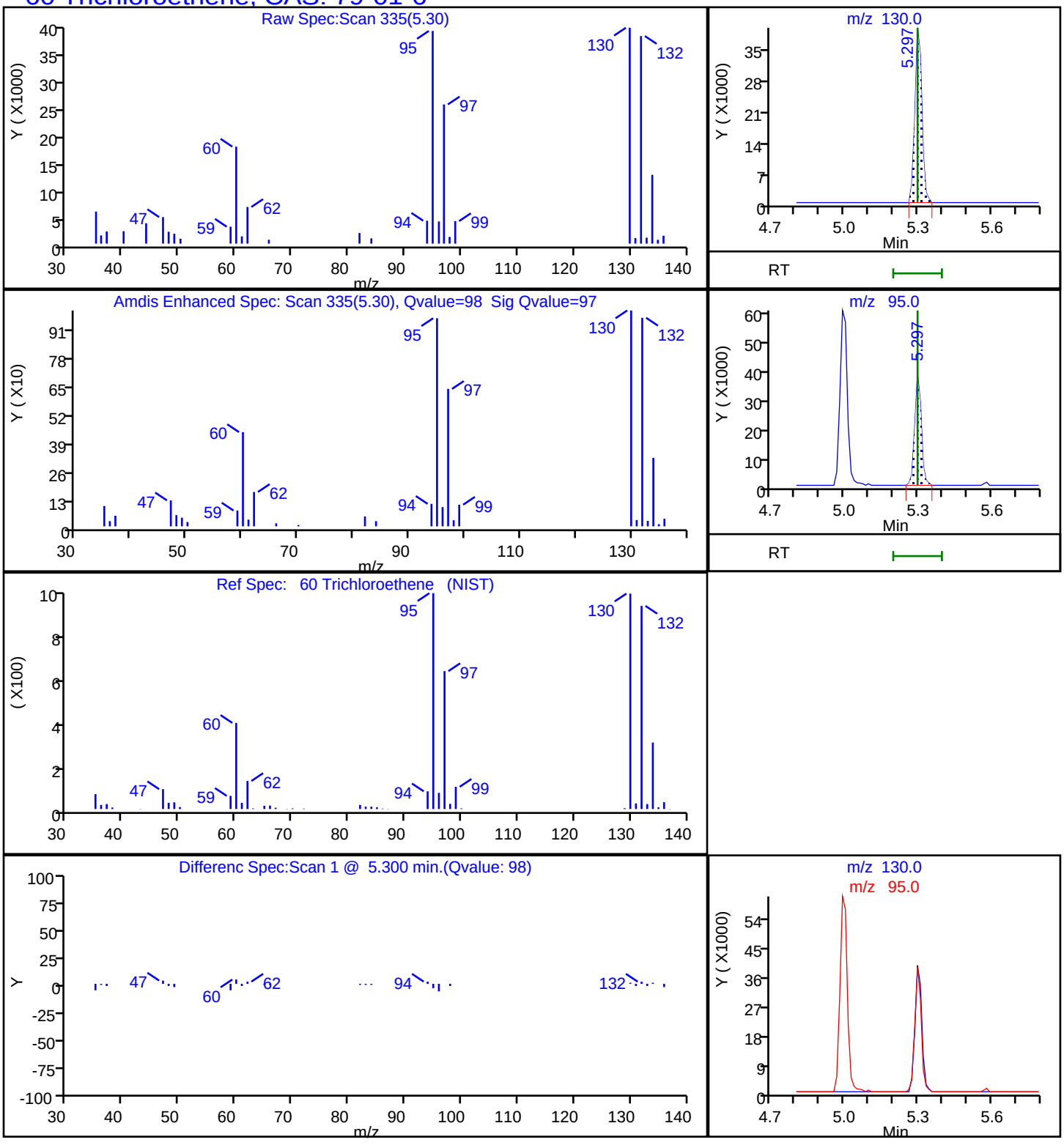
Report Date: 12-Oct-2021 11:13:58 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9958.D

Injection Date:	11-Oct-2021 14:05:30	Instrument ID:	A3UX15		
Lims ID:	240-157476-B-4	Lab Sample ID:	240-157476-4		
Client ID:	W-4-S/100421/				
Operator ID:	43582	ALS Bottle#:	14	Worklist Smp#:	45
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: EB-01/100421/ | Lab Sample ID: 240-157476-5

Matrix: Water | Lab File ID: UXC9935.D

Analysis Method: 8260B | Date Collected: 10/04/2021 16:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 17:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	80		56-136
1868-53-7	Dibromofluoromethane (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		62-137
2037-26-5	Toluene-d8 (Surr)	93		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9935.D
Lims ID: 240-157476-B-5
Client ID: EB-01/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:35:30 ALS Bottle#: 20 Worklist Smp#: 56
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-056
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:43:31

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1489508	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1101814	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	538821	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	322957	9.28	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	100	478646	12.2	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1257651	9.31	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	91	364548	7.98	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62		1.657				ND	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		1.989				ND	
	16 Trichlorofluoromethane	101		2.202				ND	
	19 1,1-Dichloroethene	96		2.606				ND	
	20 112TCTFE	151		2.617				ND	
	21 Acetone	58	2.653	2.641	0.012	99	5791	1.92	
	24 Carbon disulfide	76		2.807				ND	
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		3.009				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96		3.222				ND	
	35 1,1-Dichloroethane	63		3.566				ND	
	41 cis-1,2-Dichloroethene	96		4.040				ND	
	40 2-Butanone (MEK)	72		4.052				ND	
	48 Chloroform	83		4.301				ND	7
	49 1,1,1-Trichloroethane	97		4.456				ND	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.788	4.764	0.024	91	21706	0.1329	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130		5.297				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164		6.898				ND	7
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

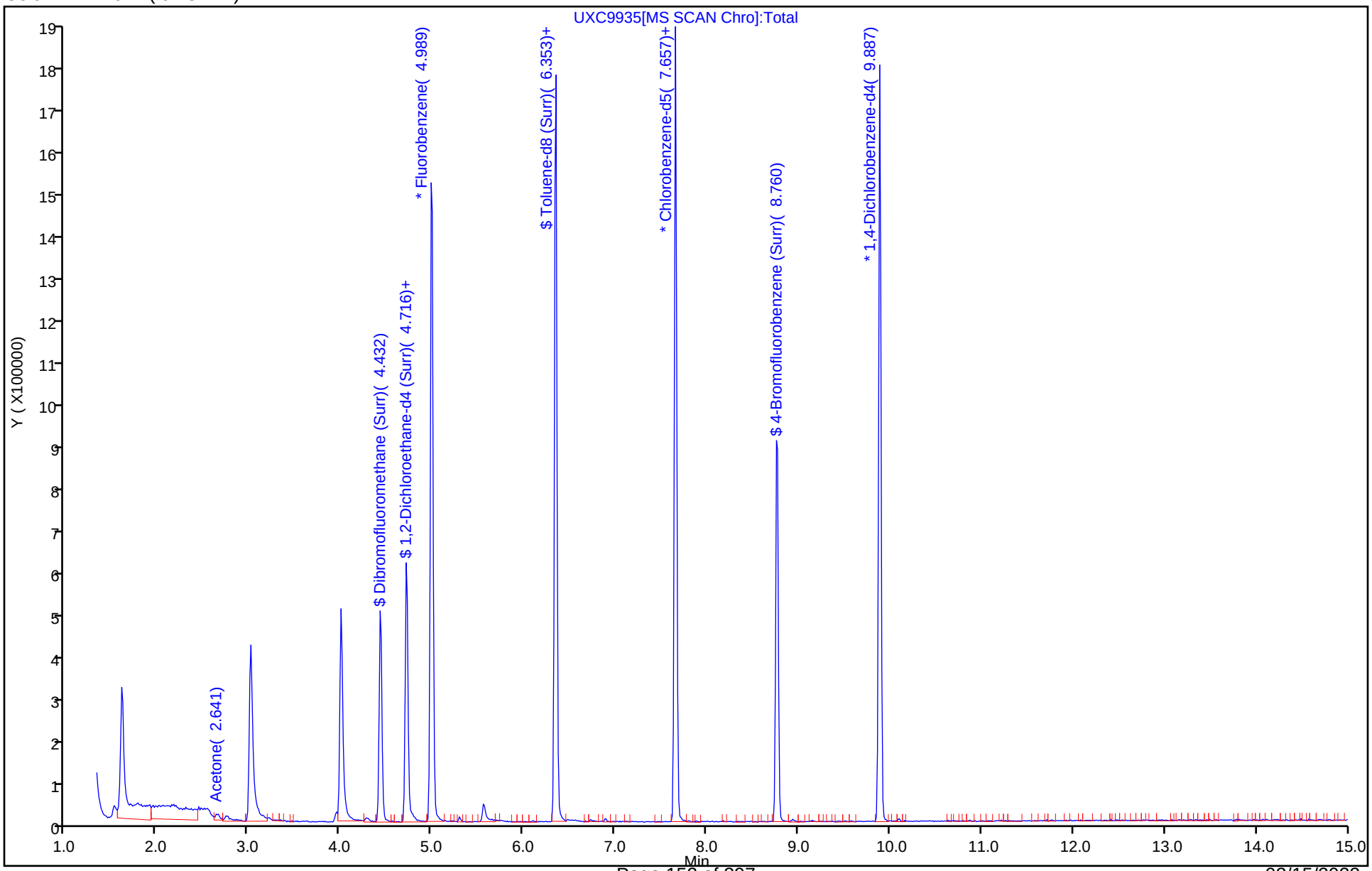
Report Date: 11-Oct-2021 07:47:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9935.D

Injection Date:	08-Oct-2021 17:35:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-B-5	Lab Sample ID:	240-157476-5	Worklist Smp#:	56
Client ID:	EB-01/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9935.D
Lims ID: 240-157476-B-5
Client ID: EB-01/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:35:30 ALS Bottle#: 20 Worklist Smp#: 56
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-056
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:43:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.28	92.76
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.2	122.04
$ 6 Toluene-d8 (Surr)	10.0	9.31	93.14
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.98	79.81

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: EB-02/100421/ | Lab Sample ID: 240-157476-6

Matrix: Water | Lab File ID: UXC9936.D

Analysis Method: 8260B | Date Collected: 10/04/2021 16:40

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 17:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	79		56-136
1868-53-7	Dibromofluoromethane (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		62-137
2037-26-5	Toluene-d8 (Surr)	95		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9936.D
Lims ID: 240-157476-B-6
Client ID: EB-02/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:57:30 ALS Bottle#: 21 Worklist Smp#: 57
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-057
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:43:50

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	5.001	4.989	0.012	99	1467633	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1042016	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	505316	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	312072	9.10	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	100	463709	12.0	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1213803	9.51	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	339743	7.87	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62		1.657				ND	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		1.989				ND	
	16 Trichlorofluoromethane	101		2.202				ND	
	19 1,1-Dichloroethene	96		2.606				ND	
	20 112TCTFE	151		2.617				ND	
	21 Acetone	58	2.665	2.641	0.024	99	5043	1.70	
	24 Carbon disulfide	76		2.807				ND	
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		3.009				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96		3.222				ND	
	35 1,1-Dichloroethane	63		3.566				ND	
	41 cis-1,2-Dichloroethene	96		4.040				ND	
	40 2-Butanone (MEK)	72		4.052				ND	
	48 Chloroform	83		4.301				ND	7
	49 1,1,1-Trichloroethane	97		4.456				ND	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.776	4.764	0.012	90	25455	0.1581	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130		5.297				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164		6.898				ND	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

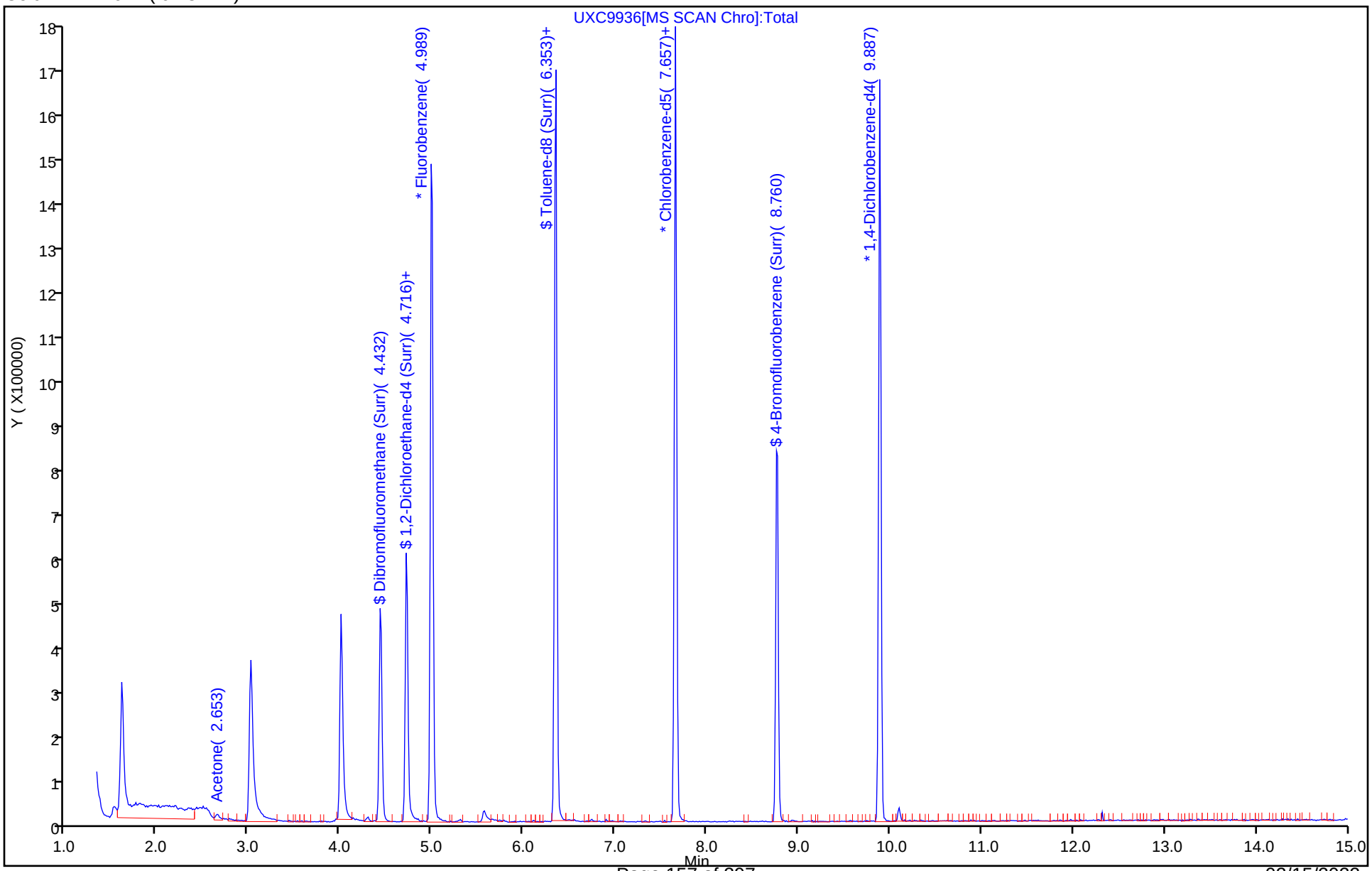
Report Date: 11-Oct-2021 07:47:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9936.D

Injection Date:	08-Oct-2021 17:57:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-B-6	Lab Sample ID:	240-157476-6	Worklist Smp#:	57
Client ID:	EB-02/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9936.D
Lims ID: 240-157476-B-6
Client ID: EB-02/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 17:57:30 ALS Bottle#: 21 Worklist Smp#: 57
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-057
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:43:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.10	90.97
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.0	119.99
$ 6 Toluene-d8 (Surr)	10.0	9.51	95.05
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.87	78.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: TB-01/100421/ | Lab Sample ID: 240-157476-7

Matrix: Water | Lab File ID: UXC9937.D

Analysis Method: 8260B | Date Collected: 10/04/2021 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 18:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	77		56-136
1868-53-7	Dibromofluoromethane (Surr)	94		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		62-137
2037-26-5	Toluene-d8 (Surr)	94		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9937.D
Lims ID: 240-157476-A-7
Client ID: TB-01/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 18:19:30 ALS Bottle#: 22 Worklist Smp#: 58
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-058
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:44:07

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1435257	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1017719	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	482861	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	314021	9.36	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	100	461555	12.2	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1171971	9.40	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	326317	7.73	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62		1.657				ND	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		1.989				ND	
	16 Trichlorofluoromethane	101		2.202				ND	
	19 1,1-Dichloroethene	96		2.606				ND	
	20 112TCTFE	151		2.617				ND	
	21 Acetone	58	2.653	2.641	0.012	99	4044	1.39	
	24 Carbon disulfide	76		2.807				ND	7
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		3.009				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96		3.222				ND	
	35 1,1-Dichloroethane	63		3.566				ND	
	41 cis-1,2-Dichloroethene	96		4.040				ND	
	40 2-Butanone (MEK)	72		4.052				ND	
	48 Chloroform	83		4.301				ND	
	49 1,1,1-Trichloroethane	97		4.456				ND	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.776	4.764	0.012	90	19250	0.1223	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130		5.297				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164		6.898				ND	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	7
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

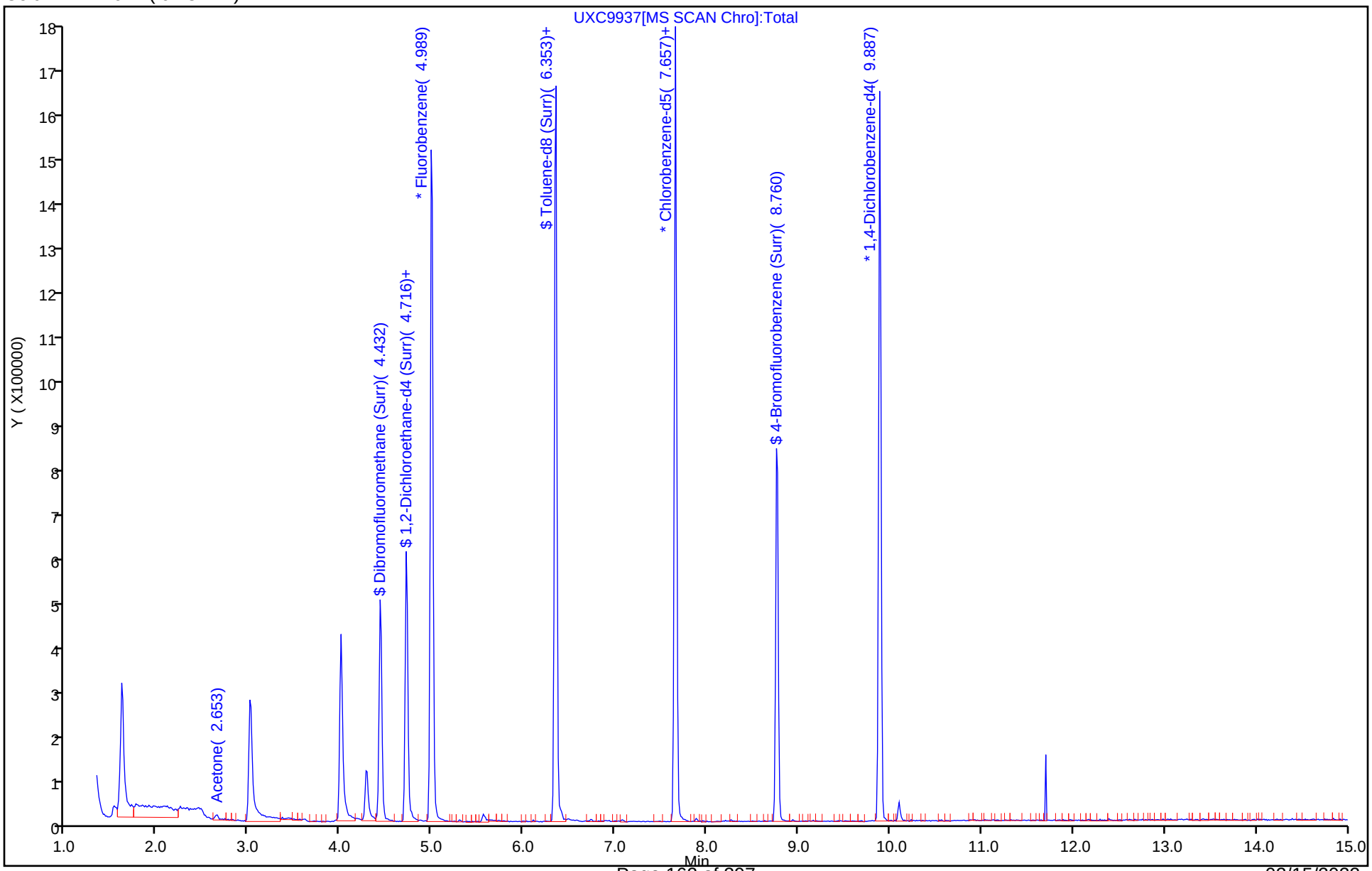
Report Date: 11-Oct-2021 07:47:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9937.D

Injection Date:	08-Oct-2021 18:19:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157476-A-7	Lab Sample ID:	240-157476-7	Worklist Smp#:	58
Client ID:	TB-01/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9937.D				
Lims ID:	240-157476-A-7				
Client ID:	TB-01/100421/				
Sample Type:	Client				
Inject. Date:	08-Oct-2021 18:19:30	ALS Bottle#:	22	Worklist Smp#:	58
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	240-0113940-058				
Misc. Info.:	C211008A,8260LLUX15,,43582				
Operator ID:	43582	Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	11-Oct-2021 07:47:11	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1633				

First Level Reviewer: evansle Date: 11-Oct-2021 07:44:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.36	93.61
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.2	122.13
$ 6 Toluene-d8 (Surr)	10.0	9.40	93.97
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.73	77.35

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-476941/7	UXC5649.D
Level 2	STD8260 240-476941/6	UXC5648.D
Level 3	STD8260 240-476941/5	UXC5647.D
Level 4	STD8260 240-476941/4	UXC5646.D
Level 5	STD8260 240-476941/3	UXC5645.D
Level 6	STD8260 240-476941/2	UXC5644.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3179 0.2856	0.3024	0.2990	0.3093	0.2937	Ave		0.3013				3.8		15.0			
Chloromethane	0.3871 0.3075	0.3410	0.3529	0.3559	0.3114	Ave		0.3426			0.1000	8.7		15.0			
Vinyl chloride	0.3105 0.2686	0.3356	0.2760	0.2664	0.3046	Ave		0.2936				9.5		15.0			
Butadiene	0.4584 0.3354	0.3649	0.3794	0.3693	0.3400	Ave		0.3746				11.9		15.0			
Bromomethane	0.2768 0.2260	0.2769	0.2353	0.2197	0.2414	Ave		0.2460				10.2		15.0			
Chloroethane	0.2500 0.1946	0.2244	0.2174	0.2026	0.2094	Ave		0.2164				9.0		15.0			
Dichlorofluoromethane	0.6535 0.5185	0.6173	0.5751	0.5610	0.5287	Ave		0.5757				9.0		15.0			
Trichlorofluoromethane	0.5721 0.4983	0.5300	0.5049	0.5023	0.5195	Ave		0.5212				5.3		15.0			
Ethyl ether	0.2699 0.2372	0.2623	0.2530	0.2461	0.2385	Ave		0.2512				5.2		15.0			
Acrolein	0.0123 0.0151	0.0265	0.0166	0.0157	0.0144	Lin	0.0400	0.0147							0.9980		0.9900
1,1-Dichloroethene	0.2595 0.2858	0.3045	0.2995	0.2904	0.2951	Ave		0.2891				5.5		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2193 0.2523	0.2341	0.2455	0.2413	0.2535	Ave		0.2410				5.3		15.0			
Acetone	0.0236 0.0187	0.0236	0.0180	0.0187	0.0188	Ave		0.0202				13.0		15.0			
Iodomethane	0.4069 0.4206	0.4383	0.4410	0.4405	0.5097	Ave		0.4428				8.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7748 0.7495	0.8943	0.7779	0.7790	0.8588	Ave		0.8057				7.1		15.0			
3-Chloro-1-propene	0.1523 0.1727	0.1717	0.1742	0.1728	0.1753	Ave		0.1698				5.1		15.0			
Methyl acetate	0.1303 0.1267	0.1239	0.1291	0.1258	0.1258	Ave		0.1269				1.9		15.0			
Methylene Chloride	0.2754 0.2543	0.2829	0.2711	0.2630	0.2675	Ave		0.2691				3.7		15.0			
2-Methyl-2-propanol	0.0139 0.0139	0.0139	0.0149	0.0145	0.0137	Ave		0.0141				3.2		15.0			
Acrylonitrile	0.0679 0.0681	0.0675	0.0685	0.0682	0.0670	Ave		0.0679				0.8		15.0			
Methyl tert-butyl ether	0.6990 0.7045	0.6881	0.7075	0.7039	0.7051	Ave		0.7014				1.0		15.0			
trans-1,2-Dichloroethene	0.3026 0.2717	0.2966	0.2890	0.2898	0.2827	Ave		0.2887				3.7		15.0			
Hexane	0.0635 0.0565	0.0591	0.0530	0.0577	0.0571	Ave		0.0578				6.0		15.0			
1,1-Dichloroethane	0.4664 0.4434	0.4651	0.4613	0.4568	0.4509	Ave		0.4573			0.1000	1.9		15.0			
Vinyl acetate	0.3496 0.4336	0.3537	0.3849	0.3975	0.4151	Ave		0.3891				8.6		15.0			
cis-1,2-Dichloroethene	0.3175 0.2885	0.3169	0.3097	0.2994	0.2972	Ave		0.3049				3.8		15.0			
2,2-Dichloropropane	0.0915 0.0867	0.0884	0.0888	0.0884	0.0896	Ave		0.0889				1.8		15.0			
2-Butanone (MEK)	0.0250 0.0203	0.0207	0.0206	0.0202	0.0199	Ave		0.0211				9.1		15.0			
Chlorobromomethane	0.1490 0.1374	0.1449	0.1452	0.1451	0.1425	Ave		0.1440				2.7		15.0			
Tetrahydrofuran	0.0654 0.0486	0.0574	0.0475	0.0490	0.0474	Ave		0.0526				14.0		15.0			
Chloroform	0.4702 0.4401	0.4549	0.4601	0.4542	0.4522	Ave		0.4553				2.2		15.0			
1,1,1-Trichloroethane	0.4008 0.4063	0.4114	0.4159	0.4099	0.4153	Ave		0.4100				1.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Cyclohexane	0.4370 0.4135	0.4233	0.4223	0.4167	0.4262	Ave		0.4232				1.9		15.0			
1,1-Dichloropropene	0.3743 0.3536	0.3795	0.3718	0.3710	0.3626	Ave		0.3688				2.5		15.0			
Carbon tetrachloride	0.3477 0.3720	0.3559	0.3693	0.3681	0.3752	Ave		0.3647				2.9		15.0			
Isobutyl alcohol	0.0049 0.0043	0.0044	0.0045	0.0046	0.0042	Ave		0.0045				5.3		15.0			
Benzene	1.2010 1.0461	1.1411	1.0798	1.0653	1.0477	Ave		1.0968				5.6		15.0			
1,2-Dichloroethane	0.3411 0.3175	0.3231	0.3274	0.3265	0.3220	Ave		0.3263				2.5		15.0			
n-Heptane	0.0498 0.0480	0.0560	0.0483	0.0455	0.0492	Ave		0.0495				7.1		15.0			
Trichloroethene	0.3118 0.2826	0.3021	0.2966	0.2911	0.2845	Ave		0.2948				3.8		15.0			
Methylcyclohexane	0.3833 0.3620	0.3762	0.3566	0.3621	0.3694	Ave		0.3683				2.7		15.0			
1,2-Dichloropropane	0.2360 0.2274	0.2187	0.2263	0.2276	0.2272	Ave		0.2272				2.4		15.0			
Dibromomethane	0.1384 0.1274	0.1289	0.1310	0.1317	0.1301	Ave		0.1312				2.9		15.0			
1,4-Dioxane	0.0018 0.0009	0.0021	0.0018	0.0018	0.0016	Qua	-0.016	0.0023	-0.000002						0.9980		0.9900
Dichlorobromomethane	0.2759 0.3033	0.2804	0.2834	0.2964	0.2965	Ave		0.2893				3.8		15.0			
2-Chloroethyl vinyl ether	0.0711 0.0876	0.0746	0.0752	0.0804	0.0825	Ave		0.0786				7.7		15.0			
cis-1,3-Dichloropropene	0.2804 0.3428	0.2988	0.3091	0.3239	0.3343	Ave		0.3149				7.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.1544 0.1523	0.1447	0.1540	0.1535	0.1510	Ave		0.1517				2.4		15.0			
Toluene	1.4749 1.4887	1.5001	1.4604	1.4518	1.4917	Ave		1.4780				1.3		15.0			
trans-1,3-Dichloropropene	0.3347 0.4117	0.3596	0.3694	0.3885	0.4080	Ave		0.3786				7.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl methacrylate	0.2809 0.2972	0.2641	0.2863	0.2828	0.3017	Ave		0.2855				4.7		15.0			
1,1,2-Trichloroethane	0.2563 0.2365	0.2382	0.2409	0.2401	0.2429	Ave		0.2425				2.9		15.0			
Tetrachloroethene	0.3037 0.3079	0.3201	0.3113	0.3119	0.3130	Ave		0.3113				1.8		15.0			
1,3-Dichloropropane	0.4197 0.4167	0.4153	0.4127	0.4196	0.4177	Ave		0.4170				0.7		15.0			
2-Hexanone	0.1501 0.1200	0.1443	0.1446	0.1397	0.1337	Ave		0.1387				7.7		15.0			
Chlorodibromomethane	0.2323 0.2923	0.2465	0.2649	0.2741	0.2887	Ave		0.2665				8.9		15.0			
Ethylene Dibromide	0.2344 0.2310	0.2379	0.2318	0.2314	0.2384	Ave		0.2342				1.4		15.0			
Chlorobenzene	0.9136 0.8959	0.8886	0.9073	0.8926	0.9138	Ave		0.9020			0.3000	1.2		15.0			
1,1,1,2-Tetrachloroethane	0.3709 0.3850	0.3637	0.3673	0.3752	0.3934	Ave		0.3759				3.0		15.0			
Ethylbenzene	0.4869 0.4992	0.4811	0.4884	0.4972	0.5040	Ave		0.4928				1.8		15.0			
m-Xylene & p-Xylene	1.1891 1.2048	1.1647	1.1868	1.1935	1.2334	Ave		1.1954				1.9		15.0			
o-Xylene	0.6311 0.6468	0.6392	0.6438	0.6364	0.6572	Ave		0.6424				1.4		15.0			
Styrene	0.7794 0.8791	0.7890	0.8297	0.8434	0.8787	Ave		0.8332				5.1		15.0			
Bromoform	0.1330 0.1936	0.1599	0.1548	0.1634	0.1838	Ave		0.1647			0.1000	13.1		15.0			
Isopropylbenzene	1.5146 1.6219	1.5392	1.5891	1.5922	1.6570	Ave		1.5857				3.3		15.0			
1,1,2,2-Tetrachloroethane	0.4957 0.5275	0.4849	0.5173	0.5132	0.5314	Ave		0.5117			0.3000	3.5		15.0			
Bromobenzene	0.7097 0.7040	0.7113	0.6942	0.7071	0.6981	Ave		0.7041				1.0		15.0			
1,2,3-Trichloropropane	0.1614 0.1668	0.1728	0.1633	0.1647	0.1668	Ave		0.1660				2.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
trans-1,4-Dichloro-2-butene	0.0847 0.1203	0.1398	0.0974	0.1090	0.1210	Lin1	-0.024	0.1194							0.9950		0.9900
N-Propylbenzene	0.6653 0.7317	0.6810	0.6868	0.6968	0.7241	Ave		0.6976				3.7		15.0			
2-Chlorotoluene	0.6141 0.6675	0.6391	0.6443	0.6600	0.6600	Ave		0.6475				3.0		15.0			
1,3,5-Trimethylbenzene	2.0712 2.3194	2.1346	2.1473	2.2049	2.2987	Ave		2.1960				4.4		15.0			
4-Chlorotoluene	2.0606 2.0977	2.0703	2.0407	2.0504	2.0938	Ave		2.0689				1.1		15.0			
tert-Butylbenzene	1.7730 1.9620	1.8289	1.8362	1.8968	1.9663	Ave		1.8772				4.2		15.0			
1,2,4-Trimethylbenzene	2.0752 2.3637	2.2175	2.2267	2.2798	2.3497	Ave		2.2521				4.7		15.0			
sec-Butylbenzene	2.3353 2.5702	2.4193	2.4140	2.5090	2.5980	Ave		2.4743				4.1		15.0			
1,3-Dichlorobenzene	1.3198 1.2859	1.3553	1.3336	1.3113	1.3072	Ave		1.3189				1.8		15.0			
4-Isopropyltoluene	2.0713 2.3030	2.2050	2.1642	2.2210	2.3142	Ave		2.2131				4.1		15.0			
1,4-Dichlorobenzene	1.4231 1.3122	1.4118	1.3771	1.3493	1.3452	Ave		1.3698				3.1		15.0			
n-Butylbenzene	1.7422 1.7773	1.8664	1.7621	1.7842	1.8219	Ave		1.7923				2.5		15.0			
1,2-Dichlorobenzene	1.3707 1.3458	1.3830	1.3899	1.3753	1.3705	Ave		1.3725				1.1		15.0			
1,2-Dibromo-3-Chloropropane	0.0946 0.1206	0.1171	0.1126	0.1149	0.1172	Ave		0.1128				8.3		15.0			
1,2,4-Trichlorobenzene	1.0114 0.9190	1.1387	1.0099	0.9964	0.9699	Ave		1.0075				7.2		15.0			
Hexachlorobutadiene	0.5947 0.3863	0.5965	0.4754	0.4514	0.4287	Lin1	0.2952	0.3966							0.9960		0.9900
Naphthalene	2.0025 2.1634	2.1584	2.1858	2.1964	2.1872	Ave		2.1490				3.4		15.0			
1,2,3-Trichlorobenzene	0.9724 0.8555	1.1085	0.9556	0.9345	0.9096	Ave		0.9560				8.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.2421 0.2237	0.2290	0.2413	0.2339	0.2324	Ave		0.2337				3.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2760 0.2495	0.2670	0.2708	0.2600	0.2566	Ave		0.2633				3.7		15.0			
Toluene-d8 (Surr)	1.2309 1.2106	1.2019	1.2453	1.2250	1.2394	Ave		1.2255				1.4		15.0			
4-Bromofluorobenzene (Surr)	0.4300 0.3945	0.4096	0.4208	0.4175	0.4149	Ave		0.4145				2.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-476941/7	UXC5649.D
Level 2	STD8260 240-476941/6	UXC5648.D
Level 3	STD8260 240-476941/5	UXC5647.D
Level 4	STD8260 240-476941/4	UXC5646.D
Level 5	STD8260 240-476941/3	UXC5645.D
Level 6	STD8260 240-476941/2	UXC5644.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	47955 1985876	96788	236340	505763	1015755	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	58389 2137858	109132	278892	581954	1076987	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	46845 1867423	107404	218141	435655	1053493	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	69152 2331823	116788	299854	603954	1175768	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	41750 1571689	88628	185985	359282	834840	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	37706 1352876	71803	171841	331296	724185	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	98585 3604788	197535	454576	917387	1828501	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	86296 3464762	169605	399090	821375	1796517	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	40718 1648971	83944	199967	402519	824901	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Lin	9294 523416	42337	65464	127991	249680	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	39151 1987280	97460	236738	474847	1020497	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	33084 1754372	74912	194077	394578	876594	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	7111 259443	15117	28520	61024	129995	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Iodomethane	FB	Ave	61380 2924204	140257	348537	720329	1762805	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	116874 5211254	286182	614828	1273944	2970031	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	22980 1200557	54960	137672	282597	606147	1.00 40.0	2.00	5.00	10.0	20.0
Methyl acetate	FB	Ave	39316 1761410	79302	204142	411585	869993	2.00 80.0	4.00	10.0	20.0	40.0
Methylene Chloride	FB	Ave	41550 1768190	90541	214303	430176	925140	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	20999 966491	44457	117539	237680	475246	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	102496 4734494	216160	541571	1114638	2316749	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	105442 4898428	220217	559170	1151185	2438583	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	45650 1888831	94914	228419	473854	977825	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	9581 392577	18928	41895	94360	197372	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	70364 3082713	148843	364589	747006	1559420	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	52739 3014699	113199	304236	650063	1435718	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	47902 2005786	101403	244751	489671	1027988	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	13807 603120	28276	70219	144526	309943	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	7540 281791	13268	32640	66059	137808	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	22476 955220	46356	114745	237215	492922	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	19738 676139	36744	75127	160132	327685	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	70935 3059766	145589	363680	742858	1563762	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1-Trichloroethane	FB	Ave	60467 2825060	131645	328759	670415	1436238	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	65918 2874773	135465	333807	681490	1474122	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	56469 2458560	121447	293864	606744	1253974	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	52456 2586568	113888	291902	601989	1297566	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	FB	Ave	18341 742762	35137	89469	186811	364589	25.0 1000	50.0	125	250	500
Benzene	FB	Ave	181175 7273390	365182	853447	1742135	3623322	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	51453 2207739	103413	258800	533877	1113535	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	7518 334066	17934	38208	74441	170034	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	47038 1964997	96690	234414	476021	983943	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	57824 2517271	120389	281838	592186	1277610	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	35608 1581278	69979	178849	372280	785821	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	20875 885521	41243	103540	215335	449938	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	5574 120475	13582	28764	59463	110747	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	41626 2108837	89718	224007	484704	1025475	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	21442 1217878	47750	118901	263000	570636	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	42305 2383514	95626	244291	529695	1156157	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	46573 2117506	92610	243498	502124	1044731	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	148278	307593	756651	1573355	3370989	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			7004750					40.0				
trans-1,3-Dichloropropene	CBNZ d5	Ave	33643 1937105	73739	191368	420983	922042	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28235 1398285	54155	148354	306515	681749	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	25770 1112850	48837	124819	260222	549002	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	30533 1448870	65641	161314	338041	707318	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	42197 1960760	85147	213808	454762	943985	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	30177 1128839	59188	149884	302863	604348	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	23357 1375317	50550	137225	297016	652498	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	23568 1087018	48784	120100	250735	538641	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	91842 4215604	182215	470075	967329	2065080	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	37283 1811750	74581	190281	406561	888983	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	48952 2348653	98654	253063	538828	1138861	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	119546	238816	614921	1293431	2787248	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5668949					40.0				
o-Xylene	CBNZ d5	Ave	63450 3043471	131067	333576	689690	1485220	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	78354 4136534	161777	429902	913969	1985697	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	13367 910703	32788	80220	177112	415352	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	152266 7631521	315606	823347	1725432	3744436	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	30042 1413960	58976	160683	328387	704816	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	43010 1887184	86512	215609	452432	925930	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9782 447188	21011	50734	105370	221278	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	5133 322478	17008	30267	69740	160485	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	40320 1961209	82831	213311	445896	960393	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	37216 1789216	77726	200124	422328	875326	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	125526 6217268	259616	666934	1410902	3048822	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	124885	251801	633815	1311993	2777057	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5622899					40.0				
tert-Butylbenzene	DCBd 4	Ave	107456 5259257	222437	570303	1213704	2608022	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	125769 6336062	269709	691594	1458830	3116448	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	141534 6889593	294251	749769	1605451	3445811	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	79988 3446839	164834	414203	839103	1733837	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	125533 6173286	268187	672177	1421147	3069390	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	86247 3517407	171714	427734	863405	1784216	1.00 40.0	2.00	5.00	10.0	20.0
n-Butylbenzene	DCBd 4	Ave	105585 4764027	226998	547299	1141647	2416429	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	83074 3607534	168210	431687	880005	1817774	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	5731 323157	14241	34964	73534	155451	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	61295 2463296	138494	313669	637594	1286481	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Lin1	36040 1035440	72546	147661	288855	568587	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	121361	262519	678882	1405465	2900947	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157476-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5799160					40.0				
1,2,3-Trichlorobenzene	DCBd 4	Ave	58935 2293306	134820	296808	597963	1206461	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	36526 1555302	73272	190756	382556	803605	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	41633 1734501	85434	214048	425239	887545	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	123741 5696194	246447	645215	1327515	2800914	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	43228 1856230	83987	218006	452465	937497	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5644.D
Lims ID: STD8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Mar-2021 08:36:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-002
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:38 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:13:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1738218	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1176310	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	87	670129	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	1555302	40.0	38.3	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	1734501	40.0	37.9	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	5696194	40.0	39.5	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	1856230	40.0	38.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	1985876	40.0	37.9	
10 Chloromethane	50	1.574	1.574	0.000	99	2137858	40.0	35.9	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	1867423	40.0	36.6	
12 Butadiene	54	1.669	1.681	-0.012	99	2331823	40.0	35.8	
13 Bromomethane	94	1.918	1.918	0.000	91	1571689	40.0	36.8	
14 Chloroethane	64	2.001	2.001	0.000	100	1352876	40.0	36.0	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	3604788	40.0	36.0	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	3464762	40.0	38.2	
17 Ethyl ether	59	2.404	2.416	-0.012	91	1648971	40.0	37.8	
18 Acrolein	56	2.523	2.523	0.000	99	523416	200.0	201.9	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	1987280	40.0	39.5	
20 112TCTFE	151	2.629	2.629	0.000	95	1754372	40.0	41.9	
21 Acetone	58	2.653	2.653	0.000	100	259443	80.0	73.8	
22 Iodomethane	142	2.736	2.748	-0.012	98	2924204	40.0	38.0	
24 Carbon disulfide	76	2.796	2.796	0.000	100	5211254	40.0	37.2	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	1200557	40.0	40.7	
27 Methyl acetate	43	2.914	2.914	0.000	97	1761410	80.0	79.8	
28 Methylene Chloride	84	2.997	3.009	-0.012	92	1768190	40.0	37.8	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	99	966491	400.0	393.1	
30 Acrylonitrile	53	3.211	3.211	0.000	99	4734494	400.0	401.3	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	4898428	40.0	40.2	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	96	1888831	40.0	37.6	
34 Hexane	86	3.436	3.436	0.000	92	392577	40.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	3082713	40.0	38.8	
36 Vinyl acetate	43	3.602	3.602	0.000	97	3014699	40.0	44.6	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	99	281791	80.0	76.7	
42 2,2-Dichloropropane	97	4.053	4.053	0.000	82	603120	40.0	39.0	
41 cis-1,2-Dichloroethene	96	4.041	4.053	-0.011	82	2005786	40.0	37.8	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	955220	40.0	38.2	
47 Tetrahydrofuran	42	4.278	4.278	0.000	86	676139	80.0	74.0	
48 Chloroform	83	4.302	4.302	0.000	93	3059766	40.0	38.7	
49 1,1,1-Trichloroethane	97	4.456	4.468	-0.012	98	2825060	40.0	39.6	
50 Cyclohexane	56	4.503	4.503	0.000	90	2874773	40.0	39.1	
52 Carbon tetrachloride	117	4.598	4.598	0.000	95	2586568	40.0	40.8	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	93	2458560	40.0	38.4	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	742762	1000.0	955.2	
55 Benzene	78	4.764	4.776	-0.012	95	7273390	40.0	38.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	2207739	40.0	38.9	
58 n-Heptane	100	4.966	4.966	0.000	91	334066	40.0	38.8	
60 Trichloroethene	130	5.298	5.298	0.000	96	1964997	40.0	38.3	
62 Methylcyclohexane	83	5.464	5.464	0.000	88	2517271	40.0	39.3	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	93	1581278	40.0	40.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	89	120475	800.0	492.5	
65 Dibromomethane	93	5.606	5.606	0.000	90	885521	40.0	38.8	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	2108837	40.0	41.9	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	93	1217878	80.0	89.2	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	96	2383514	40.0	43.5	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	2117506	80.0	80.3	
72 Toluene	91	6.412	6.412	0.000	98	7004750	40.0	40.3	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	93	1937105	40.0	43.5	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	1398285	40.0	41.6	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	1112850	40.0	39.0	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	1448870	40.0	39.6	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	1960760	40.0	40.0	
78 2-Hexanone	43	6.982	6.982	0.000	96	1128839	80.0	69.2	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	1375317	40.0	43.9	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	1087018	40.0	39.5	
84 Chlorobenzene	112	7.681	7.681	0.000	95	4215604	40.0	39.7	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	95	1811750	40.0	41.0	
86 Ethylbenzene	106	7.776	7.776	0.000	98	2348653	40.0	40.5	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	92	5668949	40.0	40.3	
88 o-Xylene	106	8.262	8.262	0.000	97	3043471	40.0	40.3	
89 Styrene	104	8.274	8.274	0.000	93	4136534	40.0	42.2	
90 Bromoform	173	8.464	8.464	0.000	98	910703	40.0	47.0	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	7631521	40.0	40.9	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	1413960	40.0	41.2	
95 Bromobenzene	156	8.914	8.914	0.000	91	1887184	40.0	40.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	447188	40.0	40.2	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	92	322478	40.0	40.5	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	1961209	40.0	42.0	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	1789216	40.0	41.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	6217268	40.0	42.2	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	5622899	40.0	40.6	
104 tert-Butylbenzene	119	9.507	9.496	0.011	91	5259257	40.0	41.8	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	6336062	40.0	42.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	6889593	40.0	41.6	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	3446839	40.0	39.0	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	6173286	40.0	41.6	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	3517407	40.0	38.3	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	4764027	40.0	39.7	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	99	3607534	40.0	39.2	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	88	323157	40.0	42.7	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	2463296	40.0	36.5	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	1035440	40.0	38.2	
119 Naphthalene	128	12.128	12.128	0.000	96	5799160	40.0	40.3	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	2293306	40.0	35.8	
S 127 1,2-Dichloroethene, Total	96				0			75.5	
S 128 1,3-Dichloropropene, Total	75				0			87.0	
S 129 Xylenes, Total	106				0		80.0	80.6	
S 130 Total BTEX	1				0		200.0	199.5	
S 131 Trihalomethanes, Total	1				0		160.0	171.5	

QC Flag Legend

Processing Flags

Reagents:

vm50ss_stk_00086	Amount Added:	32.00	Units: uL
VM50is_00086	Amount Added:	1.00	Units: uL
VMRPRIMW_00427	Amount Added:	32.00	Units: uL
VMAROLISTDW_00384	Amount Added:	32.00	Units: uL
VMRGAS_00377	Amount Added:	32.00	Units: uL

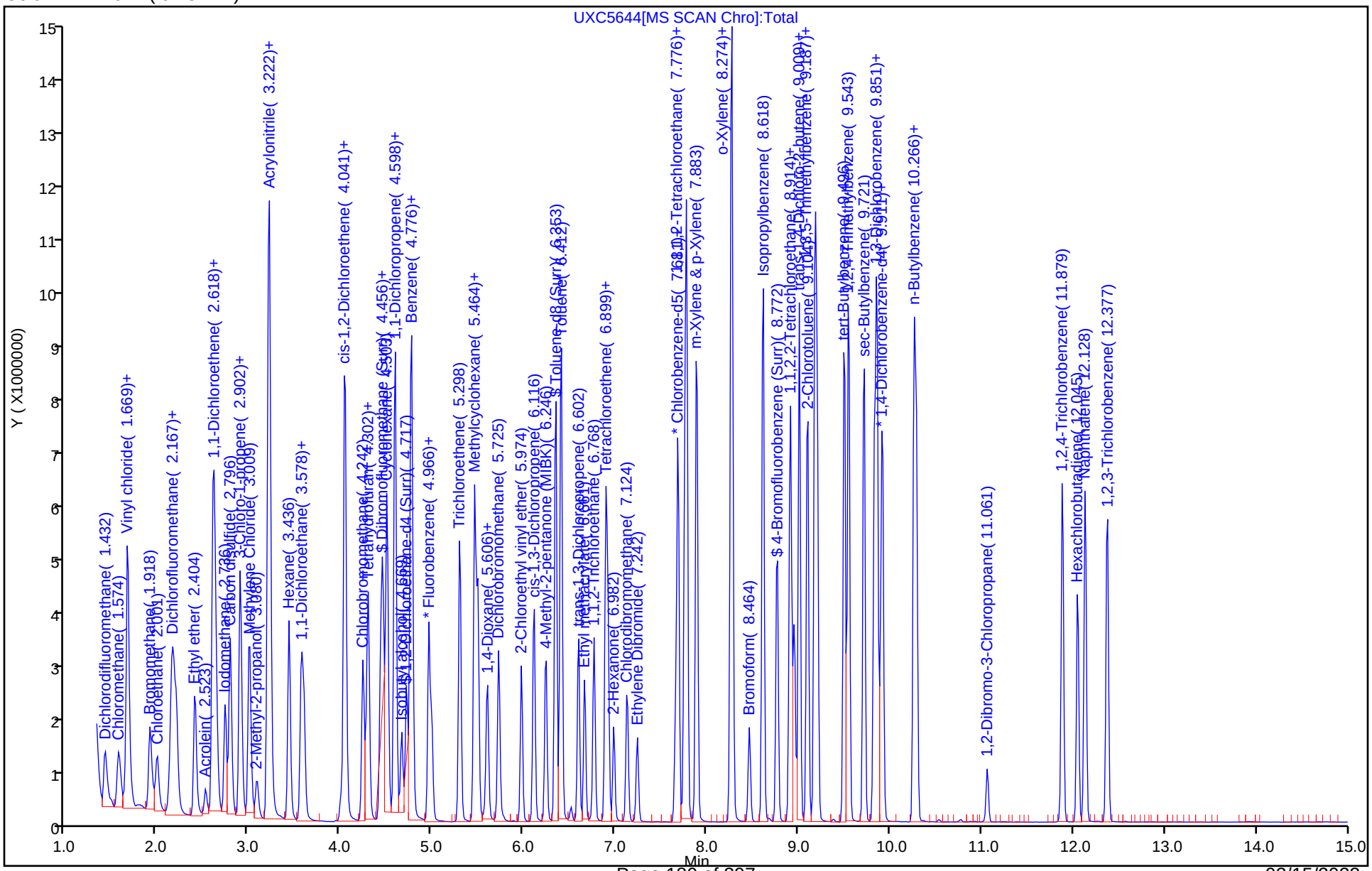
Report Date: 18-Mar-2021 09:00:39 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5644.D

Injection Date:	16-Mar-2021 08:36:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L6			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5645.D
Lims ID: STD8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Mar-2021 08:58:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-003
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:45 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:18:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1729200	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1129906	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	93	663171	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	803605	20.0	19.9	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	887545	20.0	19.5	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	2800914	20.0	20.2	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	937497	20.0	20.0	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	1015755	20.0	19.5	
10 Chloromethane	50	1.574	1.574	0.000	99	1076987	20.0	18.2	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	1053493	20.0	20.7	
12 Butadiene	54	1.669	1.681	-0.012	99	1175768	20.0	18.2	
13 Bromomethane	94	1.918	1.918	0.000	90	834840	20.0	19.6	
14 Chloroethane	64	1.989	2.001	-0.012	100	724185	20.0	19.4	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	1828501	20.0	18.4	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	1796517	20.0	19.9	
17 Ethyl ether	59	2.404	2.416	-0.012	91	824901	20.0	19.0	
18 Acrolein	56	2.523	2.523	0.000	100	249680	100.0	95.4	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	1020497	20.0	20.4	
20 112TCTFE	151	2.629	2.629	0.000	92	876594	20.0	21.0	
21 Acetone	58	2.653	2.653	0.000	100	129995	40.0	37.2	
22 Iodomethane	142	2.736	2.748	-0.012	99	1762805	20.0	23.0	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	2970031	20.0	21.3	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	606147	20.0	20.6	
27 Methyl acetate	43	2.914	2.914	0.000	97	869993	40.0	39.6	
28 Methylene Chloride	84	3.009	3.009	0.000	92	925140	20.0	19.9	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	98	475246	200.0	194.3	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	2316749	200.0	197.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	2438583	20.0	20.1	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	94	977825	20.0	19.6	
34 Hexane	86	3.436	3.436	0.000	93	197372	20.0	19.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	1559420	20.0	19.7	
36 Vinyl acetate	43	3.602	3.602	0.000	97	1435718	20.0	21.3	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	82	1027988	20.0	19.5	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	98	137808	40.0	37.7	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	83	309943	20.0	20.2	
46 Chlorobromomethane	128	4.242	4.242	0.000	94	492922	20.0	19.8	
47 Tetrahydrofuran	42	4.278	4.278	0.000	86	327685	40.0	36.1	
48 Chloroform	83	4.301	4.302	-0.001	93	1563762	20.0	19.9	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	1436238	20.0	20.3	
50 Cyclohexane	56	4.503	4.503	0.000	90	1474122	20.0	20.1	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	1297566	20.0	20.6	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	1253974	20.0	19.7	
53 Isobutyl alcohol	41	4.669	4.669	0.000	94	364589	500.0	471.3	
55 Benzene	78	4.764	4.776	-0.012	95	3623322	20.0	19.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	1113535	20.0	19.7	
58 n-Heptane	100	4.966	4.966	0.000	90	170034	20.0	19.9	
60 Trichloroethene	130	5.298	5.298	0.000	96	983943	20.0	19.3	
62 Methylcyclohexane	83	5.464	5.464	0.000	89	1277610	20.0	20.1	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	785821	20.0	20.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	37	110747	400.0	416.6	
65 Dibromomethane	93	5.606	5.606	0.000	91	449938	20.0	19.8	
67 Dichlorobromomethane	83	5.725	5.725	-0.001	99	1025475	20.0	20.5	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	570636	40.0	42.0	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	1156157	20.0	21.2	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	1044731	40.0	39.8	
72 Toluene	91	6.412	6.412	0.000	98	3370989	20.0	20.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	922042	20.0	21.6	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	681749	20.0	21.1	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	549002	20.0	20.0	
76 Tetrachloroethene	164	6.898	6.899	-0.001	98	707318	20.0	20.1	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	943985	20.0	20.0	
78 2-Hexanone	43	6.982	6.982	0.000	97	604348	40.0	38.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	652498	20.0	21.7	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	538641	20.0	20.4	
84 Chlorobenzene	112	7.681	7.681	0.000	95	2065080	20.0	20.3	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	95	888983	20.0	20.9	
86 Ethylbenzene	106	7.776	7.776	0.000	98	1138861	20.0	20.5	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	2787248	20.0	20.6	
88 o-Xylene	106	8.262	8.262	0.000	95	1485220	20.0	20.5	
89 Styrene	104	8.274	8.274	0.000	90	1985697	20.0	21.1	
90 Bromoform	173	8.464	8.464	0.000	98	415352	20.0	22.3	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	3744436	20.0	20.9	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	95	704816	20.0	20.8	
95 Bromobenzene	156	8.914	8.914	0.000	91	925930	20.0	19.8	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	221278	20.0	20.1	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	87	160485	20.0	20.5	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	960393	20.0	20.8	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	875326	20.0	20.4	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	3048822	20.0	20.9	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	2777057	20.0	20.2	
104 tert-Butylbenzene	119	9.496	9.496	0.000	91	2608022	20.0	20.9	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	3116448	20.0	20.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	3445811	20.0	21.0	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	1733837	20.0	19.8	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	3069390	20.0	20.9	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	97	1784216	20.0	19.6	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	2416429	20.0	20.3	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	1817774	20.0	20.0	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	88	155451	20.0	20.8	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	1286481	20.0	19.3	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	568587	20.0	20.9	
119 Naphthalene	128	12.128	12.128	0.000	97	2900947	20.0	20.4	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	1206461	20.0	19.0	
S 127 1,2-Dichloroethene, Total	96				0			39.1	
S 128 1,3-Dichloropropene, Total	75				0			42.8	
S 129 Xylenes, Total	106				0		40.0	41.1	
S 130 Total BTEX	1				0		100.0	100.8	
S 131 Trihalomethanes, Total	1				0		80.0	84.3	

Reagents:

vm50ss_stk_00086	Amount Added:	16.00	Units: uL
VM50is_00086	Amount Added:	1.00	Units: uL
VMRPRIMW_00427	Amount Added:	16.00	Units: uL
VMAROLISTDW_00384	Amount Added:	16.00	Units: uL
VMRGAS_00377	Amount Added:	16.00	Units: uL

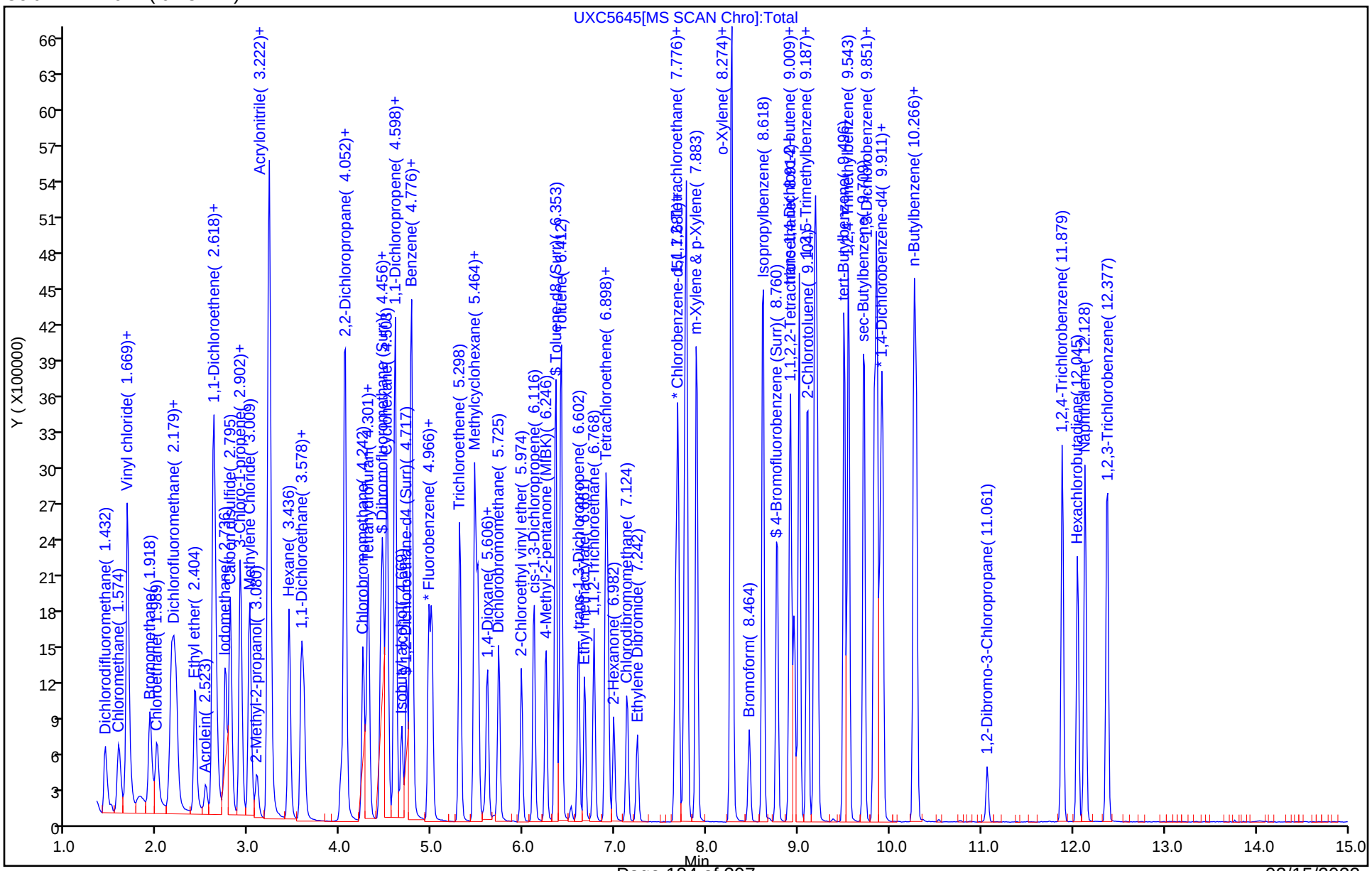
Report Date: 18-Mar-2021 09:00:46 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5645.D

Injection Date:	16-Mar-2021 08:58:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L5			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5646.D
Lims ID: STD8260 L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 16-Mar-2021 09:20:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-004
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:51 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:42:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1635381	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1083691	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	639882	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	382556	10.0	10.0	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	425239	10.0	9.88	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1327515	10.0	10.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	452465	10.0	10.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	505763	10.0	10.3	
10 Chloromethane	50	1.574	1.574	0.000	99	581954	10.0	10.4	
11 Vinyl chloride	62	1.669	1.669	0.000	97	435655	10.0	9.07	
12 Butadiene	54	1.681	1.681	0.000	99	603954	10.0	9.86	
13 Bromomethane	94	1.918	1.918	0.000	91	359282	10.0	8.93	
14 Chloroethane	64	2.001	2.001	0.000	100	331296	10.0	9.36	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	917387	10.0	9.74	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	97	821375	10.0	9.64	
17 Ethyl ether	59	2.416	2.416	0.000	90	402519	10.0	9.80	
18 Acrolein	56	2.523	2.523	0.000	99	127991	50.0	50.5	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	474847	10.0	10.0	
20 112TCTFE	151	2.629	2.629	0.000	93	394578	10.0	10.0	
21 Acetone	58	2.653	2.653	0.000	100	61024	20.0	18.5	
22 Iodomethane	142	2.748	2.748	0.000	98	720329	10.0	9.95	
24 Carbon disulfide	76	2.796	2.796	0.000	100	1273944	10.0	9.67	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	282597	10.0	10.2	
27 Methyl acetate	43	2.914	2.914	0.000	98	411585	20.0	19.8	
28 Methylene Chloride	84	3.009	3.009	0.000	92	430176	10.0	9.78	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	98	237680	100.0	102.8	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1114638	100.0	100.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1151185	10.0	10.0	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	473854	10.0	10.0	
34 Hexane	86	3.436	3.436	0.000	92	94360	10.0	9.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	747006	10.0	9.99	
36 Vinyl acetate	43	3.602	3.602	0.000	97	650063	10.0	10.2	
42 2,2-Dichloropropane	97	4.053	4.053	0.000	80	144526	10.0	9.94	
41 cis-1,2-Dichloroethene	96	4.053	4.053	0.000	82	489671	10.0	9.82	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	100	66059	20.0	19.1	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	237215	10.0	10.1	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	160132	20.0	18.6	
48 Chloroform	83	4.302	4.302	0.000	93	742858	10.0	9.98	
49 1,1,1-Trichloroethane	97	4.468	4.468	0.000	98	670415	10.0	10.0	
50 Cyclohexane	56	4.503	4.503	0.000	90	681490	10.0	9.85	
52 Carbon tetrachloride	117	4.598	4.598	0.000	93	601989	10.0	10.1	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	606744	10.0	10.1	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	186811	250.0	255.3	
55 Benzene	78	4.776	4.776	0.000	95	1742135	10.0	9.71	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	533877	10.0	10.0	
58 n-Heptane	100	4.966	4.966	0.000	91	74441	10.0	9.20	
60 Trichloroethene	130	5.298	5.298	0.000	97	476021	10.0	9.87	
62 Methylcyclohexane	83	5.464	5.464	0.000	88	592186	10.0	9.83	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	372280	10.0	10.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	85	59463	200.0	191.9	
65 Dibromomethane	93	5.606	5.606	0.000	91	215335	10.0	10.0	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	484704	10.0	10.2	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	263000	20.0	20.5	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	529695	10.0	10.3	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	502124	20.0	20.2	
72 Toluene	91	6.412	6.412	0.000	98	1573355	10.0	9.82	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	420983	10.0	10.3	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	306515	10.0	9.91	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	260222	10.0	9.90	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	338041	10.0	10.0	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	90	454762	10.0	10.1	
78 2-Hexanone	43	6.982	6.982	0.000	97	302863	20.0	20.1	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	297016	10.0	10.3	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	250735	10.0	9.88	
84 Chlorobenzene	112	7.681	7.681	0.000	95	967329	10.0	9.90	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	406561	10.0	9.98	
86 Ethylbenzene	106	7.776	7.776	0.000	98	538828	10.0	10.1	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1293431	10.0	9.98	
88 o-Xylene	106	8.262	8.262	0.000	96	689690	10.0	9.91	
89 Styrene	104	8.274	8.274	0.000	93	913969	10.0	10.1	
90 Bromoform	173	8.464	8.464	0.000	98	177112	10.0	9.92	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	1725432	10.0	10.0	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	328387	10.0	10.0	
95 Bromobenzene	156	8.914	8.914	0.000	90	452432	10.0	10.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	105370	10.0	9.92	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	73	69740	10.0	9.32	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	445896	10.0	9.99	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	422328	10.0	10.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	1410902	10.0	10.0	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	1311993	10.0	9.91	
104 tert-Butylbenzene	119	9.496	9.496	0.000	91	1213704	10.0	10.1	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	1458830	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	94	1605451	10.0	10.1	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	839103	10.0	9.94	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1421147	10.0	10.0	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	863405	10.0	9.85	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	1141647	10.0	9.95	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	99	880005	10.0	10.0	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	87	73534	10.0	10.2	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	637594	10.0	9.89	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	95	288855	10.0	10.6	
119 Naphthalene	128	12.128	12.128	0.000	96	1405465	10.0	10.2	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	597963	10.0	9.77	
S 129 Xylenes, Total	106				0		20.0	19.9	
S 130 Total BTEX	1				0		50.0	49.5	
S 131 Trihalomethanes, Total	1				0		40.0	40.4	

QC Flag Legend

Processing Flags

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	8.00	Units: uL
VMAROLISTDW_00384	Amount Added:	8.00	Units: uL
VMRPRIMW_00427	Amount Added:	8.00	Units: uL
VMRGAS_00377	Amount Added:	8.00	Units: uL

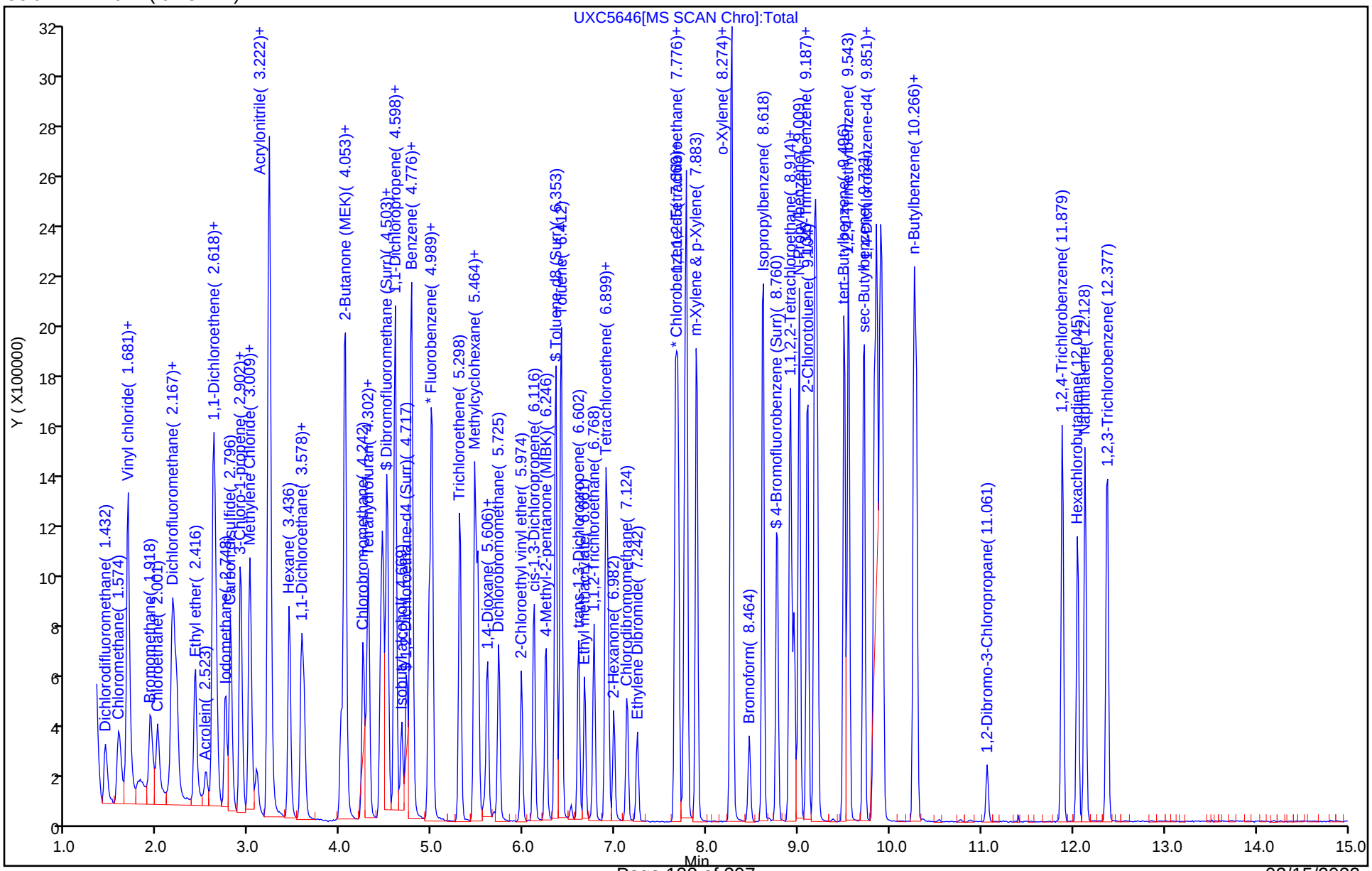
Report Date: 18-Mar-2021 09:00:52 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5646.D

Injection Date:	16-Mar-2021 09:20:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L4			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5647.D
Lims ID: STD8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Mar-2021 09:42:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-005
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	100	1580769	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1036230	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	93	621189	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	190756	5.00	5.16	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	214048	5.00	5.14	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	645215	5.00	5.08	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	218006	5.00	5.08	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	236340	5.00	4.96	
10 Chloromethane	50	1.574	1.574	0.000	99	278892	5.00	5.15	
11 Vinyl chloride	62	1.669	1.669	0.000	98	218141	5.00	4.70	
12 Butadiene	54	1.681	1.681	0.000	99	299854	5.00	5.06	
13 Bromomethane	94	1.918	1.918	0.000	90	185985	5.00	4.78	
14 Chloroethane	64	2.001	2.001	0.000	100	171841	5.00	5.02	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	454576	5.00	5.00	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	399090	5.00	4.84	
17 Ethyl ether	59	2.416	2.416	0.000	90	199967	5.00	5.04	
18 Acrolein	56	2.523	2.523	0.000	98	65464	25.0	25.4	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	236738	5.00	5.18	
20 112TCTFE	151	2.629	2.629	0.000	93	194077	5.00	5.09	
21 Acetone	58	2.653	2.653	0.000	98	28520	10.0	8.92	
22 Iodomethane	142	2.736	2.748	-0.012	99	348537	5.00	4.98	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	614828	5.00	4.83	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	137672	5.00	5.13	
27 Methyl acetate	43	2.914	2.914	0.000	98	204142	10.0	10.2	
28 Methylene Chloride	84	3.009	3.009	0.000	92	214303	5.00	5.04	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	98	117539	50.0	52.6	
30 Acrylonitrile	53	3.210	3.211	-0.001	98	541571	50.0	50.5	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	559170	5.00	5.04	
32 trans-1,2-Dichloroethene	96	3.234	3.222	0.012	96	228419	5.00	5.00	
34 Hexane	86	3.436	3.436	0.000	92	41895	5.00	4.58	
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	364589	5.00	5.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.602	3.602	0.000	97	304236	5.00	4.95	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	99	32640	10.0	9.77	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	81	70219	5.00	5.00	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	85	244751	5.00	5.08	
46 Chlorobromomethane	128	4.242	4.242	0.000	94	114745	5.00	5.04	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	75127	10.0	9.04	
48 Chloroform	83	4.301	4.302	-0.001	94	363680	5.00	5.05	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	328759	5.00	5.07	
50 Cyclohexane	56	4.503	4.503	0.000	90	333807	5.00	4.99	
52 Carbon tetrachloride	117	4.598	4.598	0.000	94	291902	5.00	5.06	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	293864	5.00	5.04	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	89469	125.0	126.5	
55 Benzene	78	4.776	4.776	0.000	95	853447	5.00	4.92	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	258800	5.00	5.02	
58 n-Heptane	100	4.966	4.966	0.000	91	38208	5.00	4.88	
60 Trichloroethene	130	5.298	5.298	0.000	96	234414	5.00	5.03	
62 Methylcyclohexane	83	5.464	5.464	0.000	89	281838	5.00	4.84	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	178849	5.00	4.98	
66 1,4-Dioxane	88	5.606	5.606	0.000	38	28764	100.0	91.7	
65 Dibromomethane	93	5.606	5.606	0.000	90	103540	5.00	4.99	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	99	224007	5.00	4.90	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	93	118901	10.0	9.57	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	244291	5.00	4.91	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	243498	10.0	10.2	
72 Toluene	91	6.412	6.412	0.000	98	756651	5.00	4.94	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	191368	5.00	4.88	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	148354	5.00	5.01	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	92	124819	5.00	4.97	
76 Tetrachloroethene	164	6.898	6.899	-0.001	98	161314	5.00	5.00	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	213808	5.00	4.95	
78 2-Hexanone	43	6.981	6.982	-0.001	97	149884	10.0	10.4	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	137225	5.00	4.97	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	120100	5.00	4.95	
84 Chlorobenzene	112	7.681	7.681	0.000	97	470075	5.00	5.03	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	190281	5.00	4.88	
86 Ethylbenzene	106	7.776	7.776	0.000	98	253063	5.00	4.96	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	614921	5.00	4.96	
88 o-Xylene	106	8.262	8.262	0.000	96	333576	5.00	5.01	
89 Styrene	104	8.274	8.274	0.000	93	429902	5.00	4.98	
90 Bromoform	173	8.464	8.464	0.000	98	80220	5.00	4.70	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	823347	5.00	5.01	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	160683	5.00	5.06	
95 Bromobenzene	156	8.914	8.914	0.000	90	215609	5.00	4.93	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	85	50734	5.00	4.92	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	70	30267	5.00	4.28	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	213311	5.00	4.92	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	200124	5.00	4.98	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	666934	5.00	4.89	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	633815	5.00	4.93	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	92	570303	5.00	4.89	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	94	691594	5.00	4.94	
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	749769	5.00	4.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	414203	5.00	5.06	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	96	672177	5.00	4.89	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	427734	5.00	5.03	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	547299	5.00	4.92	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	431687	5.00	5.06	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	86	34964	5.00	4.99	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	313669	5.00	5.01	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	147661	5.00	5.25	
119 Naphthalene	128	12.128	12.128	0.000	96	678882	5.00	5.09	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	95	296808	5.00	5.00	
S 127 1,2-Dichloroethene, Total	96				0			10.1	
S 128 1,3-Dichloropropene, Total	75				0			9.79	
S 129 Xylenes, Total	106				0		10.0	9.97	
S 130 Total BTEX	1				0		25.0	24.8	
S 131 Trihalomethanes, Total	1				0		20.0	19.6	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	4.00	Units: uL
VMRPRIMW_00427	Amount Added:	4.00	Units: uL
VMRGAS_00377	Amount Added:	4.00	Units: uL
VMAROLISTDW_00384	Amount Added:	4.00	Units: uL

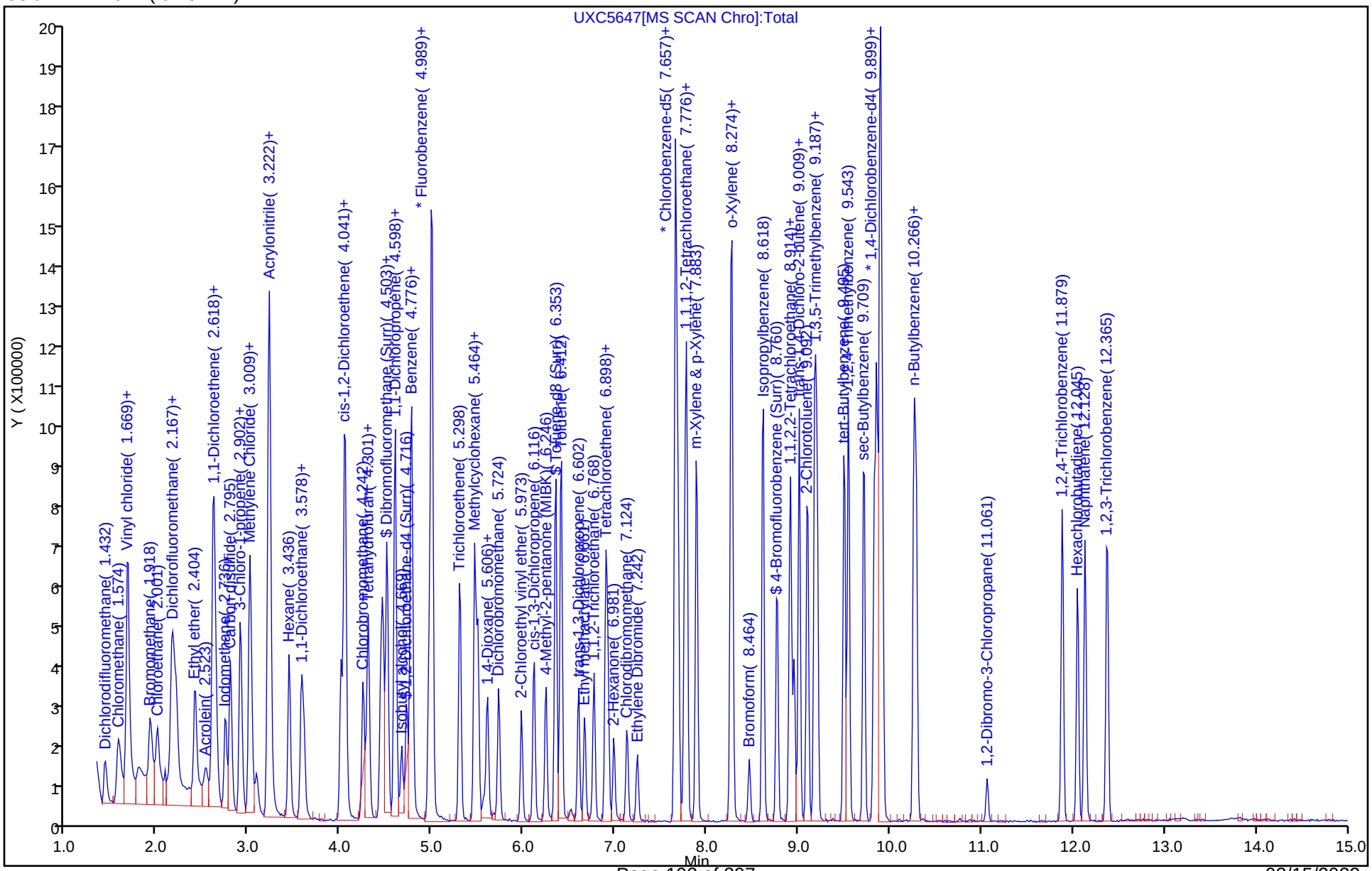
Report Date: 18-Mar-2021 09:00:58 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5647.D

Injection Date:	16-Mar-2021 09:42:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L3			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5648.D
Lims ID: STD8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Mar-2021 10:17:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-006
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:01:02 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 11:41:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1600104	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1025239	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	608128	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	73272	2.00	1.96	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	85434	2.00	2.03	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	246447	2.00	1.96	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	83987	2.00	1.98	
9 Dichlorodifluoromethane	85	1.420	1.432	-0.012	99	96788	2.00	2.01	
10 Chloromethane	50	1.574	1.574	0.000	99	109132	2.00	1.99	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	107404	2.00	2.29	
12 Butadiene	54	1.669	1.681	-0.012	99	116788	2.00	1.95	
13 Bromomethane	94	1.918	1.918	0.000	91	88628	2.00	2.25	
14 Chloroethane	64	1.989	2.001	-0.012	99	71803	2.00	2.07	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	197535	2.00	2.14	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	169605	2.00	2.03	
17 Ethyl ether	59	2.404	2.416	-0.012	89	83944	2.00	2.09	
18 Acrolein	56	2.523	2.523	0.000	97	42337	10.0	15.3	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	99	97460	2.00	2.11	
20 112TCTFE	151	2.617	2.629	-0.012	90	74912	2.00	1.94	
21 Acetone	58	2.653	2.653	0.000	97	15117	4.00	4.67	
22 Iodomethane	142	2.736	2.748	-0.012	99	140257	2.00	1.98	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	286182	2.00	2.22	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	87	54960	2.00	2.02	
27 Methyl acetate	43	2.914	2.914	0.000	97	79302	4.00	3.90	
28 Methylene Chloride	84	3.009	3.009	0.000	91	90541	2.00	2.10	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	97	44457	20.0	19.6	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	216160	20.0	19.9	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	220217	2.00	1.96	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	94	94914	2.00	2.05	
34 Hexane	86	3.436	3.436	0.000	93	18928	2.00	2.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	97	148843	2.00	2.03	
36 Vinyl acetate	43	3.602	3.602	0.000	97	113199	2.00	1.82	
41 cis-1,2-Dichloroethene	96	4.041	4.053	-0.012	81	101403	2.00	2.08	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	45	13268	4.00	3.93	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	76	28276	2.00	1.99	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	46356	2.00	2.01	
47 Tetrahydrofuran	42	4.290	4.278	0.012	87	36744	4.00	4.37	
48 Chloroform	83	4.301	4.302	-0.001	93	145589	2.00	2.00	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	97	131645	2.00	2.01	
50 Cyclohexane	56	4.503	4.503	0.000	90	135465	2.00	2.00	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	113888	2.00	1.95	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	121447	2.00	2.06	
53 Isobutyl alcohol	41	4.669	4.669	0.000	91	35137	50.0	49.1	
55 Benzene	78	4.764	4.776	-0.012	95	365182	2.00	2.08	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	103413	2.00	1.98	
58 n-Heptane	100	4.965	4.966	-0.001	91	17934	2.00	2.26	
60 Trichloroethene	130	5.298	5.298	0.000	94	96690	2.00	2.05	
62 Methylcyclohexane	83	5.464	5.464	0.000	90	120389	2.00	2.04	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	92	69979	2.00	1.92	
66 1,4-Dioxane	88	5.606	5.606	0.000	41	13582	40.0	44.9	
65 Dibromomethane	93	5.594	5.606	-0.012	89	41243	2.00	1.96	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	98	89718	2.00	1.94	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	91	47750	4.00	3.80	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	95626	2.00	1.90	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	92610	4.00	3.82	
72 Toluene	91	6.412	6.412	0.000	98	307593	2.00	2.03	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	93	73739	2.00	1.90	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	54155	2.00	1.85	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	48837	2.00	1.96	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	65641	2.00	2.06	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	90	85147	2.00	1.99	
78 2-Hexanone	43	6.981	6.982	-0.001	97	59188	4.00	4.16	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	50550	2.00	1.85	
82 Ethylene Dibromide	107	7.242	7.242	0.000	97	48784	2.00	2.03	
84 Chlorobenzene	112	7.681	7.681	0.000	95	182215	2.00	1.97	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	74581	2.00	1.94	
86 Ethylbenzene	106	7.776	7.776	0.000	98	98654	2.00	1.95	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	238816	2.00	1.95	
88 o-Xylene	106	8.262	8.262	0.000	96	131067	2.00	1.99	
89 Styrene	104	8.274	8.274	0.000	91	161777	2.00	1.89	
90 Bromoform	173	8.464	8.464	0.000	96	32788	2.00	1.94	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	315606	2.00	1.94	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.903	-0.001	96	58976	2.00	1.90	
95 Bromobenzene	156	8.914	8.914	0.000	90	86512	2.00	2.02	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	87	21011	2.00	2.08	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	77	17008	2.00	2.54	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	82831	2.00	1.95	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	77726	2.00	1.97	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	259616	2.00	1.94	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	251801	2.00	2.00	
104 tert-Butylbenzene	119	9.507	9.496	0.011	90	222437	2.00	1.95	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	269709	2.00	1.97	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	94	294251	2.00	1.96	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	98	164834	2.00	2.06	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	268187	2.00	1.99	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	171714	2.00	2.06	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	226998	2.00	2.08	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	168210	2.00	2.02	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	82	14241	2.00	2.08	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	138494	2.00	2.26	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	95	72546	2.00	2.26	
119 Naphthalene	128	12.128	12.128	0.000	96	262519	2.00	2.01	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	95	134820	2.00	2.32	
S 127 1,2-Dichloroethene, Total	96				0			4.13	
S 128 1,3-Dichloropropene, Total	75				0			3.80	
S 129 Xylenes, Total	106				0		4.00	3.94	
S 130 Total BTEX	1				0		10.0	10.0	
S 131 Trihalomethanes, Total	1				0		8.00	7.73	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	1.60	Units: uL
VMRPRIMW_00427	Amount Added:	1.60	Units: uL
VMAROLISTDW_00384	Amount Added:	1.60	Units: uL
VMRGAS_00377	Amount Added:	1.60	Units: uL

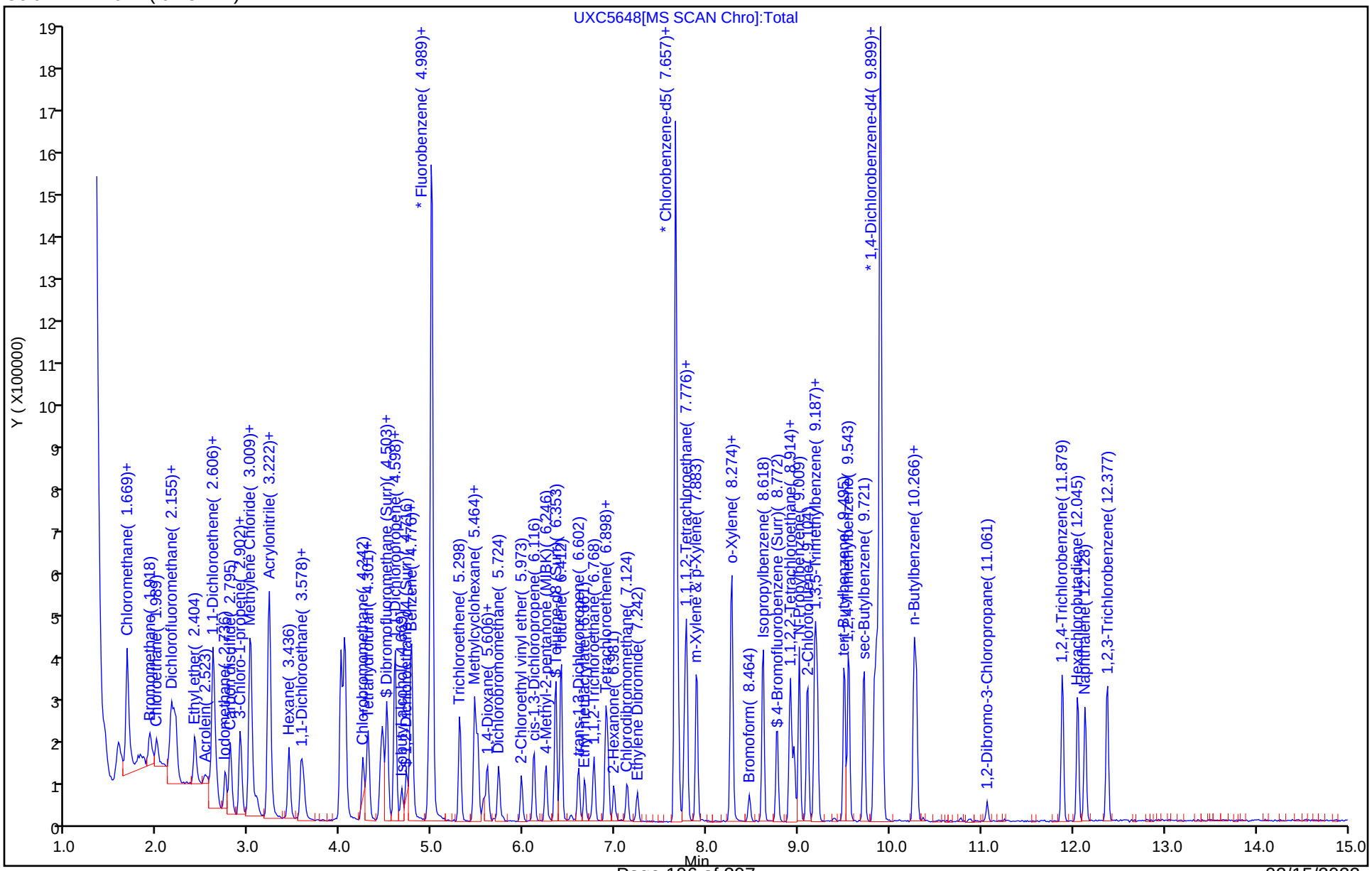
Report Date: 18-Mar-2021 09:01:03 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5648.D

Injection Date:	16-Mar-2021 10:17:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L2			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5649.D
Lims ID: STD8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Mar-2021 10:39:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-007
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:01:07 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 12:42:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1508502	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1005314	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	606056	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	36526	1.00	1.04	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	99	41633	1.00	1.05	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	123741	1.00	1.00	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	95	43228	1.00	1.04	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	98	47955	1.00	1.06	
10 Chloromethane	50	1.574	1.574	0.000	98	58389	1.00	1.13	
11 Vinyl chloride	62	1.657	1.669	-0.012	78	46845	1.00	1.06	
12 Butadiene	54	1.669	1.681	-0.012	96	69152	1.00	1.22	
13 Bromomethane	94	1.918	1.918	0.000	91	41750	1.00	1.12	
14 Chloroethane	64	2.001	2.001	0.000	99	37706	1.00	1.16	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	98585	1.00	1.14	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	86296	1.00	1.10	
17 Ethyl ether	59	2.404	2.416	-0.012	88	40718	1.00	1.07	
18 Acrolein	56	2.534	2.523	0.011	96	9294	5.00	1.47	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	39151	1.00	0.8976	
20 112TCTFE	151	2.629	2.629	0.000	91	33084	1.00	0.9100	
21 Acetone	58	2.653	2.653	0.000	99	7111	2.00	2.33	
22 Iodomethane	142	2.736	2.748	-0.012	99	61380	1.00	0.9189	
24 Carbon disulfide	76	2.795	2.796	-0.001	99	116874	1.00	0.9616	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	22980	1.00	0.8970	
27 Methyl acetate	43	2.914	2.914	0.000	97	39316	2.00	2.05	
28 Methylene Chloride	84	3.009	3.009	0.000	89	41550	1.00	1.02	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	96	20999	10.0	9.84	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	102496	10.0	10.0	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	105442	1.00	1.00	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	45650	1.00	1.05	
34 Hexane	86	3.436	3.436	0.000	91	9581	1.00	1.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	70364	1.00	1.02	
36 Vinyl acetate	43	3.602	3.602	0.000	97	52739	1.00	0.8986	
42 2,2-Dichloropropane	97	4.041	4.053	-0.011	78	13807	1.00	1.03	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	81	47902	1.00	1.04	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	48	7540	2.00	2.37	
46 Chlorobromomethane	128	4.242	4.242	0.000	87	22476	1.00	1.03	
47 Tetrahydrofuran	42	4.290	4.278	0.012	85	19738	2.00	2.49	
48 Chloroform	83	4.301	4.302	-0.001	93	70935	1.00	1.03	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	97	60467	1.00	0.9778	
50 Cyclohexane	56	4.503	4.503	0.000	90	65918	1.00	1.03	
52 Carbon tetrachloride	117	4.598	4.598	0.000	92	52456	1.00	0.9535	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	93	56469	1.00	1.02	
53 Isobutyl alcohol	41	4.669	4.669	0.000	93	18341	25.0	27.2	
55 Benzene	78	4.764	4.776	-0.012	96	181175	1.00	1.09	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	96	51453	1.00	1.05	
58 n-Heptane	100	4.965	4.966	-0.001	92	7518	1.00	1.01	
60 Trichloroethene	130	5.298	5.298	0.000	95	47038	1.00	1.06	
62 Methylcyclohexane	83	5.464	5.464	0.000	90	57824	1.00	1.04	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	92	35608	1.00	1.04	
66 1,4-Dioxane	88	5.606	5.606	0.000	39	5574	20.0	23.1	
65 Dibromomethane	93	5.606	5.606	0.000	89	20875	1.00	1.05	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	98	41626	1.00	0.9538	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	92	21442	2.00	1.81	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	42305	1.00	0.8906	
71 4-Methyl-2-pentanone (MIBK)	43	6.234	6.246	-0.012	96	46573	2.00	2.04	
72 Toluene	91	6.412	6.412	0.000	98	148278	1.00	1.00	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	33643	1.00	0.8838	
74 Ethyl methacrylate	69	6.673	6.661	0.012	88	28235	1.00	0.9837	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	90	25770	1.00	1.06	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	30533	1.00	0.9755	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	42197	1.00	1.01	
78 2-Hexanone	43	6.981	6.982	-0.001	95	30177	2.00	2.16	
80 Chlorodibromomethane	129	7.124	7.124	0.000	89	23357	1.00	0.8719	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	23568	1.00	1.00	
84 Chlorobenzene	112	7.681	7.681	0.000	95	91842	1.00	1.01	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.764	-0.012	92	37283	1.00	0.9866	
86 Ethylbenzene	106	7.776	7.776	0.000	98	48952	1.00	0.9881	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	95	119546	1.00	0.99	
88 o-Xylene	106	8.262	8.262	0.000	96	63450	1.00	0.9824	
89 Styrene	104	8.274	8.274	0.000	93	78354	1.00	0.9354	
90 Bromoform	173	8.464	8.464	0.000	96	13367	1.00	0.8071	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	152266	1.00	0.9552	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	-0.001	97	30042	1.00	0.9688	
95 Bromobenzene	156	8.914	8.914	0.000	90	43010	1.00	1.01	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	9782	1.00	0.9725	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	66	5133	1.00	0.9070	
98 N-Propylbenzene	120	9.009	9.009	0.000	98	40320	1.00	0.9537	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	37216	1.00	0.9484	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	125526	1.00	0.9432	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	124885	1.00	1.00	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	92	107456	1.00	0.9445	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	94	125769	1.00	0.9214	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	141534	1.00	0.9438	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	96	79988	1.00	1.00	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	96	125533	1.00	0.9359	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	86247	1.00	1.04	
113 n-Butylbenzene	91	10.266	10.266	0.000	96	105585	1.00	0.9720	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	83074	1.00	1.00	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	79	5731	1.00	0.8382	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	61295	1.00	1.00	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	36040	1.00	0.7551	
119 Naphthalene	128	12.128	12.128	0.000	97	121361	1.00	0.9318	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	58935	1.00	1.02	
S 127 1,2-Dichloroethene, Total	96				0			2.09	
S 128 1,3-Dichloropropene, Total	75				0			1.77	
S 129 Xylenes, Total	106				0		2.00	1.98	
S 130 Total BTEX	1				0		5.00	5.06	
S 131 Trihalomethanes, Total	1				0		4.00	3.67	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	0.80	Units: uL
VMRPRIMW_00427	Amount Added:	0.80	Units: uL
VMAROLISTDW_00384	Amount Added:	0.80	Units: uL
VMRGAS_00377	Amount Added:	0.80	Units: uL

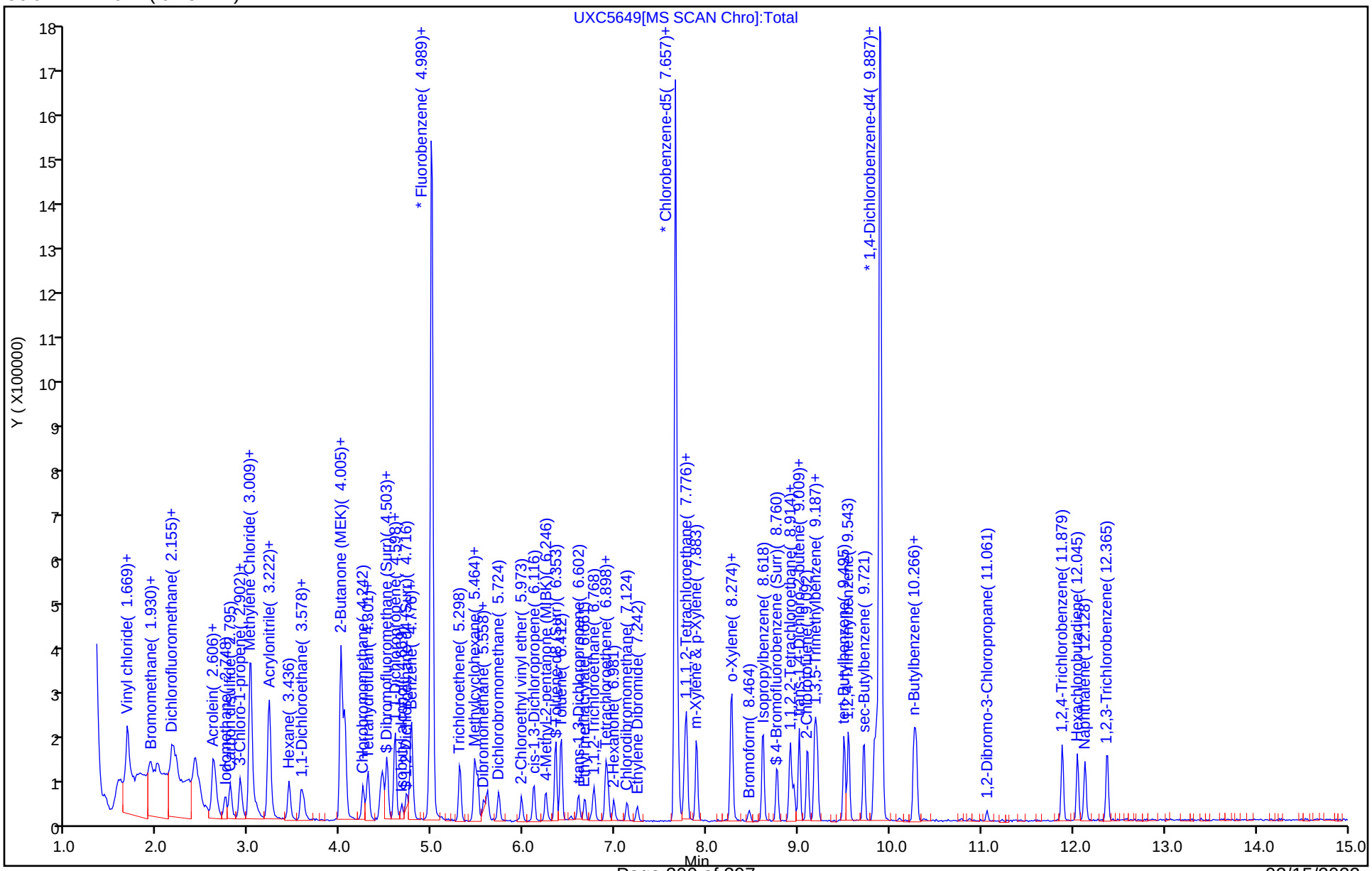
Report Date: 18-Mar-2021 09:01:08 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5649.D

Injection Date:	16-Mar-2021 10:39:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

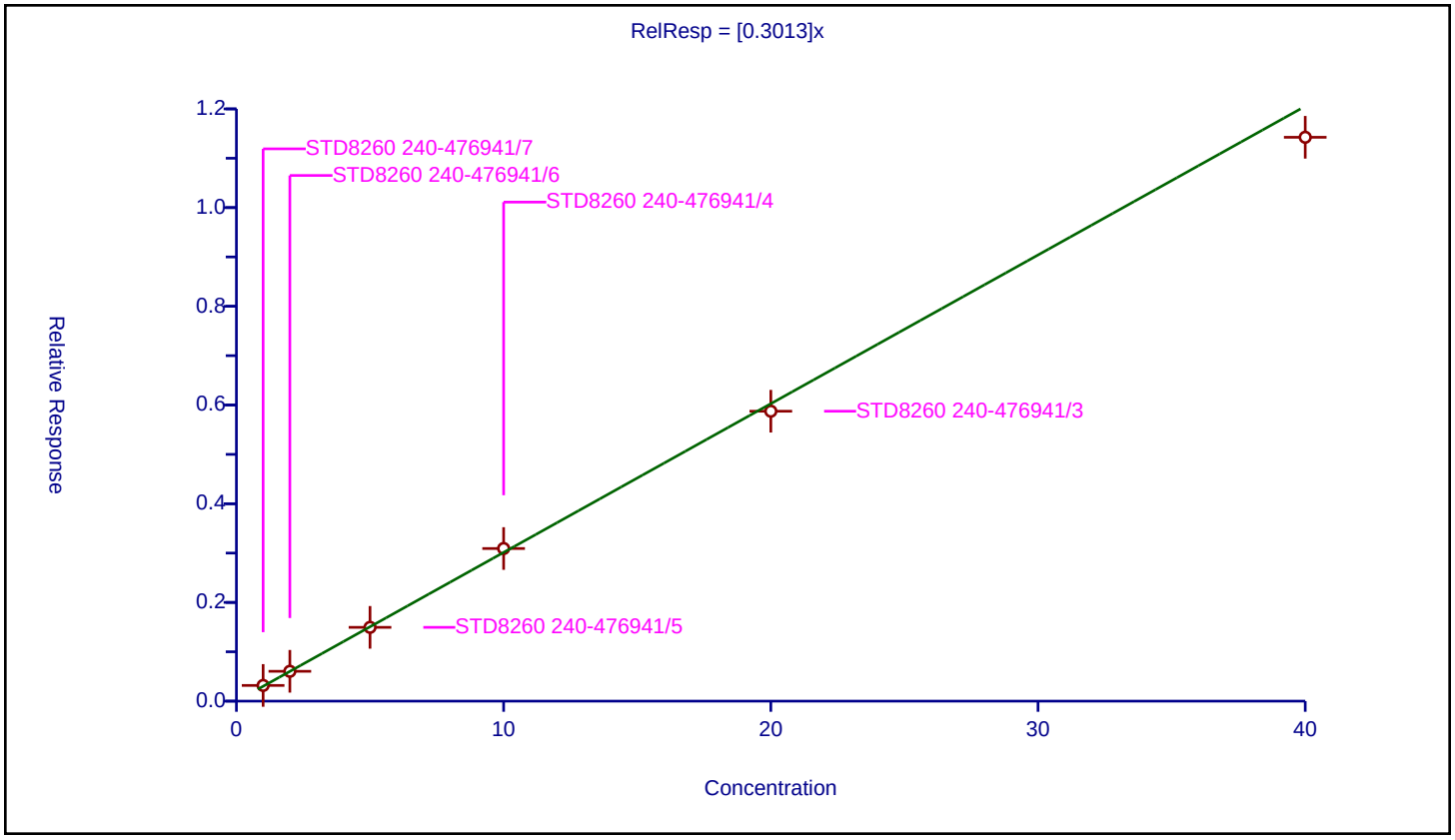
Curve Coefficients

Intercept:	0
Slope:	0.3013

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.317898	10.0	1508502.0	0.317898	Y
2	STD8260 240-476941/6	2.0	0.604886	10.0	1600104.0	0.302443	Y
3	STD8260 240-476941/5	5.0	1.495095	10.0	1580769.0	0.299019	Y
4	STD8260 240-476941/4	10.0	3.092631	10.0	1635381.0	0.309263	Y
5	STD8260 240-476941/3	20.0	5.874133	10.0	1729200.0	0.293707	Y
6	STD8260 240-476941/2	40.0	11.424781	10.0	1738218.0	0.28562	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

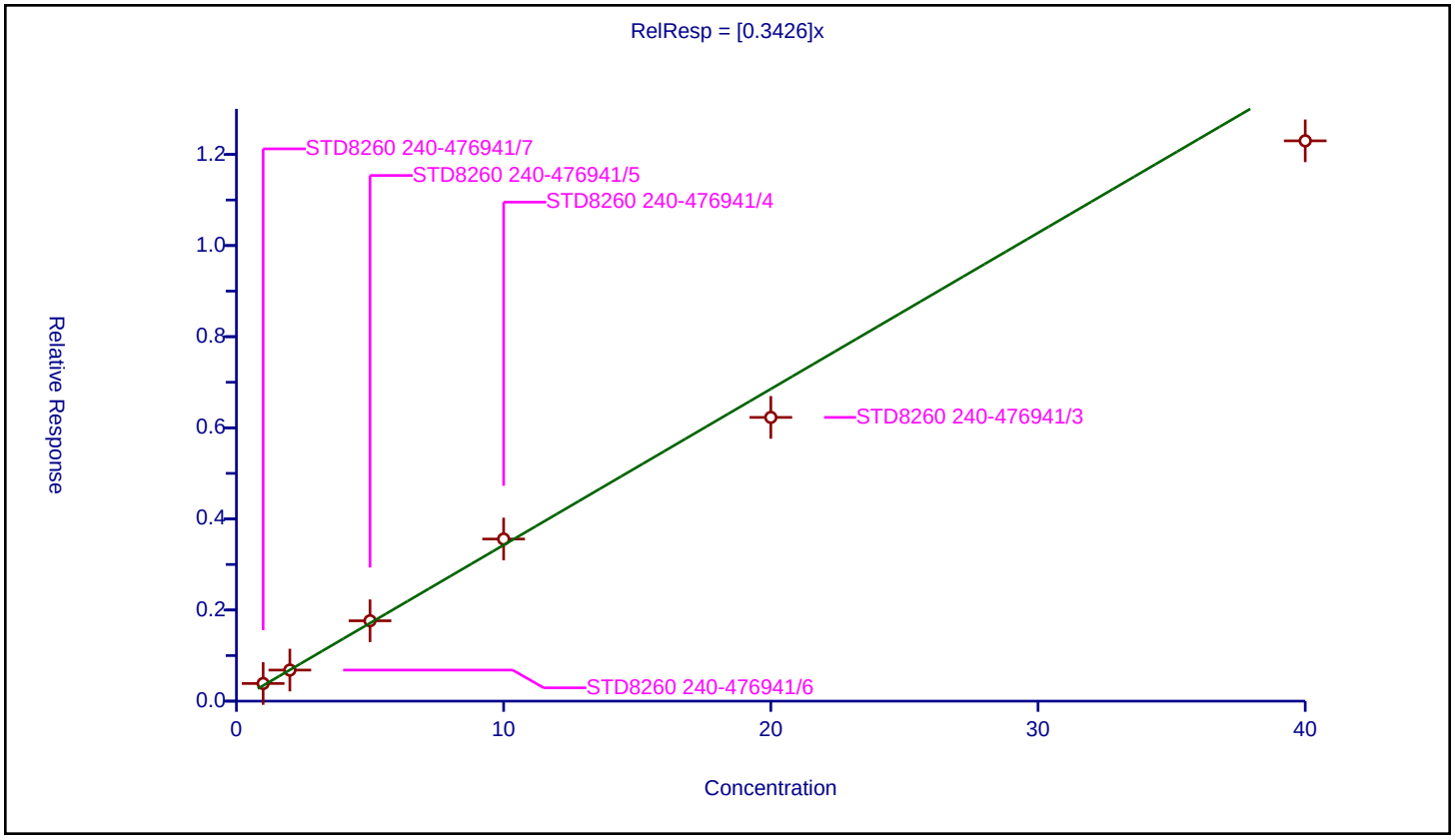
Curve Coefficients

Intercept:	0
Slope:	0.3426

Error Coefficients

Standard Error:	1110000
Relative Standard Error:	8.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.387066	10.0	1508502.0	0.387066	Y
2	STD8260 240-476941/6	2.0	0.682031	10.0	1600104.0	0.341015	Y
3	STD8260 240-476941/5	5.0	1.764281	10.0	1580769.0	0.352856	Y
4	STD8260 240-476941/4	10.0	3.558522	10.0	1635381.0	0.355852	Y
5	STD8260 240-476941/3	20.0	6.228238	10.0	1729200.0	0.311412	Y
6	STD8260 240-476941/2	40.0	12.299136	10.0	1738218.0	0.307478	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

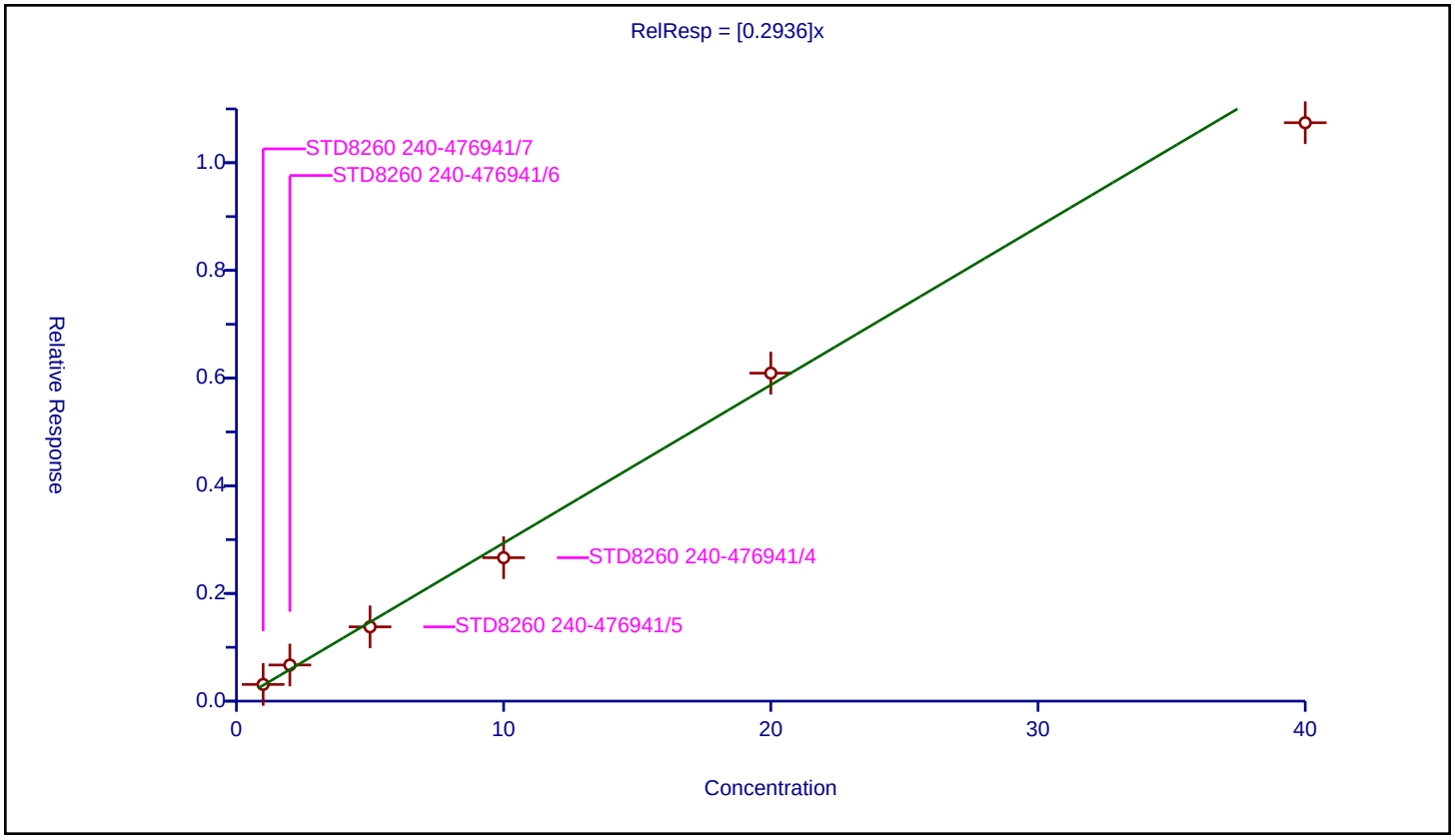
Curve Coefficients

Intercept:	0
Slope:	0.2936

Error Coefficients

Standard Error:	985000
Relative Standard Error:	9.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.31054	10.0	1508502.0	0.31054	Y
2	STD8260 240-476941/6	2.0	0.671231	10.0	1600104.0	0.335616	Y
3	STD8260 240-476941/5	5.0	1.379968	10.0	1580769.0	0.275994	Y
4	STD8260 240-476941/4	10.0	2.663936	10.0	1635381.0	0.266394	Y
5	STD8260 240-476941/3	20.0	6.092372	10.0	1729200.0	0.304619	Y
6	STD8260 240-476941/2	40.0	10.743319	10.0	1738218.0	0.268583	Y



Calibration / Butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

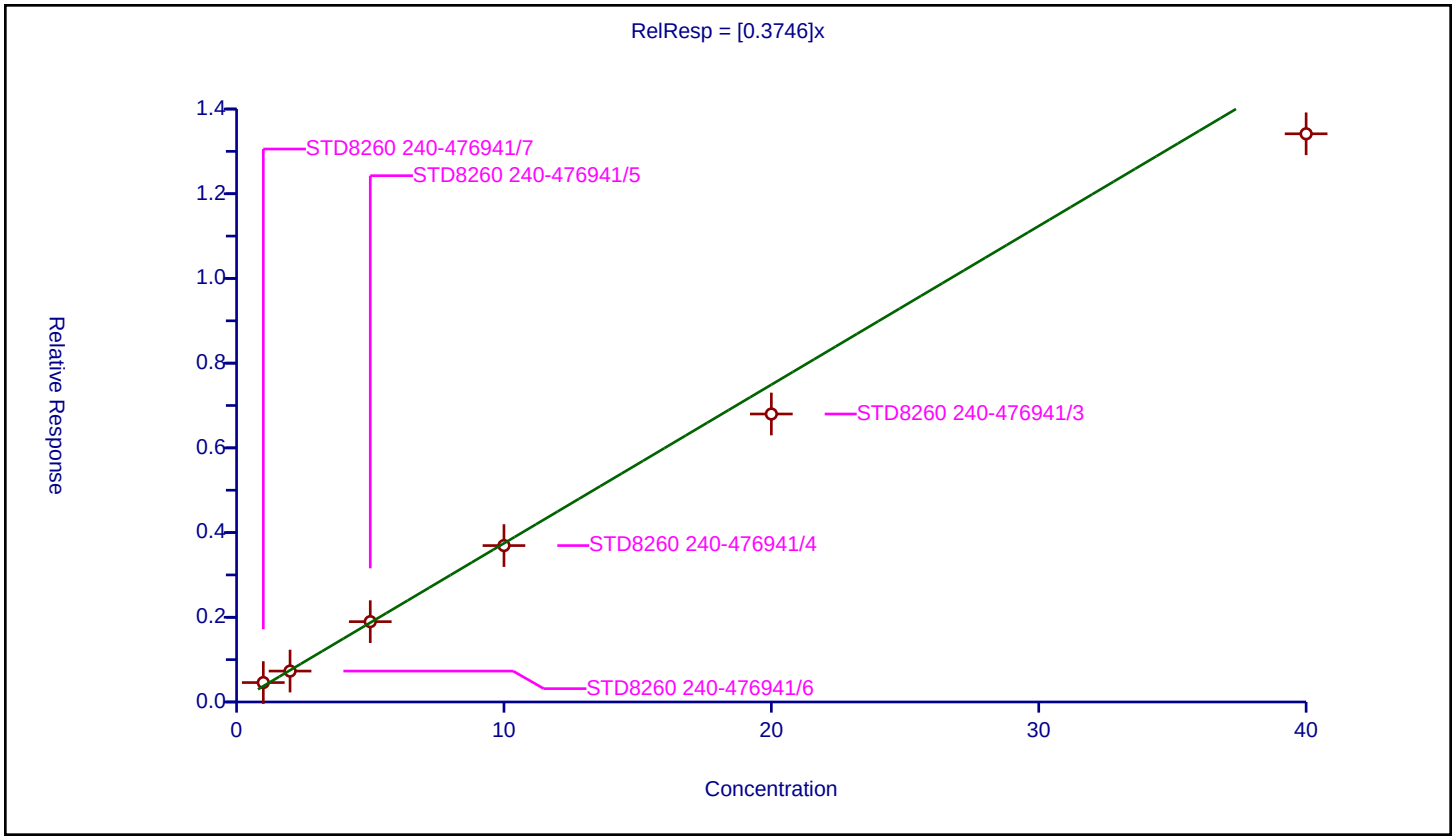
Curve Coefficients

Intercept:	0
Slope:	0.3746

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	11.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.458415	10.0	1508502.0	0.458415	Y
2	STD8260 240-476941/6	2.0	0.729878	10.0	1600104.0	0.364939	Y
3	STD8260 240-476941/5	5.0	1.896887	10.0	1580769.0	0.379377	Y
4	STD8260 240-476941/4	10.0	3.693048	10.0	1635381.0	0.369305	Y
5	STD8260 240-476941/3	20.0	6.799491	10.0	1729200.0	0.339975	Y
6	STD8260 240-476941/2	40.0	13.41502	10.0	1738218.0	0.335376	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

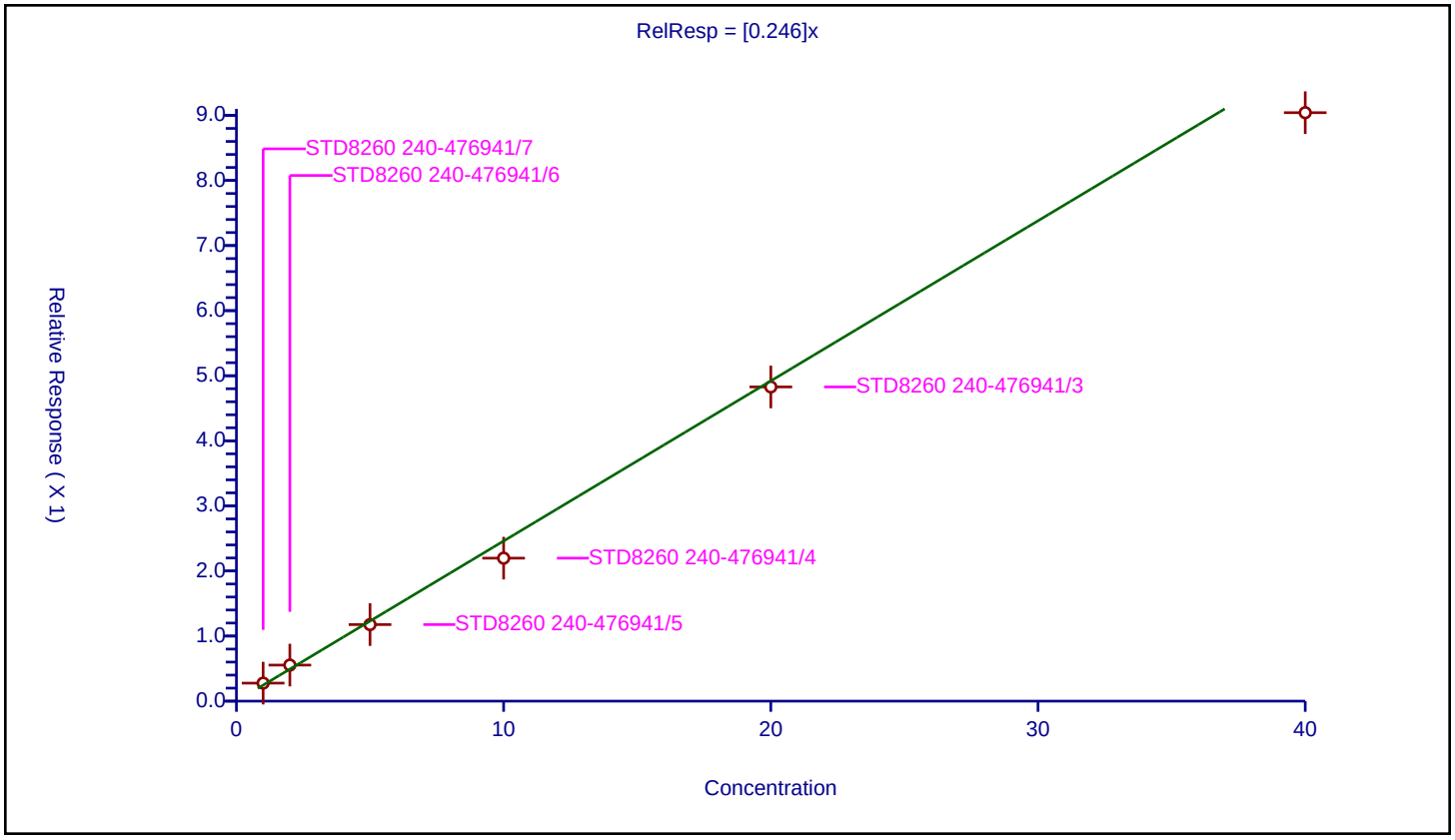
Curve Coefficients

Intercept:	0
Slope:	0.246

Error Coefficients

Standard Error:	817000
Relative Standard Error:	10.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.276765	10.0	1508502.0	0.276765	Y
2	STD8260 240-476941/6	2.0	0.553889	10.0	1600104.0	0.276944	Y
3	STD8260 240-476941/5	5.0	1.176548	10.0	1580769.0	0.23531	Y
4	STD8260 240-476941/4	10.0	2.196931	10.0	1635381.0	0.219693	Y
5	STD8260 240-476941/3	20.0	4.827897	10.0	1729200.0	0.241395	Y
6	STD8260 240-476941/2	40.0	9.041956	10.0	1738218.0	0.226049	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

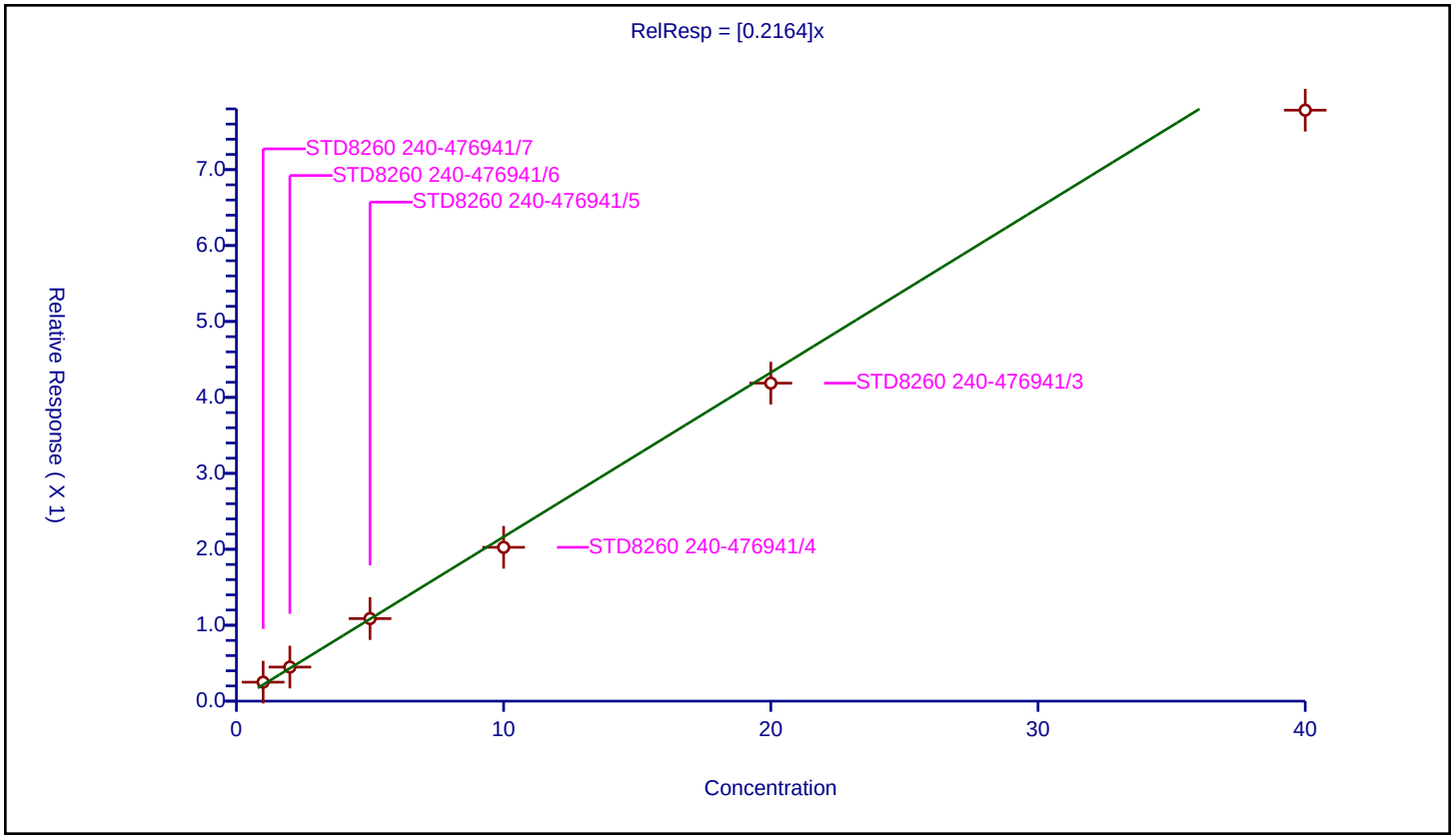
Curve Coefficients

Intercept:	0
Slope:	0.2164

Error Coefficients

Standard Error:	707000
Relative Standard Error:	9.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.249957	10.0	1508502.0	0.249957	Y
2	STD8260 240-476941/6	2.0	0.44874	10.0	1600104.0	0.22437	Y
3	STD8260 240-476941/5	5.0	1.087072	10.0	1580769.0	0.217414	Y
4	STD8260 240-476941/4	10.0	2.025803	10.0	1635381.0	0.20258	Y
5	STD8260 240-476941/3	20.0	4.187977	10.0	1729200.0	0.209399	Y
6	STD8260 240-476941/2	40.0	7.78312	10.0	1738218.0	0.194578	Y



Calibration / Dichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

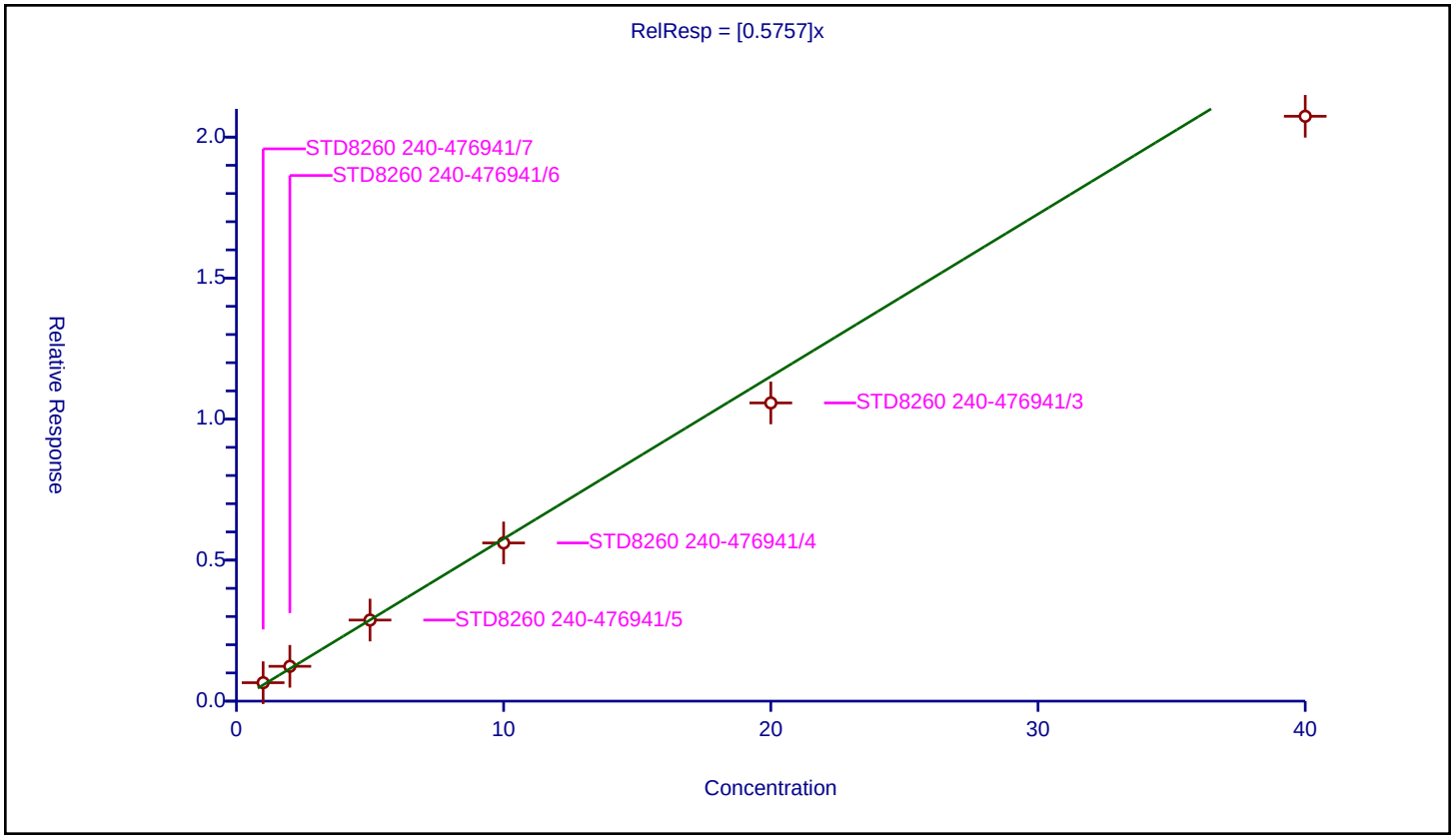
Curve Coefficients

Intercept:	0
Slope:	0.5757

Error Coefficients

Standard Error:	1870000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.653529	10.0	1508502.0	0.653529	Y
2	STD8260 240-476941/6	2.0	1.234514	10.0	1600104.0	0.617257	Y
3	STD8260 240-476941/5	5.0	2.875664	10.0	1580769.0	0.575133	Y
4	STD8260 240-476941/4	10.0	5.609622	10.0	1635381.0	0.560962	Y
5	STD8260 240-476941/3	20.0	10.57426	10.0	1729200.0	0.528713	Y
6	STD8260 240-476941/2	40.0	20.738411	10.0	1738218.0	0.51846	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

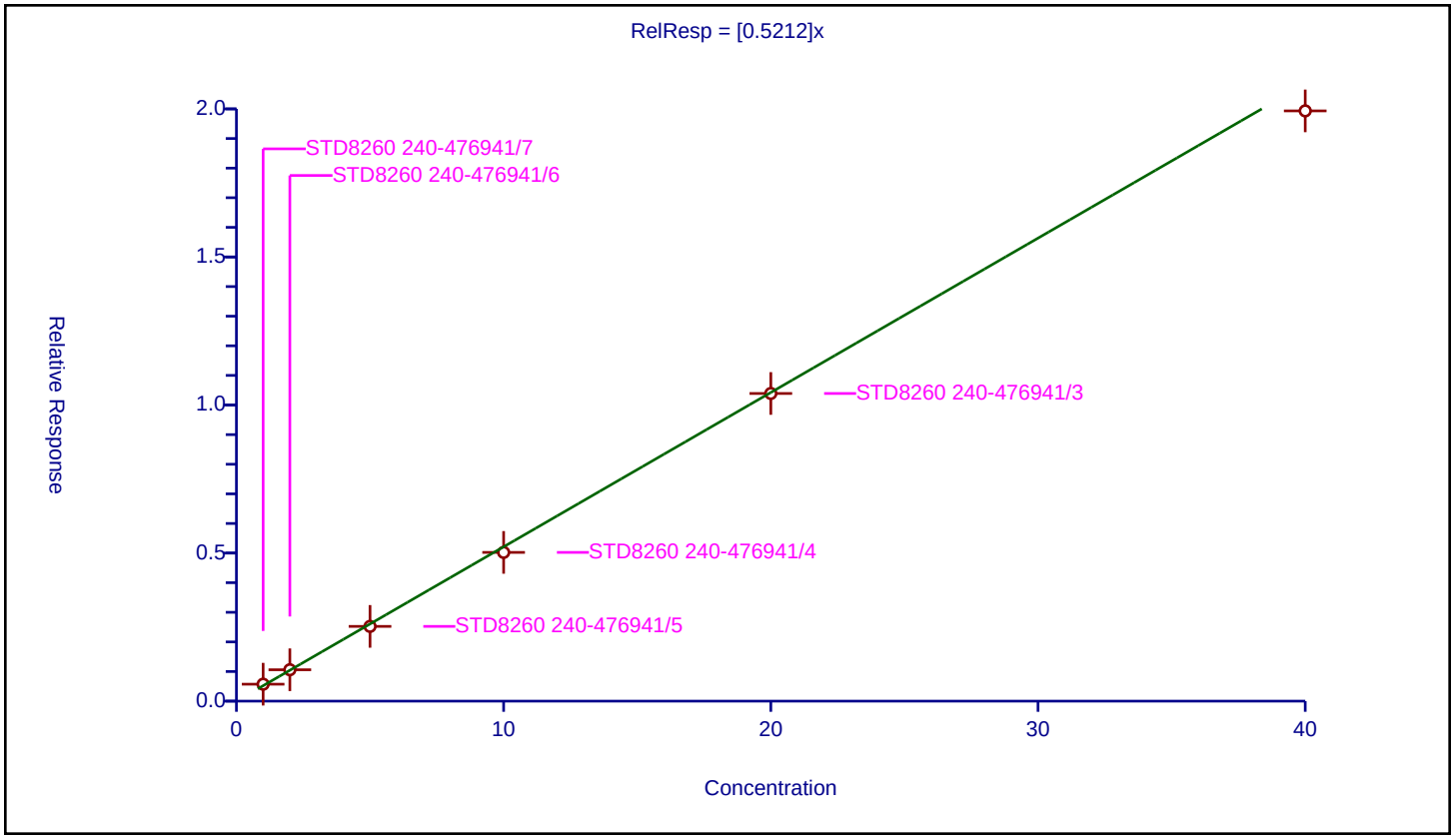
Curve Coefficients

Intercept:	0
Slope:	0.5212

Error Coefficients

Standard Error:	1790000
Relative Standard Error:	5.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.572064	10.0	1508502.0	0.572064	Y
2	STD8260 240-476941/6	2.0	1.059962	10.0	1600104.0	0.529981	Y
3	STD8260 240-476941/5	5.0	2.524657	10.0	1580769.0	0.504931	Y
4	STD8260 240-476941/4	10.0	5.02253	10.0	1635381.0	0.502253	Y
5	STD8260 240-476941/3	20.0	10.389296	10.0	1729200.0	0.519465	Y
6	STD8260 240-476941/2	40.0	19.932839	10.0	1738218.0	0.498321	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

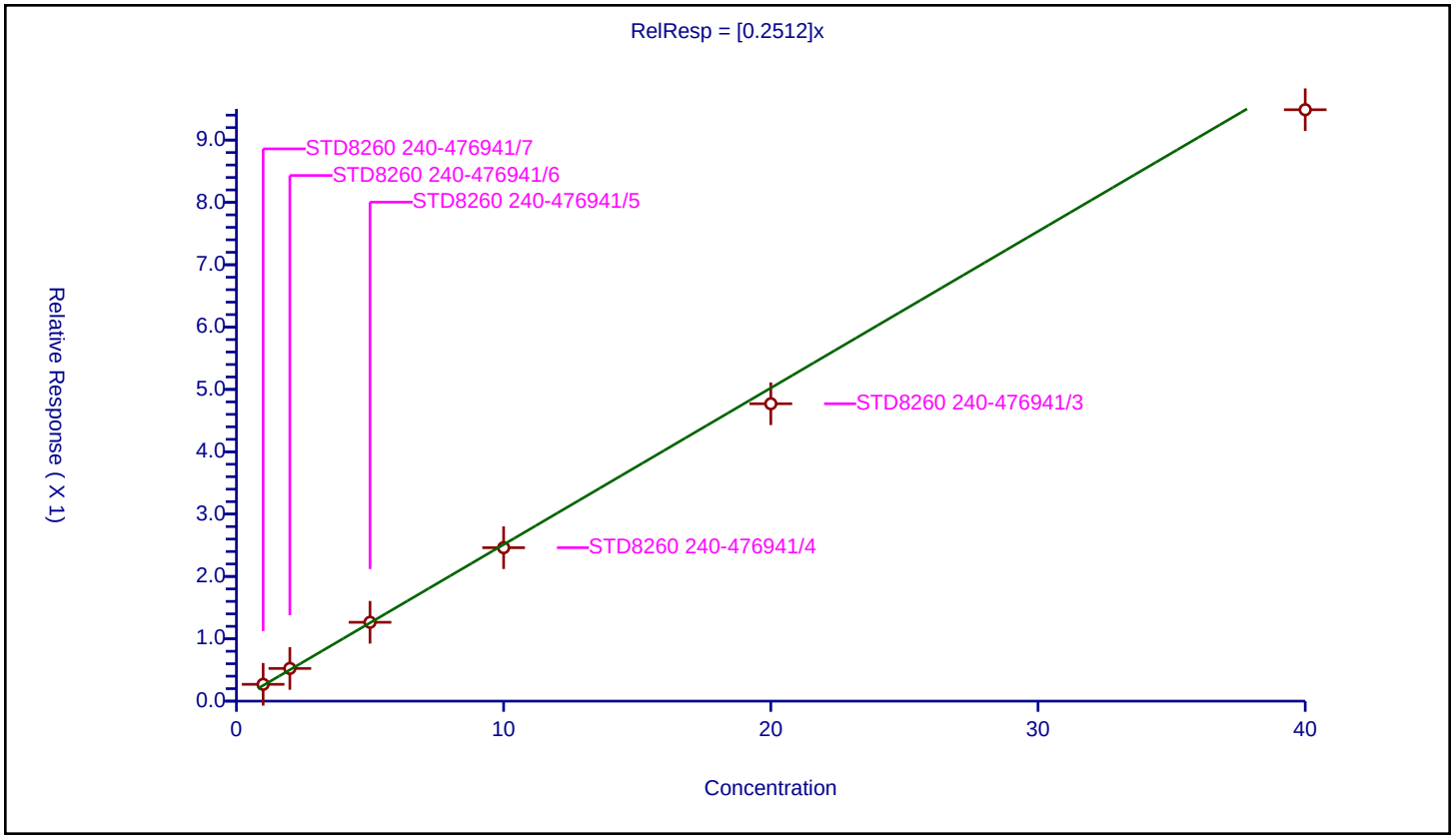
Curve Coefficients

Intercept:	0
Slope:	0.2512

Error Coefficients

Standard Error:	850000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.269923	10.0	1508502.0	0.269923	Y
2	STD8260 240-476941/6	2.0	0.524616	10.0	1600104.0	0.262308	Y
3	STD8260 240-476941/5	5.0	1.264998	10.0	1580769.0	0.253	Y
4	STD8260 240-476941/4	10.0	2.461316	10.0	1635381.0	0.246132	Y
5	STD8260 240-476941/3	20.0	4.77042	10.0	1729200.0	0.238521	Y
6	STD8260 240-476941/2	40.0	9.48656	10.0	1738218.0	0.237164	Y



Calibration / Acrolein

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

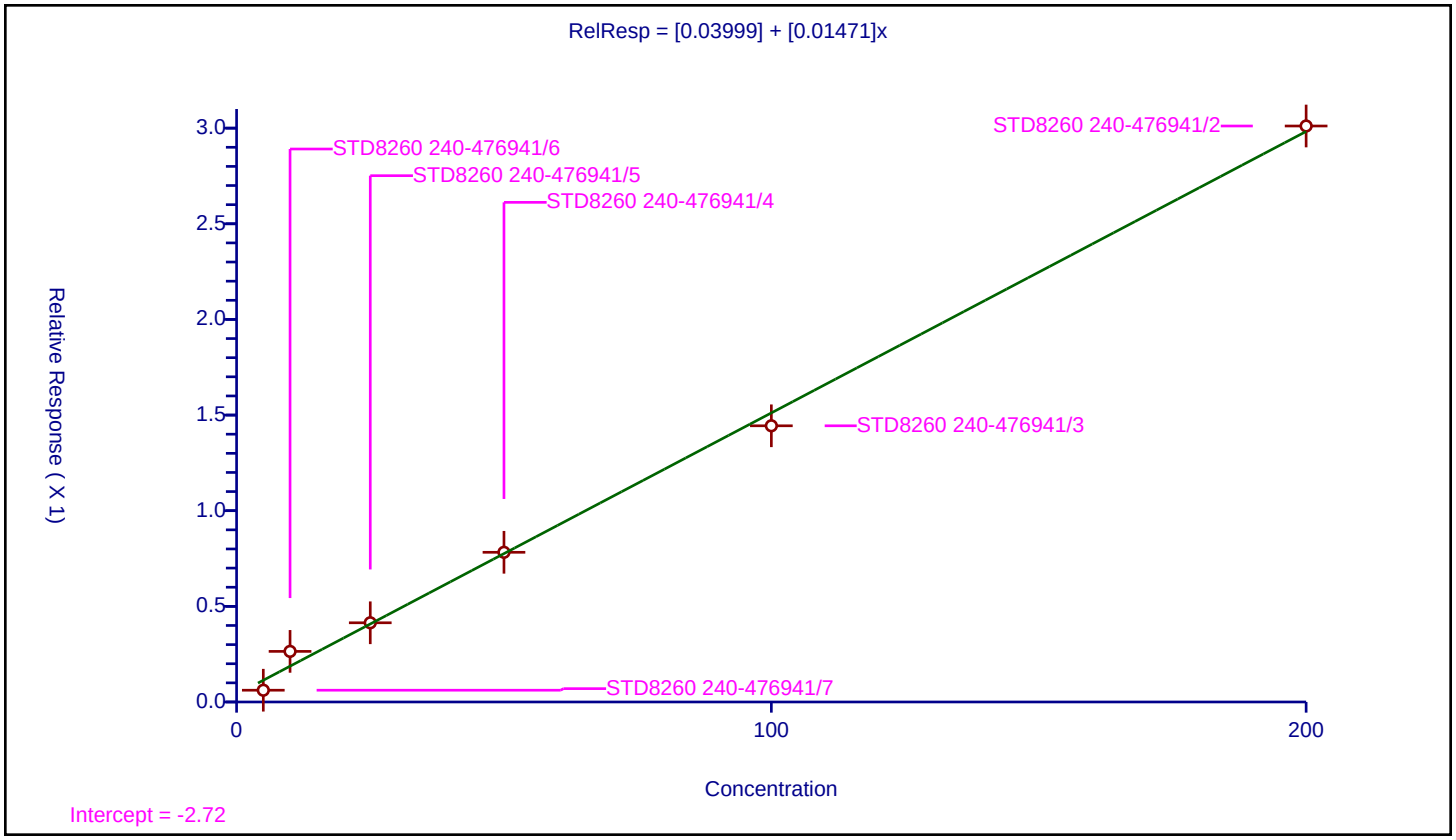
Curve Coefficients

Intercept:	0.03999
Slope:	0.01471

Error Coefficients

Standard Error:	300000
Relative Standard Error:	44.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	5.0	0.061611	10.0	1508502.0	0.012322	Y
2	STD8260 240-476941/6	10.0	0.264589	10.0	1600104.0	0.026459	Y
3	STD8260 240-476941/5	25.0	0.414128	10.0	1580769.0	0.016565	Y
4	STD8260 240-476941/4	50.0	0.782637	10.0	1635381.0	0.015653	Y
5	STD8260 240-476941/3	100.0	1.443905	10.0	1729200.0	0.014439	Y
6	STD8260 240-476941/2	200.0	3.011222	10.0	1738218.0	0.015056	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

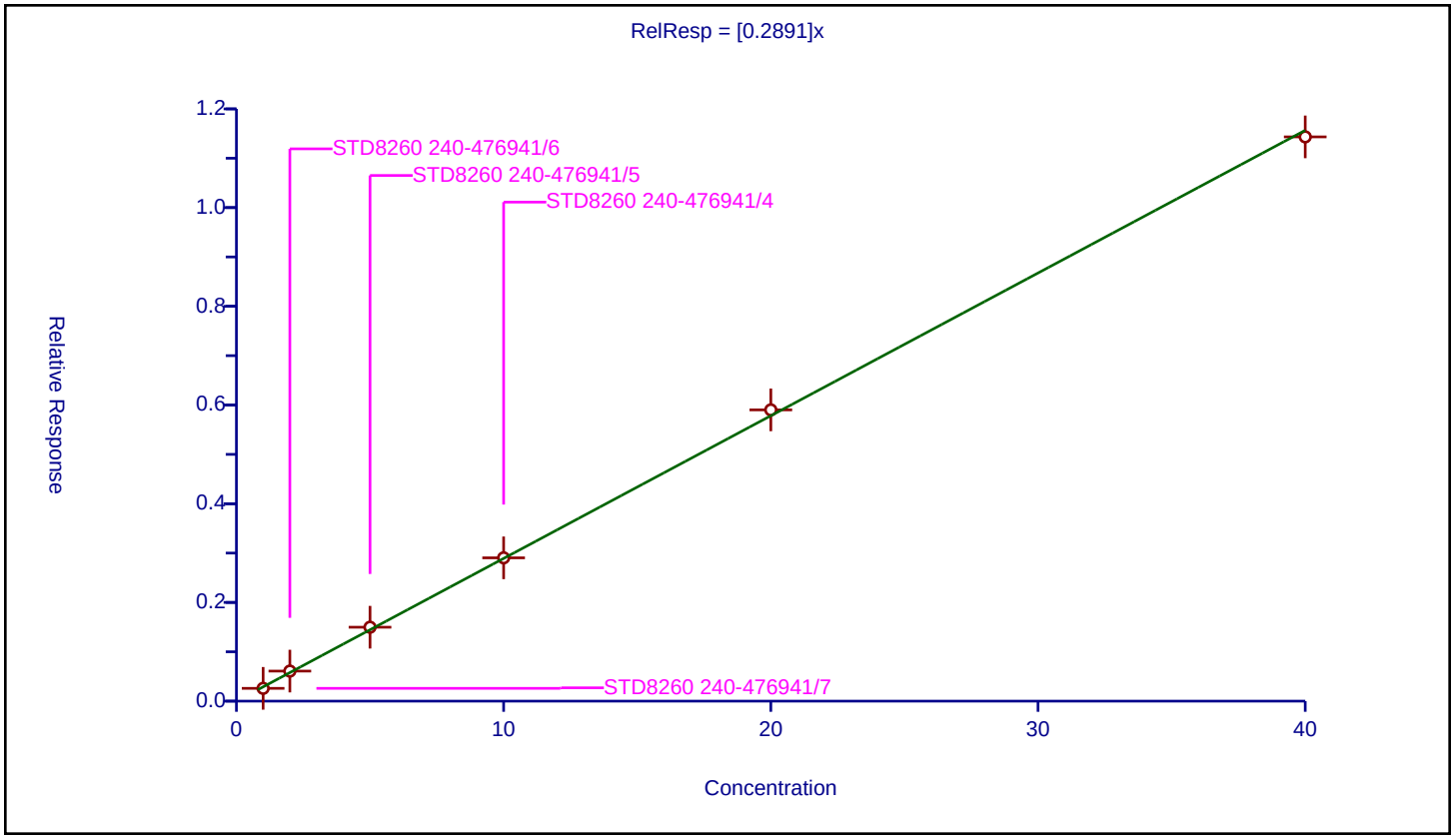
Curve Coefficients

Intercept:	0
Slope:	0.2891

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.259536	10.0	1508502.0	0.259536	Y
2	STD8260 240-476941/6	2.0	0.609085	10.0	1600104.0	0.304543	Y
3	STD8260 240-476941/5	5.0	1.497613	10.0	1580769.0	0.299523	Y
4	STD8260 240-476941/4	10.0	2.903586	10.0	1635381.0	0.290359	Y
5	STD8260 240-476941/3	20.0	5.901556	10.0	1729200.0	0.295078	Y
6	STD8260 240-476941/2	40.0	11.432858	10.0	1738218.0	0.285821	Y



Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

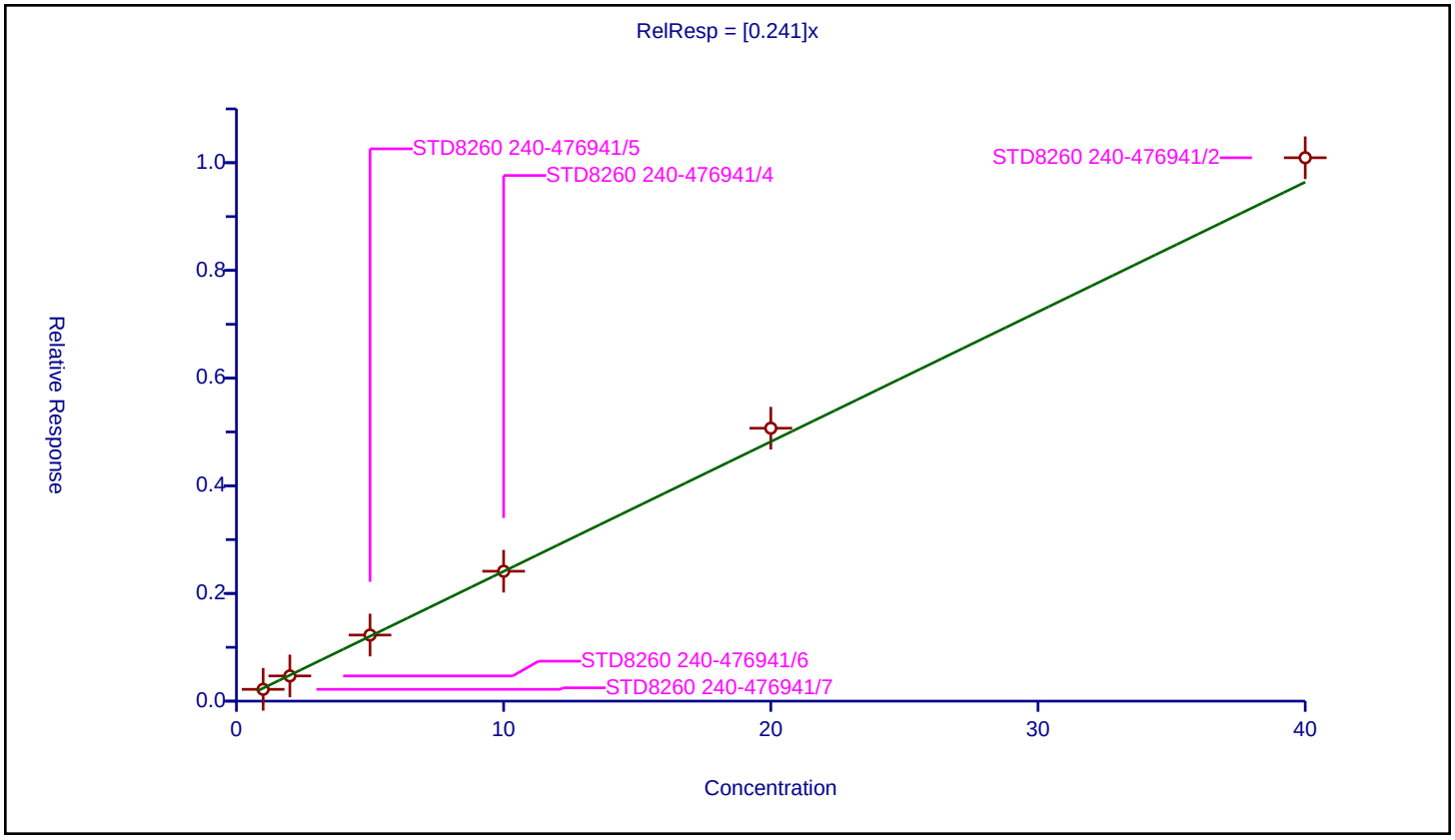
Curve Coefficients

Intercept:	0
Slope:	0.241

Error Coefficients

Standard Error:	900000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.219317	10.0	1508502.0	0.219317	Y
2	STD8260 240-476941/6	2.0	0.46817	10.0	1600104.0	0.234085	Y
3	STD8260 240-476941/5	5.0	1.227738	10.0	1580769.0	0.245548	Y
4	STD8260 240-476941/4	10.0	2.412759	10.0	1635381.0	0.241276	Y
5	STD8260 240-476941/3	20.0	5.069362	10.0	1729200.0	0.253468	Y
6	STD8260 240-476941/2	40.0	10.092934	10.0	1738218.0	0.252323	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

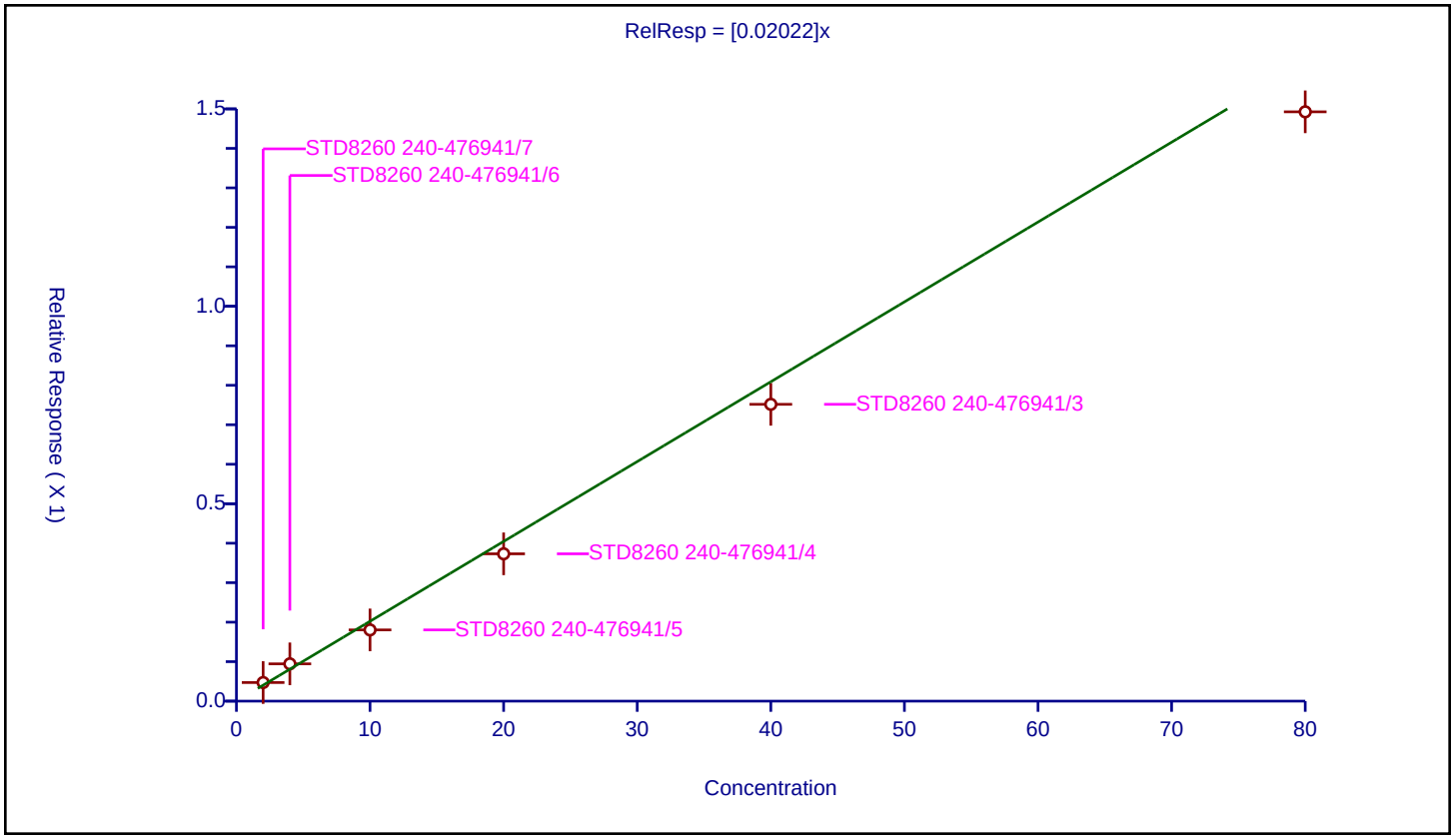
Curve Coefficients

Intercept:	0
Slope:	0.02022

Error Coefficients

Standard Error:	133000
Relative Standard Error:	13.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.969

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.047139	10.0	1508502.0	0.02357	Y
2	STD8260 240-476941/6	4.0	0.094475	10.0	1600104.0	0.023619	Y
3	STD8260 240-476941/5	10.0	0.180419	10.0	1580769.0	0.018042	Y
4	STD8260 240-476941/4	20.0	0.373149	10.0	1635381.0	0.018657	Y
5	STD8260 240-476941/3	40.0	0.751764	10.0	1729200.0	0.018794	Y
6	STD8260 240-476941/2	80.0	1.49258	10.0	1738218.0	0.018657	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

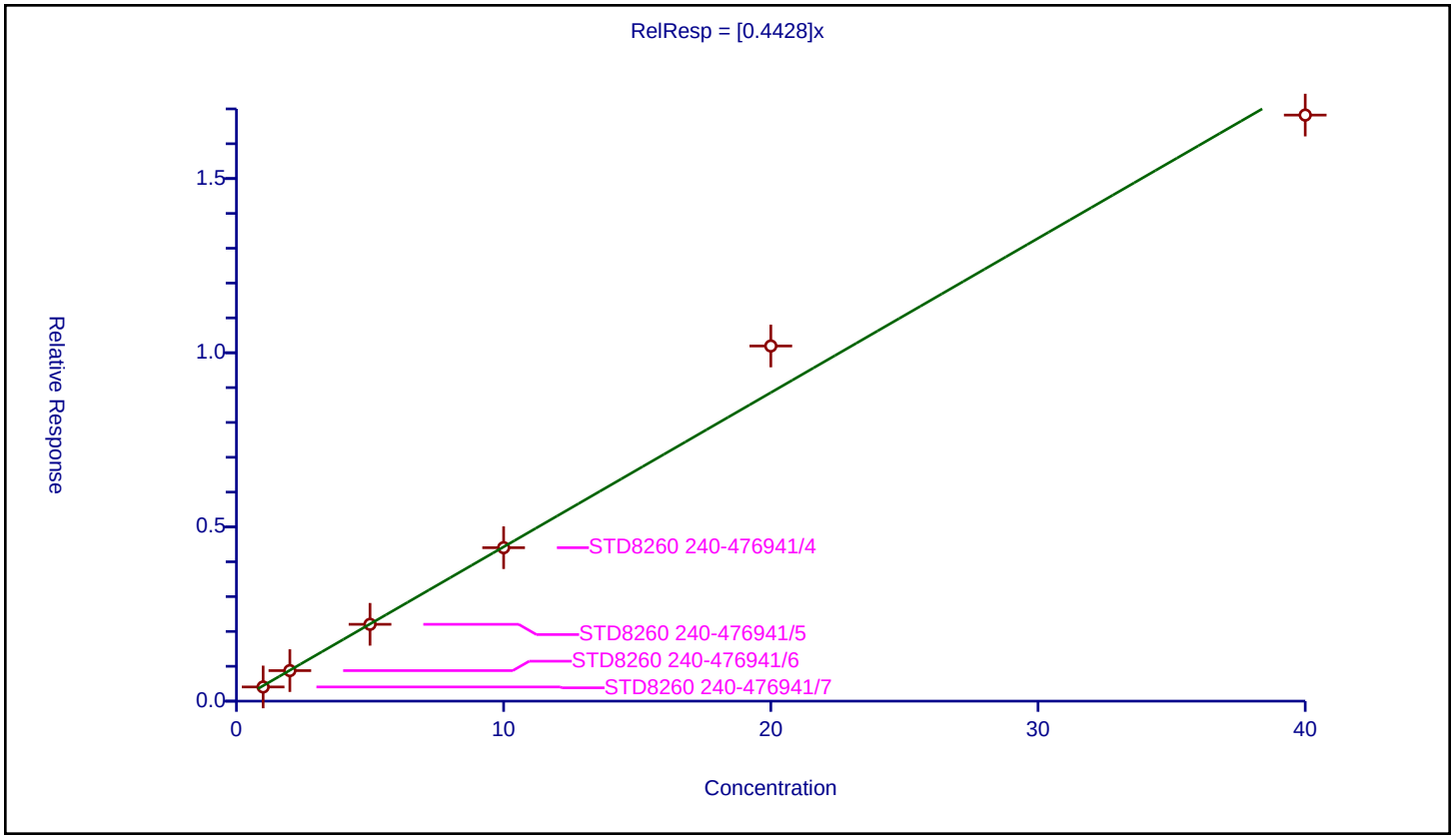
Curve Coefficients

Intercept:	0
Slope:	0.4428

Error Coefficients

Standard Error:	1570000
Relative Standard Error:	8.0
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.406894	10.0	1508502.0	0.406894	Y
2	STD8260 240-476941/6	2.0	0.876549	10.0	1600104.0	0.438275	Y
3	STD8260 240-476941/5	5.0	2.204857	10.0	1580769.0	0.440971	Y
4	STD8260 240-476941/4	10.0	4.404656	10.0	1635381.0	0.440466	Y
5	STD8260 240-476941/3	20.0	10.194338	10.0	1729200.0	0.509717	Y
6	STD8260 240-476941/2	40.0	16.822999	10.0	1738218.0	0.420575	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

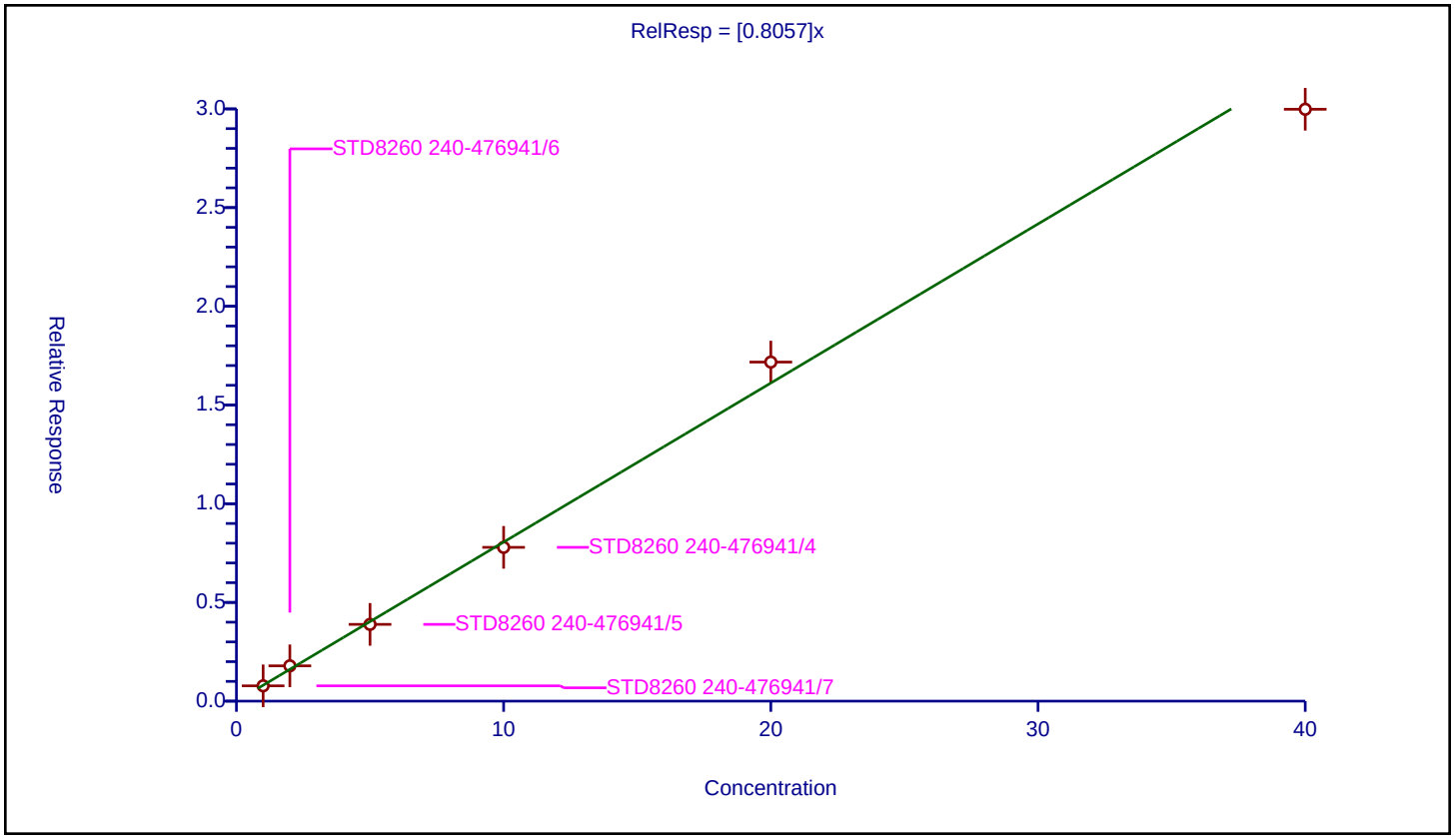
Curve Coefficients

Intercept:	0
Slope:	0.8057

Error Coefficients

Standard Error:	2760000
Relative Standard Error:	7.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.774769	10.0	1508502.0	0.774769	Y
2	STD8260 240-476941/6	2.0	1.788521	10.0	1600104.0	0.894261	Y
3	STD8260 240-476941/5	5.0	3.889423	10.0	1580769.0	0.777885	Y
4	STD8260 240-476941/4	10.0	7.789891	10.0	1635381.0	0.778989	Y
5	STD8260 240-476941/3	20.0	17.175752	10.0	1729200.0	0.858788	Y
6	STD8260 240-476941/2	40.0	29.98044	10.0	1738218.0	0.749511	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

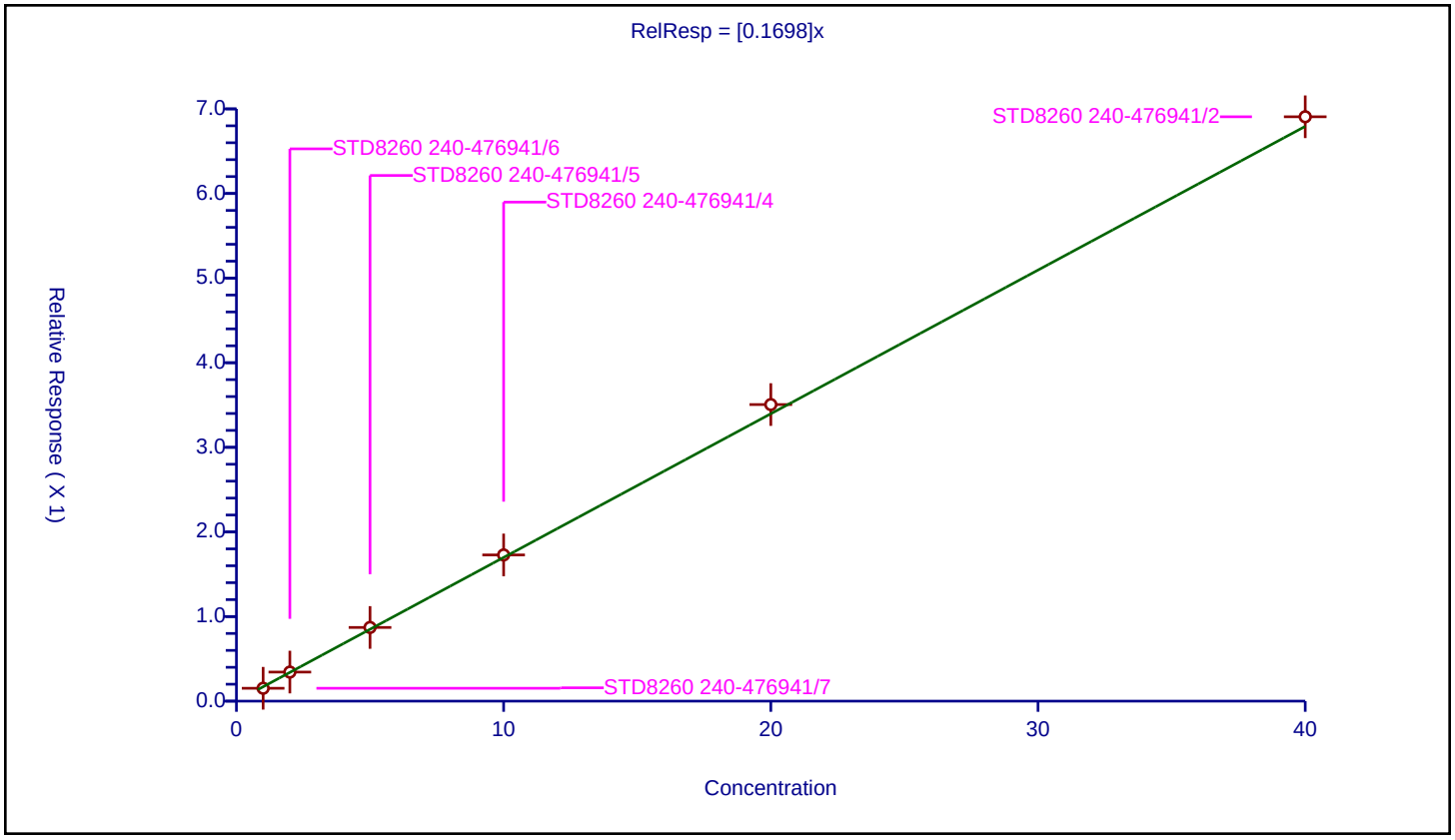
Curve Coefficients

Intercept:	0
Slope:	0.1698

Error Coefficients

Standard Error:	618000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.152337	10.0	1508502.0	0.152337	Y
2	STD8260 240-476941/6	2.0	0.343478	10.0	1600104.0	0.171739	Y
3	STD8260 240-476941/5	5.0	0.870918	10.0	1580769.0	0.174184	Y
4	STD8260 240-476941/4	10.0	1.728019	10.0	1635381.0	0.172802	Y
5	STD8260 240-476941/3	20.0	3.505361	10.0	1729200.0	0.175268	Y
6	STD8260 240-476941/2	40.0	6.906826	10.0	1738218.0	0.172671	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

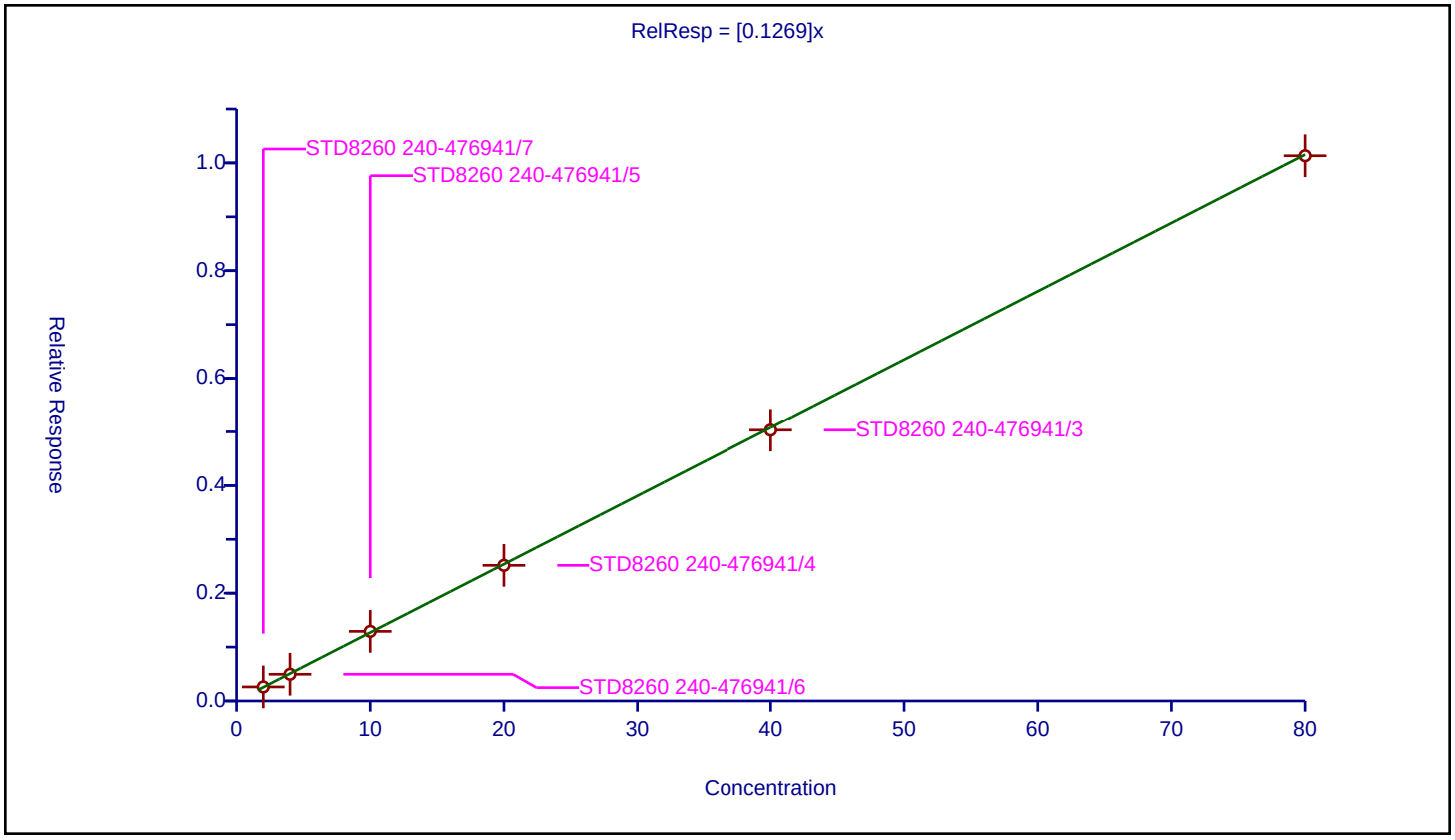
Curve Coefficients

Intercept:	0
Slope:	0.1269

Error Coefficients

Standard Error:	903000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.260629	10.0	1508502.0	0.130315	Y
2	STD8260 240-476941/6	4.0	0.495605	10.0	1600104.0	0.123901	Y
3	STD8260 240-476941/5	10.0	1.291409	10.0	1580769.0	0.129141	Y
4	STD8260 240-476941/4	20.0	2.516753	10.0	1635381.0	0.125838	Y
5	STD8260 240-476941/3	40.0	5.031188	10.0	1729200.0	0.12578	Y
6	STD8260 240-476941/2	80.0	10.133424	10.0	1738218.0	0.126668	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

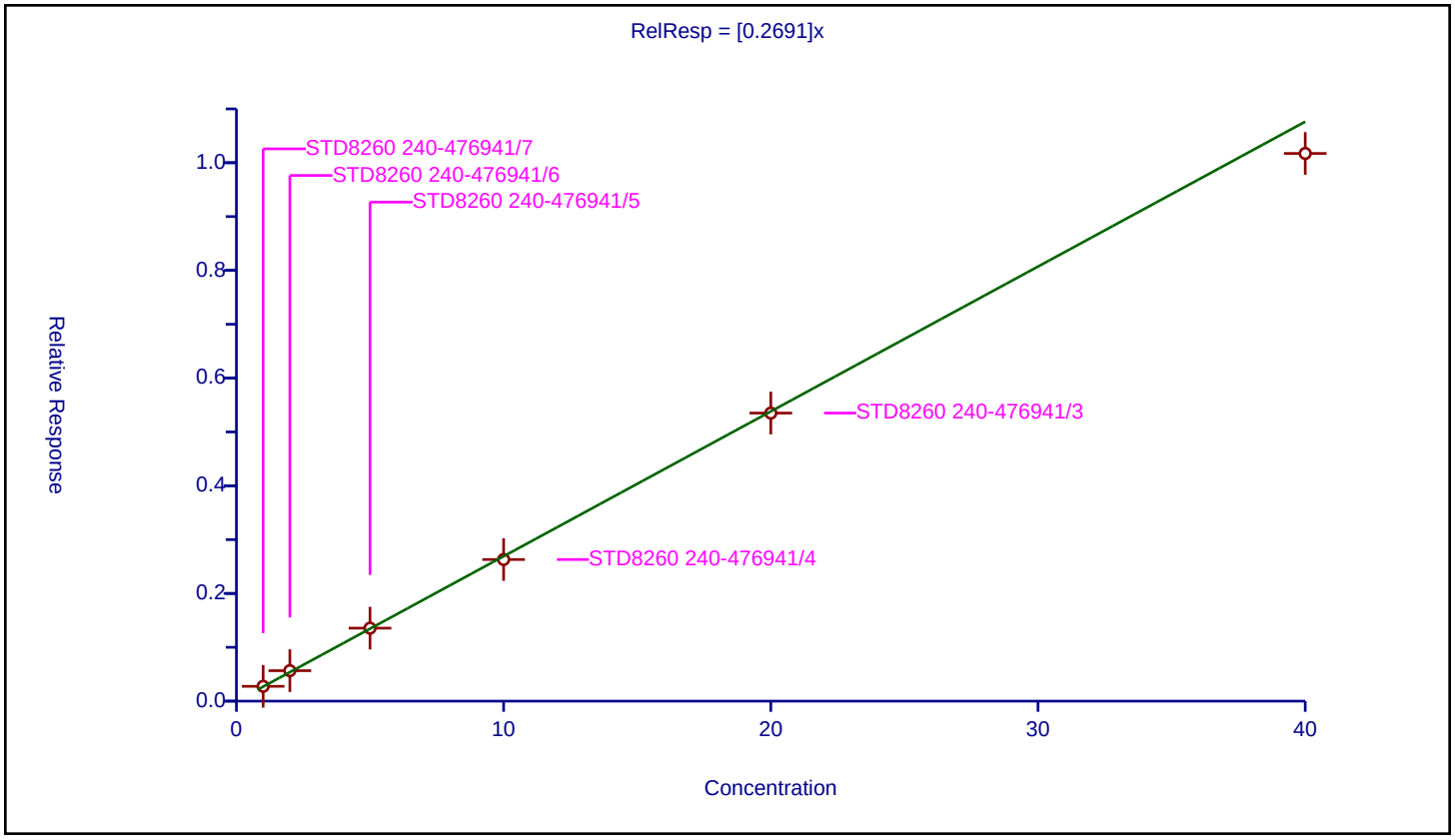
Curve Coefficients

Intercept:	0
Slope:	0.2691

Error Coefficients

Standard Error:	919000
Relative Standard Error:	3.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275439	10.0	1508502.0	0.275439	Y
2	STD8260 240-476941/6	2.0	0.565844	10.0	1600104.0	0.282922	Y
3	STD8260 240-476941/5	5.0	1.355688	10.0	1580769.0	0.271138	Y
4	STD8260 240-476941/4	10.0	2.630433	10.0	1635381.0	0.263043	Y
5	STD8260 240-476941/3	20.0	5.350104	10.0	1729200.0	0.267505	Y
6	STD8260 240-476941/2	40.0	10.172429	10.0	1738218.0	0.254311	Y



Calibration / 2-Methyl-2-propanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

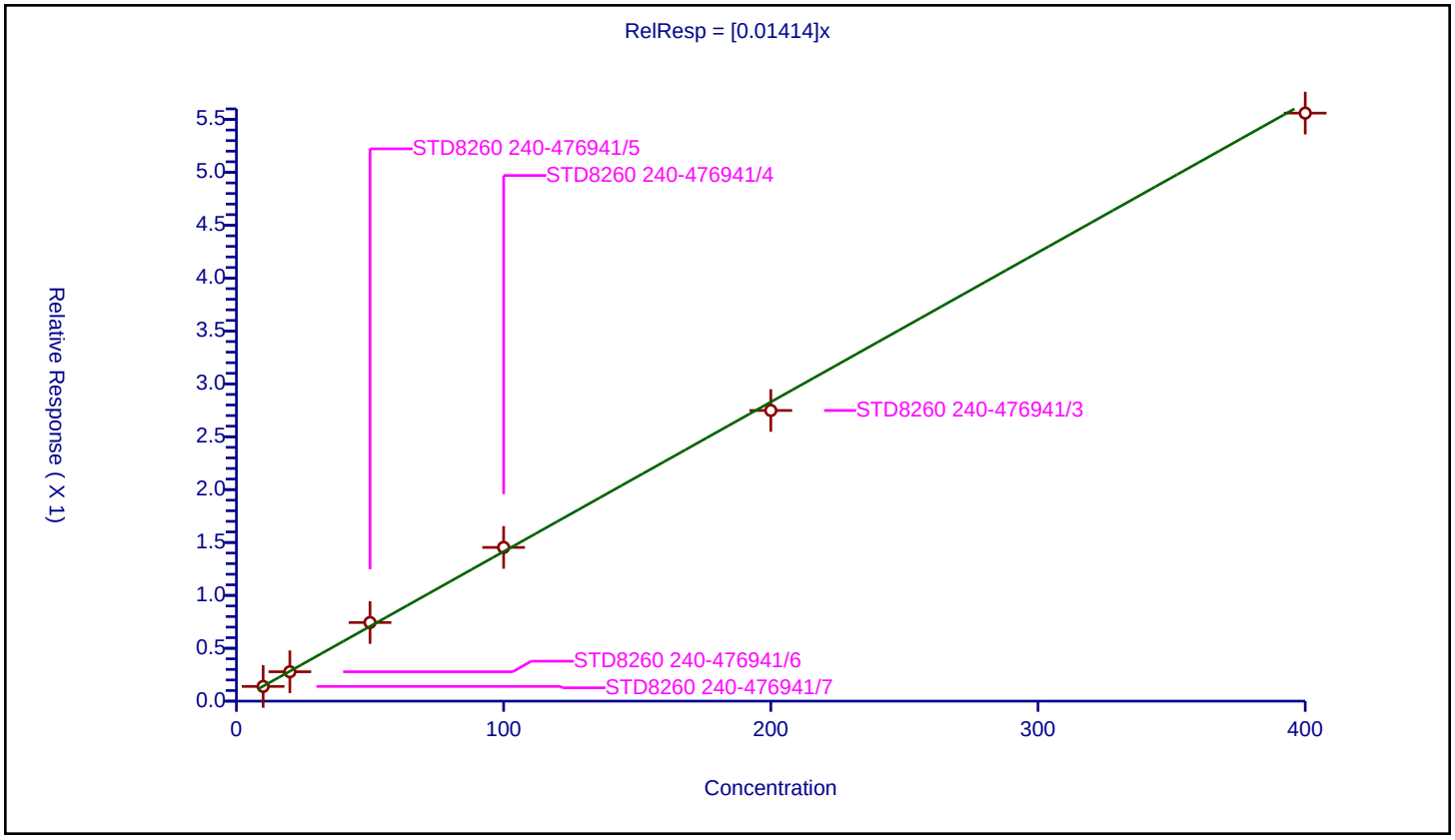
Curve Coefficients

Intercept:	0
Slope:	0.01414

Error Coefficients

Standard Error:	497000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	10.0	0.139204	10.0	1508502.0	0.01392	Y
2	STD8260 240-476941/6	20.0	0.277838	10.0	1600104.0	0.013892	Y
3	STD8260 240-476941/5	50.0	0.743556	10.0	1580769.0	0.014871	Y
4	STD8260 240-476941/4	100.0	1.453362	10.0	1635381.0	0.014534	Y
5	STD8260 240-476941/3	200.0	2.748358	10.0	1729200.0	0.013742	Y
6	STD8260 240-476941/2	400.0	5.56024	10.0	1738218.0	0.013901	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

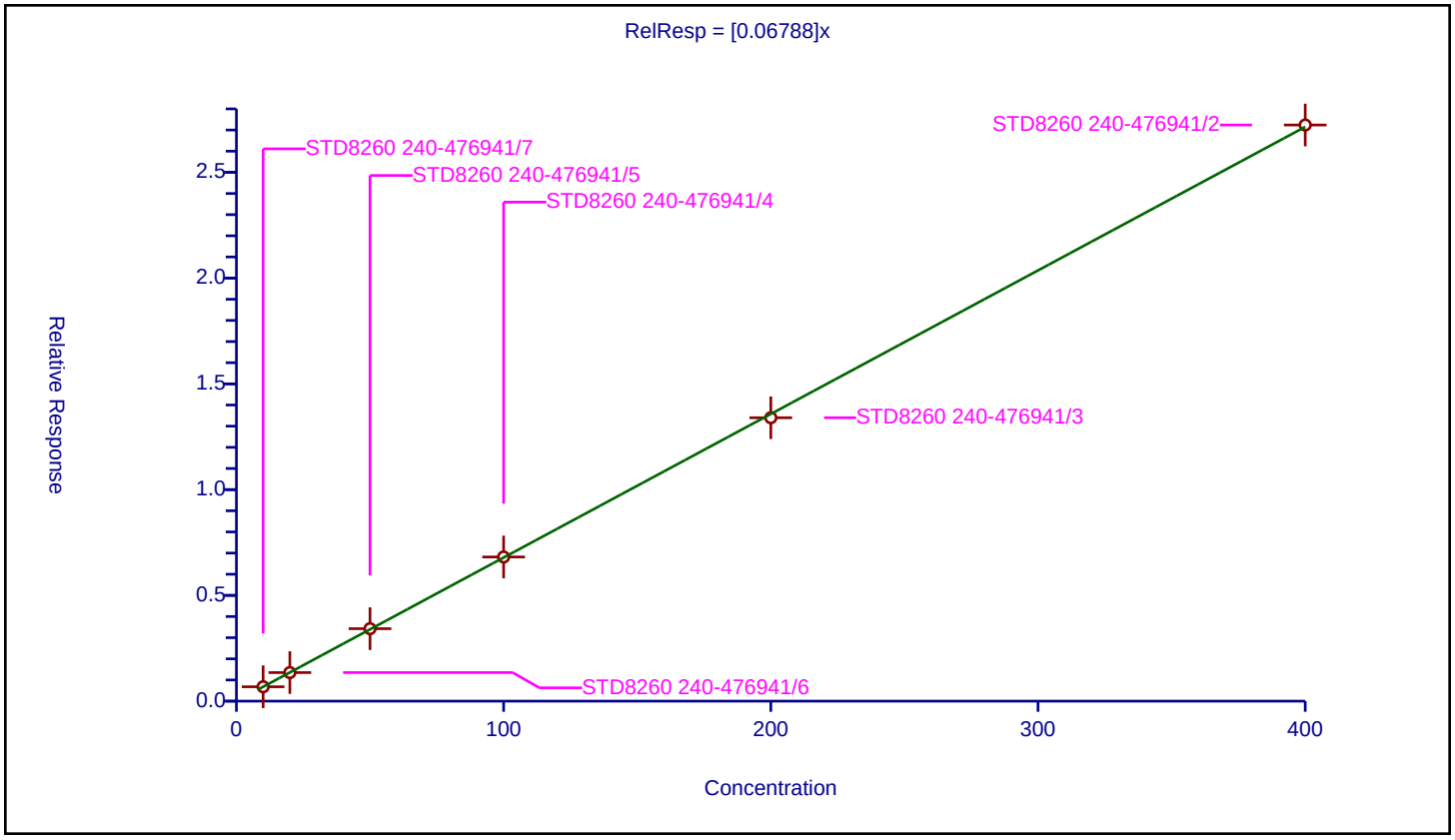
Curve Coefficients

Intercept:	0
Slope:	0.06788

Error Coefficients

Standard Error:	2420000
Relative Standard Error:	0.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	10.0	0.679456	10.0	1508502.0	0.067946	Y
2	STD8260 240-476941/6	20.0	1.350912	10.0	1600104.0	0.067546	Y
3	STD8260 240-476941/5	50.0	3.425997	10.0	1580769.0	0.06852	Y
4	STD8260 240-476941/4	100.0	6.81577	10.0	1635381.0	0.068158	Y
5	STD8260 240-476941/3	200.0	13.397808	10.0	1729200.0	0.066989	Y
6	STD8260 240-476941/2	400.0	27.237631	10.0	1738218.0	0.068094	Y



Calibration / Methyl tert-butyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

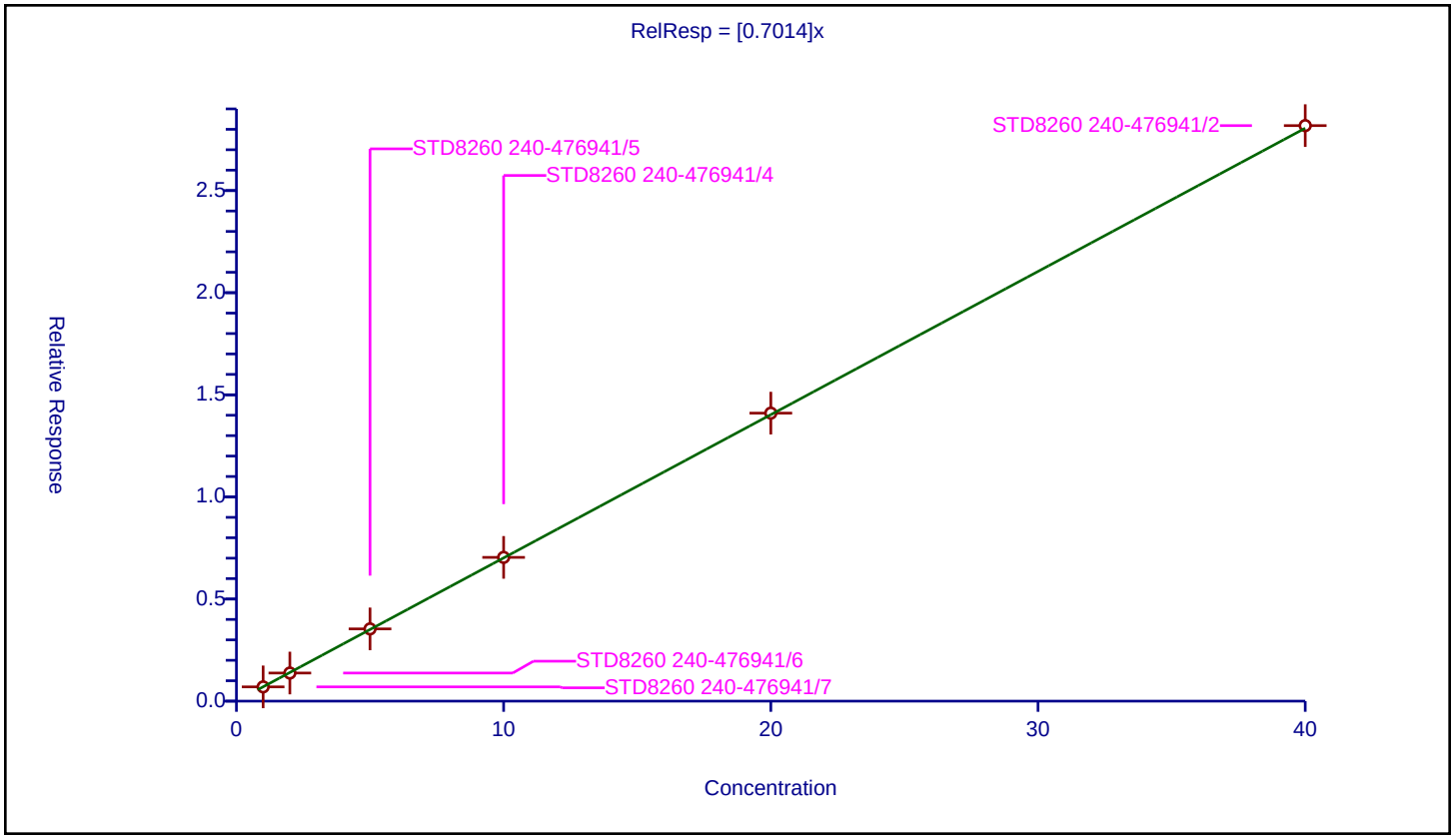
Curve Coefficients

Intercept:	0
Slope:	0.7014

Error Coefficients

Standard Error:	2520000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.698985	10.0	1508502.0	0.698985	Y
2	STD8260 240-476941/6	2.0	1.376267	10.0	1600104.0	0.688133	Y
3	STD8260 240-476941/5	5.0	3.537329	10.0	1580769.0	0.707466	Y
4	STD8260 240-476941/4	10.0	7.039247	10.0	1635381.0	0.703925	Y
5	STD8260 240-476941/3	20.0	14.102377	10.0	1729200.0	0.705119	Y
6	STD8260 240-476941/2	40.0	28.180746	10.0	1738218.0	0.704519	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

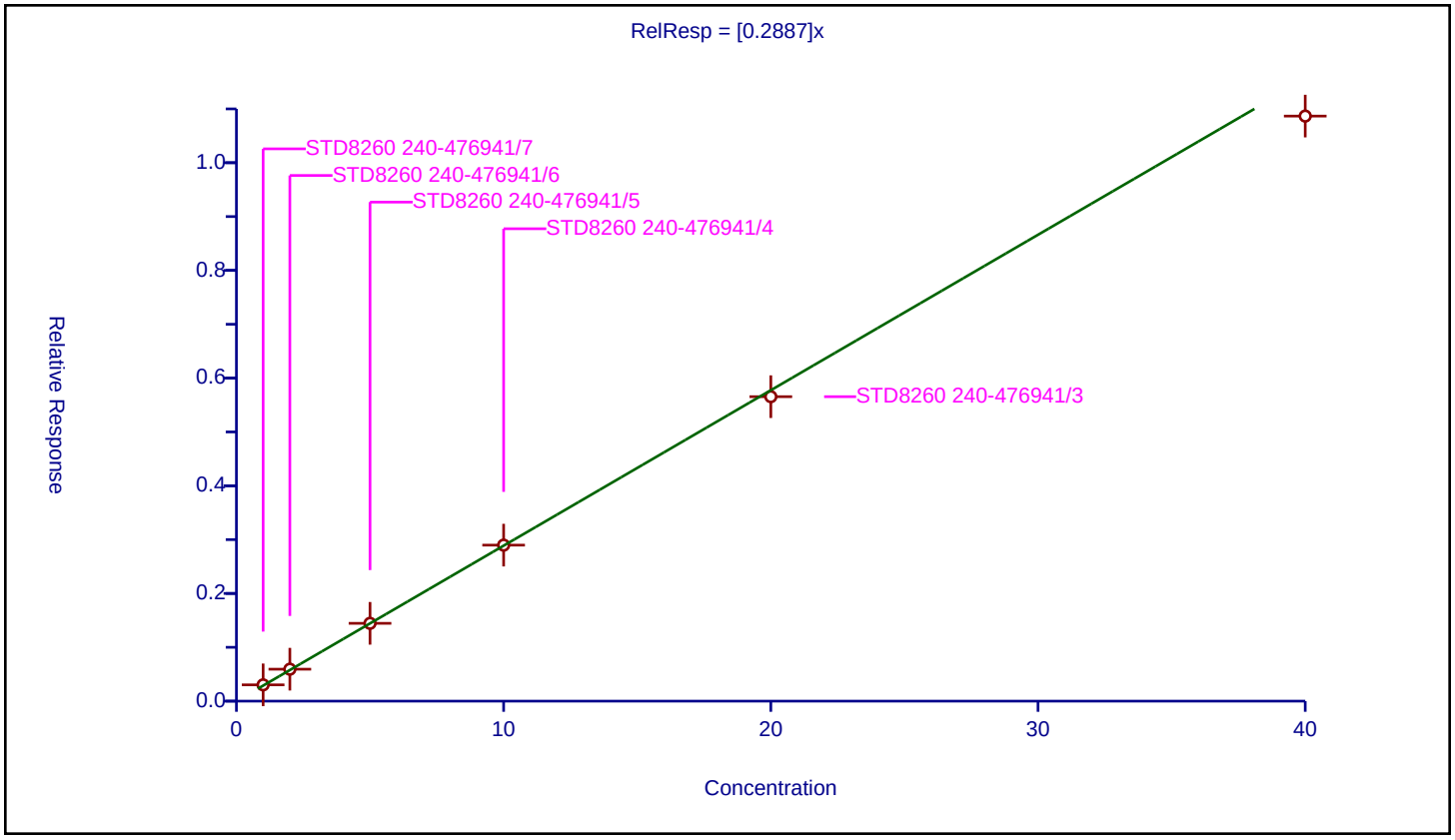
Curve Coefficients

Intercept:	0
Slope:	0.2887

Error Coefficients

Standard Error:	981000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.302618	10.0	1508502.0	0.302618	Y
2	STD8260 240-476941/6	2.0	0.593174	10.0	1600104.0	0.296587	Y
3	STD8260 240-476941/5	5.0	1.444987	10.0	1580769.0	0.288997	Y
4	STD8260 240-476941/4	10.0	2.897514	10.0	1635381.0	0.289751	Y
5	STD8260 240-476941/3	20.0	5.654783	10.0	1729200.0	0.282739	Y
6	STD8260 240-476941/2	40.0	10.866479	10.0	1738218.0	0.271662	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

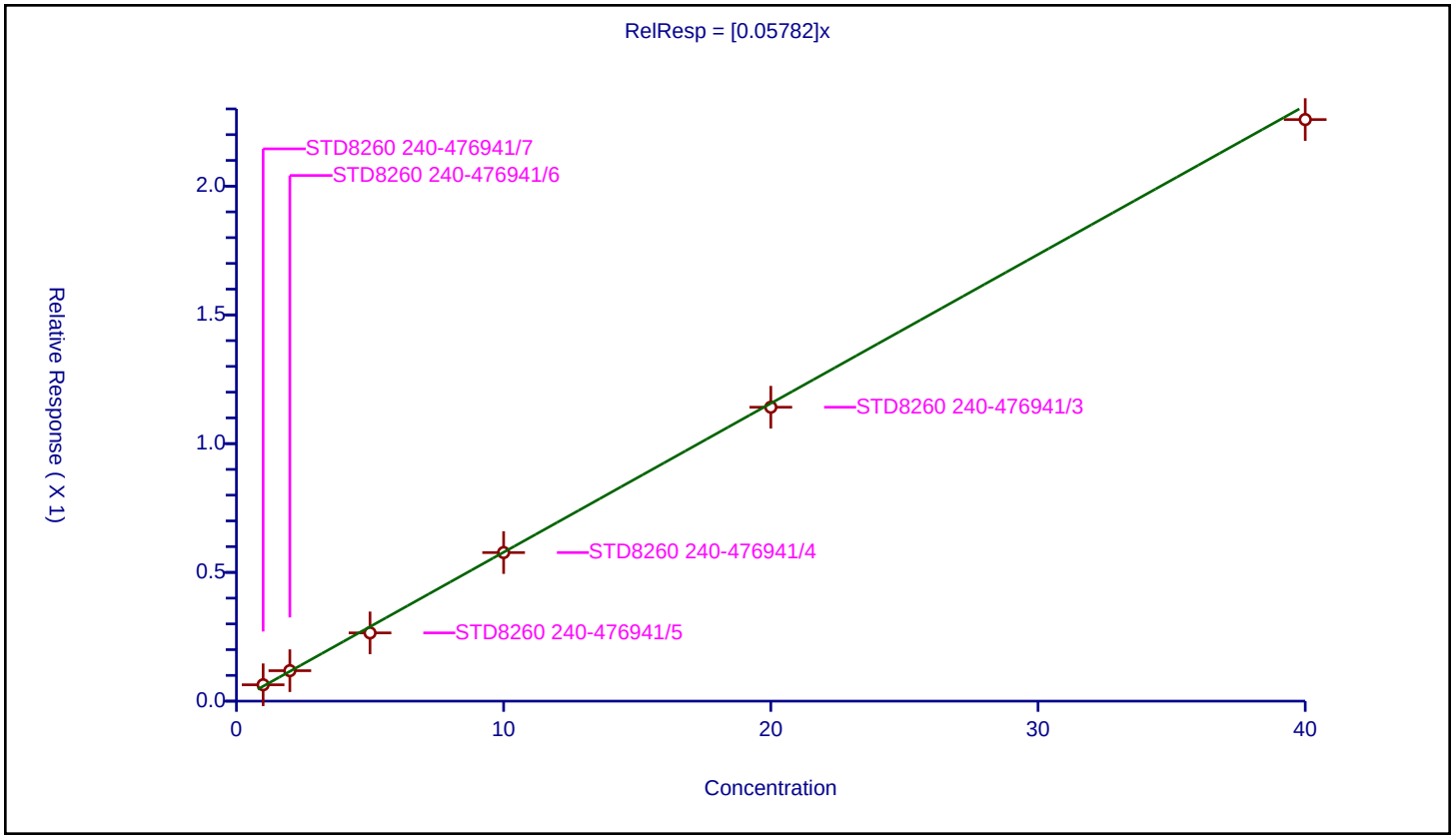
Curve Coefficients

Intercept:	0
Slope:	0.05782

Error Coefficients

Standard Error:	202000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.063513	10.0	1508502.0	0.063513	Y
2	STD8260 240-476941/6	2.0	0.118292	10.0	1600104.0	0.059146	Y
3	STD8260 240-476941/5	5.0	0.265029	10.0	1580769.0	0.053006	Y
4	STD8260 240-476941/4	10.0	0.576991	10.0	1635381.0	0.057699	Y
5	STD8260 240-476941/3	20.0	1.141406	10.0	1729200.0	0.05707	Y
6	STD8260 240-476941/2	40.0	2.258503	10.0	1738218.0	0.056463	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

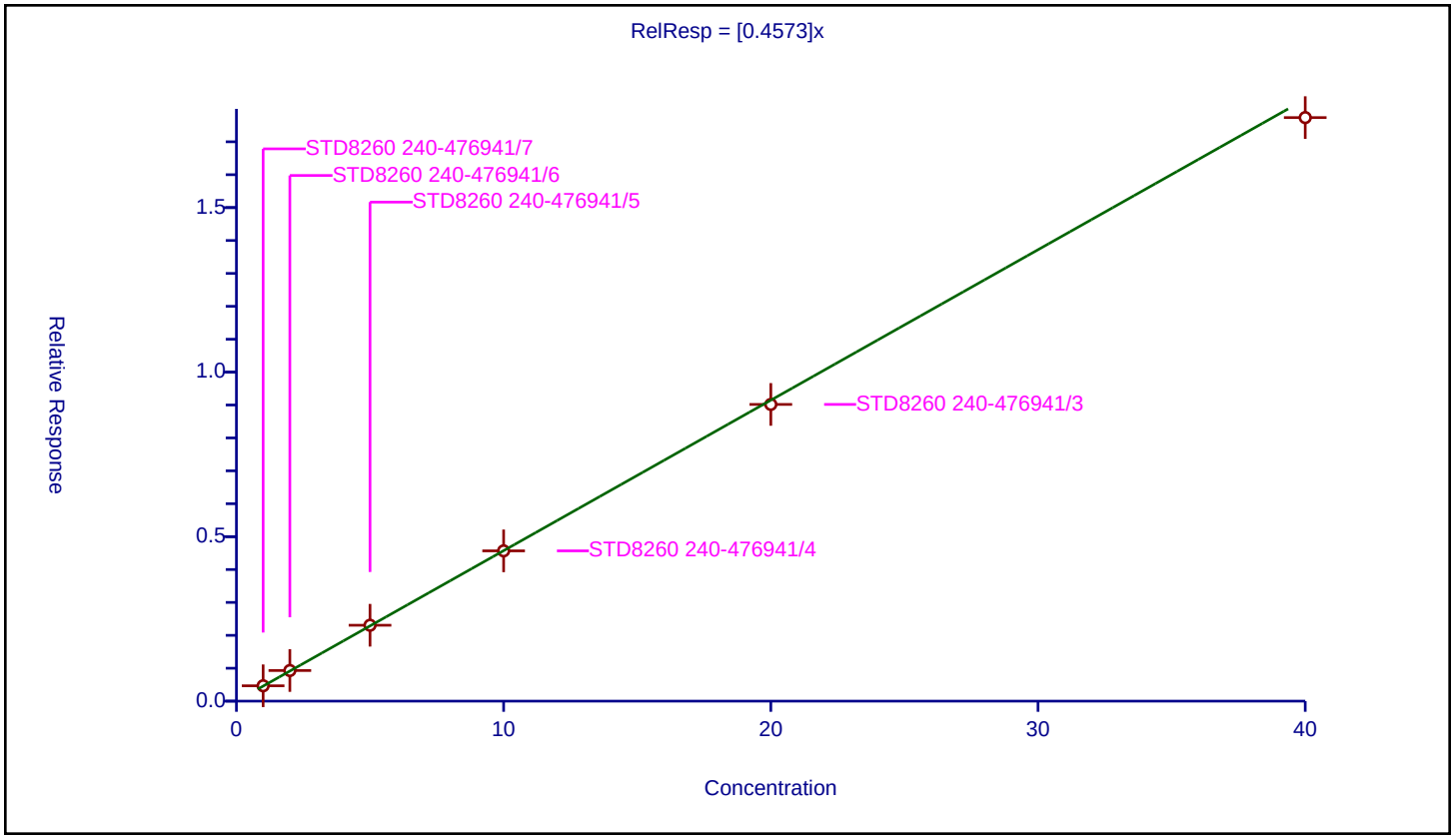
Curve Coefficients

Intercept:	0
Slope:	0.4573

Error Coefficients

Standard Error:	1590000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.466449	10.0	1508502.0	0.466449	Y
2	STD8260 240-476941/6	2.0	0.930208	10.0	1600104.0	0.465104	Y
3	STD8260 240-476941/5	5.0	2.306403	10.0	1580769.0	0.461281	Y
4	STD8260 240-476941/4	10.0	4.56778	10.0	1635381.0	0.456778	Y
5	STD8260 240-476941/3	20.0	9.018159	10.0	1729200.0	0.450908	Y
6	STD8260 240-476941/2	40.0	17.734904	10.0	1738218.0	0.443373	Y



Calibration / Vinyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

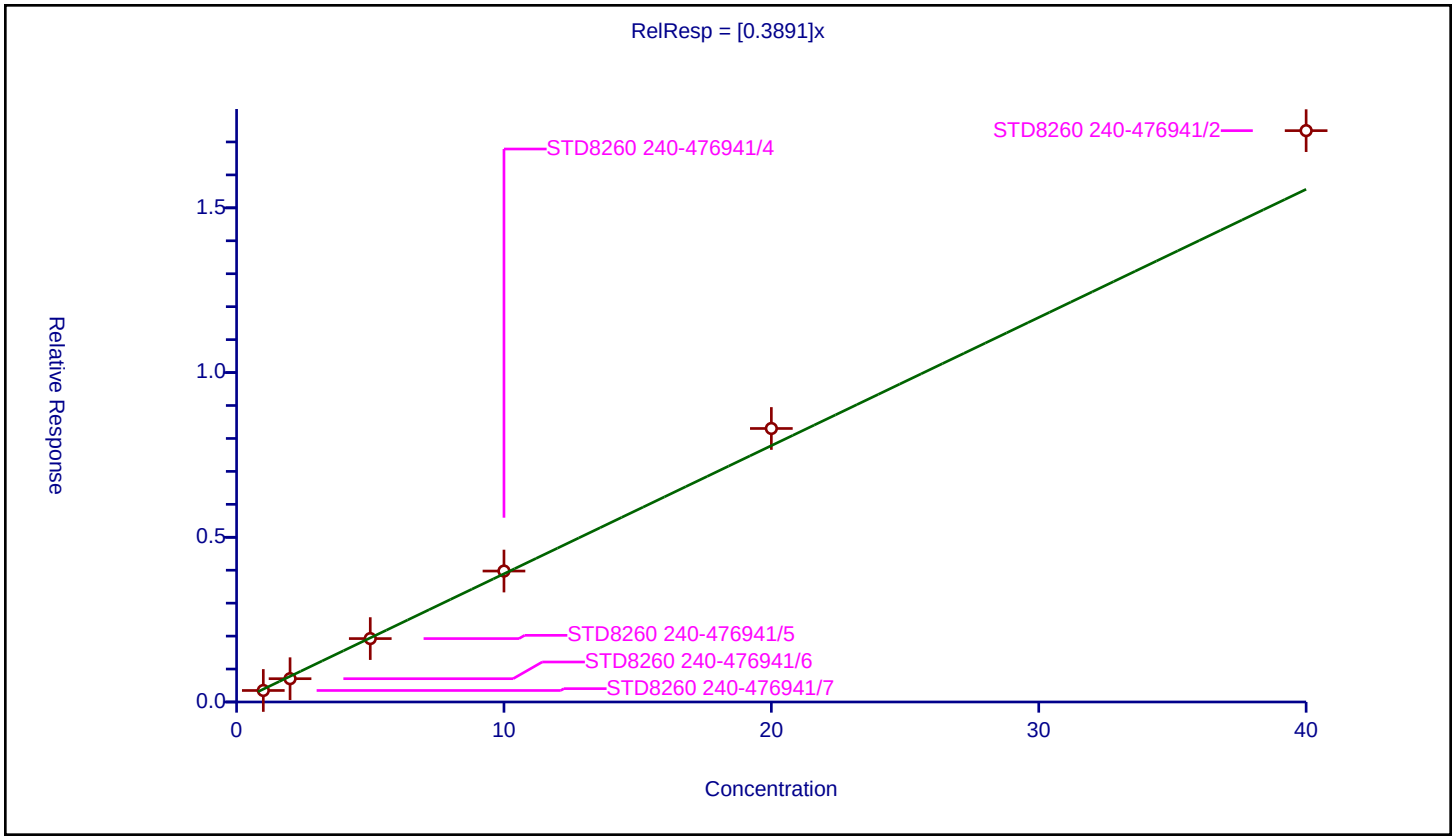
Curve Coefficients

Intercept:	0
Slope:	0.3891

Error Coefficients

Standard Error:	1530000
Relative Standard Error:	8.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.349612	10.0	1508502.0	0.349612	Y
2	STD8260 240-476941/6	2.0	0.707448	10.0	1600104.0	0.353724	Y
3	STD8260 240-476941/5	5.0	1.924608	10.0	1580769.0	0.384922	Y
4	STD8260 240-476941/4	10.0	3.974994	10.0	1635381.0	0.397499	Y
5	STD8260 240-476941/3	20.0	8.302787	10.0	1729200.0	0.415139	Y
6	STD8260 240-476941/2	40.0	17.343619	10.0	1738218.0	0.43359	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

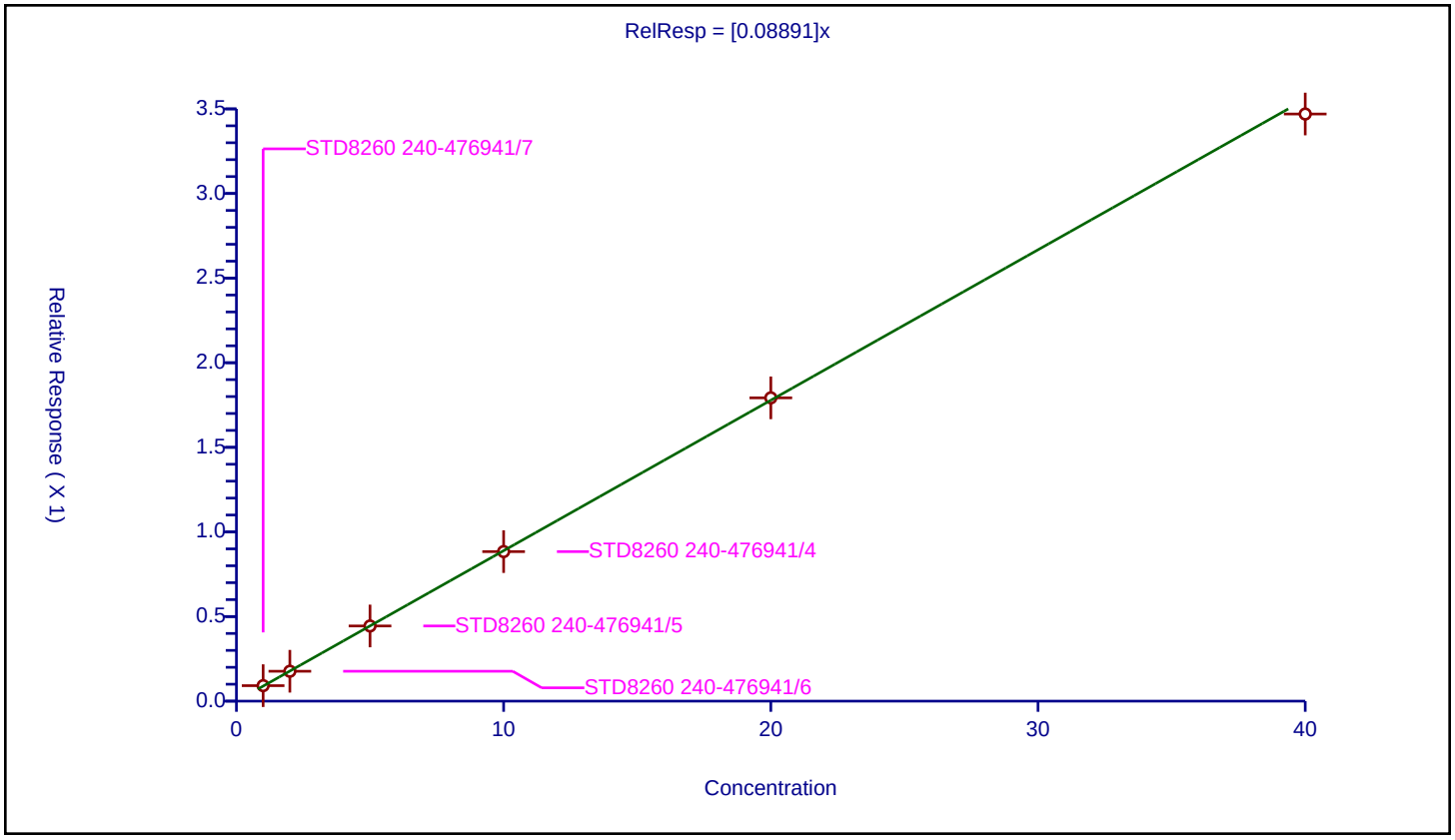
Curve Coefficients

Intercept:	0
Slope:	0.08891

Error Coefficients

Standard Error:	312000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.091528	10.0	1508502.0	0.091528	Y
2	STD8260 240-476941/6	2.0	0.176714	10.0	1600104.0	0.088357	Y
3	STD8260 240-476941/5	5.0	0.444208	10.0	1580769.0	0.088842	Y
4	STD8260 240-476941/4	10.0	0.883745	10.0	1635381.0	0.088375	Y
5	STD8260 240-476941/3	20.0	1.792407	10.0	1729200.0	0.08962	Y
6	STD8260 240-476941/2	40.0	3.46976	10.0	1738218.0	0.086744	Y



Calibration / cis-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

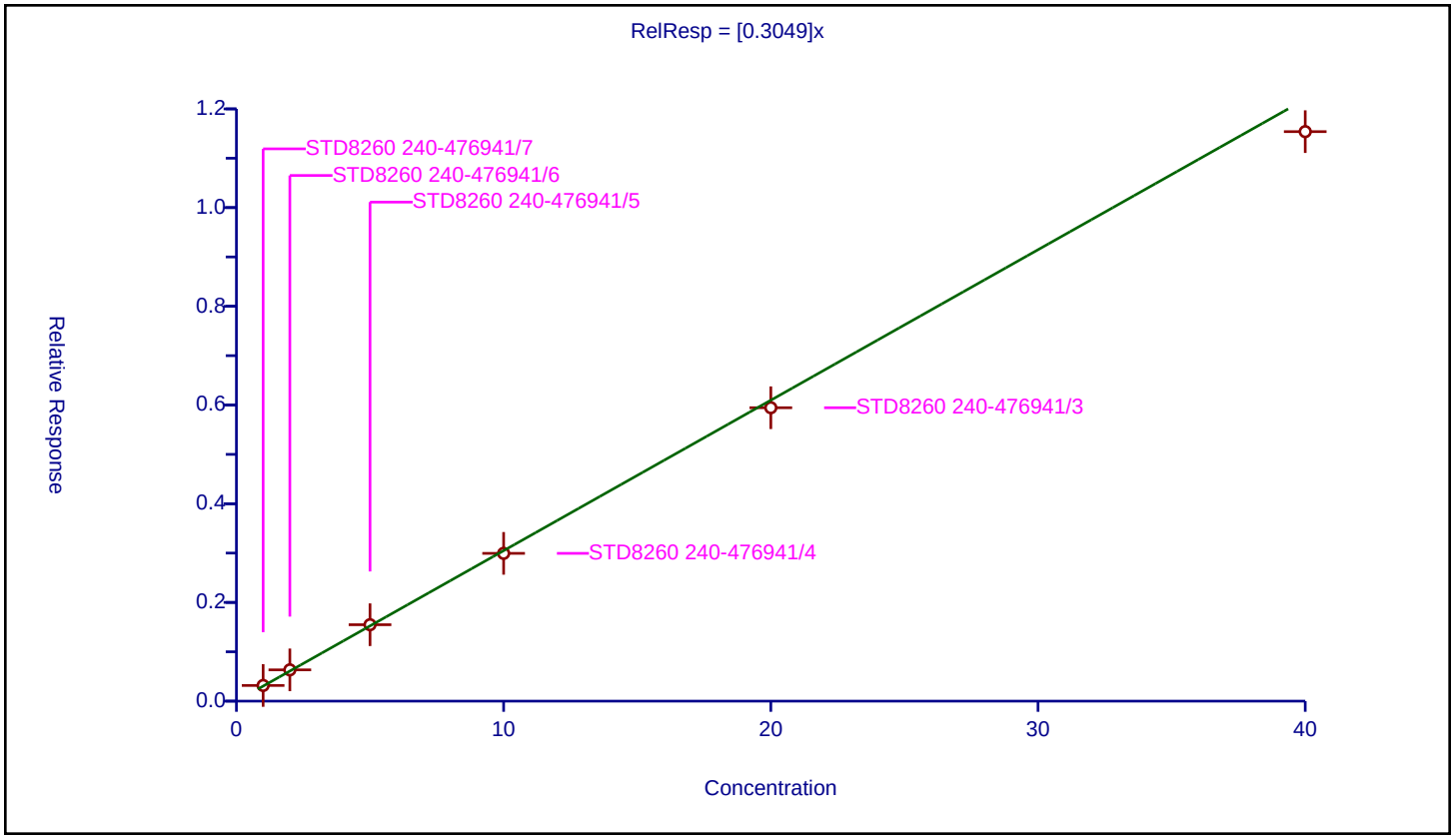
Curve Coefficients

Intercept:	0
Slope:	0.3049

Error Coefficients

Standard Error:	1040000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.317547	10.0	1508502.0	0.317547	Y
2	STD8260 240-476941/6	2.0	0.633728	10.0	1600104.0	0.316864	Y
3	STD8260 240-476941/5	5.0	1.548303	10.0	1580769.0	0.309661	Y
4	STD8260 240-476941/4	10.0	2.994232	10.0	1635381.0	0.299423	Y
5	STD8260 240-476941/3	20.0	5.944876	10.0	1729200.0	0.297244	Y
6	STD8260 240-476941/2	40.0	11.539324	10.0	1738218.0	0.288483	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

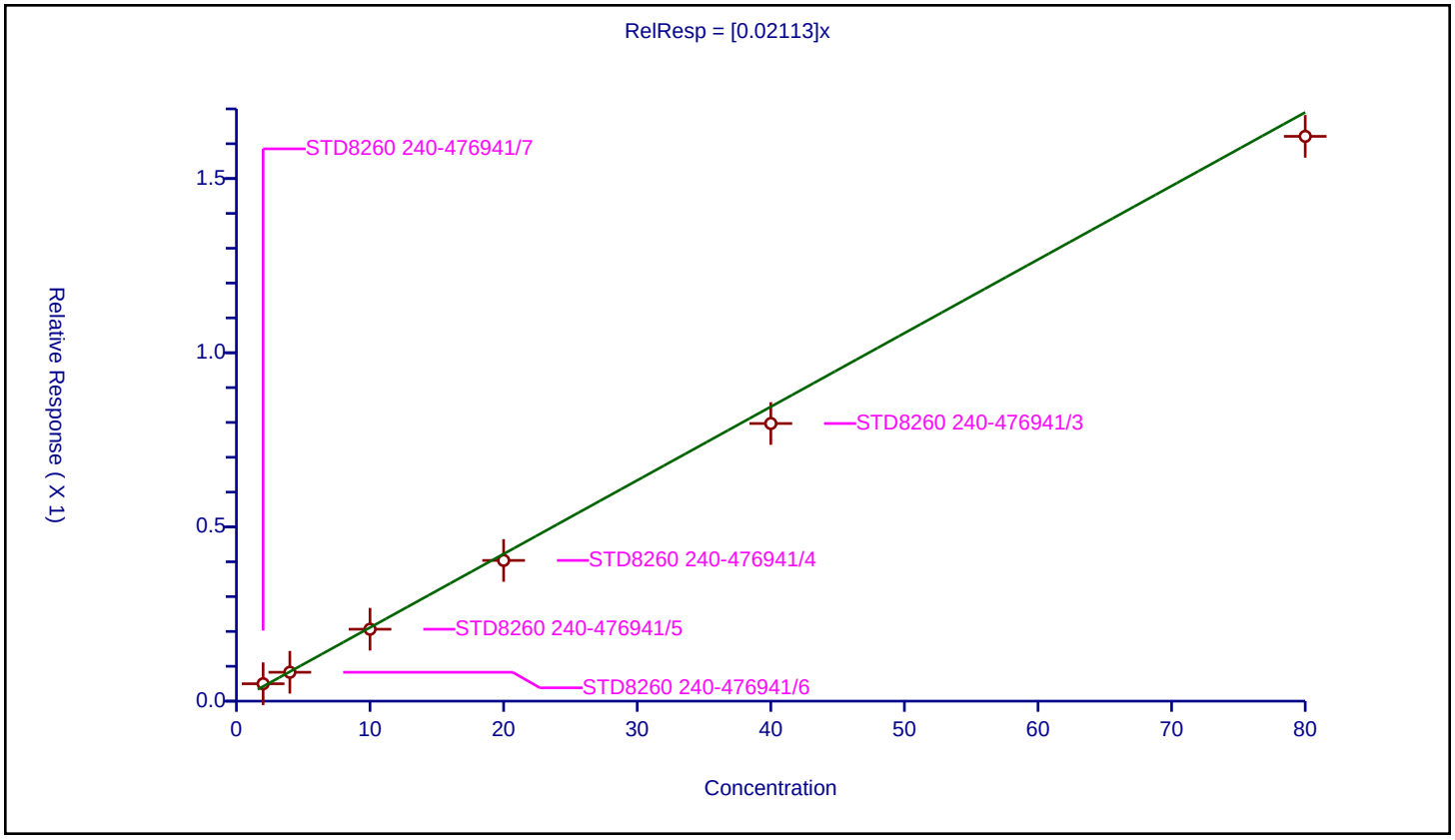
Curve Coefficients

Intercept:	0
Slope:	0.02113

Error Coefficients

Standard Error:	144000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.049983	10.0	1508502.0	0.024992	Y
2	STD8260 240-476941/6	4.0	0.08292	10.0	1600104.0	0.02073	Y
3	STD8260 240-476941/5	10.0	0.206482	10.0	1580769.0	0.020648	Y
4	STD8260 240-476941/4	20.0	0.403936	10.0	1635381.0	0.020197	Y
5	STD8260 240-476941/3	40.0	0.796947	10.0	1729200.0	0.019924	Y
6	STD8260 240-476941/2	80.0	1.621149	10.0	1738218.0	0.020264	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

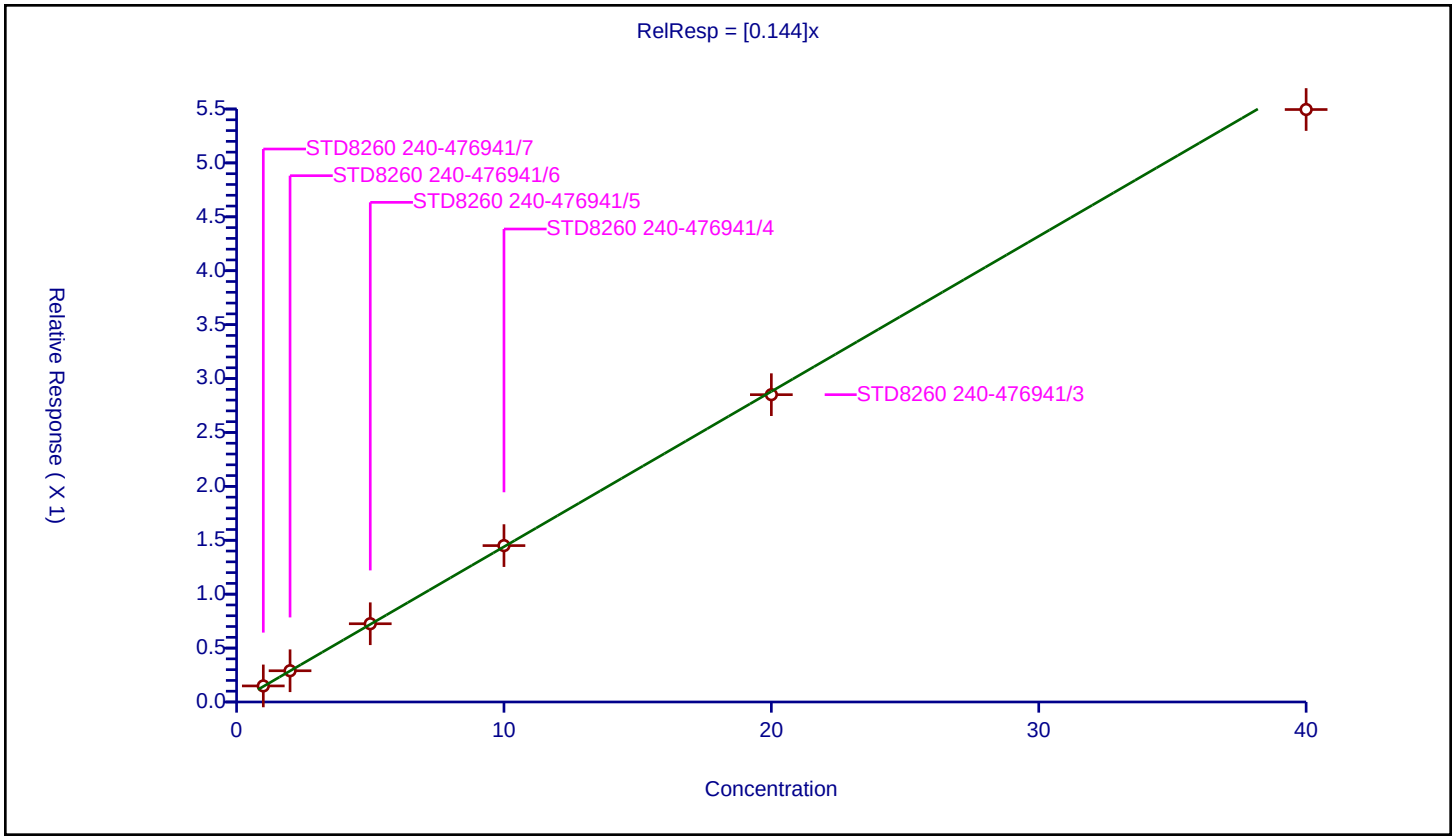
Curve Coefficients

Intercept:	0
Slope:	0.144

Error Coefficients

Standard Error:	495000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.148995	10.0	1508502.0	0.148995	Y
2	STD8260 240-476941/6	2.0	0.289706	10.0	1600104.0	0.144853	Y
3	STD8260 240-476941/5	5.0	0.725881	10.0	1580769.0	0.145176	Y
4	STD8260 240-476941/4	10.0	1.450518	10.0	1635381.0	0.145052	Y
5	STD8260 240-476941/3	20.0	2.850578	10.0	1729200.0	0.142529	Y
6	STD8260 240-476941/2	40.0	5.495398	10.0	1738218.0	0.137385	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

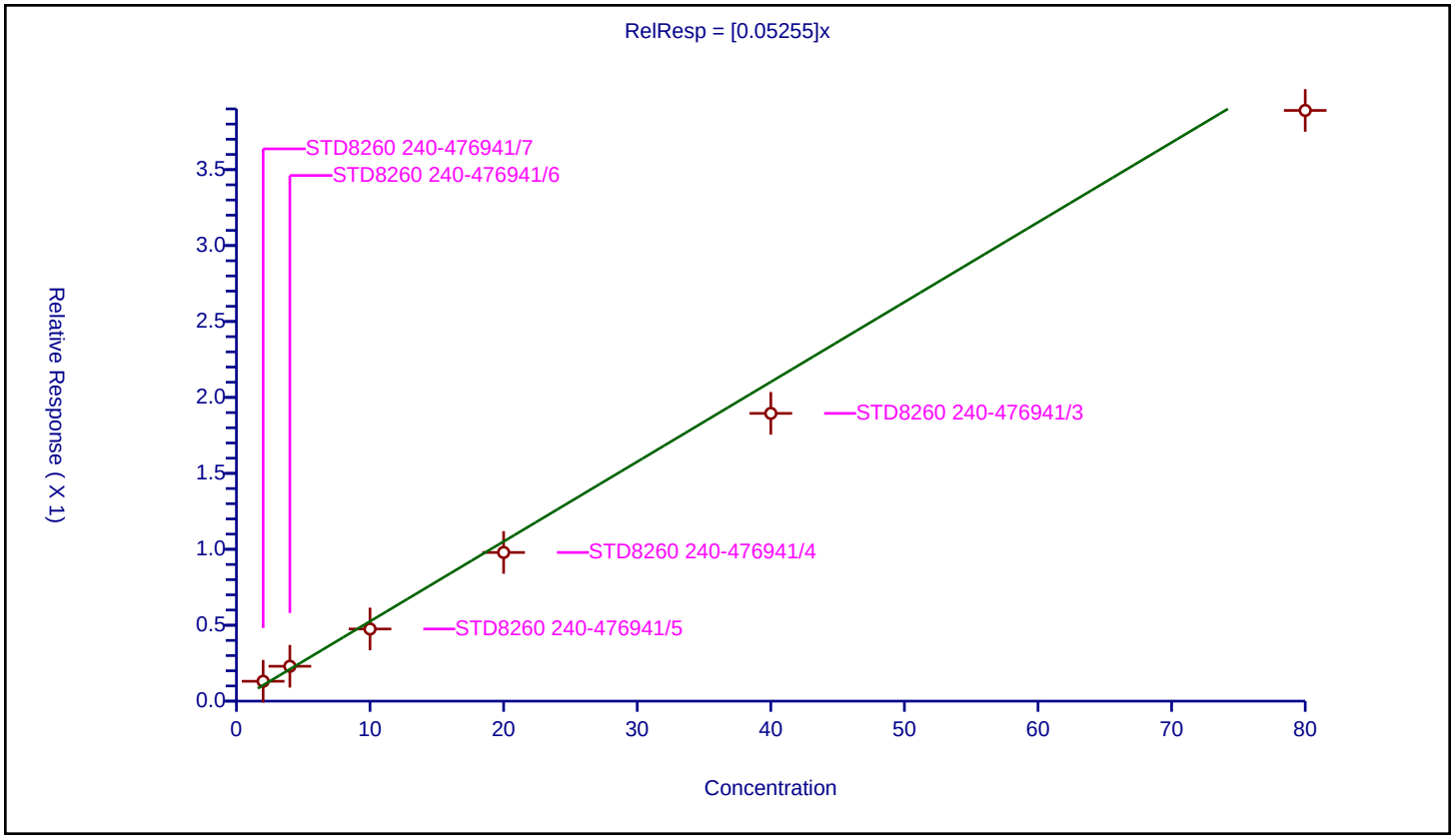
Curve Coefficients

Intercept:	0
Slope:	0.05255

Error Coefficients

Standard Error:	346000
Relative Standard Error:	14.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.963

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.130845	10.0	1508502.0	0.065423	Y
2	STD8260 240-476941/6	4.0	0.229635	10.0	1600104.0	0.057409	Y
3	STD8260 240-476941/5	10.0	0.475256	10.0	1580769.0	0.047526	Y
4	STD8260 240-476941/4	20.0	0.979172	10.0	1635381.0	0.048959	Y
5	STD8260 240-476941/3	40.0	1.895009	10.0	1729200.0	0.047375	Y
6	STD8260 240-476941/2	80.0	3.88984	10.0	1738218.0	0.048623	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

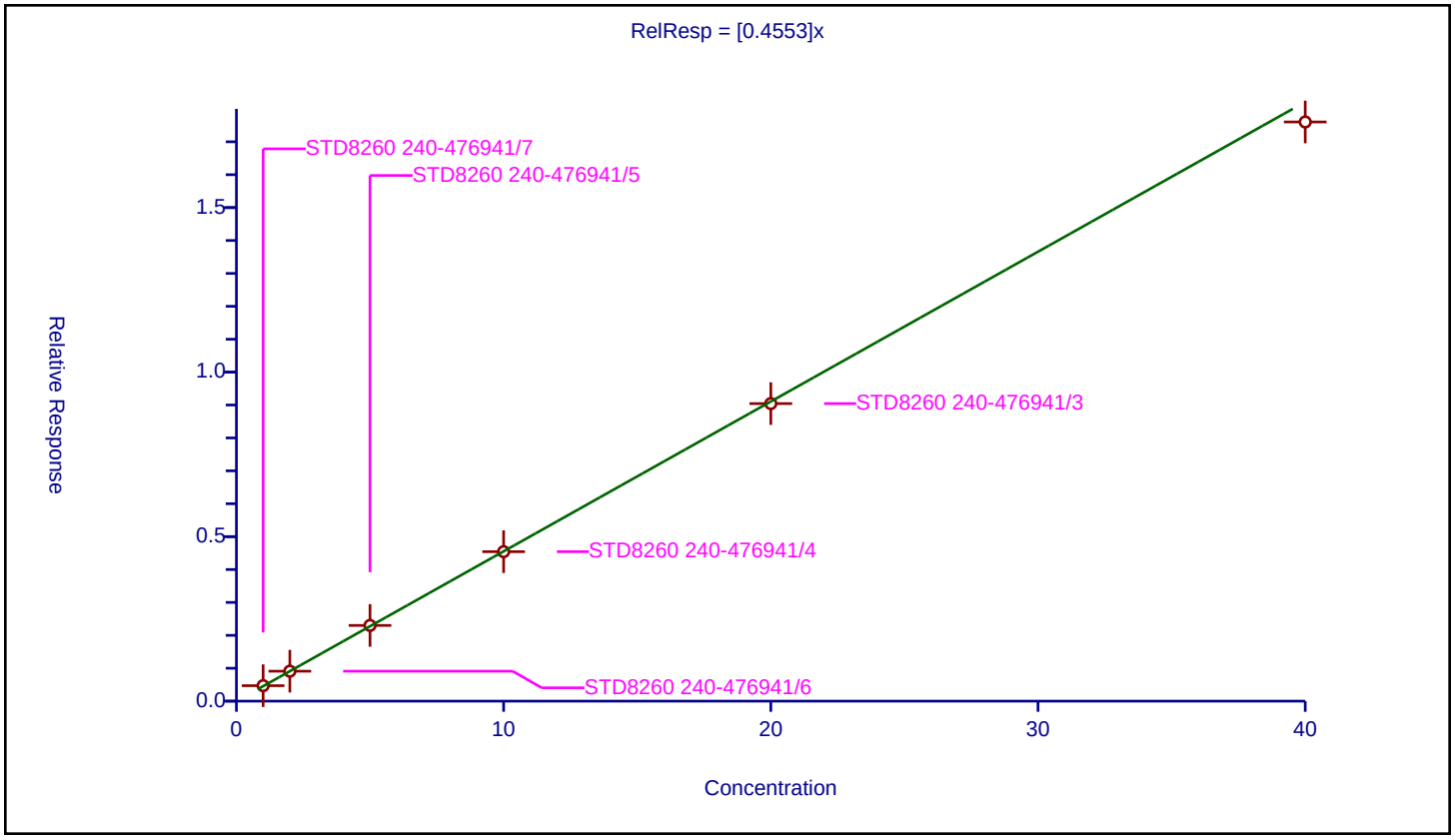
Curve Coefficients

Intercept:	0
Slope:	0.4553

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.470235	10.0	1508502.0	0.470235	Y
2	STD8260 240-476941/6	2.0	0.909872	10.0	1600104.0	0.454936	Y
3	STD8260 240-476941/5	5.0	2.300652	10.0	1580769.0	0.46013	Y
4	STD8260 240-476941/4	10.0	4.542415	10.0	1635381.0	0.454242	Y
5	STD8260 240-476941/3	20.0	9.043269	10.0	1729200.0	0.452163	Y
6	STD8260 240-476941/2	40.0	17.60289	10.0	1738218.0	0.440072	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

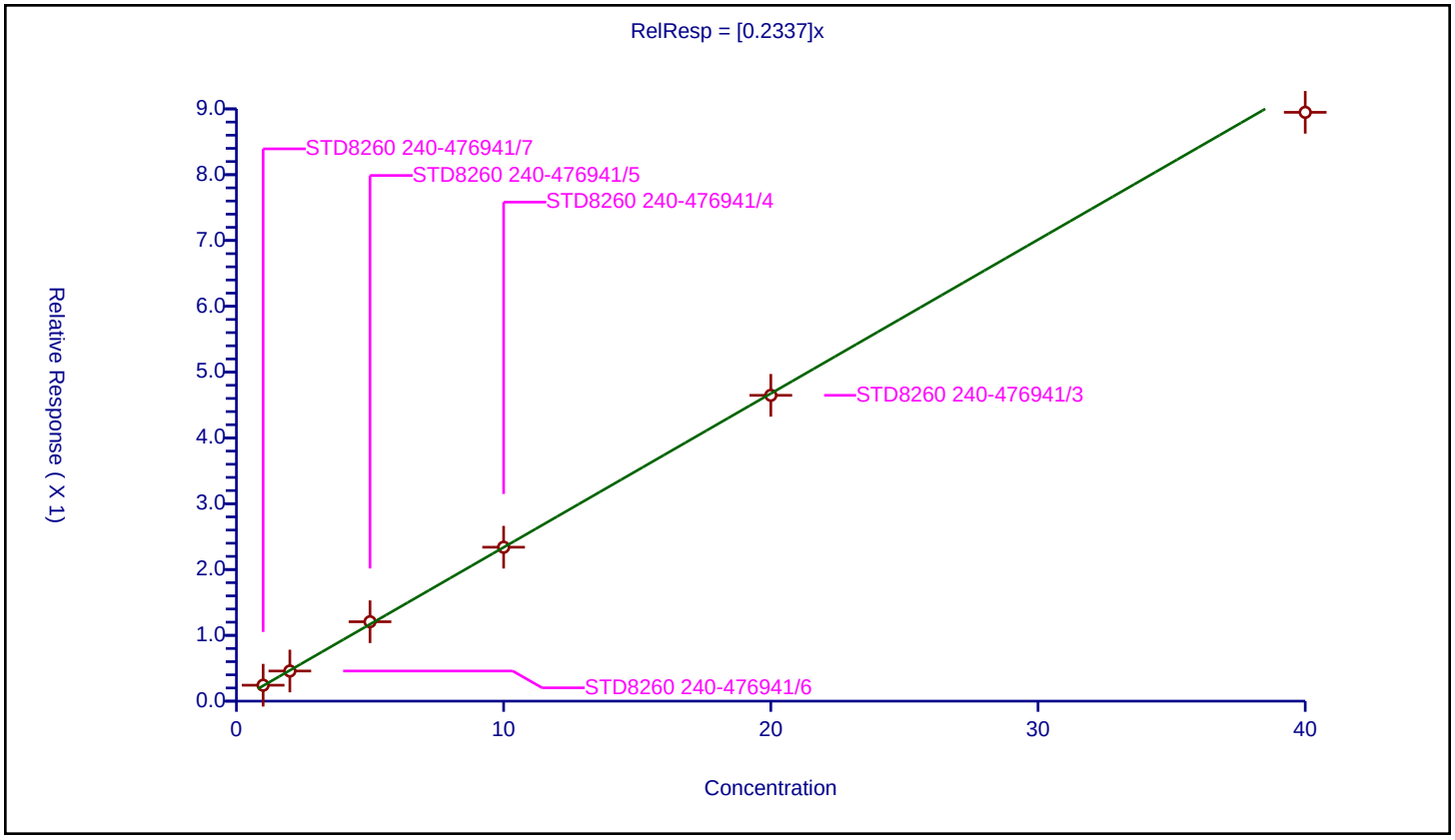
Curve Coefficients

Intercept:	0
Slope:	0.2337

Error Coefficients

Standard Error:	807000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.242134	10.0	1508502.0	0.242134	Y
2	STD8260 240-476941/6	2.0	0.45792	10.0	1600104.0	0.22896	Y
3	STD8260 240-476941/5	5.0	1.206729	10.0	1580769.0	0.241346	Y
4	STD8260 240-476941/4	10.0	2.339247	10.0	1635381.0	0.233925	Y
5	STD8260 240-476941/3	20.0	4.647265	10.0	1729200.0	0.232363	Y
6	STD8260 240-476941/2	40.0	8.947681	10.0	1738218.0	0.223692	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

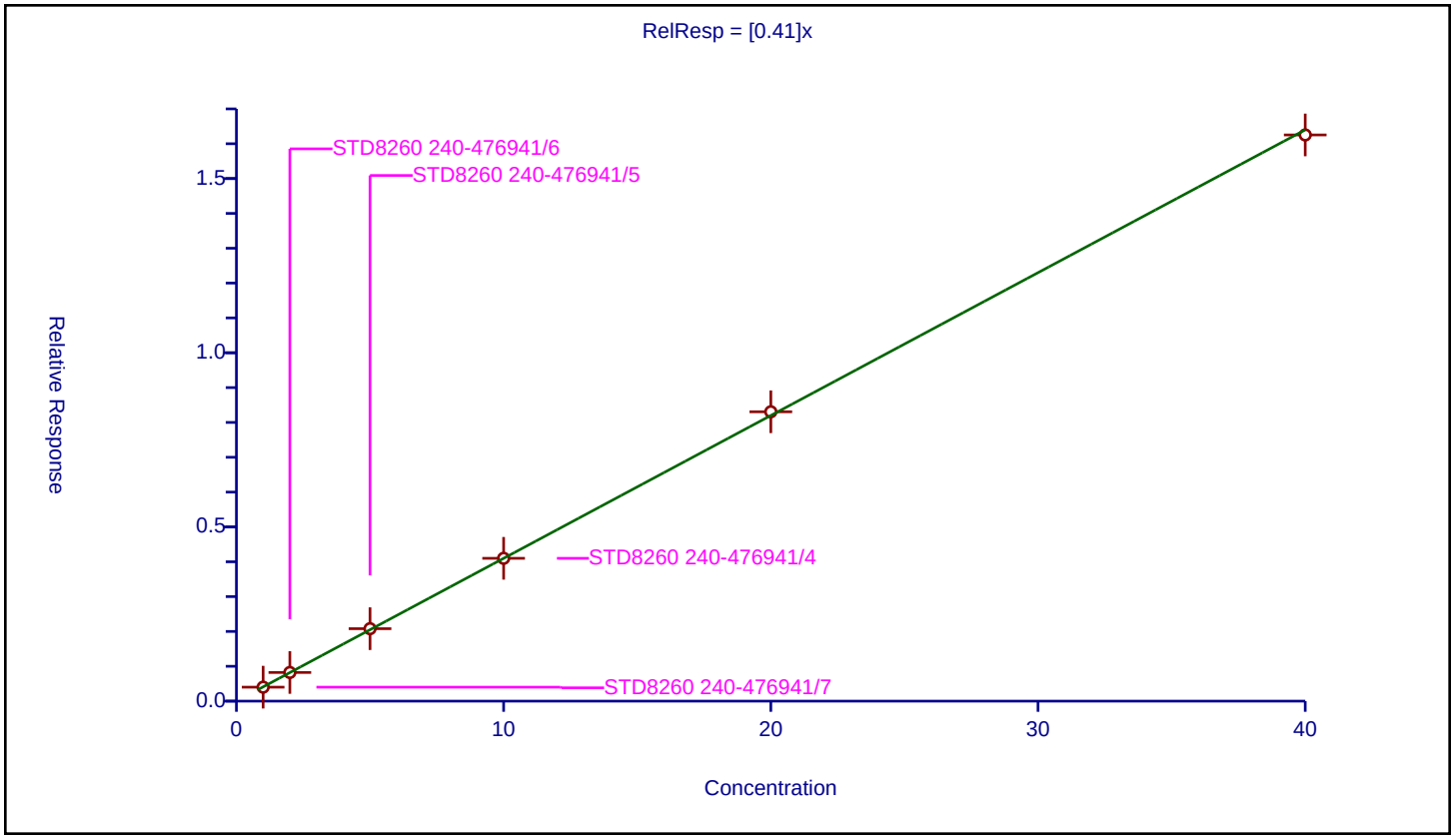
Curve Coefficients

Intercept:	0
Slope:	0.41

Error Coefficients

Standard Error:	1460000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.400841	10.0	1508502.0	0.400841	Y
2	STD8260 240-476941/6	2.0	0.822728	10.0	1600104.0	0.411364	Y
3	STD8260 240-476941/5	5.0	2.079741	10.0	1580769.0	0.415948	Y
4	STD8260 240-476941/4	10.0	4.099442	10.0	1635381.0	0.409944	Y
5	STD8260 240-476941/3	20.0	8.305795	10.0	1729200.0	0.41529	Y
6	STD8260 240-476941/2	40.0	16.252622	10.0	1738218.0	0.406316	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

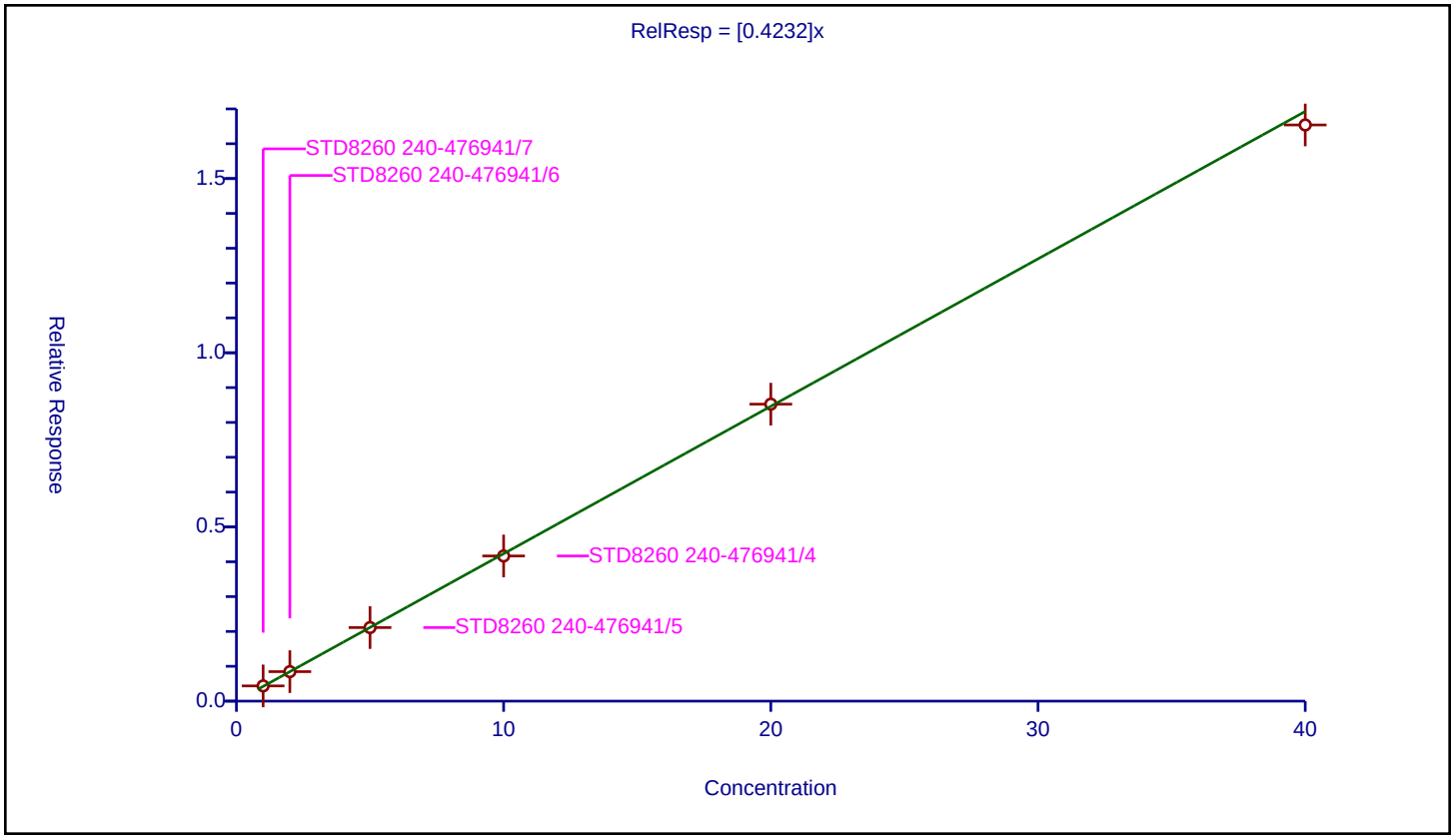
Curve Coefficients

Intercept:	0
Slope:	0.4232

Error Coefficients

Standard Error:	1490000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.436977	10.0	1508502.0	0.436977	Y
2	STD8260 240-476941/6	2.0	0.846601	10.0	1600104.0	0.423301	Y
3	STD8260 240-476941/5	5.0	2.111675	10.0	1580769.0	0.422335	Y
4	STD8260 240-476941/4	10.0	4.167163	10.0	1635381.0	0.416716	Y
5	STD8260 240-476941/3	20.0	8.524879	10.0	1729200.0	0.426244	Y
6	STD8260 240-476941/2	40.0	16.538622	10.0	1738218.0	0.413466	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

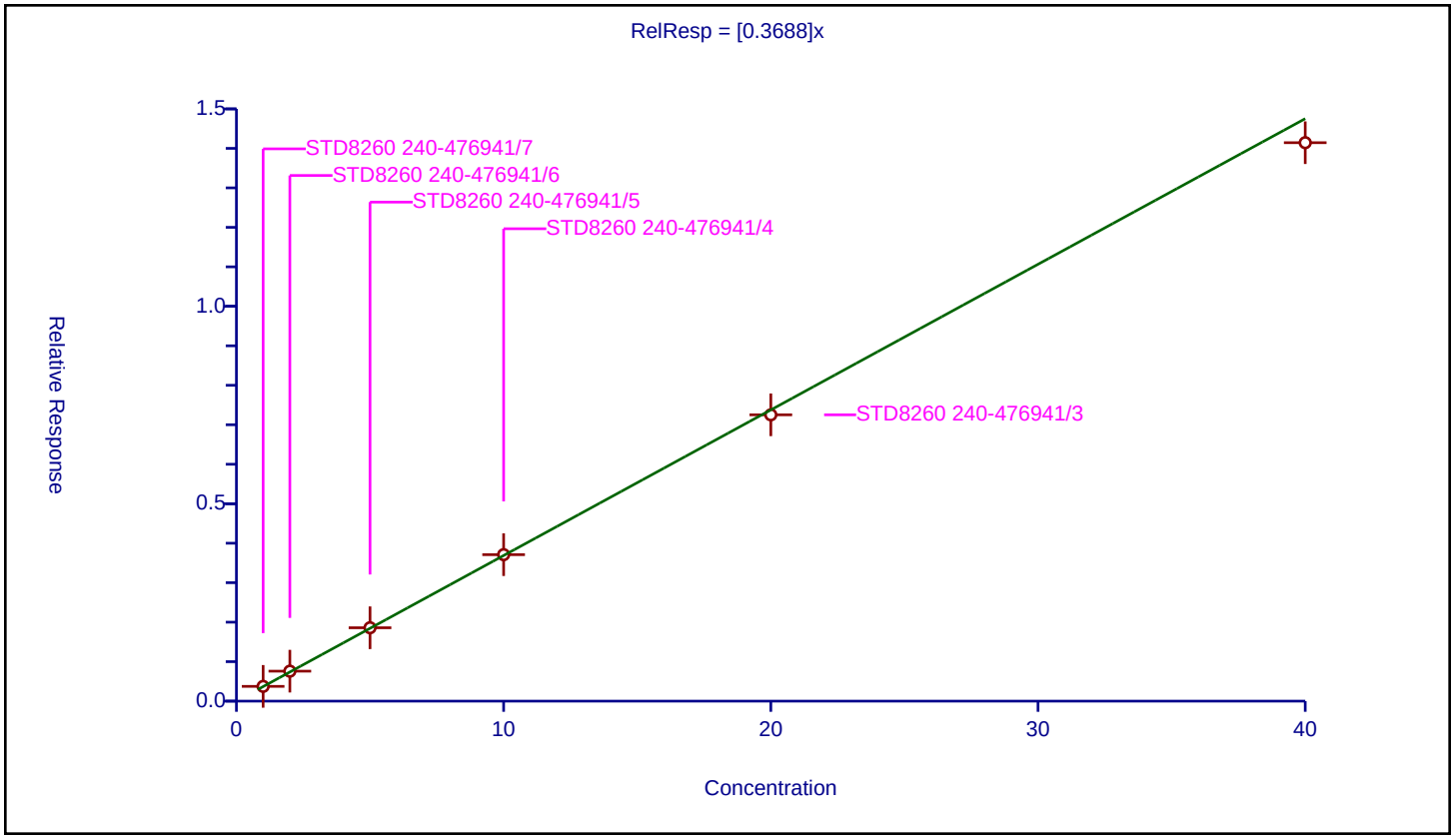
Curve Coefficients

Intercept:	0
Slope:	0.3688

Error Coefficients

Standard Error:	1270000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.374338	10.0	1508502.0	0.374338	Y
2	STD8260 240-476941/6	2.0	0.758994	10.0	1600104.0	0.379497	Y
3	STD8260 240-476941/5	5.0	1.858994	10.0	1580769.0	0.371799	Y
4	STD8260 240-476941/4	10.0	3.710108	10.0	1635381.0	0.371011	Y
5	STD8260 240-476941/3	20.0	7.251758	10.0	1729200.0	0.362588	Y
6	STD8260 240-476941/2	40.0	14.144141	10.0	1738218.0	0.353604	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

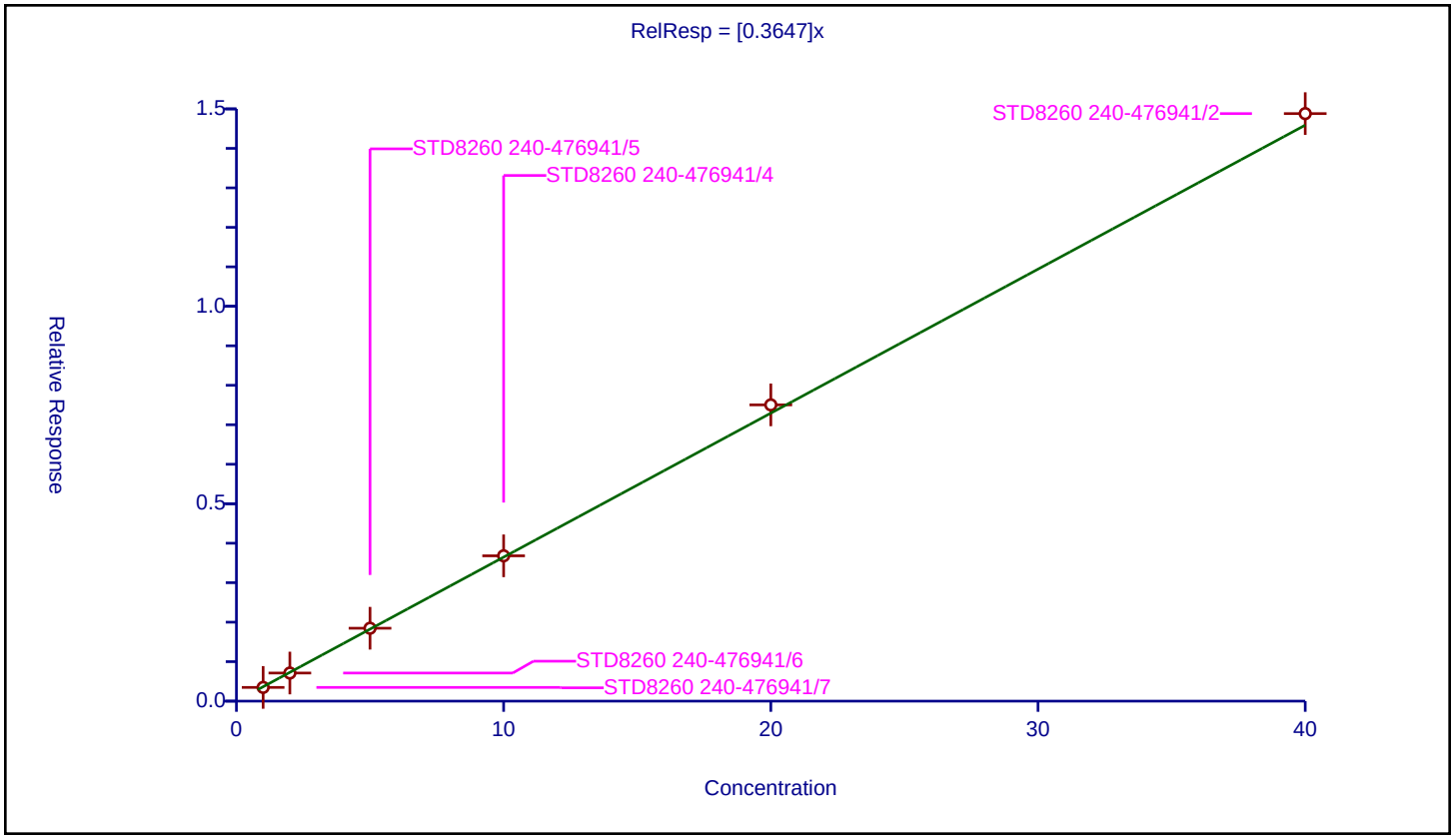
Curve Coefficients

Intercept:	0
Slope:	0.3647

Error Coefficients

Standard Error:	1330000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.347736	10.0	1508502.0	0.347736	Y
2	STD8260 240-476941/6	2.0	0.711754	10.0	1600104.0	0.355877	Y
3	STD8260 240-476941/5	5.0	1.846582	10.0	1580769.0	0.369316	Y
4	STD8260 240-476941/4	10.0	3.681032	10.0	1635381.0	0.368103	Y
5	STD8260 240-476941/3	20.0	7.503851	10.0	1729200.0	0.375193	Y
6	STD8260 240-476941/2	40.0	14.880573	10.0	1738218.0	0.372014	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

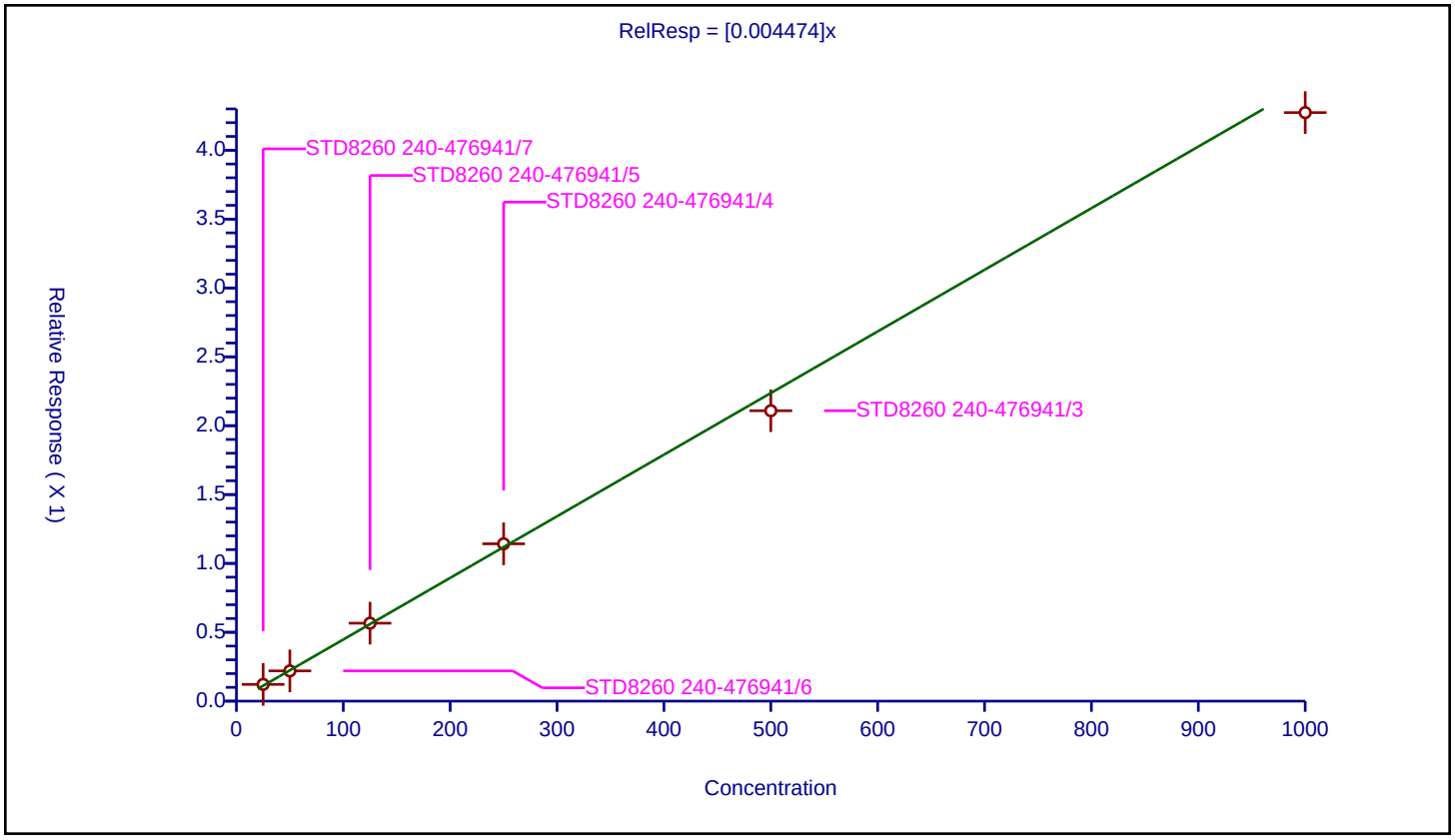
Curve Coefficients

Intercept:	0
Slope:	0.004474

Error Coefficients

Standard Error:	382000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	25.0	0.121584	10.0	1508502.0	0.004863	Y
2	STD8260 240-476941/6	50.0	0.219592	10.0	1600104.0	0.004392	Y
3	STD8260 240-476941/5	125.0	0.565984	10.0	1580769.0	0.004528	Y
4	STD8260 240-476941/4	250.0	1.142309	10.0	1635381.0	0.004569	Y
5	STD8260 240-476941/3	500.0	2.108426	10.0	1729200.0	0.004217	Y
6	STD8260 240-476941/2	1000.0	4.273123	10.0	1738218.0	0.004273	Y



Calibration / 1,2-Dichloroethane-d4 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

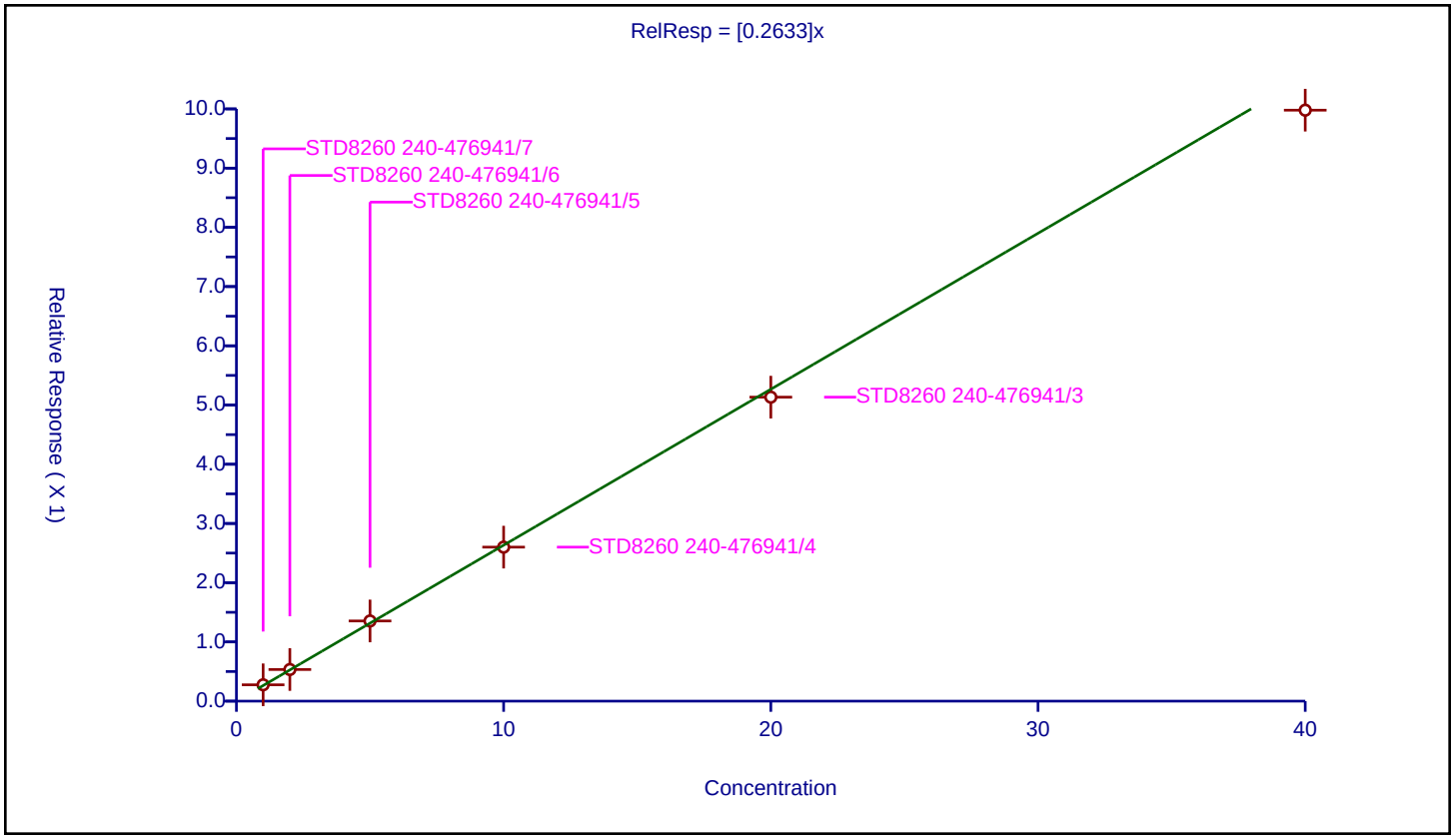
Curve Coefficients

Intercept:	0
Slope:	0.2633

Error Coefficients

Standard Error:	898000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275989	10.0	1508502.0	0.275989	Y
2	STD8260 240-476941/6	2.0	0.533928	10.0	1600104.0	0.266964	Y
3	STD8260 240-476941/5	5.0	1.354075	10.0	1580769.0	0.270815	Y
4	STD8260 240-476941/4	10.0	2.600244	10.0	1635381.0	0.260024	Y
5	STD8260 240-476941/3	20.0	5.132691	10.0	1729200.0	0.256635	Y
6	STD8260 240-476941/2	40.0	9.978616	10.0	1738218.0	0.249465	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

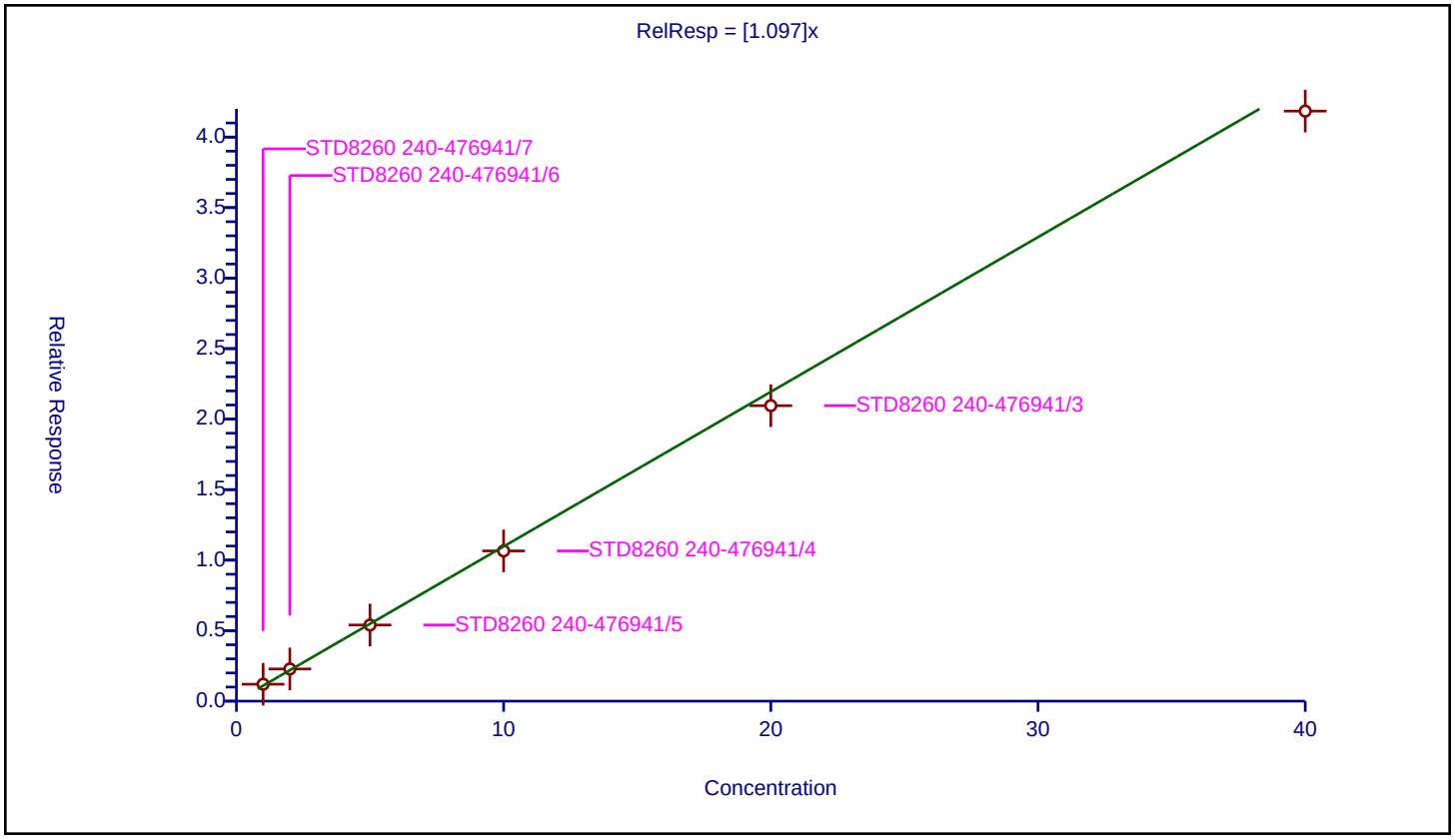
Curve Coefficients

Intercept:	0
Slope:	1.097

Error Coefficients

Standard Error:	3740000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.201026	10.0	1508502.0	1.201026	Y
2	STD8260 240-476941/6	2.0	2.282239	10.0	1600104.0	1.14112	Y
3	STD8260 240-476941/5	5.0	5.398936	10.0	1580769.0	1.079787	Y
4	STD8260 240-476941/4	10.0	10.652778	10.0	1635381.0	1.065278	Y
5	STD8260 240-476941/3	20.0	20.953747	10.0	1729200.0	1.047687	Y
6	STD8260 240-476941/2	40.0	41.843946	10.0	1738218.0	1.046099	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

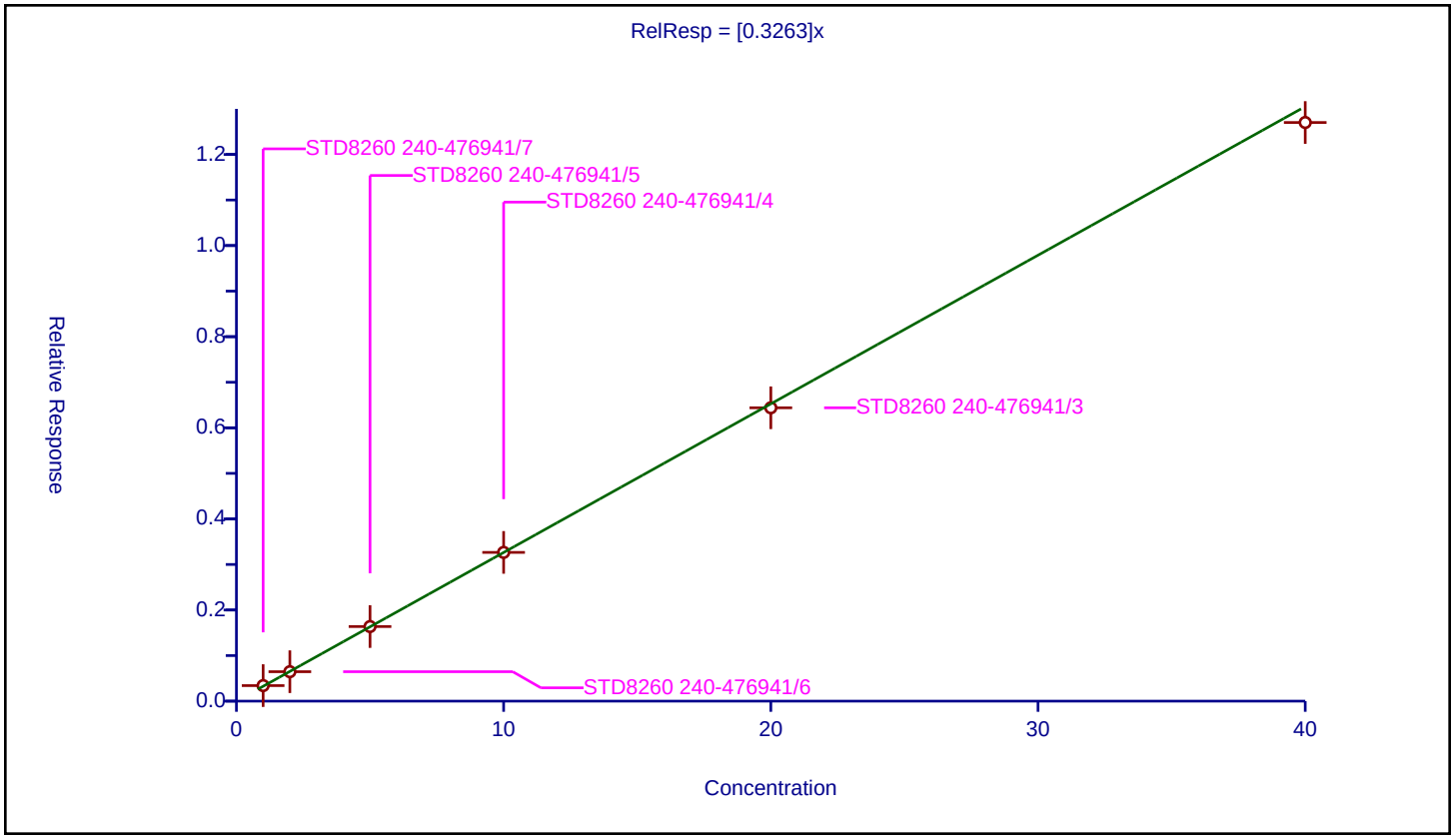
Curve Coefficients

Intercept:	0
Slope:	0.3263

Error Coefficients

Standard Error:	1140000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.341087	10.0	1508502.0	0.341087	Y
2	STD8260 240-476941/6	2.0	0.646289	10.0	1600104.0	0.323145	Y
3	STD8260 240-476941/5	5.0	1.637178	10.0	1580769.0	0.327436	Y
4	STD8260 240-476941/4	10.0	3.264542	10.0	1635381.0	0.326454	Y
5	STD8260 240-476941/3	20.0	6.439596	10.0	1729200.0	0.32198	Y
6	STD8260 240-476941/2	40.0	12.701163	10.0	1738218.0	0.317529	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

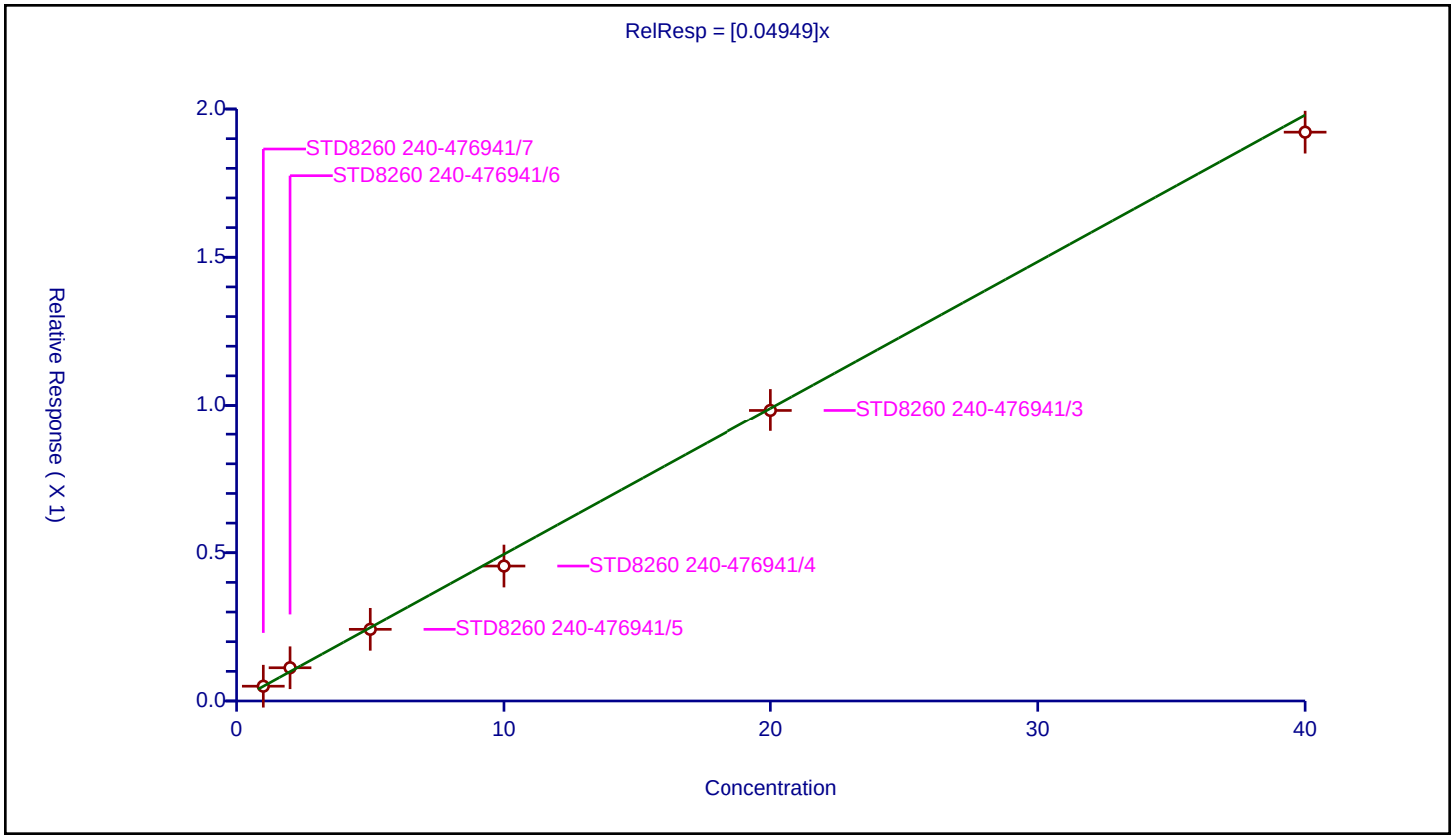
Curve Coefficients

Intercept:	0
Slope:	0.04949

Error Coefficients

Standard Error:	172000
Relative Standard Error:	7.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.049838	10.0	1508502.0	0.049838	Y
2	STD8260 240-476941/6	2.0	0.11208	10.0	1600104.0	0.05604	Y
3	STD8260 240-476941/5	5.0	0.241705	10.0	1580769.0	0.048341	Y
4	STD8260 240-476941/4	10.0	0.455191	10.0	1635381.0	0.045519	Y
5	STD8260 240-476941/3	20.0	0.98331	10.0	1729200.0	0.049166	Y
6	STD8260 240-476941/2	40.0	1.921888	10.0	1738218.0	0.048047	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

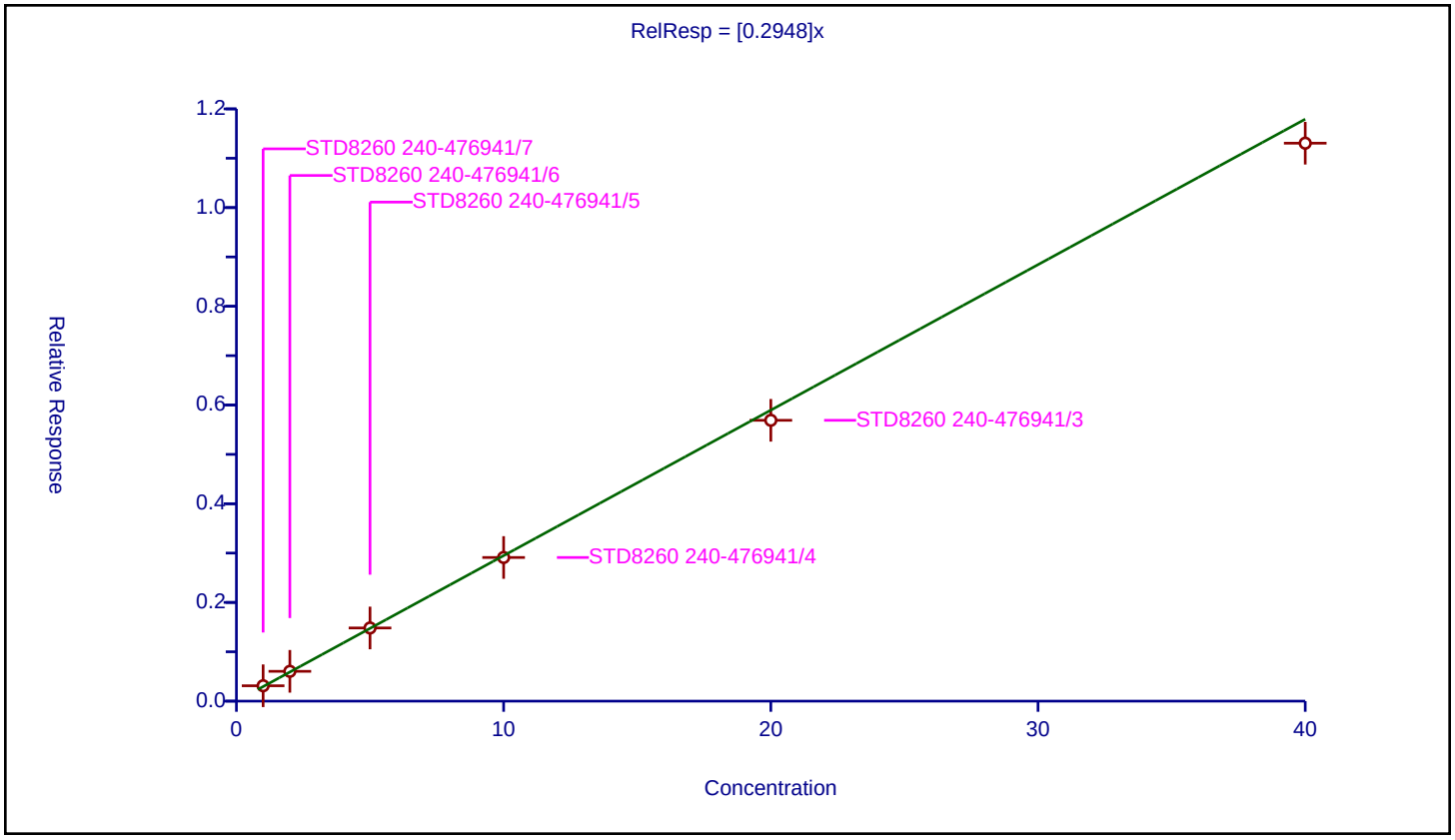
Curve Coefficients

Intercept:	0
Slope:	0.2948

Error Coefficients

Standard Error:	1010000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.311819	10.0	1508502.0	0.311819	Y
2	STD8260 240-476941/6	2.0	0.604273	10.0	1600104.0	0.302137	Y
3	STD8260 240-476941/5	5.0	1.482911	10.0	1580769.0	0.296582	Y
4	STD8260 240-476941/4	10.0	2.910765	10.0	1635381.0	0.291077	Y
5	STD8260 240-476941/3	20.0	5.690163	10.0	1729200.0	0.284508	Y
6	STD8260 240-476941/2	40.0	11.304664	10.0	1738218.0	0.282617	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

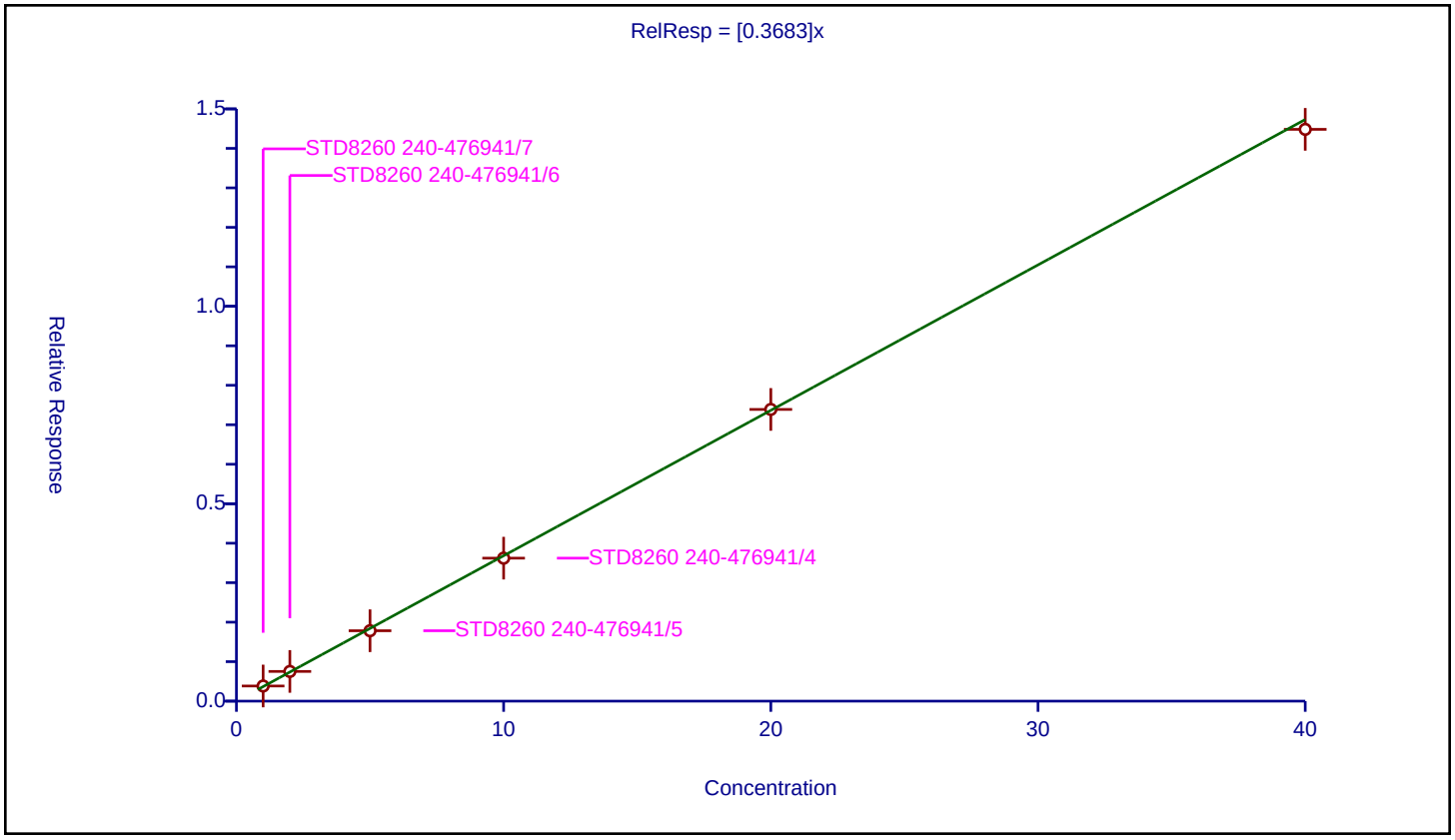
Curve Coefficients

Intercept:	0
Slope:	0.3683

Error Coefficients

Standard Error:	1300000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.383321	10.0	1508502.0	0.383321	Y
2	STD8260 240-476941/6	2.0	0.752382	10.0	1600104.0	0.376191	Y
3	STD8260 240-476941/5	5.0	1.782917	10.0	1580769.0	0.356583	Y
4	STD8260 240-476941/4	10.0	3.621089	10.0	1635381.0	0.362109	Y
5	STD8260 240-476941/3	20.0	7.388446	10.0	1729200.0	0.369422	Y
6	STD8260 240-476941/2	40.0	14.481906	10.0	1738218.0	0.362048	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

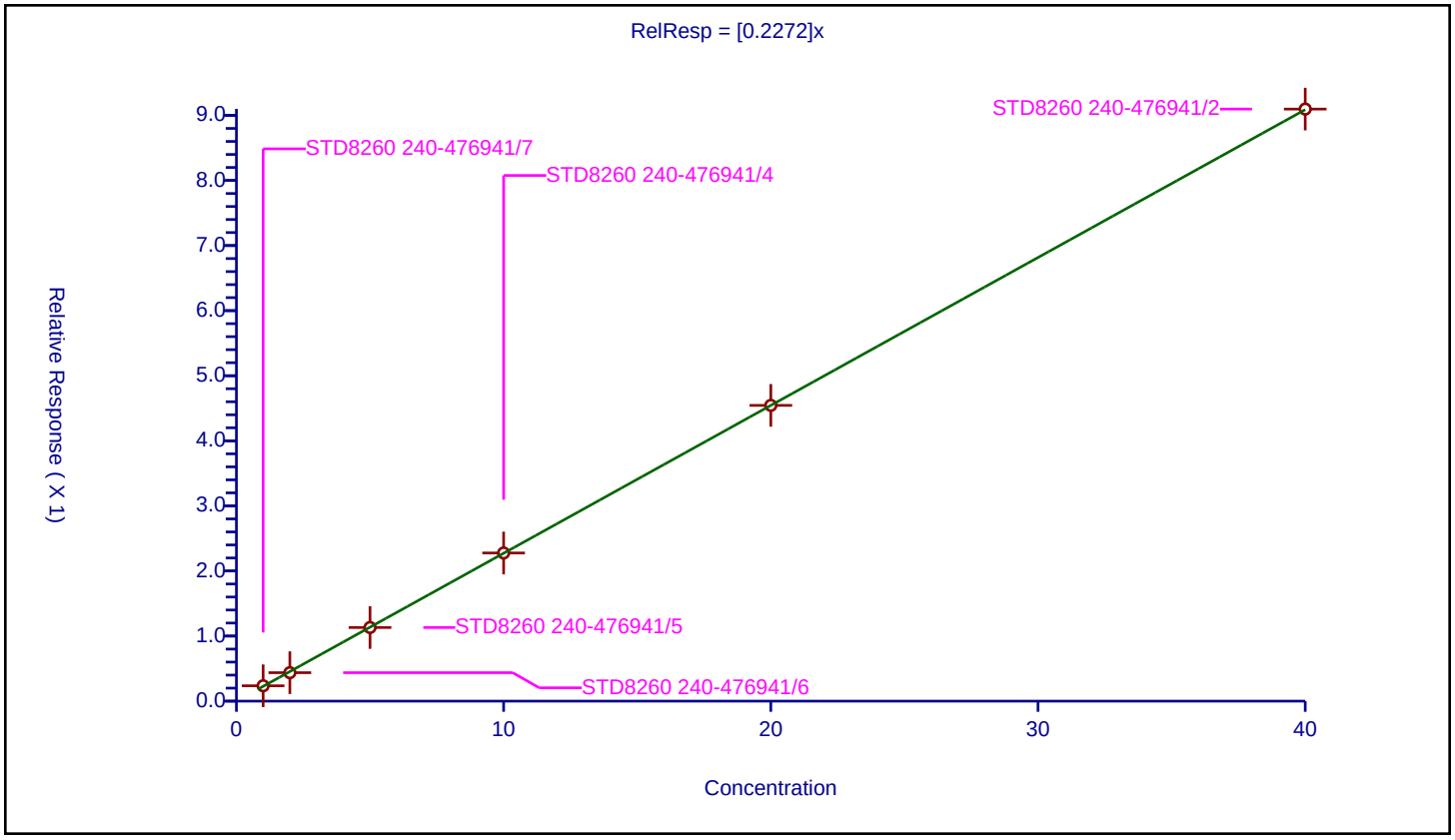
Curve Coefficients

Intercept:	0
Slope:	0.2272

Error Coefficients

Standard Error:	812000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.236049	10.0	1508502.0	0.236049	Y
2	STD8260 240-476941/6	2.0	0.43734	10.0	1600104.0	0.21867	Y
3	STD8260 240-476941/5	5.0	1.131405	10.0	1580769.0	0.226281	Y
4	STD8260 240-476941/4	10.0	2.276411	10.0	1635381.0	0.227641	Y
5	STD8260 240-476941/3	20.0	4.544419	10.0	1729200.0	0.227221	Y
6	STD8260 240-476941/2	40.0	9.097121	10.0	1738218.0	0.227428	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

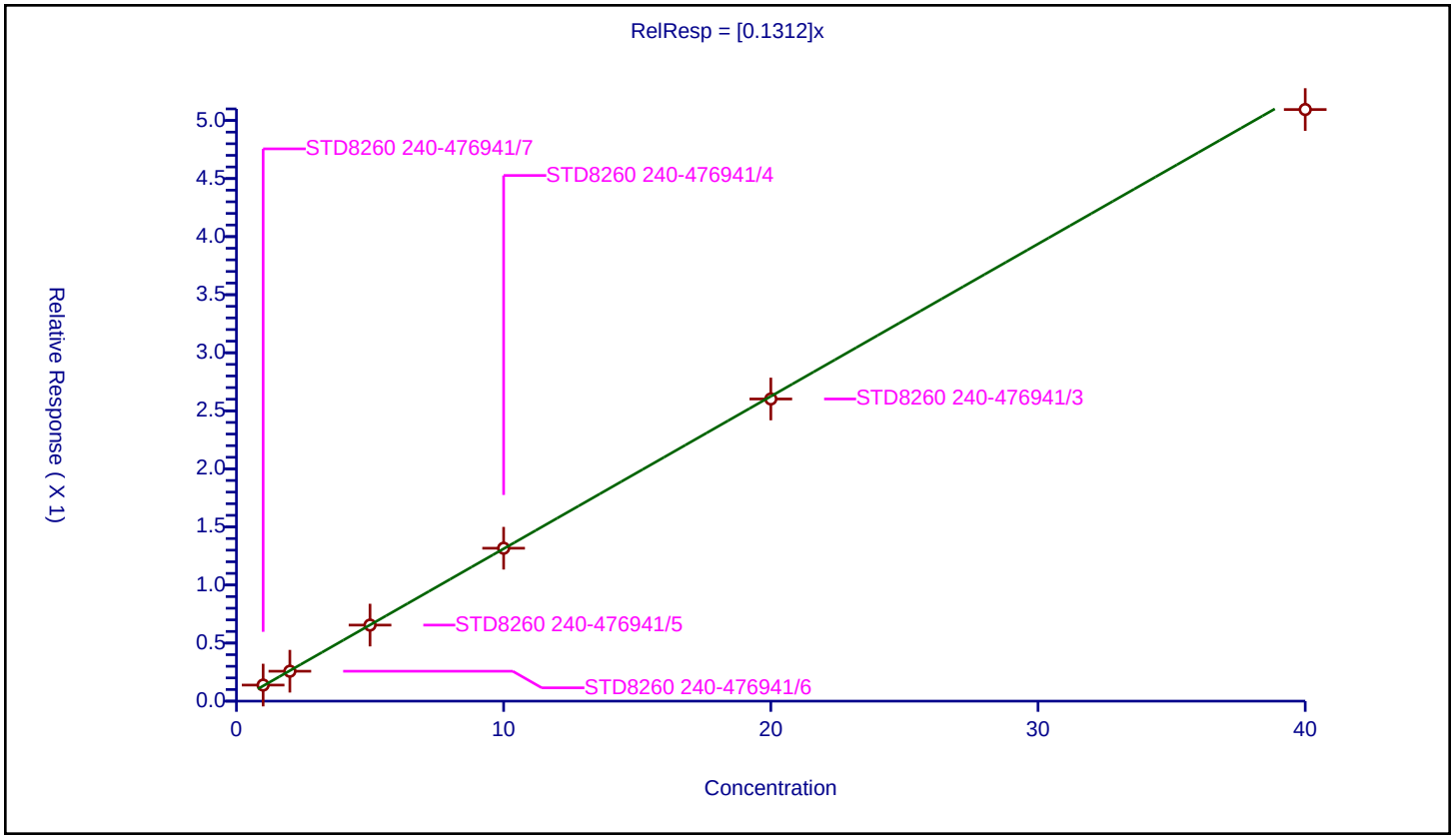
Curve Coefficients

Intercept:	0
Slope:	0.1312

Error Coefficients

Standard Error:	457000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.138382	10.0	1508502.0	0.138382	Y
2	STD8260 240-476941/6	2.0	0.257752	10.0	1600104.0	0.128876	Y
3	STD8260 240-476941/5	5.0	0.654998	10.0	1580769.0	0.131	Y
4	STD8260 240-476941/4	10.0	1.316727	10.0	1635381.0	0.131673	Y
5	STD8260 240-476941/3	20.0	2.602001	10.0	1729200.0	0.1301	Y
6	STD8260 240-476941/2	40.0	5.094419	10.0	1738218.0	0.12736	Y



Calibration / 1,4-Dioxane

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

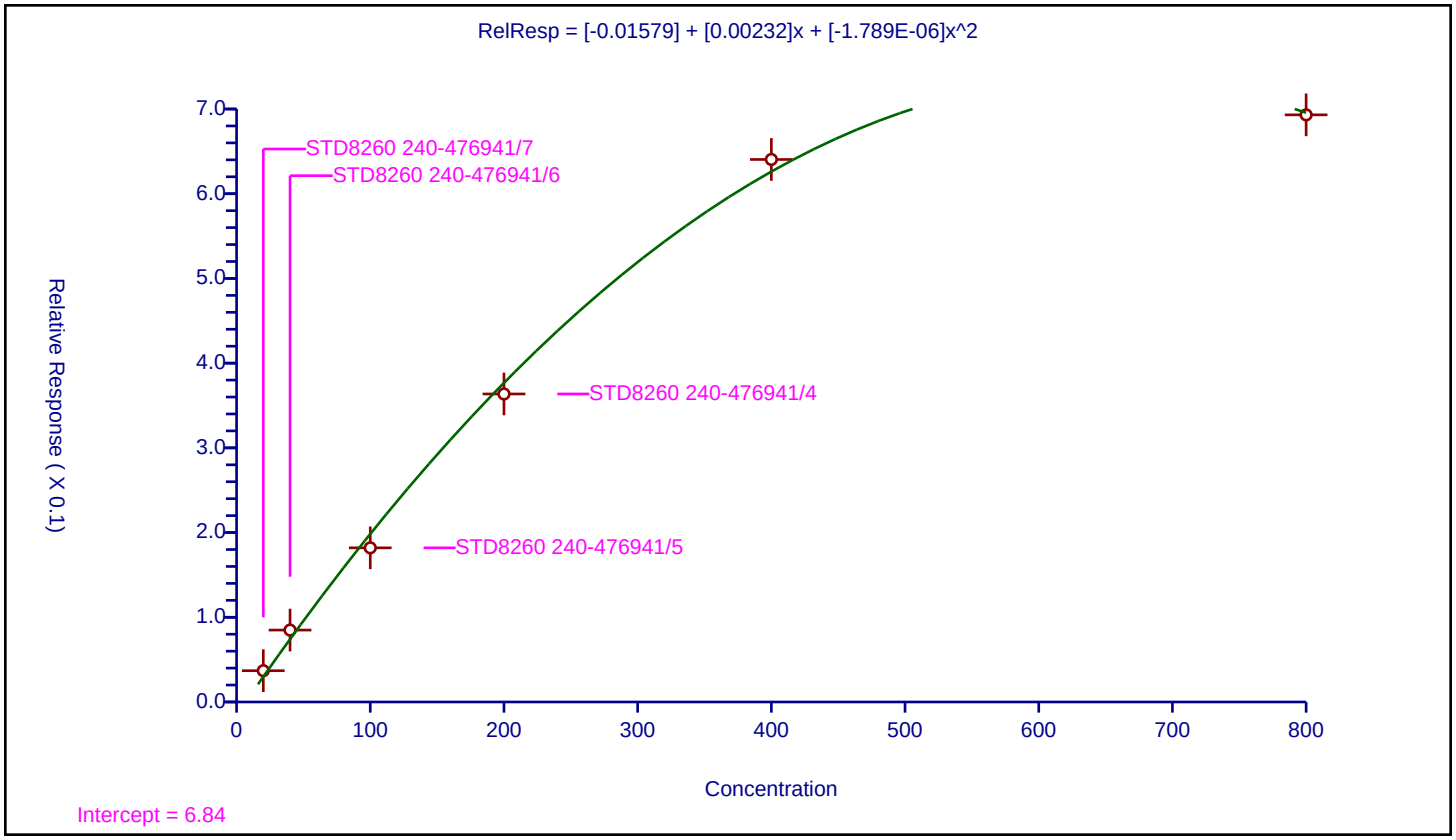
Curve Coefficients

Intercept:	-0.01579
Slope:	0.00232
Second Order:	-1.789E-06

Error Coefficients

Standard Error:	102000
Relative Standard Error:	25.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	20.0	0.036951	10.0	1508502.0	0.001848	Y
2	STD8260 240-476941/6	40.0	0.084882	10.0	1600104.0	0.002122	Y
3	STD8260 240-476941/5	100.0	0.181962	10.0	1580769.0	0.00182	Y
4	STD8260 240-476941/4	200.0	0.363603	10.0	1635381.0	0.001818	Y
5	STD8260 240-476941/3	400.0	0.640452	10.0	1729200.0	0.001601	Y
6	STD8260 240-476941/2	800.0	0.693095	10.0	1738218.0	0.000866	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

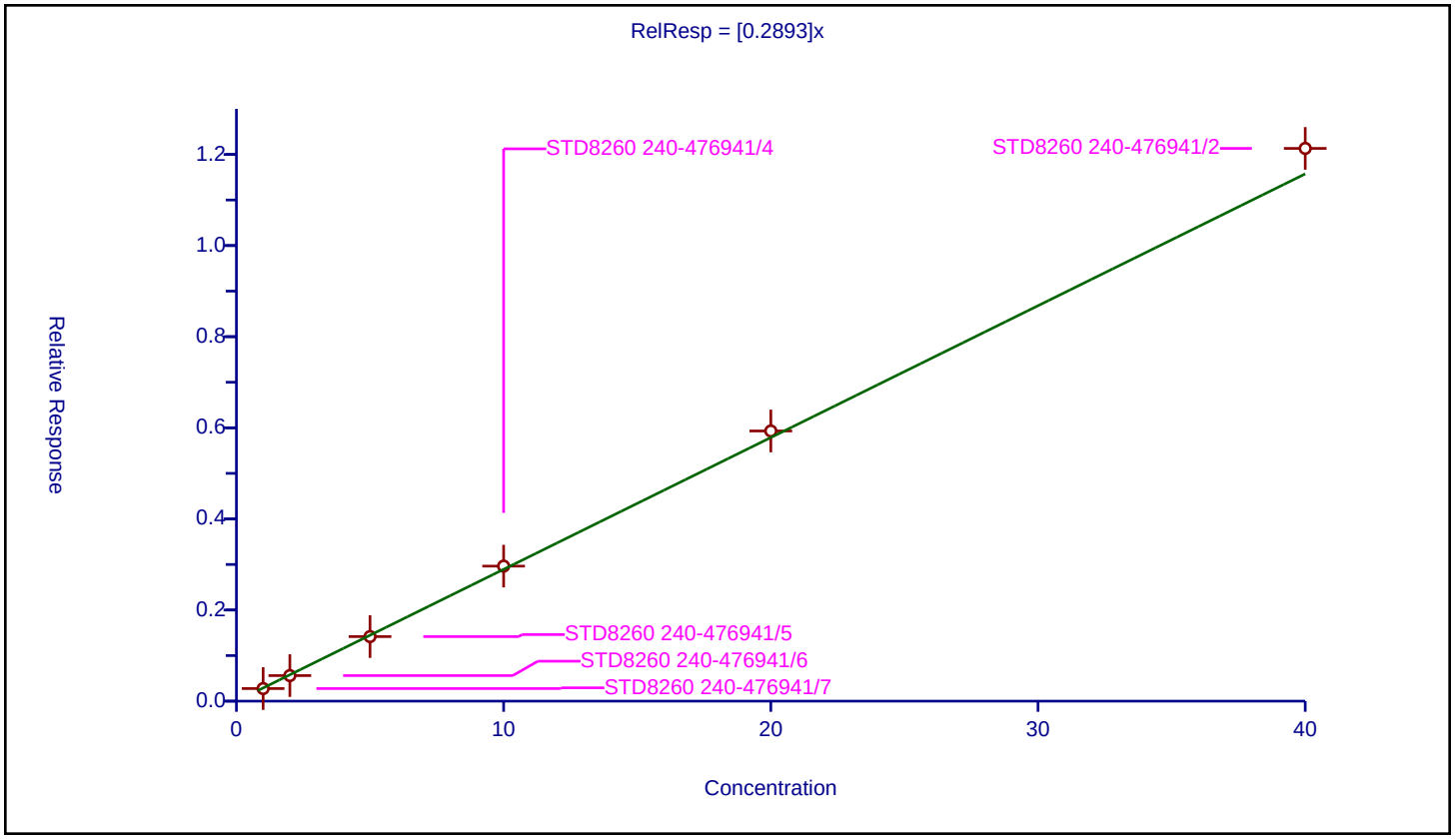
Curve Coefficients

Intercept:	0
Slope:	0.2893

Error Coefficients

Standard Error:	1080000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275943	10.0	1508502.0	0.275943	Y
2	STD8260 240-476941/6	2.0	0.560701	10.0	1600104.0	0.280351	Y
3	STD8260 240-476941/5	5.0	1.417076	10.0	1580769.0	0.283415	Y
4	STD8260 240-476941/4	10.0	2.96386	10.0	1635381.0	0.296386	Y
5	STD8260 240-476941/3	20.0	5.930344	10.0	1729200.0	0.296517	Y
6	STD8260 240-476941/2	40.0	12.132178	10.0	1738218.0	0.303304	Y



Calibration / 2-Chloroethyl vinyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

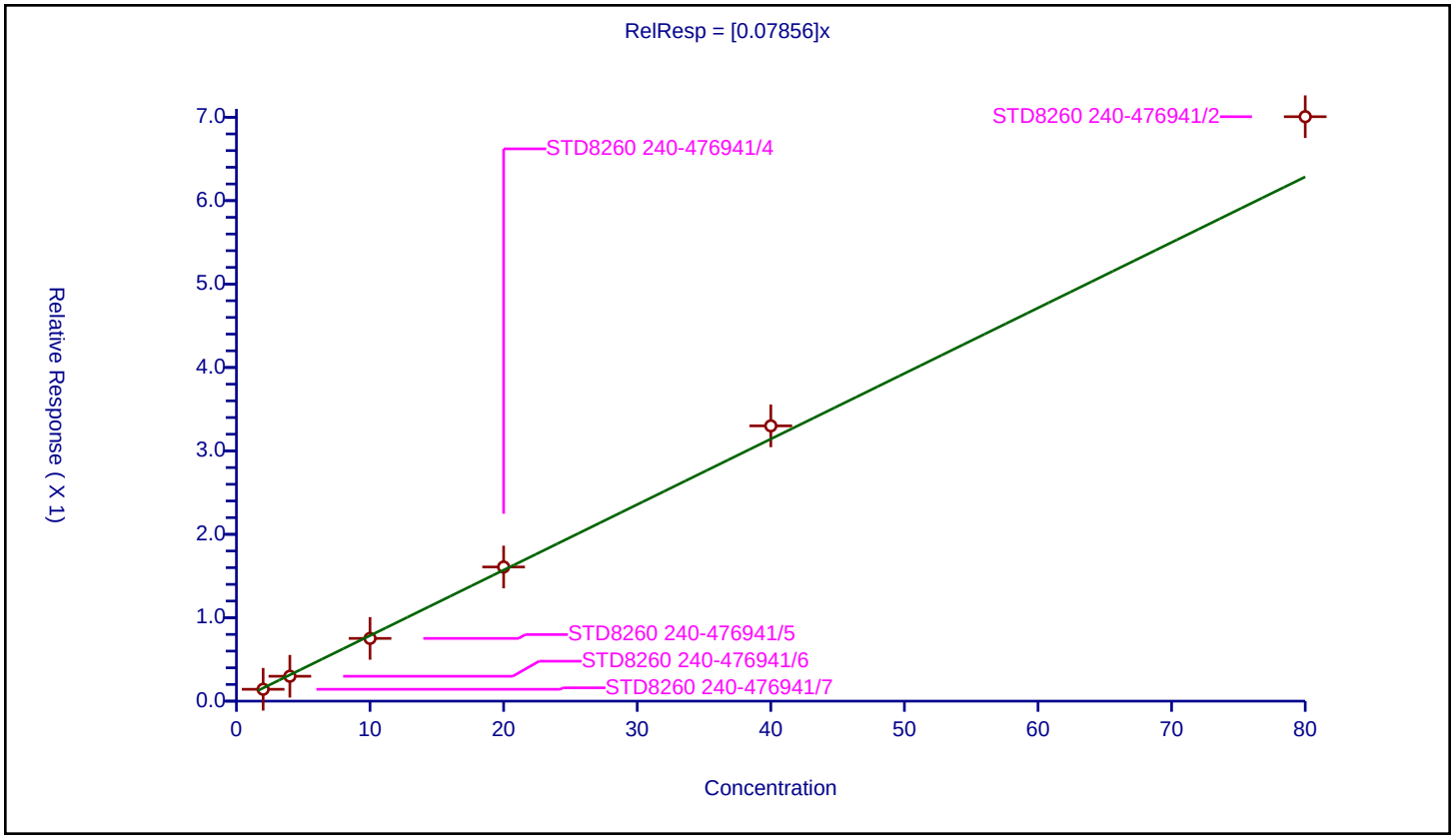
Curve Coefficients

Intercept:	0
Slope:	0.07856

Error Coefficients

Standard Error:	616000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.142141	10.0	1508502.0	0.071071	Y
2	STD8260 240-476941/6	4.0	0.298418	10.0	1600104.0	0.074605	Y
3	STD8260 240-476941/5	10.0	0.752172	10.0	1580769.0	0.075217	Y
4	STD8260 240-476941/4	20.0	1.608188	10.0	1635381.0	0.080409	Y
5	STD8260 240-476941/3	40.0	3.3	10.0	1729200.0	0.0825	Y
6	STD8260 240-476941/2	80.0	7.006474	10.0	1738218.0	0.087581	Y



Calibration / cis-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

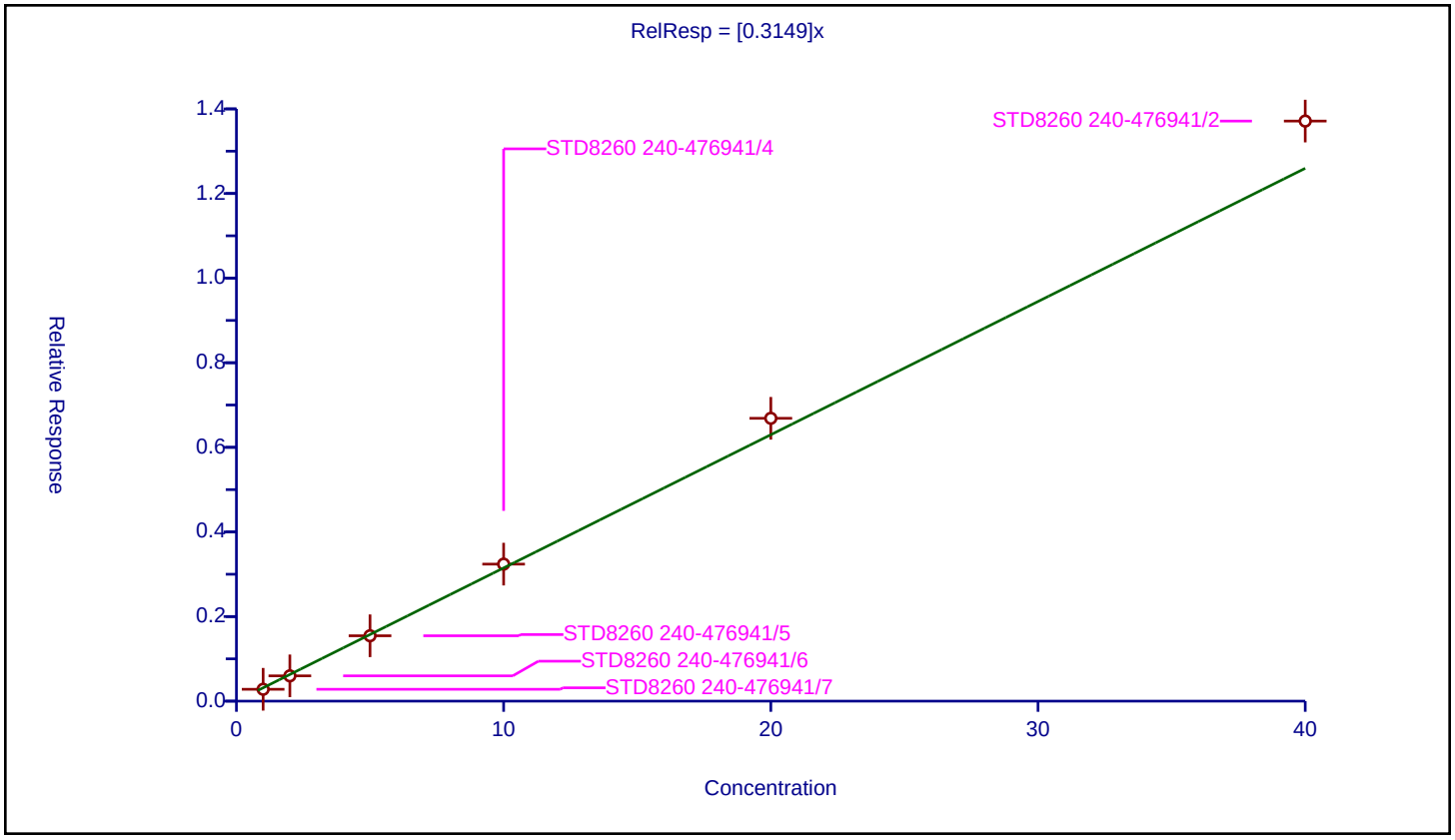
Curve Coefficients

Intercept:	0
Slope:	0.3149

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	7.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.280444	10.0	1508502.0	0.280444	Y
2	STD8260 240-476941/6	2.0	0.597624	10.0	1600104.0	0.298812	Y
3	STD8260 240-476941/5	5.0	1.545393	10.0	1580769.0	0.309079	Y
4	STD8260 240-476941/4	10.0	3.23897	10.0	1635381.0	0.323897	Y
5	STD8260 240-476941/3	20.0	6.68608	10.0	1729200.0	0.334304	Y
6	STD8260 240-476941/2	40.0	13.7124	10.0	1738218.0	0.34281	Y



Calibration / 4-Methyl-2-pentanone (MIBK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

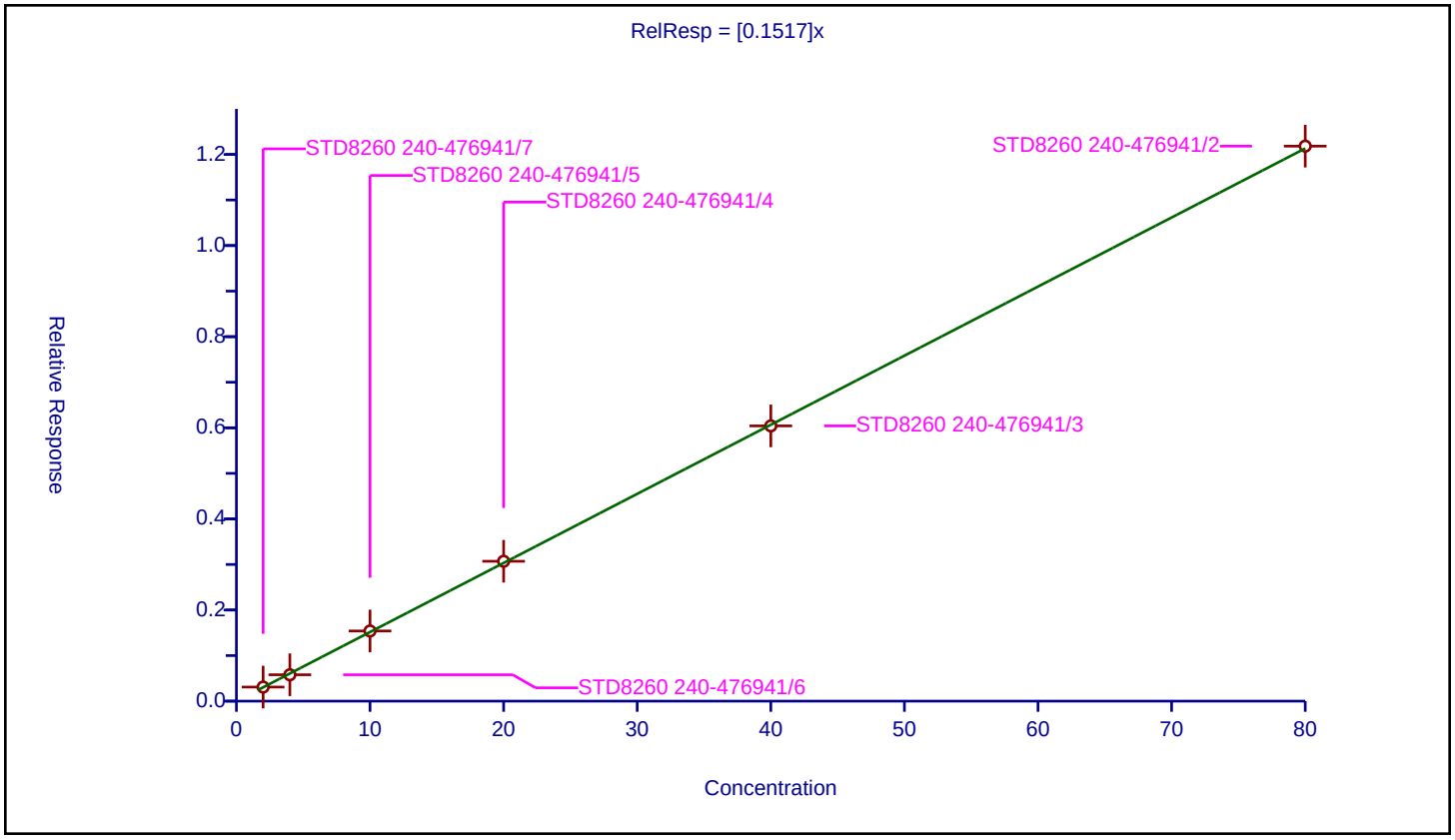
Curve Coefficients

Intercept:	0
Slope:	0.1517

Error Coefficients

Standard Error:	1090000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.308737	10.0	1508502.0	0.154368	Y
2	STD8260 240-476941/6	4.0	0.578775	10.0	1600104.0	0.144694	Y
3	STD8260 240-476941/5	10.0	1.540377	10.0	1580769.0	0.154038	Y
4	STD8260 240-476941/4	20.0	3.070379	10.0	1635381.0	0.153519	Y
5	STD8260 240-476941/3	40.0	6.041701	10.0	1729200.0	0.151043	Y
6	STD8260 240-476941/2	80.0	12.182051	10.0	1738218.0	0.152276	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

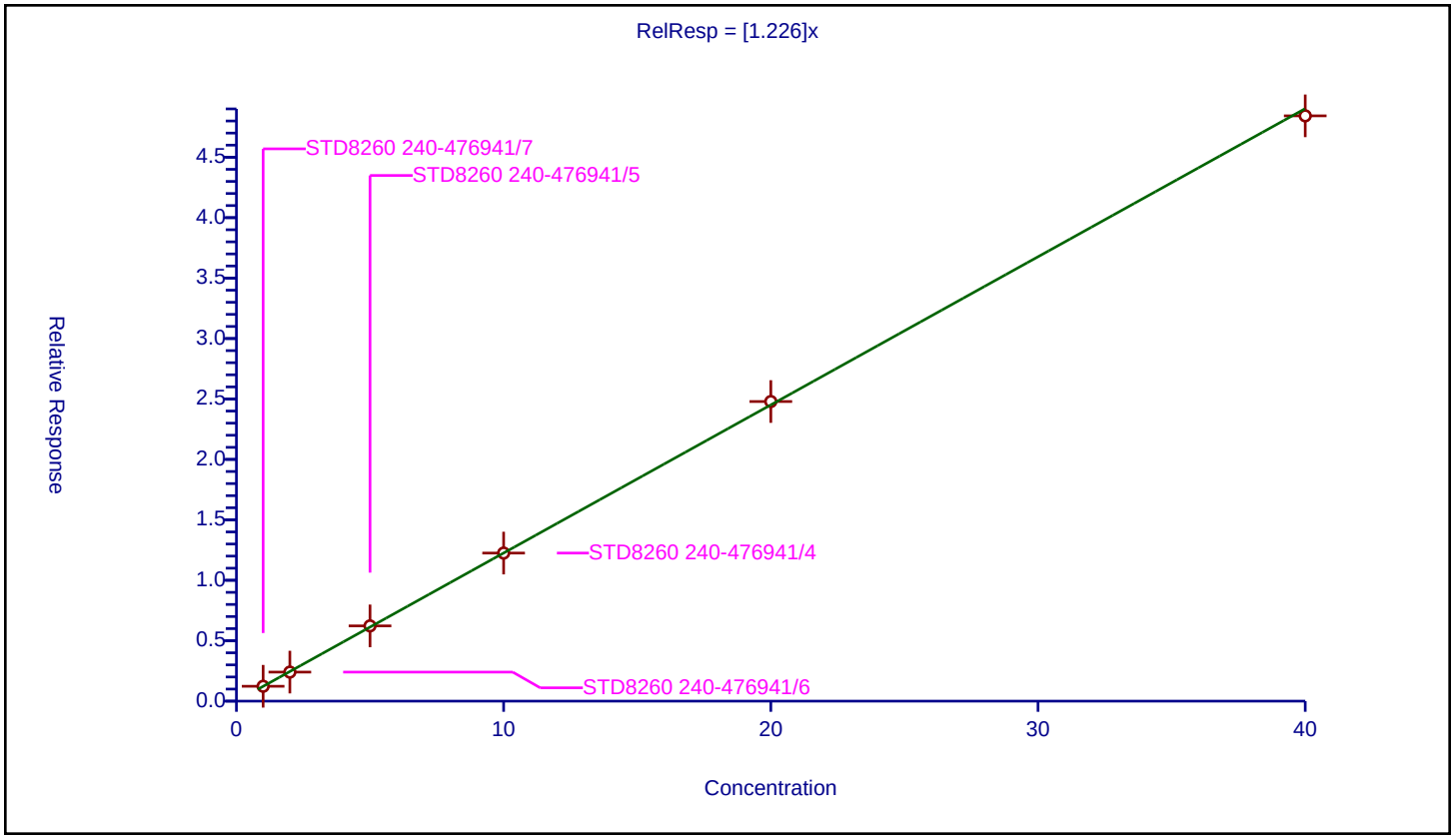
Curve Coefficients

Intercept:	0
Slope:	1.226

Error Coefficients

Standard Error:	2920000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.230869	10.0	1005314.0	1.230869	Y
2	STD8260 240-476941/6	2.0	2.4038	10.0	1025239.0	1.2019	Y
3	STD8260 240-476941/5	5.0	6.226562	10.0	1036230.0	1.245312	Y
4	STD8260 240-476941/4	10.0	12.24994	10.0	1083691.0	1.224994	Y
5	STD8260 240-476941/3	20.0	24.788912	10.0	1129906.0	1.239446	Y
6	STD8260 240-476941/2	40.0	48.424259	10.0	1176310.0	1.210606	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

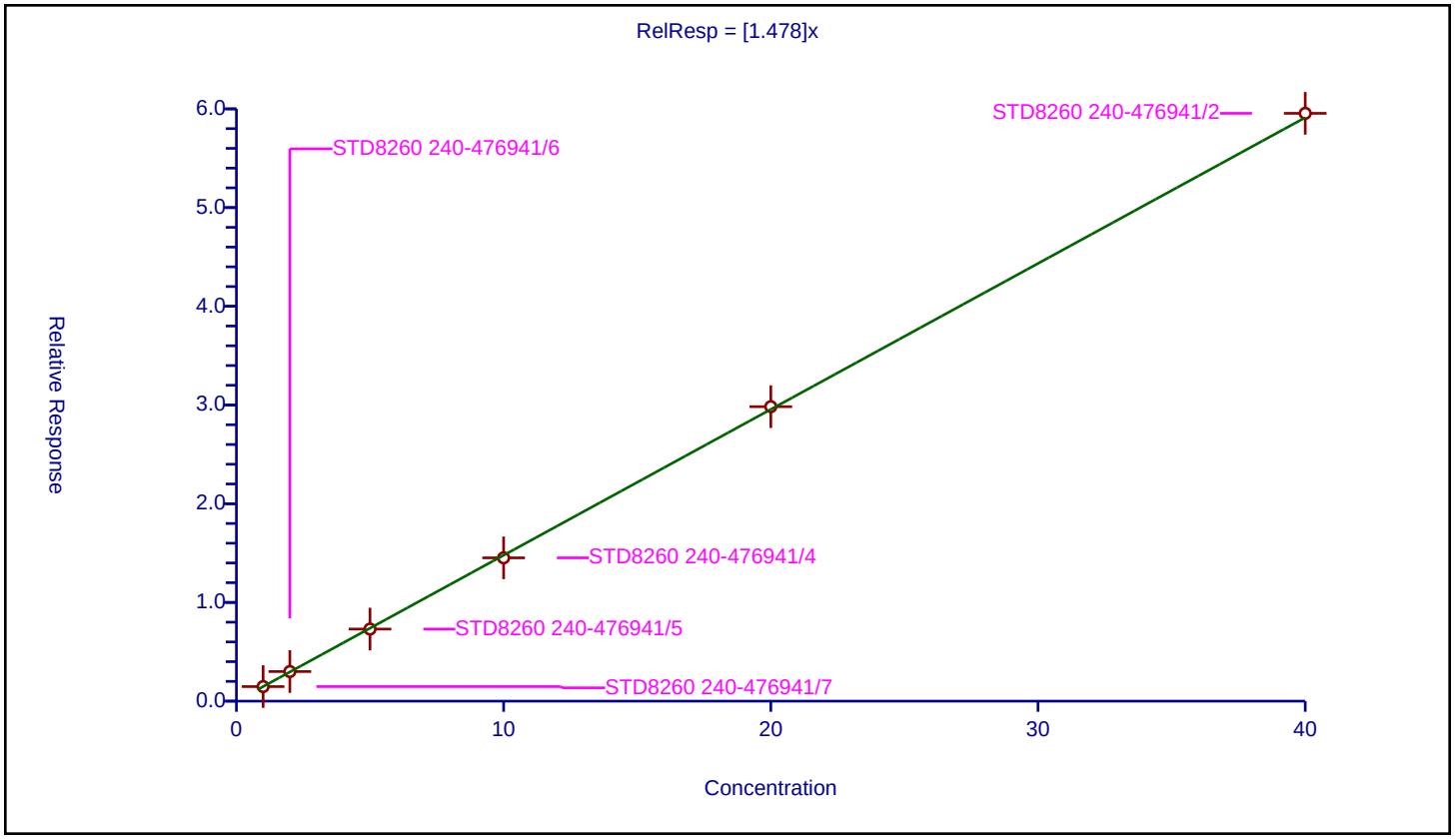
Curve Coefficients

Intercept:	0
Slope:	1.478

Error Coefficients

Standard Error:	3570000
Relative Standard Error:	1.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.474942	10.0	1005314.0	1.474942	Y
2	STD8260 240-476941/6	2.0	3.000208	10.0	1025239.0	1.500104	Y
3	STD8260 240-476941/5	5.0	7.30196	10.0	1036230.0	1.460392	Y
4	STD8260 240-476941/4	10.0	14.518484	10.0	1083691.0	1.451848	Y
5	STD8260 240-476941/3	20.0	29.834243	10.0	1129906.0	1.491712	Y
6	STD8260 240-476941/2	40.0	59.548503	10.0	1176310.0	1.488713	Y



Calibration / trans-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

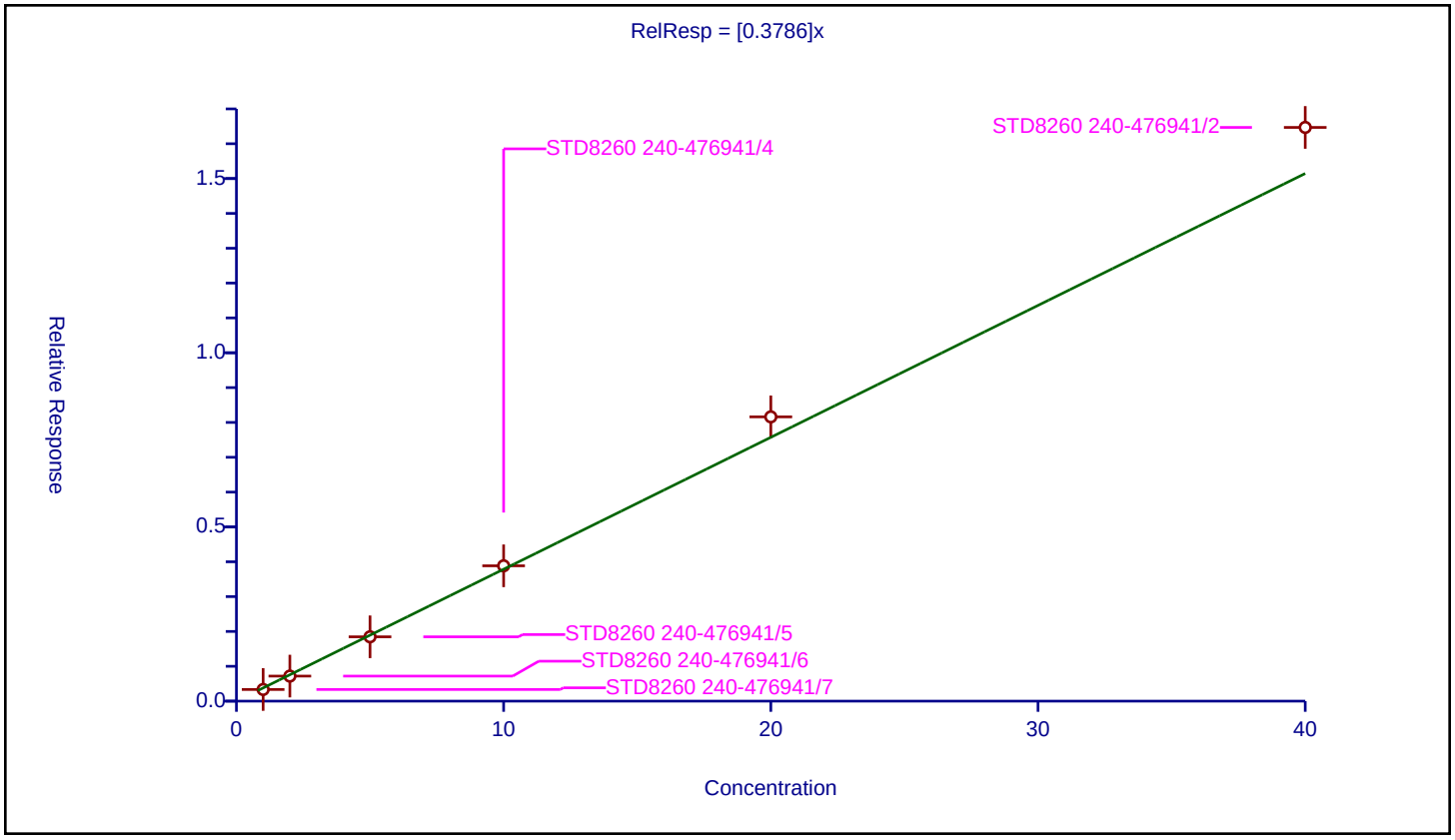
Curve Coefficients

Intercept:	0
Slope:	0.3786

Error Coefficients

Standard Error:	982000
Relative Standard Error:	7.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.334652	10.0	1005314.0	0.334652	Y
2	STD8260 240-476941/6	2.0	0.719237	10.0	1025239.0	0.359619	Y
3	STD8260 240-476941/5	5.0	1.846771	10.0	1036230.0	0.369354	Y
4	STD8260 240-476941/4	10.0	3.884714	10.0	1083691.0	0.388471	Y
5	STD8260 240-476941/3	20.0	8.160343	10.0	1129906.0	0.408017	Y
6	STD8260 240-476941/2	40.0	16.46764	10.0	1176310.0	0.411691	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

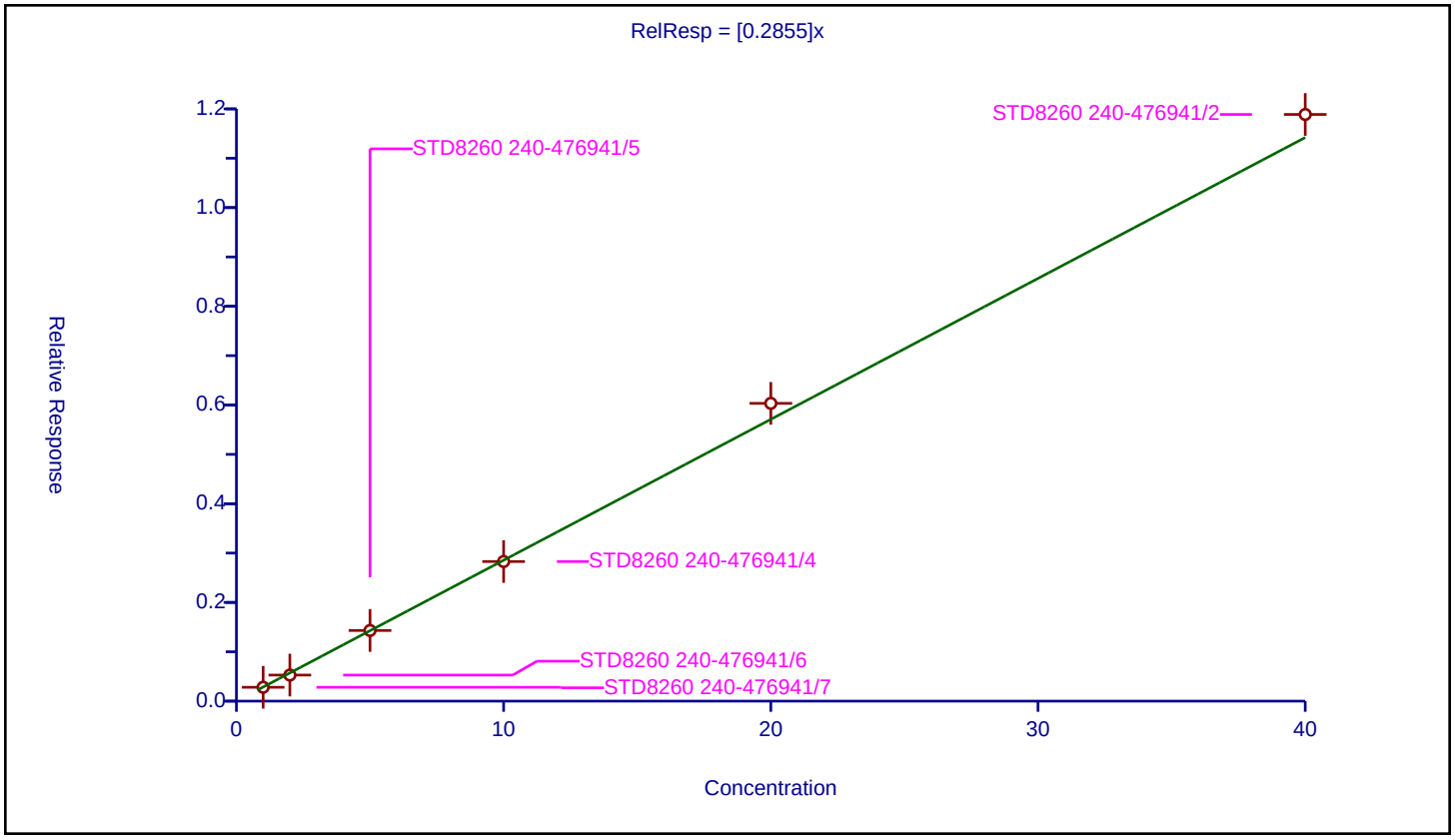
Curve Coefficients

Intercept:	0
Slope:	0.2855

Error Coefficients

Standard Error:	713000
Relative Standard Error:	4.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.280858	10.0	1005314.0	0.280858	Y
2	STD8260 240-476941/6	2.0	0.528218	10.0	1025239.0	0.264109	Y
3	STD8260 240-476941/5	5.0	1.431671	10.0	1036230.0	0.286334	Y
4	STD8260 240-476941/4	10.0	2.828435	10.0	1083691.0	0.282844	Y
5	STD8260 240-476941/3	20.0	6.033679	10.0	1129906.0	0.301684	Y
6	STD8260 240-476941/2	40.0	11.887045	10.0	1176310.0	0.297176	Y



Calibration / 1,1,2-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

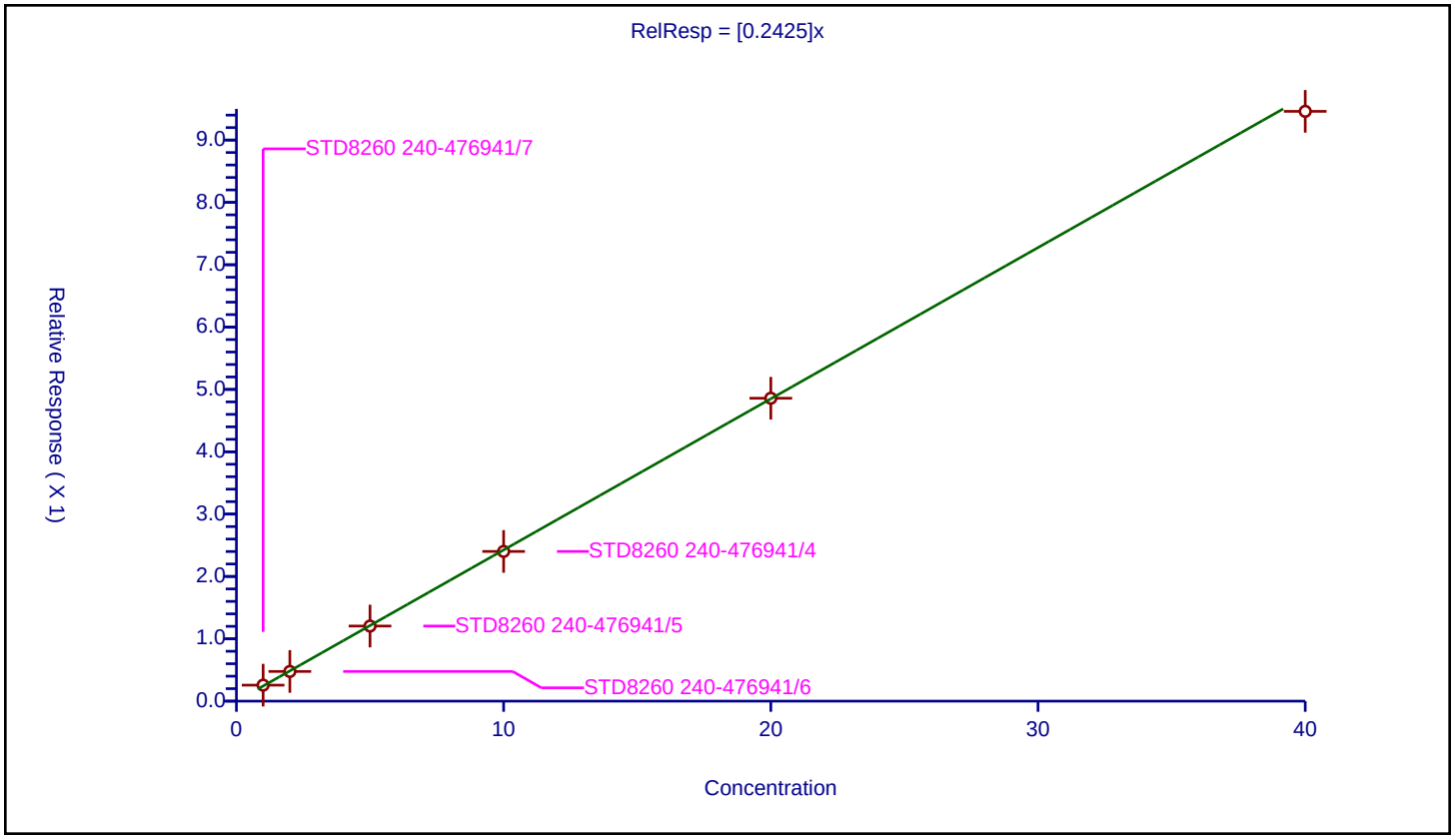
Curve Coefficients

Intercept:	0
Slope:	0.2425

Error Coefficients

Standard Error:	570000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.256338	10.0	1005314.0	0.256338	Y
2	STD8260 240-476941/6	2.0	0.476347	10.0	1025239.0	0.238174	Y
3	STD8260 240-476941/5	5.0	1.204549	10.0	1036230.0	0.24091	Y
4	STD8260 240-476941/4	10.0	2.401256	10.0	1083691.0	0.240126	Y
5	STD8260 240-476941/3	20.0	4.858829	10.0	1129906.0	0.242941	Y
6	STD8260 240-476941/2	40.0	9.460516	10.0	1176310.0	0.236513	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

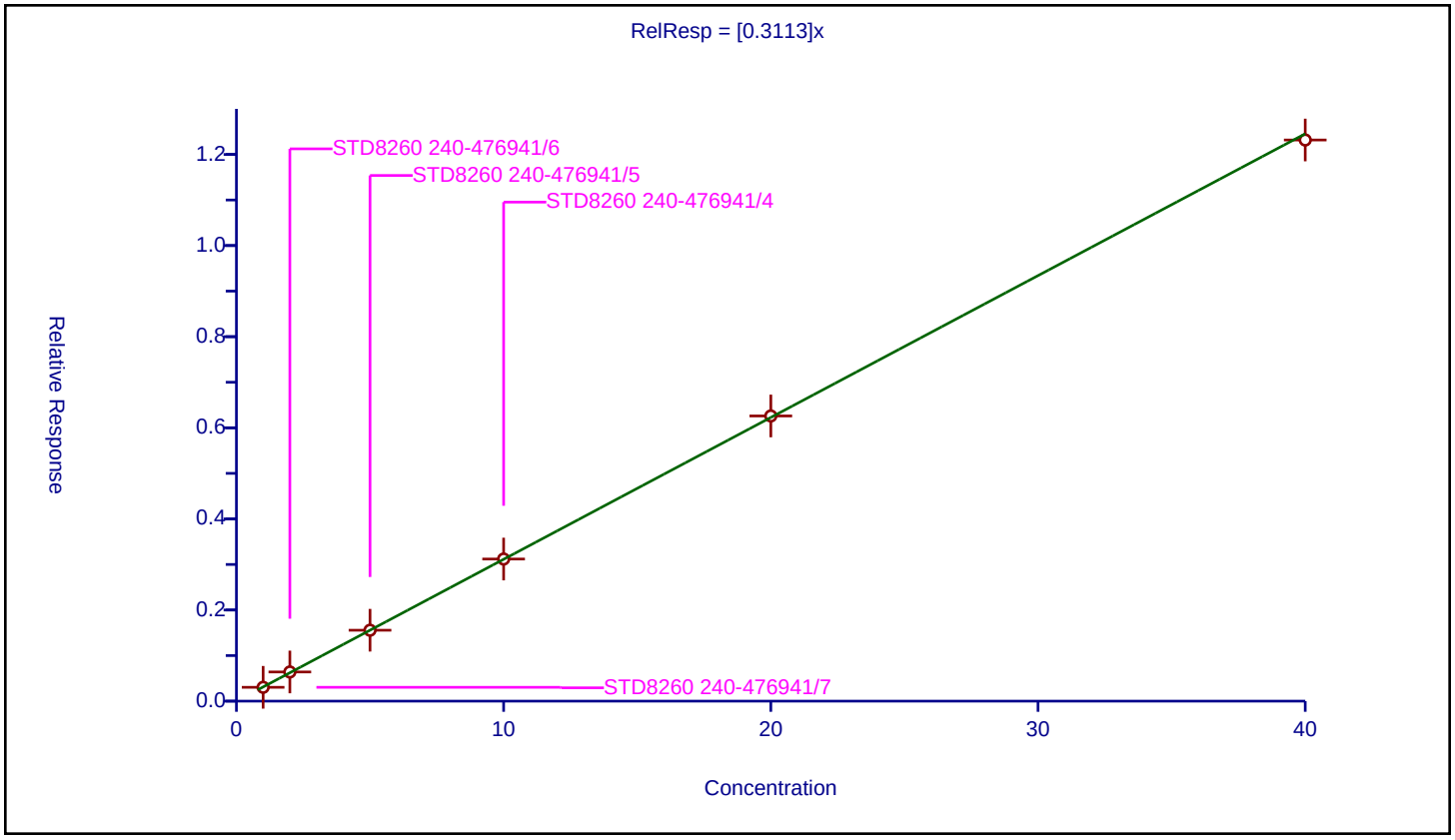
Curve Coefficients

Intercept:	0
Slope:	0.3113

Error Coefficients

Standard Error:	741000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.303716	10.0	1005314.0	0.303716	Y
2	STD8260 240-476941/6	2.0	0.640251	10.0	1025239.0	0.320125	Y
3	STD8260 240-476941/5	5.0	1.556739	10.0	1036230.0	0.311348	Y
4	STD8260 240-476941/4	10.0	3.119349	10.0	1083691.0	0.311935	Y
5	STD8260 240-476941/3	20.0	6.259972	10.0	1129906.0	0.312999	Y
6	STD8260 240-476941/2	40.0	12.317076	10.0	1176310.0	0.307927	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

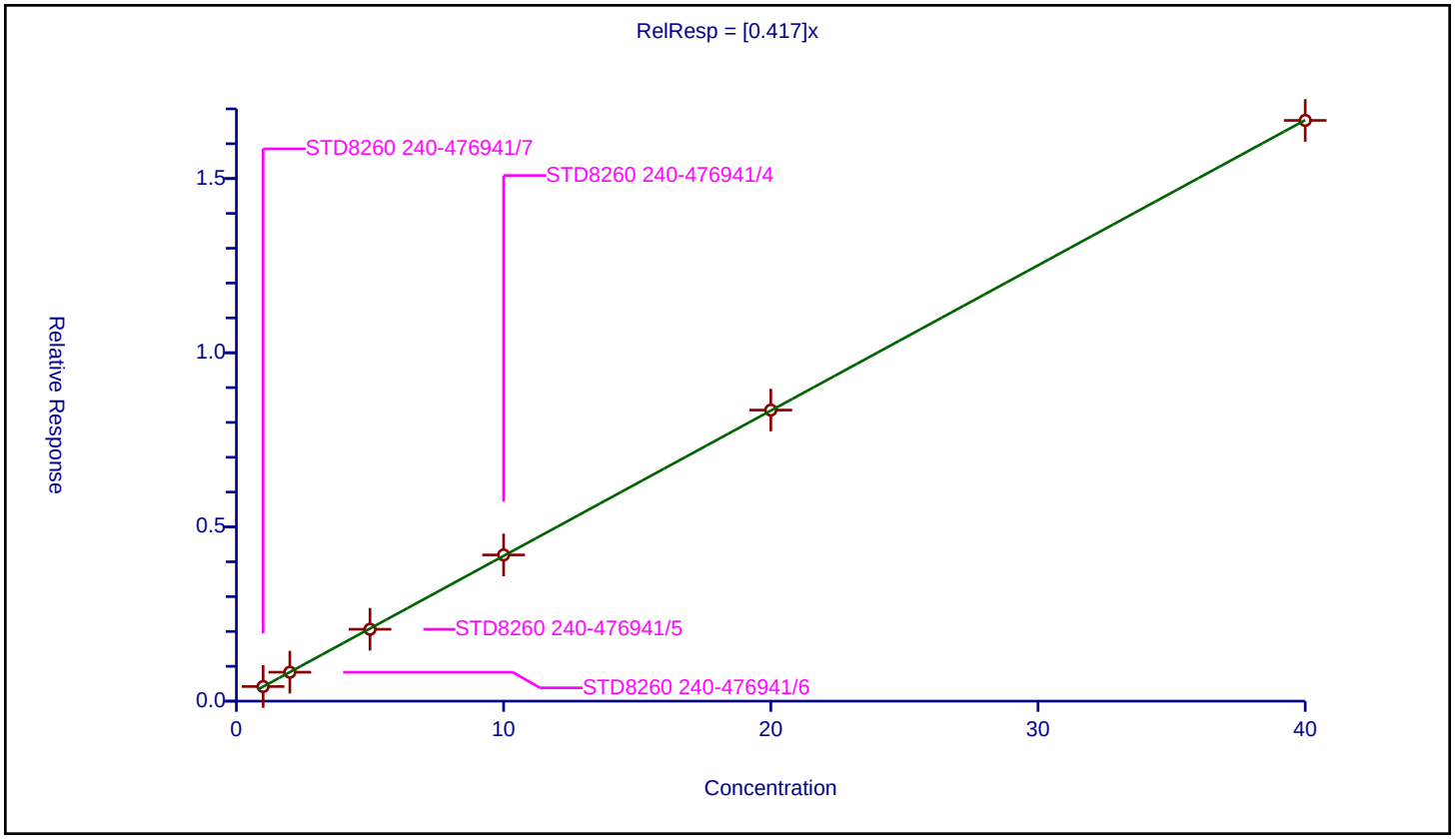
Curve Coefficients

Intercept:	0
Slope:	0.417

Error Coefficients

Standard Error:	1000000
Relative Standard Error:	0.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.41974	10.0	1005314.0	0.41974	Y
2	STD8260 240-476941/6	2.0	0.830509	10.0	1025239.0	0.415254	Y
3	STD8260 240-476941/5	5.0	2.063326	10.0	1036230.0	0.412665	Y
4	STD8260 240-476941/4	10.0	4.196418	10.0	1083691.0	0.419642	Y
5	STD8260 240-476941/3	20.0	8.354545	10.0	1129906.0	0.417727	Y
6	STD8260 240-476941/2	40.0	16.668735	10.0	1176310.0	0.416718	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

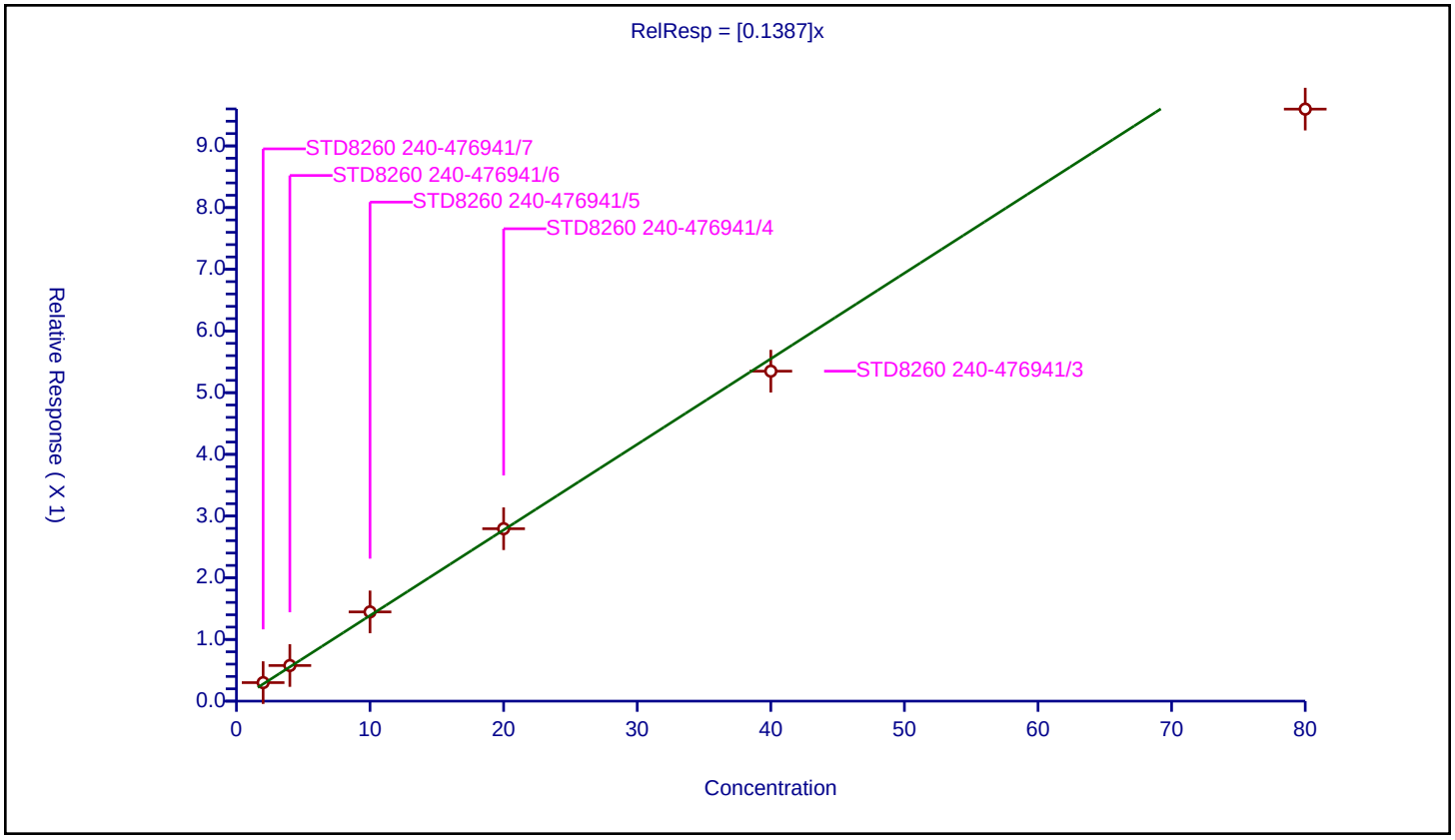
Curve Coefficients

Intercept:	0
Slope:	0.1387

Error Coefficients

Standard Error:	593000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.300175	10.0	1005314.0	0.150087	Y
2	STD8260 240-476941/6	4.0	0.577309	10.0	1025239.0	0.144327	Y
3	STD8260 240-476941/5	10.0	1.446436	10.0	1036230.0	0.144644	Y
4	STD8260 240-476941/4	20.0	2.794736	10.0	1083691.0	0.139737	Y
5	STD8260 240-476941/3	40.0	5.348657	10.0	1129906.0	0.133716	Y
6	STD8260 240-476941/2	80.0	9.596441	10.0	1176310.0	0.119956	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

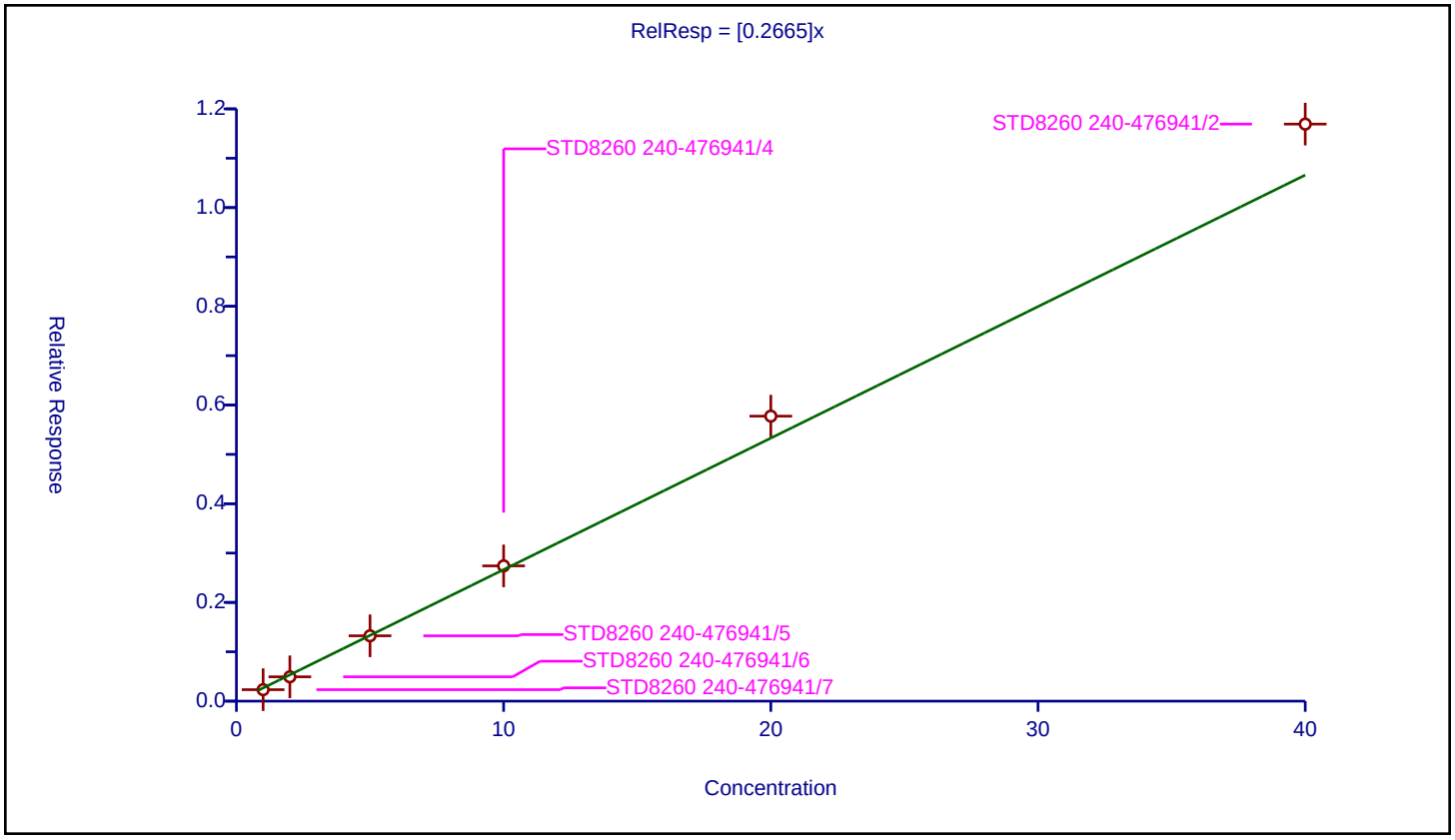
Curve Coefficients

Intercept:	0
Slope:	0.2665

Error Coefficients

Standard Error:	697000
Relative Standard Error:	8.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.232335	10.0	1005314.0	0.232335	Y
2	STD8260 240-476941/6	2.0	0.493056	10.0	1025239.0	0.246528	Y
3	STD8260 240-476941/5	5.0	1.324272	10.0	1036230.0	0.264854	Y
4	STD8260 240-476941/4	10.0	2.740781	10.0	1083691.0	0.274078	Y
5	STD8260 240-476941/3	20.0	5.774799	10.0	1129906.0	0.28874	Y
6	STD8260 240-476941/2	40.0	11.69179	10.0	1176310.0	0.292295	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

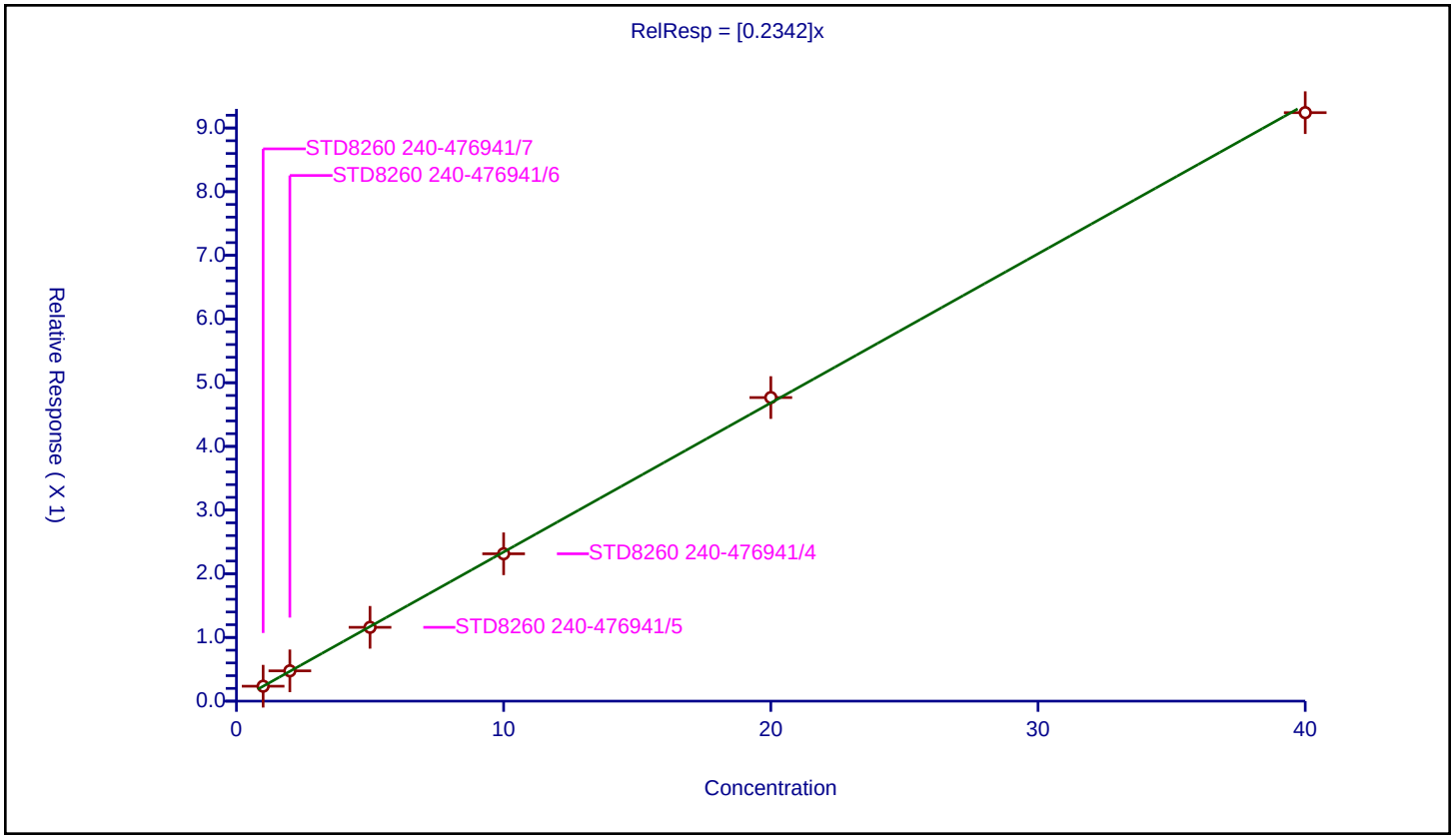
Curve Coefficients

Intercept:	0
Slope:	0.2342

Error Coefficients

Standard Error:	557000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.234434	10.0	1005314.0	0.234434	Y
2	STD8260 240-476941/6	2.0	0.475831	10.0	1025239.0	0.237915	Y
3	STD8260 240-476941/5	5.0	1.159009	10.0	1036230.0	0.231802	Y
4	STD8260 240-476941/4	10.0	2.313713	10.0	1083691.0	0.231371	Y
5	STD8260 240-476941/3	20.0	4.767131	10.0	1129906.0	0.238357	Y
6	STD8260 240-476941/2	40.0	9.240914	10.0	1176310.0	0.231023	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

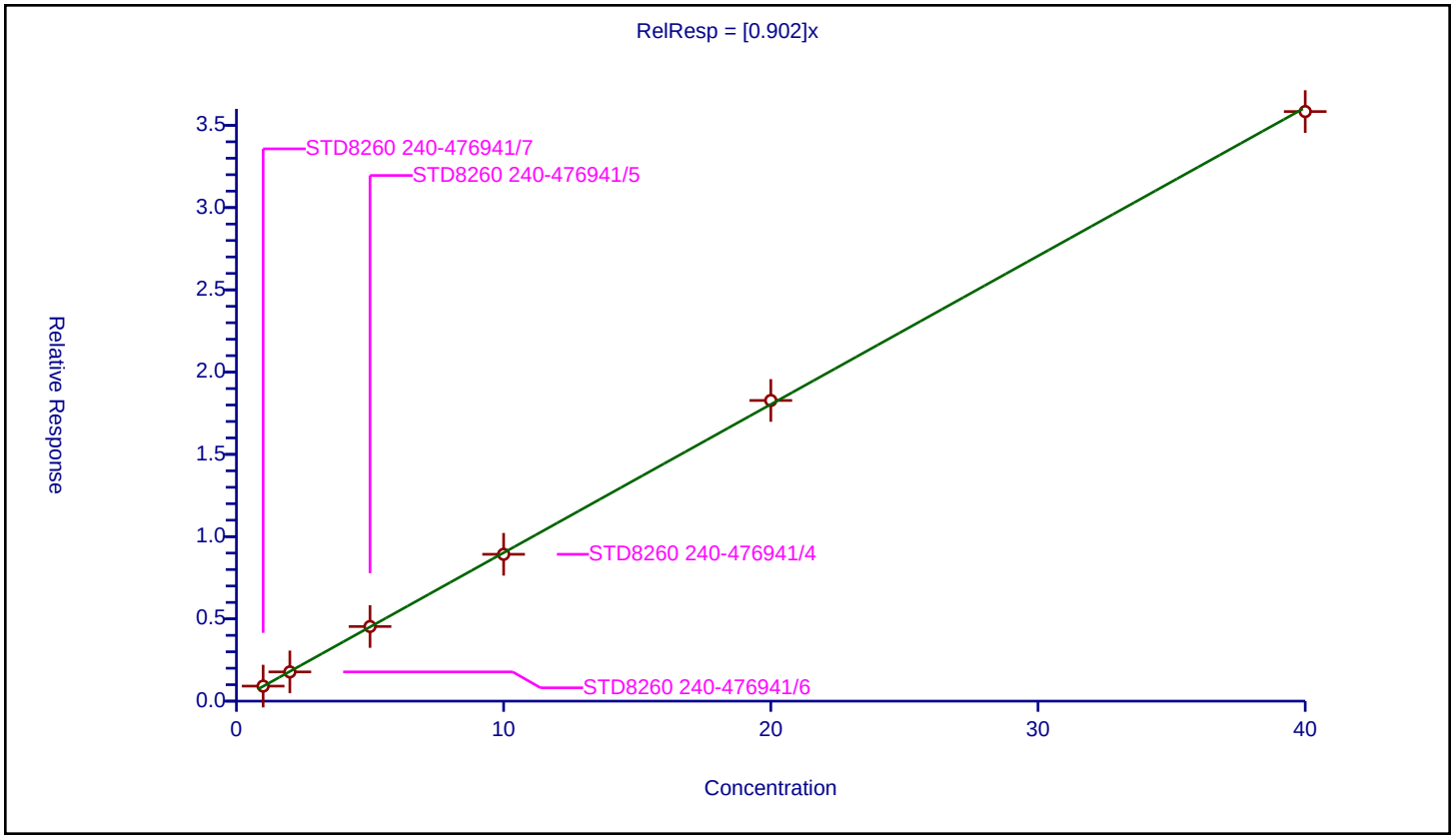
Curve Coefficients

Intercept:	0
Slope:	0.902

Error Coefficients

Standard Error:	2160000
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.913565	10.0	1005314.0	0.913565	Y
2	STD8260 240-476941/6	2.0	1.777293	10.0	1025239.0	0.888646	Y
3	STD8260 240-476941/5	5.0	4.536396	10.0	1036230.0	0.907279	Y
4	STD8260 240-476941/4	10.0	8.926244	10.0	1083691.0	0.892624	Y
5	STD8260 240-476941/3	20.0	18.276565	10.0	1129906.0	0.913828	Y
6	STD8260 240-476941/2	40.0	35.837526	10.0	1176310.0	0.895938	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

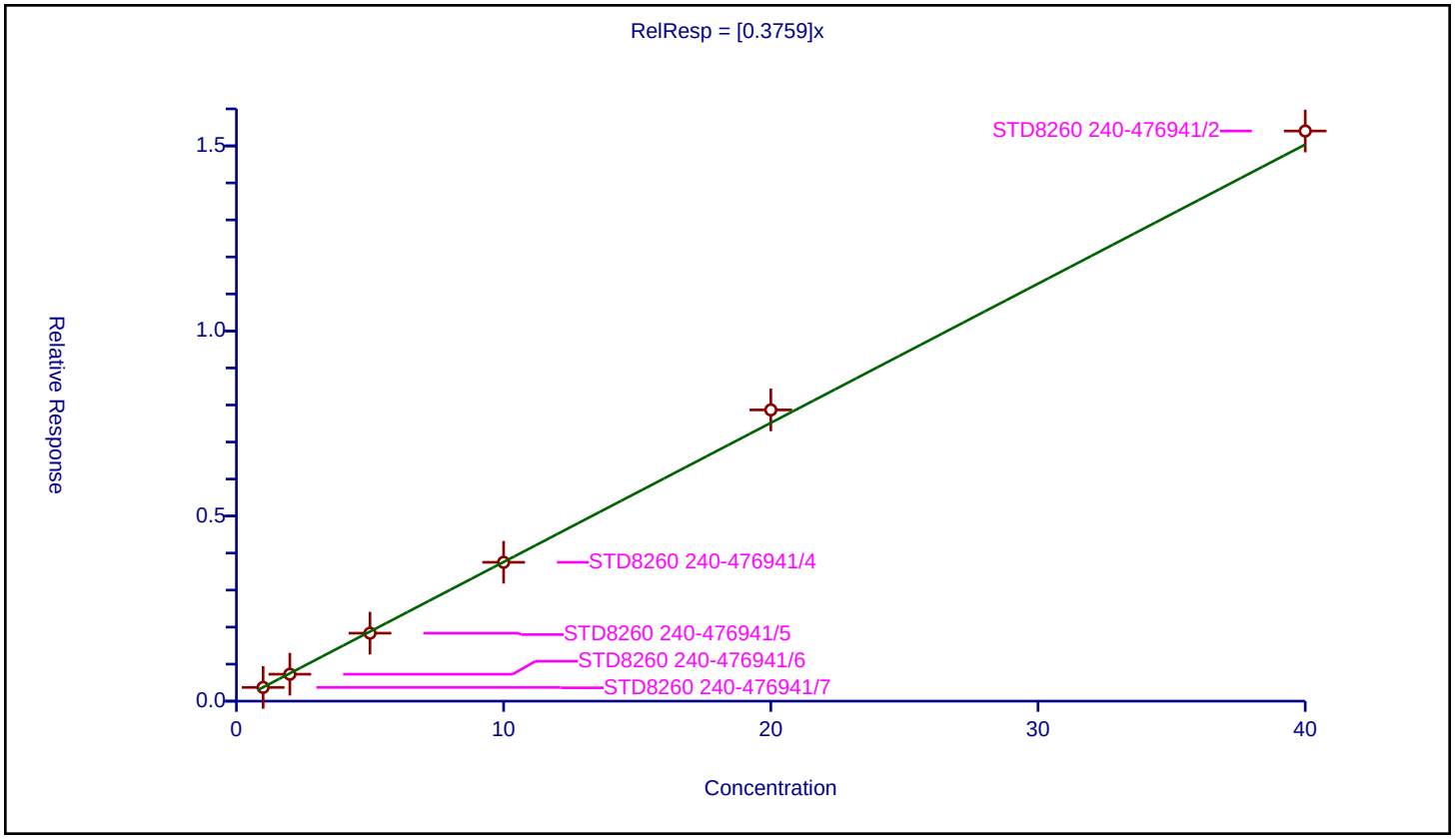
Curve Coefficients

Intercept:	0
Slope:	0.3759

Error Coefficients

Standard Error:	925000
Relative Standard Error:	3.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.370859	10.0	1005314.0	0.370859	Y
2	STD8260 240-476941/6	2.0	0.72745	10.0	1025239.0	0.363725	Y
3	STD8260 240-476941/5	5.0	1.836282	10.0	1036230.0	0.367256	Y
4	STD8260 240-476941/4	10.0	3.751632	10.0	1083691.0	0.375163	Y
5	STD8260 240-476941/3	20.0	7.867761	10.0	1129906.0	0.393388	Y
6	STD8260 240-476941/2	40.0	15.401977	10.0	1176310.0	0.385049	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

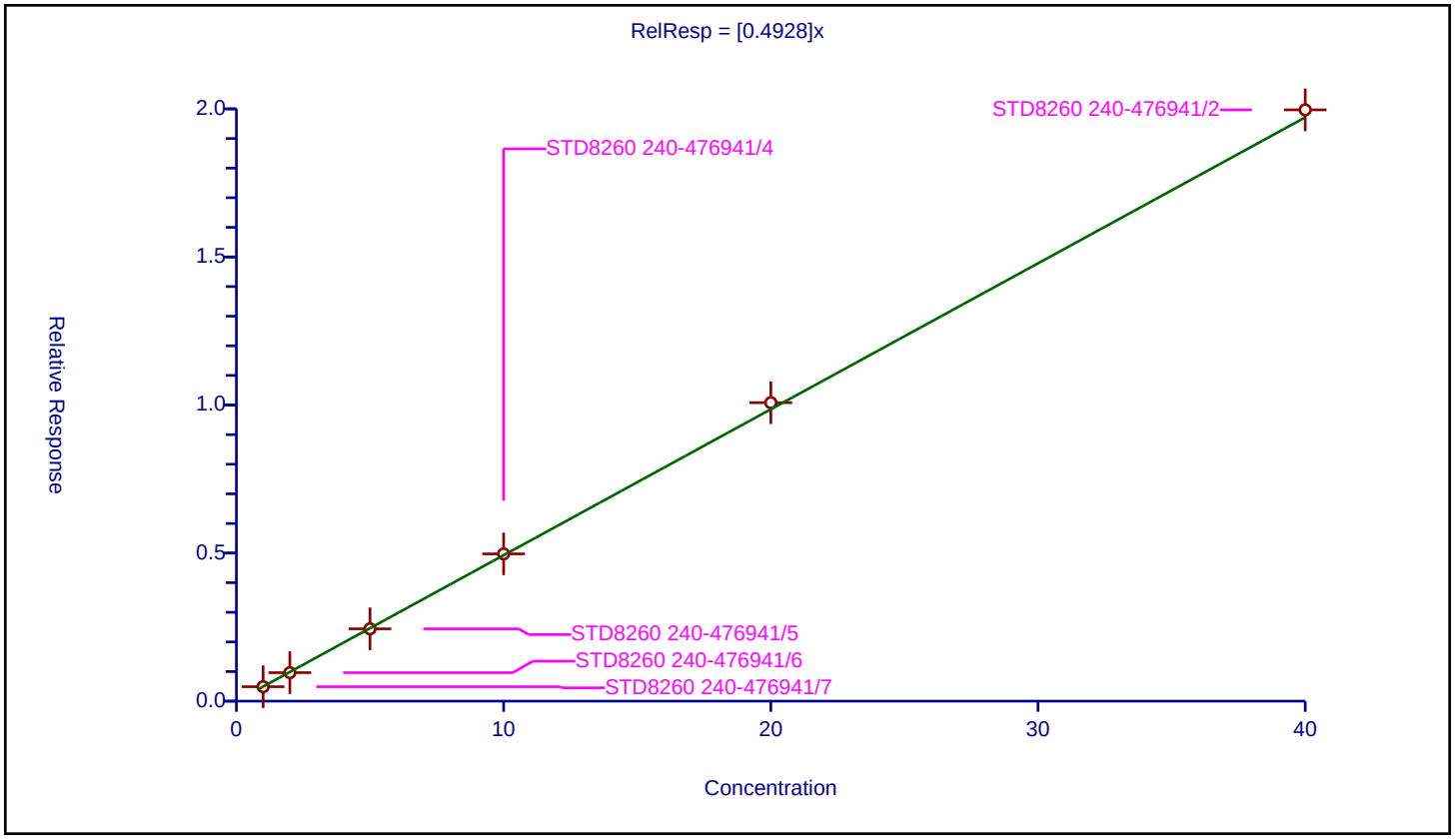
Curve Coefficients

Intercept:	0
Slope:	0.4928

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.486932	10.0	1005314.0	0.486932	Y
2	STD8260 240-476941/6	2.0	0.962254	10.0	1025239.0	0.481127	Y
3	STD8260 240-476941/5	5.0	2.442151	10.0	1036230.0	0.48843	Y
4	STD8260 240-476941/4	10.0	4.972155	10.0	1083691.0	0.497216	Y
5	STD8260 240-476941/3	20.0	10.079254	10.0	1129906.0	0.503963	Y
6	STD8260 240-476941/2	40.0	19.966276	10.0	1176310.0	0.499157	Y



Calibration / m-Xylene & p-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

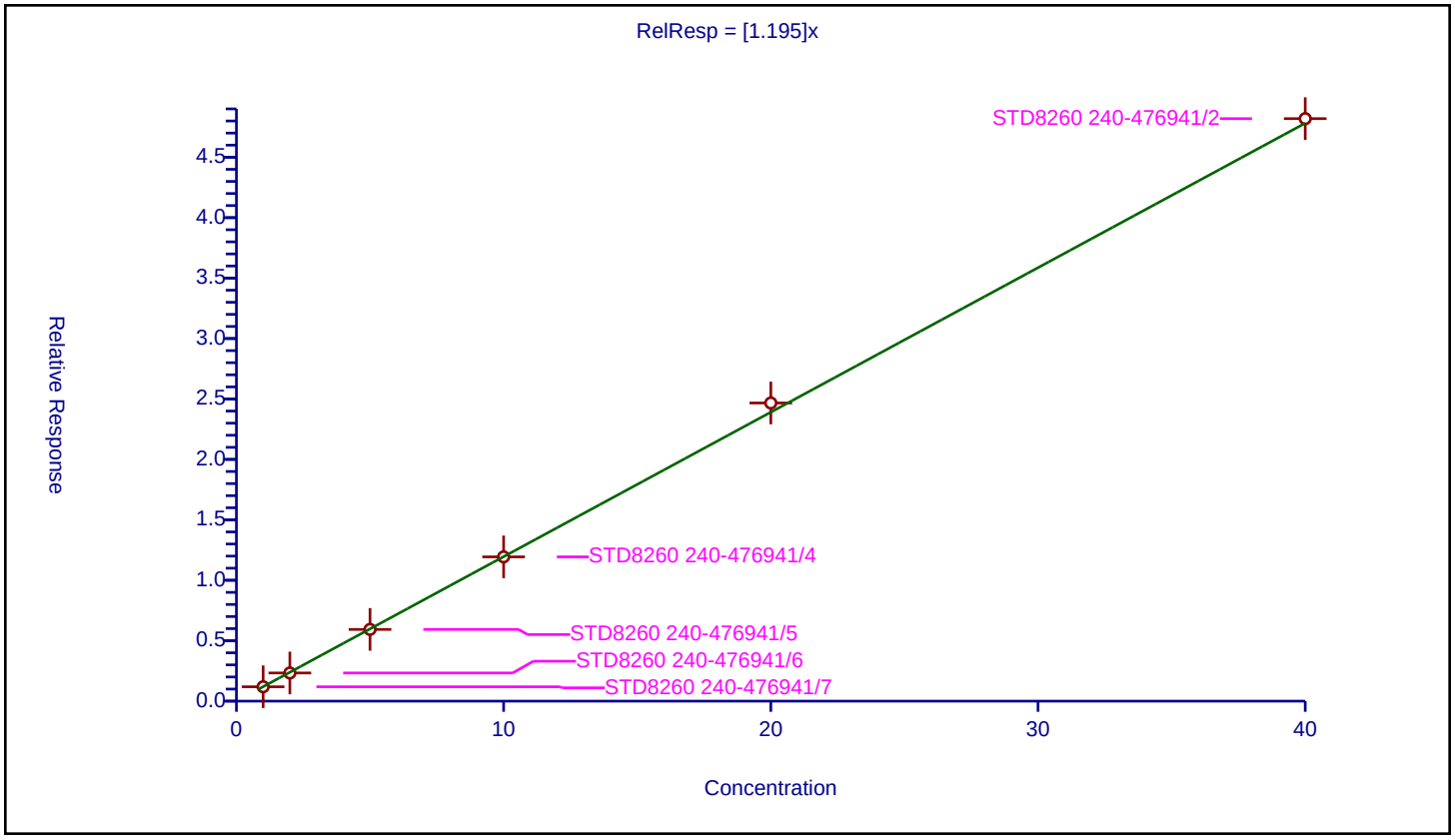
Curve Coefficients

Intercept:	0
Slope:	1.195

Error Coefficients

Standard Error:	2900000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.189141	10.0	1005314.0	1.189141	Y
2	STD8260 240-476941/6	2.0	2.329369	10.0	1025239.0	1.164685	Y
3	STD8260 240-476941/5	5.0	5.934213	10.0	1036230.0	1.186843	Y
4	STD8260 240-476941/4	10.0	11.935423	10.0	1083691.0	1.193542	Y
5	STD8260 240-476941/3	20.0	24.667964	10.0	1129906.0	1.233398	Y
6	STD8260 240-476941/2	40.0	48.192645	10.0	1176310.0	1.204816	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

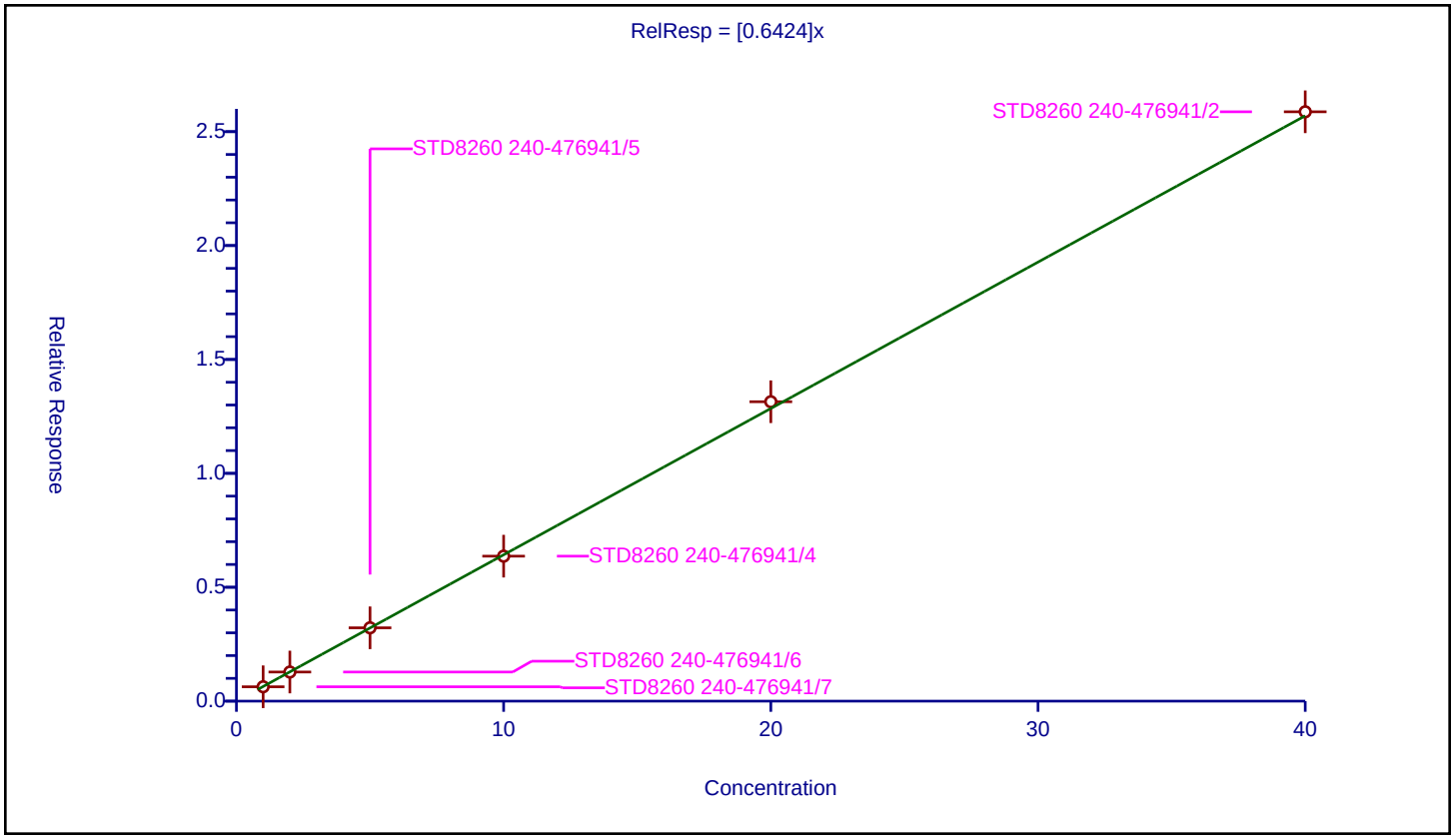
Curve Coefficients

Intercept:	0
Slope:	0.6424

Error Coefficients

Standard Error:	1550000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.631146	10.0	1005314.0	0.631146	Y
2	STD8260 240-476941/6	2.0	1.278404	10.0	1025239.0	0.639202	Y
3	STD8260 240-476941/5	5.0	3.219131	10.0	1036230.0	0.643826	Y
4	STD8260 240-476941/4	10.0	6.364268	10.0	1083691.0	0.636427	Y
5	STD8260 240-476941/3	20.0	13.144633	10.0	1129906.0	0.657232	Y
6	STD8260 240-476941/2	40.0	25.873035	10.0	1176310.0	0.646826	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

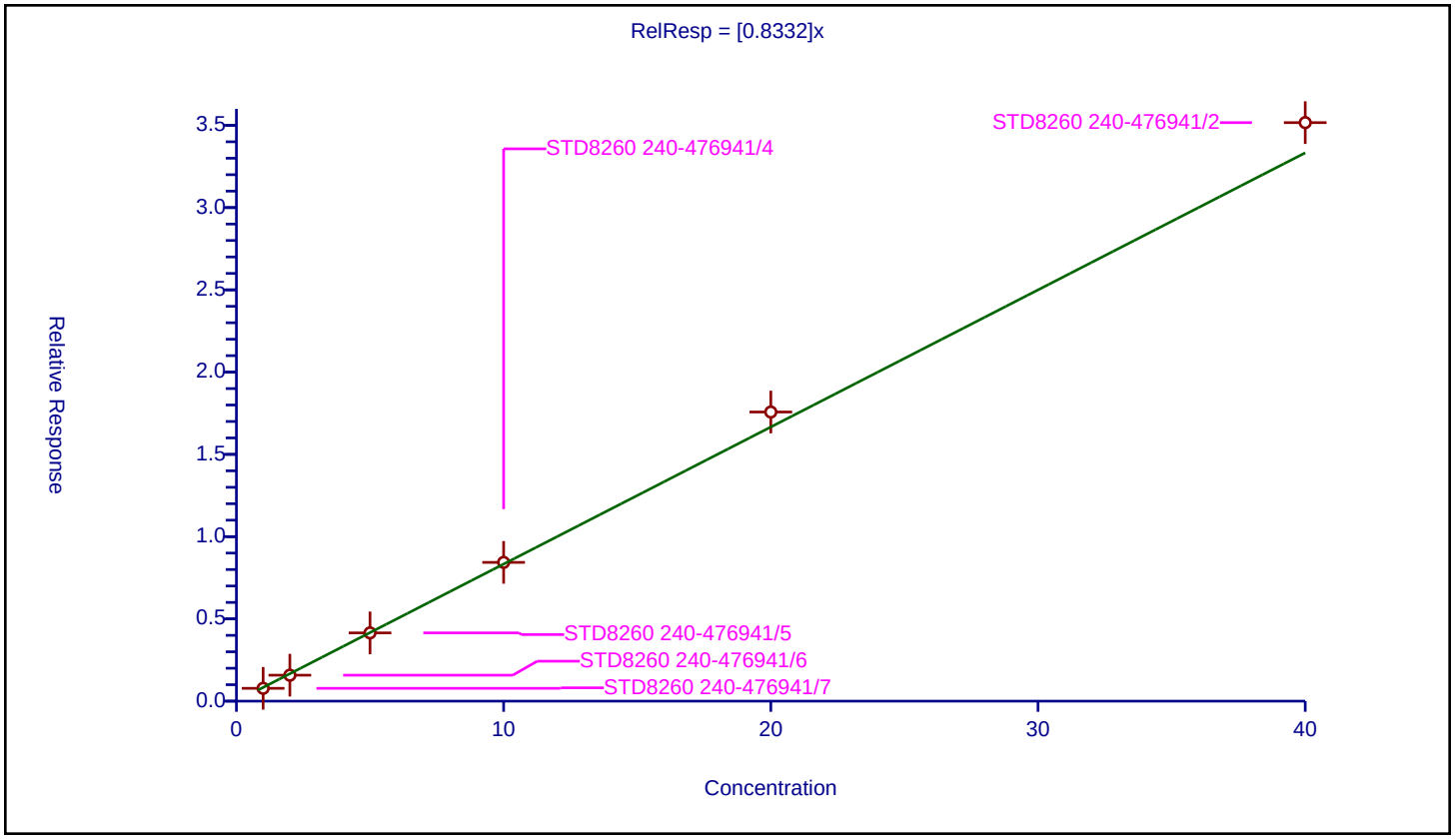
Curve Coefficients

Intercept:	0
Slope:	0.8332

Error Coefficients

Standard Error:	2100000
Relative Standard Error:	5.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.779398	10.0	1005314.0	0.779398	Y
2	STD8260 240-476941/6	2.0	1.577944	10.0	1025239.0	0.788972	Y
3	STD8260 240-476941/5	5.0	4.148712	10.0	1036230.0	0.829742	Y
4	STD8260 240-476941/4	10.0	8.433852	10.0	1083691.0	0.843385	Y
5	STD8260 240-476941/3	20.0	17.574002	10.0	1129906.0	0.8787	Y
6	STD8260 240-476941/2	40.0	35.165339	10.0	1176310.0	0.879133	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

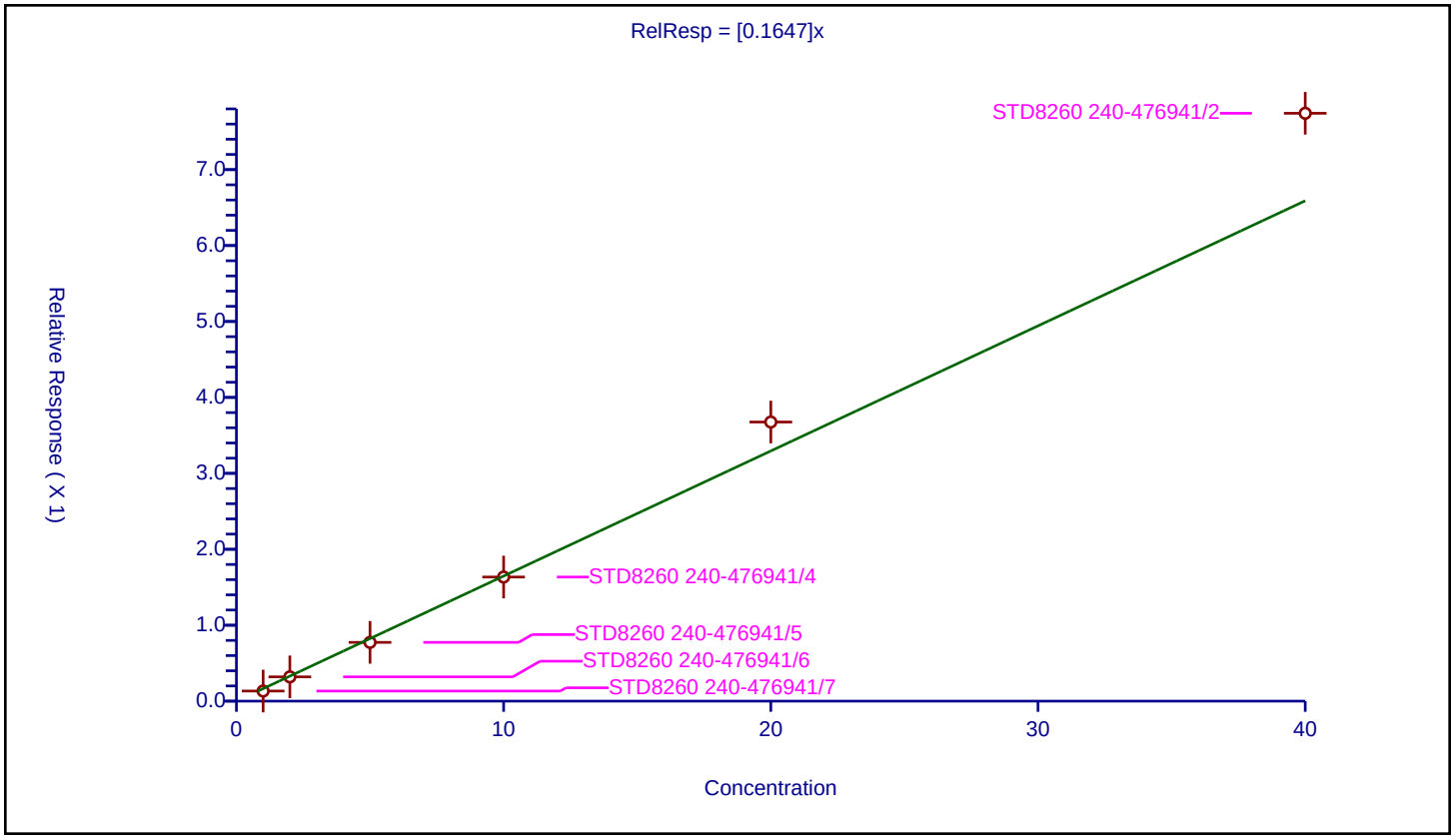
Curve Coefficients

Intercept:	0
Slope:	0.1647

Error Coefficients

Standard Error:	456000
Relative Standard Error:	13.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.132963	10.0	1005314.0	0.132963	Y
2	STD8260 240-476941/6	2.0	0.319808	10.0	1025239.0	0.159904	Y
3	STD8260 240-476941/5	5.0	0.774152	10.0	1036230.0	0.15483	Y
4	STD8260 240-476941/4	10.0	1.63434	10.0	1083691.0	0.163434	Y
5	STD8260 240-476941/3	20.0	3.675987	10.0	1129906.0	0.183799	Y
6	STD8260 240-476941/2	40.0	7.742032	10.0	1176310.0	0.193551	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

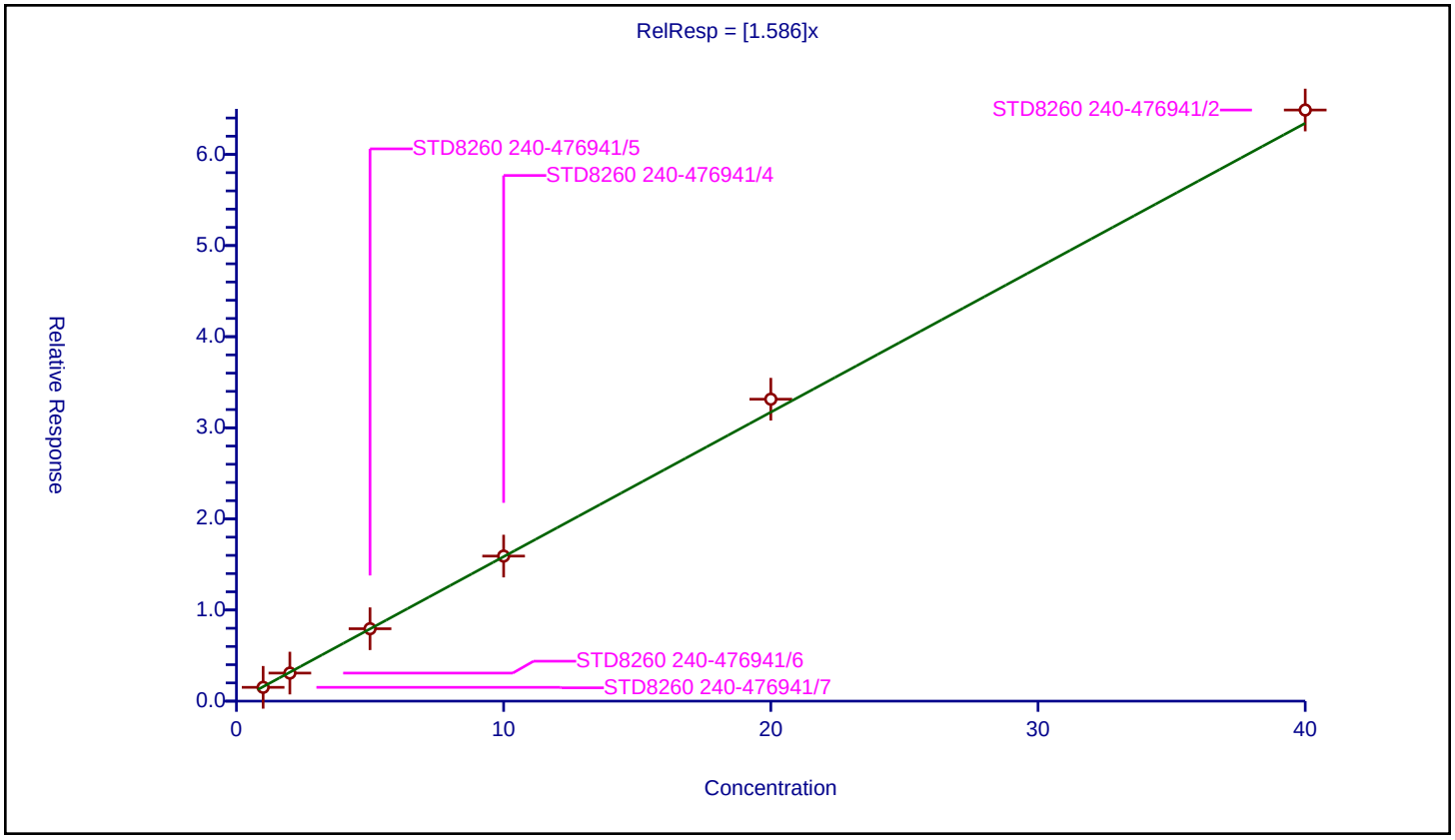
Curve Coefficients

Intercept:	0
Slope:	1.586

Error Coefficients

Standard Error:	3900000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.514611	10.0	1005314.0	1.514611	Y
2	STD8260 240-476941/6	2.0	3.078365	10.0	1025239.0	1.539183	Y
3	STD8260 240-476941/5	5.0	7.945601	10.0	1036230.0	1.58912	Y
4	STD8260 240-476941/4	10.0	15.921808	10.0	1083691.0	1.592181	Y
5	STD8260 240-476941/3	20.0	33.139358	10.0	1129906.0	1.656968	Y
6	STD8260 240-476941/2	40.0	64.876784	10.0	1176310.0	1.62192	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

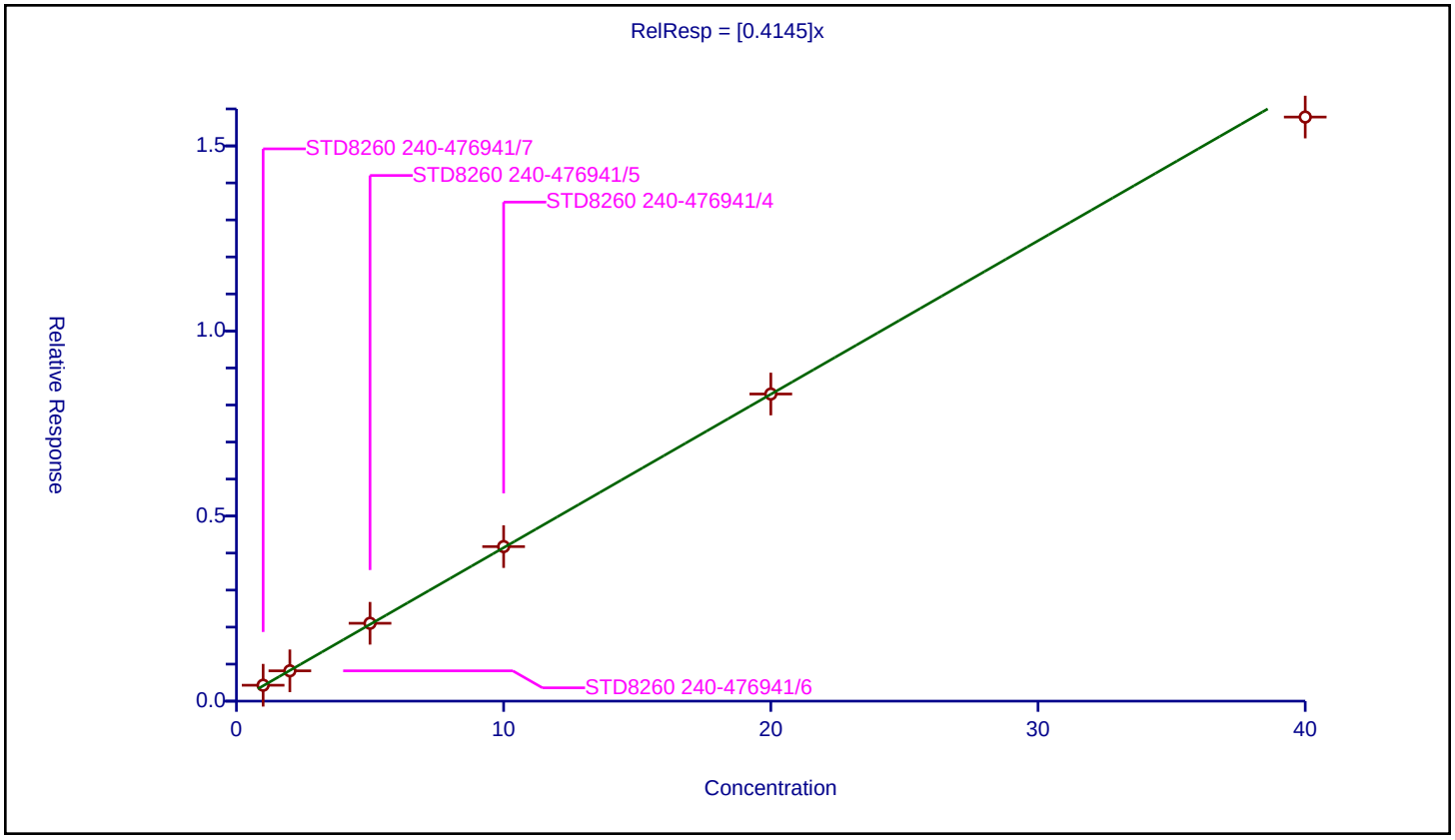
Curve Coefficients

Intercept:	0
Slope:	0.4145

Error Coefficients

Standard Error:	958000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.429995	10.0	1005314.0	0.429995	Y
2	STD8260 240-476941/6	2.0	0.819194	10.0	1025239.0	0.409597	Y
3	STD8260 240-476941/5	5.0	2.103838	10.0	1036230.0	0.420768	Y
4	STD8260 240-476941/4	10.0	4.175222	10.0	1083691.0	0.417522	Y
5	STD8260 240-476941/3	20.0	8.297124	10.0	1129906.0	0.414856	Y
6	STD8260 240-476941/2	40.0	15.780109	10.0	1176310.0	0.394503	Y



Calibration / 1,1,2,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

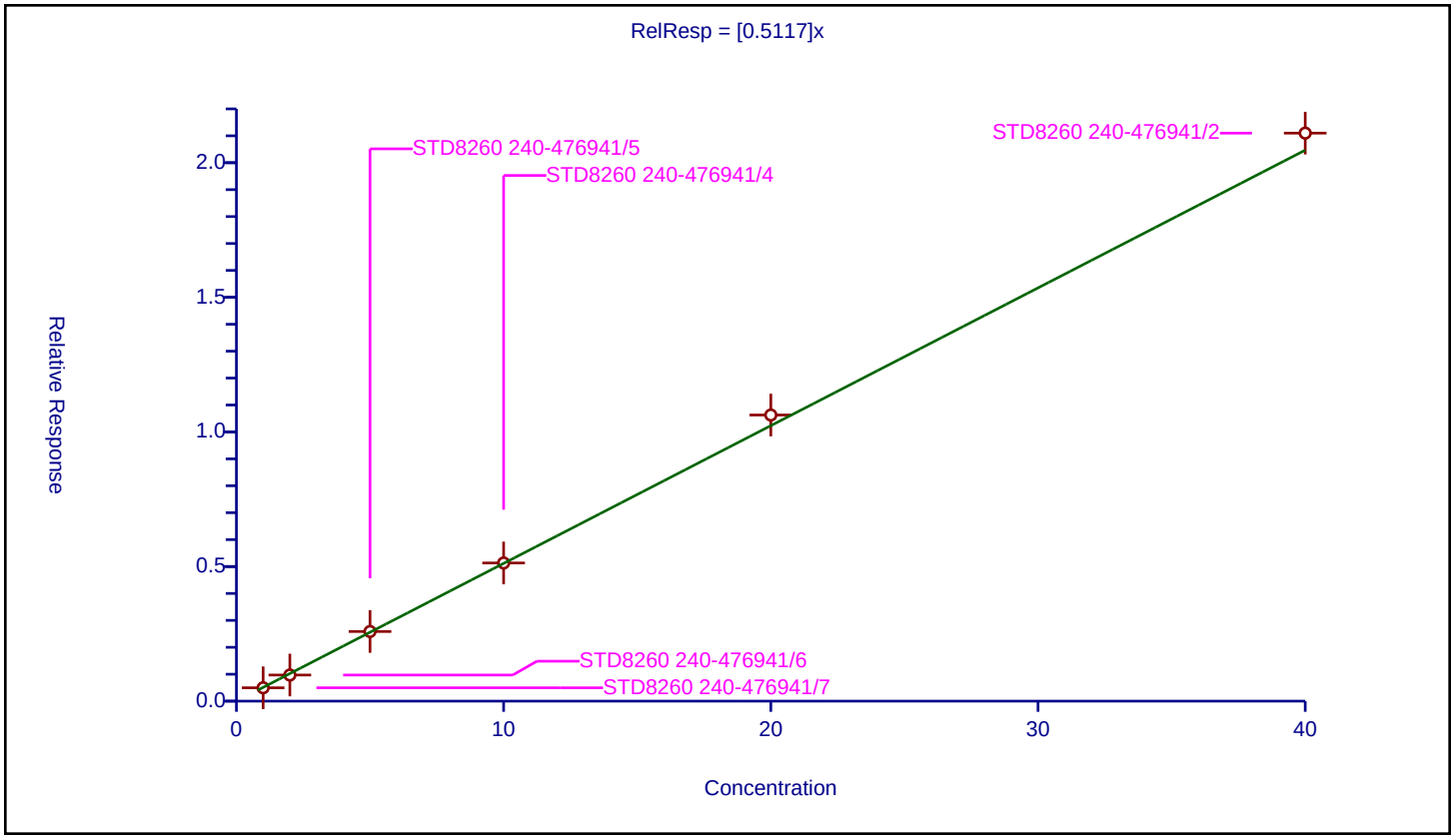
Curve Coefficients

Intercept:	0
Slope:	0.5117

Error Coefficients

Standard Error:	726000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.495697	10.0	606056.0	0.495697	Y
2	STD8260 240-476941/6	2.0	0.969796	10.0	608128.0	0.484898	Y
3	STD8260 240-476941/5	5.0	2.586701	10.0	621189.0	0.51734	Y
4	STD8260 240-476941/4	10.0	5.131993	10.0	639882.0	0.513199	Y
5	STD8260 240-476941/3	20.0	10.627968	10.0	663171.0	0.531398	Y
6	STD8260 240-476941/2	40.0	21.099818	10.0	670129.0	0.527495	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

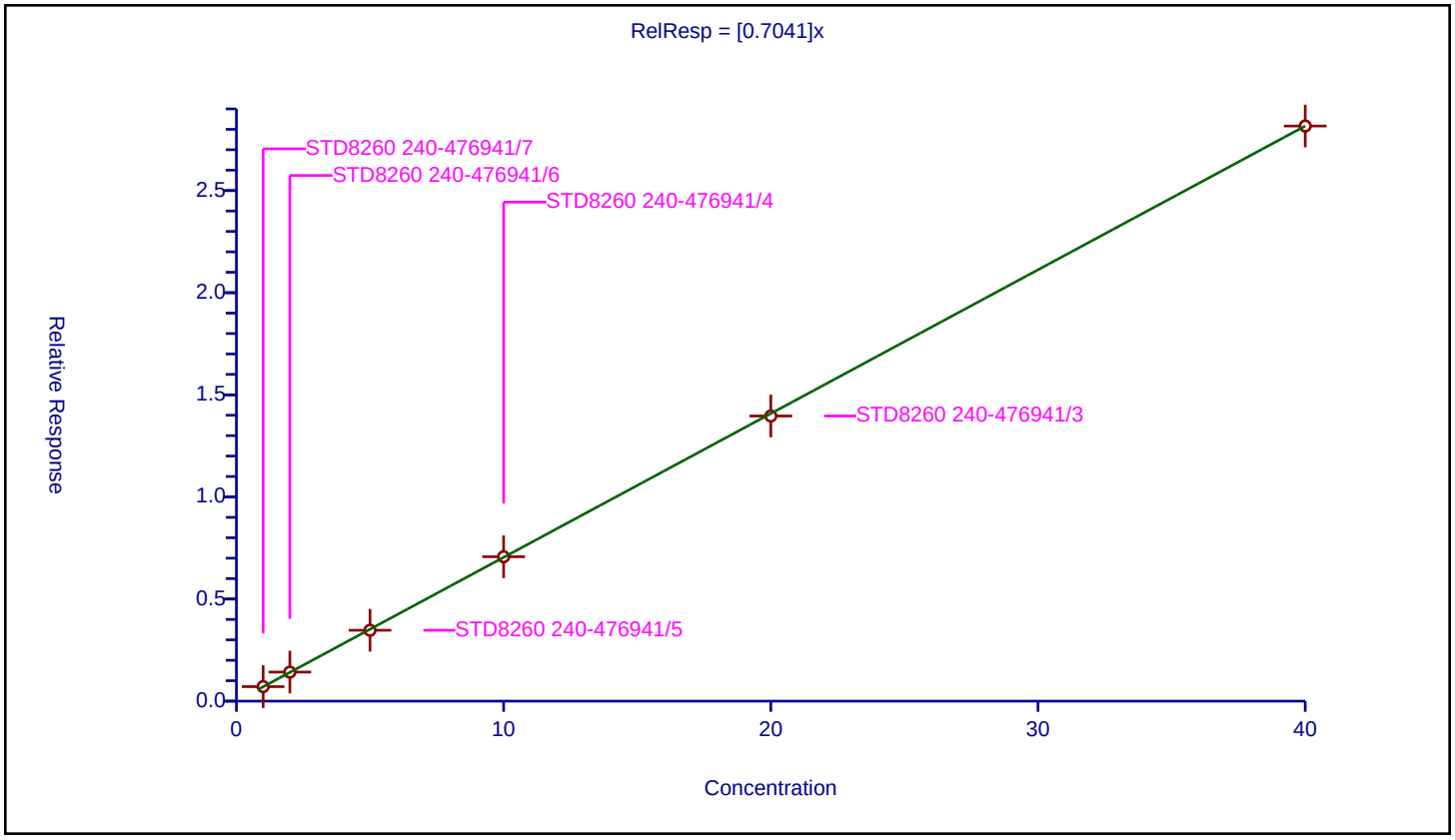
Curve Coefficients

Intercept:	0
Slope:	0.7041

Error Coefficients

Standard Error:	967000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.70967	10.0	606056.0	0.70967	Y
2	STD8260 240-476941/6	2.0	1.422595	10.0	608128.0	0.711298	Y
3	STD8260 240-476941/5	5.0	3.470908	10.0	621189.0	0.694182	Y
4	STD8260 240-476941/4	10.0	7.070554	10.0	639882.0	0.707055	Y
5	STD8260 240-476941/3	20.0	13.962161	10.0	663171.0	0.698108	Y
6	STD8260 240-476941/2	40.0	28.161503	10.0	670129.0	0.704038	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

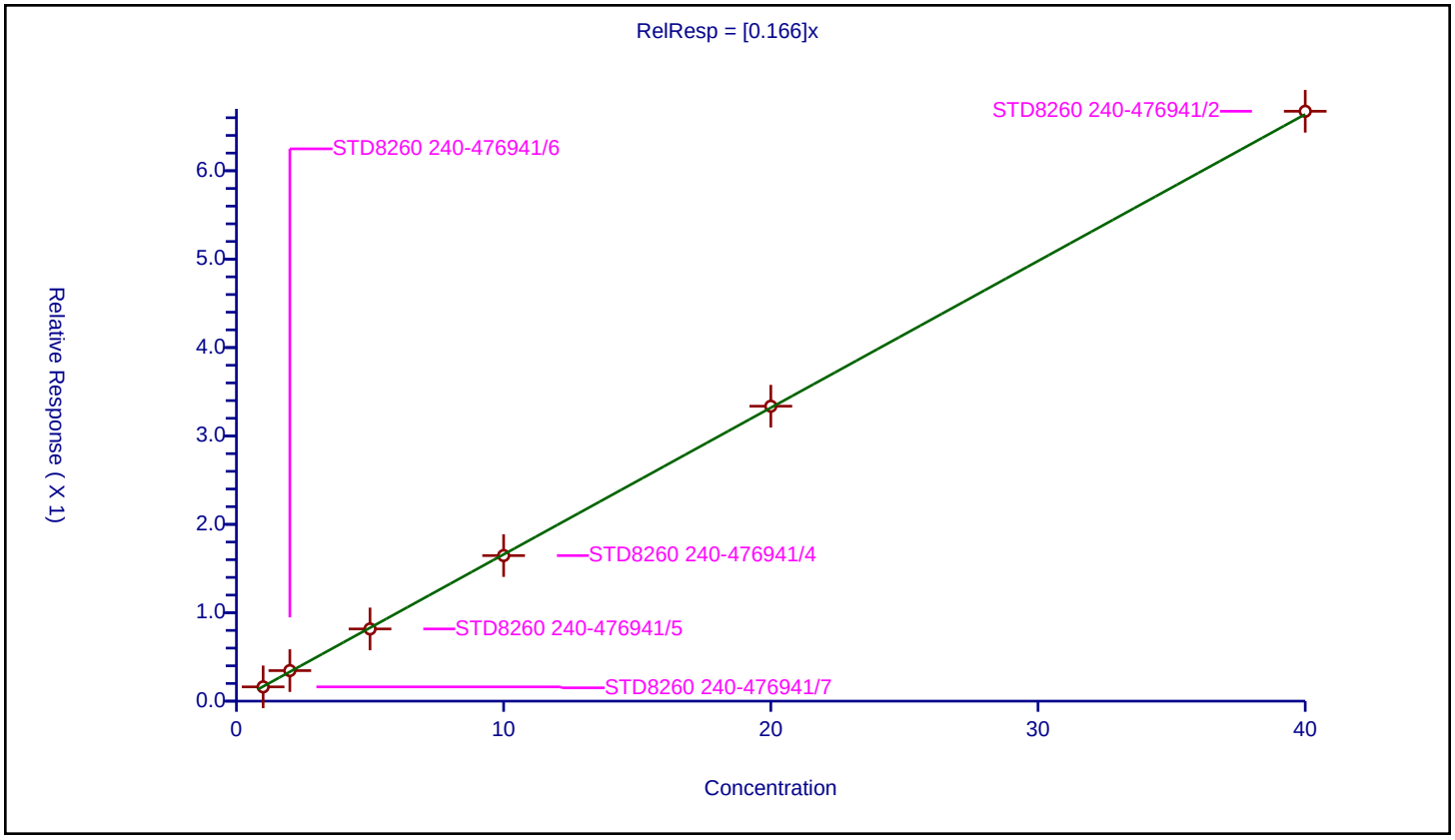
Curve Coefficients

Intercept:	0
Slope:	0.166

Error Coefficients

Standard Error:	229000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.161404	10.0	606056.0	0.161404	Y
2	STD8260 240-476941/6	2.0	0.345503	10.0	608128.0	0.172751	Y
3	STD8260 240-476941/5	5.0	0.816724	10.0	621189.0	0.163345	Y
4	STD8260 240-476941/4	10.0	1.64671	10.0	639882.0	0.164671	Y
5	STD8260 240-476941/3	20.0	3.336666	10.0	663171.0	0.166833	Y
6	STD8260 240-476941/2	40.0	6.673163	10.0	670129.0	0.166829	Y



Calibration / trans-1,4-Dichloro-2-butene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

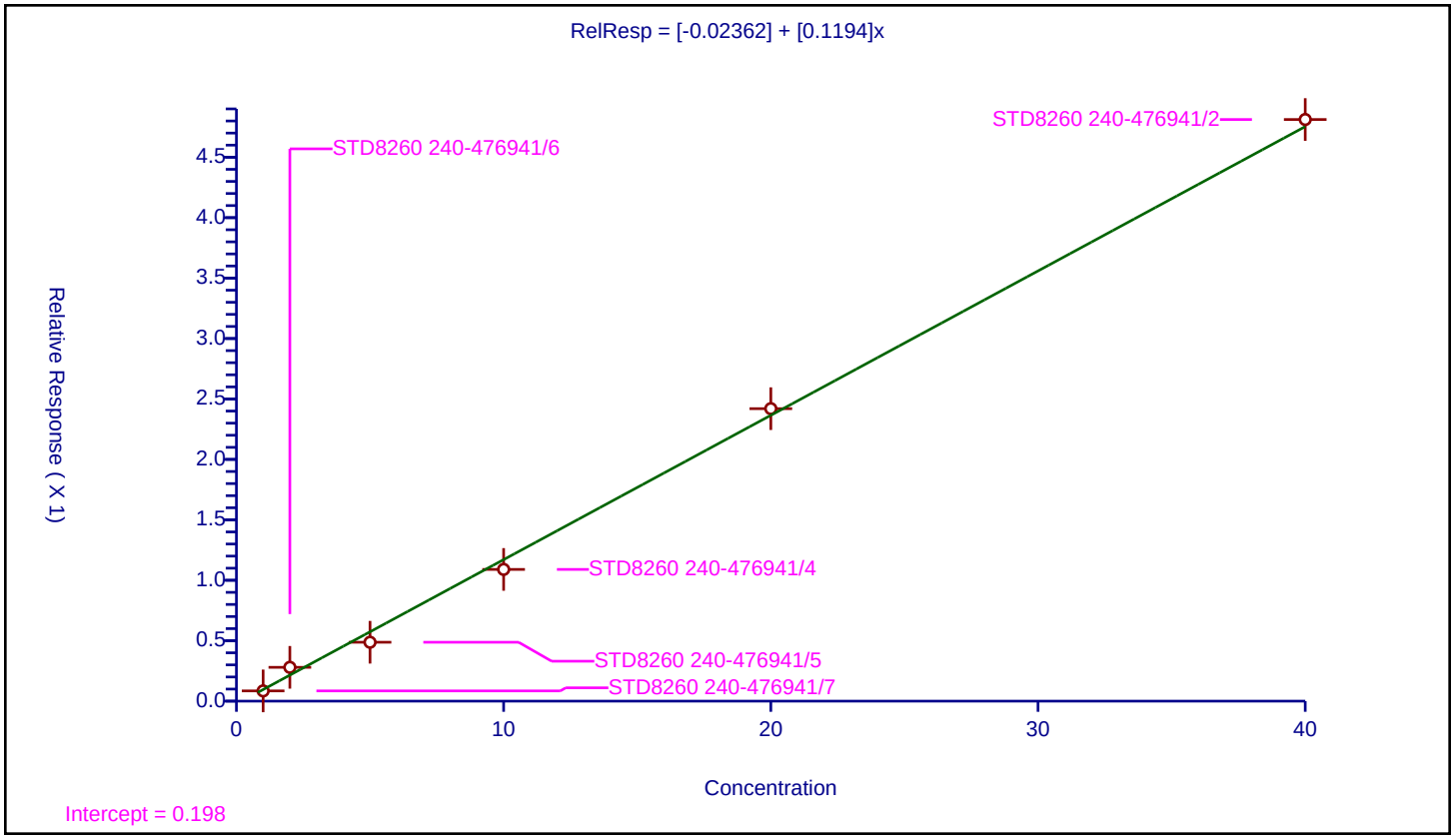
Curve Coefficients

Intercept:	-0.02362
Slope:	0.1194

Error Coefficients

Standard Error:	184000
Relative Standard Error:	16.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.084695	10.0	606056.0	0.084695	Y
2	STD8260 240-476941/6	2.0	0.279678	10.0	608128.0	0.139839	Y
3	STD8260 240-476941/5	5.0	0.487243	10.0	621189.0	0.097449	Y
4	STD8260 240-476941/4	10.0	1.089888	10.0	639882.0	0.108989	Y
5	STD8260 240-476941/3	20.0	2.419964	10.0	663171.0	0.120998	Y
6	STD8260 240-476941/2	40.0	4.812178	10.0	670129.0	0.120304	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

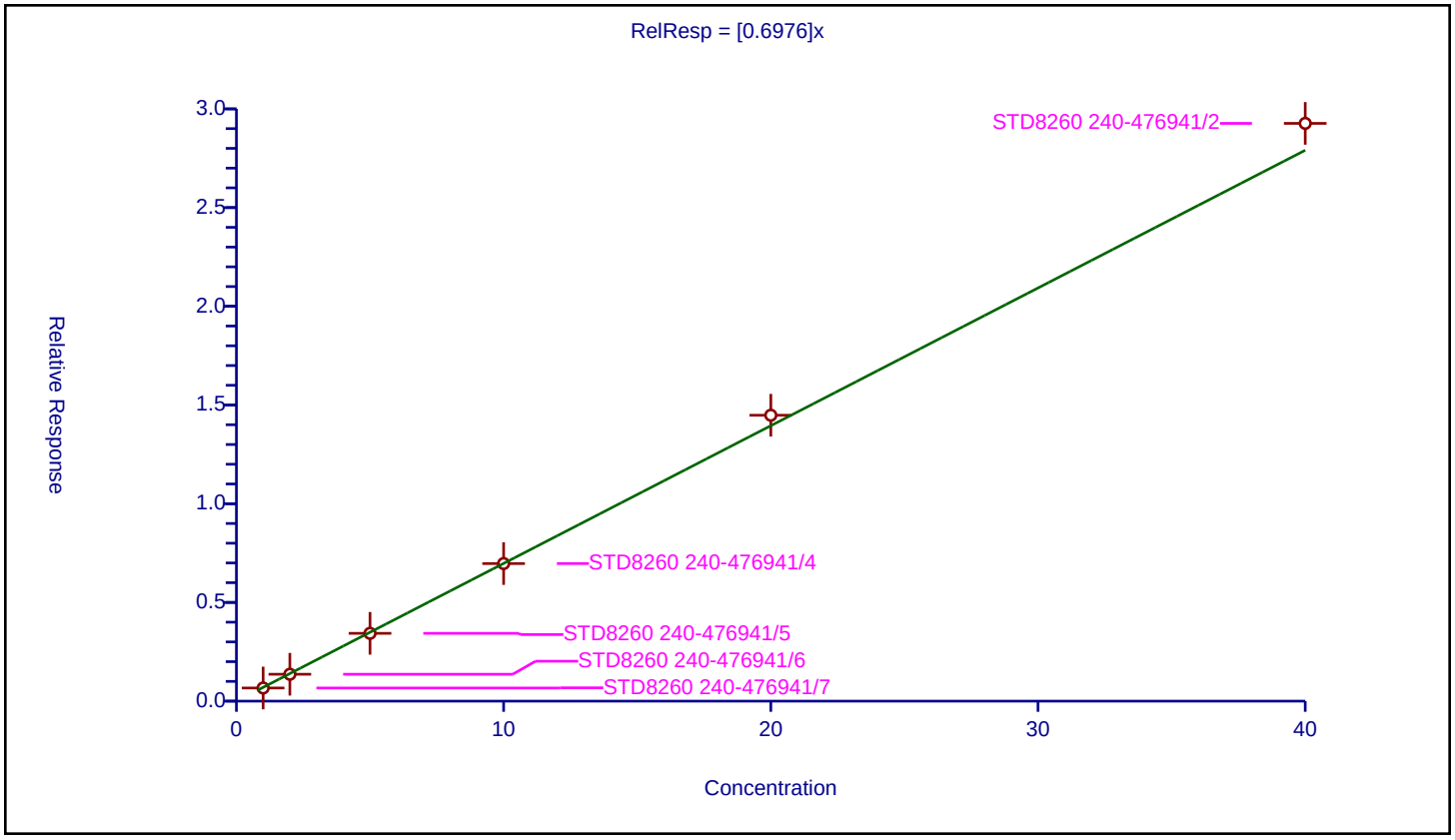
Curve Coefficients

Intercept:	0
Slope:	0.6976

Error Coefficients

Standard Error:	1000000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.665285	10.0	606056.0	0.665285	Y
2	STD8260 240-476941/6	2.0	1.362065	10.0	608128.0	0.681033	Y
3	STD8260 240-476941/5	5.0	3.433915	10.0	621189.0	0.686783	Y
4	STD8260 240-476941/4	10.0	6.96841	10.0	639882.0	0.696841	Y
5	STD8260 240-476941/3	20.0	14.48183	10.0	663171.0	0.724092	Y
6	STD8260 240-476941/2	40.0	29.266141	10.0	670129.0	0.731654	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

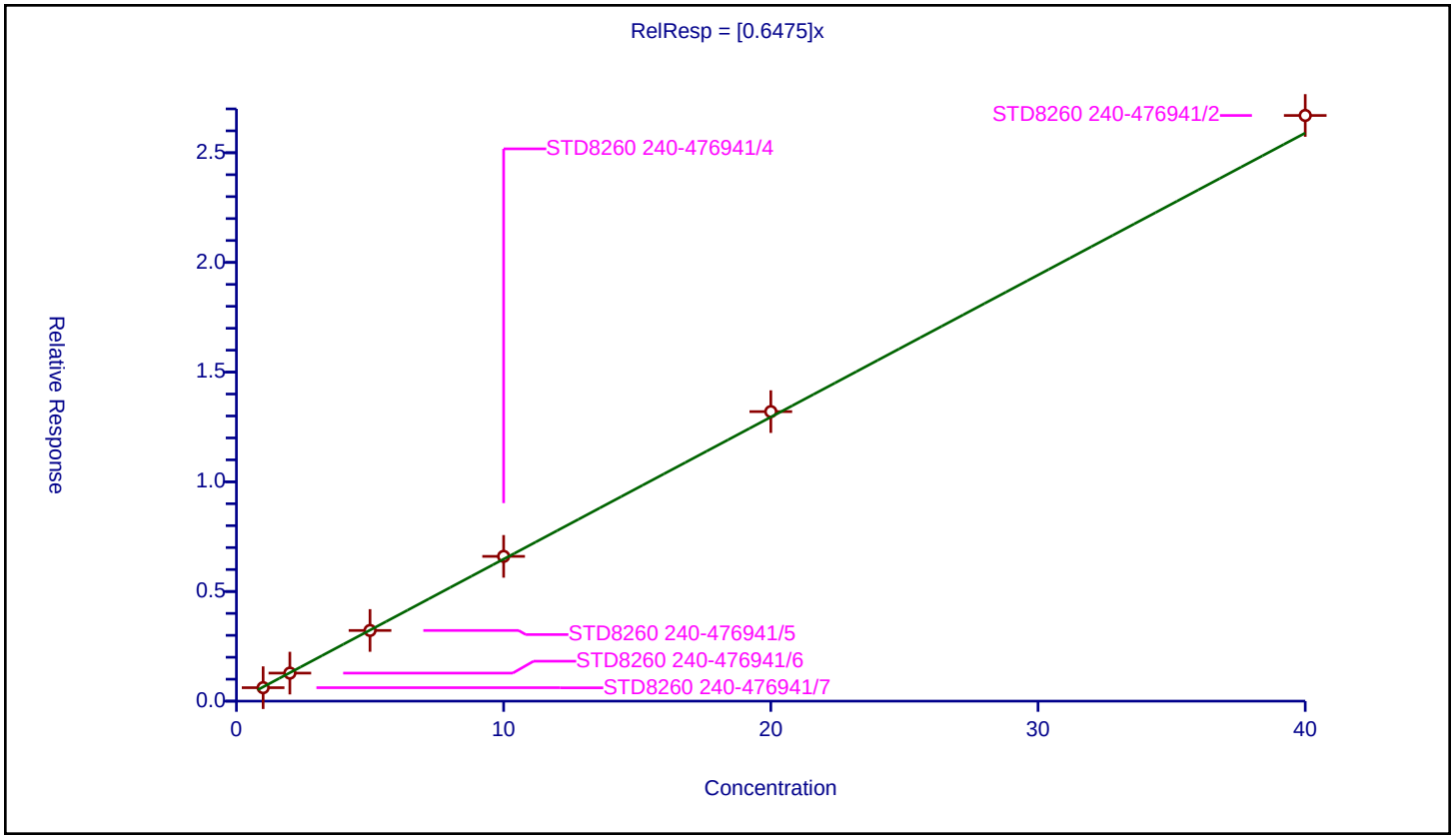
Curve Coefficients

Intercept:	0
Slope:	0.6475

Error Coefficients

Standard Error:	916000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.614069	10.0	606056.0	0.614069	Y
2	STD8260 240-476941/6	2.0	1.278119	10.0	608128.0	0.63906	Y
3	STD8260 240-476941/5	5.0	3.221628	10.0	621189.0	0.644326	Y
4	STD8260 240-476941/4	10.0	6.600092	10.0	639882.0	0.660009	Y
5	STD8260 240-476941/3	20.0	13.199099	10.0	663171.0	0.659955	Y
6	STD8260 240-476941/2	40.0	26.699576	10.0	670129.0	0.667489	Y



Calibration / 1,3,5-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

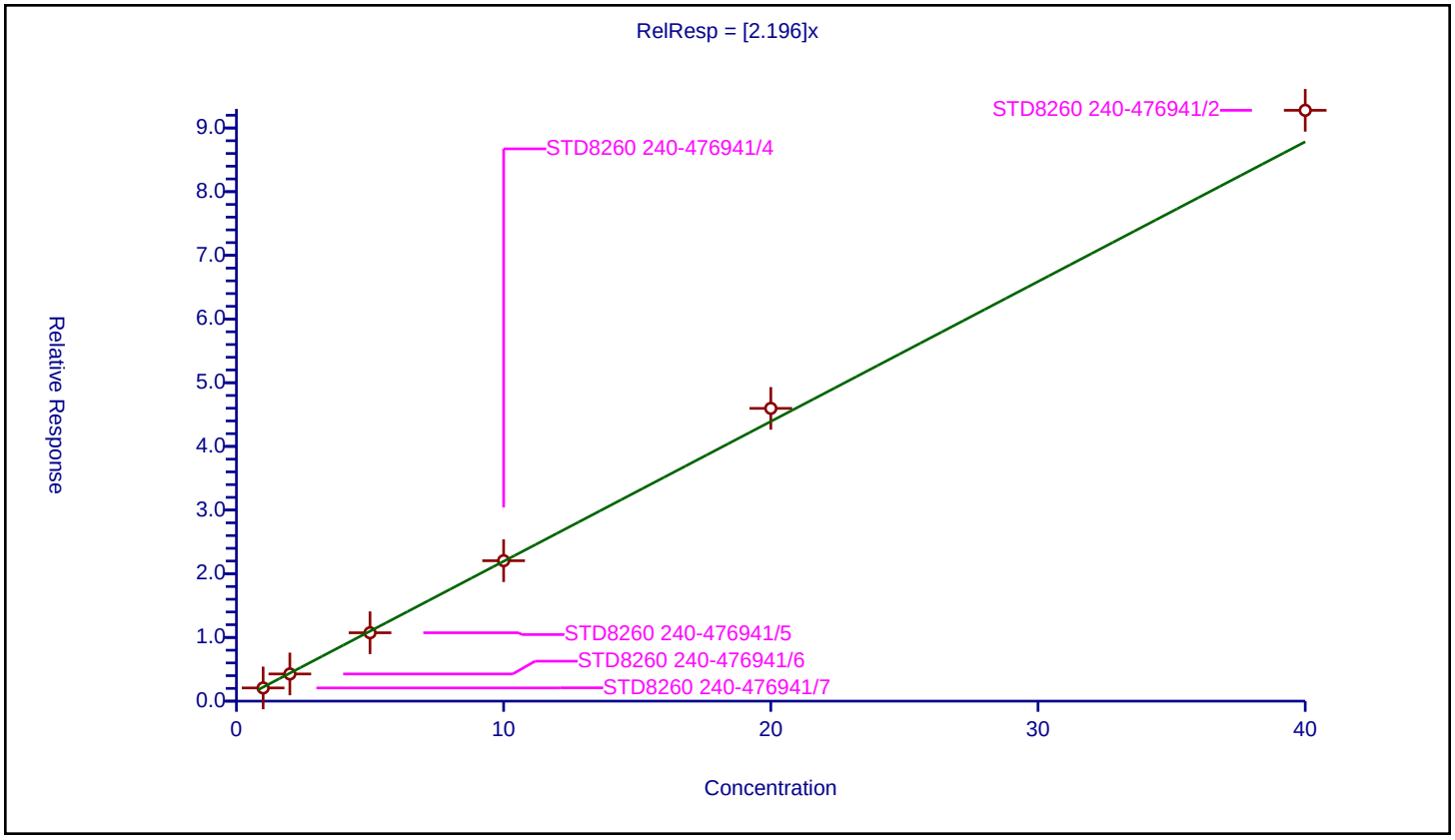
Curve Coefficients

Intercept:	0
Slope:	2.196

Error Coefficients

Standard Error:	3180000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.071195	10.0	606056.0	2.071195	Y
2	STD8260 240-476941/6	2.0	4.269101	10.0	608128.0	2.134551	Y
3	STD8260 240-476941/5	5.0	10.73641	10.0	621189.0	2.147282	Y
4	STD8260 240-476941/4	10.0	22.049409	10.0	639882.0	2.204941	Y
5	STD8260 240-476941/3	20.0	45.973391	10.0	663171.0	2.29867	Y
6	STD8260 240-476941/2	40.0	92.777182	10.0	670129.0	2.31943	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

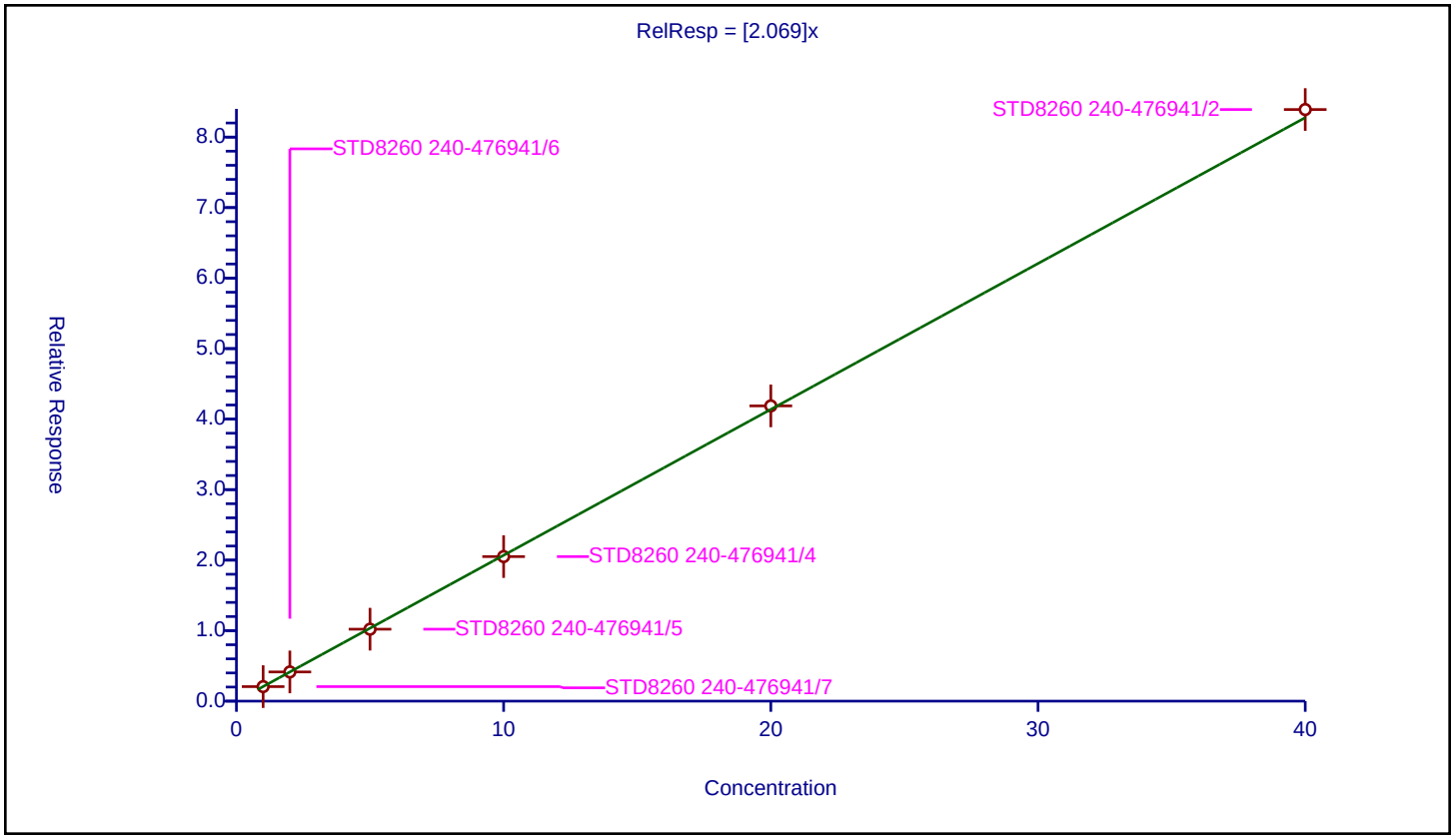
Curve Coefficients

Intercept:	0
Slope:	2.069

Error Coefficients

Standard Error:	2880000
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.060618	10.0	606056.0	2.060618	Y
2	STD8260 240-476941/6	2.0	4.140592	10.0	608128.0	2.070296	Y
3	STD8260 240-476941/5	5.0	10.203255	10.0	621189.0	2.040651	Y
4	STD8260 240-476941/4	10.0	20.503671	10.0	639882.0	2.050367	Y
5	STD8260 240-476941/3	20.0	41.875429	10.0	663171.0	2.093771	Y
6	STD8260 240-476941/2	40.0	83.90771	10.0	670129.0	2.097693	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

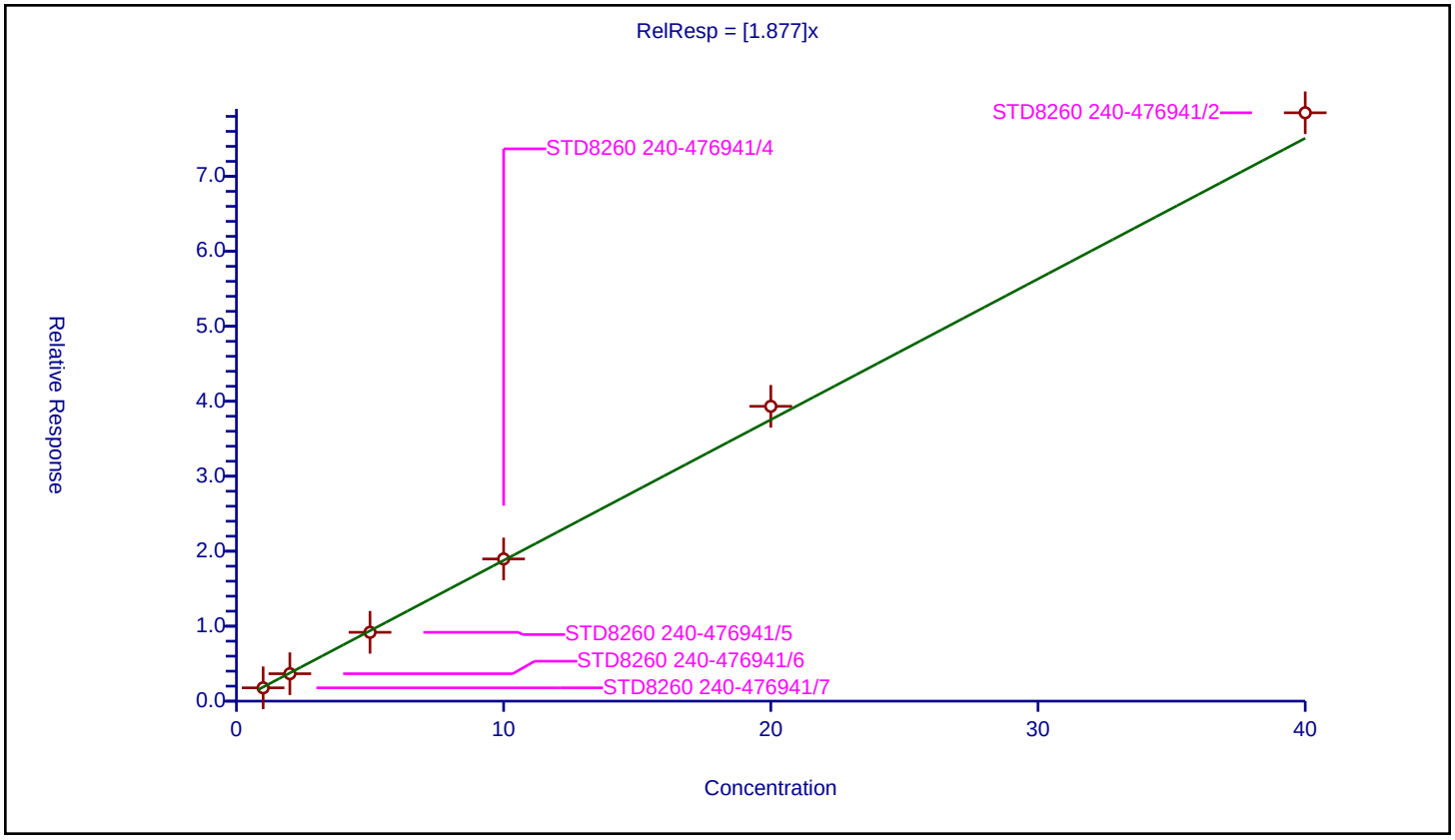
Curve Coefficients

Intercept:	0
Slope:	1.877

Error Coefficients

Standard Error:	2700000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.773037	10.0	606056.0	1.773037	Y
2	STD8260 240-476941/6	2.0	3.657733	10.0	608128.0	1.828867	Y
3	STD8260 240-476941/5	5.0	9.180829	10.0	621189.0	1.836166	Y
4	STD8260 240-476941/4	10.0	18.967622	10.0	639882.0	1.896762	Y
5	STD8260 240-476941/3	20.0	39.326539	10.0	663171.0	1.966327	Y
6	STD8260 240-476941/2	40.0	78.481263	10.0	670129.0	1.962032	Y



Calibration / 1,2,4-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

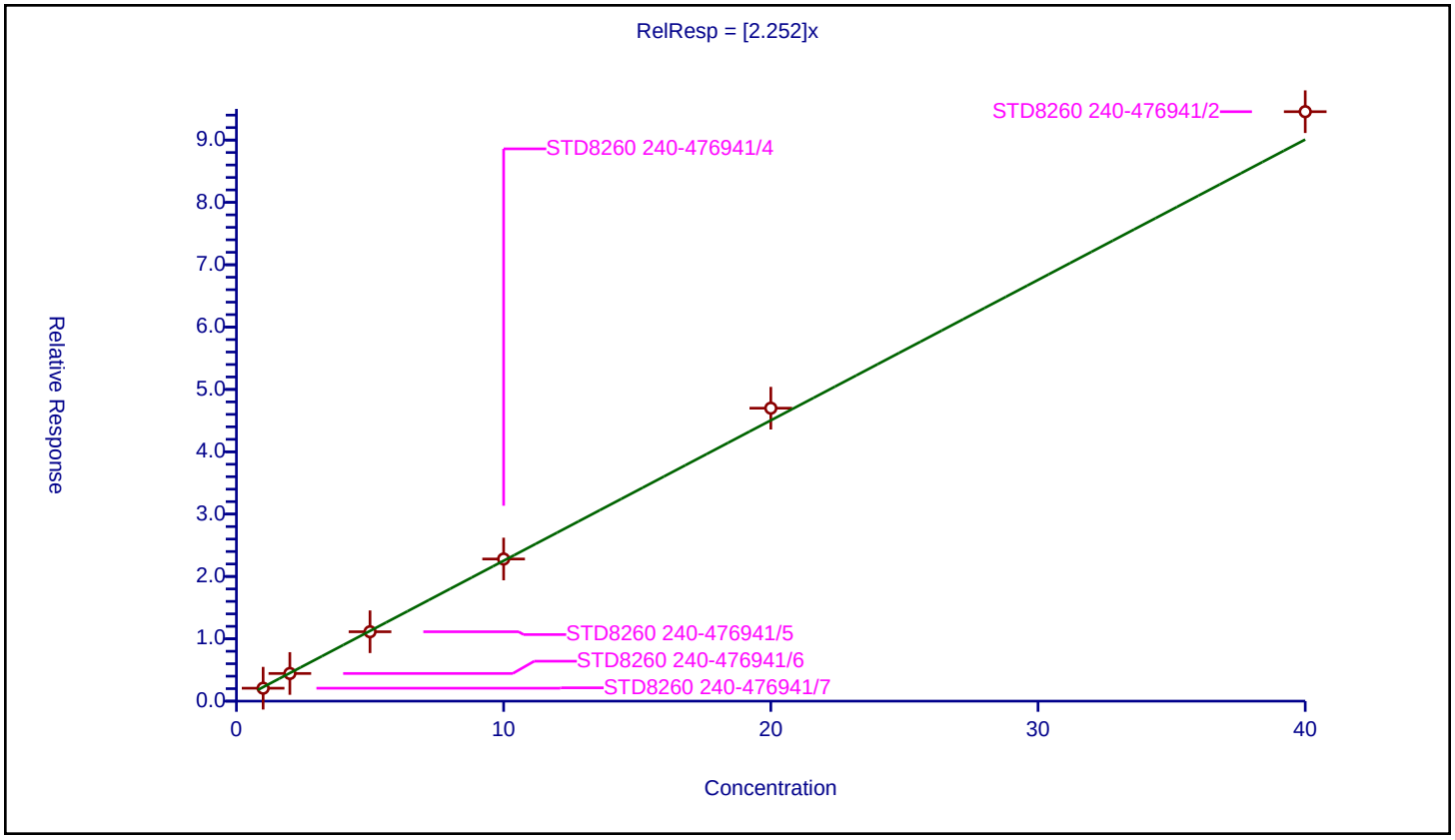
Curve Coefficients

Intercept:	0
Slope:	2.252

Error Coefficients

Standard Error:	3240000
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.075204	10.0	606056.0	2.075204	Y
2	STD8260 240-476941/6	2.0	4.43507	10.0	608128.0	2.217535	Y
3	STD8260 240-476941/5	5.0	11.133391	10.0	621189.0	2.226678	Y
4	STD8260 240-476941/4	10.0	22.798422	10.0	639882.0	2.279842	Y
5	STD8260 240-476941/3	20.0	46.993128	10.0	663171.0	2.349656	Y
6	STD8260 240-476941/2	40.0	94.549885	10.0	670129.0	2.363747	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

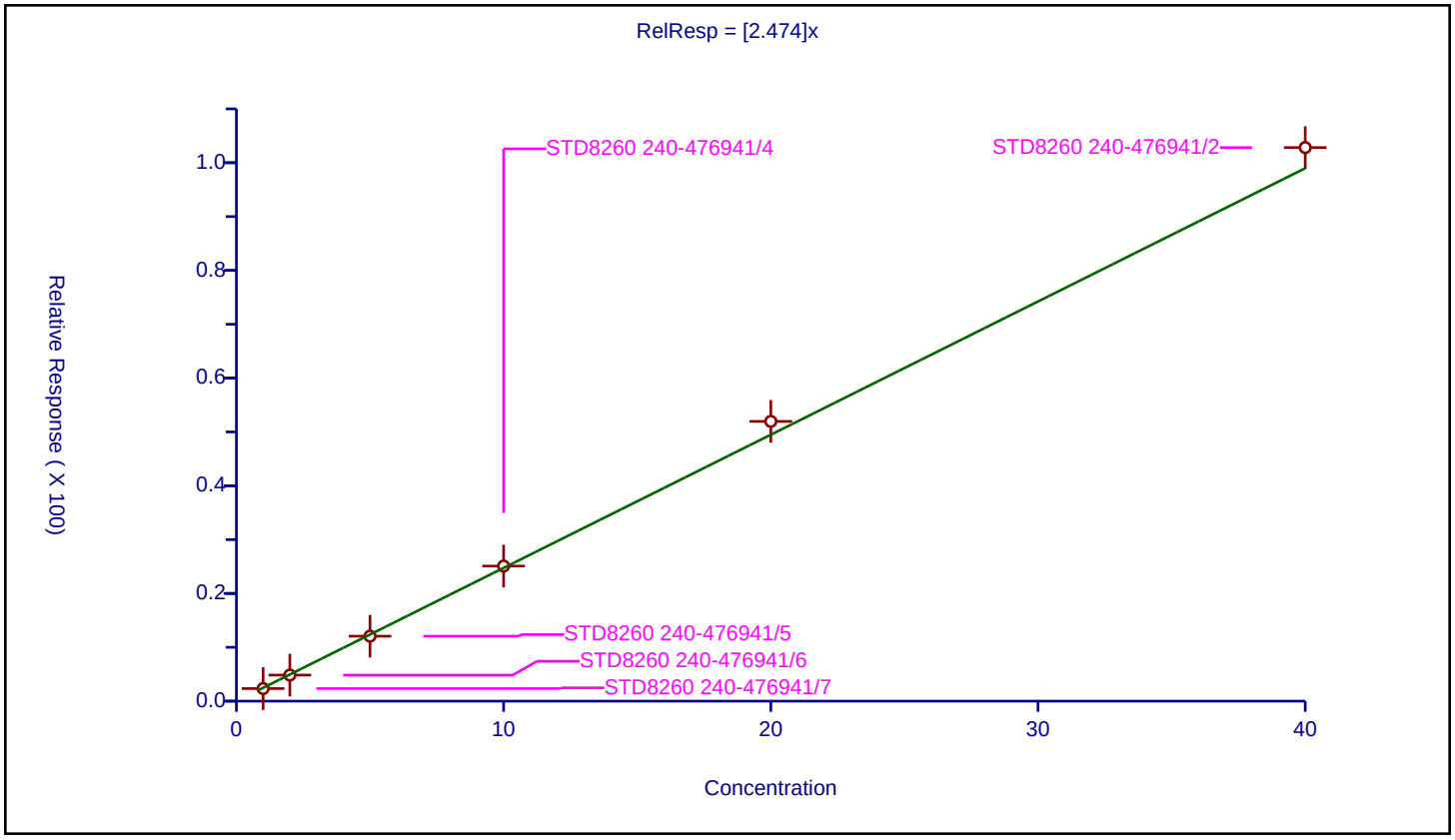
Curve Coefficients

Intercept:	0
Slope:	2.474

Error Coefficients

Standard Error:	3540000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.335329	10.0	606056.0	2.335329	Y
2	STD8260 240-476941/6	2.0	4.838636	10.0	608128.0	2.419318	Y
3	STD8260 240-476941/5	5.0	12.069901	10.0	621189.0	2.41398	Y
4	STD8260 240-476941/4	10.0	25.089798	10.0	639882.0	2.50898	Y
5	STD8260 240-476941/3	20.0	51.959615	10.0	663171.0	2.597981	Y
6	STD8260 240-476941/2	40.0	102.809952	10.0	670129.0	2.570249	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

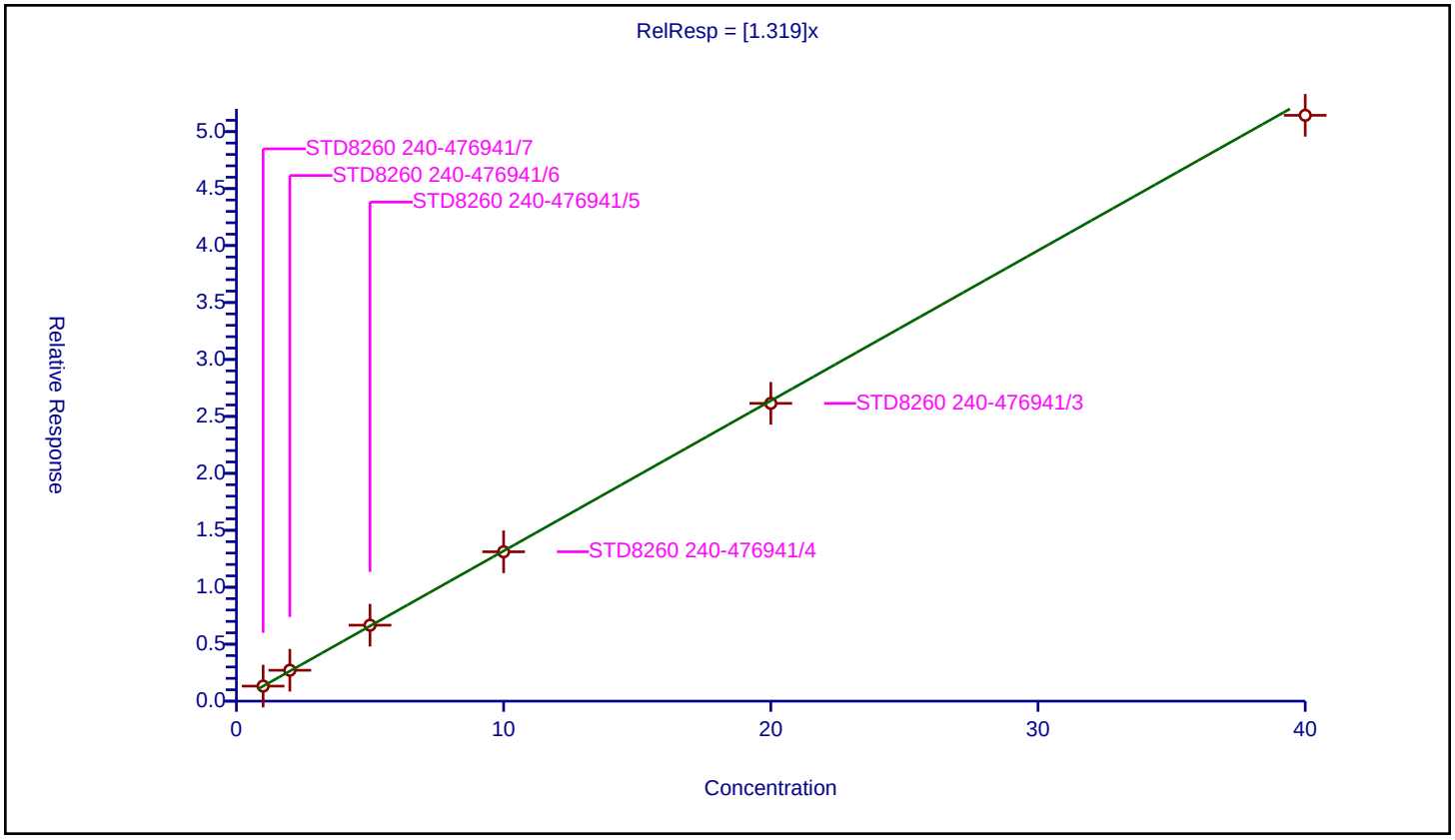
Curve Coefficients

Intercept:	0
Slope:	1.319

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.319812	10.0	606056.0	1.319812	Y
2	STD8260 240-476941/6	2.0	2.710515	10.0	608128.0	1.355257	Y
3	STD8260 240-476941/5	5.0	6.667906	10.0	621189.0	1.333581	Y
4	STD8260 240-476941/4	10.0	13.113402	10.0	639882.0	1.31134	Y
5	STD8260 240-476941/3	20.0	26.144644	10.0	663171.0	1.307232	Y
6	STD8260 240-476941/2	40.0	51.435455	10.0	670129.0	1.285886	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

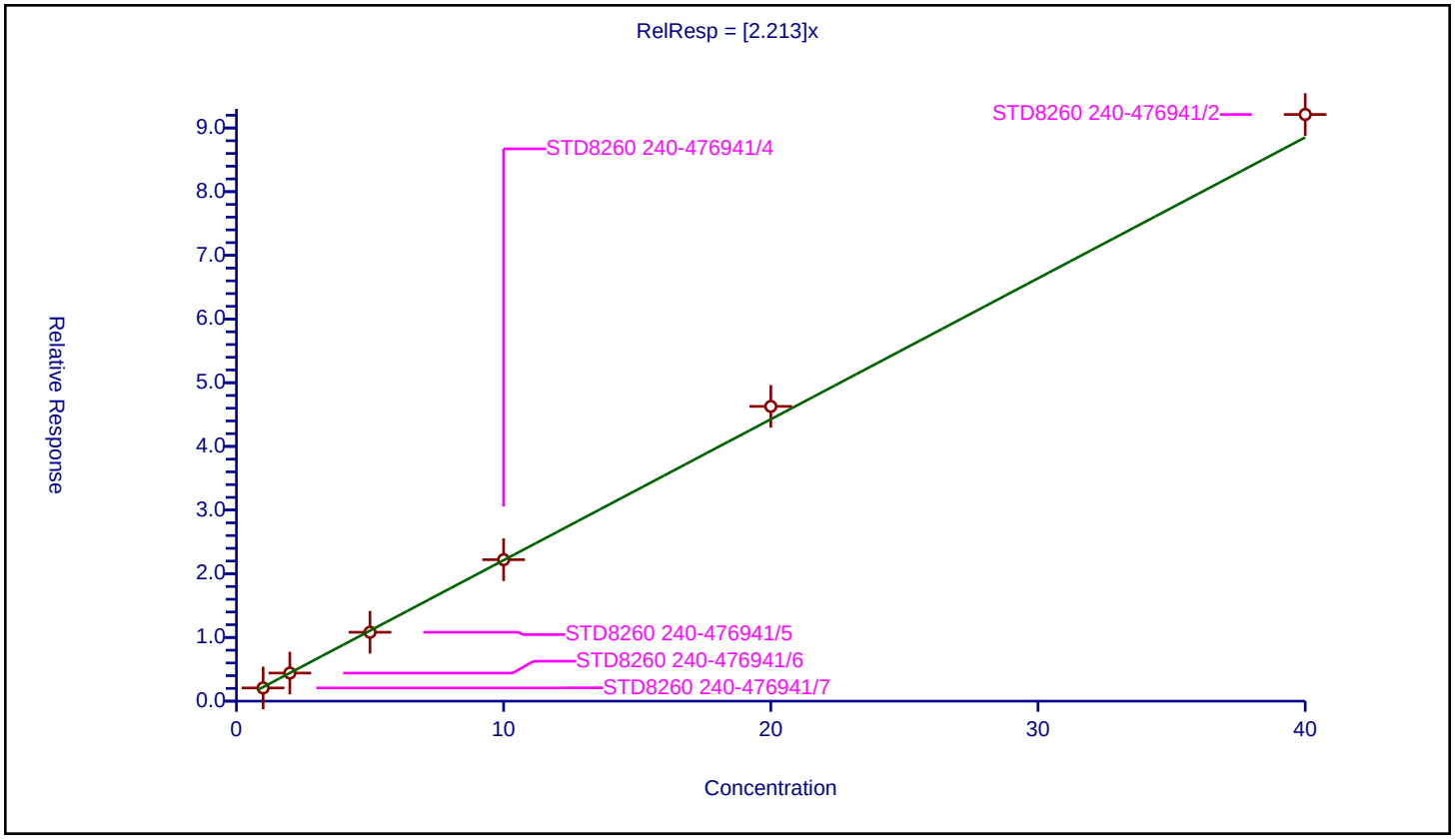
Curve Coefficients

Intercept:	0
Slope:	2.213

Error Coefficients

Standard Error:	3170000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.07131	10.0	606056.0	2.07131	Y
2	STD8260 240-476941/6	2.0	4.410042	10.0	608128.0	2.205021	Y
3	STD8260 240-476941/5	5.0	10.820813	10.0	621189.0	2.164163	Y
4	STD8260 240-476941/4	10.0	22.209517	10.0	639882.0	2.220952	Y
5	STD8260 240-476941/3	20.0	46.283538	10.0	663171.0	2.314177	Y
6	STD8260 240-476941/2	40.0	92.12086	10.0	670129.0	2.303022	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

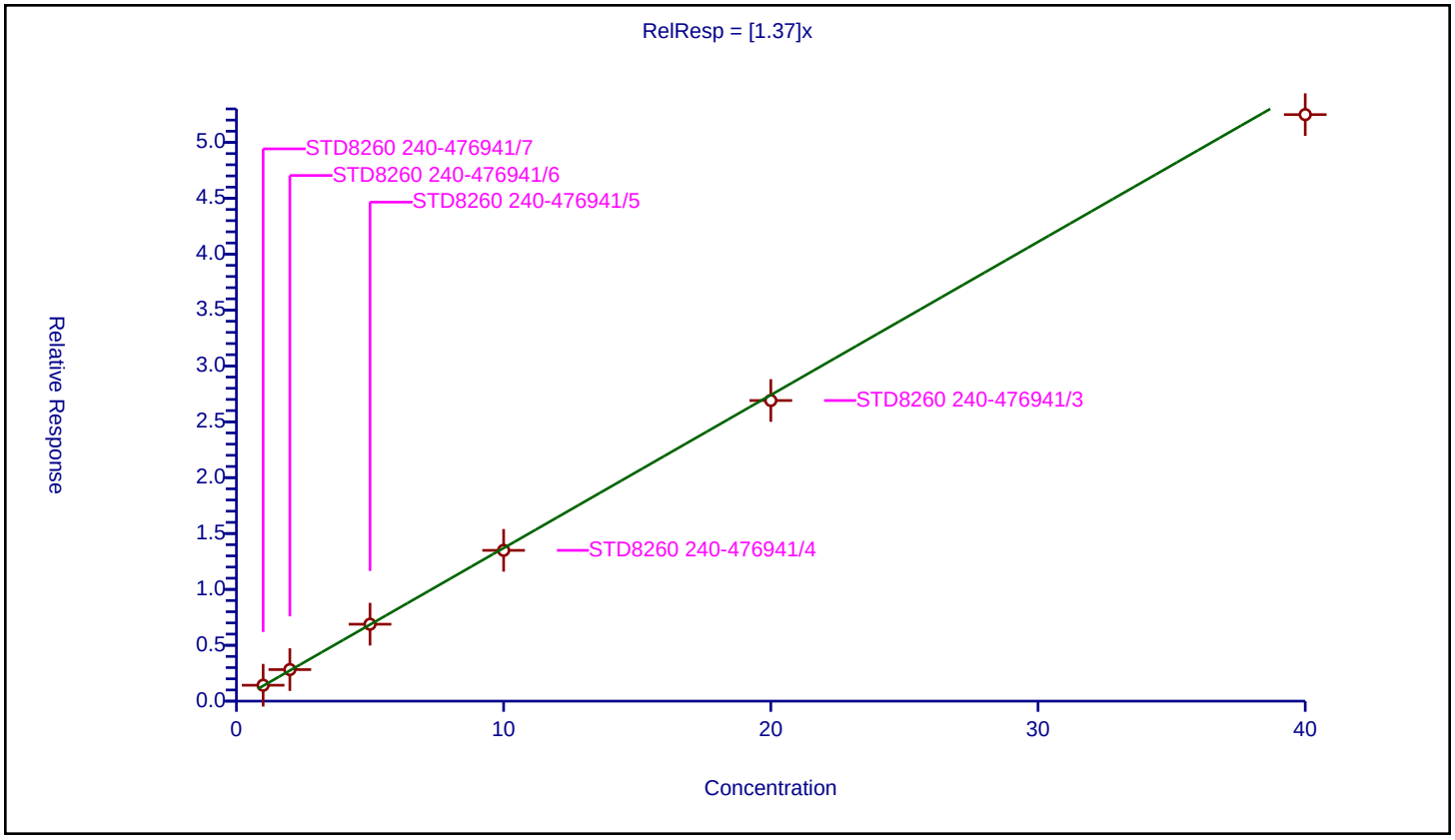
Curve Coefficients

Intercept:	0
Slope:	1.37

Error Coefficients

Standard Error:	1820000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.423086	10.0	606056.0	1.423086	Y
2	STD8260 240-476941/6	2.0	2.823649	10.0	608128.0	1.411824	Y
3	STD8260 240-476941/5	5.0	6.88573	10.0	621189.0	1.377146	Y
4	STD8260 240-476941/4	10.0	13.493191	10.0	639882.0	1.349319	Y
5	STD8260 240-476941/3	20.0	26.904313	10.0	663171.0	1.345216	Y
6	STD8260 240-476941/2	40.0	52.488506	10.0	670129.0	1.312213	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

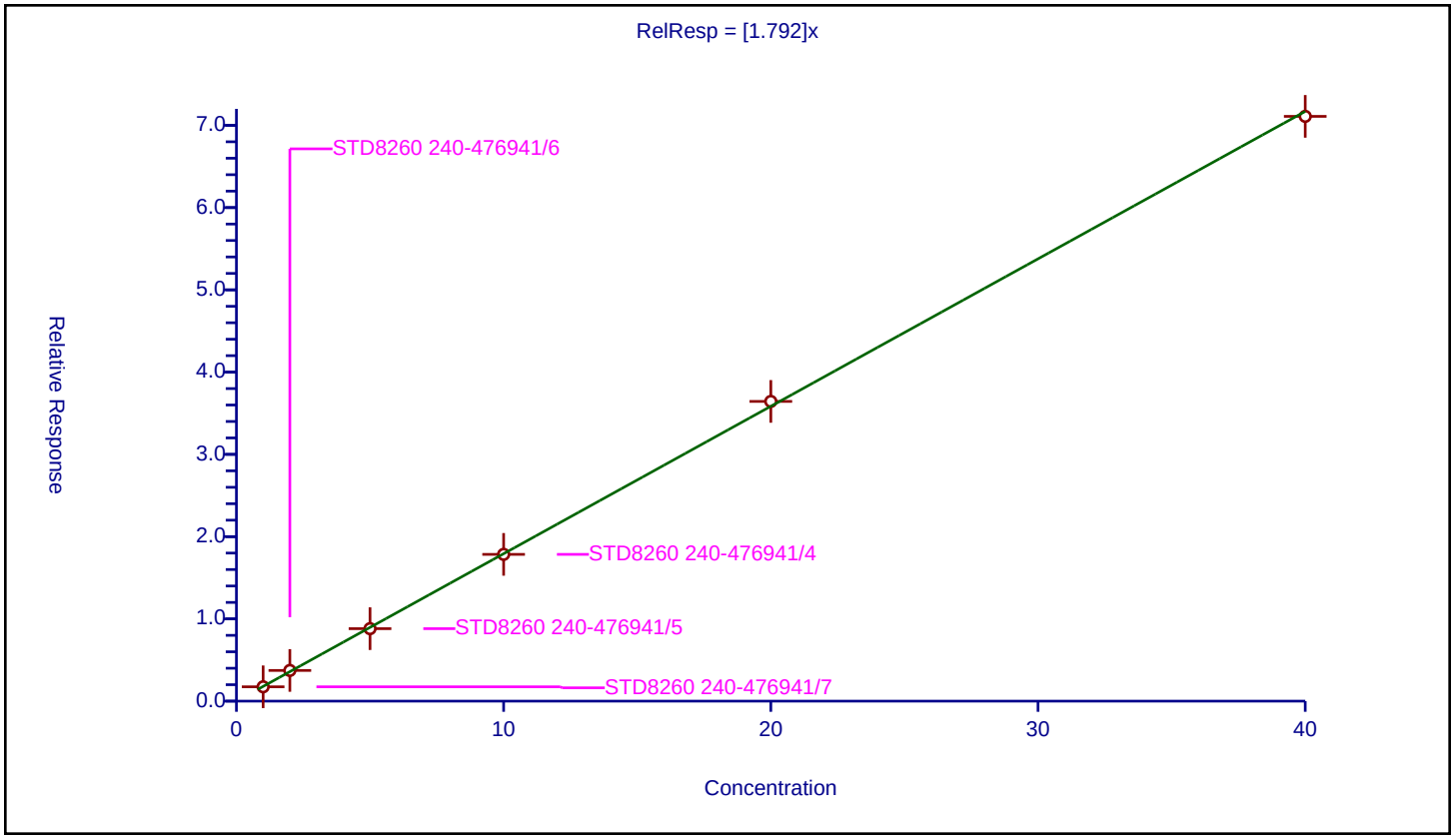
Curve Coefficients

Intercept:	0
Slope:	1.792

Error Coefficients

Standard Error:	2460000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.742166	10.0	606056.0	1.742166	Y
2	STD8260 240-476941/6	2.0	3.732734	10.0	608128.0	1.866367	Y
3	STD8260 240-476941/5	5.0	8.810507	10.0	621189.0	1.762101	Y
4	STD8260 240-476941/4	10.0	17.841524	10.0	639882.0	1.784152	Y
5	STD8260 240-476941/3	20.0	36.437495	10.0	663171.0	1.821875	Y
6	STD8260 240-476941/2	40.0	71.091193	10.0	670129.0	1.77728	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

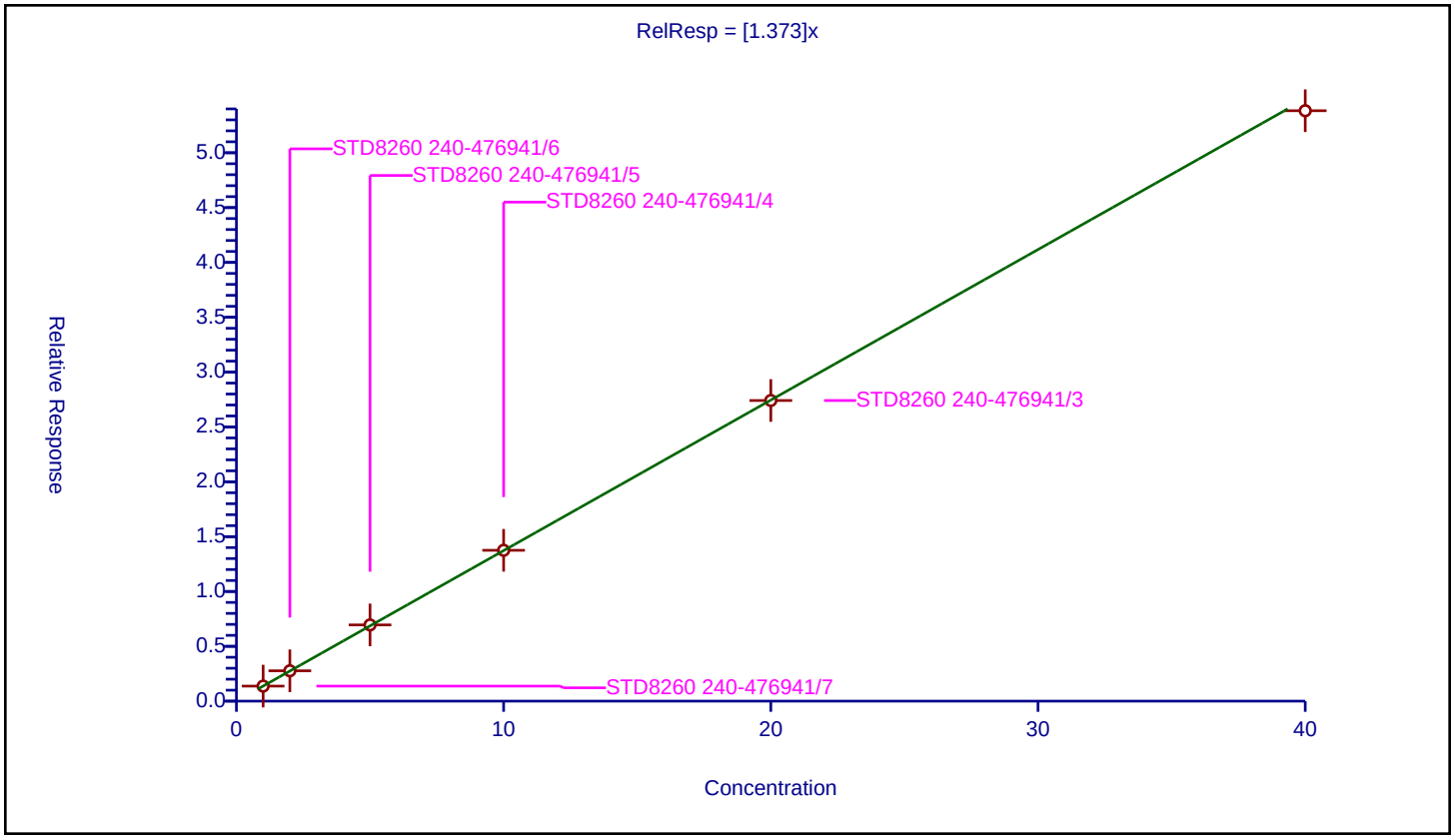
Curve Coefficients

Intercept:	0
Slope:	1.373

Error Coefficients

Standard Error:	1860000
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.370731	10.0	606056.0	1.370731	Y
2	STD8260 240-476941/6	2.0	2.76603	10.0	608128.0	1.383015	Y
3	STD8260 240-476941/5	5.0	6.949366	10.0	621189.0	1.389873	Y
4	STD8260 240-476941/4	10.0	13.752614	10.0	639882.0	1.375261	Y
5	STD8260 240-476941/3	20.0	27.410336	10.0	663171.0	1.370517	Y
6	STD8260 240-476941/2	40.0	53.833426	10.0	670129.0	1.345836	Y



Calibration / 1,2-Dibromo-3-Chloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

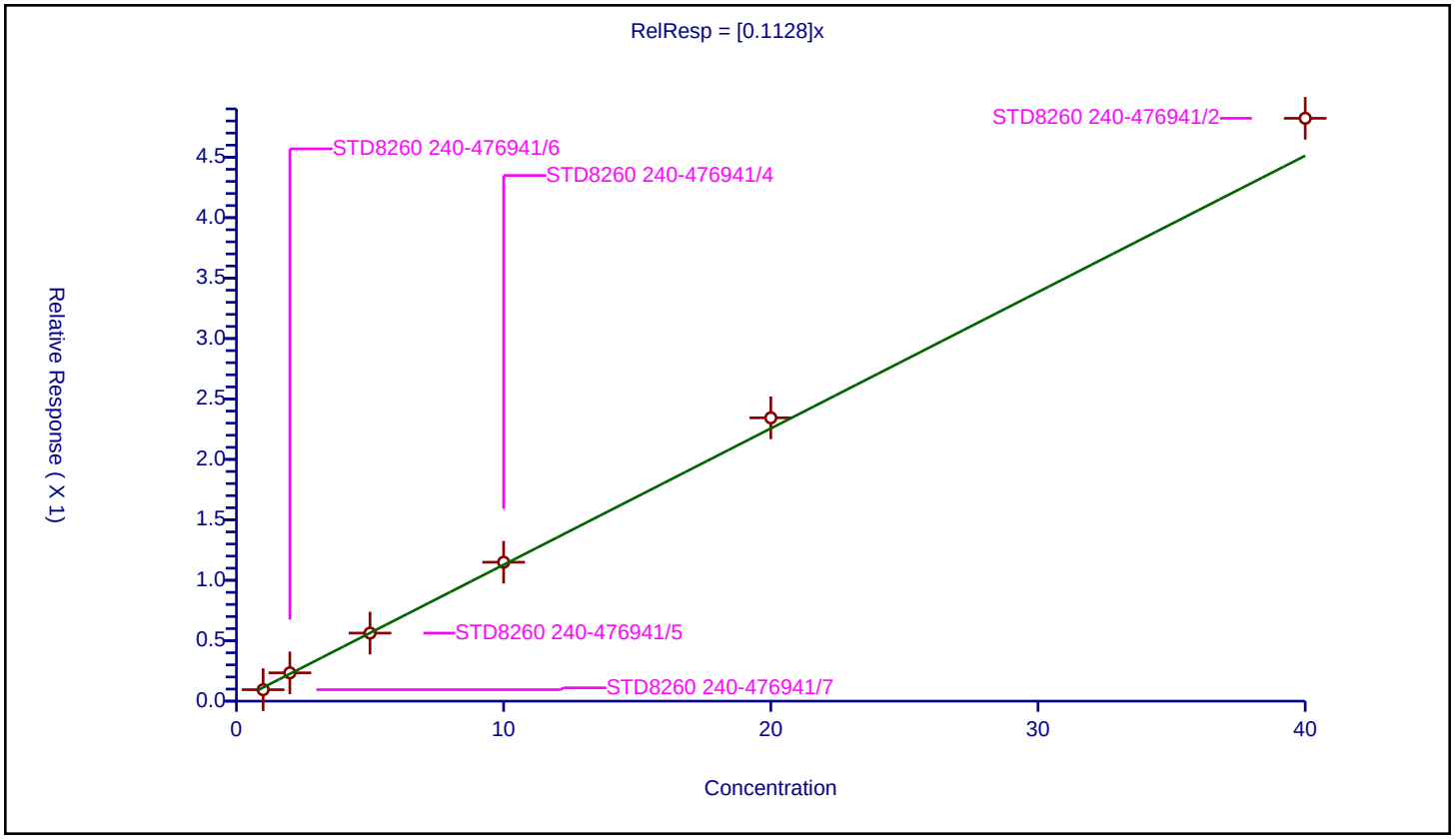
Curve Coefficients

Intercept:	0
Slope:	0.1128

Error Coefficients

Standard Error:	165000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.094562	10.0	606056.0	0.094562	Y
2	STD8260 240-476941/6	2.0	0.234178	10.0	608128.0	0.117089	Y
3	STD8260 240-476941/5	5.0	0.562856	10.0	621189.0	0.112571	Y
4	STD8260 240-476941/4	10.0	1.149181	10.0	639882.0	0.114918	Y
5	STD8260 240-476941/3	20.0	2.344056	10.0	663171.0	0.117203	Y
6	STD8260 240-476941/2	40.0	4.82231	10.0	670129.0	0.120558	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

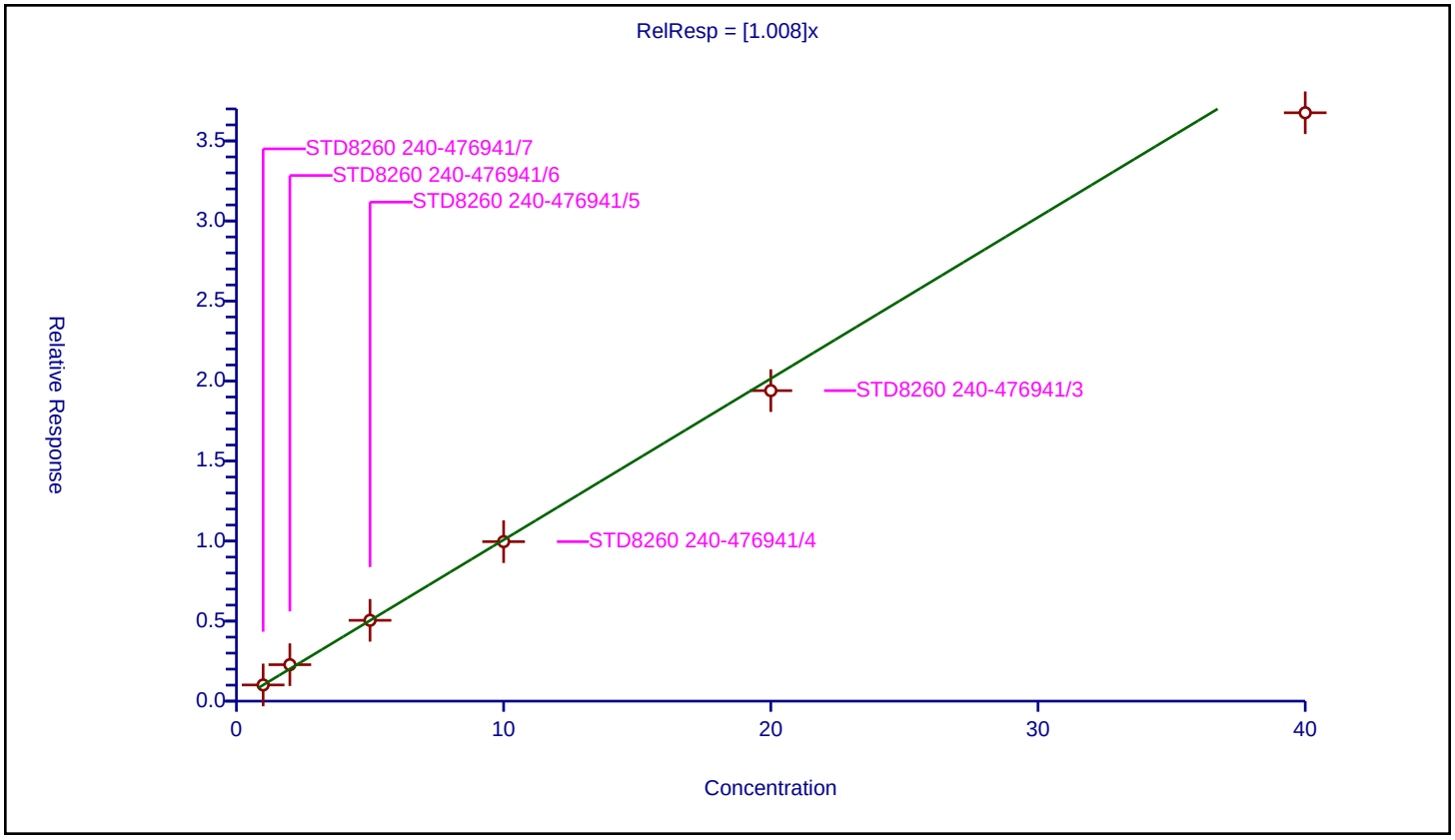
Curve Coefficients

Intercept:	0
Slope:	1.008

Error Coefficients

Standard Error:	1280000
Relative Standard Error:	7.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.011375	10.0	606056.0	1.011375	Y
2	STD8260 240-476941/6	2.0	2.277382	10.0	608128.0	1.138691	Y
3	STD8260 240-476941/5	5.0	5.049494	10.0	621189.0	1.009899	Y
4	STD8260 240-476941/4	10.0	9.964243	10.0	639882.0	0.996424	Y
5	STD8260 240-476941/3	20.0	19.398933	10.0	663171.0	0.969947	Y
6	STD8260 240-476941/2	40.0	36.758535	10.0	670129.0	0.918963	Y



Calibration / Hexachlorobutadiene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

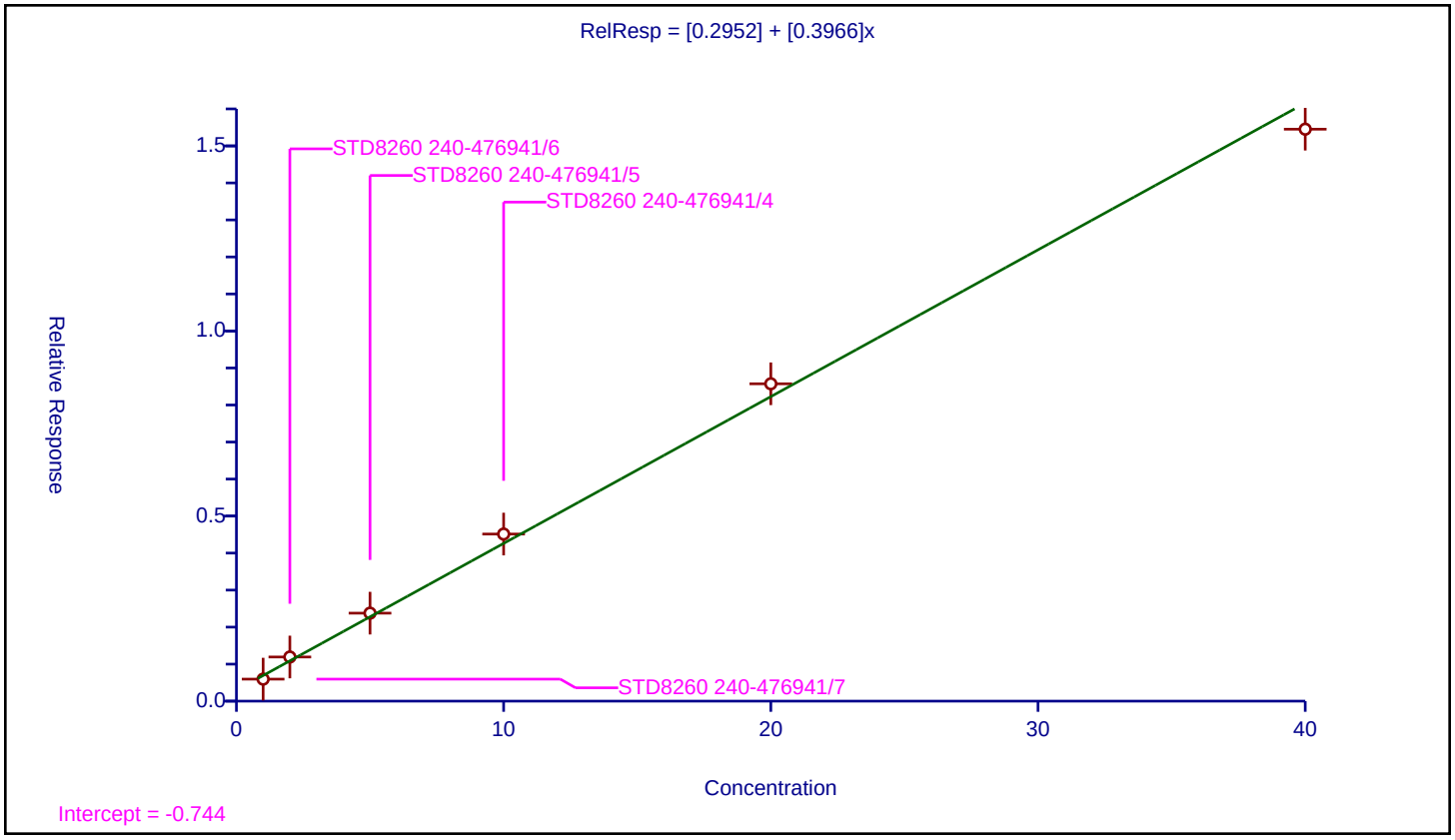
Curve Coefficients

Intercept:	0.2952
Slope:	0.3966

Error Coefficients

Standard Error:	614000
Relative Standard Error:	14.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.594665	10.0	606056.0	0.594665	Y
2	STD8260 240-476941/6	2.0	1.19294	10.0	608128.0	0.59647	Y
3	STD8260 240-476941/5	5.0	2.37707	10.0	621189.0	0.475414	Y
4	STD8260 240-476941/4	10.0	4.514192	10.0	639882.0	0.451419	Y
5	STD8260 240-476941/3	20.0	8.573762	10.0	663171.0	0.428688	Y
6	STD8260 240-476941/2	40.0	15.451353	10.0	670129.0	0.386284	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

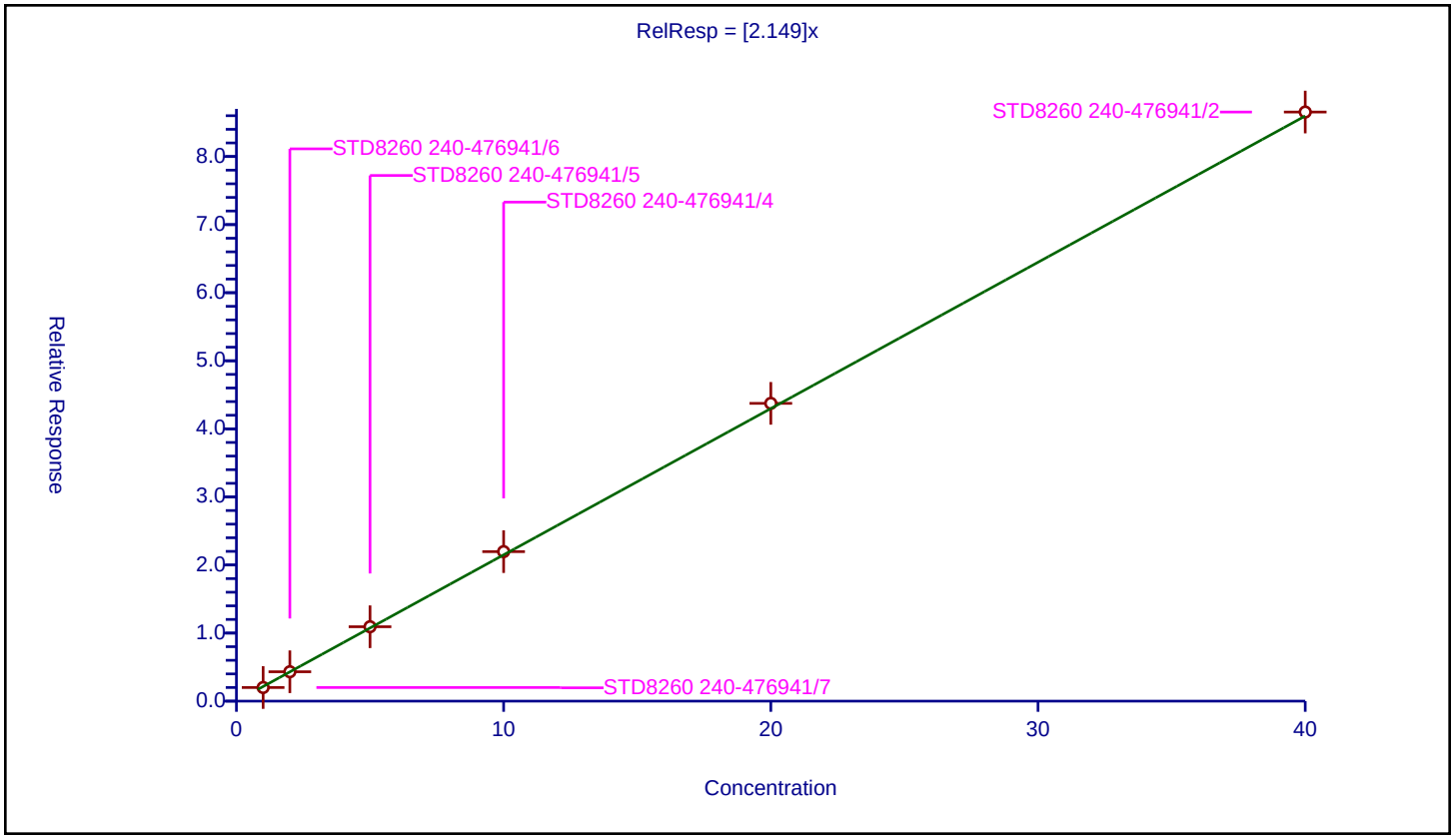
Curve Coefficients

Intercept:	0
Slope:	2.149

Error Coefficients

Standard Error:	2990000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.002472	10.0	606056.0	2.002472	Y
2	STD8260 240-476941/6	2.0	4.316838	10.0	608128.0	2.158419	Y
3	STD8260 240-476941/5	5.0	10.928751	10.0	621189.0	2.18575	Y
4	STD8260 240-476941/4	10.0	21.96444	10.0	639882.0	2.196444	Y
5	STD8260 240-476941/3	20.0	43.743574	10.0	663171.0	2.187179	Y
6	STD8260 240-476941/2	40.0	86.537965	10.0	670129.0	2.163449	Y



Calibration / 1,2,3-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

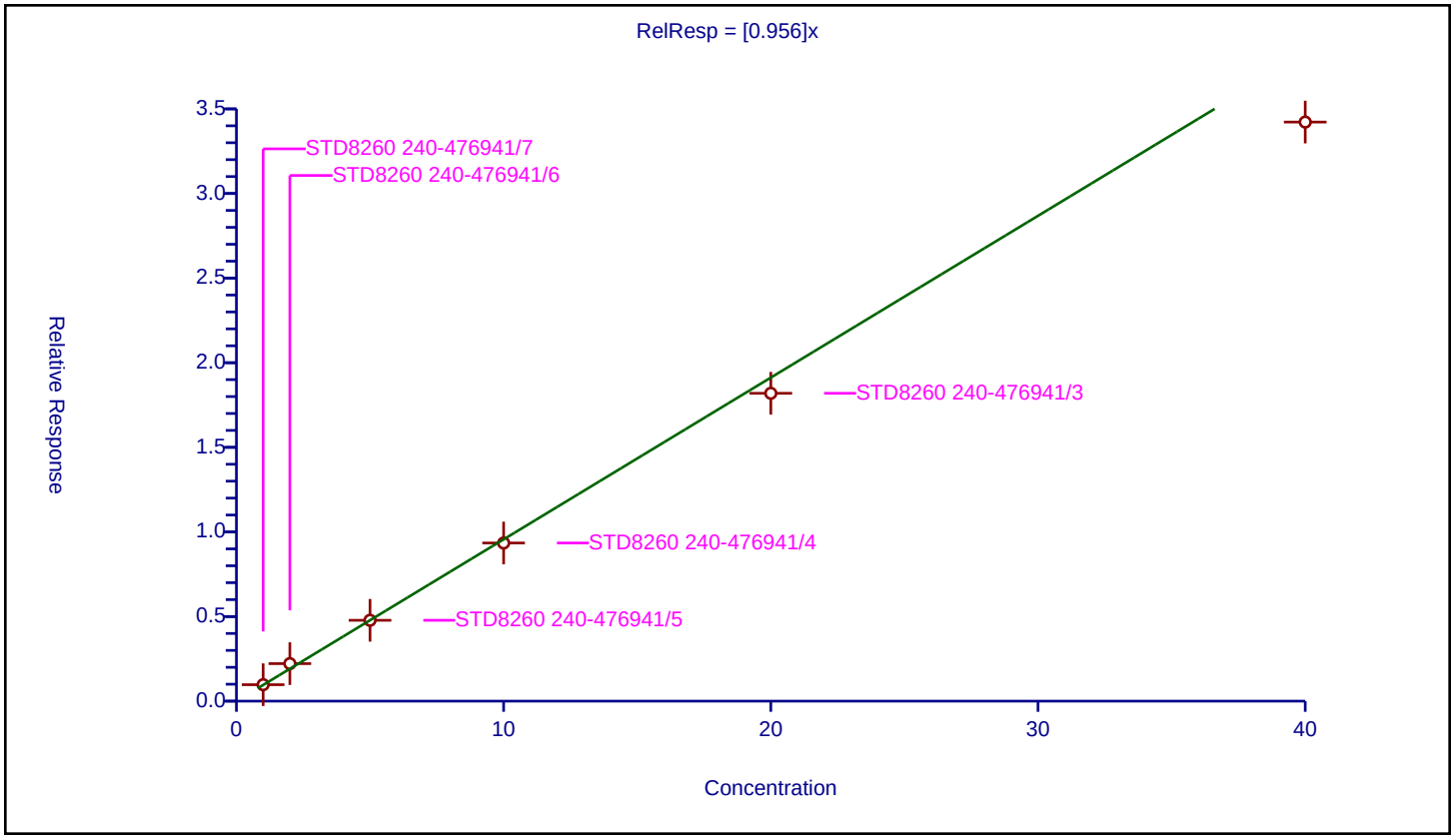
Curve Coefficients

Intercept:	0
Slope:	0.956

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	8.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.972435	10.0	606056.0	0.972435	Y
2	STD8260 240-476941/6	2.0	2.216967	10.0	608128.0	1.108484	Y
3	STD8260 240-476941/5	5.0	4.778063	10.0	621189.0	0.955613	Y
4	STD8260 240-476941/4	10.0	9.344895	10.0	639882.0	0.934489	Y
5	STD8260 240-476941/3	20.0	18.192306	10.0	663171.0	0.909615	Y
6	STD8260 240-476941/2	40.0	34.221859	10.0	670129.0	0.855546	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3162		0.0105	0.0100	4.9	50.0
Chloromethane	Ave	0.3426	0.3320	0.1000	0.00969	0.0100	-3.1	50.0
Vinyl chloride	Ave	0.2936	0.2920		0.00994	0.0100	-0.6	20.0
Butadiene	Ave	0.3746	0.3489		0.00932	0.0100	-6.8	50.0
Bromomethane	Ave	0.2460	0.2290		0.00931	0.0100	-6.9	50.0
Chloroethane	Ave	0.2164	0.2012		0.00930	0.0100	-7.0	50.0
Dichlorofluoromethane	Ave	0.5757	0.5490		0.00954	0.0100	-4.6	50.0
Trichlorofluoromethane	Ave	0.5212	0.5235		0.0100	0.0100	0.5	50.0
Ethyl ether	Ave	0.2512	0.2446		0.00974	0.0100	-2.6	50.0
Acrolein	Lin		0.0072		0.0217	0.0500	-56.5*	50.0
1,1-Dichloroethene	Ave	0.2891	0.2948		0.0102	0.0100	2.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.2477		0.0103	0.0100	2.8	50.0
Acetone	Ave	0.0202	0.0217		0.0215	0.0200	7.4	50.0
Iodomethane	Ave	0.4428	0.4952		0.0112	0.0100	11.8	50.0
Carbon disulfide	Ave	0.8057	0.7778		0.00965	0.0100	-3.5	50.0
3-Chloro-1-propene	Ave	0.1698	0.1619		0.00953	0.0100	-4.7	50.0
Methyl acetate	Ave	0.1269	0.1257		0.0198	0.0200	-1.0	50.0
Methylene Chloride	Ave	0.2691	0.2551		0.00948	0.0100	-5.2	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0135		0.0952	0.100	-4.8	50.0
Acrylonitrile	Ave	0.0679	0.0654		0.0964	0.100	-3.6	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6922		0.00987	0.0100	-1.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2782		0.00964	0.0100	-3.6	50.0
Hexane	Ave	0.0578	0.0516		0.00893	0.0100	-10.7	20.0
1,1-Dichloroethane	Ave	0.4573	0.4471	0.1000	0.00978	0.0100	-2.2	50.0
Vinyl acetate	Ave	0.3891	0.3568		0.00917	0.0100	-8.3	50.0
2,2-Dichloropropane	Ave	0.0889	0.0893		0.0100	0.0100	0.5	50.0
2-Butanone (MEK)	Ave	0.0211	0.0211		0.0200	0.0200	0.0	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.3083		0.0101	0.0100	1.1	50.0
Chlorobromomethane	Ave	0.1440	0.1399		0.00971	0.0100	-2.9	50.0
Tetrahydrofuran	Ave	0.0526	0.0498		0.0189	0.0200	-5.3	50.0
Chloroform	Ave	0.4553	0.4511		0.00991	0.0100	-0.9	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.4200		0.0102	0.0100	2.4	50.0
Cyclohexane	Ave	0.4232	0.4079		0.00964	0.0100	-3.6	50.0
1,1-Dichloropropene	Ave	0.3688	0.3540		0.00960	0.0100	-4.0	50.0
Carbon tetrachloride	Ave	0.3647	0.3645		0.00999	0.0100	-0.0	50.0
Isobutyl alcohol	Ave	0.0045	0.0045		0.250	0.250	-0.0	50.0
Benzene	Ave	1.097	1.041		0.00949	0.0100	-5.1	50.0
1,2-Dichloroethane	Ave	0.3263	0.3199		0.00981	0.0100	-1.9	50.0
n-Heptane	Ave	0.0495	0.0427		0.00864	0.0100	-13.6	50.0
Trichloroethene	Ave	0.2948	0.2849		0.00966	0.0100	-3.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.3434		0.00933	0.0100	-6.7	50.0
1,2-Dichloropropane	Ave	0.2272	0.2268		0.00998	0.0100	-0.2	20.0
1,4-Dioxane	Qua		0.0008		0.0759	0.200	-62.0*	50.0
Dibromomethane	Ave	0.1312	0.1315		0.0100	0.0100	0.2	50.0
Dichlorobromomethane	Ave	0.2893	0.2932		0.0101	0.0100	1.4	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.0771		0.00982	0.0100	-1.8	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3147		0.00999	0.0100	-0.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.1567		0.0207	0.0200	3.4	50.0
Toluene	Ave	1.478	1.427		0.00966	0.0100	-3.4	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.3485		0.00920	0.0100	-8.0	50.0
Ethyl methacrylate	Ave	0.2855	0.2734		0.00958	0.0100	-4.2	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2384		0.00983	0.0100	-1.7	50.0
Tetrachloroethene	Ave	0.3113	0.3026		0.00972	0.0100	-2.8	50.0
1,3-Dichloropropane	Ave	0.4170	0.4070		0.00976	0.0100	-2.4	50.0
2-Hexanone	Ave	0.1387	0.1422		0.0205	0.0200	2.5	50.0
Chlorodibromomethane	Ave	0.2665	0.2652		0.00995	0.0100	-0.5	50.0
Ethylene Dibromide	Ave	0.2342	0.2240		0.00957	0.0100	-4.3	50.0
Chlorobenzene	Ave	0.9020	0.8871	0.3000	0.00983	0.0100	-1.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3822		0.0102	0.0100	1.7	50.0
Ethylbenzene	Ave	0.4928	0.4906		0.00996	0.0100	-0.4	20.0
m-Xylene & p-Xylene	Ave	1.195	1.180		0.00987	0.0100	-1.3	50.0
o-Xylene	Ave	0.6424	0.6426		0.0100	0.0100	0.0	50.0
Styrene	Ave	0.8332	0.8410		0.0101	0.0100	0.9	50.0
Bromoform	Ave	0.1647	0.1612	0.1000	0.00979	0.0100	-2.1	50.0
Isopropylbenzene	Ave	1.586	1.602		0.0101	0.0100	1.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.5091	0.3000	0.00995	0.0100	-0.5	50.0
Bromobenzene	Ave	0.7041	0.7006		0.00995	0.0100	-0.5	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.1703		0.0103	0.0100	2.6	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1015		0.00870	0.0100	-13.0	50.0
N-Propylbenzene	Ave	0.6976	0.6962		0.00998	0.0100	-0.2	50.0
2-Chlorotoluene	Ave	0.6475	0.6591		0.0102	0.0100	1.8	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.185		0.00995	0.0100	-0.5	50.0
4-Chlorotoluene	Ave	2.069	2.053		0.00992	0.0100	-0.8	50.0
tert-Butylbenzene	Ave	1.877	1.840		0.00980	0.0100	-2.0	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.297		0.0102	0.0100	2.0	50.0
sec-Butylbenzene	Ave	2.474	2.409		0.00974	0.0100	-2.6	50.0
1,3-Dichlorobenzene	Ave	1.319	1.302		0.00987	0.0100	-1.3	50.0
4-Isopropyltoluene	Ave	2.213	2.161		0.00977	0.0100	-2.3	50.0
1,4-Dichlorobenzene	Ave	1.370	1.339		0.00978	0.0100	-2.2	50.0
n-Butylbenzene	Ave	1.792	1.672		0.00933	0.0100	-6.7	50.0
1,2-Dichlorobenzene	Ave	1.373	1.340		0.00976	0.0100	-2.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.1117		0.00990	0.0100	-1.0	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.9456		0.00939	0.0100	-6.1	50.0
Hexachlorobutadiene	Lin1		0.3990		0.00932	0.0100	-6.8	50.0
Naphthalene	Ave	2.149	2.141		0.00996	0.0100	-0.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.8985		0.00940	0.0100	-6.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2236		0.00957	0.0100	-4.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2484		0.00943	0.0100	-5.7	50.0
Toluene-d8 (Surr)	Ave	1.226	1.185		0.00967	0.0100	-3.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4194		0.0101	0.0100	1.2	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5650.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 11:01:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-014
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 13:17:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1567389	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	86	1054688	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.898	9.899	-0.001	92	623148	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	350444	10.0	9.57	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	389325	10.0	9.43	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1249416	10.0	9.67	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	442373	10.0	10.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	495659	10.0	10.5	
10 Chloromethane	50	1.574	1.574	0.000	99	520359	10.0	9.69	
11 Vinyl chloride	62	1.669	1.669	0.000	98	457630	10.0	9.94	
12 Butadiene	54	1.681	1.681	0.000	99	546882	10.0	9.32	
13 Bromomethane	94	1.930	1.918	0.012	91	358879	10.0	9.31	
14 Chloroethane	64	2.001	2.001	0.000	100	315290	10.0	9.30	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	860500	10.0	9.54	
16 Trichlorofluoromethane	101	2.190	2.191	-0.001	98	820589	10.0	10.0	
17 Ethyl ether	59	2.416	2.416	0.000	90	383408	10.0	9.74	
18 Acrolein	56	2.534	2.523	0.011	96	56412	50.0	21.7	
19 1,1-Dichloroethene	96	2.617	2.606	0.011	98	462079	10.0	10.2	
20 112TCTFE	151	2.629	2.629	0.000	93	388305	10.0	10.3	
21 Acetone	58	2.653	2.653	0.000	98	68104	20.0	21.5	
22 Iodomethane	142	2.748	2.748	0.000	99	776173	10.0	11.2	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	1219081	10.0	9.65	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	253795	10.0	9.53	
27 Methyl acetate	43	2.914	2.914	0.000	97	394009	20.0	19.8	
28 Methylene Chloride	84	3.009	3.009	0.000	92	399883	10.0	9.48	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	97	211021	100.0	95.2	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	1025302	100.0	96.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	1084905	10.0	9.87	
32 trans-1,2-Dichloroethene	96	3.234	3.222	0.012	96	436028	10.0	9.64	
34 Hexane	86	3.436	3.436	0.000	93	80909	10.0	8.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	700751	10.0	9.78	
36 Vinyl acetate	43	3.602	3.602	0.000	97	559271	10.0	9.17	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	82	140009	10.0	10.0	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	82	483248	10.0	10.1	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	98	66266	20.0	20.0	
46 Chlorobromomethane	128	4.242	4.242	0.000	92	219218	10.0	9.71	
47 Tetrahydrofuran	42	4.278	4.278	0.000	89	156037	20.0	18.9	
48 Chloroform	83	4.301	4.302	-0.001	93	707088	10.0	9.91	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	658226	10.0	10.2	
50 Cyclohexane	56	4.503	4.503	0.000	90	639283	10.0	9.64	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	571263	10.0	10.0	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	95	554900	10.0	9.60	
53 Isobutyl alcohol	41	4.669	4.669	0.000	94	175205	250.0	249.9	
55 Benzene	78	4.776	4.776	0.000	95	1630870	10.0	9.49	
56 1,2-Dichloroethane	62	4.787	4.788	-0.001	98	501437	10.0	9.81	
58 n-Heptane	100	4.965	4.966	-0.001	89	67003	10.0	8.64	
60 Trichloroethene	130	5.309	5.298	0.011	96	446561	10.0	9.66	
62 Methylcyclohexane	83	5.463	5.464	-0.001	87	538310	10.0	9.33	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	93	355502	10.0	9.98	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	23519	200.0	75.9	
65 Dibromomethane	93	5.606	5.606	0.000	89	206169	10.0	10.0	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	99	459603	10.0	10.1	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	92	120867	10.0	9.82	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	493282	10.0	10.0	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	491361	20.0	20.7	
72 Toluene	91	6.412	6.412	0.000	98	1505186	10.0	9.66	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	367547	10.0	9.20	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	288347	10.0	9.58	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	251484	10.0	9.83	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	319194	10.0	9.72	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	429296	10.0	9.76	
78 2-Hexanone	43	6.981	6.982	-0.001	96	299921	20.0	20.5	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	279748	10.0	9.95	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	236269	10.0	9.57	
84 Chlorobenzene	112	7.681	7.681	0.000	99	935597	10.0	9.83	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	403079	10.0	10.2	
86 Ethylbenzene	106	7.776	7.776	0.000	98	517466	10.0	9.96	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1244371	10.0	9.87	
88 o-Xylene	106	8.262	8.262	0.000	97	677724	10.0	10.0	
89 Styrene	104	8.274	8.274	0.000	94	887028	10.0	10.1	
90 Bromoform	173	8.464	8.464	0.000	97	170025	10.0	9.79	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	1690078	10.0	10.1	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.903	-0.001	96	317225	10.0	9.95	
95 Bromobenzene	156	8.914	8.914	0.000	89	436574	10.0	9.95	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	106115	10.0	10.3	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	81	63245	10.0	8.70	
98 N-Propylbenzene	120	9.009	9.009	0.000	98	433860	10.0	9.98	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	410722	10.0	10.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1361735	10.0	9.95	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	1279373	10.0	9.92	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	91	1146514	10.0	9.80	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	1431299	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	1501320	10.0	9.74	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	98	811165	10.0	9.87	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	1346833	10.0	9.77	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	834590	10.0	9.78	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	1041656	10.0	9.33	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	834752	10.0	9.76	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	86	69628	10.0	9.90	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	589242	10.0	9.39	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	248610	10.0	9.32	
119 Naphthalene	128	12.128	12.128	0.000	97	1333933	10.0	9.96	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	559905	10.0	9.40	
S 129 Xylenes, Total	106				0		20.0	19.9	
S 130 Total BTEX	1				0		50.0	49.0	
S 131 Trihalomethanes, Total	1				0		40.0	39.8	

QC Flag Legend

Processing Flags

Reagents:

VMFASAW_00366	Amount Added:	8.00	Units: uL	
VMFASGW_00399	Amount Added:	8.00	Units: uL	
VMFASPW_00390	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

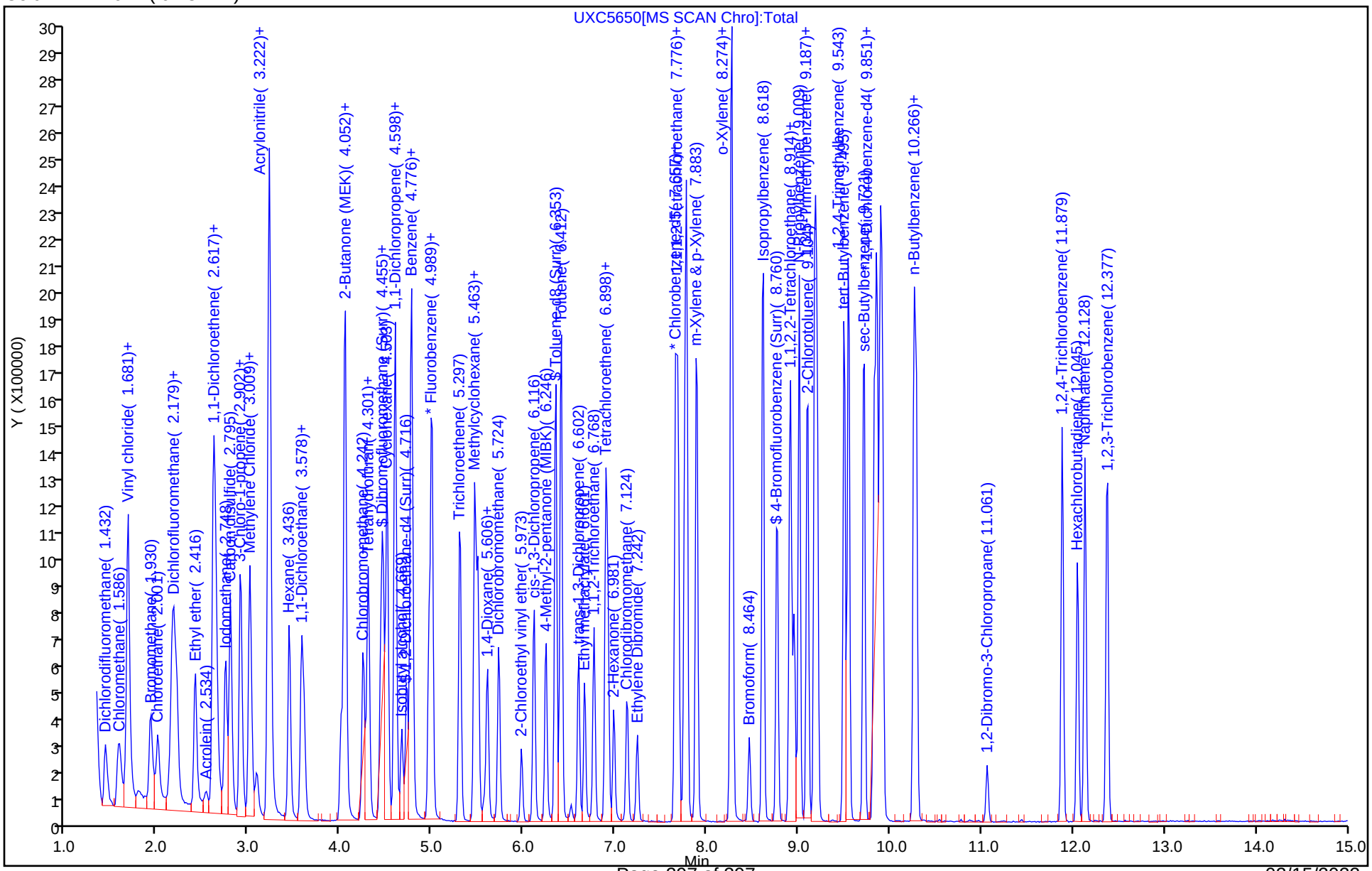
Report Date: 18-Mar-2021 09:02:21 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5650.D

Injection Date:	16-Mar-2021 11:01:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: ICV 240-476941/15 Calibration Date: 03/16/2021 13:34

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5657.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2337	0.2225		0.00952	0.0100	-4.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2492		0.00946	0.0100	-5.4	50.0
Toluene-d8 (Surr)	Ave	1.226	1.118		0.00912	0.0100	-8.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.3942		0.00951	0.0100	-4.9	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 13:34:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-015
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1522004	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1034257	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	604775	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	338696	10.0	9.52	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	379316	10.0	9.46	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1156047	10.0	9.12	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	407723	10.0	9.51	
25 Acetonitrile	41	2.890	2.890	0.000	99	249511	100.0	90.9	
37 Isopropyl ether	87	3.614	3.614	0.000	92	325479	10.0	9.55	
38 2-Chloro-1,3-butadiene	53	3.649	3.649	0.000	93	533875	10.0	8.72	
39 Tert-butyl ethyl ether	59	3.910	3.910	0.000	97	1054503	10.0	9.57	
43 Ethyl acetate	43	4.088	4.088	0.000	100	426002	20.0	18.6	
44 Propionitrile	54	4.112	4.112	0.000	99	339954	100.0	96.5	
45 Methacrylonitrile	41	4.230	4.230	0.000	93	1641896	100.0	98.9	
54 Isooctane	57	4.823	4.823	0.000	97	686371	10.0	8.00	
57 Tert-amyl methyl ether	73	4.847	4.847	0.000	98	1001678	10.0	9.77	
59 n-Butanol	56	5.215	5.226	-0.011	86	103032	250.0	210.0	
61 Ethyl acrylate	55	5.381	5.381	0.000	99	250500	10.0	9.92	
64 Methyl methacrylate	41	5.570	5.570	0.000	89	381748	20.0	20.1	
68 2-Nitropropane	41	5.926	5.926	0.000	98	113010	20.0	20.2	
79 n-Butyl acetate	43	7.088	7.088	0.000	97	334991	10.0	9.95	
83 1-Chlorohexane	91	7.646	7.646	0.000	98	340245	10.0	9.36	
92 Cyclohexanone	55	8.713	8.713	0.000	92	77883	100.0	92.8	
105 Pentachloroethane	167	9.531	9.531	0.000	96	211931	20.0	11.3	
111 1,2,3-Trimethylbenzene	105	9.970	9.970	0.000	98	1414631	10.0	10.1	
112 Benzyl chloride	126	10.053	10.053	0.000	98	101362	10.0	8.10	
116 1,3,5-Trichlorobenzene	180	11.262	11.262	0.000	98	578799	10.0	9.26	
121 2-Methylnaphthalene	142	13.361	13.361	0.000	93	1347865	20.0	18.6	
122 1-Methylnaphthalene	142	13.610	13.610	0.000	93	1177496	20.0	18.2	

Reagents:

VMFASA9W_00312	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

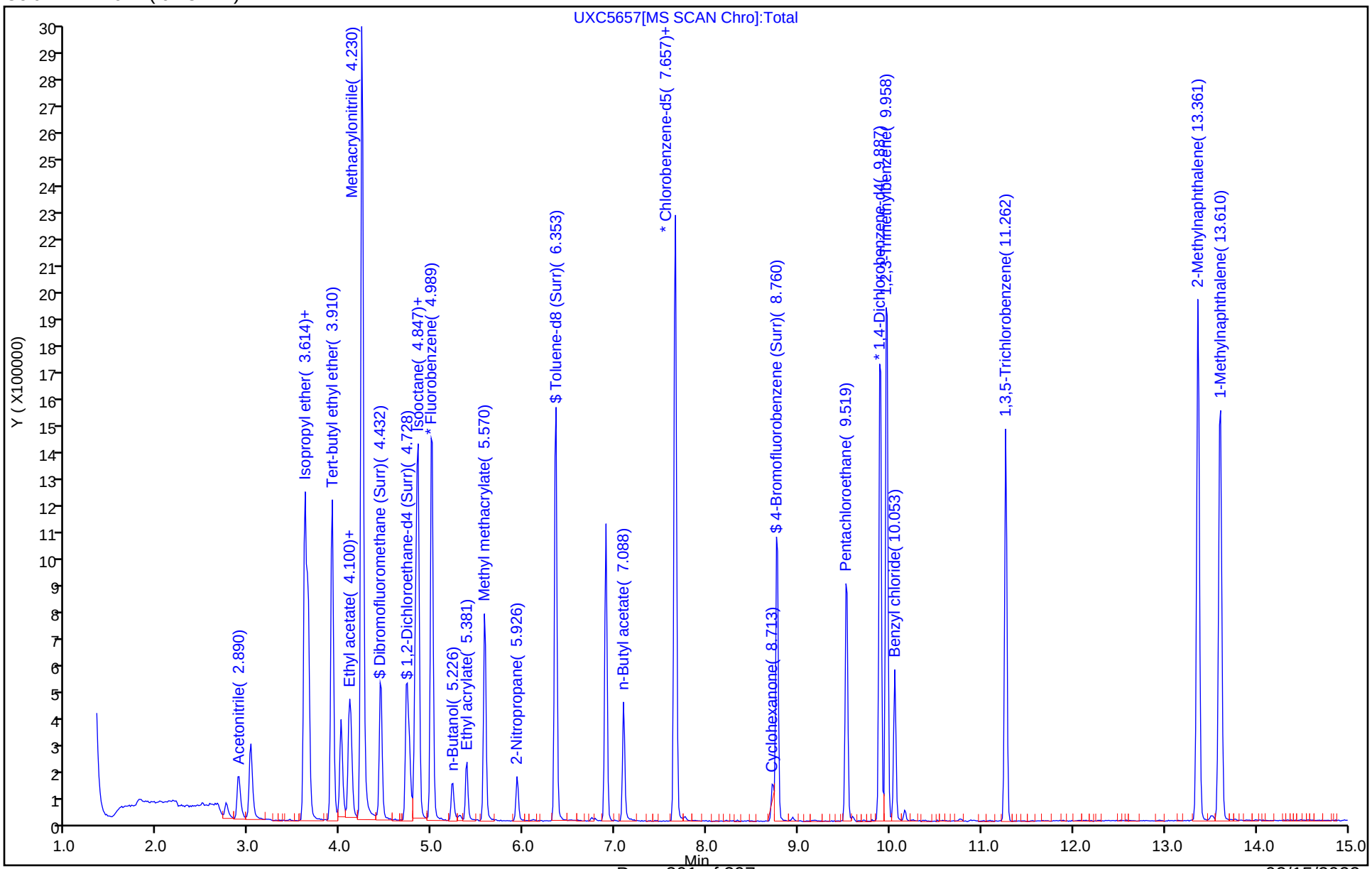
Report Date: 18-Mar-2021 09:02:26 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D

Injection Date:	16-Mar-2021 13:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV A9			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: ICV 240-476941/15 Calibration Date: 03/16/2021 13:34

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 11:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 13:12

Lab File ID: UXC5657.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0180	0.0164		0.0909	0.100	-9.1	50.0
Isopropyl ether	Ave	0.2240	0.2138		0.00955	0.0100	-4.5	50.0
2-Chloro-1,3-butadiene	Ave	0.4022	0.3508		0.00872	0.0100	-12.8	50.0
Tert-butyl ethyl ether	Ave	0.7237	0.6928		0.00957	0.0100	-4.3	50.0
Ethyl acetate	Ave	0.1508	0.1399		0.0186	0.0200	-7.2	50.0
Propionitrile	Ave	0.0231	0.0223		0.0965	0.100	-3.5	50.0
Methacrylonitrile	Ave	0.1091	0.1079		0.0989	0.100	-1.1	50.0
Tert-amyl methyl ether	Ave	0.6734	0.6581		0.00977	0.0100	-2.3	50.0
n-Butanol	Ave	0.0032	0.0027		0.210	0.250	-16.0	50.0
Ethyl acrylate	Ave	0.1660	0.1646		0.00992	0.0100	-0.8	50.0
Methyl methacrylate	Ave	0.1247	0.1254		0.0201	0.0200	0.6	50.0
2-Nitropropane	Ave	0.0367	0.0371		0.0202	0.0200	1.2	50.0
n-Butyl acetate	Ave	0.2211	0.2201		0.00995	0.0100	-0.5	50.0
1-Chlorohexane	Ave	0.3516	0.3290		0.00936	0.0100	-6.4	50.0
Cyclohexanone	Ave	0.0139	0.0129		0.0928	0.100	-7.2	50.0
Pentachloroethane	Qua		0.1025		0.0113	0.0200	-43.3	50.0
1,2,3-Trimethylbenzene	Ave	2.318	2.339		0.0101	0.0100	0.9	50.0
Benzyl chloride	Lin1		0.1676		0.00810	0.0100	-19.0	50.0
1,3,5-Trichlorobenzene	Ave	1.033	0.9570		0.00926	0.0100	-7.4	50.0
2-Methylnaphthalene	Ave	1.199	1.114		0.0186	0.0200	-7.1	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 13:34:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-015
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1522004	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1034257	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	604775	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	338696	10.0	9.52	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	379316	10.0	9.46	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1156047	10.0	9.12	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	407723	10.0	9.51	
25 Acetonitrile	41	2.890	2.890	0.000	99	249511	100.0	90.9	
37 Isopropyl ether	87	3.614	3.614	0.000	92	325479	10.0	9.55	
38 2-Chloro-1,3-butadiene	53	3.649	3.649	0.000	93	533875	10.0	8.72	
39 Tert-butyl ethyl ether	59	3.910	3.910	0.000	97	1054503	10.0	9.57	
43 Ethyl acetate	43	4.088	4.088	0.000	100	426002	20.0	18.6	
44 Propionitrile	54	4.112	4.112	0.000	99	339954	100.0	96.5	
45 Methacrylonitrile	41	4.230	4.230	0.000	93	1641896	100.0	98.9	
54 Isooctane	57	4.823	4.823	0.000	97	686371	10.0	8.00	
57 Tert-amyl methyl ether	73	4.847	4.847	0.000	98	1001678	10.0	9.77	
59 n-Butanol	56	5.215	5.226	-0.011	86	103032	250.0	210.0	
61 Ethyl acrylate	55	5.381	5.381	0.000	99	250500	10.0	9.92	
64 Methyl methacrylate	41	5.570	5.570	0.000	89	381748	20.0	20.1	
68 2-Nitropropane	41	5.926	5.926	0.000	98	113010	20.0	20.2	
79 n-Butyl acetate	43	7.088	7.088	0.000	97	334991	10.0	9.95	
83 1-Chlorohexane	91	7.646	7.646	0.000	98	340245	10.0	9.36	
92 Cyclohexanone	55	8.713	8.713	0.000	92	77883	100.0	92.8	
105 Pentachloroethane	167	9.531	9.531	0.000	96	211931	20.0	11.3	
111 1,2,3-Trimethylbenzene	105	9.970	9.970	0.000	98	1414631	10.0	10.1	
112 Benzyl chloride	126	10.053	10.053	0.000	98	101362	10.0	8.10	
116 1,3,5-Trichlorobenzene	180	11.262	11.262	0.000	98	578799	10.0	9.26	
121 2-Methylnaphthalene	142	13.361	13.361	0.000	93	1347865	20.0	18.6	
122 1-Methylnaphthalene	142	13.610	13.610	0.000	93	1177496	20.0	18.2	

Reagents:

VMFASA9W_00312	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

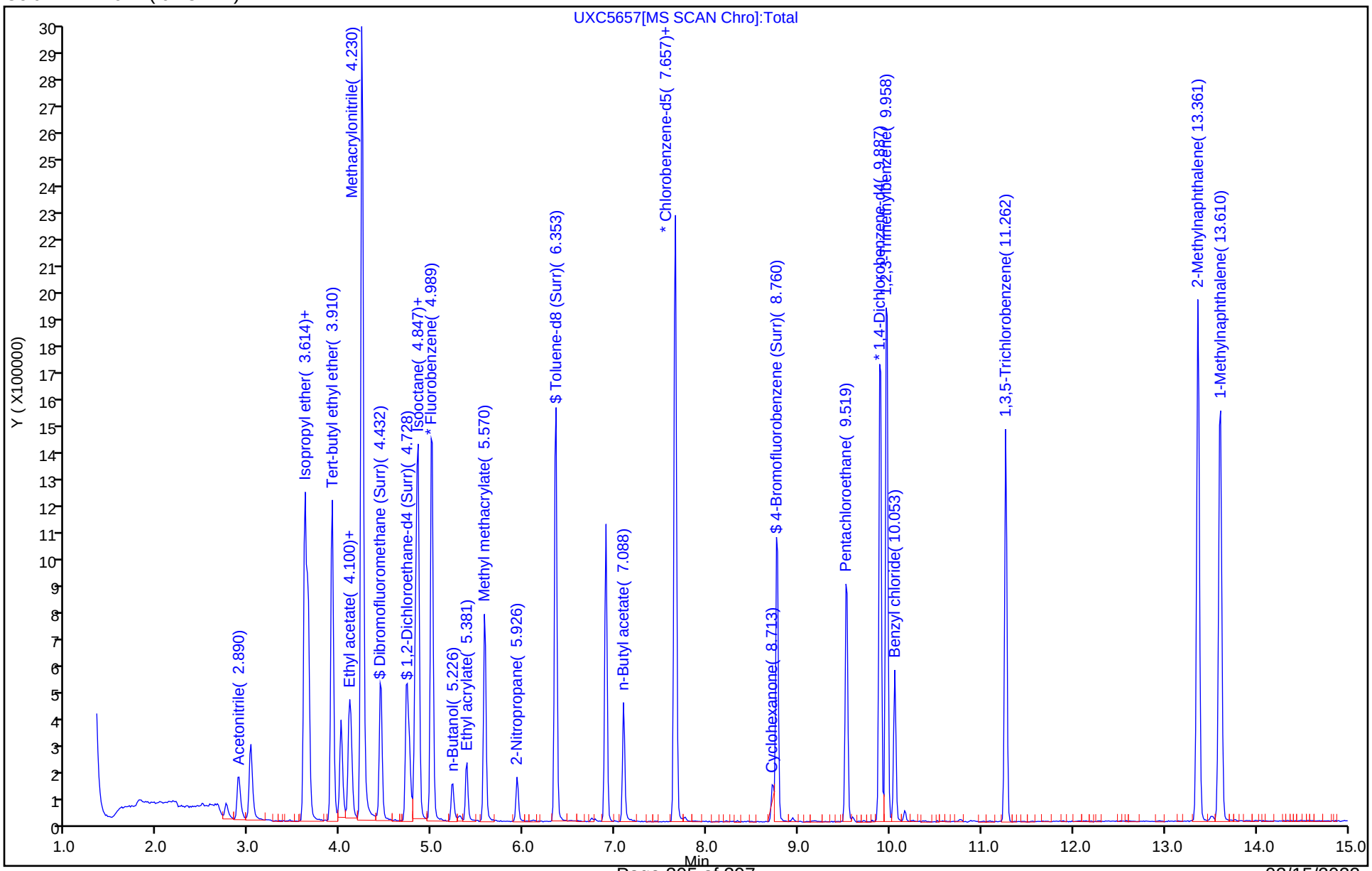
Report Date: 18-Mar-2021 09:02:26 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D

Injection Date:	16-Mar-2021 13:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV A9			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3371		0.0112	0.0100	11.9	50.0
Chloromethane	Ave	0.3426	0.4083	0.1000	0.0119	0.0100	19.2	50.0
Vinyl chloride	Ave	0.2936	0.3658		0.0125	0.0100	24.6*	20.0
Butadiene	Ave	0.3746	0.4018		0.0107	0.0100	7.3	50.0
Bromomethane	Ave	0.2460	0.2054		0.00835	0.0100	-16.5	50.0
Chloroethane	Ave	0.2164	0.2300		0.0106	0.0100	6.3	50.0
Dichlorofluoromethane	Ave	0.5757	0.5189		0.00901	0.0100	-9.9	50.0
Trichlorofluoromethane	Ave	0.5212	0.4604		0.00883	0.0100	-11.7	50.0
Ethyl ether	Ave	0.2512	0.2764		0.0110	0.0100	10.0	50.0
Acrolein	Lin		0.0232		0.0761	0.0500	52.2*	50.0
1,1-Dichloroethene	Ave	0.2891	0.2819		0.00975	0.0100	-2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.2206		0.00915	0.0100	-8.5	50.0
Acetone	Ave	0.0202	0.0249		0.0246	0.0200	23.1	50.0
Iodomethane	Ave	0.4428	0.3925		0.00886	0.0100	-11.4	50.0
Carbon disulfide	Ave	0.8057	0.5936		0.00737	0.0100	-26.3	50.0
3-Chloro-1-propene	Ave	0.1698	0.1823		0.0107	0.0100	7.3	50.0
Methyl acetate	Ave	0.1269	0.1853		0.0292	0.0200	46.0	50.0
Methylene Chloride	Ave	0.2691	0.2946		0.0109	0.0100	9.5	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0118		0.0836	0.100	-16.4	50.0
Acrylonitrile	Ave	0.0679	0.0915		0.135	0.100	34.8	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6991		0.00997	0.0100	-0.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2853		0.00988	0.0100	-1.2	50.0
Hexane	Ave	0.0578	0.0590		0.0102	0.0100	2.0	20.0
1,1-Dichloroethane	Ave	0.4573	0.5095	0.1000	0.0111	0.0100	11.4	50.0
Vinyl acetate	Ave	0.3891	0.4567		0.0117	0.0100	17.4	50.0
2,2-Dichloropropane	Ave	0.0889	0.0737		0.00829	0.0100	-17.1	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.3103		0.0102	0.0100	1.8	50.0
2-Butanone (MEK)	Ave	0.0211	0.0269		0.0255	0.0200	27.5	50.0
Chlorobromomethane	Ave	0.1440	0.1419		0.00985	0.0100	-1.5	50.0
Tetrahydrofuran	Ave	0.0526	0.0647		0.0246	0.0200	23.1	50.0
Chloroform	Ave	0.4553	0.4816		0.0106	0.0100	5.8	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.3875		0.00945	0.0100	-5.5	50.0
Cyclohexane	Ave	0.4232	0.4460		0.0105	0.0100	5.4	50.0
1,1-Dichloropropene	Ave	0.3688	0.3891		0.0105	0.0100	5.5	50.0
Carbon tetrachloride	Ave	0.3647	0.3191		0.00875	0.0100	-12.5	50.0
Isobutyl alcohol	Ave	0.0045	0.0053		0.295	0.250	18.1	50.0
Benzene	Ave	1.097	1.184		0.0108	0.0100	7.9	50.0
1,2-Dichloroethane	Ave	0.3263	0.4079		0.0125	0.0100	25.0	50.0
n-Heptane	Ave	0.0495	0.0467		0.00945	0.0100	-5.5	50.0
Trichloroethene	Ave	0.2948	0.2888		0.00980	0.0100	-2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.3350		0.00910	0.0100	-9.0	50.0
1,2-Dichloropropane	Ave	0.2272	0.2776		0.0122	0.0100	22.2*	20.0
Dibromomethane	Ave	0.1312	0.1474		0.0112	0.0100	12.3	50.0
1,4-Dioxane	Qua		0.0011		0.107	0.200	-46.3	50.0
Dichlorobromomethane	Ave	0.2893	0.2919		0.0101	0.0100	0.9	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.1393		0.0355	0.0200	77.3*	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3592		0.0114	0.0100	14.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.2028		0.0267	0.0200	33.7	50.0
Toluene	Ave	1.478	1.662		0.0112	0.0100	12.5	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.4151		0.0110	0.0100	9.6	50.0
Ethyl methacrylate	Ave	0.2855	0.3641		0.0128	0.0100	27.5	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2967		0.0122	0.0100	22.4	50.0
Tetrachloroethene	Ave	0.3113	0.3090		0.00992	0.0100	-0.8	50.0
1,3-Dichloropropane	Ave	0.4170	0.5651		0.0136	0.0100	35.5	50.0
2-Hexanone	Ave	0.1387	0.1775		0.0256	0.0200	27.9	50.0
Chlorodibromomethane	Ave	0.2665	0.2506		0.00940	0.0100	-6.0	50.0
Ethylene Dibromide	Ave	0.2342	0.2835		0.0121	0.0100	21.1	50.0
Chlorobenzene	Ave	0.9020	1.012	0.3000	0.0112	0.0100	12.2	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3219		0.00856	0.0100	-14.4	50.0
Ethylbenzene	Ave	0.4928	0.5332		0.0108	0.0100	8.2	20.0
m-Xylene & p-Xylene	Ave	1.195	1.301		0.0109	0.0100	8.9	50.0
o-Xylene	Ave	0.6424	0.6263		0.00975	0.0100	-2.5	50.0
Styrene	Ave	0.8332	1.027		0.0123	0.0100	23.2	50.0
Bromoform	Ave	0.1647	0.1340	0.1000	0.00814	0.0100	-18.6	50.0
Isopropylbenzene	Ave	1.586	1.464		0.00923	0.0100	-7.7	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.6582	0.3000	0.0129	0.0100	28.6	50.0
Bromobenzene	Ave	0.7041	0.7448		0.0106	0.0100	5.8	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.2243		0.0135	0.0100	35.1	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1595		0.0136	0.0100	35.5	50.0
N-Propylbenzene	Ave	0.6976	0.7303		0.0105	0.0100	4.7	50.0
2-Chlorotoluene	Ave	0.6475	0.6783		0.0105	0.0100	4.8	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.190		0.00997	0.0100	-0.3	50.0
4-Chlorotoluene	Ave	2.069	2.383		0.0115	0.0100	15.2	50.0
tert-Butylbenzene	Ave	1.877	1.724		0.00919	0.0100	-8.1	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.320		0.0103	0.0100	3.0	50.0
sec-Butylbenzene	Ave	2.474	2.252		0.00910	0.0100	-9.0	50.0
1,3-Dichlorobenzene	Ave	1.319	1.342		0.0102	0.0100	1.7	50.0
4-Isopropyltoluene	Ave	2.213	2.004		0.00906	0.0100	-9.4	50.0
1,4-Dichlorobenzene	Ave	1.370	1.397		0.0102	0.0100	2.0	50.0
n-Butylbenzene	Ave	1.792	1.542		0.00860	0.0100	-14.0	50.0
1,2-Dichlorobenzene	Ave	1.373	1.334		0.00972	0.0100	-2.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.0785		0.00696	0.0100	-30.4	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.5802		0.00576	0.0100	-42.4	50.0
Hexachlorobutadiene	Lin1		0.2160		0.00470	0.0100	-53.0*	50.0
Naphthalene	Ave	2.149	1.398		0.00650	0.0100	-35.0	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.5248		0.00549	0.0100	-45.1	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2021		0.00865	0.0100	-13.5	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2777		0.0105	0.0100	5.5	50.0
Toluene-d8 (Surr)	Ave	1.226	1.204		0.00982	0.0100	-1.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4046		0.00976	0.0100	-2.4	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9916.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Oct-2021 10:12:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-002
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:09 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 11:04:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1775696	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1282332	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	93	700798	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	358942	10.0	8.65	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	100	493194	10.0	10.5	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1543444	10.0	9.82	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	518821	10.0	9.76	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	598625	10.0	11.2	
10 Chloromethane	50	1.562	1.562	0.000	98	725005	10.0	11.9	
11 Vinyl chloride	62	1.657	1.657	0.000	98	649586	10.0	12.5	
12 Butadiene	54	1.669	1.669	0.000	98	713514	10.0	10.7	
13 Bromomethane	94	1.930	1.930	0.000	90	364643	10.0	8.35	
14 Chloroethane	64	1.989	1.989	0.000	99	408430	10.0	10.6	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	921395	10.0	9.01	
16 Trichlorofluoromethane	101	2.202	2.202	0.000	98	817606	10.0	8.83	
17 Ethyl ether	59	2.404	2.404	0.000	92	490830	10.0	11.0	
18 Acrolein	56	2.523	2.523	0.000	100	205931	50.0	76.1	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	97	500487	10.0	9.75	
20 112TCTFE	151	2.617	2.617	0.000	92	391647	10.0	9.15	
21 Acetone	58	2.641	2.641	0.000	99	88392	20.0	24.6	
22 Iodomethane	142	2.748	2.748	0.000	98	696983	10.0	8.86	
24 Carbon disulfide	76	2.807	2.807	0.000	100	1053985	10.0	7.37	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	88	323712	10.0	10.7	
27 Methyl acetate	43	2.914	2.914	0.000	98	658210	20.0	29.2	
28 Methylene Chloride	84	3.009	3.009	0.000	94	523121	10.0	10.9	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	90	209957	100.0	83.6	
30 Acrylonitrile	53	3.210	3.210	0.000	98	1625263	100.0	134.8	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1241351	10.0	9.97	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	99	506671	10.0	9.88	
34 Hexane	86	3.436	3.436	0.000	95	104712	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	904760	10.0	11.1	
36 Vinyl acetate	43	3.602	3.602	0.000	98	811048	10.0	11.7	
42 2,2-Dichloropropane	97	4.040	4.040	0.000	81	130845	10.0	8.29	
41 cis-1,2-Dichloroethene	96	4.040	4.040	0.000	84	551045	10.0	10.2	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	100	95625	20.0	25.5	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	251951	10.0	9.85	
47 Tetrahydrofuran	42	4.278	4.278	0.000	87	229666	20.0	24.6	
48 Chloroform	83	4.301	4.301	0.000	94	855240	10.0	10.6	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	98	688065	10.0	9.45	
50 Cyclohexane	56	4.503	4.503	0.000	92	791908	10.0	10.5	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	92	690854	10.0	10.5	
52 Carbon tetrachloride	117	4.598	4.598	0.000	83	566670	10.0	8.75	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	234591	250.0	295.3	
55 Benzene	78	4.764	4.764	0.000	96	2102424	10.0	10.8	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	724348	10.0	12.5	
58 n-Heptane	100	4.965	4.965	0.000	90	83011	10.0	9.45	
60 Trichloroethene	130	5.297	5.297	0.000	97	512836	10.0	9.80	
62 Methylcyclohexane	83	5.463	5.463	0.000	92	594858	10.0	9.10	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	493017	10.0	12.2	
65 Dibromomethane	93	5.594	5.594	0.000	95	261688	10.0	11.2	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	37762	200.0	107.3	
67 Dichlorobromomethane	83	5.724	5.724	0.000	99	518301	10.0	10.1	
69 2-Chloroethyl vinyl ether	63	5.973	5.973	0.000	92	494711	20.0	35.5	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	637835	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	720177	20.0	26.7	
72 Toluene	91	6.412	6.412	0.000	97	2131404	10.0	11.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	97	532302	10.0	11.0	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	466909	10.0	12.8	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	380526	10.0	12.2	
76 Tetrachloroethene	164	6.898	6.898	0.000	96	396191	10.0	9.92	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	724678	10.0	13.6	
78 2-Hexanone	43	6.981	6.981	0.000	98	455152	20.0	25.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	321351	10.0	9.40	
82 Ethylene Dibromide	107	7.242	7.242	0.000	97	363512	10.0	12.1	
84 Chlorobenzene	112	7.681	7.681	0.000	93	1297713	10.0	11.2	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.752	0.000	93	412808	10.0	8.56	
86 Ethylbenzene	106	7.776	7.776	0.000	99	683719	10.0	10.8	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1668686	10.0	10.9	
88 o-Xylene	106	8.262	8.262	0.000	96	803089	10.0	9.75	
89 Styrene	104	8.274	8.274	0.000	94	1316668	10.0	12.3	
90 Bromoform	173	8.464	8.464	0.000	95	171875	10.0	8.14	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1877108	10.0	9.23	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.902	0.000	96	461256	10.0	12.9	
95 Bromobenzene	156	8.914	8.914	0.000	95	521922	10.0	10.6	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	157173	10.0	13.5	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	68	111773	10.0	13.6	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	511803	10.0	10.5	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	475338	10.0	10.5	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	1534845	10.0	9.97	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1670058	10.0	11.5	
104 tert-Butylbenzene	119	9.495	9.495	0.000	93	1208369	10.0	9.19	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1625800	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1578120	10.0	9.10	
108 1,3-Dichlorobenzene	146	9.827	9.827	0.000	97	940293	10.0	10.2	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1404556	10.0	9.06	
110 1,4-Dichlorobenzene	146	9.910	9.910	0.000	95	979075	10.0	10.2	
113 n-Butylbenzene	91	10.254	10.254	0.000	97	1080834	10.0	8.60	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	934529	10.0	9.72	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	90	55014	10.0	6.96	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	406585	10.0	5.76	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	98	151384	10.0	4.70	
119 Naphthalene	128	12.128	12.128	0.000	97	979588	10.0	6.50	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	96	367762	10.0	5.49	
S 129 Xylenes, Total	106				0		20.0	20.6	
S 130 Total BTEX	1				0		50.0	53.5	
S 131 Trihalomethanes, Total	1				0		40.0	38.2	

QC Flag Legend

Processing Flags

Reagents:

vmarolistdw_00411	Amount Added:	8.00	Units: uL	
VMRPRIMW_00454	Amount Added:	8.00	Units: uL	
VMRGAS_00402	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

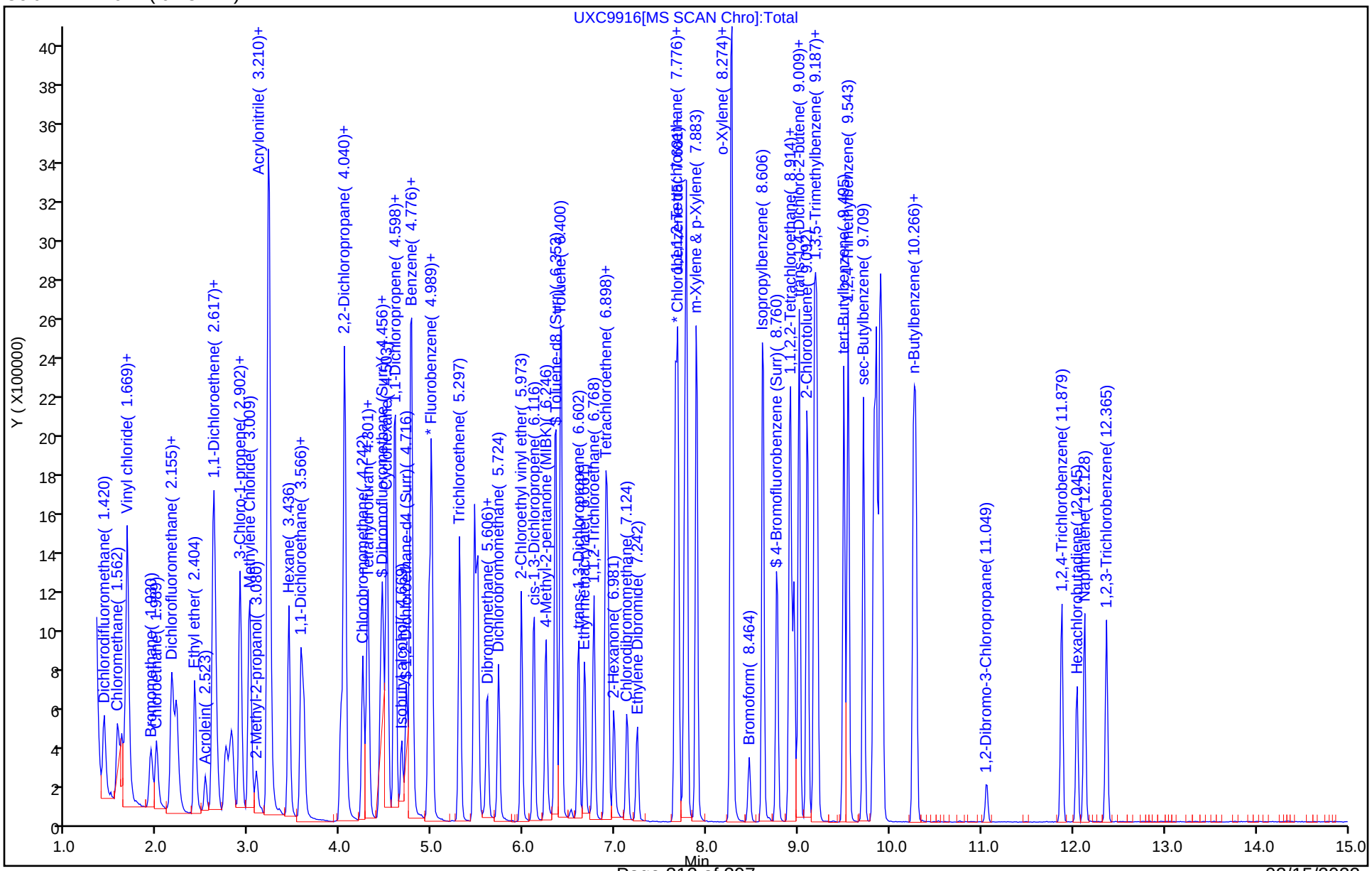
Report Date: 11-Oct-2021 07:47:09 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9916.D

Injection Date:	08-Oct-2021 10:12:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3364		0.0112	0.0100	11.6	50.0
Chloromethane	Ave	0.3426	0.3597	0.1000	0.0105	0.0100	5.0	50.0
Vinyl chloride	Ave	0.2936	0.2813		0.00958	0.0100	-4.2	20.0
Butadiene	Ave	0.3746	0.3148		0.00840	0.0100	-16.0	50.0
Bromomethane	Ave	0.2460	0.1517		0.00617	0.0100	-38.3	50.0
Chloroethane	Ave	0.2164	0.1805		0.00834	0.0100	-16.6	50.0
Dichlorofluoromethane	Ave	0.5757	0.4033		0.00700	0.0100	-30.0	50.0
Trichlorofluoromethane	Ave	0.5212	0.3371		0.00647	0.0100	-35.3	50.0
Ethyl ether	Ave	0.2512	0.2494		0.00993	0.0100	-0.7	50.0
Acrolein	Lin		0.0205		0.0669	0.0500	33.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.1870		0.00776	0.0100	-22.4	50.0
1,1-Dichloroethene	Ave	0.2891	0.2386		0.00825	0.0100	-17.5	20.0
Acetone	Ave	0.0202	0.0214		0.0212	0.0200	6.0	50.0
Iodomethane	Ave	0.4428	0.3534		0.00798	0.0100	-20.2	50.0
Carbon disulfide	Ave	0.8057	0.5435		0.00675	0.0100	-32.5	50.0
3-Chloro-1-propene	Ave	0.1698	0.1892		0.0111	0.0100	11.4	50.0
Methyl acetate	Ave	0.1269	0.1761		0.0277	0.0200	38.7	50.0
Methylene Chloride	Ave	0.2691	0.2731		0.0101	0.0100	1.5	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0119		0.0842	0.100	-15.8	50.0
Acrylonitrile	Ave	0.0679	0.0877		0.129	0.100	29.2	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6779		0.00967	0.0100	-3.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2705		0.00937	0.0100	-6.3	50.0
Hexane	Ave	0.0578	0.0511		0.00884	0.0100	-11.6	20.0
1,1-Dichloroethane	Ave	0.4573	0.4815	0.1000	0.0105	0.0100	5.3	50.0
Vinyl acetate	Ave	0.3891	0.4267		0.0110	0.0100	9.7	50.0
2,2-Dichloropropane	Ave	0.0889	0.0707		0.00795	0.0100	-20.5	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.2944		0.00966	0.0100	-3.4	50.0
2-Butanone (MEK)	Ave	0.0211	0.0247		0.0234	0.0200	16.9	50.0
Chlorobromomethane	Ave	0.1440	0.1379		0.00958	0.0100	-4.2	50.0
Tetrahydrofuran	Ave	0.0526	0.0631		0.0240	0.0200	20.0	50.0
Chloroform	Ave	0.4553	0.4731		0.0104	0.0100	3.9	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.3662		0.00893	0.0100	-10.7	50.0
Cyclohexane	Ave	0.4232	0.3921		0.00926	0.0100	-7.4	50.0
1,1-Dichloropropene	Ave	0.3688	0.3626		0.00983	0.0100	-1.7	50.0
Carbon tetrachloride	Ave	0.3647	0.2906		0.00797	0.0100	-20.3	50.0
Isobutyl alcohol	Ave	0.0045	0.0060		0.333	0.250	33.1	50.0
Benzene	Ave	1.097	1.131		0.0103	0.0100	3.1	50.0
1,2-Dichloroethane	Ave	0.3263	0.3922		0.0120	0.0100	20.2	50.0
n-Heptane	Ave	0.0495	0.0417		0.00843	0.0100	-15.7	50.0
Trichloroethene	Ave	0.2948	0.2781		0.00944	0.0100	-5.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.2983		0.00810	0.0100	-19.0	50.0
1,2-Dichloropropane	Ave	0.2272	0.2746		0.0121	0.0100	20.8*	20.0
Dibromomethane	Ave	0.1312	0.1454		0.0111	0.0100	10.8	50.0
1,4-Dioxane	Qua		0.0012		0.125	0.200	-37.5	50.0
Dichlorobromomethane	Ave	0.2893	0.2879		0.00995	0.0100	-0.5	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.1351		0.0344	0.0200	72.0*	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3586		0.0114	0.0100	13.9	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.1899		0.0250	0.0200	25.2	50.0
Toluene	Ave	1.478	1.569		0.0106	0.0100	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.4111		0.0109	0.0100	8.6	50.0
Ethyl methacrylate	Ave	0.2855	0.3477		0.0122	0.0100	21.8	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2921		0.0120	0.0100	20.4	50.0
Tetrachloroethene	Ave	0.3113	0.2753		0.00884	0.0100	-11.6	50.0
1,3-Dichloropropane	Ave	0.4170	0.5456		0.0131	0.0100	30.9	50.0
2-Hexanone	Ave	0.1387	0.1635		0.0236	0.0200	17.8	50.0
Chlorodibromomethane	Ave	0.2665	0.2435		0.00914	0.0100	-8.6	50.0
Ethylene Dibromide	Ave	0.2342	0.2690		0.0115	0.0100	14.9	50.0
Chlorobenzene	Ave	0.9020	0.9741	0.3000	0.0108	0.0100	8.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3098		0.00824	0.0100	-17.6	50.0
Ethylbenzene	Ave	0.4928	0.4947		0.0100	0.0100	0.4	20.0
m-Xylene & p-Xylene	Ave	1.195	1.200		0.0100	0.0100	0.3	50.0
o-Xylene	Ave	0.6424	0.5887		0.00916	0.0100	-8.4	50.0
Styrene	Ave	0.8332	0.9903		0.0119	0.0100	18.9	50.0
Bromoform	Ave	0.1647	0.1274	0.1000	0.00773	0.0100	-22.7	50.0
Isopropylbenzene	Ave	1.586	1.361		0.00858	0.0100	-14.2	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.6351	0.3000	0.0124	0.0100	24.1	50.0
Bromobenzene	Ave	0.7041	0.7071		0.0100	0.0100	0.4	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.2141		0.0129	0.0100	29.0	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1628		0.0138	0.0100	38.3	50.0
N-Propylbenzene	Ave	0.6976	0.6698		0.00960	0.0100	-4.0	50.0
2-Chlorotoluene	Ave	0.6475	0.6241		0.00964	0.0100	-3.6	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.048		0.00932	0.0100	-6.8	50.0
4-Chlorotoluene	Ave	2.069	2.306		0.0111	0.0100	11.4	50.0
tert-Butylbenzene	Ave	1.877	1.581		0.00842	0.0100	-15.8	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.166		0.00962	0.0100	-3.8	50.0
sec-Butylbenzene	Ave	2.474	2.038		0.00824	0.0100	-17.6	50.0
1,3-Dichlorobenzene	Ave	1.319	1.271		0.00964	0.0100	-3.6	50.0
4-Isopropyltoluene	Ave	2.213	1.833		0.00828	0.0100	-17.2	50.0
1,4-Dichlorobenzene	Ave	1.370	1.331		0.00971	0.0100	-2.9	50.0
n-Butylbenzene	Ave	1.792	1.399		0.00780	0.0100	-22.0	50.0
1,2-Dichlorobenzene	Ave	1.373	1.239		0.00903	0.0100	-9.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.0754		0.00668	0.0100	-33.2	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.5434		0.00539	0.0100	-46.1	50.0
Hexachlorobutadiene	Lin1		0.2047		0.00442	0.0100	-55.8*	50.0
Naphthalene	Ave	2.149	1.236		0.00575	0.0100	-42.5	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.4692		0.00491	0.0100	-50.9*	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2032		0.00869	0.0100	-13.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2812		0.0107	0.0100	6.8	50.0
Toluene-d8 (Surr)	Ave	1.226	1.195		0.00975	0.0100	-2.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4055		0.00978	0.0100	-2.2	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9945.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Oct-2021 09:21:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-002
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:54 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1948739	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.658	0.000	89	1425825	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	774100	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	395907	10.0	8.69	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	548005	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1703731	10.0	9.75	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	578112	10.0	9.78	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	655596	10.0	11.2	
10 Chloromethane	50	1.562	1.562	0.000	99	700882	10.0	10.5	
11 Vinyl chloride	62	1.657	1.657	0.000	98	548148	10.0	9.58	
12 Butadiene	54	1.669	1.669	0.000	97	613367	10.0	8.40	
13 Bromomethane	94	1.930	1.930	0.000	89	295601	10.0	6.17	
14 Chloroethane	64	2.001	2.001	0.000	99	351717	10.0	8.34	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	785838	10.0	7.00	
16 Trichlorofluoromethane	101	2.214	2.214	0.000	98	656927	10.0	6.47	
17 Ethyl ether	59	2.404	2.404	0.000	92	486109	10.0	9.93	
18 Acrolein	56	2.523	2.523	0.000	98	199478	50.0	66.9	
19 1,1-Dichloroethene	96	2.618	2.618	0.000	97	465035	10.0	8.25	
20 112TCTFE	151	2.618	2.618	0.000	93	364318	10.0	7.76	
21 Acetone	58	2.641	2.641	0.000	100	83573	20.0	21.2	
22 Iodomethane	142	2.748	2.748	0.000	98	688644	10.0	7.98	
24 Carbon disulfide	76	2.819	2.819	0.000	100	1059144	10.0	6.75	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	368702	10.0	11.1	
27 Methyl acetate	43	2.914	2.914	0.000	98	686398	20.0	27.7	
28 Methylene Chloride	84	2.997	2.997	0.000	96	532163	10.0	10.1	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	90	232197	100.0	84.2	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1709005	100.0	129.2	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1321011	10.0	9.67	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	99	527180	10.0	9.37	
34 Hexane	86	3.436	3.436	0.000	94	99628	10.0	8.84	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	938246	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.602	3.602	0.000	97	831607	10.0	11.0	
42 2,2-Dichloropropane	97	4.041	4.041	0.000	76	137763	10.0	7.95	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	84	573719	10.0	9.66	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	100	96275	20.0	23.4	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	268753	10.0	9.58	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	245883	20.0	24.0	
48 Chloroform	83	4.302	4.302	0.000	93	922007	10.0	10.4	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	98	713724	10.0	8.93	
50 Cyclohexane	56	4.503	4.503	0.000	91	764014	10.0	9.26	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	706600	10.0	9.83	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	566315	10.0	7.97	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	290051	250.0	332.7	
55 Benzene	78	4.764	4.764	0.000	96	2204566	10.0	10.3	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	764248	10.0	12.0	
58 n-Heptane	100	4.966	4.966	0.000	92	81334	10.0	8.43	
60 Trichloroethene	130	5.298	5.298	0.000	97	542029	10.0	9.44	
62 Methylcyclohexane	83	5.464	5.464	0.000	91	581374	10.0	8.10	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	535098	10.0	12.1	
65 Dibromomethane	93	5.594	5.594	0.000	95	283292	10.0	11.1	
66 1,4-Dioxane	88	5.606	5.606	0.000	32	48026	200.0	125.1	
67 Dichlorobromomethane	83	5.725	5.725	0.000	98	561074	10.0	9.95	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	526591	20.0	34.4	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	698739	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	740102	20.0	25.0	
72 Toluene	91	6.412	6.412	0.000	98	2236809	10.0	10.6	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	95	586131	10.0	10.9	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	495781	10.0	12.2	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	416418	10.0	12.0	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	392534	10.0	8.84	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	777917	10.0	13.1	
78 2-Hexanone	43	6.982	6.982	0.000	97	466269	20.0	23.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	347132	10.0	9.14	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	383501	10.0	11.5	
84 Chlorobenzene	112	7.681	7.681	0.000	95	1388938	10.0	10.8	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	93	441711	10.0	8.24	
86 Ethylbenzene	106	7.776	7.776	0.000	99	705401	10.0	10.0	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1710376	10.0	10.0	
88 o-Xylene	106	8.262	8.262	0.000	97	839376	10.0	9.16	
89 Styrene	104	8.274	8.274	0.000	94	1412052	10.0	11.9	
90 Bromoform	173	8.464	8.464	0.000	96	181581	10.0	7.73	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1940542	10.0	8.58	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	491642	10.0	12.4	
95 Bromobenzene	156	8.915	8.915	0.000	97	547400	10.0	10.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	165719	10.0	12.9	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	73	125987	10.0	13.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	518517	10.0	9.60	
99 2-Chlorotoluene	126	9.092	9.092	0.000	99	483098	10.0	9.64	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1585156	10.0	9.32	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1784823	10.0	11.1	
104 tert-Butylbenzene	119	9.496	9.496	0.000	93	1223775	10.0	8.42	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1676912	10.0	9.62	
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1577502	10.0	8.24	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	97	983868	10.0	9.64	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1419122	10.0	8.28	
110 1,4-Dichlorobenzene	146	9.911	9.911	0.000	93	1030130	10.0	9.71	
113 n-Butylbenzene	91	10.255	10.255	0.000	98	1082601	10.0	7.80	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	958908	10.0	9.03	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	78	58372	10.0	6.68	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	420651	10.0	5.39	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	97	158475	10.0	4.42	
119 Naphthalene	128	12.128	12.128	0.000	97	956981	10.0	5.75	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	363223	10.0	4.91	
S 129 Xylenes, Total	106				0		20.0	19.2	
S 130 Total BTEX	1				0		50.0	50.2	
S 131 Trihalomethanes, Total	1				0		40.0	37.2	

Reagents:

vmarolistdw_00411	Amount Added:	8.00	Units: uL	
VMRPRIMW_00454	Amount Added:	8.00	Units: uL	
vmrgas_00403	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

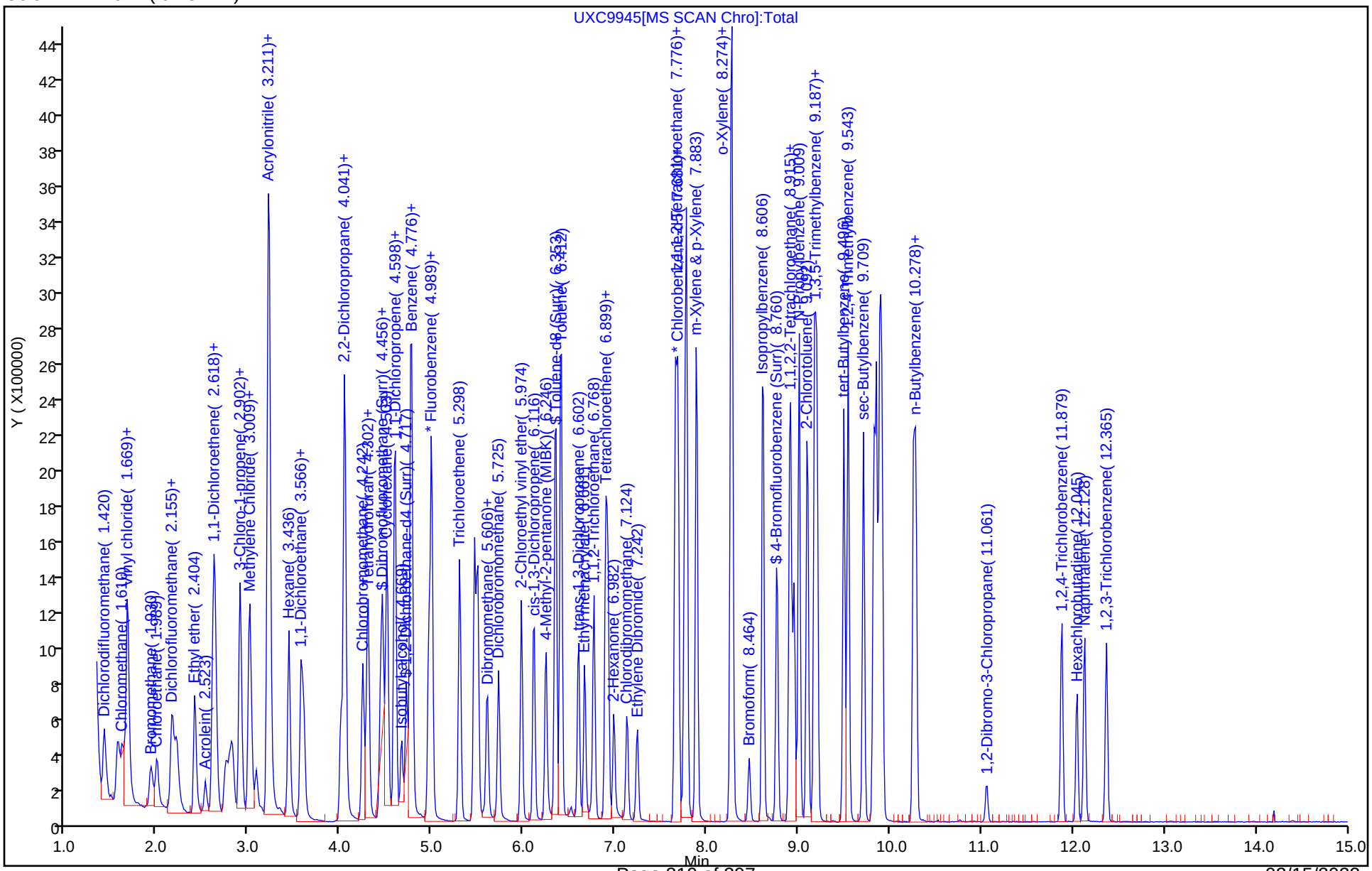
Report Date: 12-Oct-2021 11:12:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9945.D

Injection Date:	11-Oct-2021 09:21:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507764/2 Calibration Date: 10/12/2021 08:20

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9975.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3421		0.0114	0.0100	13.5	50.0
Chloromethane	Ave	0.3426	0.3810	0.1000	0.0111	0.0100	11.2	50.0
Vinyl chloride	Ave	0.2936	0.3022		0.0103	0.0100	2.9	20.0
Butadiene	Ave	0.3746	0.3509		0.00937	0.0100	-6.3	50.0
Bromomethane	Ave	0.2460	0.1691		0.00687	0.0100	-31.3	50.0
Chloroethane	Ave	0.2164	0.1996		0.00922	0.0100	-7.8	50.0
Dichlorofluoromethane	Ave	0.5757	0.4370		0.00759	0.0100	-24.1	50.0
Trichlorofluoromethane	Ave	0.5212	0.3505		0.00672	0.0100	-32.8	50.0
Ethyl ether	Ave	0.2512	0.2547		0.0101	0.0100	1.4	50.0
Acrolein	Lin		0.0260		0.0858	0.0500	71.5*	50.0
1,1-Dichloroethene	Ave	0.2891	0.2588		0.00895	0.0100	-10.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.2025		0.00840	0.0100	-16.0	50.0
Acetone	Ave	0.0202	0.0256		0.0253	0.0200	26.6	50.0
Iodomethane	Ave	0.4428	0.3935		0.00889	0.0100	-11.1	50.0
Carbon disulfide	Ave	0.8057	0.5832		0.00724	0.0100	-27.6	50.0
3-Chloro-1-propene	Ave	0.1698	0.1706		0.0100	0.0100	0.4	50.0
Methyl acetate	Ave	0.1269	0.1807		0.0285	0.0200	42.3	50.0
Methylene Chloride	Ave	0.2691	0.2893		0.0108	0.0100	7.5	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0133		0.0943	0.100	-5.7	50.0
Acrylonitrile	Ave	0.0679	0.0951		0.140	0.100	40.1	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6694		0.00954	0.0100	-4.6	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2909		0.0101	0.0100	0.7	50.0
Hexane	Ave	0.0578	0.0518		0.00896	0.0100	-10.4	20.0
1,1-Dichloroethane	Ave	0.4573	0.5057	0.1000	0.0111	0.0100	10.6	50.0
Vinyl acetate	Ave	0.3891	0.4621		0.0119	0.0100	18.8	50.0
2,2-Dichloropropane	Ave	0.0889	0.0709		0.00798	0.0100	-20.2	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.3049		0.0100	0.0100	0.0	50.0
2-Butanone (MEK)	Ave	0.0211	0.0268		0.0254	0.0200	26.8	50.0
Chlorobromomethane	Ave	0.1440	0.1432		0.00994	0.0100	-0.6	50.0
Tetrahydrofuran	Ave	0.0526	0.0623		0.0237	0.0200	18.6	50.0
Chloroform	Ave	0.4553	0.4816		0.0106	0.0100	5.8	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.3761		0.00917	0.0100	-8.3	50.0
Cyclohexane	Ave	0.4232	0.4242		0.0100	0.0100	0.2	50.0
1,1-Dichloropropene	Ave	0.3688	0.3863		0.0105	0.0100	4.8	50.0
Carbon tetrachloride	Ave	0.3647	0.2967		0.00813	0.0100	-18.7	50.0
Isobutyl alcohol	Ave	0.0045	0.0065		0.362	0.250	44.8	50.0
Benzene	Ave	1.097	1.195		0.0109	0.0100	8.9	50.0
1,2-Dichloroethane	Ave	0.3263	0.4028		0.0123	0.0100	23.5	50.0
n-Heptane	Ave	0.0495	0.0438		0.00886	0.0100	-11.4	50.0
Trichloroethene	Ave	0.2948	0.2779		0.00943	0.0100	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507764/2 Calibration Date: 10/12/2021 08:20

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9975.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.3181		0.00864	0.0100	-13.6	50.0
1,2-Dichloropropane	Ave	0.2272	0.2840		0.0125	0.0100	25.0*	20.0
Dibromomethane	Ave	0.1312	0.1484		0.0113	0.0100	13.1	50.0
1,4-Dioxane	Qua		0.0012		0.120	0.200	-39.9	50.0
Dichlorobromomethane	Ave	0.2893	0.2779		0.00961	0.0100	-3.9	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.1345		0.0342	0.0200	71.2*	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3396		0.0108	0.0100	7.8	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.1908		0.0252	0.0200	25.8	50.0
Toluene	Ave	1.478	1.604		0.0108	0.0100	8.5	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.3772		0.00996	0.0100	-0.4	50.0
Ethyl methacrylate	Ave	0.2855	0.3250		0.0114	0.0100	13.8	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2965		0.0122	0.0100	22.3	50.0
Tetrachloroethene	Ave	0.3113	0.2841		0.00912	0.0100	-8.8	50.0
1,3-Dichloropropane	Ave	0.4170	0.5605		0.0134	0.0100	34.4	50.0
2-Hexanone	Ave	0.1387	0.1601		0.0231	0.0200	15.4	50.0
Chlorodibromomethane	Ave	0.2665	0.2318		0.00870	0.0100	-13.0	50.0
Ethylene Dibromide	Ave	0.2342	0.2721		0.0116	0.0100	16.2	50.0
Chlorobenzene	Ave	0.9020	0.9891	0.3000	0.0110	0.0100	9.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3045		0.00810	0.0100	-19.0	50.0
Ethylbenzene	Ave	0.4928	0.5032		0.0102	0.0100	2.1	20.0
m-Xylene & p-Xylene	Ave	1.195	1.222		0.0102	0.0100	2.3	50.0
o-Xylene	Ave	0.6424	0.5961		0.00928	0.0100	-7.2	50.0
Styrene	Ave	0.8332	0.9930		0.0119	0.0100	19.2	50.0
Bromoform	Ave	0.1647	0.1158	0.1000	0.00703	0.0100	-29.7	50.0
Isopropylbenzene	Ave	1.586	1.364		0.00860	0.0100	-14.0	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.6246	0.3000	0.0122	0.0100	22.1	50.0
Bromobenzene	Ave	0.7041	0.6883		0.00978	0.0100	-2.2	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.2087		0.0126	0.0100	25.8	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1271		0.0108	0.0100	8.4	50.0
N-Propylbenzene	Ave	0.6976	0.6825		0.00978	0.0100	-2.2	50.0
2-Chlorotoluene	Ave	0.6475	0.6420		0.00991	0.0100	-0.9	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.048		0.00932	0.0100	-6.8	50.0
4-Chlorotoluene	Ave	2.069	2.305		0.0111	0.0100	11.4	50.0
tert-Butylbenzene	Ave	1.877	1.593		0.00848	0.0100	-15.2	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.172		0.00964	0.0100	-3.6	50.0
sec-Butylbenzene	Ave	2.474	2.104		0.00850	0.0100	-15.0	50.0
1,3-Dichlorobenzene	Ave	1.319	1.273		0.00965	0.0100	-3.5	50.0
4-Isopropyltoluene	Ave	2.213	1.888		0.00853	0.0100	-14.7	50.0
1,4-Dichlorobenzene	Ave	1.370	1.330		0.00971	0.0100	-2.9	50.0
n-Butylbenzene	Ave	1.792	1.458		0.00814	0.0100	-18.6	50.0
1,2-Dichlorobenzene	Ave	1.373	1.294		0.00943	0.0100	-5.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Lab Sample ID: CCVIS 240-507764/2 Calibration Date: 10/12/2021 08:20

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9975.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.0750		0.00665	0.0100	-33.5	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.5917		0.00587	0.0100	-41.3	50.0
Hexachlorobutadiene	Lin1		0.2466		0.00547	0.0100	-45.3	50.0
Naphthalene	Ave	2.149	1.345		0.00626	0.0100	-37.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.5567		0.00582	0.0100	-41.8	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2025		0.00866	0.0100	-13.4	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2837		0.0108	0.0100	7.7	50.0
Toluene-d8 (Surr)	Ave	1.226	1.175		0.00959	0.0100	-4.1	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.3961		0.00956	0.0100	-4.4	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9975.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Oct-2021 08:20:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0114014-002
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:51 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1868411	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1377291	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	93	768703	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	378344	10.0	8.66	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	530016	10.0	10.8	
$ 6 Toluene-d8 (Surr)	98	6.341	6.341	0.000	94	1617923	10.0	9.59	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	545553	10.0	9.56	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	639255	10.0	11.4	
10 Chloromethane	50	1.562	1.562	0.000	99	711797	10.0	11.1	
11 Vinyl chloride	62	1.645	1.645	0.000	98	564656	10.0	10.3	
12 Butadiene	54	1.669	1.669	0.000	99	655718	10.0	9.37	
13 Bromomethane	94	1.930	1.930	0.000	91	315856	10.0	6.87	
14 Chloroethane	64	1.989	1.989	0.000	99	372920	10.0	9.22	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	816510	10.0	7.59	
16 Trichlorofluoromethane	101	2.203	2.203	0.000	99	654806	10.0	6.72	
17 Ethyl ether	59	2.404	2.404	0.000	92	475803	10.0	10.1	
18 Acrolein	56	2.523	2.523	0.000	99	243230	50.0	85.8	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	97	483580	10.0	8.95	
20 112TCTFE	151	2.618	2.618	0.000	91	378302	10.0	8.40	
21 Acetone	58	2.641	2.641	0.000	99	95641	20.0	25.3	
22 Iodomethane	142	2.736	2.736	0.000	98	735277	10.0	8.89	
24 Carbon disulfide	76	2.807	2.807	0.000	100	1089706	10.0	7.24	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	318703	10.0	10.0	
27 Methyl acetate	43	2.914	2.914	0.000	98	675137	20.0	28.5	
28 Methylene Chloride	84	2.997	2.997	0.000	95	540580	10.0	10.8	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	90	249260	100.0	94.3	
30 Acrylonitrile	53	3.199	3.199	0.000	98	1776971	100.0	140.1	
31 Methyl tert-butyl ether	73	3.210	3.210	0.000	96	1250739	10.0	9.54	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	543437	10.0	10.1	
34 Hexane	86	3.436	3.436	0.000	95	96784	10.0	8.96	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	944847	10.0	11.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.602	3.602	0.000	98	863456	10.0	11.9	
42 2,2-Dichloropropane	97	4.041	4.041	0.000	72	132536	10.0	7.98	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	84	569674	10.0	10.0	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	100	100123	20.0	25.4	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	267553	10.0	9.94	
47 Tetrahydrofuran	42	4.278	4.278	0.000	87	232811	20.0	23.7	
48 Chloroform	83	4.301	4.301	0.000	93	899853	10.0	10.6	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	702640	10.0	9.17	
50 Cyclohexane	56	4.503	4.503	0.000	91	792525	10.0	10.0	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	721823	10.0	10.5	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	554333	10.0	8.13	
53 Isobutyl alcohol	41	4.669	4.669	0.000	91	302497	250.0	361.9	
55 Benzene	78	4.764	4.764	0.000	96	2232030	10.0	10.9	
56 1,2-Dichloroethane	62	4.776	4.776	0.000	98	752622	10.0	12.3	
58 n-Heptane	100	4.966	4.966	0.000	91	81921	10.0	8.86	
60 Trichloroethene	130	5.298	5.298	0.000	97	519154	10.0	9.43	
62 Methylcyclohexane	83	5.464	5.464	0.000	92	594264	10.0	8.64	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	530604	10.0	12.5	
65 Dibromomethane	93	5.594	5.594	0.000	94	277320	10.0	11.3	
66 1,4-Dioxane	88	5.606	5.606	0.000	32	44335	200.0	120.2	
67 Dichlorobromomethane	83	5.724	5.724	0.000	99	519317	10.0	9.61	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	502700	20.0	34.2	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	634457	10.0	10.8	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	712833	20.0	25.2	
72 Toluene	91	6.400	6.400	0.000	98	2208549	10.0	10.8	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	519527	10.0	9.96	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	447666	10.0	11.4	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	408323	10.0	12.2	
76 Tetrachloroethene	164	6.898	6.898	0.000	97	391277	10.0	9.12	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	771995	10.0	13.4	
78 2-Hexanone	43	6.981	6.981	0.000	98	441089	20.0	23.1	
80 Chlorodibromomethane	129	7.124	7.124	0.000	91	319280	10.0	8.70	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	374812	10.0	11.6	
84 Chlorobenzene	112	7.681	7.681	0.000	93	1362243	10.0	11.0	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.752	0.000	93	419378	10.0	8.10	
86 Ethylbenzene	106	7.776	7.776	0.000	99	693034	10.0	10.2	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1683526	10.0	10.2	
88 o-Xylene	106	8.262	8.262	0.000	97	820998	10.0	9.28	
89 Styrene	104	8.274	8.274	0.000	94	1367641	10.0	11.9	
90 Bromoform	173	8.464	8.464	0.000	96	159422	10.0	7.03	
91 Isopropylbenzene	105	8.606	8.606	0.000	96	1878406	10.0	8.60	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	480137	10.0	12.2	
95 Bromobenzene	156	8.914	8.914	0.000	95	529093	10.0	9.78	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	160441	10.0	12.6	
97 trans-1,4-Dichloro-2-butene	53	8.950	8.950	0.000	66	97721	10.0	10.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	524634	10.0	9.78	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	493481	10.0	9.91	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1574104	10.0	9.32	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1772213	10.0	11.1	
104 tert-Butylbenzene	119	9.495	9.495	0.000	93	1224352	10.0	8.48	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1669548	10.0	9.64	
107 sec-Butylbenzene	105	9.709	9.709	0.000	95	1616992	10.0	8.50	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	97	978607	10.0	9.65	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1451291	10.0	8.53	
110 1,4-Dichlorobenzene	146	9.911	9.911	0.000	96	1022533	10.0	9.71	
113 n-Butylbenzene	91	10.254	10.254	0.000	98	1120980	10.0	8.14	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	994945	10.0	9.43	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	75	57673	10.0	6.65	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	454861	10.0	5.87	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	97	189573	10.0	5.47	
119 Naphthalene	128	12.128	12.128	0.000	97	1033871	10.0	6.26	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	96	427915	10.0	5.82	
S 129 Xylenes, Total	106				0		20.0	19.5	
S 130 Total BTEX	1				0		50.0	51.5	
S 131 Trihalomethanes, Total	1				0		40.0	35.9	

Reagents:

VMRPRIMW_00455	Amount Added:	8.00	Units: uL	
VMAROLISTDW_00412	Amount Added:	8.00	Units: uL	
vmrgas_00403	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

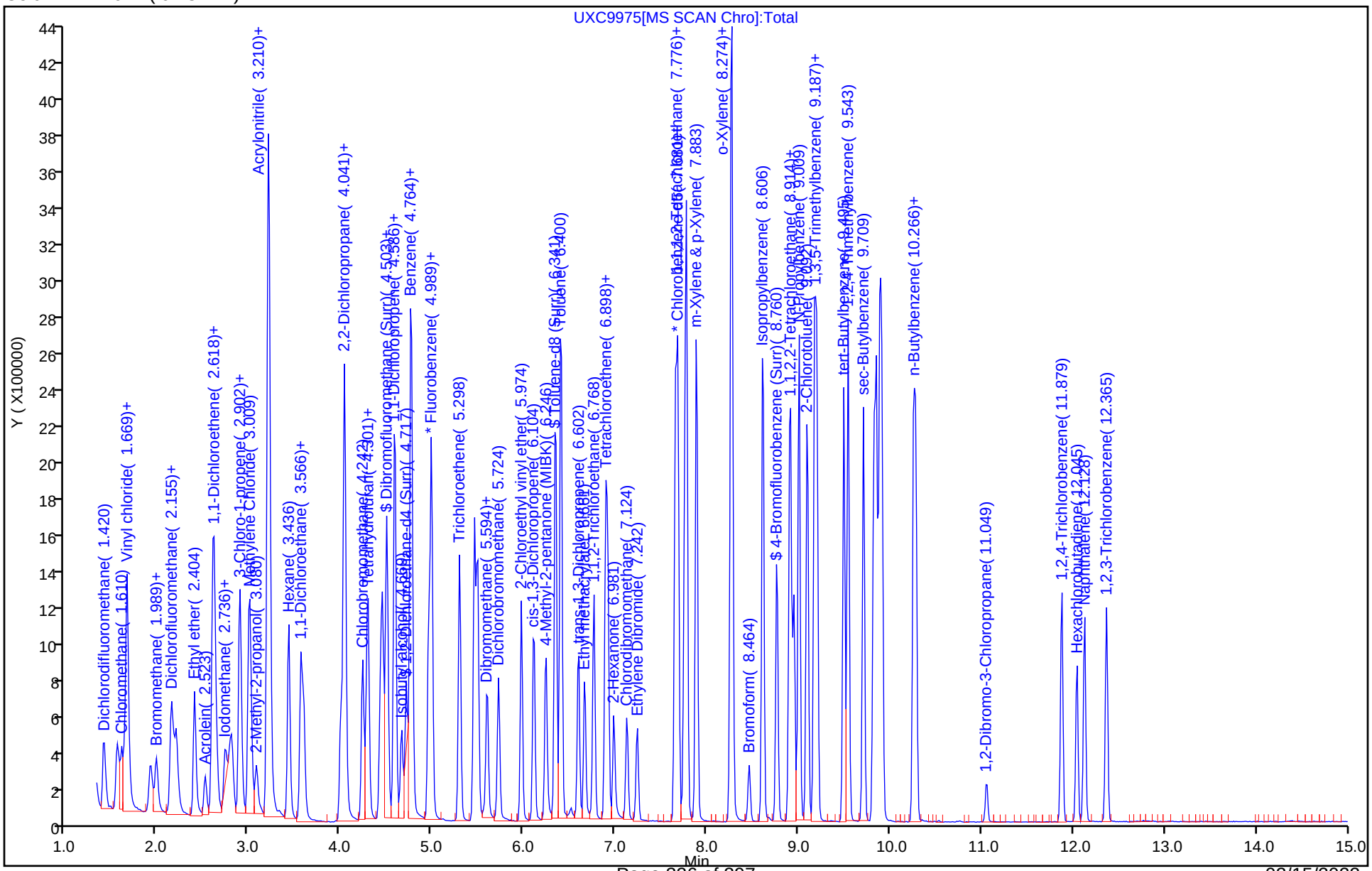
Report Date: 13-Oct-2021 08:53:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9975.D

Injection Date:	12-Oct-2021 08:20:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	16-Mar-2021 07:33:30	ALS Bottle#:	22	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	C210316A-IC,BFBUX15,,43582				
Operator ID:		Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	18-Mar-2021 09:02:03	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1642				
First Level Reviewer: evansle		Date:	16-Mar-2021 09:13:14		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.464	3.464	0.000	0	12980962	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

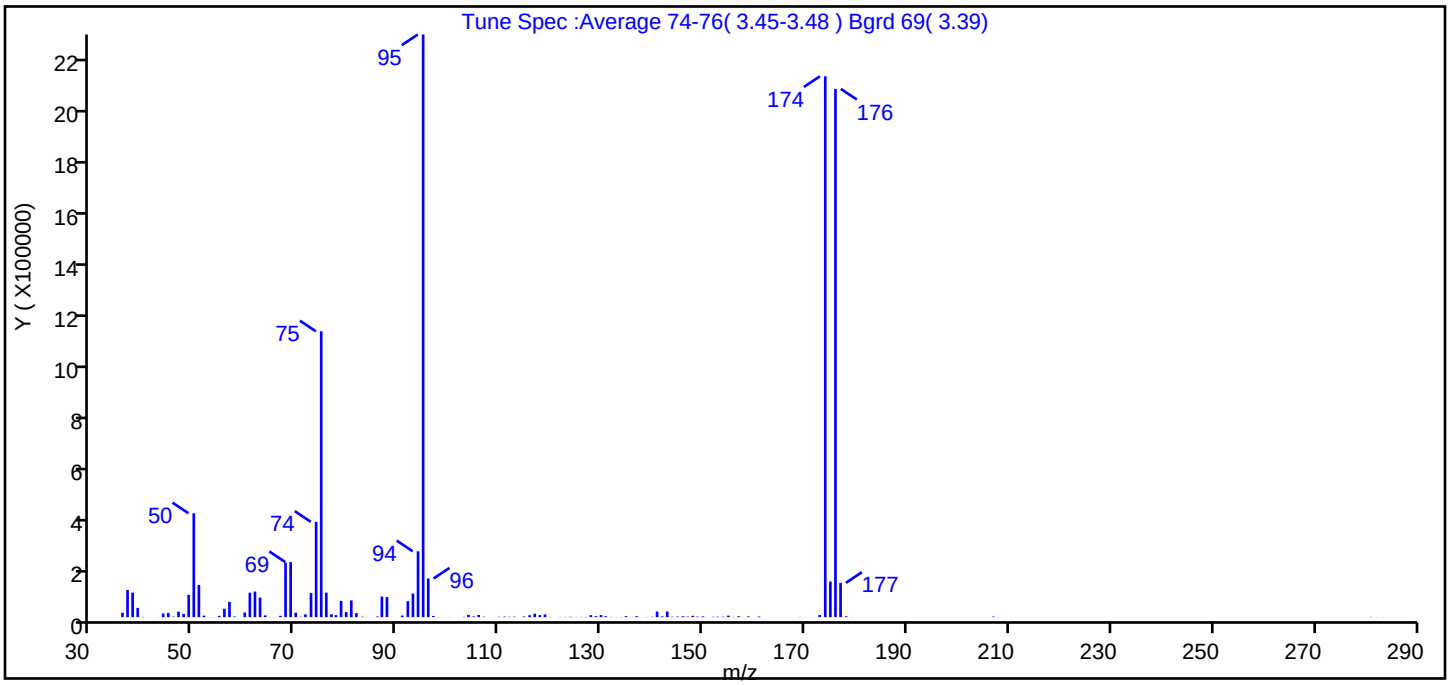
vmbfb_00026 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D
Injection Date: 16-Mar-2021 07:33:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 22 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.8
75	30 to 60% of m/z 95	49.1
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	92.8
175	5 to 9% of m/z 174	6.1 (6.6)
176	Greater than 95% but less than 101% of m/z 174	90.7 (97.7)
177	5 to 9% of m/z 176	5.9 (6.5)

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D\8260_15.rslt\spectra.d
Injection Date: 16-Mar-2021 07:33:30
Spectrum: Tune Spec :Average 74-76(3.45-3.48) Bgrd 69(3.39)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16880	71.00	1192	112.00	1398	147.00	2065
37.00	103512	72.00	10425	113.00	1810	148.00	5062
38.00	93368	73.00	91640	115.00	2423	149.00	1937
39.00	35200	74.00	363264	116.00	7263	150.00	2821
40.00	1066	75.00	1089024	117.00	13025	151.00	170
43.00	361	76.00	93176	118.00	7601	152.00	1293
44.00	13749	77.00	10749	119.00	10428	153.00	1876
45.00	16087	78.00	7751	120.00	739	154.00	1489
46.00	1615	79.00	61672	122.00	737	155.00	5638
47.00	20936	80.00	19224	123.00	917	156.00	889
48.00	12364	81.00	63848	124.00	1253	157.00	3652
49.00	84896	82.00	15314	125.00	632	158.00	202
50.00	395712	83.00	1583	126.00	938	159.00	2845
51.00	122808	84.00	213	127.00	784	161.00	2540
52.00	5792	86.00	2435	128.00	7717	169.00	809
53.00	502	87.00	78456	129.00	3744	172.00	179
54.00	245	88.00	76536	130.00	7922	173.00	8353
55.00	4829	91.00	5917	131.00	3474	174.00	2060800
56.00	31600	92.00	60880	132.00	744	175.00	135872
57.00	58176	93.00	89824	133.00	288	176.00	2012672
58.00	2588	94.00	250944	134.00	724	177.00	130672
59.00	93	95.00	2220032	135.00	3865	178.00	3355
60.00	17568	96.00	147136	136.00	743	179.00	386
61.00	93088	97.00	4411	137.00	3697	181.00	204
62.00	97576	98.00	401	138.00	176	207.00	2206
63.00	74344	100.00	351	139.00	728	208.00	343
64.00	6883	103.00	1109	140.00	1437	209.00	84
65.00	642	104.00	8683	141.00	21232	281.00	1098
66.00	418	105.00	2675	142.00	2849	282.00	371
67.00	4988	106.00	8403	143.00	21520	283.00	376
68.00	207552	107.00	1621	144.00	1519		
69.00	209728	110.00	1489	145.00	2150		
70.00	17056	111.00	2088	146.00	3420		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16880	71.00	1192	112.00	1398	147.00	2065
37.00	103512	72.00	10425	113.00	1810	148.00	5062
38.00	93368	73.00	91640	115.00	2423	149.00	1937
39.00	35200	74.00	363264	116.00	7263	150.00	2821
40.00	1066	75.00	1089024	117.00	13025	151.00	170
43.00	361	76.00	93176	118.00	7601	152.00	1293
44.00	13749	77.00	10749	119.00	10428	153.00	1876
45.00	16087	78.00	7751	120.00	739	154.00	1489
46.00	1615	79.00	61672	122.00	737	155.00	5638
47.00	20936	80.00	19224	123.00	917	156.00	889
48.00	12364	81.00	63848	124.00	1253	157.00	3652
49.00	84896	82.00	15314	125.00	632	158.00	202
50.00	395712	83.00	1583	126.00	938	159.00	2845
51.00	122808	84.00	213	127.00	784	161.00	2540
52.00	5792	86.00	2435	128.00	7717	169.00	809
53.00	502	87.00	78456	129.00	3744	172.00	179
54.00	245	88.00	76536	130.00	7922	173.00	8353
55.00	4829	91.00	5917	131.00	3474	174.00	2060800
56.00	31600	92.00	60880	132.00	744	175.00	135872
57.00	58176	93.00	89824	133.00	288	176.00	2012672
58.00	2588	94.00	250944	134.00	724	177.00	130672
59.00	93	95.00	2220032	135.00	3865	178.00	3355
60.00	17568	96.00	147136	136.00	743	179.00	386
61.00	93088	97.00	4411	137.00	3697	181.00	204
62.00	97576	98.00	401	138.00	176	207.00	2206
63.00	74344	100.00	351	139.00	728	208.00	343
64.00	6883	103.00	1109	140.00	1437	209.00	84
65.00	642	104.00	8683	141.00	21232	281.00	1098
66.00	418	105.00	2675	142.00	2849	282.00	371
67.00	4988	106.00	8403	143.00	21520	283.00	376
68.00	207552	107.00	1621	144.00	1519		
69.00	209728	110.00	1489	145.00	2150		
70.00	17056	111.00	2088	146.00	3420		

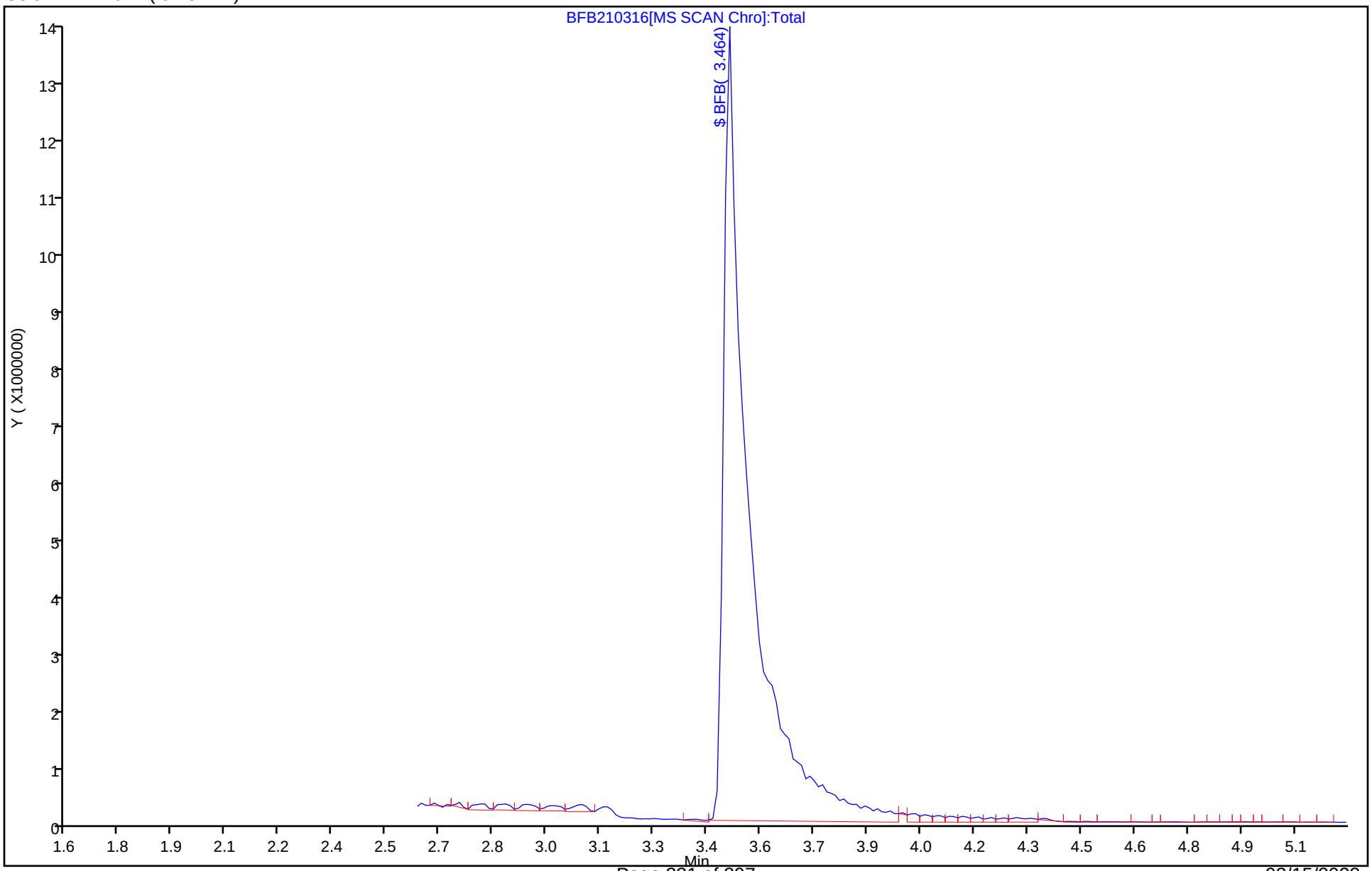
Report Date: 18-Mar-2021 09:02:03 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D

Injection Date:	16-Mar-2021 07:33:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Oct-2021 09:43:30	ALS Bottle#:	30	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	C211008A,BFBUX15,,43582				
Operator ID:		Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	11-Oct-2021 07:47:08	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1633				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.476	3.476	0.000	0	11930295	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

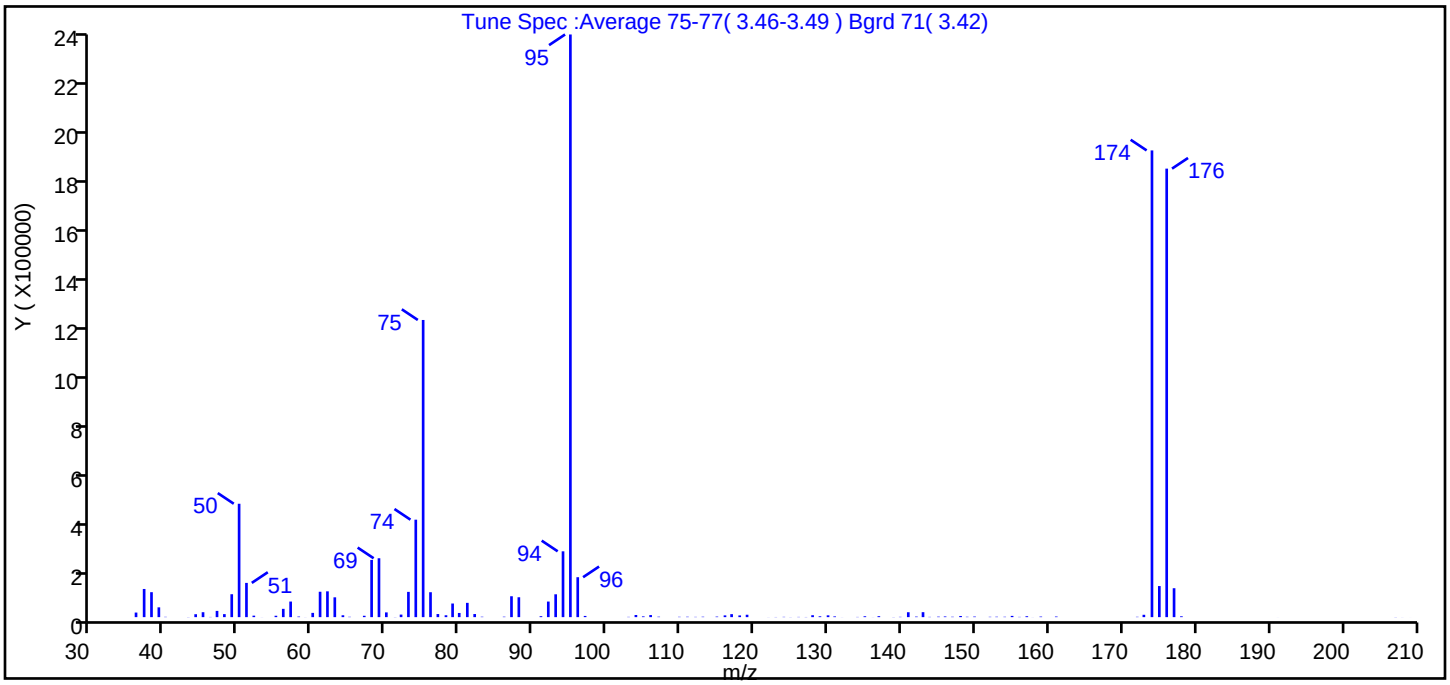
vmbfb_00027 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D
Injection Date: 08-Oct-2021 09:43:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 30 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.5
75	30 to 60% of m/z 95	51.0
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	80.1
175	5 to 9% of m/z 174	5.3 (6.7)
176	Greater than 95% but less than 101% of m/z 174	77.0 (96.1)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D\8260_15.rslt\spectra.d
Injection Date: 08-Oct-2021 09:43:30
Spectrum: Tune Spec :Average 75-77(3.46-3.49) Bgrd 71(3.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 115

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	18328	69.00	235072	107.00	1757	143.00	19832
37.00	112472	70.00	18952	110.00	1360	144.00	1040
38.00	99656	71.00	501	111.00	1624	145.00	1947
39.00	39112	72.00	10189	112.00	1077	146.00	2722
40.00	1216	73.00	100872	113.00	1670	147.00	1543
43.00	508	74.00	389056	115.00	2210	148.00	4611
44.00	11677	75.00	1186304	116.00	7016	149.00	1463
45.00	19688	76.00	99520	117.00	11963	150.00	2286
46.00	787	77.00	12364	118.00	6863	152.00	1387
47.00	24936	78.00	7504	119.00	9580	153.00	1673
48.00	12039	79.00	54424	122.00	250	154.00	1478
49.00	91512	80.00	16688	123.00	632	155.00	5004
50.00	452672	81.00	57016	124.00	1146	156.00	1019
51.00	136704	82.00	12409	125.00	417	157.00	3627
52.00	5949	83.00	1662	126.00	931	158.00	203
53.00	204	86.00	1758	127.00	650	159.00	2239
55.00	5570	87.00	83416	128.00	7704	161.00	2439
56.00	33128	88.00	79368	129.00	3290	172.00	1363
57.00	62248	91.00	3783	130.00	7197	173.00	9435
58.00	2318	92.00	62224	131.00	2910	174.00	1863168
59.00	232	93.00	91208	132.00	214	175.00	124104
60.00	17040	94.00	262784	134.00	839	176.00	1790464
61.00	101376	95.00	2326016	135.00	3492	177.00	115480
62.00	103024	96.00	159424	136.00	219	178.00	3333
63.00	79120	97.00	4836	137.00	3802	191.00	98
64.00	7497	103.00	1088	139.00	509	207.00	485
65.00	1355	104.00	8556	140.00	1173	208.00	181
67.00	5488	105.00	3026	141.00	19576	209.00	65
68.00	228352	106.00	8308	142.00	2185		

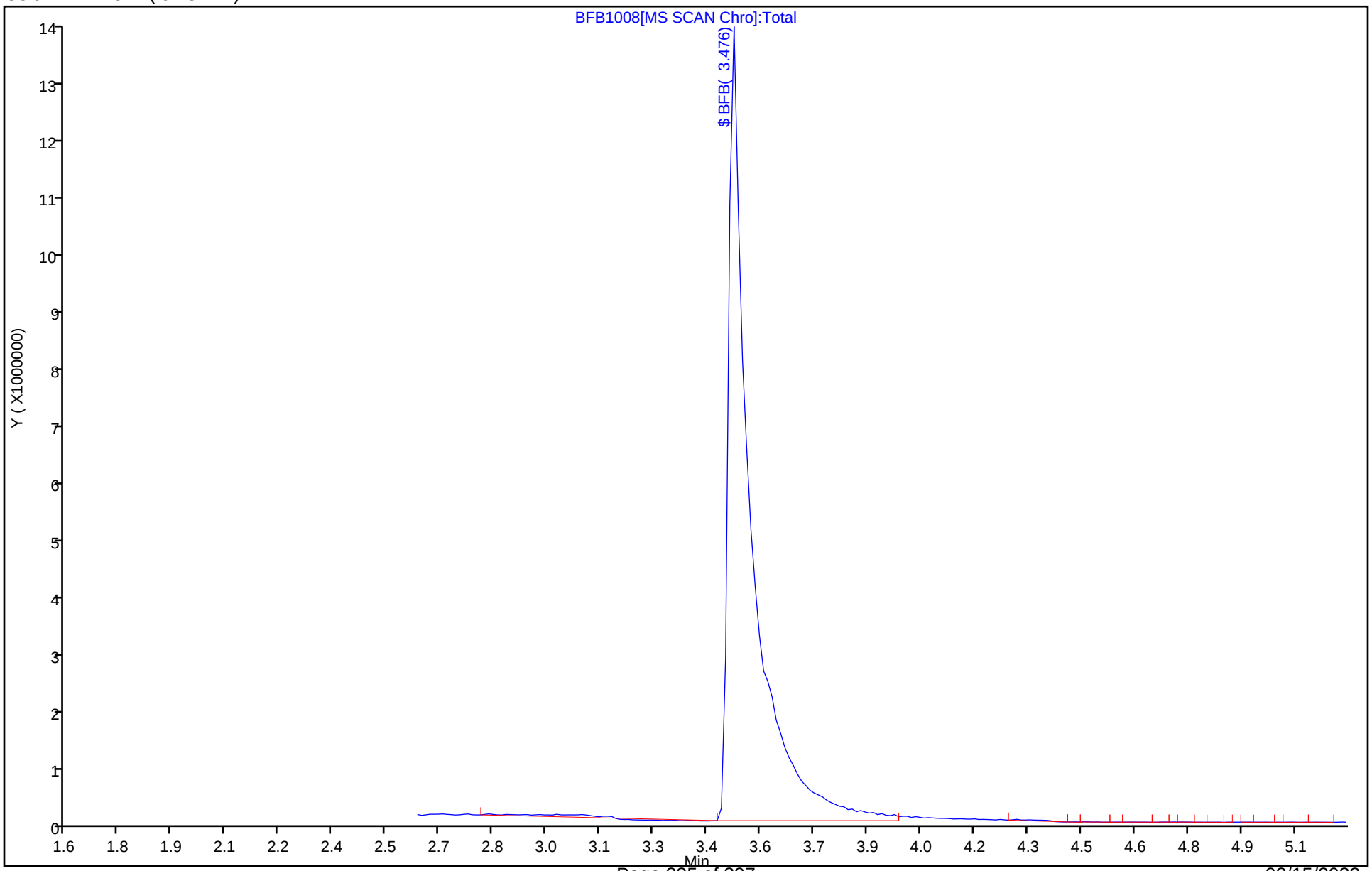
Report Date: 11-Oct-2021 07:47:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D

Injection Date:	08-Oct-2021 09:43:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	11-Oct-2021 08:54:30	ALS Bottle#:	29	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	C211011A,BFBUX15,,43582				
Operator ID:		Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	12-Oct-2021 11:12:53	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1669				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.476	3.476	0.000	0	11638927	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

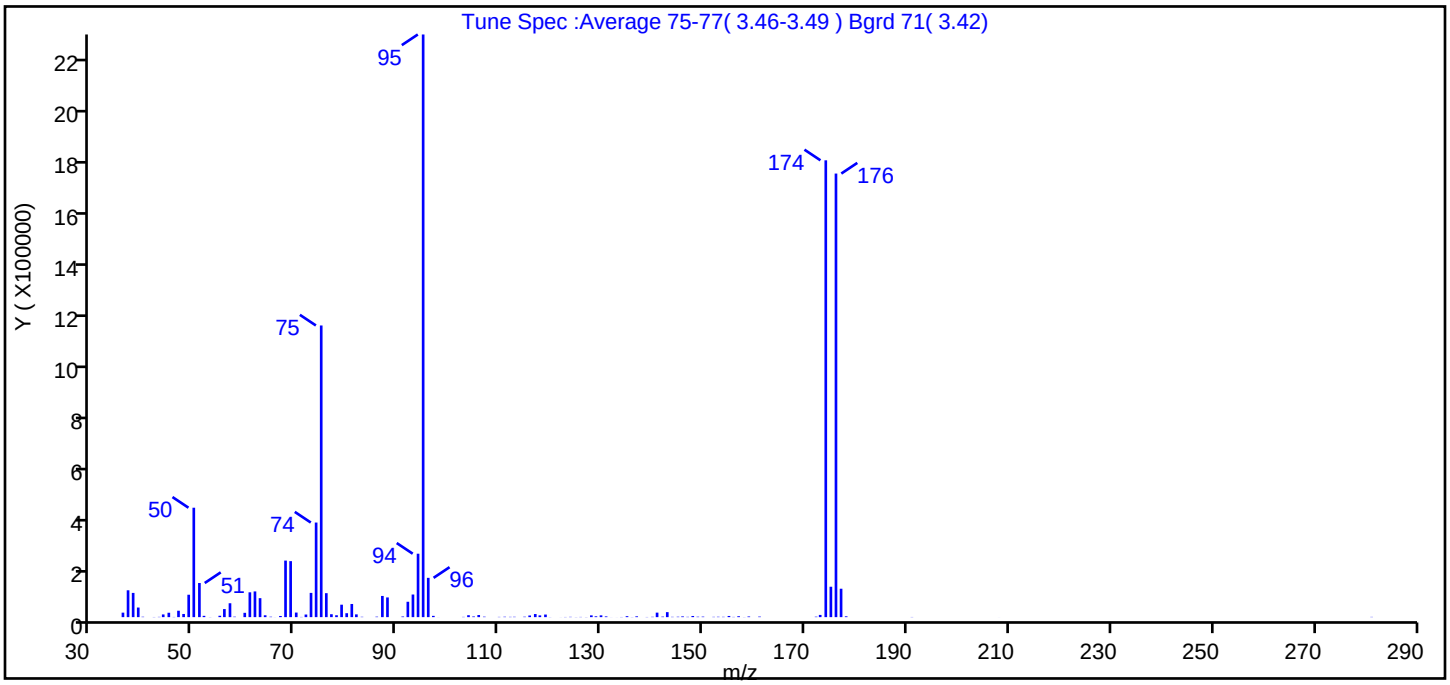
vmbfb_00027 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D
Injection Date: 11-Oct-2021 08:54:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 29 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	50.1
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	78.4
175	5 to 9% of m/z 174	5.2 (6.7)
176	Greater than 95% but less than 101% of m/z 174	76.1 (97.1)
177	5 to 9% of m/z 176	4.9 (6.4)

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D\8260_15.rslt\spectra.d
Injection Date: 11-Oct-2021 08:54:30
Spectrum: Tune Spec :Average 75-77(3.46-3.49) Bgrd 71(3.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	17232	69.00	214400	107.00	1784	142.00	2010
37.00	102824	70.00	17536	110.00	974	143.00	19112
38.00	92776	71.00	780	111.00	1553	144.00	1178
39.00	36776	72.00	10047	112.00	1098	145.00	1571
40.00	1501	73.00	92824	113.00	1359	146.00	2799
42.00	605	74.00	362176	115.00	1689	147.00	1179
43.00	1023	75.00	1116672	116.00	6288	148.00	4427
44.00	10372	76.00	91768	117.00	11882	149.00	1644
45.00	16816	77.00	11186	118.00	6687	150.00	1978
46.00	732	78.00	7289	119.00	9936	152.00	1130
47.00	24544	79.00	47656	120.00	365	153.00	1477
48.00	12118	80.00	15021	122.00	171	154.00	1237
49.00	85816	81.00	50392	123.00	666	155.00	4498
50.00	418944	82.00	10635	124.00	1128	156.00	885
51.00	130656	83.00	1328	125.00	411	157.00	3460
52.00	4985	86.00	1833	126.00	833	158.00	376
53.00	441	87.00	81144	127.00	446	159.00	2512
55.00	5248	88.00	75456	128.00	6758	161.00	2126
56.00	30928	91.00	2453	129.00	3181	172.00	1776
57.00	53200	92.00	58872	130.00	6857	173.00	8478
58.00	1782	93.00	86640	131.00	2793	174.00	1748992
60.00	16552	94.00	242880	132.00	176	175.00	116408
61.00	95064	95.00	2230784	133.00	150	176.00	1698304
62.00	98464	96.00	150464	134.00	628	177.00	108816
63.00	72664	97.00	4893	135.00	3685	178.00	3137
64.00	7135	98.00	168	136.00	407	191.00	664
65.00	1640	103.00	973	137.00	3137	208.00	106
66.00	193	104.00	7413	139.00	646	281.00	968
67.00	4452	105.00	2564	140.00	1309		
68.00	216512	106.00	8080	141.00	17264		

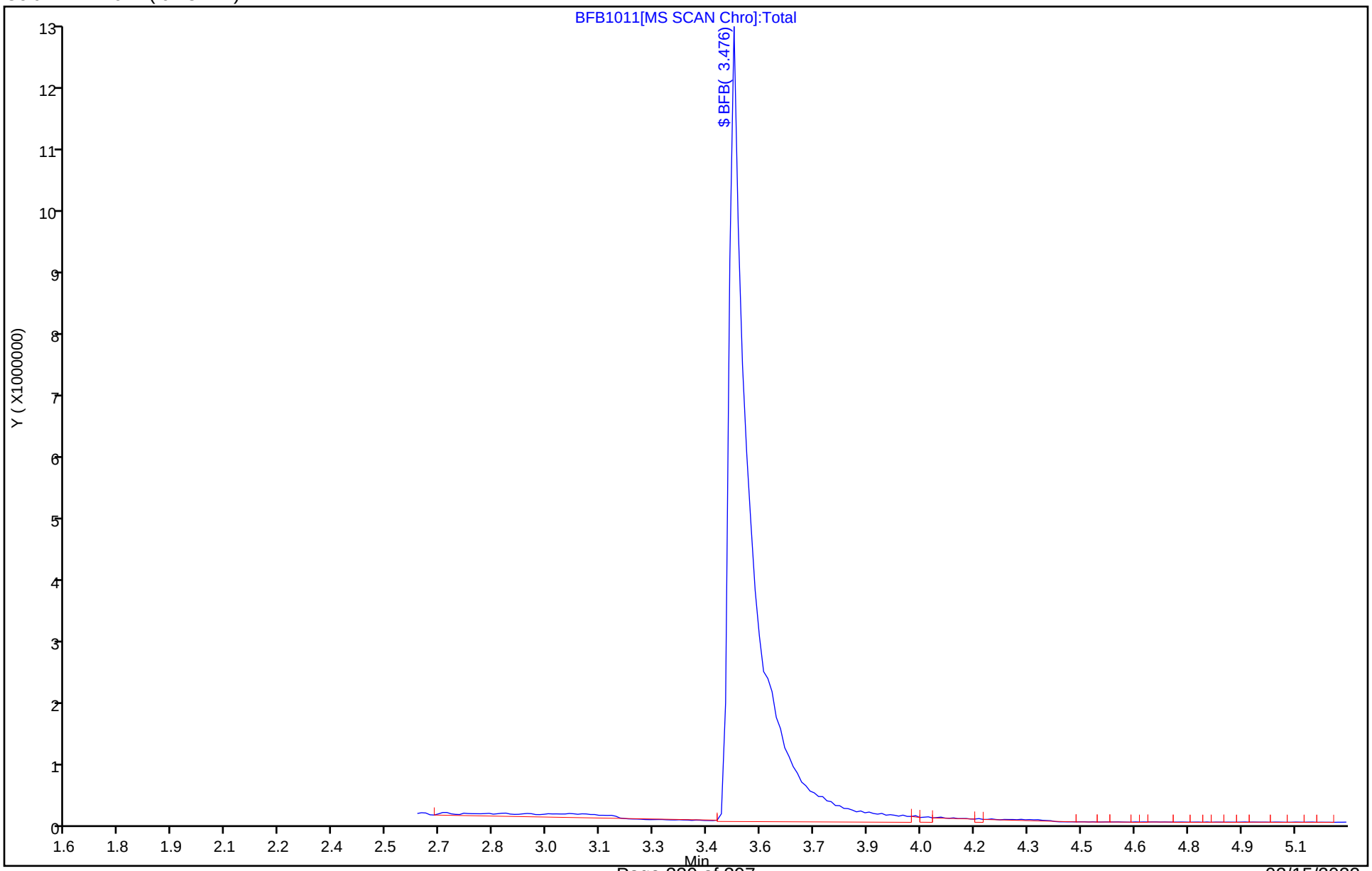
Report Date: 12-Oct-2021 11:12:53 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D

Injection Date:	11-Oct-2021 08:54:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\BFB1012.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Oct-2021 07:54:30 ALS Bottle#: 30 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: C211012A,BFBUX15,,43582
Operator ID: Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:50 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.464	3.464	0.000	0	12047615	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

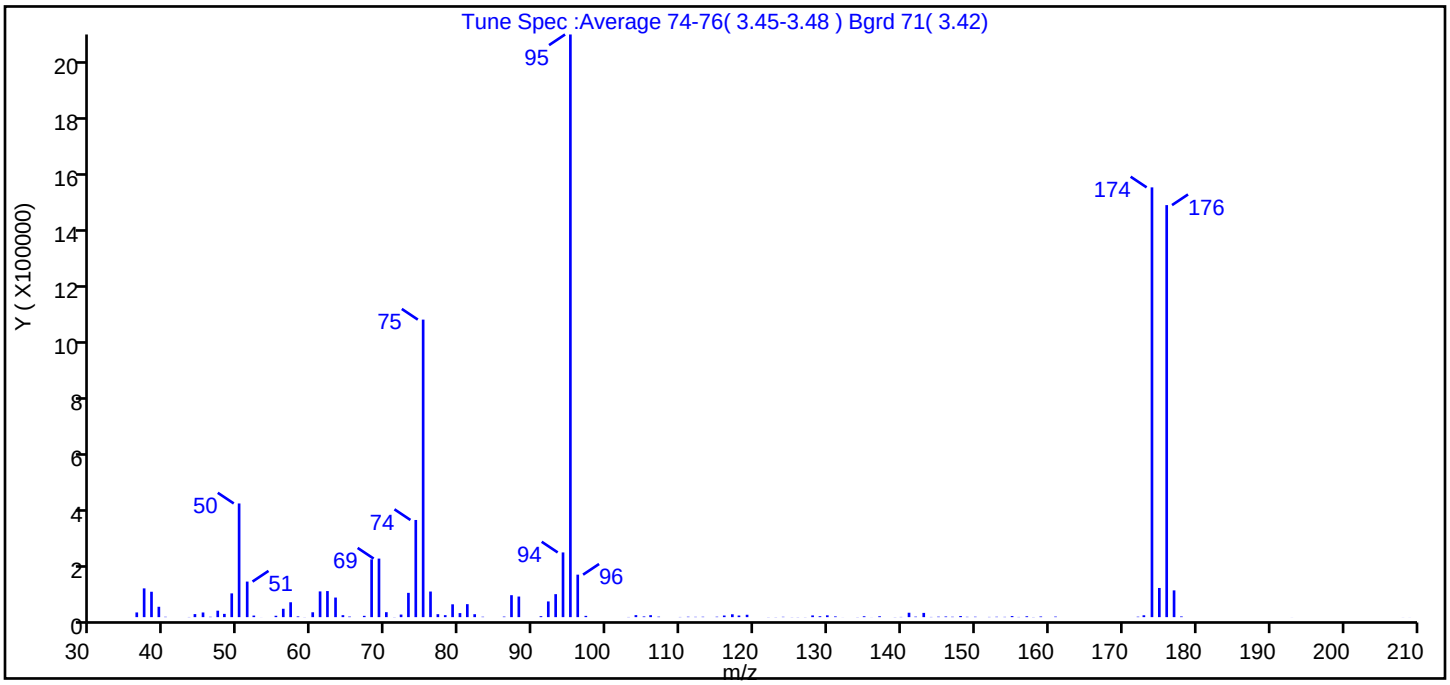
vmbfb_00027 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\BFB1012.D
Injection Date: 12-Oct-2021 07:54:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 30 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.5
75	30 to 60% of m/z 95	51.1
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	73.8
175	5 to 9% of m/z 174	5.0 (6.8)
176	Greater than 95% but less than 101% of m/z 174	70.7 (95.9)
177	5 to 9% of m/z 176	4.6 (6.5)

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\BFB1012.D\8260_15.rslt\spectra.d
Injection Date: 12-Oct-2021 07:54:30
Spectrum: Tune Spec :Average 74-76(3.45-3.48) Bgrd 71(3.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16177	69.00	201152	107.00	1612	143.00	14586
37.00	98816	70.00	17032	110.00	638	144.00	696
38.00	87264	71.00	479	111.00	1443	145.00	1576
39.00	35632	72.00	8835	112.00	1069	146.00	2259
40.00	1188	73.00	83456	113.00	1346	147.00	1318
43.00	571	74.00	333824	115.00	1515	148.00	3810
44.00	10489	75.00	1022272	116.00	5579	149.00	1116
45.00	16046	76.00	88000	117.00	9822	150.00	1453
46.00	1235	77.00	10137	118.00	5578	152.00	780
47.00	22192	78.00	6790	119.00	8191	153.00	1323
48.00	11262	79.00	44088	122.00	402	154.00	965
49.00	81632	80.00	13888	123.00	462	155.00	3662
50.00	390592	81.00	44600	124.00	1154	156.00	693
51.00	122192	82.00	10087	125.00	397	157.00	3029
52.00	5411	83.00	1381	126.00	454	158.00	519
53.00	172	86.00	1849	127.00	373	159.00	2214
55.00	4762	87.00	75456	128.00	5911	161.00	1917
56.00	28784	88.00	70808	129.00	3077	172.00	1538
57.00	51152	91.00	3341	130.00	6208	173.00	6381
58.00	2499	92.00	53992	131.00	2543	174.00	1476608
59.00	353	93.00	78968	132.00	184	175.00	100224
60.00	16712	94.00	222336	134.00	454	176.00	1415680
61.00	88408	95.00	2001920	135.00	3022	177.00	91952
62.00	89584	96.00	145984	136.00	213	178.00	2346
63.00	67328	97.00	4436	137.00	2992	193.00	170
64.00	6763	103.00	599	139.00	432	208.00	189
65.00	1944	104.00	6873	140.00	730	209.00	161
67.00	4503	105.00	2415	141.00	15130		
68.00	198464	106.00	6770	142.00	1758		

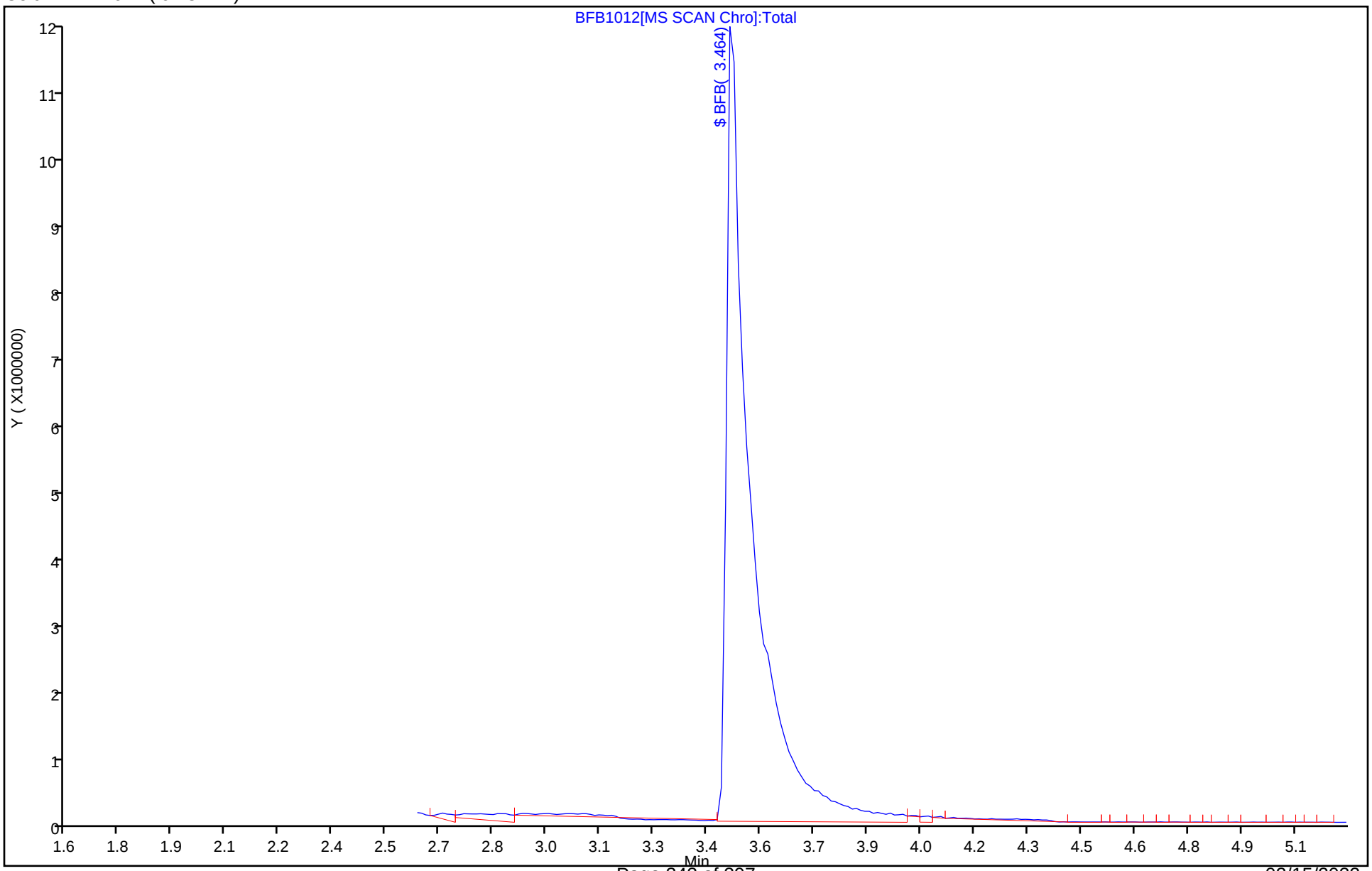
Report Date: 13-Oct-2021 08:53:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\BFB1012.D

Injection Date:	12-Oct-2021 07:54:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-507379/7

Matrix: Water | Lab File ID: UXC9921.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	84		56-136
1868-53-7	Dibromofluoromethane (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		62-137
2037-26-5	Toluene-d8 (Surr)	94		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2021 12:02:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-007
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 12:35:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	98	1606868	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.657	0.001	87	1187492	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	587709	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	325374	10.0	8.66	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	99	482928	10.0	11.4	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1373675	10.0	9.44	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	413717	10.0	8.40	
9 Dichlorodifluoromethane	85		1.420					ND	
10 Chloromethane	50		1.562					ND	
11 Vinyl chloride	62		1.657					ND	
12 Butadiene	54		1.669					ND	
13 Bromomethane	94		1.930					ND	
14 Chloroethane	64		1.989					ND	
15 Dichlorofluoromethane	67		2.155					ND	
16 Trichlorofluoromethane	101		2.202					ND	
17 Ethyl ether	59		2.404					ND	
18 Acrolein	56		2.523					ND	7
19 1,1-Dichloroethene	96		2.606					ND	
20 112TCTFE	151		2.617					ND	
21 Acetone	58	2.653	2.641	0.012	96	3838		1.18	
22 Iodomethane	142		2.748					ND	
24 Carbon disulfide	76		2.807					ND	7
23 Methylal	45		2.872					ND	
25 Acetonitrile	41		2.879					ND	U
26 3-Chloro-1-propene	76		2.902					ND	
27 Methyl acetate	43		2.914					ND	
28 Methylene Chloride	84		3.009					ND	
29 2-Methyl-2-propanol	59		3.080					ND	U
30 Acrylonitrile	53		3.210					ND	
31 Methyl tert-butyl ether	73		3.222					ND	
32 trans-1,2-Dichloroethene	96		3.222					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	86		3.436					ND	
33 Chlorodifluoromethane TIC	51		3.441					ND	
35 1,1-Dichloroethane	63		3.566					ND	
36 Vinyl acetate	43		3.602					ND	
37 Isopropyl ether	87		3.614					ND	
38 2-Chloro-1,3-butadiene	53		3.637					ND	
39 Tert-butyl ethyl ether	59		3.910					ND	
42 2,2-Dichloropropane	97		4.040					ND	
41 cis-1,2-Dichloroethene	96		4.040					ND	
40 2-Butanone (MEK)	72		4.052					ND	
43 Ethyl acetate	43		4.088					ND	
44 Propionitrile	54		4.112					ND	U
45 Methacrylonitrile	41		4.230					ND	
46 Chlorobromomethane	128		4.242					ND	
47 Tetrahydrofuran	42		4.278					ND	
48 Chloroform	83		4.301					ND	
49 1,1,1-Trichloroethane	97		4.456					ND	
50 Cyclohexane	56		4.503					ND	
51 1,1-Dichloropropene	75		4.586					ND	
52 Carbon tetrachloride	117		4.598					ND	
53 Isobutyl alcohol	41		4.669					ND	
55 Benzene	78	4.788	4.764	0.024	89	26444		0.1500	
56 1,2-Dichloroethane	62		4.788					ND	
54 Isooctane	57		4.823					ND	
57 Tert-amyl methyl ether	73		4.847					ND	
58 n-Heptane	100		4.965					ND	
59 n-Butanol	56	5.238	5.226	0.012	22	1855		3.58	
60 Trichloroethene	130		5.297					ND	
61 Ethyl acrylate	55		5.381					ND	
62 Methylcyclohexane	83		5.463					ND	
63 1,2-Dichloropropane	63		5.499					ND	
64 Methyl methacrylate	41		5.570					ND	
65 Dibromomethane	93		5.594					ND	
66 1,4-Dioxane	88		5.606					ND	
67 Dichlorobromomethane	83		5.724					ND	
68 2-Nitropropane	41		5.926					ND	
69 2-Chloroethyl vinyl ether	63		5.973					ND	
70 cis-1,3-Dichloropropene	75		6.116					ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246					ND	
72 Toluene	91		6.412					ND	7
73 trans-1,3-Dichloropropene	75		6.602					ND	
74 Ethyl methacrylate	69		6.661					ND	
75 1,1,2-Trichloroethane	97		6.768					ND	
76 Tetrachloroethene	164		6.898					ND	
77 1,3-Dichloropropane	76		6.922					ND	
78 2-Hexanone	43		6.981					ND	
79 n-Butyl acetate	43		7.088					ND	
80 Chlorodibromomethane	129		7.124					ND	
82 Ethylene Dibromide	107		7.242					ND	
81 Tetrahydrothiophene	60		7.292					ND	
83 1-Chlorohexane	91		7.646					ND	7
84 Chlorobenzene	112		7.681					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131		7.752					ND	
86 Ethylbenzene	106		7.776					ND	
87 m-Xylene & p-Xylene	91		7.883					ND	
88 o-Xylene	106		8.262					ND	
89 Styrene	104		8.274					ND	
90 Bromoform	173		8.464					ND	
91 Isopropylbenzene	105		8.618					ND	
92 Cyclohexanone	55		8.713					ND	U
93 1,4-Dichlorobutane	55		8.881					ND	
94 1,1,2,2-Tetrachloroethane	83		8.902					ND	
95 Bromobenzene	156		8.914					ND	
96 1,2,3-Trichloropropane	110		8.950					ND	
97 trans-1,4-Dichloro-2-butene	53		8.962					ND	
98 N-Propylbenzene	120		9.009					ND	
99 2-Chlorotoluene	126		9.092					ND	
101 1,3,5-Trimethylbenzene	105		9.175					ND	
102 4-Chlorotoluene	91		9.199					ND	
100 3-Ethyltoluene	105		9.324					ND	
104 tert-Butylbenzene	119		9.495					ND	
105 Pentachloroethane	167		9.519					ND	
106 1,2,4-Trimethylbenzene	105		9.543					ND	
103 2-Ethyltoluene	105		9.609					ND	
107 sec-Butylbenzene	105		9.709					ND	
108 1,3-Dichlorobenzene	146		9.827					ND	
109 4-Isopropyltoluene	119		9.851					ND	
110 1,4-Dichlorobenzene	146		9.910					ND	
111 1,2,3-Trimethylbenzene	105		9.958					ND	
112 Benzyl chloride	126		10.053					ND	
113 n-Butylbenzene	91		10.254					ND	
114 1,2-Dichlorobenzene	146		10.278					ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061					ND	
116 1,3,5-Trichlorobenzene	180		11.262					ND	7
117 1,2,4-Trichlorobenzene	180		11.879					ND	
118 Hexachlorobutadiene	225		12.045					ND	7
119 Naphthalene	128		12.128					ND	
120 1,2,3-Trichlorobenzene	180		12.365					ND	
121 2-Methylnaphthalene	142	13.350	13.361	-0.011	94	13589		0.1928	
122 1-Methylnaphthalene	142	13.599	13.599	0.000	88	13819		0.2200	
123 Epichlorohydrin	1		0.000					ND	
125 Propene oxide	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
126 1,3-Diethylbenzene TIC	1		0.000					ND	
S 127 1,2-Dichloroethene, Total	96		1.140					ND	
S 128 1,3-Dichloropropene, Total	75		6.760					ND	
S 129 Xylenes, Total	106		16.530					ND	
S 130 Total BTEX	1				0			0.1500	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

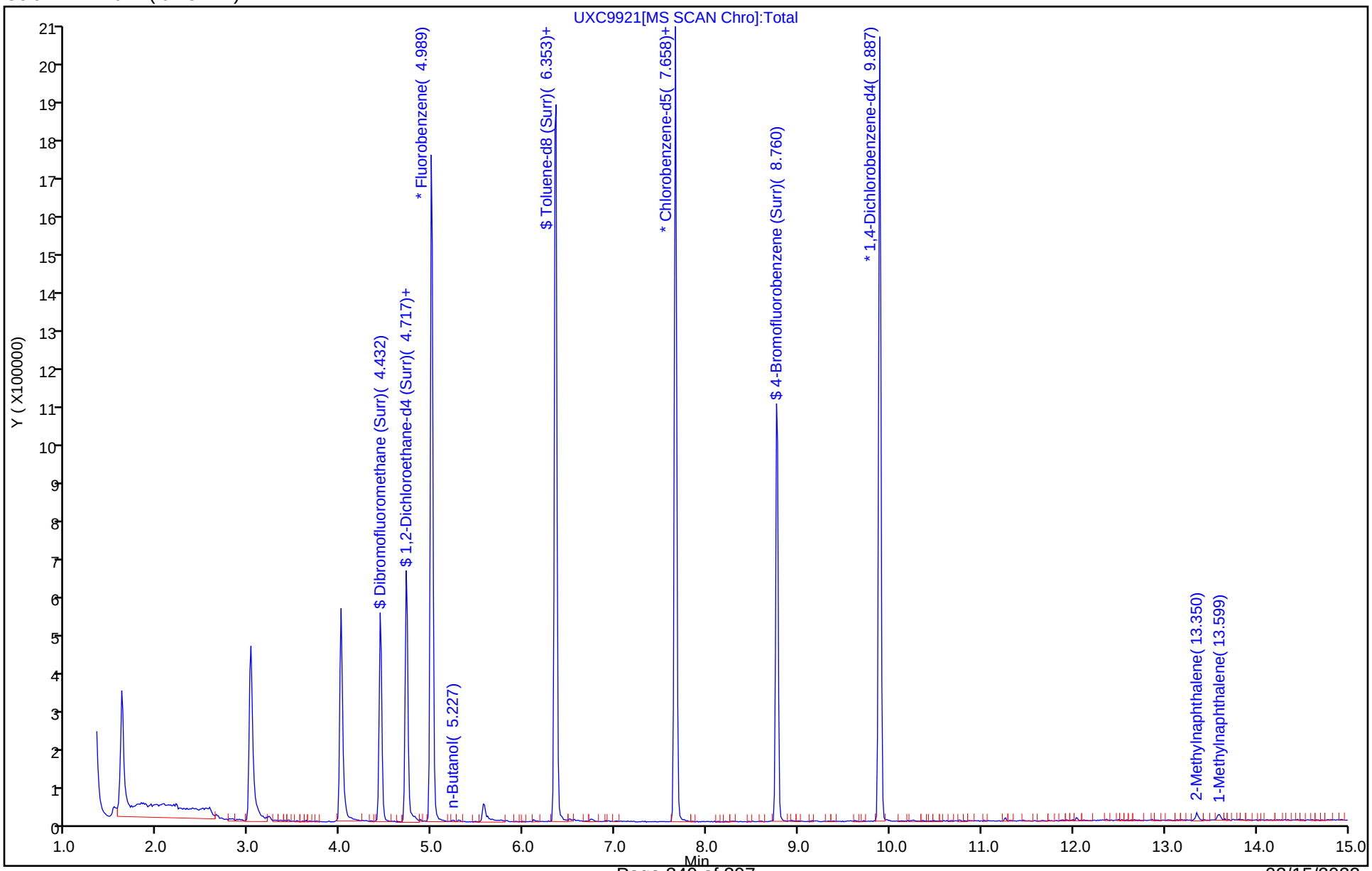
Report Date: 11-Oct-2021 07:47:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D

Injection Date:	08-Oct-2021 12:02:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2021 12:02:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-007
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 12:35:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.66	86.63
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.4	114.14
$ 6 Toluene-d8 (Surr)	10.0	9.44	94.39
$ 7 4-Bromofluorobenzene (Surr)	10.0	8.40	84.04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-507592/7

Matrix: Water | Lab File ID: UXC9950.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 11:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		56-136
1868-53-7	Dibromofluoromethane (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		62-137
2037-26-5	Toluene-d8 (Surr)	93		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Oct-2021 11:10:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-007
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 11-Oct-2021 11:49:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1633823	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1222030	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	610519	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	336833	10.0	8.82	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	99	501670	10.0	11.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1398580	10.0	9.34	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	91	417456	10.0	8.24	
9 Dichlorodifluoromethane	85		1.420					ND	
10 Chloromethane	50		1.562					ND	
11 Vinyl chloride	62		1.657					ND	
12 Butadiene	54		1.669					ND	
13 Bromomethane	94		1.930					ND	
14 Chloroethane	64		2.001					ND	
15 Dichlorofluoromethane	67		2.155					ND	
16 Trichlorofluoromethane	101		2.214					ND	
17 Ethyl ether	59		2.404					ND	
18 Acrolein	56		2.523					ND	7
19 1,1-Dichloroethene	96		2.618					ND	
20 112TCTFE	151		2.618					ND	
21 Acetone	58	2.653	2.641	0.012	94	969		0.2933	
22 Iodomethane	142		2.748					ND	
24 Carbon disulfide	76		2.819					ND	7
23 Methylal	45		2.872					ND	
25 Acetonitrile	41		2.878					ND	
26 3-Chloro-1-propene	76		2.902					ND	
27 Methyl acetate	43		2.914					ND	
28 Methylene Chloride	84		2.997					ND	
29 2-Methyl-2-propanol	59		3.080					ND	U
30 Acrylonitrile	53		3.211					ND	
31 Methyl tert-butyl ether	73		3.222					ND	
32 trans-1,2-Dichloroethene	96		3.222					ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	86		3.436					ND	
33 Chlorodifluoromethane TIC	51		3.441					ND	
35 1,1-Dichloroethane	63		3.566					ND	
36 Vinyl acetate	43		3.602					ND	
37 Isopropyl ether	87		3.614					ND	
38 2-Chloro-1,3-butadiene	53		3.637					ND	
39 Tert-butyl ethyl ether	59		3.898					ND	
42 2,2-Dichloropropane	97		4.041					ND	
41 cis-1,2-Dichloroethene	96		4.041					ND	
40 2-Butanone (MEK)	72		4.053					ND	
43 Ethyl acetate	43		4.088					ND	
44 Propionitrile	54		4.112					ND	
45 Methacrylonitrile	41		4.230					ND	
46 Chlorobromomethane	128		4.242					ND	
47 Tetrahydrofuran	42		4.278					ND	
48 Chloroform	83		4.302					ND	
49 1,1,1-Trichloroethane	97		4.456					ND	
50 Cyclohexane	56		4.503					ND	
51 1,1-Dichloropropene	75		4.586					ND	
52 Carbon tetrachloride	117		4.598					ND	
53 Isobutyl alcohol	41		4.669					ND	
55 Benzene	78	4.776	4.764	0.012	93	23747		0.1325	
56 1,2-Dichloroethane	62		4.788					ND	
54 Isooctane	57	4.823	4.811	0.012	93	3398		0.0369	
57 Tert-amyl methyl ether	73		4.847					ND	
58 n-Heptane	100		4.966					ND	
59 n-Butanol	56		5.215					ND	
60 Trichloroethene	130		5.298					ND	7
61 Ethyl acrylate	55		5.381					ND	
62 Methylcyclohexane	83		5.464					ND	
63 1,2-Dichloropropane	63		5.499					ND	
64 Methyl methacrylate	41		5.570					ND	
65 Dibromomethane	93		5.594					ND	
66 1,4-Dioxane	88		5.606					ND	
67 Dichlorobromomethane	83		5.725					ND	
68 2-Nitropropane	41		5.926					ND	
69 2-Chloroethyl vinyl ether	63		5.974					ND	
70 cis-1,3-Dichloropropene	75		6.116					ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246					ND	
72 Toluene	91		6.412					ND	7
73 trans-1,3-Dichloropropene	75		6.602					ND	
74 Ethyl methacrylate	69		6.661					ND	
75 1,1,2-Trichloroethane	97		6.768					ND	
76 Tetrachloroethene	164		6.899					ND	
77 1,3-Dichloropropane	76		6.922					ND	
78 2-Hexanone	43		6.982					ND	
79 n-Butyl acetate	43		7.088					ND	
80 Chlorodibromomethane	129		7.124					ND	
82 Ethylene Dibromide	107		7.242					ND	
81 Tetrahydrothiophene	60		7.292					ND	
83 1-Chlorohexane	91		7.646					ND	7
84 Chlorobenzene	112		7.681					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131		7.764					ND	
86 Ethylbenzene	106		7.776					ND	
87 m-Xylene & p-Xylene	91		7.883					ND	
88 o-Xylene	106		8.262					ND	
89 Styrene	104		8.274					ND	
90 Bromoform	173		8.464					ND	
91 Isopropylbenzene	105		8.618					ND	
92 Cyclohexanone	55		8.713					ND	
93 1,4-Dichlorobutane	55		8.881					ND	
94 1,1,2,2-Tetrachloroethane	83		8.903					ND	
95 Bromobenzene	156		8.915					ND	
96 1,2,3-Trichloropropane	110		8.950					ND	
97 trans-1,4-Dichloro-2-butene	53		8.962					ND	
98 N-Propylbenzene	120		9.009					ND	
99 2-Chlorotoluene	126		9.092					ND	
101 1,3,5-Trimethylbenzene	105		9.175					ND	
102 4-Chlorotoluene	91		9.199					ND	
100 3-Ethyltoluene	105		9.324					ND	
104 tert-Butylbenzene	119		9.496					ND	
105 Pentachloroethane	167		9.519					ND	
106 1,2,4-Trimethylbenzene	105		9.543					ND	
103 2-Ethyltoluene	105		9.609					ND	
107 sec-Butylbenzene	105		9.709					ND	
108 1,3-Dichlorobenzene	146		9.828					ND	
109 4-Isopropyltoluene	119		9.851					ND	
110 1,4-Dichlorobenzene	146		9.911					ND	
111 1,2,3-Trimethylbenzene	105		9.958					ND	
112 Benzyl chloride	126		10.053					ND	
113 n-Butylbenzene	91		10.255					ND	
114 1,2-Dichlorobenzene	146		10.278					ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061					ND	
116 1,3,5-Trichlorobenzene	180		11.262					ND	7
117 1,2,4-Trichlorobenzene	180		11.879					ND	
118 Hexachlorobutadiene	225		12.045					ND	7
119 Naphthalene	128		12.128					ND	
120 1,2,3-Trichlorobenzene	180		12.365					ND	
121 2-Methylnaphthalene	142	13.350	13.361	-0.011	93	15458		0.2111	
122 1-Methylnaphthalene	142	13.599	13.598	0.001	91	16659		0.2553	
123 Epichlorohydrin	1		0.000					ND	
125 Propene oxide	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
126 1,3-Diethylbenzene TIC	1		0.000					ND	
S 127 1,2-Dichloroethene, Total	96		1.140					ND	
S 128 1,3-Dichloropropene, Total	75		6.760					ND	
S 129 Xylenes, Total	106		16.530					ND	
S 130 Total BTEX	1				0			0.1325	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

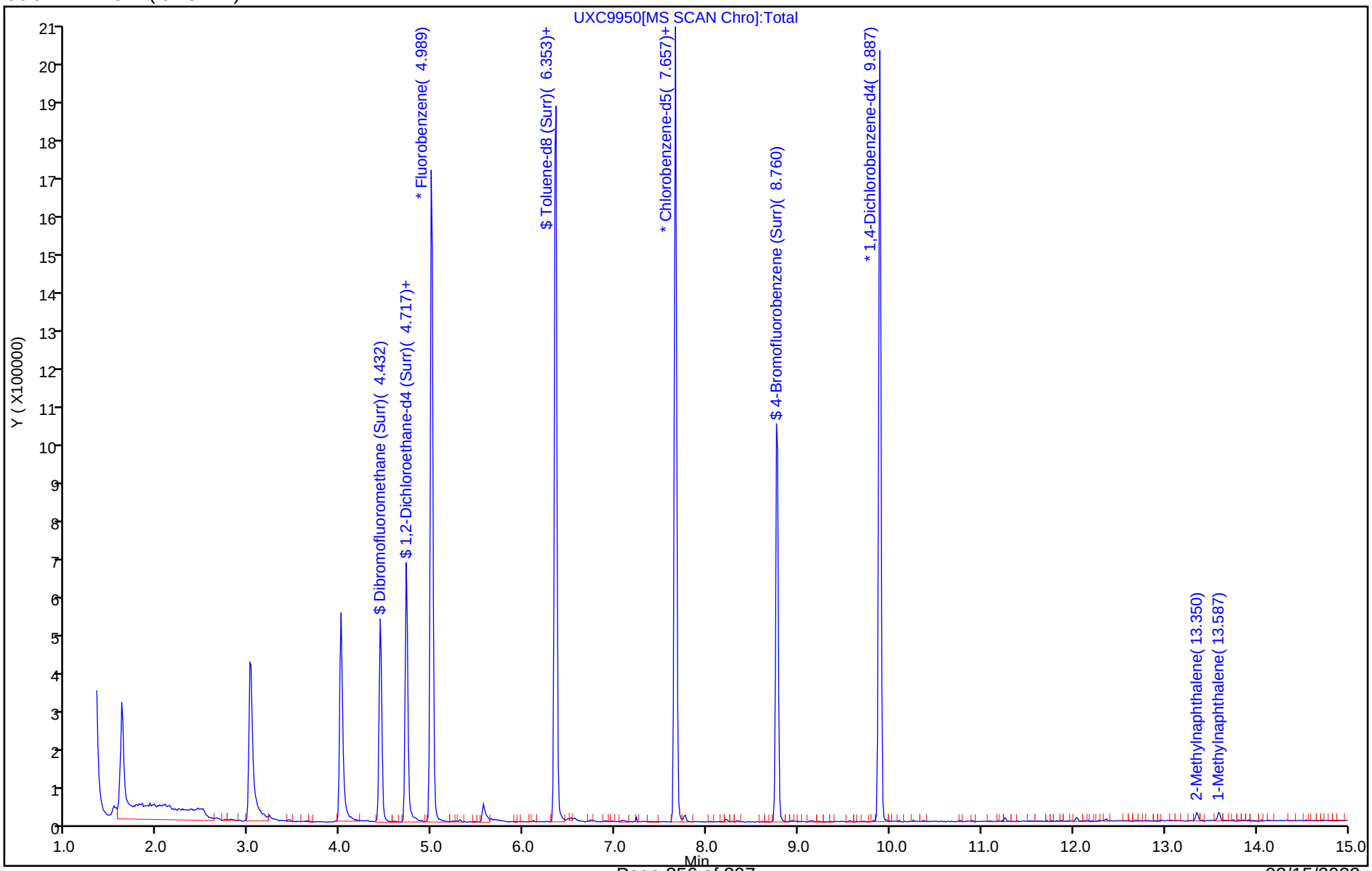
Report Date: 12-Oct-2021 11:13:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D

Injection Date:	11-Oct-2021 11:10:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Oct-2021 11:10:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-007
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 11-Oct-2021 11:49:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.82	88.20
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.7	116.61
$ 6 Toluene-d8 (Surr)	10.0	9.34	93.39
$ 7 4-Bromofluorobenzene (Surr)	10.0	8.24	82.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-507764/7

Matrix: Water | Lab File ID: UXC9980.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/12/2021 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507764 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	77		56-136
1868-53-7	Dibromofluoromethane (Surr)	89		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		62-137
2037-26-5	Toluene-d8 (Surr)	92		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9980.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Oct-2021 10:51:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0114014-007
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

First Level Reviewer: evansle Date: 12-Oct-2021 11:45:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1617587	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1210836	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	571986	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	335746	10.0	8.88	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.001	100	503042	10.0	11.8	
$ 6 Toluene-d8 (Surr)	98	6.353	6.341	0.012	94	1363353	10.0	9.19	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	384999	10.0	7.67	
9 Dichlorodifluoromethane	85		1.420					ND	
10 Chloromethane	50		1.562					ND	
11 Vinyl chloride	62		1.645					ND	
12 Butadiene	54		1.669					ND	
13 Bromomethane	94		1.930					ND	
14 Chloroethane	64		1.989					ND	
15 Dichlorofluoromethane	67		2.155					ND	
16 Trichlorofluoromethane	101		2.203					ND	
17 Ethyl ether	59		2.404					ND	
18 Acrolein	56		2.523					ND	7
19 1,1-Dichloroethene	96		2.606					ND	
20 112TCTFE	151		2.618					ND	
21 Acetone	58	2.641	2.641	0.000	99	5884		1.80	
22 Iodomethane	142		2.736					ND	
24 Carbon disulfide	76	2.807	2.807	0.000	95	16074		0.1233	
23 Methylal	45		2.872					ND	
25 Acetonitrile	41	2.890	2.878	0.012	74	6154		2.11	
26 3-Chloro-1-propene	76		2.902					ND	
27 Methyl acetate	43		2.914					ND	
28 Methylene Chloride	84		2.997					ND	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	38	2173		0.9498	
30 Acrylonitrile	53		3.199					ND	
31 Methyl tert-butyl ether	73		3.210					ND	
32 trans-1,2-Dichloroethene	96		3.222					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	86		3.436					ND	
33 Chlorodifluoromethane TIC	51		3.441					ND	
35 1,1-Dichloroethane	63		3.566					ND	
36 Vinyl acetate	43		3.602					ND	
37 Isopropyl ether	87		3.614					ND	
38 2-Chloro-1,3-butadiene	53		3.637					ND	
39 Tert-butyl ethyl ether	59		3.910					ND	
42 2,2-Dichloropropane	97		4.041					ND	
41 cis-1,2-Dichloroethene	96		4.041					ND	
40 2-Butanone (MEK)	72		4.052					ND	
43 Ethyl acetate	43		4.088					ND	
44 Propionitrile	54		4.112					ND	
45 Methacrylonitrile	41		4.230					ND	
46 Chlorobromomethane	128		4.242					ND	
47 Tetrahydrofuran	42	4.278	4.278	0.000	90	9384		1.10	
48 Chloroform	83		4.301					ND	
49 1,1,1-Trichloroethane	97		4.456					ND	
50 Cyclohexane	56		4.503					ND	
51 1,1-Dichloropropene	75		4.586					ND	
52 Carbon tetrachloride	117		4.598					ND	
53 Isobutyl alcohol	41		4.669					ND	
55 Benzene	78	4.776	4.764	0.012	91	18813		0.1060	
56 1,2-Dichloroethane	62		4.776					ND	
54 Isooctane	57	4.823	4.811	0.012	93	9612		0.1054	
57 Tert-amyl methyl ether	73		4.847					ND	
58 n-Heptane	100		4.966					ND	
59 n-Butanol	56		5.215					ND	
60 Trichloroethene	130		5.298					ND	7
61 Ethyl acrylate	55		5.381					ND	
62 Methylcyclohexane	83		5.464					ND	
63 1,2-Dichloropropane	63		5.499					ND	
64 Methyl methacrylate	41		5.570					ND	
65 Dibromomethane	93		5.594					ND	
66 1,4-Dioxane	88		5.606					ND	
67 Dichlorobromomethane	83		5.724					ND	
68 2-Nitropropane	41		5.926					ND	
69 2-Chloroethyl vinyl ether	63		5.974					ND	
70 cis-1,3-Dichloropropene	75		6.116					ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246					ND	
72 Toluene	91		6.400					ND	7
73 trans-1,3-Dichloropropene	75		6.602					ND	
74 Ethyl methacrylate	69		6.661					ND	
75 1,1,2-Trichloroethane	97		6.768					ND	
76 Tetrachloroethene	164		6.898					ND	
77 1,3-Dichloropropane	76		6.922					ND	
78 2-Hexanone	43		6.981					ND	
79 n-Butyl acetate	43		7.088					ND	
80 Chlorodibromomethane	129		7.124					ND	
82 Ethylene Dibromide	107		7.242					ND	
81 Tetrahydrothiophene	60		7.292					ND	
83 1-Chlorohexane	91		7.646					ND	7
84 Chlorobenzene	112		7.681					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131		7.752					ND	
86 Ethylbenzene	106		7.776					ND	
87 m-Xylene & p-Xylene	91		7.883					ND	
88 o-Xylene	106		8.262					ND	
89 Styrene	104		8.274					ND	
90 Bromoform	173		8.464					ND	
91 Isopropylbenzene	105		8.606					ND	
92 Cyclohexanone	55		8.725					ND	
93 1,4-Dichlorobutane	55		8.881					ND	
94 1,1,2,2-Tetrachloroethane	83		8.903					ND	
95 Bromobenzene	156		8.914					ND	
96 1,2,3-Trichloropropane	110		8.950					ND	
97 trans-1,4-Dichloro-2-butene	53		8.950					ND	
98 N-Propylbenzene	120		9.009					ND	
99 2-Chlorotoluene	126		9.092					ND	
101 1,3,5-Trimethylbenzene	105		9.175					ND	
102 4-Chlorotoluene	91		9.199					ND	
100 3-Ethyltoluene	105		9.324					ND	
104 tert-Butylbenzene	119		9.495					ND	
105 Pentachloroethane	167		9.519					ND	
106 1,2,4-Trimethylbenzene	105		9.543					ND	
103 2-Ethyltoluene	105		9.609					ND	
107 sec-Butylbenzene	105		9.709					ND	
108 1,3-Dichlorobenzene	146		9.828					ND	
109 4-Isopropyltoluene	119		9.851					ND	
110 1,4-Dichlorobenzene	146		9.911					ND	
111 1,2,3-Trimethylbenzene	105		9.958					ND	
112 Benzyl chloride	126		10.053					ND	
113 n-Butylbenzene	91		10.254					ND	
114 1,2-Dichlorobenzene	146		10.278					ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061					ND	
116 1,3,5-Trichlorobenzene	180		11.262					ND	7
117 1,2,4-Trichlorobenzene	180		11.879					ND	
118 Hexachlorobutadiene	225		12.045					ND	7
119 Naphthalene	128		12.128					ND	
120 1,2,3-Trichlorobenzene	180		12.365					ND	
121 2-Methylnaphthalene	142	13.350	13.361	-0.011	85	9129		0.1331	
122 1-Methylnaphthalene	142	13.599	13.599	0.000	92	10881		0.1780	
123 Epichlorohydrin	1		0.000					ND	
125 Propene oxide	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
126 1,3-Diethylbenzene TIC	1		0.000					ND	
S 127 1,2-Dichloroethene, Total	96		1.140					ND	
S 128 1,3-Dichloropropene, Total	75		6.760					ND	
S 129 Xylenes, Total	106		16.530					ND	
S 130 Total BTEX	1				0			0.1060	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

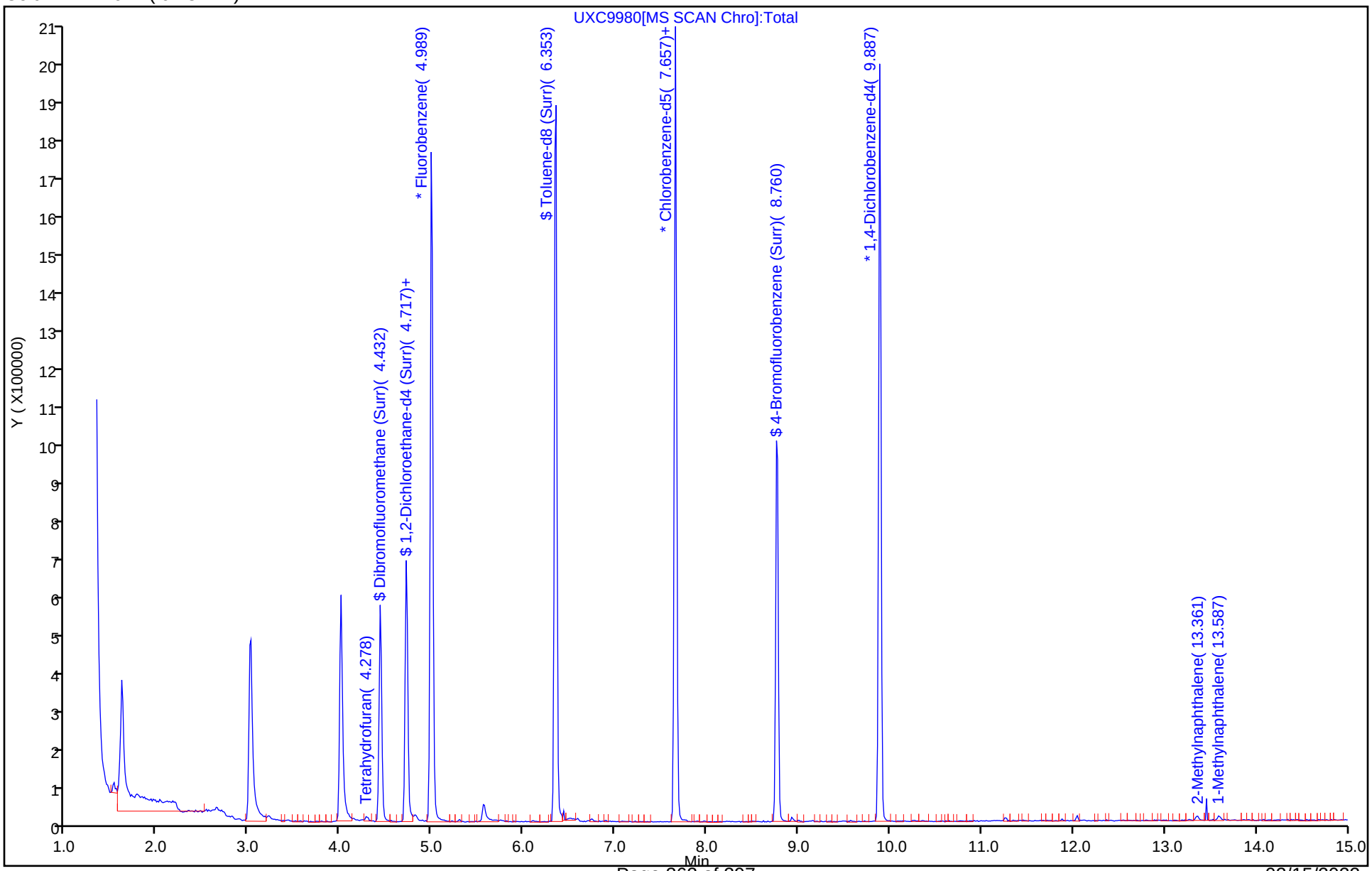
Report Date: 13-Oct-2021 08:54:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9980.D

Injection Date:	12-Oct-2021 10:51:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9980.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Oct-2021 10:51:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0114014-007
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

First Level Reviewer: evansle Date: 12-Oct-2021 11:45:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.88	88.80
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.8	118.10
$ 6 Toluene-d8 (Surr)	10.0	9.19	91.88
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.67	76.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-507379/4

Matrix: Water | Lab File ID: UXC9917.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	20.5		2.0	0.42
71-55-6	1,1,1-Trichloroethane	9.11		1.0	0.48
75-34-3	1,1-Dichloroethane	10.9		1.0	0.47
75-35-4	1,1-Dichloroethene	9.14		1.0	0.49
71-43-2	Benzene	10.5		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	9.75		1.0	0.46
100-41-4	Ethylbenzene	10.4		1.0	0.42
127-18-4	Tetrachloroethene	9.21		1.0	0.44
108-88-3	Toluene	10.7		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.51
79-01-6	Trichloroethene	9.29		1.0	0.44
75-01-4	Vinyl chloride	8.25		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		56-136
1868-53-7	Dibromofluoromethane (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		62-137
2037-26-5	Toluene-d8 (Surr)	100		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2021 10:34:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-004
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1734705	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1259192	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	95	701641	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	356368	10.0	8.79	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	100	492579	10.0	10.8	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1548426	10.0	10.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	519660	10.0	9.96	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	208304	10.0	3.99	
10 Chloromethane	50	1.562	1.562	0.000	99	475505	10.0	8.00	
11 Vinyl chloride	62	1.657	1.657	0.000	98	420276	10.0	8.25	
12 Butadiene	54	1.669	1.669	0.000	99	455657	10.0	7.01	
13 Bromomethane	94	1.930	1.930	0.000	90	243687	10.0	5.71	
14 Chloroethane	64	1.989	1.989	0.000	100	316518	10.0	8.43	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	793404	10.0	7.94	
16 Trichlorofluoromethane	101	2.214	2.202	0.012	98	620252	10.0	6.86	
17 Ethyl ether	59	2.404	2.404	0.000	93	488013	10.0	11.2	
18 Acrolein	56	2.523	2.523	0.000	100	279693	50.0	106.9	
19 1,1-Dichloroethene	96	2.618	2.606	0.012	96	458620	10.0	9.14	
20 112TCTFE	151	2.618	2.617	0.001	80	374847	10.0	8.97	
21 Acetone	58	2.641	2.641	0.000	99	82468	20.0	23.5	
22 Iodomethane	142	2.760	2.748	0.012	98	659600	10.0	8.59	
24 Carbon disulfide	76	2.819	2.807	0.012	100	1041527	10.0	7.45	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	88	351355	10.0	11.9	
27 Methyl acetate	43	2.914	2.914	0.000	98	618263	20.0	28.1	
28 Methylene Chloride	84	3.009	3.009	0.000	96	493241	10.0	10.6	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	89	227042	100.0	92.5	
30 Acrylonitrile	53	3.211	3.210	0.000	98	1568871	100.0	133.2	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1168246	10.0	9.60	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	490835	10.0	9.80	
34 Hexane	86	3.436	3.436	0.000	94	100411	10.0	10.0	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	861168	10.0	10.9	
36 Vinyl acetate	43	3.602	3.602	0.000	98	710645	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	97	4.052	4.040	0.012	79	123421	10.0	8.00	
41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	84	515561	10.0	9.75	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	99	90393	20.0	24.7	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	240505	10.0	9.63	
47 Tetrahydrofuran	42	4.278	4.278	0.000	89	209728	20.0	23.0	
48 Chloroform	83	4.301	4.301	0.000	94	824200	10.0	10.4	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	647972	10.0	9.11	
50 Cyclohexane	56	4.503	4.503	0.000	92	767294	10.0	10.5	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	667067	10.0	10.4	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	540398	10.0	8.54	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	271355	250.0	349.7	
55 Benzene	78	4.764	4.764	0.000	96	2006350	10.0	10.5	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	693150	10.0	12.2	
58 n-Heptane	100	4.966	4.965	0.001	92	81084	10.0	9.44	
60 Trichloroethene	130	5.298	5.297	0.001	97	475110	10.0	9.29	
62 Methylcyclohexane	83	5.464	5.463	0.001	92	580624	10.0	9.09	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	474277	10.0	12.0	
65 Dibromomethane	93	5.594	5.594	0.000	95	257572	10.0	11.3	
66 1,4-Dioxane	88	5.606	5.606	0.000	96	54315	200.0	162.0	
67 Dichlorobromomethane	83	5.725	5.724	0.000	99	499943	10.0	9.96	
69 2-Chloroethyl vinyl ether	63	5.974	5.973	0.001	93	214535	10.0	15.7	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	585711	10.0	10.7	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	98	695316	20.0	26.4	
72 Toluene	91	6.412	6.412	0.000	98	1990875	10.0	10.7	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	513060	10.0	10.8	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	446078	10.0	12.4	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	376286	10.0	12.3	
76 Tetrachloroethene	164	6.898	6.898	0.000	97	360985	10.0	9.21	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	94	690899	10.0	13.2	
78 2-Hexanone	43	6.982	6.981	0.001	98	440089	20.0	25.2	
80 Chlorodibromomethane	129	7.124	7.124	0.000	91	319151	10.0	9.51	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	339913	10.0	11.5	
84 Chlorobenzene	112	7.681	7.681	0.000	94	1252332	10.0	11.0	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.752	0.012	93	390697	10.0	8.25	
86 Ethylbenzene	106	7.776	7.776	0.000	99	646139	10.0	10.4	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1622364	10.0	10.8	
88 o-Xylene	106	8.262	8.262	0.000	95	783026	10.0	9.68	
89 Styrene	104	8.274	8.274	0.000	91	1260443	10.0	12.0	
90 Bromoform	173	8.464	8.464	0.000	95	163050	10.0	7.86	
91 Isopropylbenzene	105	8.606	8.618	-0.012	96	1799386	10.0	9.01	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.902	0.001	96	452914	10.0	12.6	
95 Bromobenzene	156	8.914	8.914	0.000	95	504003	10.0	10.2	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	144014	10.0	12.4	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	68	95451	10.0	11.6	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	489531	10.0	10.0	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	453827	10.0	9.99	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1498167	10.0	9.72	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1654010	10.0	11.4	
104 tert-Butylbenzene	119	9.496	9.495	0.001	93	1164761	10.0	8.84	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1578465	10.0	9.99	
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1560485	10.0	8.99	
108 1,3-Dichlorobenzene	146	9.828	9.827	0.001	97	914123	10.0	9.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1388275	10.0	8.94	
110 1,4-Dichlorobenzene	146	9.911	9.910	0.001	96	957588	10.0	9.96	
113 n-Butylbenzene	91	10.254	10.254	0.000	98	1057799	10.0	8.41	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	918710	10.0	9.54	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	76	52446	10.0	6.63	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	438469	10.0	6.20	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	98	170331	10.0	5.38	
119 Naphthalene	128	12.128	12.128	0.000	97	1026488	10.0	6.81	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	403292	10.0	6.01	
S 129 Xylenes, Total	106				0		20.0	20.5	
S 130 Total BTEX	1				0		50.0	52.1	
S 131 Trihalomethanes, Total	1				0		40.0	37.8	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
VMFASAW_00393	Amount Added:	8.00	Units: uL	
VMFASGW_00427	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

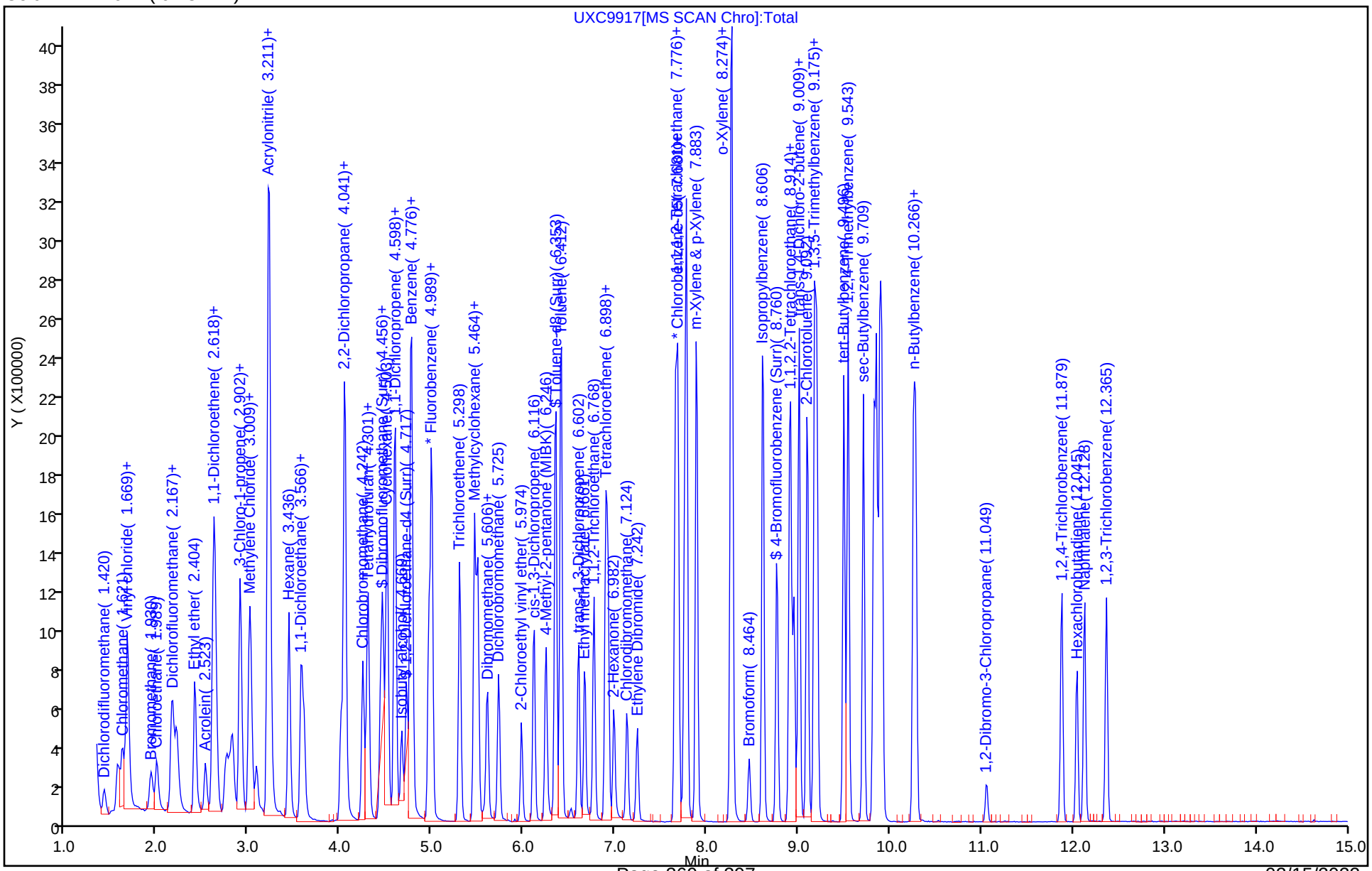
Report Date: 11-Oct-2021 07:47:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D

Injection Date:	08-Oct-2021 10:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2021 10:34:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-004
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.79	87.89
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.84
$ 6 Toluene-d8 (Surr)	10.0	10.0	100.34
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.96	99.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-507592/4

Matrix: Water | Lab File ID: UXC9946.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 09:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	20.9		2.0	0.42
71-55-6	1,1,1-Trichloroethane	9.39		1.0	0.48
75-34-3	1,1-Dichloroethane	11.0		1.0	0.47
75-35-4	1,1-Dichloroethene	9.30		1.0	0.49
71-43-2	Benzene	11.1		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.46
100-41-4	Ethylbenzene	10.6		1.0	0.42
127-18-4	Tetrachloroethene	9.55		1.0	0.44
108-88-3	Toluene	11.2		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	10.0		1.0	0.51
79-01-6	Trichloroethene	9.69		1.0	0.44
75-01-4	Vinyl chloride	10.3		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		56-136
1868-53-7	Dibromofluoromethane (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		62-137
2037-26-5	Toluene-d8 (Surr)	101		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Oct-2021 09:43:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-004
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1889156	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1368722	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	754760	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	382850	10.0	8.67	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	99	531211	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1686528	10.0	10.1	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	562394	10.0	9.91	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	507172	10.0	8.91	
10 Chloromethane	50	1.562	1.562	0.000	99	666909	10.0	10.3	
11 Vinyl chloride	62	1.657	1.657	0.000	99	571327	10.0	10.3	
12 Butadiene	54	1.669	1.669	0.000	99	593007	10.0	8.38	
13 Bromomethane	94	1.930	1.930	0.000	91	320531	10.0	6.90	
14 Chloroethane	64	1.989	2.001	-0.012	100	373768	10.0	9.14	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	822221	10.0	7.56	
16 Trichlorofluoromethane	101	2.203	2.214	-0.011	99	641451	10.0	6.52	
17 Ethyl ether	59	2.404	2.404	0.000	93	496034	10.0	10.5	
18 Acrolein	56	2.523	2.523	0.000	100	314134	50.0	110.3	
19 1,1-Dichloroethene	96	2.618	2.618	0.000	96	507772	10.0	9.30	
20 112TCTFE	151	2.618	2.618	0.000	93	393599	10.0	8.64	
21 Acetone	58	2.641	2.641	0.000	99	91840	20.0	24.0	
22 Iodomethane	142	2.748	2.748	0.000	98	782879	10.0	9.36	
24 Carbon disulfide	76	2.807	2.819	-0.012	100	1203438	10.0	7.91	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	366641	10.0	11.4	
27 Methyl acetate	43	2.914	2.914	0.000	97	705554	20.0	29.4	
28 Methylene Chloride	84	2.997	2.997	0.000	95	560479	10.0	11.0	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	91	226860	100.0	84.9	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1740839	100.0	135.8	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1324688	10.0	10.0	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	546555	10.0	10.0	
34 Hexane	86	3.436	3.436	0.000	94	107229	10.0	9.82	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	946365	10.0	11.0	
36 Vinyl acetate	43	3.602	3.602	0.000	97	774062	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	97	4.041	4.041	0.000	80	135217	10.0	8.05	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	84	582515	10.0	10.1	
40 2-Butanone (MEK)	72	4.052	4.053	-0.001	99	100240	20.0	25.1	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	264745	10.0	9.73	
47 Tetrahydrofuran	42	4.278	4.278	0.000	92	223015	20.0	22.5	
48 Chloroform	83	4.302	4.302	0.000	93	903615	10.0	10.5	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	727545	10.0	9.39	
50 Cyclohexane	56	4.503	4.503	0.000	92	854839	10.0	10.7	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	95	741202	10.0	10.6	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	599600	10.0	8.70	
53 Isobutyl alcohol	41	4.669	4.669	0.000	93	308753	250.0	365.3	
55 Benzene	78	4.764	4.764	0.000	96	2292236	10.0	11.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	773031	10.0	12.5	
58 n-Heptane	100	4.966	4.966	0.000	92	86220	10.0	9.22	
60 Trichloroethene	130	5.298	5.298	0.000	98	539641	10.0	9.69	
62 Methylcyclohexane	83	5.464	5.464	0.000	92	624837	10.0	8.98	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	544808	10.0	12.7	
65 Dibromomethane	93	5.594	5.594	0.000	95	291803	10.0	11.8	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	49216	200.0	132.6	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	566334	10.0	10.4	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	94	239477	10.0	16.1	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	680585	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	744203	20.0	26.0	
72 Toluene	91	6.412	6.412	0.000	98	2265432	10.0	11.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	585499	10.0	11.3	
74 Ethyl methacrylate	69	6.661	6.661	0.000	91	492657	10.0	12.6	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	428614	10.0	12.9	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	407143	10.0	9.55	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	791125	10.0	13.9	
78 2-Hexanone	43	6.982	6.982	0.000	98	515159	20.0	27.1	
80 Chlorodibromomethane	129	7.124	7.124	0.000	91	358507	10.0	9.83	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	398606	10.0	12.4	
84 Chlorobenzene	112	7.681	7.681	0.000	94	1419304	10.0	11.5	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.764	-0.012	93	448530	10.0	8.72	
86 Ethylbenzene	106	7.776	7.776	0.000	99	713134	10.0	10.6	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1810452	10.0	11.1	
88 o-Xylene	106	8.262	8.262	0.000	97	865138	10.0	9.84	
89 Styrene	104	8.274	8.274	0.000	94	1398665	10.0	12.3	
90 Bromoform	173	8.464	8.464	0.000	96	183858	10.0	8.15	
91 Isopropylbenzene	105	8.606	8.618	-0.012	96	1976324	10.0	9.11	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	515887	10.0	13.4	
95 Bromobenzene	156	8.914	8.915	-0.001	95	560885	10.0	10.6	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	168349	10.0	13.4	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	67	113346	10.0	12.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	534201	10.0	10.1	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	501029	10.0	10.3	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	93	1611275	10.0	9.72	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1818863	10.0	11.6	
104 tert-Butylbenzene	119	9.496	9.496	0.000	93	1281461	10.0	9.04	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1759833	10.0	10.4	
107 sec-Butylbenzene	105	9.709	9.709	0.000	95	1683167	10.0	9.01	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	97	1008504	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1472875	10.0	8.82	
110 1,4-Dichlorobenzene	146	9.911	9.911	0.000	94	1058601	10.0	10.2	
113 n-Butylbenzene	91	10.254	10.255	-0.001	98	1138910	10.0	8.42	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	97	1014367	10.0	9.79	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	91	58891	10.0	6.92	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	95	434251	10.0	5.71	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	96	169658	10.0	4.92	
119 Naphthalene	128	12.128	12.128	0.000	97	1033614	10.0	6.37	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	400431	10.0	5.55	
S 129 Xylenes, Total	106				0		20.0	20.9	
S 130 Total BTEX	1				0		50.0	53.7	
S 131 Trihalomethanes, Total	1				0		40.0	38.9	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
vmfasaw_00394	Amount Added:	8.00	Units: uL	
vmfasgw_00428	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

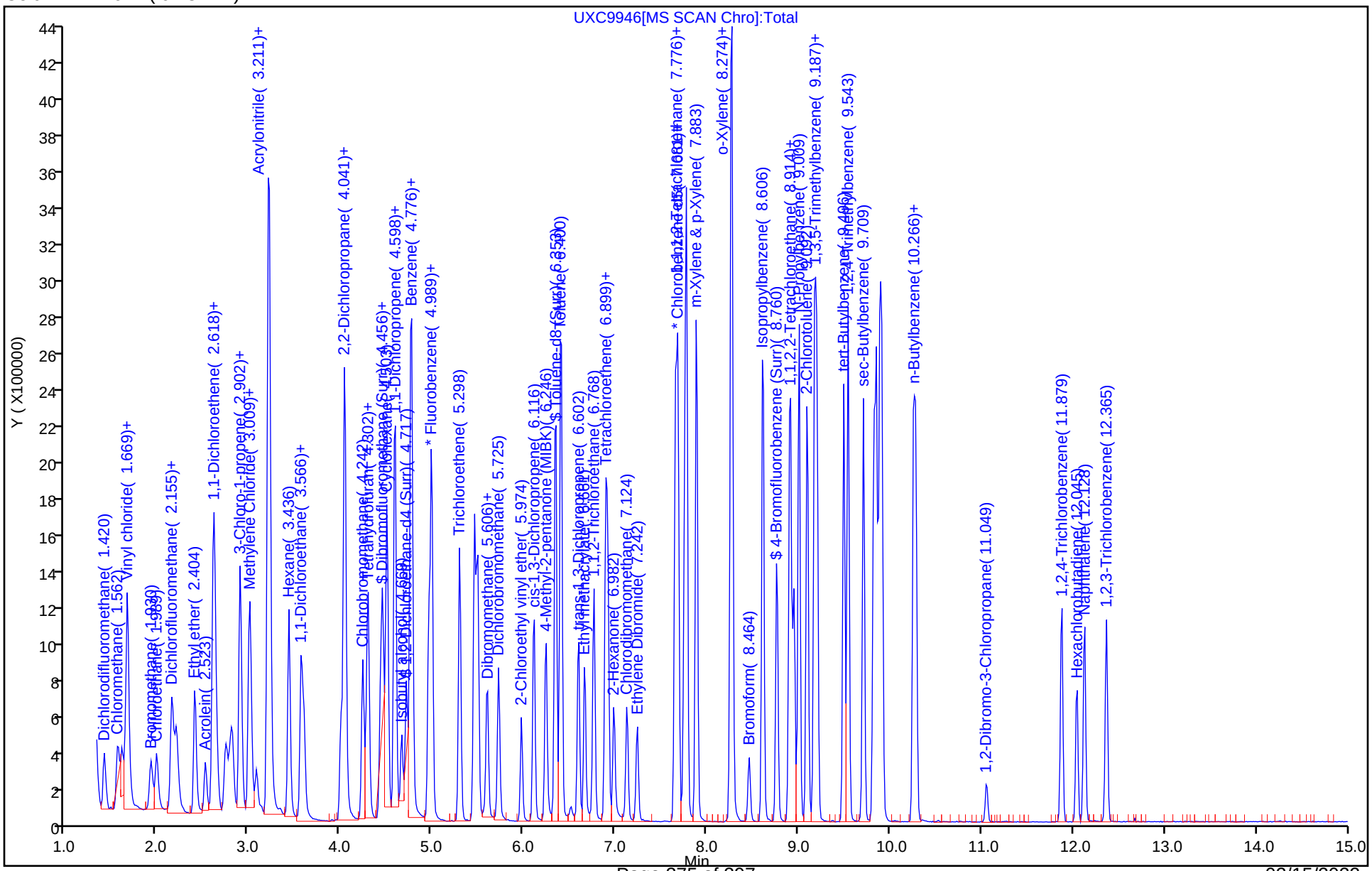
Report Date: 12-Oct-2021 11:12:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D

Injection Date:	11-Oct-2021 09:43:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Oct-2021 09:43:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-004
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.67	86.70
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.79
$ 6 Toluene-d8 (Surr)	10.0	10.1	100.54
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.91	99.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157476-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-507764/4

Matrix: Water | Lab File ID: UXC9976.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/12/2021 08:42

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507764 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	19.9		2.0	0.42
71-55-6	1,1,1-Trichloroethane	9.11		1.0	0.48
75-34-3	1,1-Dichloroethane	11.1		1.0	0.47
75-35-4	1,1-Dichloroethene	9.34		1.0	0.49
71-43-2	Benzene	11.0		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	9.93		1.0	0.46
100-41-4	Ethylbenzene	10.3		1.0	0.42
127-18-4	Tetrachloroethene	9.50		1.0	0.44
108-88-3	Toluene	10.8		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	10.2		1.0	0.51
79-01-6	Trichloroethene	9.44		1.0	0.44
75-01-4	Vinyl chloride	10.3		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		56-136
1868-53-7	Dibromofluoromethane (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		62-137
2037-26-5	Toluene-d8 (Surr)	98		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9976.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2021 08:42:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0114014-004
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1861670	10.0	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	86	1362324	10.0	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	766187	10.0	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	381796	10.0	8.77	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	0.000	99	534351	10.0	10.9	
$	6 Toluene-d8 (Surr)	98	6.353	6.341	0.012	93	1634992	10.0	9.79	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	552816	10.0	9.79	
	9 Dichlorodifluoromethane	85	1.420	1.420	0.000	100	495612	10.0	8.83	
	10 Chloromethane	50	1.562	1.562	0.000	98	653786	10.0	10.3	
	11 Vinyl chloride	62	1.657	1.645	0.012	98	565032	10.0	10.3	
	12 Butadiene	54	1.669	1.669	0.000	97	595986	10.0	8.55	
	13 Bromomethane	94	1.930	1.930	0.000	91	310663	10.0	6.78	
	14 Chloroethane	64	1.989	1.989	0.000	99	358832	10.0	8.91	
	15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	809194	10.0	7.55	
	16 Trichlorofluoromethane	101	2.202	2.203	0.000	98	635092	10.0	6.55	
	17 Ethyl ether	59	2.404	2.404	0.000	91	497031	10.0	10.6	
	18 Acrolein	56	2.523	2.523	0.000	99	299522	50.0	106.6	
	19 1,1-Dichloroethene	96	2.606	2.606	0.000	97	502563	10.0	9.34	
	20 112TCTFE	151	2.618	2.618	0.000	91	396936	10.0	8.85	
	21 Acetone	58	2.641	2.641	0.000	100	92026	20.0	24.4	
	22 Iodomethane	142	2.748	2.736	0.012	98	740491	10.0	8.98	
	24 Carbon disulfide	76	2.807	2.807	0.000	100	1150191	10.0	7.67	
	26 3-Chloro-1-propene	76	2.902	2.902	0.000	88	328784	10.0	10.4	
	27 Methyl acetate	43	2.914	2.914	0.000	98	713272	20.0	30.2	
	28 Methylene Chloride	84	2.997	2.997	0.000	94	554128	10.0	11.1	
	29 2-Methyl-2-propanol	59	3.080	3.080	0.000	89	265699	100.0	100.9	
	30 Acrylonitrile	53	3.210	3.199	0.011	98	1795289	100.0	142.1	
	31 Methyl tert-butyl ether	73	3.222	3.210	0.012	96	1228036	10.0	9.41	
	32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	546246	10.0	10.2	
	34 Hexane	86	3.436	3.436	0.000	94	103162	10.0	9.58	
	35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	946108	10.0	11.1	
	36 Vinyl acetate	43	3.602	3.602	0.000	97	736317	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	97	4.041	4.041	0.000	74	133051	10.0	8.04	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	83	563748	10.0	9.93	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	100	102350	20.0	26.0	
46 Chlorobromomethane	128	4.242	4.242	0.000	98	260291	10.0	9.71	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	230113	20.0	23.5	
48 Chloroform	83	4.301	4.301	0.000	93	906213	10.0	10.7	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	695128	10.0	9.11	
50 Cyclohexane	56	4.503	4.503	0.000	92	809387	10.0	10.3	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	713539	10.0	10.4	
52 Carbon tetrachloride	117	4.598	4.598	0.000	82	569904	10.0	8.39	
53 Isobutyl alcohol	41	4.669	4.669	0.000	91	341491	250.0	410.0	
55 Benzene	78	4.764	4.764	0.000	96	2252410	10.0	11.0	
56 1,2-Dichloroethane	62	4.776	4.776	0.000	98	750836	10.0	12.4	
58 n-Heptane	100	4.966	4.966	0.000	91	79767	10.0	8.66	
60 Trichloroethene	130	5.298	5.298	0.000	97	518267	10.0	9.44	
62 Methylcyclohexane	83	5.464	5.464	0.000	92	595748	10.0	8.69	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	96	519648	10.0	12.3	
65 Dibromomethane	93	5.594	5.594	0.000	96	280116	10.0	11.5	
66 1,4-Dioxane	88	5.606	5.606	0.000	33	84598	200.0	251.3	
67 Dichlorobromomethane	83	5.724	5.724	0.000	98	533191	10.0	9.90	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	92	228025	10.0	15.6	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	630046	10.0	10.7	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	714610	20.0	25.3	
72 Toluene	91	6.412	6.400	0.012	98	2184306	10.0	10.8	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	95	538646	10.0	10.4	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	459200	10.0	11.8	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	420835	10.0	12.7	
76 Tetrachloroethene	164	6.898	6.898	0.000	97	402995	10.0	9.50	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	772967	10.0	13.6	
78 2-Hexanone	43	6.981	6.981	0.000	98	476557	20.0	25.2	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	334465	10.0	9.21	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	376122	10.0	11.8	
84 Chlorobenzene	112	7.681	7.681	0.000	93	1365085	10.0	11.1	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.752	0.000	92	429581	10.0	8.39	
86 Ethylbenzene	106	7.776	7.776	0.000	99	694274	10.0	10.3	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1684815	10.0	10.3	
88 o-Xylene	106	8.262	8.262	0.000	95	835685	10.0	9.55	
89 Styrene	104	8.274	8.274	0.000	93	1364834	10.0	12.0	
90 Bromoform	173	8.464	8.464	0.000	96	165798	10.0	7.39	
91 Isopropylbenzene	105	8.618	8.606	0.012	96	1890592	10.0	8.75	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	510120	10.0	13.0	
95 Bromobenzene	156	8.914	8.914	0.000	95	544292	10.0	10.1	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	165168	10.0	13.0	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.950	0.012	68	106169	10.0	11.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	533405	10.0	9.98	
99 2-Chlorotoluene	126	9.092	9.092	0.000	99	487221	10.0	9.82	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1626116	10.0	9.66	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1812066	10.0	11.4	
104 tert-Butylbenzene	119	9.495	9.495	0.000	93	1230887	10.0	8.56	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1733099	10.0	10.0	
107 sec-Butylbenzene	105	9.709	9.709	0.000	95	1716462	10.0	9.05	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	97	1005162	10.0	9.95	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1502794	10.0	8.86	
110 1,4-Dichlorobenzene	146	9.910	9.911	-0.001	94	1069351	10.0	10.2	
113 n-Butylbenzene	91	10.254	10.254	0.000	98	1166301	10.0	8.49	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	1014023	10.0	9.64	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	75	56450	10.0	6.53	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	485534	10.0	6.29	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	97	210958	10.0	6.20	
119 Naphthalene	128	12.128	12.128	0.000	97	1080008	10.0	6.56	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	463732	10.0	6.33	
S 129 Xylenes, Total	106				0		20.0	19.9	
S 130 Total BTEX	1				0		50.0	52.1	
S 131 Trihalomethanes, Total	1				0		40.0	37.2	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
vmfasaw_00394	Amount Added:	8.00	Units: uL	
vmfasgw_00428	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

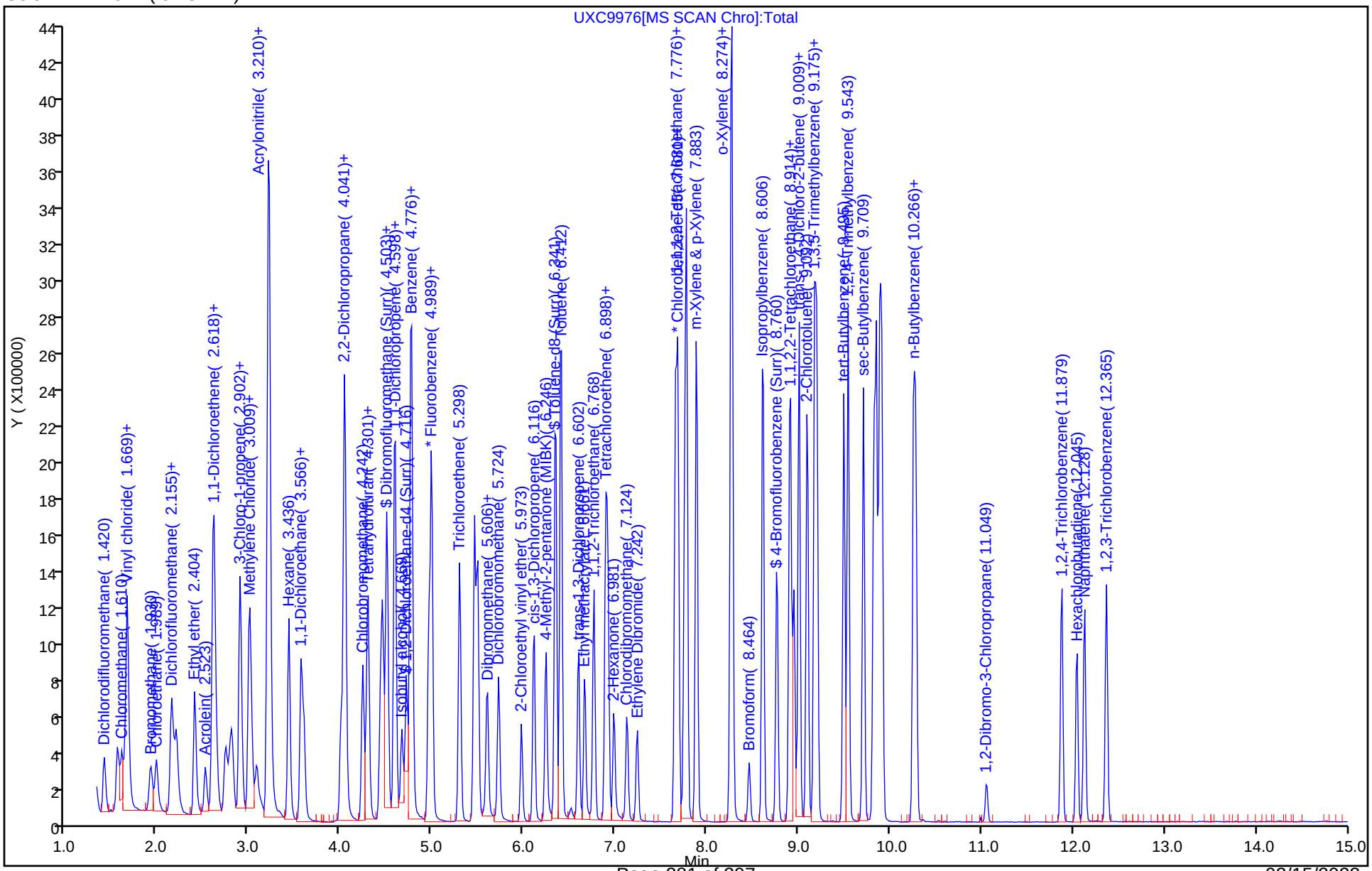
Report Date: 13-Oct-2021 08:53:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9976.D

Injection Date:	12-Oct-2021 08:42:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\UXC9976.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2021 08:42:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0114014-004
Misc. Info.: C211012A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211012-114014.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 13-Oct-2021 08:53:53 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1658

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.77	87.74
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.9	109.01
$ 6 Toluene-d8 (Surr)	10.0	9.79	97.93
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.79	97.89

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Instrument ID: A3UX15 Start Date: 03/16/2021 07:33

Analysis Batch Number: 476941 End Date: 03/16/2021 13:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-476941/1		03/16/2021 07:33	1	BFB210316.D	DB-624 0.18(mm)
STD8260 240-476941/2 IC		03/16/2021 08:36	1	UXC5644.D	DB-624 0.18(mm)
STD8260 240-476941/3 IC		03/16/2021 08:58	1	UXC5645.D	DB-624 0.18(mm)
STD8260 240-476941/4 ICIS		03/16/2021 09:20	1	UXC5646.D	DB-624 0.18(mm)
STD8260 240-476941/5 IC		03/16/2021 09:42	1	UXC5647.D	DB-624 0.18(mm)
STD8260 240-476941/6 IC		03/16/2021 10:17	1	UXC5648.D	DB-624 0.18(mm)
STD8260 240-476941/7 IC		03/16/2021 10:39	1	UXC5649.D	DB-624 0.18(mm)
ICV 240-476941/14		03/16/2021 11:01	1	UXC5650.D	DB-624 0.18(mm)
STD 240-476941/8 IC		03/16/2021 11:23	1		DB-624 0.18(mm)
STD 240-476941/9 IC		03/16/2021 11:45	1		DB-624 0.18(mm)
STD 240-476941/10 IC		03/16/2021 12:06	1		DB-624 0.18(mm)
STD 240-476941/11 IC		03/16/2021 12:28	1		DB-624 0.18(mm)
STD 240-476941/12 IC		03/16/2021 12:50	1		DB-624 0.18(mm)
STD 240-476941/13 IC		03/16/2021 13:12	1		DB-624 0.18(mm)
ICV 240-476941/15		03/16/2021 13:34	1	UXC5657.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Instrument ID: A3UX15 Start Date: 10/08/2021 09:43

Analysis Batch Number: 507379 End Date: 10/08/2021 20:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-507379/1		10/08/2021 09:43	1	BFB1008.D	DB-624 0.18(mm)
CCVIS 240-507379/2		10/08/2021 10:12	1	UXC9916.D	DB-624 0.18(mm)
LCS 240-507379/4		10/08/2021 10:34	1	UXC9917.D	DB-624 0.18(mm)
CCV 240-507379/3		10/08/2021 10:56	1	UXC9918.D	DB-624 0.18(mm)
ZZZZZ		10/08/2021 11:18	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 11:40	1		DB-624 0.18(mm)
MB 240-507379/7		10/08/2021 12:02	1	UXC9921.D	DB-624 0.18(mm)
ZZZZZ		10/08/2021 12:23	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 12:45	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 13:29	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:13	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:35	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:57	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 15:18	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:08	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:29	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:51	1		DB-624 0.18(mm)
240-157476-2	W-2-S/100421/	10/08/2021 17:13	1	UXC9934.D	DB-624 0.18(mm)
240-157476-5	EB-01/100421/	10/08/2021 17:35	1	UXC9935.D	DB-624 0.18(mm)
240-157476-6	EB-02/100421/	10/08/2021 17:57	1	UXC9936.D	DB-624 0.18(mm)
240-157476-7	TB-01/100421/	10/08/2021 18:19	1	UXC9937.D	DB-624 0.18(mm)
ZZZZZ		10/08/2021 19:02	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 19:24	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 19:46	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 20:08	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 20:30	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Instrument ID: A3UX15 Start Date: 10/11/2021 08:54

Analysis Batch Number: 507592 End Date: 10/11/2021 19:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-507592/1		10/11/2021 08:54	1	BFB1011.D	DB-624 0.18(mm)
CCVIS 240-507592/2		10/11/2021 09:21	1	UXC9945.D	DB-624 0.18(mm)
LCS 240-507592/4		10/11/2021 09:43	1	UXC9946.D	DB-624 0.18(mm)
CCV 240-507592/3		10/11/2021 10:05	1	UXC9947.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 10:27	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 10:48	1		DB-624 0.18(mm)
MB 240-507592/7		10/11/2021 11:10	1	UXC9950.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 11:32	333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 11:54	3.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 12:38	2000		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:00	200		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:22	3333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:43	20000		DB-624 0.18(mm)
240-157476-4	W-4-S/100421/	10/11/2021 14:05	2	UXC9958.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 14:27	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 14:49	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 15:11	3.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 15:33	1		DB-624 0.18(mm)
240-157476-1	HR-17/100421/	10/11/2021 15:55	10	UXC9963.D	DB-624 0.18(mm)
240-157476-3	W-3-S/100421/	10/11/2021 16:16	5	UXC9964.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 16:38	5		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:00	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:22	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:44	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:06	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:27	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:49	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 19:11	333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 19:33	333.33		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Instrument ID: A3UX15 Start Date: 10/12/2021 07:54

Analysis Batch Number: 507764 End Date: 10/12/2021 19:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-507764/1		10/12/2021 07:54	1	BFB1012.D	DB-624 0.18(mm)
CCVIS 240-507764/2		10/12/2021 08:20	1	UXC9975.D	DB-624 0.18(mm)
LCS 240-507764/4		10/12/2021 08:42	1	UXC9976.D	DB-624 0.18(mm)
CCV 240-507764/3		10/12/2021 09:04	1	UXC9977.D	DB-624 0.18(mm)
ZZZZZ		10/12/2021 09:26	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 09:48	1		DB-624 0.18(mm)
MB 240-507764/7		10/12/2021 10:51	1	UXC9980.D	DB-624 0.18(mm)
ZZZZZ		10/12/2021 11:13	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 11:35	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 11:57	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 12:23	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 12:45	10		DB-624 0.18(mm)
ZZZZZ		10/12/2021 13:07	2.5		DB-624 0.18(mm)
ZZZZZ		10/12/2021 13:29	5		DB-624 0.18(mm)
ZZZZZ		10/12/2021 13:51	2.5		DB-624 0.18(mm)
ZZZZZ		10/12/2021 14:56	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 15:40	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 16:02	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 16:24	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 16:46	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 17:29	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 17:51	1		DB-624 0.18(mm)
ZZZZZ		10/12/2021 18:13	5		DB-624 0.18(mm)
240-157476-1	HR-17/100421/	10/12/2021 18:35	2	UXC0001.D	DB-624 0.18(mm)
240-157476-3	W-3-S/100421/	10/12/2021 19:04	2	UXC0002.D	DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 476941 Batch Start Date: 03/16/21 07:33 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM50is 00086	vm50ss_stk 00086	VMAROLISTDW 00384	vmbfb 00026
BFB 240-476941/1		8260B		5 mL	5 mL				1 uL
STD8260 240-476941/2 IC		8260B		5 mL	5 mL	1 uL	32 uL	32 uL	
STD8260 240-476941/3 IC		8260B		5 mL	5 mL	1 uL	16 uL	16 uL	
STD8260 240-476941/4 ICIS		8260B		5 mL	5 mL	1 uL	8 uL	8 uL	
STD8260 240-476941/5 IC		8260B		5 mL	5 mL	1 uL	4 uL	4 uL	
STD8260 240-476941/6 IC		8260B		5 mL	5 mL	1 uL	1.6 uL	1.6 uL	
STD8260 240-476941/7 IC		8260B		5 mL	5 mL	1 uL	0.8 uL	0.8 uL	
ICV 240-476941/14		8260B		5 mL	5 mL	1 uL	1 uL		
ICV 240-476941/15		8260B		5 mL	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00312	VMFASAW 00366	VMFASGW 00399	VMFASPW 00390	VMRGAS 00377	VMRPRIMW 00427
BFB 240-476941/1		8260B							
STD8260 240-476941/2 IC		8260B						32 uL	32 uL
STD8260 240-476941/3 IC		8260B						16 uL	16 uL
STD8260 240-476941/4 ICIS		8260B						8 uL	8 uL
STD8260 240-476941/5 IC		8260B						4 uL	4 uL
STD8260 240-476941/6 IC		8260B						1.6 uL	1.6 uL
STD8260 240-476941/7 IC		8260B						0.8 uL	0.8 uL
ICV 240-476941/14		8260B			8 uL	8 uL	8 uL		
ICV 240-476941/15		8260B		8 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 476941 Batch Start Date: 03/16/21 07:33 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Batch Notes	
pH Indicator ID	HC907861

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507379 Batch Start Date: 10/08/21 09:43 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is 00089	VM50IS 00090	vm50ss_stk 00088
BFB 240-507379/1		8260B		5 mL	5 mL				
CCVIS 240-507379/2		8260B		5 mL	5 mL			1 uL	1 uL
CCV 240-507379/3		8260B		5 mL	5 mL		1 uL		
LCS 240-507379/4		8260B		5 mL	5 mL			1 uL	1 uL
MB 240-507379/7		8260B		5 mL	5 mL			1 uL	1 uL
240-157476-B-2	W-2-S/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-B-5	EB-01/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-B-6	EB-02/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-A-7	TB-01/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00411	vmbfb 00027	VMFASAW 00393	VMFASGW 00427	vmfaspw 00417	VMRA9W 00409
BFB 240-507379/1		8260B			1 uL				
CCVIS 240-507379/2		8260B		8 uL					
CCV 240-507379/3		8260B							8 uL
LCS 240-507379/4		8260B				8 uL	8 uL	8 uL	
MB 240-507379/7		8260B							
240-157476-B-2	W-2-S/100421/	8260B	T						
240-157476-B-5	EB-01/100421/	8260B	T						
240-157476-B-6	EB-02/100421/	8260B	T						
240-157476-A-7	TB-01/100421/	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRGAS 00402	VMRPRIMW 00454				
BFB 240-507379/1		8260B							
CCVIS 240-507379/2		8260B		8 uL	8 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507379 Batch Start Date: 10/08/21 09:43 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRGAS 00402	VMRPRIMW 00454				
CCV 240-507379/3		8260B							
LCS 240-507379/4		8260B							
MB 240-507379/7		8260B							
240-157476-B-2	W-2-S/100421/	8260B	T						
240-157476-B-5	EB-01/100421/	8260B	T						
240-157476-B-6	EB-02/100421/	8260B	T						
240-157476-A-7	TB-01/100421/	8260B	T						

Batch Notes	
pH Indicator ID	HC042657

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507592 Batch Start Date: 10/11/21 08:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is 00089	VM50IS 00090	vm50ss_stk 00088
BFB 240-507592/1		8260B		5 mL	5 mL				
CCVIS 240-507592/2		8260B		5 mL	5 mL			1 uL	1 uL
CCV 240-507592/3		8260B		5 mL	5 mL		1 uL		
LCS 240-507592/4		8260B		5 mL	5 mL			1 uL	1 uL
MB 240-507592/7		8260B		5 mL	5 mL			1 uL	1 uL
240-157476-C-1	HR-17/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-B-3	W-3-S/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-B-4	W-4-S/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00411	vmbfb 00027	vmfasaw 00394	vmfasgw 00428	vmfaspw 00417	VMRA9W 00409
BFB 240-507592/1		8260B			1 uL				
CCVIS 240-507592/2		8260B		8 uL					
CCV 240-507592/3		8260B							8 uL
LCS 240-507592/4		8260B				8 uL	8 uL	8 uL	
MB 240-507592/7		8260B							
240-157476-C-1	HR-17/100421/	8260B	T						
240-157476-B-3	W-3-S/100421/	8260B	T						
240-157476-B-4	W-4-S/100421/	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00454				
BFB 240-507592/1		8260B							
CCVIS 240-507592/2		8260B		8 uL	8 uL				
CCV 240-507592/3		8260B							
LCS 240-507592/4		8260B							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507592 Batch Start Date: 10/11/21 08:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00454				
MB 240-507592/7		8260B							
240-157476-C-1	HR-17/100421/	8260B	T						
240-157476-B-3	W-3-S/100421/	8260B	T						
240-157476-B-4	W-4-S/100421/	8260B	T						

Batch Notes	
pH Indicator ID	HC042657

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507764 Batch Start Date: 10/12/21 07:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is 00089	VM50IS 00090	vm50ss_stk 00088
BFB 240-507764/1		8260B		5 mL	5 mL				
CCVIS 240-507764/2		8260B		5 mL	5 mL			1 uL	1 uL
CCV 240-507764/3		8260B		5 mL	5 mL		1 uL		
LCS 240-507764/4		8260B		5 mL	5 mL			1 uL	1 uL
MB 240-507764/7		8260B		5 mL	5 mL			1 uL	1 uL
240-157476-A-1	HR-17/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157476-C-3	W-3-S/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMAROLISTDW 00412	vmbfb 00027	vmfasaw 00394	vmfasgw 00428	vmfaspw 00417	VMRA9W 00409
BFB 240-507764/1		8260B			1 uL				
CCVIS 240-507764/2		8260B		8 uL					
CCV 240-507764/3		8260B							8 uL
LCS 240-507764/4		8260B				8 uL	8 uL	8 uL	
MB 240-507764/7		8260B							
240-157476-A-1	HR-17/100421/	8260B	T						
240-157476-C-3	W-3-S/100421/	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00455				
BFB 240-507764/1		8260B							
CCVIS 240-507764/2		8260B		8 uL	8 uL				
CCV 240-507764/3		8260B							
LCS 240-507764/4		8260B							
MB 240-507764/7		8260B							
240-157476-A-1	HR-17/100421/	8260B	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157476-1

SDG No.:

Batch Number: 507764 Batch Start Date: 10/12/21 07:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00455				
240-157476-C-3	W-3-S/100421/	8260B	T						

Batch Notes	
pH Indicator ID	HC042657

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

2.7/28

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Client Information	Sampler: H Smith, A. Vaicl	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.4
Client Contact: Carolyn Grogan	Phone: 937-266-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			
City: Columbus	TAT Requested (days): Standard			
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer moraine	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	8260B - VOC 5 ml 10x dilution	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S			
HR-17 | 100421 |	10.4.21	1500	G	Water	N		X		X	4	10x dilution
W-2-S | 100421 |	10.4.21	1625	G	Water	N		X			3	
W-3-S | 100421 |	10.4.21	1500	G	Water	N		X		X	4	10x dilution
W-4-S | 100421 |	10.4.21	1605	G	Water	N		X		X	4	10x dilution
EB-01 | 100421 |	10.4.21	1640	G	Water	N		X				
EB-02 | 100421 |	10.4.21	1640	G	Water	N		X				
TB-01 | 100421 |	10.4.21	—	G	Water	N		X				
				Water							
				Water							
				Water							
				Water							

210

ayton

240-157476 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV Data Package

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Hannah Smith/Hannah Smith	10.5.21 / ~~0900~~ 1400 MS	ARCADIS	ME Riley	10-5-21 1400	ETA
ME Riley	10-5-21 1600	ETA	Tammy Dayer	10-6-21 800	ETA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

02/15/2022

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 157476**
Canton Facility

Client ARCADIS Site Name _____ Cooler unpacked by: Tammy Player

Cooler Received on 10-6-21 Opened on 10-6-21

FedEx: 1st Grd Exp UPS FAS (Clipper) Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-14 (CF **+0.1** °C) Observed Cooler Temp. 2.7 °C Corrected Cooler Temp. 2.8 °C
   IR GUN #IR-15 (CF **+0.2**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 (Yes) No
   -Were the seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
   -Were tamper/custody seals intact and uncompromised? (Yes) No NA
3. Shippers' packing slip attached to the cooler(s)? Yes (No)
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? (Yes) No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? (Yes) No
11. Sufficient quantity received to perform indicated analyses? (Yes) No
12. Are these work share samples and all listed on the COC? Yes (No)
    If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# **HC157842**
14. Were VOAs on the COC? (Yes) No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this. Yes (No) NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 59072 (Yes) No TR
17. Was a LL Hg or Me Hg trip blank present? _____ Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

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ANALYTICAL REPORT

Job Number: 240-157477-1

Job Description: Racer Moraine Annual

For:
ARCADIS U.S., Inc.
100 E. Campus View Blvd
Suite 200
Columbus, OH 43235

Attention: Carolyn Grogan



Approved for release.
Michael DelMonico
Project Manager I
2/17/2022 2:56 PM

Michael DelMonico, Project Manager I
180 S. Van Buren Avenue, Barberton, OH, 44203
(330)497-9396
Michael.DelMonico@Eurofinset.com
02/17/2022
Revision: 1

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

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

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
240-157477-1

Comments
No additional comments.

Receipt
The samples were received on 10/6/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 507379 recovered above the upper control limit for Vinyl Chloride and/or 1,2-Dichloropropane. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data have been reported. The associated samples are impacted: W-4-N/100421/ (240-157477-2), W-2-N/100421/ (240-157477-3) and HR-4/100421/ (240-157477-4).

Method 8260B: The following sample was submitted for volatile analysis with insufficient preservation (pH>2): W-2-N/100421/ (240-157477-3).

Method 8260B: The continuing calibration verification (CCV) associated with batch 507592 recovered above the upper control limit for 1,2-Dichloropropane. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated samples are impacted: W-3-N/100421/ (240-157477-1) and DUP-1/100421/ (240-157477-5).

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

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

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157477-1

Client Sample ID: W-3-N/100421/ — Lab Sample ID: 240-157477-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	13		1.0	0.46	ug/L	1		8260B	Total/NA
Vinyl chloride	1.2		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: W-4-N/100421/ — Lab Sample ID: 240-157477-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	9.0		1.0	0.47	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	8.9		1.0	0.46	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	0.60	J	1.0	0.51	ug/L	1		8260B	Total/NA
Trichloroethene	7.0		1.0	0.44	ug/L	1		8260B	Total/NA

Client Sample ID: W-2-N/100421/ — Lab Sample ID: 240-157477-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.2		1.0	0.46	ug/L	1		8260B	Total/NA
Trichloroethene	1.0		1.0	0.44	ug/L	1		8260B	Total/NA

Client Sample ID: HR-4/100421/ — Lab Sample ID: 240-157477-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.9		1.0	0.48	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	1.9		1.0	0.47	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.71	J	1.0	0.46	ug/L	1		8260B	Total/NA

Client Sample ID: DUP-1/100421/ — Lab Sample ID: 240-157477-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.7		1.0	0.48	ug/L	1		8260B	Total/NA
1,1-Dichloroethane	1.9		1.0	0.47	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.77	J	1.0	0.46	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: W-3-N/100421/ Lab Sample ID: 240-157477-1

Date Collected: 10/04/21 13:20 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 14:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 14:27	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 14:27	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 14:27	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:27	1
cis-1,2-Dichloroethene	**13**		1.0	0.46	ug/L			10/11/21 14:27	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:27	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 14:27	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:27	1
Vinyl chloride	**1.2**		1.0	0.45	ug/L			10/11/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/11/21 14:27*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/11/21 14:27*	*1*
Toluene-d8 (Surr)	*91*		*78 - 122*		*10/11/21 14:27*	*1*

Client Sample ID: W-4-N/100421/ Lab Sample ID: 240-157477-2

Date Collected: 10/04/21 11:20 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 19:02	1
1,1-Dichloroethane	**9.0**		1.0	0.47	ug/L			10/08/21 19:02	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:02	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:02	1
cis-1,2-Dichloroethene	**8.9**		1.0	0.46	ug/L			10/08/21 19:02	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:02	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:02	1
trans-1,2-Dichloroethene	**0.60**	**J**	1.0	0.51	ug/L			10/08/21 19:02	1
Trichloroethene	**7.0**		1.0	0.44	ug/L			10/08/21 19:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*56 - 136*		*10/08/21 19:02*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*10/08/21 19:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*119*		*62 - 137*		*10/08/21 19:02*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/08/21 19:02*	*1*

Client Sample ID: W-2-N/100421/ Lab Sample ID: 240-157477-3

Date Collected: 10/04/21 13:15 **Matrix: Water**
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:24	1

Client Sample ID: W-2-N/100421/
Lab Sample ID: 240-157477-3
Date Collected: 10/04/21 13:15
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 19:24	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 19:24	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:24	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:24	1
cis-1,2-Dichloroethene	**2.2**		1.0	0.46	ug/L			10/08/21 19:24	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:24	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:24	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 19:24	1
Trichloroethene	**1.0**		1.0	0.44	ug/L			10/08/21 19:24	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/08/21 19:24*	*1*
Dibromofluoromethane (Surr)	*93*		*73 - 120*		*10/08/21 19:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/08/21 19:24*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 19:24*	*1*

Client Sample ID: HR-4/100421/
Lab Sample ID: 240-157477-4
Date Collected: 10/04/21 11:15
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 19:46	1
1,1,1-Trichloroethane	**1.9**		1.0	0.48	ug/L			10/08/21 19:46	1
1,1-Dichloroethane	**1.9**		1.0	0.47	ug/L			10/08/21 19:46	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 19:46	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:46	1
cis-1,2-Dichloroethene	**0.71**	**J**	1.0	0.46	ug/L			10/08/21 19:46	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 19:46	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 19:46	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 19:46	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*56 - 136*		*10/08/21 19:46*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/08/21 19:46*	*1*
1,2-Dichloroethane-d4 (Surr)	*122*		*62 - 137*		*10/08/21 19:46*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*10/08/21 19:46*	*1*

Client Sample ID: DUP-1/100421/
Lab Sample ID: 240-157477-5
Date Collected: 10/04/21 00:00
Matrix: Water
Date Received: 10/06/21 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 14:49	1
1,1,1-Trichloroethane	**1.7**		1.0	0.48	ug/L			10/11/21 14:49	1

Client Sample ID: DUP-1/100421/
Date Collected: 10/04/21 00:00
Date Received: 10/06/21 08:00

Lab Sample ID: 240-157477-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	**1.9**		1.0	0.47	ug/L			10/11/21 14:49	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 14:49	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:49	1
cis-1,2-Dichloroethene	**0.77**	**J**	1.0	0.46	ug/L			10/11/21 14:49	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 14:49	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 14:49	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 14:49	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*56 - 136*		*10/11/21 14:49*	*1*
Dibromofluoromethane (Surr)	*92*		*73 - 120*		*10/11/21 14:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*120*		*62 - 137*		*10/11/21 14:49*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/11/21 14:49*	*1*

Default Detection Limits

Client: ARCADIS U.S., Inc.
Job ID: 240-157477-1
Project/Site: Racer Moraine Annual

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

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	1.0	0.48	ug/L
1,1-Dichloroethane	1.0	0.47	ug/L
1,1-Dichloroethene	1.0	0.49	ug/L
Benzene	1.0	0.42	ug/L
cis-1,2-Dichloroethene	1.0	0.46	ug/L
Ethylbenzene	1.0	0.42	ug/L
Tetrachloroethene	1.0	0.44	ug/L
Toluene	1.0	0.44	ug/L
trans-1,2-Dichloroethene	1.0	0.51	ug/L
Trichloroethene	1.0	0.44	ug/L
Vinyl chloride	1.0	0.45	ug/L
Xylenes, Total	2.0	0.42	ug/L

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157477-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(56-136)	(73-120)	(62-137)	(78-122)
240-157477-1	W-3-N/100421/	76	92	119	91
240-157477-2	W-4-N/100421/	76	95	119	93
240-157477-3	W-2-N/100421/	75	93	120	94
240-157477-4	HR-4/100421/	74	92	122	92
240-157477-4 MS	HR-4/100421/	97	91	110	101
240-157477-4 MSD	HR-4/100421/	96	87	108	104
240-157477-5	DUP-1/100421/	75	92	120	93
LCS 240-507379/4	Lab Control Sample	100	88	108	100
LCS 240-507592/4	Lab Control Sample	99	87	107	101
MB 240-507379/7	Method Blank	84	87	114	94
MB 240-507592/7	Method Blank	82	88	117	93

Surrogate Legend

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

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

Lab Sample ID: MB 240-507379/7
Matrix: Water
Analysis Batch: 507379

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/08/21 12:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/08/21 12:02	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/08/21 12:02	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/08/21 12:02	1
Benzene	1.0	U	1.0	0.42	ug/L			10/08/21 12:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/08/21 12:02	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/08/21 12:02	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
Toluene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/08/21 12:02	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/08/21 12:02	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/08/21 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*10/08/21 12:02*	*1*
Dibromofluoromethane (Surr)	*87*		*73 - 120*		*10/08/21 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*62 - 137*		*10/08/21 12:02*	*1*
Toluene-d8 (Surr)	*94*		*78 - 122*		*10/08/21 12:02*	*1*

Lab Sample ID: LCS 240-507379/4
Matrix: Water
Analysis Batch: 507379

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			20.0	20.5		ug/L		102	80 - 121		
1,1,1-Trichloroethane			10.0	9.11		ug/L		91	64 - 131		
1,1-Dichloroethane			10.0	10.9		ug/L		109	72 - 127		
1,1-Dichloroethene			10.0	9.14		ug/L		91	63 - 134		
Benzene			10.0	10.5		ug/L		105	77 - 123		
cis-1,2-Dichloroethene			10.0	9.75		ug/L		97	77 - 123		
Ethylbenzene			10.0	10.4		ug/L		104	80 - 121		
Tetrachloroethene			10.0	9.21		ug/L		92	76 - 123		
Toluene			10.0	10.7		ug/L		107	80 - 123		
trans-1,2-Dichloroethene			10.0	9.80		ug/L		98	75 - 124		
Trichloroethene			10.0	9.29		ug/L		93	70 - 122		
Vinyl chloride			10.0	8.25		ug/L		83	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*56 - 136*
Dibromofluoromethane (Surr)	*88*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*108*		*62 - 137*
Toluene-d8 (Surr)	*100*		*78 - 122*

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

Lab Sample ID: 240-157477-4 MS
Matrix: Water
Analysis Batch: 507379

Client Sample ID: HR-4/100421/
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total	2.0	U	20.0	19.2		ug/L		96	71 - 123		
1,1,1-Trichloroethane	1.9		10.0	10.6		ug/L		87	60 - 130		
1,1-Dichloroethane	1.9		10.0	12.6		ug/L		107	68 - 125		
1,1-Dichloroethene	1.0	U	10.0	9.65		ug/L		96	56 - 135		
Benzene	1.0	U	10.0	10.3		ug/L		103	64 - 128		
cis-1,2-Dichloroethene	0.71	J	10.0	10.3		ug/L		96	66 - 128		
Ethylbenzene	1.0	U	10.0	9.81		ug/L		98	67 - 127		
Tetrachloroethene	1.0	U	10.0	8.83		ug/L		88	62 - 131		
Toluene	1.0	U	10.0	10.8		ug/L		108	58 - 135		
trans-1,2-Dichloroethene	1.0	U	10.0	9.56		ug/L		96	56 - 136		
Trichloroethene	1.0	U	10.0	9.13		ug/L		91	61 - 124		
Vinyl chloride	1.0	U	10.0	8.99		ug/L		90	43 - 157		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*56 - 136*
Dibromofluoromethane (Surr)	*91*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*110*		*62 - 137*
Toluene-d8 (Surr)	*101*		*78 - 122*

Lab Sample ID: 240-157477-4 MSD
Matrix: Water
Analysis Batch: 507379

Client Sample ID: HR-4/100421/
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	2.0	U	20.0	19.3		ug/L		96	71 - 123	0	15
1,1,1-Trichloroethane	1.9		10.0	10.3		ug/L		84	60 - 130	2	17
1,1-Dichloroethane	1.9		10.0	12.1		ug/L		102	68 - 125	4	13
1,1-Dichloroethene	1.0	U	10.0	8.66		ug/L		87	56 - 135	11	26
Benzene	1.0	U	10.0	10.3		ug/L		103	64 - 128	0	14
cis-1,2-Dichloroethene	0.71	J	10.0	10.0		ug/L		93	66 - 128	3	14
Ethylbenzene	1.0	U	10.0	9.89		ug/L		99	67 - 127	1	15
Tetrachloroethene	1.0	U	10.0	9.05		ug/L		91	62 - 131	3	20
Toluene	1.0	U	10.0	10.8		ug/L		108	58 - 135	0	14
trans-1,2-Dichloroethene	1.0	U	10.0	9.53		ug/L		95	56 - 136	0	15
Trichloroethene	1.0	U	10.0	8.96		ug/L		90	61 - 124	2	15
Vinyl chloride	1.0	U	10.0	8.22		ug/L		82	43 - 157	9	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*56 - 136*
Dibromofluoromethane (Surr)	*87*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*108*		*62 - 137*
Toluene-d8 (Surr)	*104*		*78 - 122*

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

Lab Sample ID: MB 240-507592/7
Matrix: Water
Analysis Batch: 507592

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	2.0	U	2.0	0.42	ug/L			10/11/21 11:10	1
1,1,1-Trichloroethane	1.0	U	1.0	0.48	ug/L			10/11/21 11:10	1
1,1-Dichloroethane	1.0	U	1.0	0.47	ug/L			10/11/21 11:10	1
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			10/11/21 11:10	1
Benzene	1.0	U	1.0	0.42	ug/L			10/11/21 11:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			10/11/21 11:10	1
Ethylbenzene	1.0	U	1.0	0.42	ug/L			10/11/21 11:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
Toluene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			10/11/21 11:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			10/11/21 11:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			10/11/21 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*56 - 136*		*10/11/21 11:10*	*1*
Dibromofluoromethane (Surr)	*88*		*73 - 120*		*10/11/21 11:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*117*		*62 - 137*		*10/11/21 11:10*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*10/11/21 11:10*	*1*

Lab Sample ID: LCS 240-507592/4
Matrix: Water
Analysis Batch: 507592

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Xylenes, Total			20.0	20.9		ug/L		105	80 - 121		
1,1,1-Trichloroethane			10.0	9.39		ug/L		94	64 - 131		
1,1-Dichloroethane			10.0	11.0		ug/L		110	72 - 127		
1,1-Dichloroethene			10.0	9.30		ug/L		93	63 - 134		
Benzene			10.0	11.1		ug/L		111	77 - 123		
cis-1,2-Dichloroethene			10.0	10.1		ug/L		101	77 - 123		
Ethylbenzene			10.0	10.6		ug/L		106	80 - 121		
Tetrachloroethene			10.0	9.55		ug/L		96	76 - 123		
Toluene			10.0	11.2		ug/L		112	80 - 123		
trans-1,2-Dichloroethene			10.0	10.0		ug/L		100	75 - 124		
Trichloroethene			10.0	9.69		ug/L		97	70 - 122		
Vinyl chloride			10.0	10.3		ug/L		103	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*56 - 136*
Dibromofluoromethane (Surr)	*87*		*73 - 120*
1,2-Dichloroethane-d4 (Surr)	*107*		*62 - 137*
Toluene-d8 (Surr)	*101*		*78 - 122*

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157477-1

GC/MS VOA

Analysis Batch: 507379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-157477-2	W-4-N/100421/	Total/NA	Water	8260B	
240-157477-3	W-2-N/100421/	Total/NA	Water	8260B	
240-157477-4	HR-4/100421/	Total/NA	Water	8260B	
MB 240-507379/7	Method Blank	Total/NA	Water	8260B	
LCS 240-507379/4	Lab Control Sample	Total/NA	Water	8260B	
240-157477-4 MS	HR-4/100421/	Total/NA	Water	8260B	
240-157477-4 MSD	HR-4/100421/	Total/NA	Water	8260B	

Analysis Batch: 507592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-157477-1	W-3-N/100421/	Total/NA	Water	8260B	
240-157477-5	DUP-1/100421/	Total/NA	Water	8260B	
MB 240-507592/7	Method Blank	Total/NA	Water	8260B	
LCS 240-507592/4	Lab Control Sample	Total/NA	Water	8260B	

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157477-1

Client Sample ID: W-3-N/100421/ — Lab Sample ID: 240-157477-1

Date Collected: 10/04/21 13:20 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507592	10/11/21 14:27	LEE	TAL CAN

Client Sample ID: W-4-N/100421/ — Lab Sample ID: 240-157477-2

Date Collected: 10/04/21 11:20 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 19:02	LEE	TAL CAN

Client Sample ID: W-2-N/100421/ — Lab Sample ID: 240-157477-3

Date Collected: 10/04/21 13:15 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 19:24	LEE	TAL CAN

Client Sample ID: HR-4/100421/ — Lab Sample ID: 240-157477-4

Date Collected: 10/04/21 11:15 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507379	10/08/21 19:46	LEE	TAL CAN

Client Sample ID: DUP-1/100421/ — Lab Sample ID: 240-157477-5

Date Collected: 10/04/21 00:00 — **Matrix: Water**
Date Received: 10/06/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	507592	10/11/21 14:49	LEE	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 240-157477-1
Project/Site: Racer Moraine Annual

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	01-26-22
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	12-31-21
Georgia	State	4062	02-23-22
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22
Kentucky (WW)	State	KY98016	12-31-21
Minnesota	NELAP	039-999-348	12-27-21
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	11-04-21
New York	NELAP	10975	03-31-22
Ohio VAP	State	CL0024	12-21-23
Oregon	NELAP	4062	12-06-21
Pennsylvania	NELAP	68-00340	12-13-21
Texas	NELAP	T104704517-21-14	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-22
West Virginia DEP	State	210	12-21-21

Method Summary

Client: ARCADIS U.S., Inc.
Job ID: 240-157477-1
Project/Site: Racer Moraine Annual

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Racer Moraine Annual

Job ID: 240-157477-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-157477-1	W-3-N/100421/	Water	10/04/21 13:20	10/06/21 08:00
240-157477-2	W-4-N/100421/	Water	10/04/21 11:20	10/06/21 08:00
240-157477-3	W-2-N/100421/	Water	10/04/21 13:15	10/06/21 08:00
240-157477-4	HR-4/100421/	Water	10/04/21 11:15	10/06/21 08:00
240-157477-5	DUP-1/100421/	Water	10/04/21 00:00	10/06/21 08:00

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VM50IS_00086	05/27/21	11/27/20	MEOH, Lot 177891	50 mL	VM568718_00019	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00019	12/31/24		restek, Lot A0156016		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
vm50is_00089	12/28/21	06/28/21	MEOH, Lot 177891	50 mL	VM568718_00021	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00021	07/31/25		restek, Lot A0162545		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
VM50IS_00090	03/22/22	09/22/21	MEOH, Lot 177891	50 mL	VM568718_00021	10 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5	50 ug/mL
							Fluorobenzene	50 ug/mL
.VM568718_00021	07/31/25		restek, Lot A0162545		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
vm50ss_stk_00086	03/28/21	09/28/20	MEOH, Lot 0000230446	200 mL	VM567650_00033	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00033	11/30/23		Restek, Lot A0143613		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
vm50ss_stk_00088	12/18/21	06/18/21	MEOH, Lot 0000273166	200 mL	VM567650_00035	4 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
.VM567650_00035	11/30/23		Restek, Lot A0143613		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VMAROLISTDW_00384	03/23/21	03/16/21	MEOH, Lot na	5 mL	VMACROLSTD_00093	5 mL	Acrolein	250 ug/mL
.VMACROLSTD_00093	04/09/21	03/09/21	MEOH, Lot +230910000258810JD	20 mL	VM568720_00040	0.25 mL	Acrolein	250 ug/mL
..VM568720_00040	07/31/21		restek, Lot A0161364		(Purchased Reagent)		Acrolein	20000 ug/mL
vmbfb_00026							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
vmbfb_00027							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					vm30026_00003	1.25 mL	BFB	50 ug/mL
.vm30026_00003	08/31/23		restek, Lot A0141187		(Purchased Reagent)		BFB	2000 ug/mL
VMFASGW_00399	03/17/21	03/10/21	MEOH, Lot NA	5 mL	VMFASG_00104	5 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.VMFASG_00104	04/10/21	03/10/21	MEOH, Lot 0000258810	100 mL	vm569722S_00008	2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
..vm569722S_00008	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMFASGW_00427	10/08/21	10/01/21	MEOH, Lot NA	5 mL	VMFASG_00110	5 mL	Vinyl chloride	50 ug/mL
.VMFASG_00110	10/15/21	09/15/21	MEOH, Lot 0000273166	100 mL	vm569722S_00009	2 mL	Vinyl chloride	50 ug/mL
..vm569722S_00009	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Vinyl chloride	2500 ug/mL
VMFASGW_00428	10/15/21	10/09/21	MEOH, Lot NA	5 mL	VMFASG_00110	5 mL	Vinyl chloride	50 ug/mL
.VMFASG_00110	10/15/21	09/15/21	MEOH, Lot 0000273166	100 mL	vm569722S_00009	2 mL	Vinyl chloride	50 ug/mL
..vm569722S_00009	04/30/23		Restek, Lot A0159768		(Purchased Reagent)		Vinyl chloride	2500 ug/mL
VMFASPW_00390	03/23/21	03/16/21	MEOH, Lot n/a	5 mL	VMRFASP_00072	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00072	06/30/21	12/31/20	MEOH, Lot 0000258810	100 mL	VM569721S_00006	0.8 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992S_00007	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721S_00006	11/30/21		Restek, Lot A0143456		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM571992S_00007	06/30/21		Restek, Lot A0144202		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMFASPW_00417	10/12/21	10/05/21	MEOH, Lot n/a	5 mL	VMRFASP_00077	5 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							Ethylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
.VMRFASP_00077	10/31/21	08/31/21	MEOH, Lot 0000273166	100 mL	VM571992S_00008	2 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							Benzene	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							Ethylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM571992S_00008	06/30/23		Restek, Lot A0167172		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							Benzene	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VMRGAS_00377	03/21/21	03/14/21	MEOH, Lot 0000258810	10 mL	vm569722_00015	0.2 mL	Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00015	11/30/22		Restek, Lot A0154679		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00402	10/08/21	10/01/21	MEOH, Lot 0000273166	10 mL	vm569722_00019	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.vm569722_00019	03/31/23		Restek, Lot A0159085		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRGAS_00403	10/16/21	10/09/21	MEOH, Lot 0000273166	10 mL	vm569722_00019	0.2 mL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.vm569722_00019	03/31/23		Restek, Lot A0159085		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
VMRPRIMW_00427	03/23/21	03/16/21	MEOH, Lot NA	5 mL	VMRPRIM_00049	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							2-Chloroethyl vinyl ether	100 ug/mL
							Vinyl acetate	50 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
.VMRPRIM_00049	06/01/21	03/01/21	MEOH, Lot 0000258810	50 mL	VM569721_00007	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM569723_00008	2 mL	2-Chloroethyl vinyl ether	100 ug/mL
					VM569724_00024	0.5 mL	Vinyl acetate	50 ug/mL
					VM571992_00004	1 mL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	1000 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							2-Methyl-2-propanol	500 ug/mL
							3-Chloro-1-propene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Acrylonitrile	500 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dibromomethane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethyl ether	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	1250 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							n-Heptane	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Tetrahydrofuran	100 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							trans-1,4-Dichloro-2-butene	50 ug/mL
							Trichloroethene	50 ug/mL
..VM569721_00007	09/30/22		Restek, Lot A0152956		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VM569723_00008	02/28/22		restek, Lot A0146250		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
..VM569724_00024	07/31/21		Restek, Lot A0156559		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
..VM571992_00004	06/30/21		Restek, Lot A0143774		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VMRPRIMW_00427	03/23/21	03/16/21	MEOH, Lot NA	5 mL	VMRPRIM_00049	5 mL	Xylenes, Total	100 ug/mL
.VMRPRIM_00049	06/01/21	03/01/21	MEOH, Lot 0000258810	50 mL	VM571992_00004	1 mL	Xylenes, Total	100 ug/mL
..VM571992_00004	06/30/21	Restek, Lot A0143774			(Purchased Reagent)		Xylenes, Total	5000 ug/mL
VMRPRIMW_00454	10/11/21	10/04/21	MEOH, Lot NA	5 mL	VMRPRIM_00052	5 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VMRPRIM_00052	10/31/21	08/02/21	MEOH, Lot 0000273166	50 mL	VM569721_00007	0.4 mL	2-Butanone (MEK)	100 ug/mL
							2-Hexanone	100 ug/mL
							4-Methyl-2-pentanone (MIBK)	100 ug/mL
							Acetone	100 ug/mL
					VM571992_00005	1 mL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							Benzene	50 ug/mL
							Bromoform	50 ug/mL
							Carbon disulfide	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chlorodibromomethane	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Cyclohexane	50 ug/mL
							Dichlorobromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	50 ug/mL
							Methyl acetate	100 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Methylene Chloride	50 ug/mL
							o-Xylene	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							Xylenes, Total	100 ug/mL
..VM569721_00007	09/30/22		Restek, Lot A0152956		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	12500 ug/mL
..VM571992_00005	10/31/22		Restek, Lot A0159680		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorodibromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dichlorobromomethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Ethylene Dibromide	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							o-Xylene	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL

Reagent

vm30026_00003

Rec: 11/28/18
VM30026_00063

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30026 **Lot No.:** A0141187

Description : 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,004.7 µg/mL	+/- 11.7645	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/- 112.4110	µg/mL	Unstressed
	Purity 99%		+/- 115.0408	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00033

VM567650_00033 Rec: 4/9/19

RESTEK® CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0143613

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	2,506.4 µg/mL	+/- 14.5724 µg/mL +/- 140.5314 µg/mL +/- 143.8196 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.8 µg/mL	+/- 14.5570 µg/mL +/- 140.3828 µg/mL +/- 143.6676 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	2,512.2 µg/mL	+/- 14.6059 µg/mL +/- 140.8538 µg/mL +/- 144.1496 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM567650_00035

Rec: 12/4/19
VM567650_00035

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567650 **Lot No.:** A0143613

Description : 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	2,506.4 µg/mL	+/- 14.5724 µg/mL +/- 140.5314 µg/mL +/- 143.8196 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.8 µg/mL	+/- 14.5570 µg/mL +/- 140.3828 µg/mL +/- 143.6676 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	2,512.2 µg/mL	+/- 14.6059 µg/mL +/- 140.8538 µg/mL +/- 144.1496 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,501.8 µg/mL	+/- 14.5457 µg/mL +/- 140.2734 µg/mL +/- 143.5557 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Reagent

VM568718_00019

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0156016

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2024 **Storage:** 0°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl-d9-alcohol		5,002.2 µg/mL	+/- 29.0815 µg/mL		Gravimetric
	CAS # 25725-11-5	(Lot CD-107)		+/- 107.0965 µg/mL		Unstressed
	Purity 98%			+/- 110.2100 µg/mL		Stressed
2	2-Butanone-d5		1,252.7 µg/mL	+/- 7.2833 µg/mL		Gravimetric
	CAS # 24313-50-6	(Lot M-276)		+/- 26.8205 µg/mL		Unstressed
	Purity 99%			+/- 27.6002 µg/mL		Stressed
3	Fluorobenzene		251.8 µg/mL	+/- 1.4674 µg/mL		Gravimetric
	CAS # 462-06-6	(Lot BCBZ5549)		+/- 5.3920 µg/mL		Unstressed
	Purity 99%			+/- 5.5487 µg/mL		Stressed
4	1,4-Dioxane-d8		5,003.8 µg/mL	+/- 29.0907 µg/mL		Gravimetric
	CAS # 17647-74-4	(Lot I-19942)		+/- 107.1305 µg/mL		Unstressed
	Purity 99%			+/- 110.2450 µg/mL		Stressed
5	Chlorobenzene-d5		250.8 µg/mL	+/- 1.4613 µg/mL		Gravimetric
	CAS # 3114-55-4	(Lot PR-29571)		+/- 5.3695 µg/mL		Unstressed
	Purity 99%			+/- 5.5256 µg/mL		Stressed
6	1,4-Dichlorobenzene-d4		250.5 µg/mL	+/- 1.4595 µg/mL		Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 5.3631 µg/mL		Unstressed
	Purity 99%			+/- 5.5189 µg/mL		Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

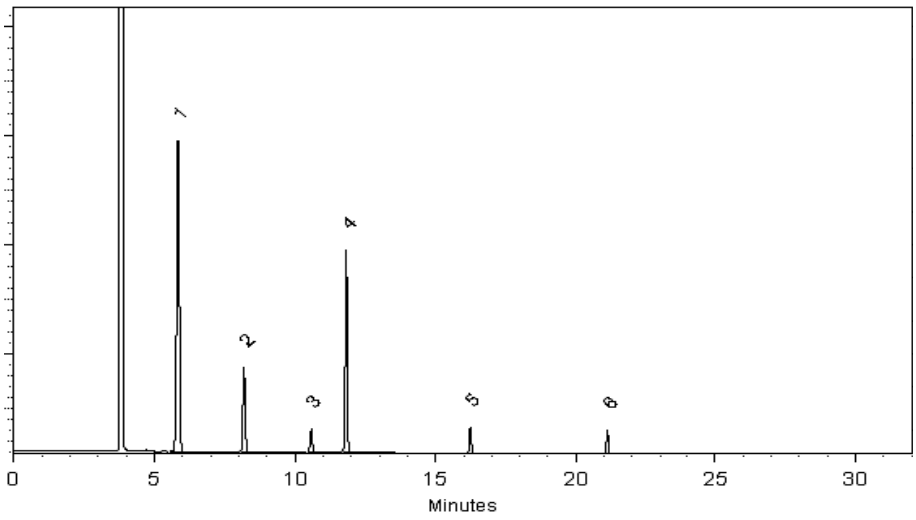
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 20-Dec-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-Dec-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

VM568718_00021

Rec: 12/2/20
VM568718_00021

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568718 **Lot No.:** A0162545

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	tert-Butyl-d9-alcohol **CAS #** 25725-11-5 **Purity** 99%	(Lot CD-107)	5,010.4 µg/mL	+/- 29.1309 µg/mL +/- 107.2733 µg/mL +/- 110.3919 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone-d5 **CAS #** 24313-50-6 **Purity** 99%	(Lot M-276)	1,252.7 µg/mL	+/- 7.2833 µg/mL +/- 26.8205 µg/mL +/- 27.6002 µg/mL	Gravimetric Unstressed Stressed
3	Fluorobenzene **CAS #** 462-06-6 **Purity** 99%	(Lot BCBZ5549)	250.8 µg/mL	+/- 1.4615 µg/mL +/- 5.3706 µg/mL +/- 5.5267 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dioxane-d8 **CAS #** 17647-74-4 **Purity** 99%	(Lot I19942-0122JM)	5,010.4 µg/mL	+/- 29.1309 µg/mL +/- 107.2733 µg/mL +/- 110.3919 µg/mL	Gravimetric Unstressed Stressed
5	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	250.0 µg/mL	+/- 1.4569 µg/mL +/- 5.3534 µg/mL +/- 5.5090 µg/mL	Gravimetric Unstressed Stressed
6	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	252.4 µg/mL	+/- 1.4709 µg/mL +/- 5.4048 µg/mL +/- 5.5619 µg/mL	Gravimetric Unstressed Stressed

Reagent

VM568720_00040

Rc'd 9/17/21 VM 568720_ 00040

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568720 **Lot No.:** A0156859

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acrolein		19,830.0 µg/mL	+/-	116.1090	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot D0012019-1219)		+/-	396.1504	µg/mL	Unstressed
	Purity 99%			+/-	888.7531	µg/mL	Stressed

Solvent: Water
CAS # 7732-18-5
Purity 99%

Reagent

VM569721_00007

Rec: 2-21-20

VM569721-00007

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721 **Lot No.:** A0152956

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone **CAS #** 67-64-1 (Lot SHBK6362) **Purity** 99%	12,546.0 µg/mL	+/- 73.4596 +/- 757.0057 +/- 758.8027	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBK5945) **Purity** 99%	12,564.0 µg/mL	+/- 73.5650 +/- 758.0918 +/- 759.8914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBK5017) **Purity** 99%	12,558.0 µg/mL	+/- 73.5299 +/- 757.7297 +/- 759.5285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKCD9048) **Purity** 99%	12,562.0 µg/mL	+/- 73.5533 +/- 757.9711 +/- 759.7704	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

VM569721S_00006

Rec: 2-21-20

VM569721S-00006

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569721.SEC **Lot No.:** A0143456

Description : 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	12,524.5 µg/mL	+/- 72.8185	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot U13B039)		+/- 755.6586	µg/mL	Unstressed
	Purity 99%		+/- 757.4526	µg/mL	Stressed
2	2-Butanone (MEK)	12,527.8 µg/mL	+/- 72.8374	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/- 755.8547	µg/mL	Unstressed
	Purity 99%		+/- 757.6492	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,515.3 µg/mL	+/- 72.7647	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 755.1005	µg/mL	Unstressed
	Purity 99%		+/- 756.8932	µg/mL	Stressed
4	2-Hexanone	12,516.8 µg/mL	+/- 72.7738	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/- 755.1943	µg/mL	Unstressed
	Purity 98%		+/- 756.9873	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Reagent

vm569722_00015

Rec: 4/14/20
VM569722_0005

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0154679

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,502.7 µg/mL	+/- 18.2705 µg/mL +/- 140.7566 µg/mL +/- 144.0300 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,500.3 µg/mL	+/- 18.7547 µg/mL +/- 140.6865 µg/mL +/- 143.9553 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,501.1 µg/mL	+/- 18.5858 µg/mL +/- 140.7083 µg/mL +/- 143.9787 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBK2299) **Purity** 99%	2,497.1 µg/mL	+/- 17.5808 µg/mL +/- 140.3628 µg/mL +/- 143.6309 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,500.8 µg/mL	+/- 23.3138 µg/mL +/- 141.3956 µg/mL +/- 144.6498 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,499.0 µg/mL	+/- 21.4252 µg/mL +/- 140.9973 µg/mL +/- 144.2558 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,499.6	µg/mL	+/-	21.2368	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot 25931)			+/-	141.0019	µg/mL	Unstressed
	Purity 99%				+/-	144.2618	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

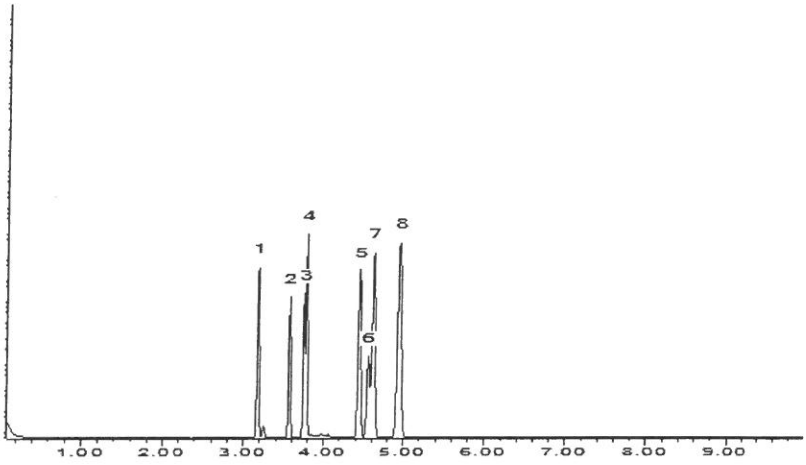
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 04-Nov-2019 **Balance:** B707717271

Feng-Yun Lo - QC Analyst

Date Passed: 10-Nov-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722_00019

Rec: 1/20/21
VMS69722_00019

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722 **Lot No.:** A0159085

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,502.3 µg/mL	+/- 16.4178 µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/- 140.5076 µg/mL	Unstressed
	Purity 99%		+/- 143.7858 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.6 µg/mL	+/- 16.3299 µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/- 140.4038 µg/mL	Unstressed
	Purity 99%		+/- 143.6799 µg/mL	Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/- 17.2154 µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/- 140.4890 µg/mL	Unstressed
	Purity 99%		+/- 143.7623 µg/mL	Stressed
4	1,3-Butadiene	2,500.7 µg/mL	+/- 17.6652 µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/- 140.5681 µg/mL	Unstressed
	Purity 99%		+/- 143.8406 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,501.2 µg/mL	+/- 16.4034 µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/- 140.4450 µg/mL	Unstressed
	Purity 99%		+/- 143.7217 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/- 17.7279 µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/- 140.5555 µg/mL	Unstressed
	Purity 99%		+/- 143.8274 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/- 14.5352 µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 8582700)		+/- 140.1725 µg/mL	Unstressed
	Purity 99%		+/- 143.4524 µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)		2,501.4	µg/mL	+/-	16.0800	µg/mL	Gravimetric
	CAS # 75-69-4	(Lot MKCJ8658)			+/-	140.4203	µg/mL	Unstressed
	Purity 99%				+/-	143.6982	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

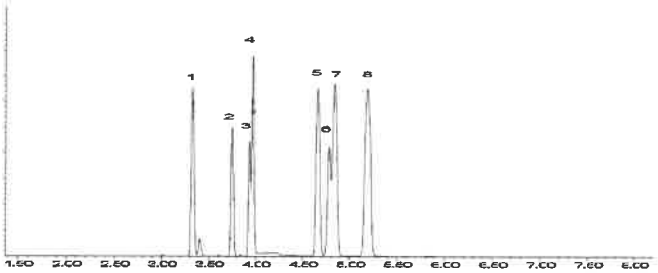
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 23-Mar-2020 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 26-Mar-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00008

Rec: 7/17/20
VM569722S-00008

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0159768

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 26165) **Purity** 99%	2,501.8 µg/mL	+/- 19.9803 µg/mL +/- 140.9385 µg/mL +/- 144.2054 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,510.1 µg/mL	+/- 18.7758 µg/mL +/- 141.2337 µg/mL +/- 144.5155 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,518.3 µg/mL	+/- 19.4159 µg/mL +/- 141.7727 µg/mL +/- 145.0634 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 24033) **Purity** 99%	2,510.8 µg/mL	+/- 17.5328 µg/mL +/- 141.1137 µg/mL +/- 144.4001 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot 00017022) **Purity** 99%	2,506.4 µg/mL	+/- 23.4232 µg/mL +/- 141.7223 µg/mL +/- 144.9835 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,523.5 µg/mL	+/- 21.4589 µg/mL +/- 142.3524 µg/mL +/- 145.6434 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 * (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,496.5	µg/mL	+/-	17.7311	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)			+/-	140.3462	µg/mL	Unstressed
	Purity 99%				+/-	143.6131	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

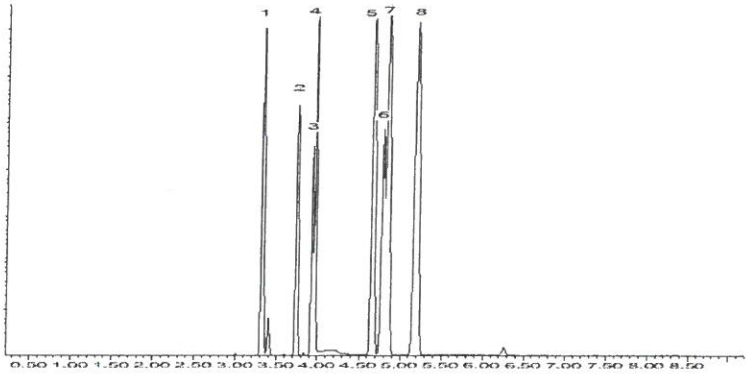
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 09-Apr-2020 **Balance:** 1127510105

Feng-Yun Lo - QC Analyst

Date Passed: 24-Apr-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

vm569722S_00009

Rec: 12/2/20

VM569722S-00009

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569722.SEC **Lot No.:** A0159768

Description : 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8.SEC (Lot 26165) **Purity** 99%	2,501.8 µg/mL	+/- 19.9803 µg/mL +/- 140.9385 µg/mL +/- 144.2054 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,510.1 µg/mL	+/- 18.7758 µg/mL +/- 141.2337 µg/mL +/- 144.5155 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,518.3 µg/mL	+/- 19.4159 µg/mL +/- 141.7727 µg/mL +/- 145.0634 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 24033) **Purity** 99%	2,510.8 µg/mL	+/- 17.5328 µg/mL +/- 141.1137 µg/mL +/- 144.4001 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot 00017022) **Purity** 99%	2,506.4 µg/mL	+/- 23.4232 µg/mL +/- 141.7223 µg/mL +/- 144.9835 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot 00004202) **Purity** 99%	2,523.5 µg/mL	+/- 21.4589 µg/mL +/- 142.3524 µg/mL +/- 145.6434 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 * (Lot 4938100) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 µg/mL +/- 140.1725 µg/mL +/- 143.4524 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,496.5 µg/mL	+/-	17.7311	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot 253600)		+/-	140.3462	µg/mL	Unstressed
	Purity 99%			+/-	143.6131	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

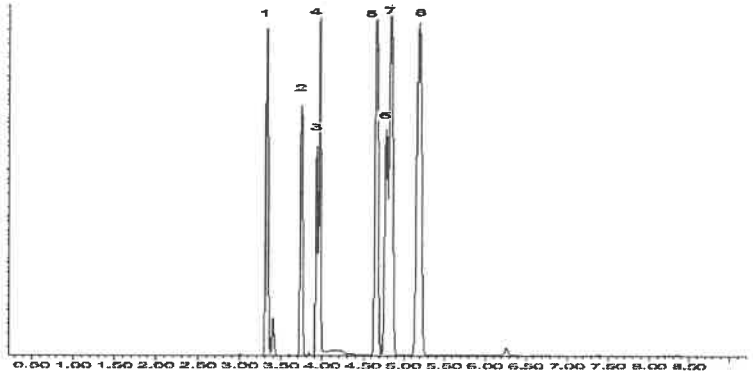
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 09-Apr-2020 **Balance:** 1127510105

Feng-Yun Lo - QC Analyst

Date Passed: 24-Apr-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569723 **Lot No.:** A0146250

Description : 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 110-75-8 (Lot MKBS6526V)		+/- 53.5253	µg/mL	Unstressed
	Purity 99%		+/- 55.0814	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VM569724_00024

Rcd 4-20-20 VM569724_00024

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569724 **Lot No.:** A0156559

Description : 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate		5,040.0 µg/mL	+/- 29.5103	µg/mL	Gravimetric
	CAS # 108-05-4	(Lot 192709KJ)		+/- 304.1056	µg/mL	Unstressed
	Purity 99%			+/- 304.8275	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Specific Reference Material Notes:
08 April 2020
Expiration date extended from July 31, 2020 to July 31, 2021.

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

VM571992_00004

VMS71992-00004 Rec: 2-21-20

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0143774

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBJ5713) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00009482) **Purity** 99%	2,501.6 µg/mL	+/- 14.5447 µg/mL +/- 150.9341 µg/mL +/- 151.2925 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBG8609V) **Purity** 99%	2,501.9 µg/mL	+/- 14.5461 µg/mL +/- 150.9492 µg/mL +/- 151.3076 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBJ9404) **Purity** 99%	25,008.1 µg/mL	+/- 145.3918 µg/mL +/- 1,508.8503 µg/mL +/- 1,512.4325 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBG4345V) **Purity** 99%	5,000.8 µg/mL	+/- 29.0748 µg/mL +/- 301.7174 µg/mL +/- 302.4337 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot SHBH4362V) **Purity** 99%	2,500.6 µg/mL	+/- 14.5388 µg/mL +/- 150.8738 µg/mL +/- 151.2320 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot WXBB7852V) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 µg/mL +/- 150.9567 µg/mL +/- 151.3151 µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	(Lot SHBK5095)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0 **Purity** 99%	(Lot U22D706)	2,501.1	µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1 **Purity** 99%	(Lot R15D047)	25,010.4	µg/mL	+/- 145.4049 +/- 1,508.9860 +/- 1,512.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4 **Purity** 99%	(Lot SHBH9526)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2 **Purity** 99%	(Lot MKBX5945V)	2,501.3	µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3 **Purity** 99%	(Lot SHBH8106)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3 **Purity** 99%	(Lot 462600)	2,500.4	µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7 **Purity** 99%	(Lot BCBT5124)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5 **Purity** 99%	(Lot MKBH9850V)	2,500.3	µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1 **Purity** 99%	(Lot SHBK0551)	62,500.9	µg/mL	+/- 363.3665 +/- 3,770.9529 +/- 3,779.9058	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform **CAS #** 67-66-3 **Purity** 99%	(Lot SHBJ9076)	2,500.5	µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5 **Purity** 98%	(Lot 00008541)	2,500.6	µg/mL	+/- 14.5387 +/- 150.8718 +/- 151.2300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9 **Purity** 99%	(Lot SHBJ6179)	5,000.6	µg/mL	+/- 29.0741 +/- 301.7099 +/- 302.4262	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane **CAS #** 71-55-6 **Purity** 99%	(Lot B15W12061)	2,500.8	µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7 **Purity** 99%	(Lot MKCC9660)	2,500.9	µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6 **Purity** 99%	(Lot 180531JLM)	2,500.6	µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride		2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBJ2110)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%				+/-	151.2622	µg/mL	Stressed
25	n-Heptane (C7)		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBJ2424)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot SHBJ0707)			+/-	150.9115	µg/mL	Unstressed
	Purity 99%				+/-	151.2698	µg/mL	Stressed
27	Benzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBJ5344)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
28	Trichloroethene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBH1955V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
29	Methylcyclohexane		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBJ0457)			+/-	150.9341	µg/mL	Unstressed
	Purity 99%				+/-	151.2925	µg/mL	Stressed
30	1,2-Dichloropropane		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	150.8662	µg/mL	Unstressed
	Purity 99%				+/-	151.2244	µg/mL	Stressed
31	1,4-Dioxane		50,001.1	µg/mL	+/-	290.6957	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBJ7415)			+/-	3,016.7880	µg/mL	Unstressed
	Purity 99%				+/-	3,023.9503	µg/mL	Stressed
32	Dibromomethane		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 25076)			+/-	150.9190	µg/mL	Unstressed
	Purity 99%				+/-	151.2773	µg/mL	Stressed
34	Toluene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBJ5659)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%				+/-	151.2017	µg/mL	Stressed
35	Ethyl methacrylate		2,502.8	µg/mL	+/-	14.5512	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot 69796APV)			+/-	151.0020	µg/mL	Unstressed
	Purity 99%				+/-	151.3605	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,500.6	µg/mL	+/-	14.5387	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot C797620)			+/-	150.8718	µg/mL	Unstressed
	Purity 98%				+/-	151.2300	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	150.8587	µg/mL	Unstressed
	Purity 99%				+/-	151.2169	µg/mL	Stressed
38	1,3-Dichloropropane		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%				+/-	151.2471	µg/mL	Stressed
39	Tetrachloroethene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBH9691)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%				+/-	151.2547	µg/mL	Stressed

40	dibromochloromethane **CAS #** 124-48-1 **Purity** 98%	(Lot MKCC0877)	2,502.4 µg/mL	+/- 14.5493 +/- 150.9827 +/- 151.3411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBH3877V)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBH4459V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBJ2338)	1,251.5 µg/mL	+/- 7.2763 +/- 75.5085 +/- 75.6878	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	1,250.1 µg/mL	+/- 7.2683 +/- 75.4256 +/- 75.6047	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH7231)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8813 +/- 151.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKCC9766)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBG3138V)	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane **CAS #** 75-27-4 **Purity** 99%	(Lot MKCF8470)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene **CAS #** 110-57-6 **Purity** 94%	(Lot MKBX7788V)	2,500.0 µg/mL	+/- 14.5355 +/- 150.8389 +/- 151.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot WXBC3346V)	2,500.0 µg/mL	+/- 14.5352 +/- 150.8361 +/- 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,500.1	µg/mL	+/- 14.5359	µg/mL	Gravimetric
	CAS # 108-86-1	(Lot WXBC5147V)			+/- 150.8436	µg/mL	Unstressed
	Purity 99%				+/- 151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.5	µg/mL	+/- 14.5381	µg/mL	Gravimetric
	CAS # 108-67-8	(Lot BCBS7648V)			+/- 150.8662	µg/mL	Unstressed
	Purity 99%				+/- 151.2244	µg/mL	Stressed
58	2-Chlorotoluene		2,500.1	µg/mL	+/- 14.5359	µg/mL	Gravimetric
	CAS # 95-49-8	(Lot MKBW5554V)			+/- 150.8436	µg/mL	Unstressed
	Purity 99%				+/- 151.2017	µg/mL	Stressed
59	4-Chlorotoluene		2,500.9	µg/mL	+/- 14.5403	µg/mL	Gravimetric
	CAS # 106-43-4	(Lot MKBL7753V)			+/- 150.8889	µg/mL	Unstressed
	Purity 99%				+/- 151.2471	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/- 14.5359	µg/mL	Gravimetric
	CAS # 98-06-6	(Lot STBD6954V)			+/- 150.8436	µg/mL	Unstressed
	Purity 99%				+/- 151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,499.9	µg/mL	+/- 14.5348	µg/mL	Gravimetric
	CAS # 95-63-6	(Lot MKBH5027V)			+/- 150.8320	µg/mL	Unstressed
	Purity 97%				+/- 151.1901	µg/mL	Stressed
62	sec-Butylbenzene		2,501.1	µg/mL	+/- 14.5418	µg/mL	Gravimetric
	CAS # 135-98-8	(Lot MKBR9260V)			+/- 150.9040	µg/mL	Unstressed
	Purity 99%				+/- 151.2622	µg/mL	Stressed
63	p-Isopropyltoluene (p-Cymene)		2,501.1	µg/mL	+/- 14.5418	µg/mL	Gravimetric
	CAS # 99-87-6	(Lot MKBV3556V)			+/- 150.9040	µg/mL	Unstressed
	Purity 99%				+/- 151.2622	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,501.4	µg/mL	+/- 14.5432	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBQ7100V)			+/- 150.9190	µg/mL	Unstressed
	Purity 99%				+/- 151.2773	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,501.5	µg/mL	+/- 14.5439	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS4401V)			+/- 150.9266	µg/mL	Unstressed
	Purity 99%				+/- 151.2849	µg/mL	Stressed
66	n-Butylbenzene		2,501.0	µg/mL	+/- 14.5410	µg/mL	Gravimetric
	CAS # 104-51-8	(Lot 09804AE)			+/- 150.8964	µg/mL	Unstressed
	Purity 99%				+/- 151.2547	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,502.9	µg/mL	+/- 14.5519	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBG3111V)			+/- 151.0095	µg/mL	Unstressed
	Purity 99%				+/- 151.3681	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,502.0	µg/mL	+/- 14.5468	µg/mL	Gravimetric
	CAS # 96-12-8	(Lot FBL01)			+/- 150.9567	µg/mL	Unstressed
	Purity 99%				+/- 151.3151	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.1	µg/mL	+/- 14.5476	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBJ9215)			+/- 150.9643	µg/mL	Unstressed
	Purity 99%				+/- 151.3227	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.5	µg/mL	+/- 14.5439	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/- 150.9266	µg/mL	Unstressed
	Purity 99%				+/- 151.2849	µg/mL	Stressed
71	Naphthalene		2,502.8	µg/mL	+/- 14.5512	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBZ8680V)			+/- 151.0020	µg/mL	Unstressed
	Purity 99%				+/- 151.3605	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,502.5 µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot MKBX7627V)		+/-	150.9869	µg/mL	Unstressed
	Purity 99%			+/-	151.3454	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

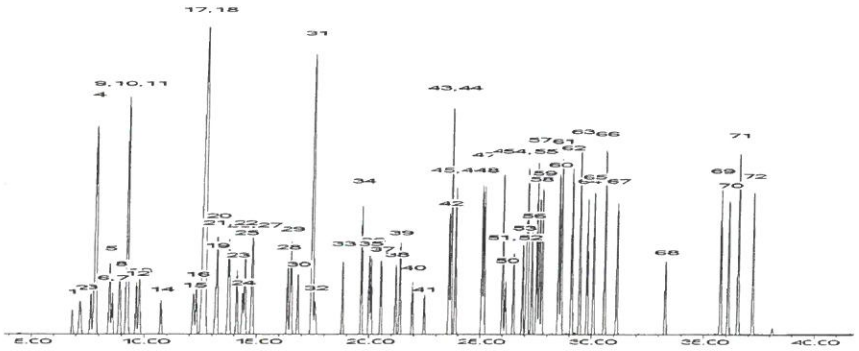
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician **Date Mixed:** 05-Dec-2018 **Balance:** B251644995

Diane Shaffer - Operations Tech-ARM QC **Date Passed:** 21-Dec-2018

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Reagent

VM571992_00005

Rc'd 4/19/21 VM571992_00005

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992 **Lot No.:** A0159680

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 (Lot SHBK7710) **Purity** 99%	2,518.8 µg/mL	+/- 14.6442 µg/mL +/- 151.9673 µg/mL +/- 152.3281 µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 (Lot 00016133) **Purity** 99%	2,523.8 µg/mL	+/- 14.6733 µg/mL +/- 152.2690 µg/mL +/- 152.6305 µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBK2437) **Purity** 99%	2,517.5 µg/mL	+/- 14.6370 µg/mL +/- 151.8919 µg/mL +/- 152.2525 µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 (Lot SHBL0592) **Purity** 99%	25,122.1 µg/mL	+/- 146.0546 µg/mL +/- 1,515.7284 µg/mL +/- 1,519.3270 µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9 (Lot SHBK5436) **Purity** 99%	5,041.4 µg/mL	+/- 29.3110 µg/mL +/- 304.1685 µg/mL +/- 304.8906 µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4 (Lot D4406-0122JM) **Purity** 99%	2,520.5 µg/mL	+/- 14.6544 µg/mL +/- 152.0729 µg/mL +/- 152.4340 µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 (Lot 191118KJ) **Purity** 99%	2,521.0 µg/mL	+/- 14.6573 µg/mL +/- 152.1031 µg/mL +/- 152.4642 µg/mL	Gravimetric Unstressed Stressed

Reagent

VM571992S_00007

VM571992S-00007 Rec; 2-21-20

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0144202

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 98%	2,517.0 µg/mL	+/- 14.6339 +/- 151.8598 +/- 152.2203	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,503.3 µg/mL	+/- 14.5546 +/- 151.0372 +/- 151.3958	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot XYXDO) **Purity** 98%	25,000.8 µg/mL	+/- 145.3491 +/- 1,508.4071 +/- 1,511.9883	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,002.3 µg/mL	+/- 29.0840 +/- 301.8129 +/- 302.5295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,511.7 µg/mL	+/- 14.6030 +/- 151.5400 +/- 151.8998	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC (Lot FGM02) **Purity** 99%	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide **CAS #** 75-15-0.SEC (Lot MKBL1376V) **Purity** 99%	2,500.7 µg/mL	+/- 14.5391 +/- 150.8763 +/- 151.2345	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile **CAS #** 107-13-1.SEC (Lot UERIL) **Purity** 99%	25,001.2 µg/mL	+/- 145.3513 +/- 1,508.4304 +/- 1,512.0117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether (MTBE) **CAS #** 1634-04-4.SEC (Lot ZHKYA) **Purity** 99%	2,501.5 µg/mL	+/- 14.5439 +/- 150.9266 +/- 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene **CAS #** 156-59-2.SEC (Lot HGC01-BLKT) **Purity** 98%	2,501.3 µg/mL	+/- 14.5427 +/- 150.9137 +/- 151.2720	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) **CAS #** 110-54-3.SEC (Lot K24W001) **Purity** 97%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane **CAS #** 75-34-3.SEC (Lot 5379000) **Purity** 99%	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane **CAS #** 594-20-7.SEC (Lot I7E8E) **Purity** 98%	2,503.2 µg/mL	+/- 14.5541 +/- 151.0320 +/- 151.3905	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene **CAS #** 156-60-5.SEC (Lot TS5UB) **Purity** 97%	2,501.0 µg/mL	+/- 14.5409 +/- 150.8954 +/- 151.2537	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) **CAS #** 78-83-1.SEC (Lot PH2XK) **Purity** 99%	62,508.3 µg/mL	+/- 363.4098 +/- 3,771.4029 +/- 3,780.3569	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Chloroform **CAS #** 67-66-3.SEC (Lot 1297547) **Purity** 99%	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane **CAS #** 74-97-5.SEC (Lot 5670200) **Purity** 99%	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran **CAS #** 109-99-9.SEC (Lot 8DAOJ) **Purity** 99%	5,006.7 µg/mL	+/- 29.1092 +/- 302.0744 +/- 302.7916	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-Trichloroethane **CAS #** 71-55-6.SEC (Lot 7998000) **Purity** 99%	2,507.7 µg/mL	+/- 14.5798 +/- 151.2986 +/- 151.6579	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane **CAS #** 110-82-7.SEC (Lot YADRA) **Purity** 99%	2,508.0 µg/mL	+/- 14.5817 +/- 151.3188 +/- 151.6780	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene **CAS #** 563-58-6.SEC (Lot 5221100) **Purity** 96%	2,502.4 µg/mL	+/- 14.5492 +/- 150.9809 +/- 151.3393	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Carbon tetrachloride		2,510.3	µg/mL	+/-	14.5953	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	151.4595	µg/mL	Unstressed
	Purity 99%				+/-	151.8191	µg/mL	Stressed
25	n-Heptane (C7)		2,511.8	µg/mL	+/-	14.6040	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	151.5500	µg/mL	Unstressed
	Purity 99%				+/-	151.9098	µg/mL	Stressed
26	1,2-Dichloroethane		2,501.3	µg/mL	+/-	14.5430	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot FO6PK)			+/-	150.9165	µg/mL	Unstressed
	Purity 99%				+/-	151.2748	µg/mL	Stressed
27	Benzene		2,504.8	µg/mL	+/-	14.5633	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	151.1277	µg/mL	Unstressed
	Purity 99%				+/-	151.4865	µg/mL	Stressed
28	Trichloroethene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
29	Methylcyclohexane		2,504.5	µg/mL	+/-	14.5614	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot Q02QG)			+/-	151.1076	µg/mL	Unstressed
	Purity 99%				+/-	151.4663	µg/mL	Stressed
30	1,2-Dichloropropane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	151.0774	µg/mL	Unstressed
	Purity 99%				+/-	151.4361	µg/mL	Stressed
31	1,4-Dioxane		50,008.0	µg/mL	+/-	290.7356	µg/mL	Gravimetric
	CAS # 123-91-1.SEC	(Lot YVP2C)			+/-	3,017.2028	µg/mL	Unstressed
	Purity 99%				+/-	3,024.3661	µg/mL	Stressed
32	Dibromomethane		2,509.5	µg/mL	+/-	14.5904	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot FGI01-OICH)			+/-	151.4093	µg/mL	Unstressed
	Purity 99%				+/-	151.7687	µg/mL	Stressed
33	cis-1,3-Dichloropropene		2,502.0	µg/mL	+/-	14.5468	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	150.9567	µg/mL	Unstressed
	Purity 99%				+/-	151.3151	µg/mL	Stressed
34	Toluene		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%				+/-	151.2849	µg/mL	Stressed
35	Ethyl methacrylate		2,508.8	µg/mL	+/-	14.5866	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	151.3690	µg/mL	Unstressed
	Purity 99%				+/-	151.7284	µg/mL	Stressed
36	trans-1,3-Dichloropropene		2,502.9	µg/mL	+/-	14.5520	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	151.0098	µg/mL	Unstressed
	Purity 96%				+/-	151.3684	µg/mL	Stressed
37	1,1,2-Trichloroethane		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	150.9869	µg/mL	Unstressed
	Purity 99%				+/-	151.3454	µg/mL	Stressed
38	1,3-Dichloropropane		2,502.7	µg/mL	+/-	14.5507	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	150.9970	µg/mL	Unstressed
	Purity 99%				+/-	151.3555	µg/mL	Stressed
39	Tetrachloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	151.1378	µg/mL	Unstressed
	Purity 99%				+/-	151.4966	µg/mL	Stressed

40	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	(Lot 10206360)	2,502.4 µg/mL	+/- 14.5494 +/- 150.9832 +/- 151.3417	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	(Lot 3505900)	2,503.3 µg/mL	+/- 14.5546 +/- 151.0372 +/- 151.3958	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	(Lot 1161936)	2,504.8 µg/mL	+/- 14.5633 +/- 151.1277 +/- 151.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	(Lot OUKMG-GB)	1,251.7 µg/mL	+/- 7.2941 +/- 75.5202 +/- 75.6995	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	(Lot GM01)	1,253.7 µg/mL	+/- 7.3058 +/- 75.6409 +/- 75.8205	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene **CAS #** 100-41-4.SEC **Purity** 99%	(Lot PI4SE)	2,503.5 µg/mL	+/- 14.5556 +/- 151.0472 +/- 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	(Lot GC01)	2,506.7 µg/mL	+/- 14.5740 +/- 151.2383 +/- 151.5974	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	(Lot FGL01)	2,504.2 µg/mL	+/- 14.5594 +/- 151.0875 +/- 151.4462	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene **CAS #** 100-42-5.SEC **Purity** 99%	(Lot OFIOL-IA)	2,507.2 µg/mL	+/- 14.5769 +/- 151.2685 +/- 151.6276	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) **CAS #** 98-82-8.SEC **Purity** 99%	(Lot 2PHXG-IH)	2,505.2 µg/mL	+/- 14.5653 +/- 151.1478 +/- 151.5067	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform **CAS #** 75-25-2.SEC **Purity** 97%	(Lot 5461400)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8661 +/- 151.2243	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 98%	(Lot 13780)	2,501.3 µg/mL	+/- 14.5427 +/- 150.9137 +/- 151.2720	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5.SEC **Purity** 99%	(Lot CFA4D-AQ)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane **CAS #** 96-18-4.SEC **Purity** 99%	(Lot GUHZN)	2,505.7 µg/mL	+/- 14.5682 +/- 151.1780 +/- 151.5369	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene **CAS #** 110-57-6.SEC **Purity** 98%	(Lot 100700-3)	2,514.2 µg/mL	+/- 14.6177 +/- 151.6922 +/- 152.0524	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene **CAS #** 103-65-1.SEC **Purity** 99%	(Lot T2HFC)	2,503.7 µg/mL	+/- 14.5565 +/- 151.0573 +/- 151.4159	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,506.2	µg/mL	+/-	14.5711	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	151.2081	µg/mL	Unstressed
	Purity 99%				+/-	151.5671	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,510.0	µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot FGH02-CMLN)			+/-	151.4394	µg/mL	Unstressed
	Purity 99%				+/-	151.7990	µg/mL	Stressed
58	2-Chlorotoluene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot SW8QG-AO)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
59	4-Chlorotoluene		2,509.2	µg/mL	+/-	14.5885	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot P4XHJ-AO)			+/-	151.3891	µg/mL	Unstressed
	Purity 99%				+/-	151.7486	µg/mL	Stressed
60	tert-Butylbenzene		2,505.8	µg/mL	+/-	14.5691	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/-	151.1880	µg/mL	Unstressed
	Purity 99%				+/-	151.5470	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,508.7	µg/mL	+/-	14.5856	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/-	151.3590	µg/mL	Unstressed
	Purity 99%				+/-	151.7183	µg/mL	Stressed
62	sec-Butylbenzene		2,504.7	µg/mL	+/-	14.5623	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot OGN01-IMA)			+/-	151.1176	µg/mL	Unstressed
	Purity 99%				+/-	151.4764	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,500.3	µg/mL	+/-	14.5372	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/-	150.8562	µg/mL	Unstressed
	Purity 99%				+/-	151.2143	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,506.3	µg/mL	+/-	14.5720	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/-	151.2182	µg/mL	Unstressed
	Purity 99%				+/-	151.5772	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,509.8	µg/mL	+/-	14.5924	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot 4Y5DC)			+/-	151.4294	µg/mL	Unstressed
	Purity 99%				+/-	151.7889	µg/mL	Stressed
66	n-Butylbenzene		2,513.7	µg/mL	+/-	14.6147	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/-	151.6607	µg/mL	Unstressed
	Purity 99%				+/-	152.0207	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.8	µg/mL	+/-	14.5459	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/-	150.9467	µg/mL	Unstressed
	Purity 99%				+/-	151.3051	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,508.5	µg/mL	+/-	14.5845	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot LC00408V)			+/-	151.3473	µg/mL	Unstressed
	Purity 98%				+/-	151.7066	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot 3LYYC)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed
70	Hexachlorobutadiene		2,504.4	µg/mL	+/-	14.5607	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 5526800)			+/-	151.1002	µg/mL	Unstressed
	Purity 97%				+/-	151.4590	µg/mL	Stressed
71	Naphthalene		2,503.3	µg/mL	+/-	14.5546	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot 4KW3H-OO)			+/-	151.0372	µg/mL	Unstressed
	Purity 99%				+/-	151.3958	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,512.2	µg/mL	+/-	14.6063	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	151.5740	µg/mL	Unstressed
	Purity 98%				+/-	151.9338	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

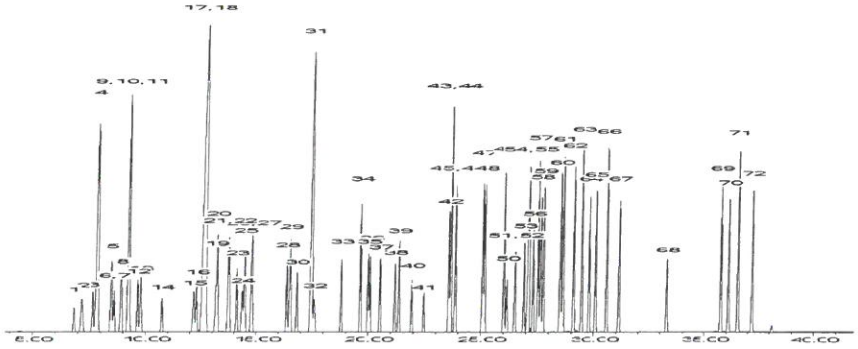
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 17-Dec-2018 **Balance:** 1127510105

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 21-Dec-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Reagent

VM571992S_00008

Rec'd 6/10/21 VM571992S 00058

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 571992.SEC **Lot No.:** A0167172

Description : 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2023 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Nominal Concentration (weight/volume)	Expanded Uncertainty (95% C.L., k=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC (Lot F23X068) **Purity** 99%	2,501.7 µg/mL	+/- 14.5449 +/- 150.9366 +/- 151.2950	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC (Lot 18342) **Purity** 99%	2,500.8 µg/mL	+/- 14.5401 +/- 150.8864 +/- 151.2446	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC (Lot 7692300) **Purity** 99%	2,501.2 µg/mL	+/- 14.5420 +/- 150.9065 +/- 151.2647	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC (Lot HGCHN) **Purity** 99%	25,001.2 µg/mL	+/- 145.3513 +/- 1,508.4304 +/- 1,512.0117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Methyl acetate **CAS #** 79-20-9.SEC (Lot UCNEL) **Purity** 99%	5,000.2 µg/mL	+/- 29.0714 +/- 301.6822 +/- 302.3985	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC (Lot Y25A027) **Purity** 99%	2,501.0 µg/mL	+/- 14.5410 +/- 150.8964 +/- 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC (Lot H3HGC) **Purity** 99%	2,501.7 µg/mL	+/- 14.5449 +/- 150.9366 +/- 151.2950	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
W-3-N/100421/	240-157477-1	92	119	91	76
W-4-N/100421/	240-157477-2	95	119	93	76
W-2-N/100421/	240-157477-3	93	120	94	75
HR-4/100421/	240-157477-4	92	122	92	74
DUP-1/100421/	240-157477-5	92	120	93	75
	MB 240-507379/7	87	114	94	84
	MB 240-507592/7	88	117	93	82
	LCS 240-507379/4	88	108	100	100
	LCS 240-507592/4	87	107	101	99
HR-4/100421/ MS	240-157477-4 MS	91	110	101	97
HR-4/100421/ MSD	240-157477-4 MSD	87	108	104	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	73-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-137
TOL = Toluene-d8 (Surr)	78-122
BFB = 4-Bromofluorobenzene (Surr)	56-136

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9917.D

Lab ID: LCS 240-507379/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	20.5	102	80-121	
1,1,1-Trichloroethane	10.0	9.11	91	64-131	
1,1-Dichloroethane	10.0	10.9	109	72-127	
1,1-Dichloroethene	10.0	9.14	91	63-134	
Benzene	10.0	10.5	105	77-123	
cis-1,2-Dichloroethene	10.0	9.75	97	77-123	
Ethylbenzene	10.0	10.4	104	80-121	
Tetrachloroethene	10.0	9.21	92	76-123	
Toluene	10.0	10.7	107	80-123	
trans-1,2-Dichloroethene	10.0	9.80	98	75-124	
Trichloroethene	10.0	9.29	93	70-122	
Vinyl chloride	10.0	8.25	83	60-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9946.D

Lab ID: LCS 240-507592/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	20.9	105	80-121	
1,1,1-Trichloroethane	10.0	9.39	94	64-131	
1,1-Dichloroethane	10.0	11.0	110	72-127	
1,1-Dichloroethene	10.0	9.30	93	63-134	
Benzene	10.0	11.1	111	77-123	
cis-1,2-Dichloroethene	10.0	10.1	101	77-123	
Ethylbenzene	10.0	10.6	106	80-121	
Tetrachloroethene	10.0	9.55	96	76-123	
Toluene	10.0	11.2	112	80-123	
trans-1,2-Dichloroethene	10.0	10.0	100	75-124	
Trichloroethene	10.0	9.69	97	70-122	
Vinyl chloride	10.0	10.3	103	60-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9942.D

Lab ID: 240-157477-4 MS Client ID: HR-4/100421/ MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Xylenes, Total	20.0	2.0 U	19.2	96	71-123	
1,1,1-Trichloroethane	10.0	1.9	10.6	87	60-130	
1,1-Dichloroethane	10.0	1.9	12.6	107	68-125	
1,1-Dichloroethene	10.0	1.0 U	9.65	96	56-135	
Benzene	10.0	1.0 U	10.3	103	64-128	
cis-1,2-Dichloroethene	10.0	0.71 J	10.3	96	66-128	
Ethylbenzene	10.0	1.0 U	9.81	98	67-127	
Tetrachloroethene	10.0	1.0 U	8.83	88	62-131	
Toluene	10.0	1.0 U	10.8	108	58-135	
trans-1,2-Dichloroethene	10.0	1.0 U	9.56	96	56-136	
Trichloroethene	10.0	1.0 U	9.13	91	61-124	
Vinyl chloride	10.0	1.0 U	8.99	90	43-157	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Matrix: Water Level: Low Lab File ID: UXC9943.D

Lab ID: 240-157477-4 MSD Client ID: HR-4/100421/ MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Xylenes, Total	20.0	19.3	96	0	15	71-123	
1,1,1-Trichloroethane	10.0	10.3	84	2	17	60-130	
1,1-Dichloroethane	10.0	12.1	102	4	13	68-125	
1,1-Dichloroethene	10.0	8.66	87	11	26	56-135	
Benzene	10.0	10.3	103	0	14	64-128	
cis-1,2-Dichloroethene	10.0	10.0	93	3	14	66-128	
Ethylbenzene	10.0	9.89	99	1	15	67-127	
Tetrachloroethene	10.0	9.05	91	3	20	62-131	
Toluene	10.0	10.8	108	0	14	58-135	
trans-1,2-Dichloroethene	10.0	9.53	95	0	15	56-136	
Trichloroethene	10.0	8.96	90	2	15	61-124	
Vinyl chloride	10.0	8.22	82	9	24	43-157	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab File ID: UXC9921.D Lab Sample ID: MB 240-507379/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 10/08/2021 12:02

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-507379/4	UXC9917.D	10/08/2021 10:34
W-4-N/100421/	240-157477-2	UXC9939.D	10/08/2021 19:02
W-2-N/100421/	240-157477-3	UXC9940.D	10/08/2021 19:24
HR-4/100421/	240-157477-4	UXC9941.D	10/08/2021 19:46
HR-4/100421/ MS	240-157477-4 MS	UXC9942.D	10/08/2021 20:08
HR-4/100421/ MSD	240-157477-4 MSD	UXC9943.D	10/08/2021 20:30

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab File ID: UXC9950.D Lab Sample ID: MB 240-507592/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX15 Date Analyzed: 10/11/2021 11:10

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-507592/4	UXC9946.D	10/11/2021 09:43
W-3-N/100421/	240-157477-1	UXC9959.D	10/11/2021 14:27
DUP-1/100421/	240-157477-5	UXC9960.D	10/11/2021 14:49

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab File ID: BFB210316.D BFB Injection Date: 03/16/2021

Instrument ID: A3UX15 BFB Injection Time: 07:33

Analysis Batch No.: 476941

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.8	
75	30.0 - 60.0 % of mass 95	49.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	Greater than 50% of mass 95	92.8	
175	5.0 - 9.0 % of mass 174	6.1	(6.6) 1
176	95.0 - 101.0 % of mass 174	90.7	(97.7) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD8260 240-476941/2	UXC5644.D	03/16/2021	8:36
	STD8260 240-476941/3	UXC5645.D	03/16/2021	8:58
	STD8260 240-476941/4	UXC5646.D	03/16/2021	9:20
	STD8260 240-476941/5	UXC5647.D	03/16/2021	9:42
	STD8260 240-476941/6	UXC5648.D	03/16/2021	10:17
	STD8260 240-476941/7	UXC5649.D	03/16/2021	10:39
	ICV 240-476941/14	UXC5650.D	03/16/2021	11:01
	ICV 240-476941/15	UXC5657.D	03/16/2021	13:34

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab File ID: BFB1008.D BFB Injection Date: 10/08/2021

Instrument ID: A3UX15 BFB Injection Time: 09:43

Analysis Batch No.: 507379

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.5	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	Greater than 50% of mass 95	80.1	
175	5.0 - 9.0 % of mass 174	5.3	(6.7) 1
176	95.0 - 101.0 % of mass 174	77.0	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-507379/2	UXC9916.D	10/08/2021	10:12
	LCS 240-507379/4	UXC9917.D	10/08/2021	10:34
	CCV 240-507379/3	UXC9918.D	10/08/2021	10:56
	MB 240-507379/7	UXC9921.D	10/08/2021	12:02
W-4-N/100421/	240-157477-2	UXC9939.D	10/08/2021	19:02
W-2-N/100421/	240-157477-3	UXC9940.D	10/08/2021	19:24
HR-4/100421/	240-157477-4	UXC9941.D	10/08/2021	19:46
HR-4/100421/ MS	240-157477-4 MS	UXC9942.D	10/08/2021	20:08
HR-4/100421/ MSD	240-157477-4 MSD	UXC9943.D	10/08/2021	20:30

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab File ID: BFB1011.D BFB Injection Date: 10/11/2021

Instrument ID: A3UX15 BFB Injection Time: 08:54

Analysis Batch No.: 507592

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	50.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	Greater than 50% of mass 95	78.4	
175	5.0 - 9.0 % of mass 174	5.2	(6.7) 1
176	95.0 - 101.0 % of mass 174	76.1	(97.1) 1
177	5.0 - 9.0 % of mass 176	4.9	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 240-507592/2	UXC9945.D	10/11/2021	9:21
	LCS 240-507592/4	UXC9946.D	10/11/2021	9:43
	CCV 240-507592/3	UXC9947.D	10/11/2021	10:05
	MB 240-507592/7	UXC9950.D	10/11/2021	11:10
W-3-N/100421/	240-157477-1	UXC9959.D	10/11/2021	14:27
DUP-1/100421/	240-157477-5	UXC9960.D	10/11/2021	14:49

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Sample No.: STD8260 240-476941/4 Date Analyzed: 03/16/2021 09:20

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC5646.D Heated Purge: (Y/N) N

Calibration ID: 60823

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1635381	5.00	1083691	7.66	639882	9.90
UPPER LIMIT		3270762	5.50	2167382	8.16	1279764	10.40
LOWER LIMIT		817691	4.50	541846	7.16	319941	9.40
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 240-476941/14		1567389	5.00	1054688	7.66	623148	9.90
ICV 240-476941/15		1522004	5.00	1034257	7.66	604775	9.90
CCVIS 240-507379/2		1775696	4.99	1282332	7.66	700798	9.89
240-157477-3	W-2-N/100421/	1452220	4.99	1020404	7.66	473755	9.89
CCVIS 240-507592/2		1948739	4.99	1425825	7.66	774100	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Sample No.: CCVIS 240-507379/2 Date Analyzed: 10/08/2021 10:12

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9916.D Heated Purge: (Y/N) N

Calibration ID: 60825

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1775696	4.99	1282332	7.66	700798	9.89
UPPER LIMIT		3551392	5.49	2564664	8.16	1401596	10.39
LOWER LIMIT		887848	4.49	641166	7.16	350399	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-507379/4		1734705	4.99	1259192	7.66	701641	9.89
CCV 240-507379/3		1681250	4.99	1271056	7.66	609374	9.89
MB 240-507379/7		1606868	4.99	1187492	7.66	587709	9.89
240-157477-2	W-4-N/100421/	1454776	4.99	1053154	7.66	495345	9.89
240-157477-3	W-2-N/100421/	1452220	4.99	1020404	7.66	473755	9.89
240-157477-4	HR-4/100421/	1451313	4.99	1038905	7.66	473319	9.89
240-157477-4 MS	HR-4/100421/ MS	1635891	4.99	1142988	7.66	654582	9.89
240-157477-4 MSD	HR-4/100421/ MSD	1693896	4.99	1173429	7.66	661372	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Sample No.: CCVIS 240-507592/2 Date Analyzed: 10/11/2021 09:21

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): UXC9945.D Heated Purge: (Y/N) N

Calibration ID: 60825

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		1948739	4.99	1425825	7.66	774100	9.89
UPPER LIMIT		3897478	5.49	2851650	8.16	1548200	10.39
LOWER LIMIT		974370	4.49	712913	7.16	387050	9.39
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 240-507592/4		1889156	4.99	1368722	7.66	754760	9.89
CCV 240-507592/3		1789126	4.99	1395909	7.66	669327	9.89
MB 240-507592/7		1633823	4.99	1222030	7.66	610519	9.89
240-157477-1	W-3-N/100421/	1546846	4.99	1132293	7.66	522062	9.89
240-157477-5	DUP-1/100421/	1509707	4.99	1104366	7.66	526818	9.89

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: W-3-N/100421/ | Lab Sample ID: 240-157477-1

Matrix: Water | Lab File ID: UXC9959.D

Analysis Method: 8260B | Date Collected: 10/04/2021 13:20

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 14:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	13		1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.2		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	76		56-136
1868-53-7	Dibromofluoromethane (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		62-137
2037-26-5	Toluene-d8 (Surr)	91		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9959.D
Lims ID: 240-157477-A-1
Client ID: W-3-N/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:27:30 ALS Bottle#: 15 Worklist Smp#: 46
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-046
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:58:44

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1546846	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1132293	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	522062	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	333504	9.22	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	483419	11.9	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1258134	9.07	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	358829	7.64	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62	1.645	1.657	-0.012	98	54126	1.19	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		2.001				ND	
	16 Trichlorofluoromethane	101		2.214				ND	
	19 1,1-Dichloroethene	96		2.618				ND	
	20 112TCTFE	151		2.618				ND	
	21 Acetone	58	2.653	2.641	0.012	99	3336	1.07	
	24 Carbon disulfide	76		2.819				ND	7
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		2.997				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	9980	0.2235	
	35 1,1-Dichloroethane	63		3.566				ND	
	41 cis-1,2-Dichloroethene	96	4.040	4.041	-0.001	81	620726	13.2	
	40 2-Butanone (MEK)	72		4.053				ND	
	48 Chloroform	83		4.302				ND	
	49 1,1,1-Trichloroethane	97		4.456				ND	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.776	4.764	0.012	93	26271	0.1548	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130	5.309	5.298	0.011	91	7715	0.1692	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.725				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.898	6.899	-0.001	93	5843	0.1657	
78 2-Hexanone	43		6.982				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

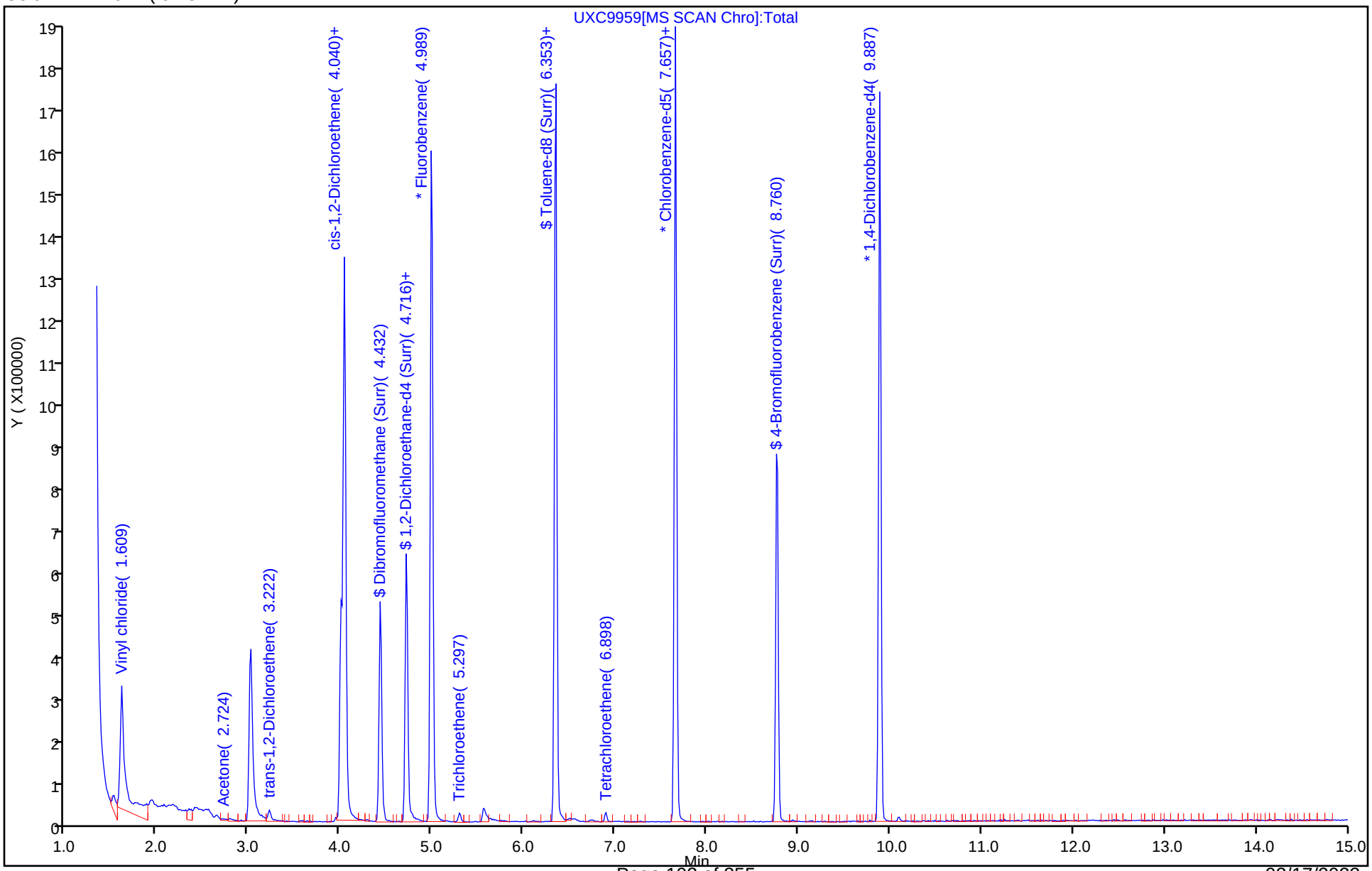
Report Date: 12-Oct-2021 11:13:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9959.D

Injection Date:	11-Oct-2021 14:27:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-A-1	Lab Sample ID:	240-157477-1	Worklist Smp#:	46
Client ID:	W-3-N/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9959.D
Lims ID: 240-157477-A-1
Client ID: W-3-N/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:27:30 ALS Bottle#: 15 Worklist Smp#: 46
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-046
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:58:44

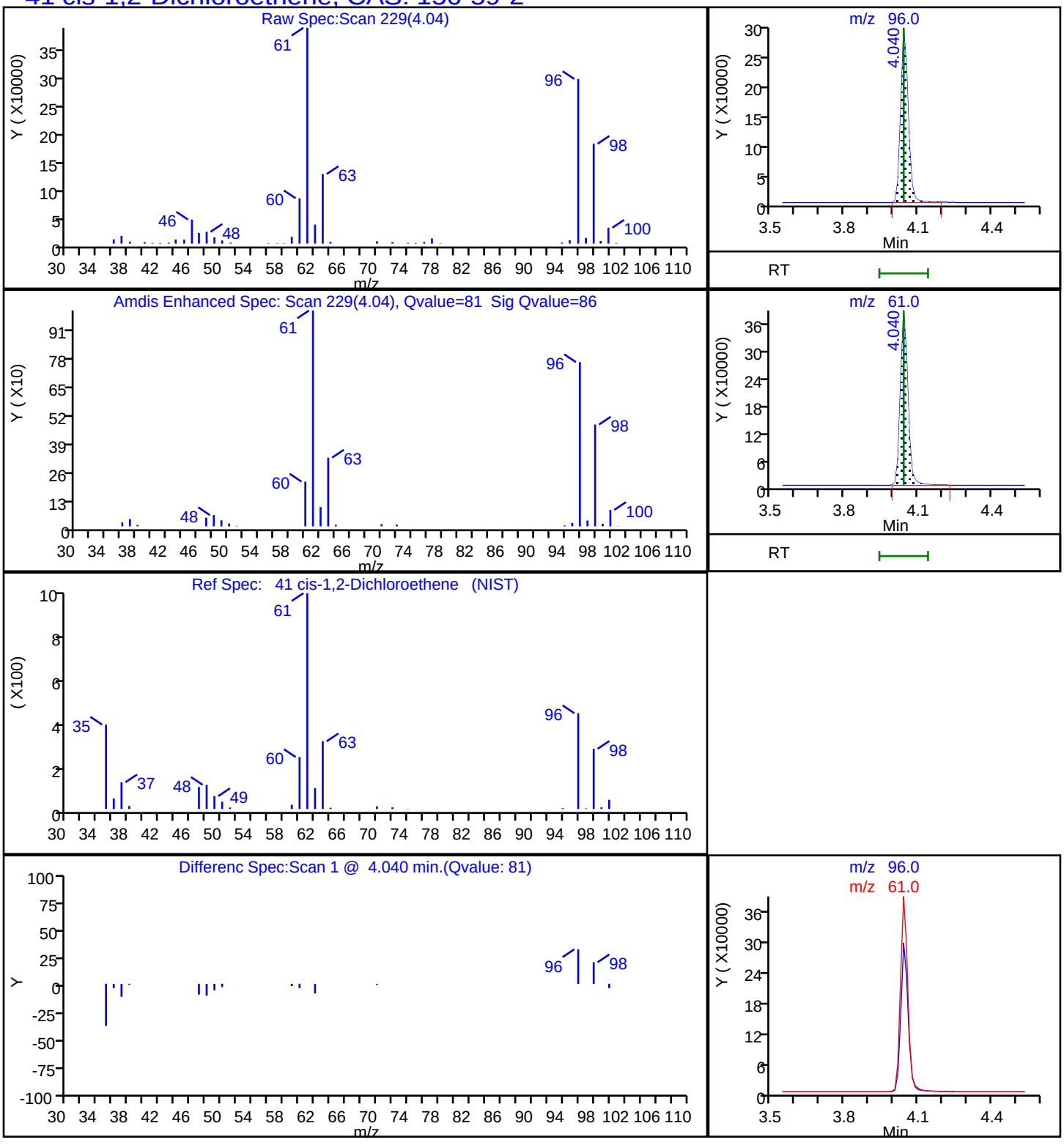
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.22	92.24
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.9	118.69
$ 6 Toluene-d8 (Surr)	10.0	9.07	90.67
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.64	76.45

Report Date: 12-Oct-2021 11:13:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9959.D				
Injection Date:	11-Oct-2021 14:27:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-A-1	Lab Sample ID:	240-157477-1		
Client ID:	W-3-N/100421/				
Operator ID:	43582	ALS Bottle#:	15	Worklist Smp#:	46
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

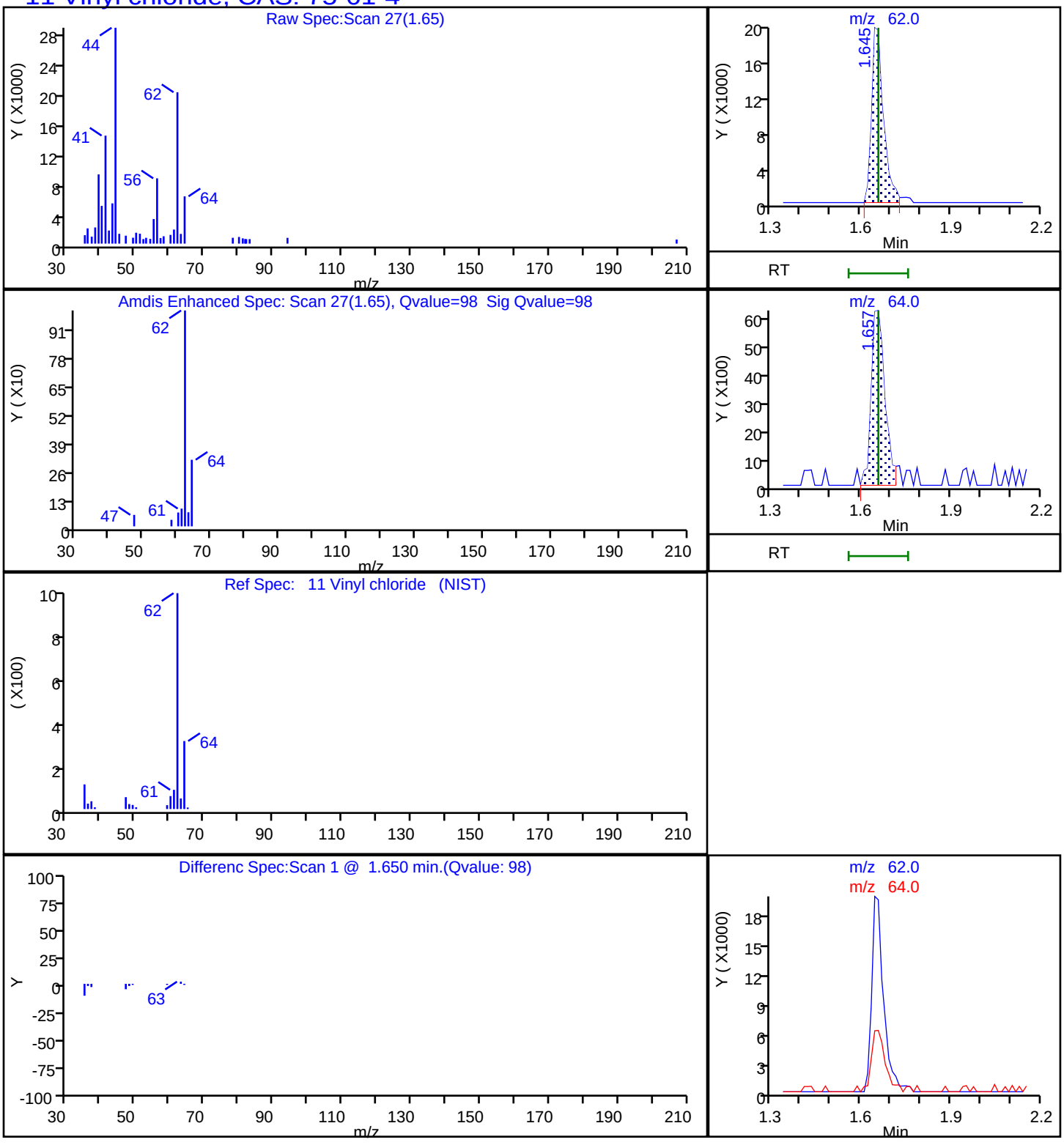


Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9959.D

Injection Date:	11-Oct-2021 14:27:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-A-1	Lab Sample ID:	240-157477-1		
Client ID:	W-3-N/100421/				
Operator ID:	43582	ALS Bottle#:	15	Worklist Smp#:	46
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Vinyl chloride, CAS: 75-01-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: W-4-N/100421/ | Lab Sample ID: 240-157477-2

Matrix: Water | Lab File ID: UXC9939.D

Analysis Method: 8260B | Date Collected: 10/04/2021 11:20

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 19:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	9.0		1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	8.9		1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	0.60	J	1.0	0.51
79-01-6	Trichloroethene	7.0		1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	76		56-136
1868-53-7	Dibromofluoromethane (Surr)	95		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		62-137
2037-26-5	Toluene-d8 (Surr)	93		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D
Lims ID: 240-157477-B-2
Client ID: W-4-N/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 19:02:30 ALS Bottle#: 24 Worklist Smp#: 60
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-060
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:45:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1454776	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1053154	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	495345	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	323794	9.52	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	100	454921	11.9	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1199560	9.29	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	330960	7.58	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62		1.657				ND	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		1.989				ND	
16 Trichlorofluoromethane	101		2.202				ND	
19 1,1-Dichloroethene	96		2.606				ND	
20 112TCTFE	151	2.618	2.617	0.001	94	105453	3.01	
21 Acetone	58	2.641	2.641	0.000	100	5502	1.87	
24 Carbon disulfide	76		2.807				ND	
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		3.009				ND	
31 Methyl tert-butyl ether	73		3.222				ND	7
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	96	25161	0.5990	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	599637	9.01	
41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	81	394949	8.90	
40 2-Butanone (MEK)	72		4.052				ND	
48 Chloroform	83		4.301				ND	
49 1,1,1-Trichloroethane	97		4.456				ND	7
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	91	16896	0.1059	
56 1,2-Dichloroethane	62		4.788				ND	7
60 Trichloroethene	130	5.298	5.297	0.001	97	301956	7.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.899	6.898	0.001	96	9932	0.3029	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

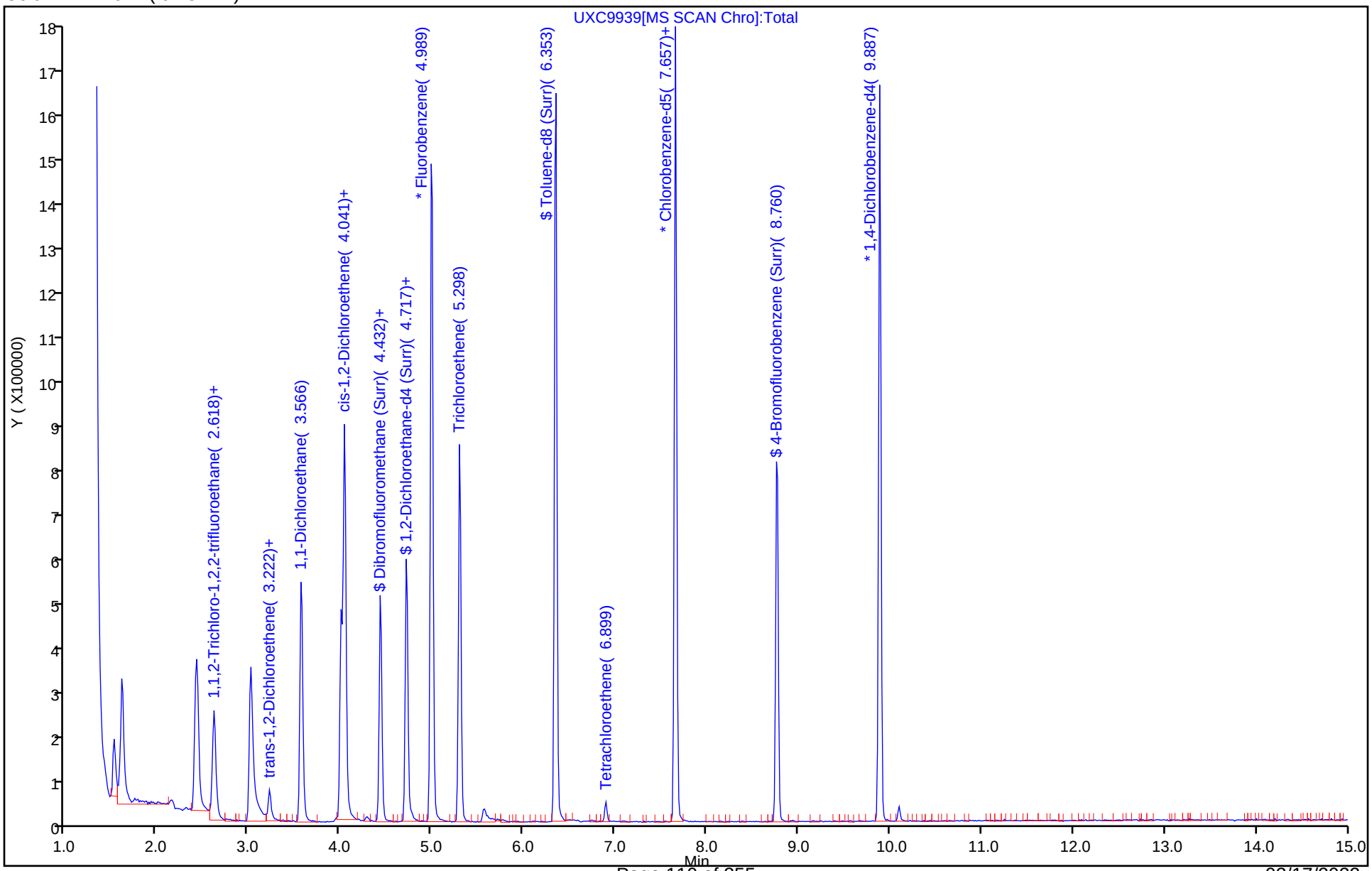
Report Date: 11-Oct-2021 07:48:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D

Injection Date:	08-Oct-2021 19:02:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-B-2	Lab Sample ID:	240-157477-2	Worklist Smp#:	60
Client ID:	W-4-N/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D				
Lims ID:	240-157477-B-2				
Client ID:	W-4-N/100421/				
Sample Type:	Client				
Inject. Date:	08-Oct-2021 19:02:30	ALS Bottle#:	24	Worklist Smp#:	60
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	240-0113940-060				
Misc. Info.:	C211008A,8260LLUX15,,43582				
Operator ID:	43582	Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	11-Oct-2021 07:47:11	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1633				

First Level Reviewer: evansle Date: 11-Oct-2021 07:45:04

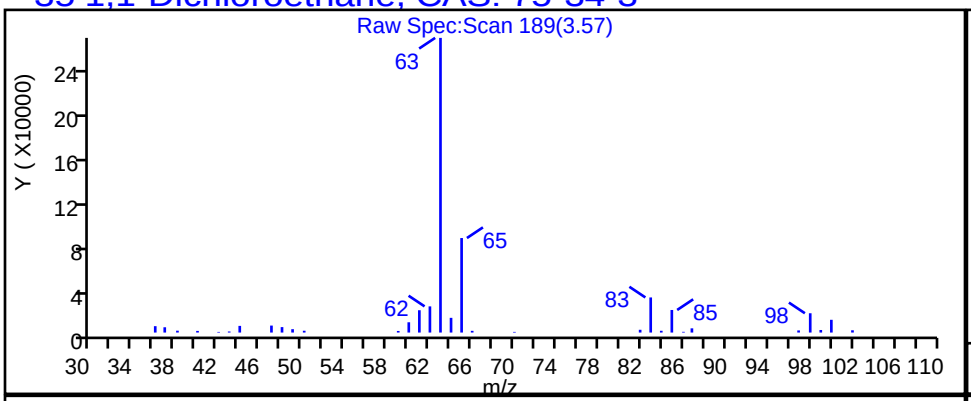
Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.52	95.22
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.9	118.76
$ 6 Toluene-d8 (Surr)	10.0	9.29	92.94
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.58	75.81

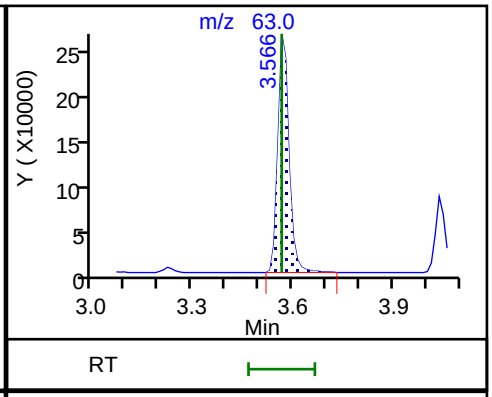
Eurofins TestAmerica, Canton

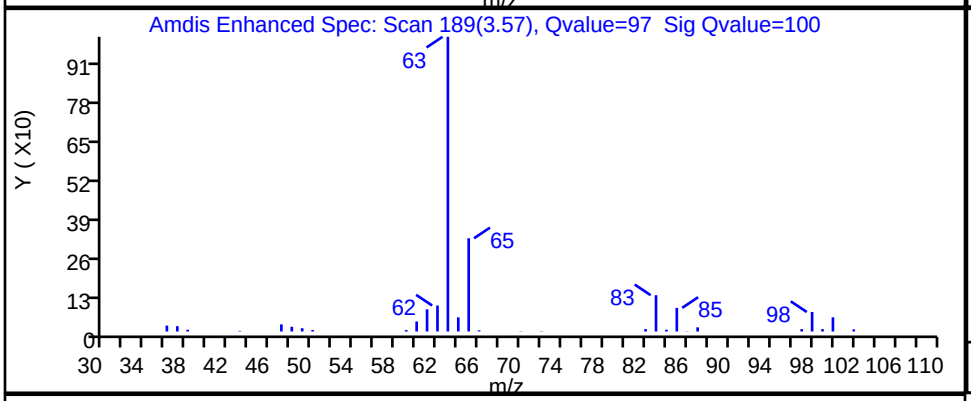
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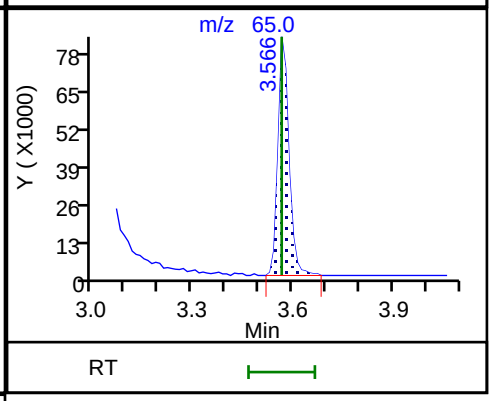
Injection Date:	08-Oct-2021 19:02:30	Instrument ID:	A3UX15
Lims ID:	240-157477-B-2	Lab Sample ID:	240-157477-2
Client ID:	W-4-N/100421/		
Operator ID:	43582	ALS Bottle#:	24 Worklist Smp#: 60
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_15	Limit Group:	MSV 8260B ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

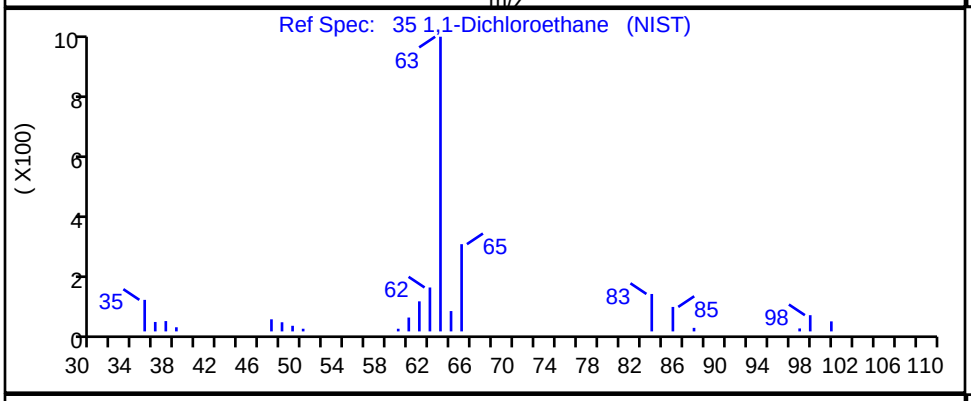
35 1,1-Dichloroethane, CAS: 75-34-3

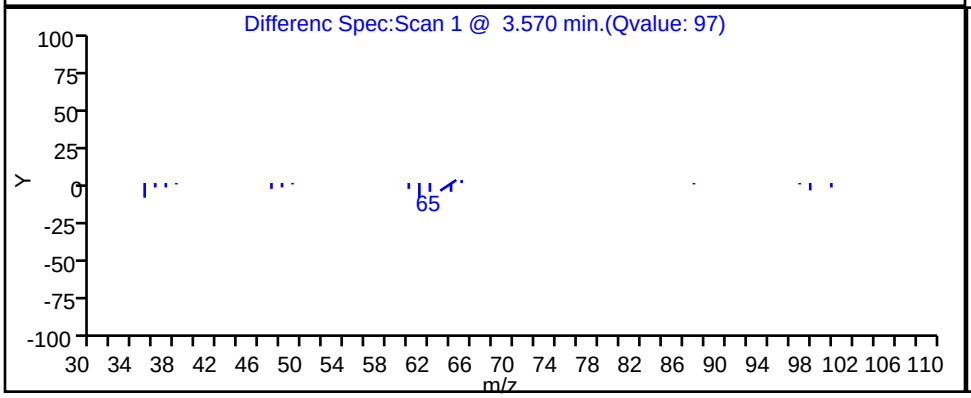


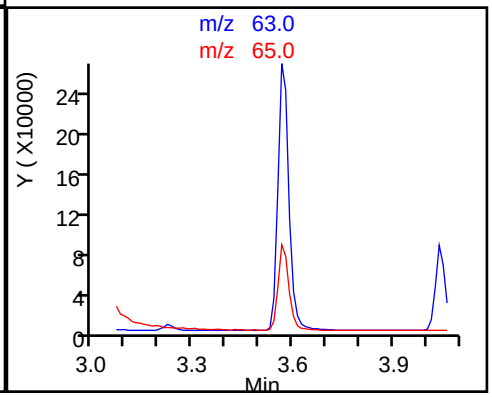








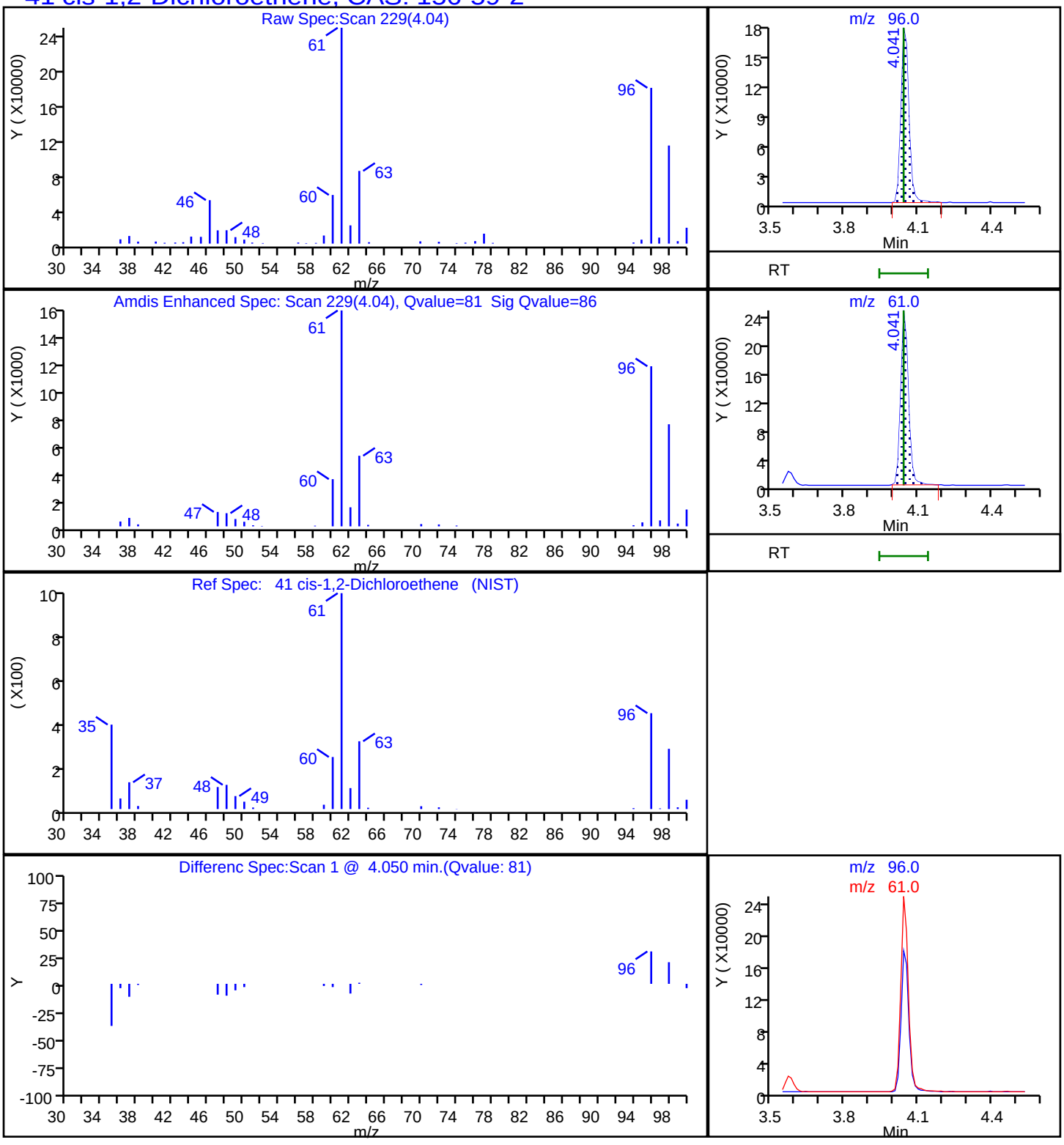




Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D				
Injection Date:	08-Oct-2021 19:02:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-2	Lab Sample ID:	240-157477-2		
Client ID:	W-4-N/100421/				
Operator ID:	43582	ALS Bottle#:	24	Worklist Smp#:	60
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

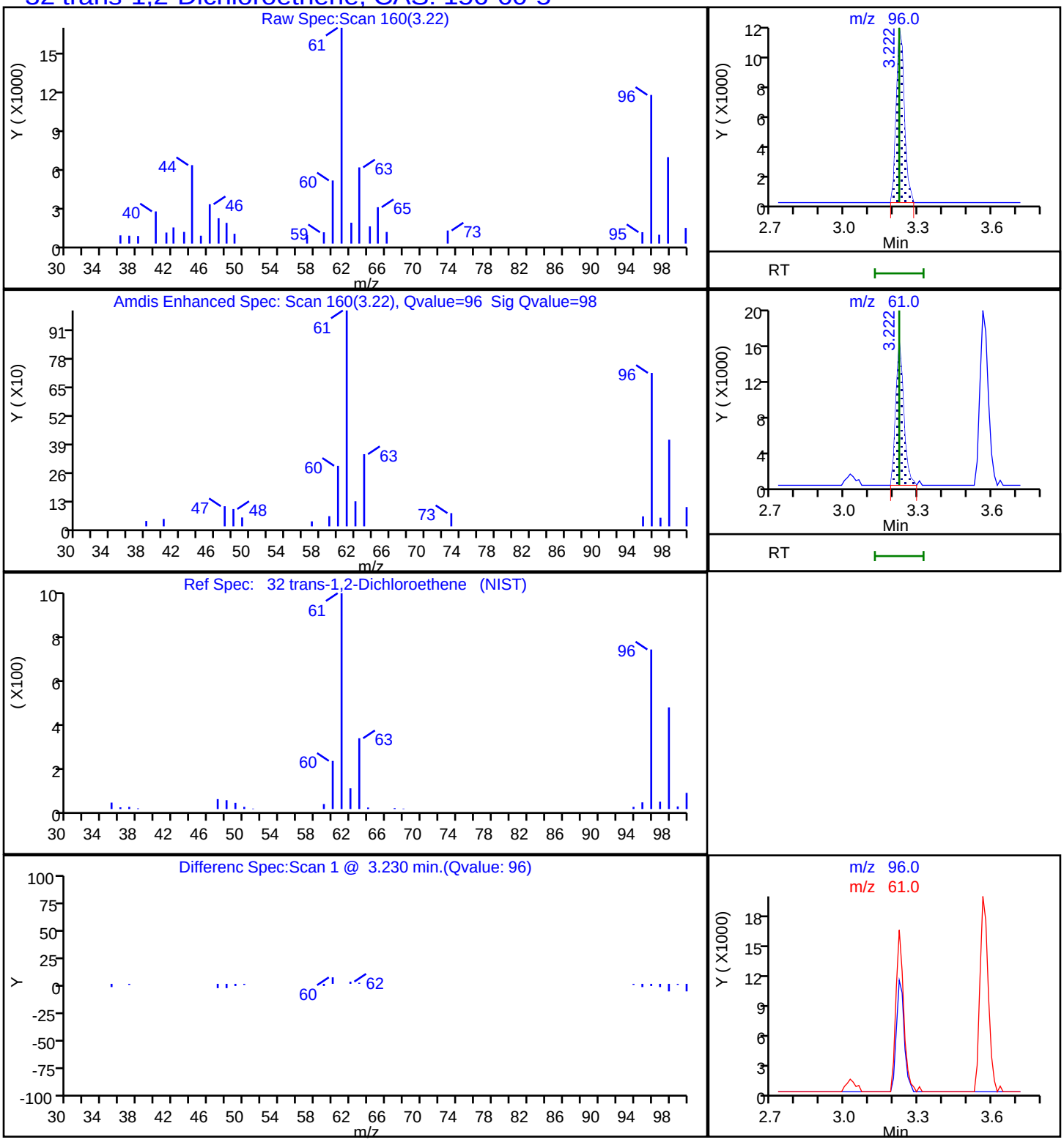
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D				
Injection Date:	08-Oct-2021 19:02:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-2	Lab Sample ID:	240-157477-2		
Client ID:	W-4-N/100421/				
Operator ID:	43582	ALS Bottle#:	24	Worklist Smp#:	60
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 trans-1,2-Dichloroethene, CAS: 156-60-5

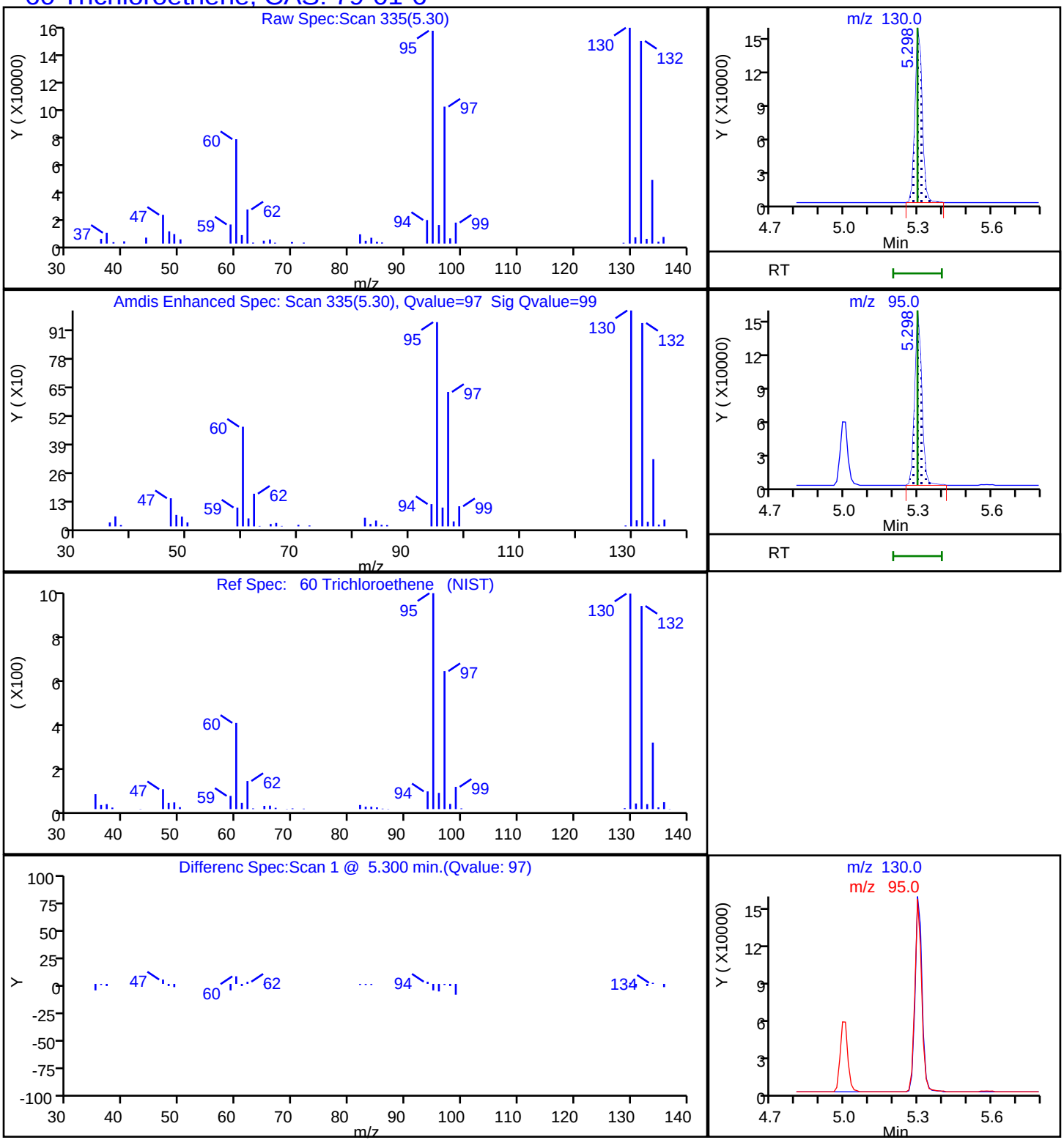


Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9939.D

Injection Date:	08-Oct-2021 19:02:30	Instrument ID:	A3UX15
Lims ID:	240-157477-B-2	Lab Sample ID:	240-157477-2
Client ID:	W-4-N/100421/		
Operator ID:	43582	ALS Bottle#:	24 Worklist Smp#: 60
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_15	Limit Group:	MSV 8260B ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: W-2-N/100421/ | Lab Sample ID: 240-157477-3

Matrix: Water | Lab File ID: UXC9940.D

Analysis Method: 8260B | Date Collected: 10/04/2021 13:15

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 19:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	2.2		1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0		1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	75		56-136
1868-53-7	Dibromofluoromethane (Surr)	93		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		62-137
2037-26-5	Toluene-d8 (Surr)	94		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9940.D
Lims ID: 240-157477-B-3
Client ID: W-2-N/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 19:24:30 ALS Bottle#: 25 Worklist Smp#: 61
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-061
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:45:34

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	4.989	4.989	0.000	99	1452220	10.0	
*	2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1020404	10.0	
*	3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	473755	10.0	
$	4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	315002	9.28	
$	5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	99	458242	12.0	
$	6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1171215	9.37	
$	7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	317098	7.50	
	9 Dichlorodifluoromethane	85		1.420				ND	
	10 Chloromethane	50		1.562				ND	
	11 Vinyl chloride	62	1.657	1.657	0.000	99	17056	0.4000	
	13 Bromomethane	94		1.930				ND	
	14 Chloroethane	64		1.989				ND	
	16 Trichlorofluoromethane	101		2.202				ND	
	19 1,1-Dichloroethene	96		2.606				ND	
	20 112TCTFE	151		2.617				ND	
	21 Acetone	58	2.653	2.641	0.012	98	2728	0.9289	
	24 Carbon disulfide	76		2.807				ND	
	27 Methyl acetate	43		2.914				ND	
	28 Methylene Chloride	84		3.009				ND	
	31 Methyl tert-butyl ether	73		3.222				ND	
	32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	96	7837	0.1869	
	35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	11983	0.1804	
	41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	81	99045	2.24	
	40 2-Butanone (MEK)	72		4.052				ND	
	48 Chloroform	83		4.301				ND	
	49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	35	10292	0.1729	
	50 Cyclohexane	56		4.503				ND	
	52 Carbon tetrachloride	117		4.598				ND	
	55 Benzene	78	4.788	4.764	0.024	90	17542	0.1101	
	56 1,2-Dichloroethane	62		4.788				ND	
	60 Trichloroethene	130	5.298	5.297	0.001	97	43072	1.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91	6.400	6.412	-0.012	95	32612	0.2162	
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164		6.898				ND	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

Reagents:

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vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
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VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

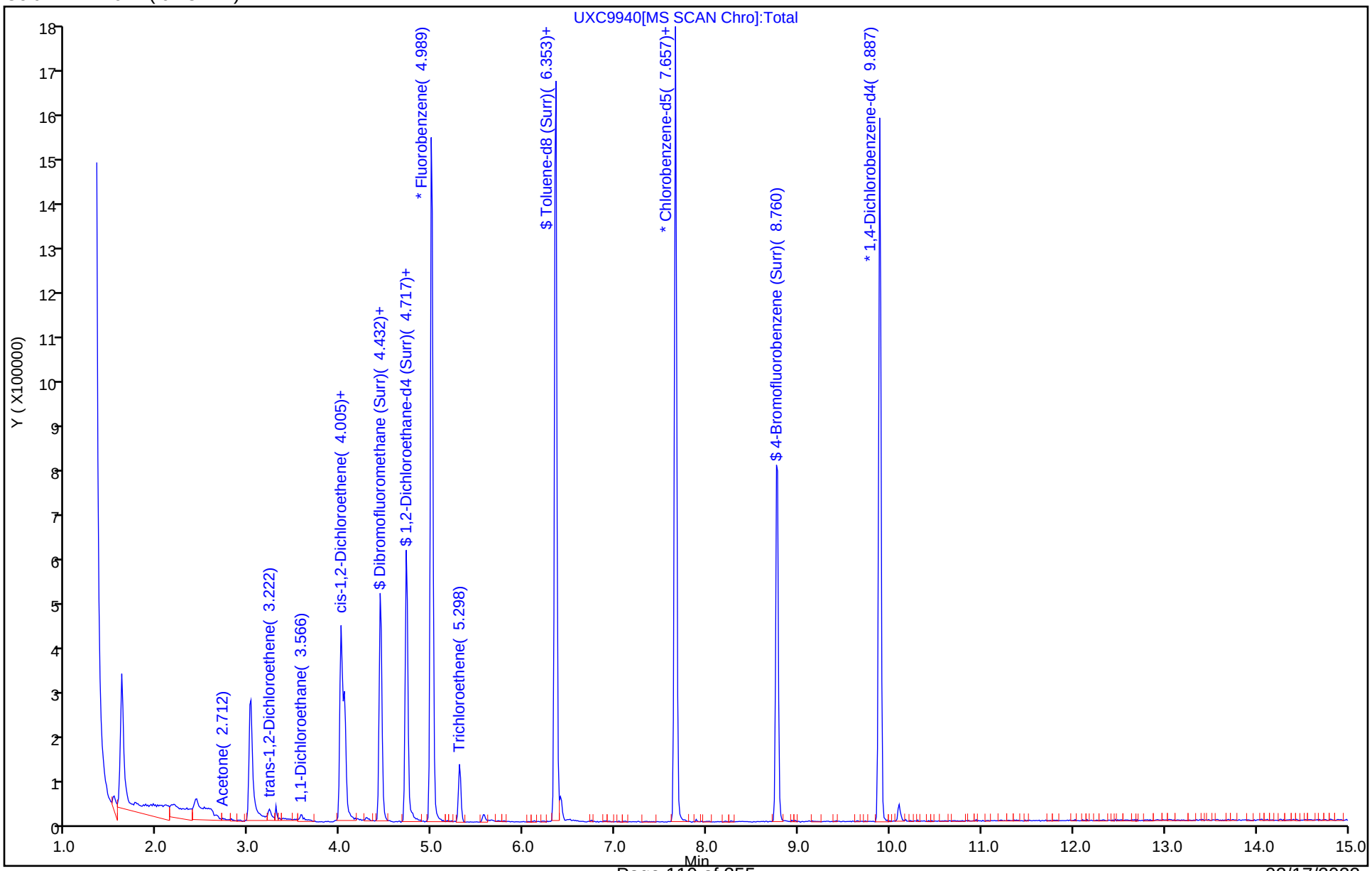
Report Date: 11-Oct-2021 07:48:01 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9940.D

Injection Date:	08-Oct-2021 19:24:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-B-3	Lab Sample ID:	240-157477-3	Worklist Smp#:	61
Client ID:	W-2-N/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9940.D
Lims ID: 240-157477-B-3
Client ID: W-2-N/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 19:24:30 ALS Bottle#: 25 Worklist Smp#: 61
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-061
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

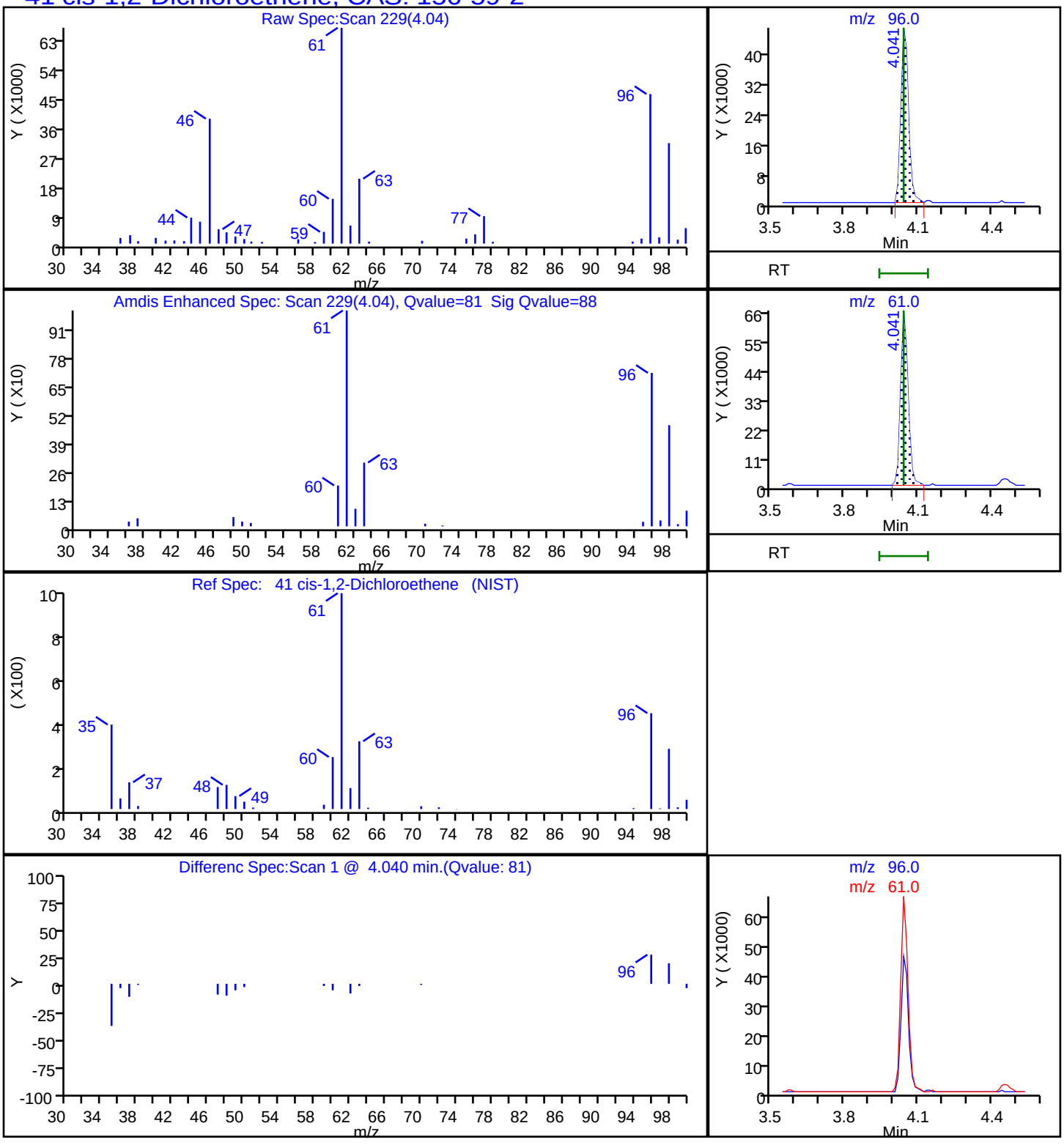
First Level Reviewer: evansle Date: 11-Oct-2021 07:45:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.28	92.80
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.0	119.84
$ 6 Toluene-d8 (Surr)	10.0	9.37	93.66
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.50	74.96

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9940.D				
Injection Date:	08-Oct-2021 19:24:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-3	Lab Sample ID:	240-157477-3		
Client ID:	W-2-N/100421/				
Operator ID:	43582	ALS Bottle#:	25	Worklist Smp#:	61
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

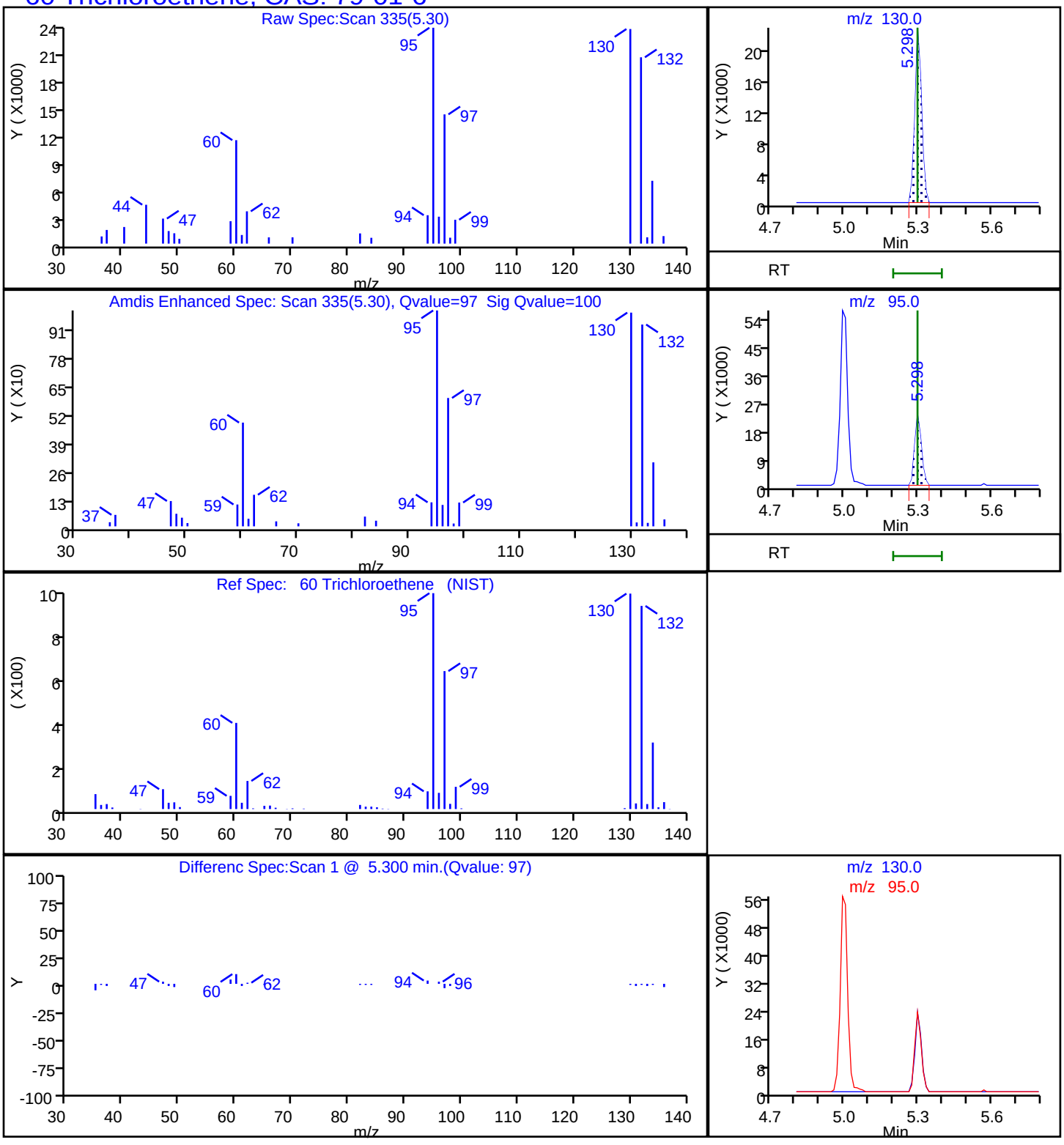


Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9940.D

Injection Date:	08-Oct-2021 19:24:30	Instrument ID:	A3UX15
Lims ID:	240-157477-B-3	Lab Sample ID:	240-157477-3
Client ID:	W-2-N/100421/		
Operator ID:	43582	ALS Bottle#:	25 Worklist Smp#: 61
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_15	Limit Group:	MSV 8260B ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

60 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: HR-4/100421/ | Lab Sample ID: 240-157477-4

Matrix: Water | Lab File ID: UXC9941.D

Analysis Method: 8260B | Date Collected: 10/04/2021 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 19:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.9		1.0	0.48
75-34-3	1,1-Dichloroethane	1.9		1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	0.71	J	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	74		56-136
1868-53-7	Dibromofluoromethane (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		62-137
2037-26-5	Toluene-d8 (Surr)	92		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D
Lims ID: 240-157477-B-4
Client ID: HR-4/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 19:46:30 ALS Bottle#: 26 Worklist Smp#: 62
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-062
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:46:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	98	1451313	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1038905	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	473319	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	313326	9.24	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	99	465579	12.2	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1172331	9.21	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	318982	7.41	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62		1.657				ND	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		1.989				ND	
16 Trichlorofluoromethane	101		2.202				ND	
19 1,1-Dichloroethene	96		2.606				ND	
20 112TCTFE	151		2.617				ND	
21 Acetone	58	2.641	2.641	0.000	97	5377	1.83	
24 Carbon disulfide	76		2.807				ND	
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		3.009				ND	
31 Methyl tert-butyl ether	73		3.222				ND	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	93	5242	0.1251	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	125690	1.89	
41 cis-1,2-Dichloroethene	96	4.040	4.040	0.000	80	31291	0.7072	
40 2-Butanone (MEK)	72		4.052				ND	
48 Chloroform	83		4.301				ND	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	96	112322	1.89	
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78		4.764				ND	7
56 1,2-Dichloroethane	62		4.788				ND	
60 Trichloroethene	130	5.297	5.297	0.000	95	15348	0.3587	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.463				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.724				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.898	6.898	0.000	87	6218	0.1922	
78 2-Hexanone	43		6.981				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.902				ND	
108 1,3-Dichlorobenzene	146		9.827				ND	
110 1,4-Dichlorobenzene	146		9.910				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

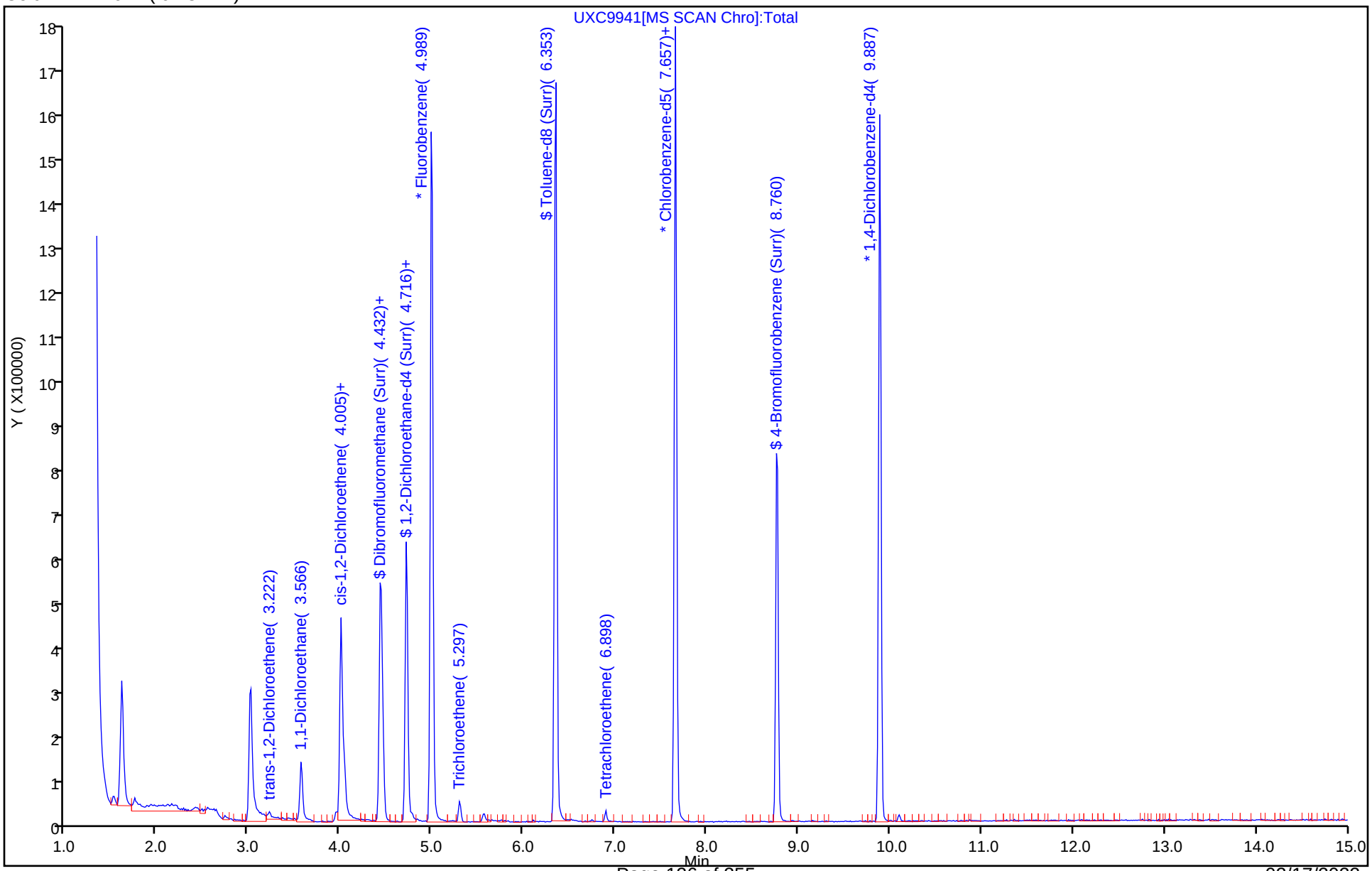
Report Date: 11-Oct-2021 07:48:02 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D

Injection Date:	08-Oct-2021 19:46:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-B-4	Lab Sample ID:	240-157477-4	Worklist Smp#:	62
Client ID:	HR-4/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D
Lims ID: 240-157477-B-4
Client ID: HR-4/100421/
Sample Type: Client
Inject. Date: 08-Oct-2021 19:46:30 ALS Bottle#: 26 Worklist Smp#: 62
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-062
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

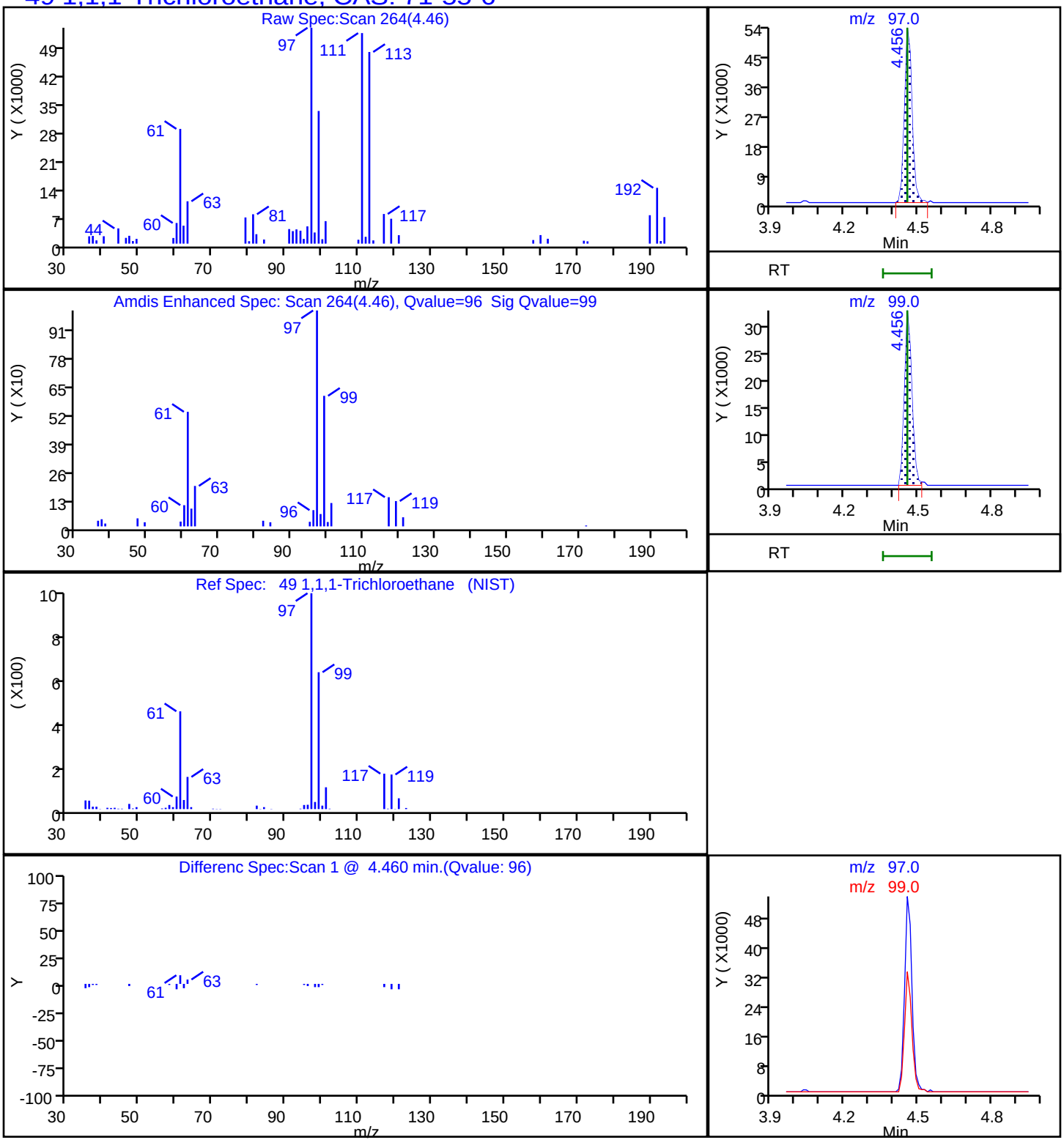
First Level Reviewer: evansle Date: 11-Oct-2021 07:46:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.24	92.37
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.2	121.83
$ 6 Toluene-d8 (Surr)	10.0	9.21	92.08
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.41	74.07

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D				
Injection Date:	08-Oct-2021 19:46:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-4	Lab Sample ID:	240-157477-4		
Client ID:	HR-4/100421/				
Operator ID:	43582	ALS Bottle#:	26	Worklist Smp#:	62
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

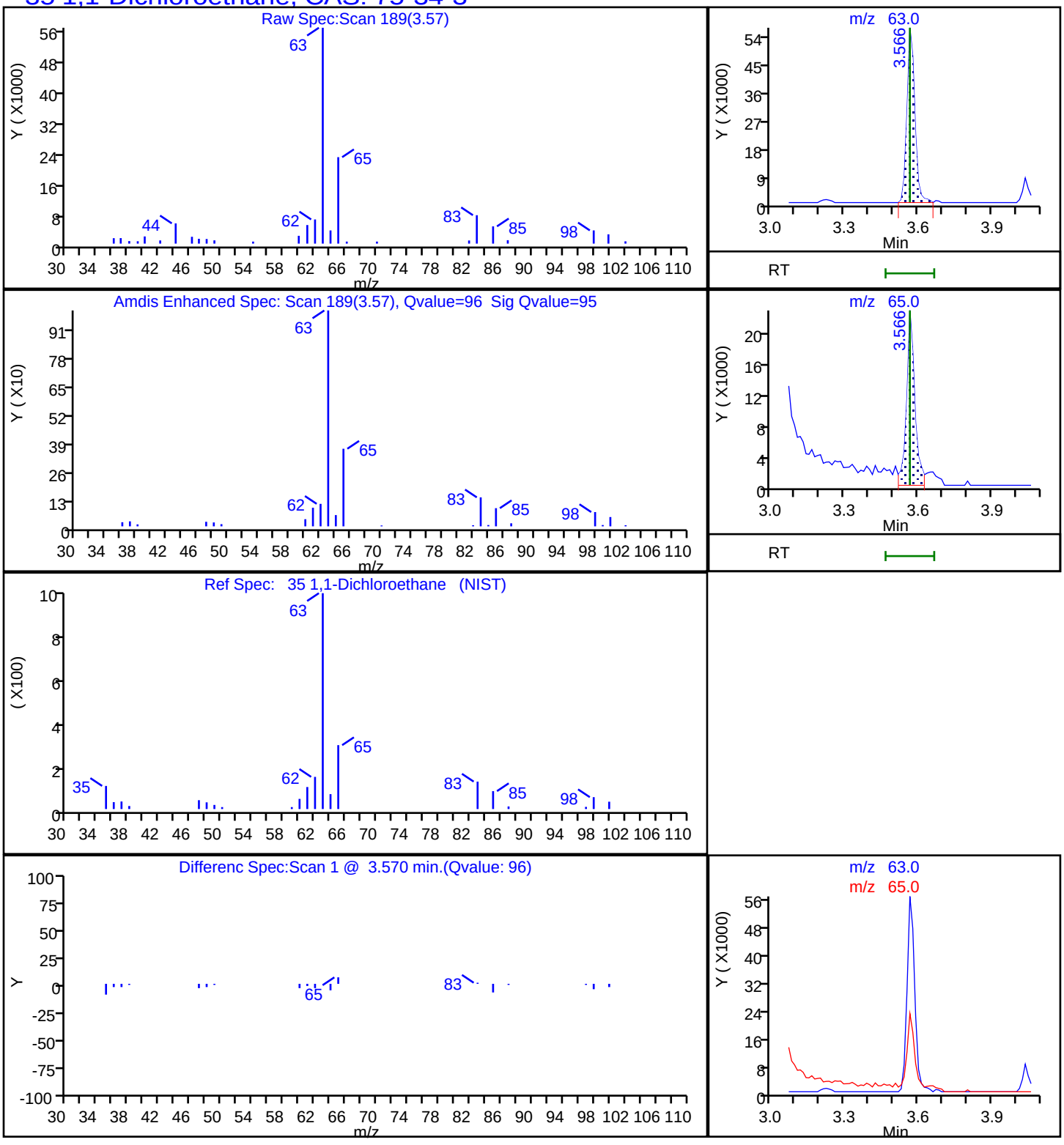
49 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D				
Injection Date:	08-Oct-2021 19:46:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-4	Lab Sample ID:	240-157477-4		
Client ID:	HR-4/100421/				
Operator ID:	43582	ALS Bottle#:	26	Worklist Smp#:	62
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

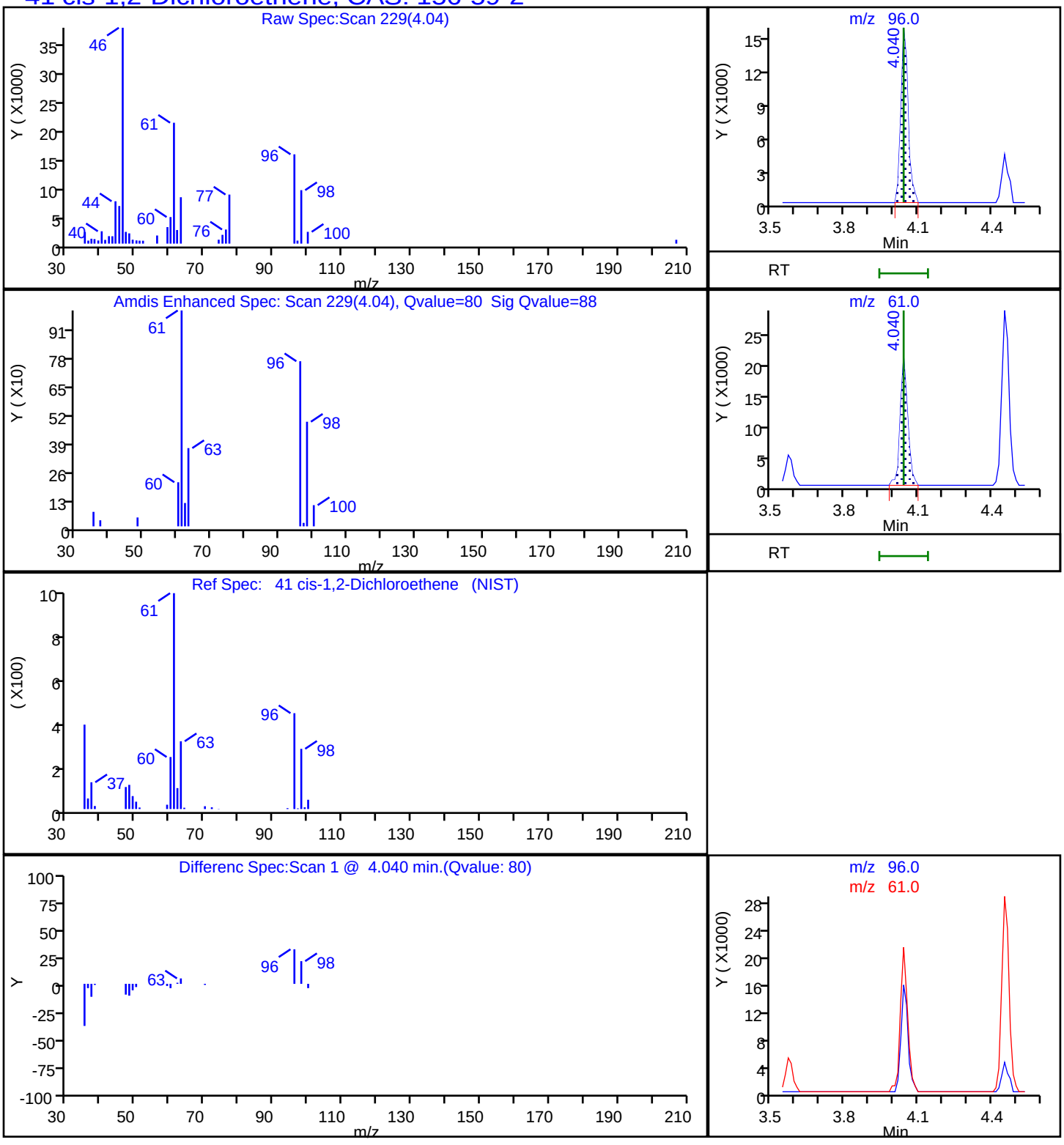
35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9941.D				
Injection Date:	08-Oct-2021 19:46:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-4	Lab Sample ID:	240-157477-4		
Client ID:	HR-4/100421/				
Operator ID:	43582	ALS Bottle#:	26	Worklist Smp#:	62
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: DUP-1/100421/ | Lab Sample ID: 240-157477-5

Matrix: Water | Lab File ID: UXC9960.D

Analysis Method: 8260B | Date Collected: 10/04/2021 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 14:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.7		1.0	0.48
75-34-3	1,1-Dichloroethane	1.9		1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	0.77	J	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	75		56-136
1868-53-7	Dibromofluoromethane (Surr)	92		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		62-137
2037-26-5	Toluene-d8 (Surr)	93		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9960.D
Lims ID: 240-157477-B-5
Client ID: DUP-1/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:49:30 ALS Bottle#: 16 Worklist Smp#: 47
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-047
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 12-Oct-2021 10:59:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1509707	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.657	0.001	87	1104366	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	526818	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	324051	9.18	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	478605	12.0	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1256361	9.28	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	92	341176	7.45	
9 Dichlorodifluoromethane	85		1.420				ND	
10 Chloromethane	50		1.562				ND	
11 Vinyl chloride	62		1.657				ND	
13 Bromomethane	94		1.930				ND	
14 Chloroethane	64		2.001				ND	
16 Trichlorofluoromethane	101		2.214				ND	
19 1,1-Dichloroethene	96		2.618				ND	
20 112TCTFE	151		2.618				ND	
21 Acetone	58	2.641	2.641	0.000	99	3754	1.23	
24 Carbon disulfide	76		2.819				ND	7
27 Methyl acetate	43		2.914				ND	
28 Methylene Chloride	84		2.997				ND	
31 Methyl tert-butyl ether	73		3.222				ND	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	96	5566	0.1277	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	128806	1.87	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	78	35364	0.7683	
40 2-Butanone (MEK)	72		4.053				ND	
48 Chloroform	83		4.302				ND	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	96	105907	1.71	
50 Cyclohexane	56		4.503				ND	
52 Carbon tetrachloride	117		4.598				ND	
55 Benzene	78	4.776	4.764	0.012	90	18275	0.1104	
56 1,2-Dichloroethane	62		4.788				ND	
60 Trichloroethene	130	5.298	5.298	0.000	96	16798	0.3774	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83		5.464				ND	
63 1,2-Dichloropropane	63		5.499				ND	
67 Dichlorobromomethane	83		5.725				ND	
70 cis-1,3-Dichloropropene	75		6.116				ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246				ND	
72 Toluene	91		6.412				ND	7
73 trans-1,3-Dichloropropene	75		6.602				ND	
75 1,1,2-Trichloroethane	97		6.768				ND	
76 Tetrachloroethene	164	6.887	6.899	-0.012	91	6575	0.1912	
78 2-Hexanone	43		6.982				ND	
80 Chlorodibromomethane	129		7.124				ND	
82 Ethylene Dibromide	107		7.242				ND	
84 Chlorobenzene	112		7.681				ND	
86 Ethylbenzene	106		7.776				ND	
87 m-Xylene & p-Xylene	91		7.883				ND	
88 o-Xylene	106		8.262				ND	
89 Styrene	104		8.274				ND	
90 Bromoform	173		8.464				ND	
91 Isopropylbenzene	105		8.618				ND	
94 1,1,2,2-Tetrachloroethane	83		8.903				ND	
108 1,3-Dichlorobenzene	146		9.828				ND	
110 1,4-Dichlorobenzene	146		9.911				ND	
114 1,2-Dichlorobenzene	146		10.278				ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061				ND	
117 1,2,4-Trichlorobenzene	180		11.879				ND	
S 129 Xylenes, Total	106		16.530				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

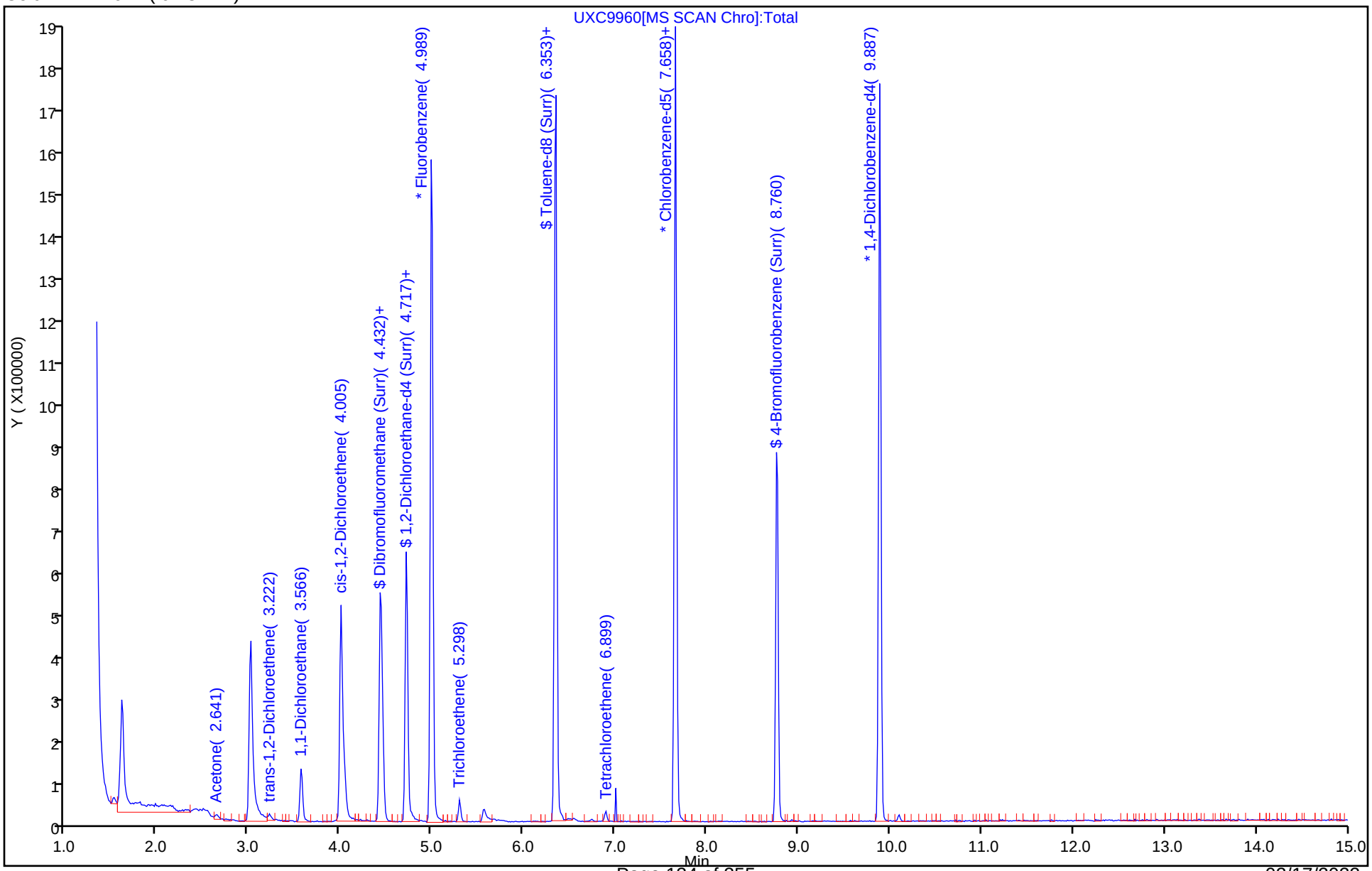
Report Date: 12-Oct-2021 11:14:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9960.D

Injection Date:	11-Oct-2021 14:49:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-B-5	Lab Sample ID:	240-157477-5	Worklist Smp#:	47
Client ID:	DUP-1/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9960.D
Lims ID: 240-157477-B-5
Client ID: DUP-1/100421/
Sample Type: Client
Inject. Date: 11-Oct-2021 14:49:30 ALS Bottle#: 16 Worklist Smp#: 47
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-047
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

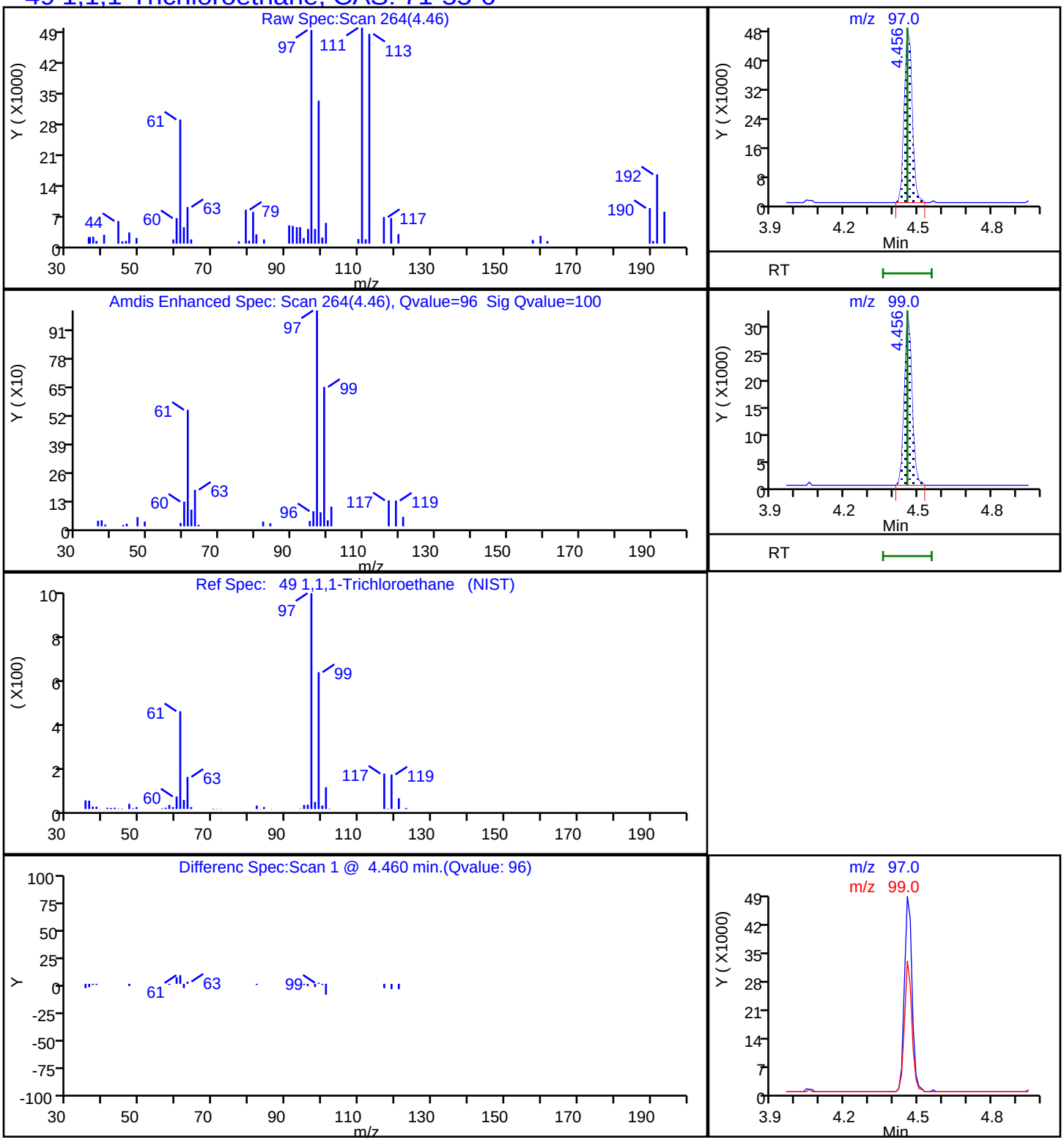
First Level Reviewer: evansle Date: 12-Oct-2021 10:59:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.18	91.83
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	12.0	120.40
$ 6 Toluene-d8 (Surr)	10.0	9.28	92.83
$ 7 4-Bromofluorobenzene (Surr)	10.0	7.45	74.52

Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9960.D				
Injection Date:	11-Oct-2021 14:49:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-5	Lab Sample ID:	240-157477-5		
Client ID:	DUP-1/100421/				
Operator ID:	43582	ALS Bottle#:	16	Worklist Smp#:	47
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

49 1,1,1-Trichloroethane, CAS: 71-55-6

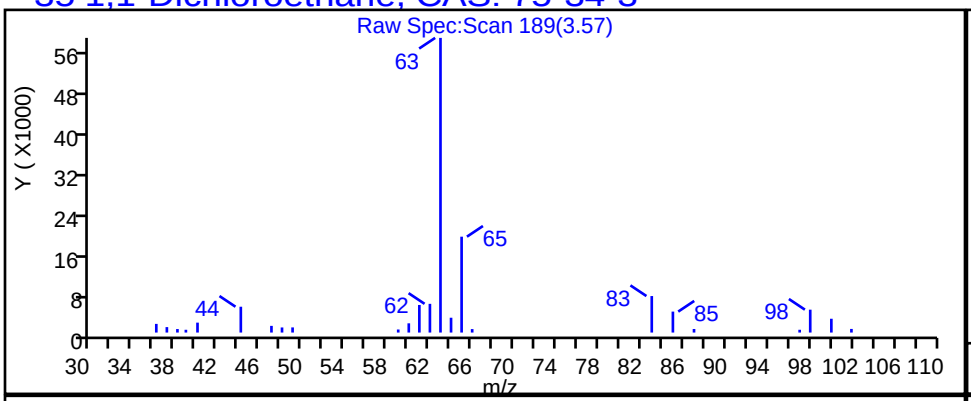


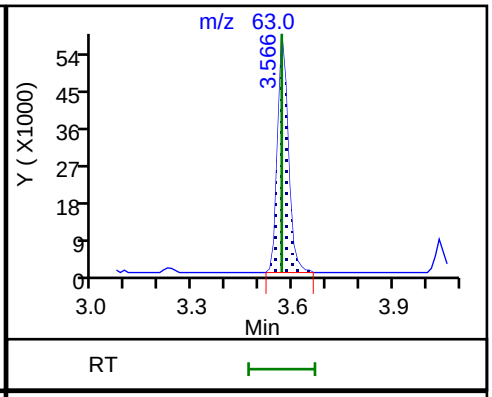
Eurofins TestAmerica, Canton

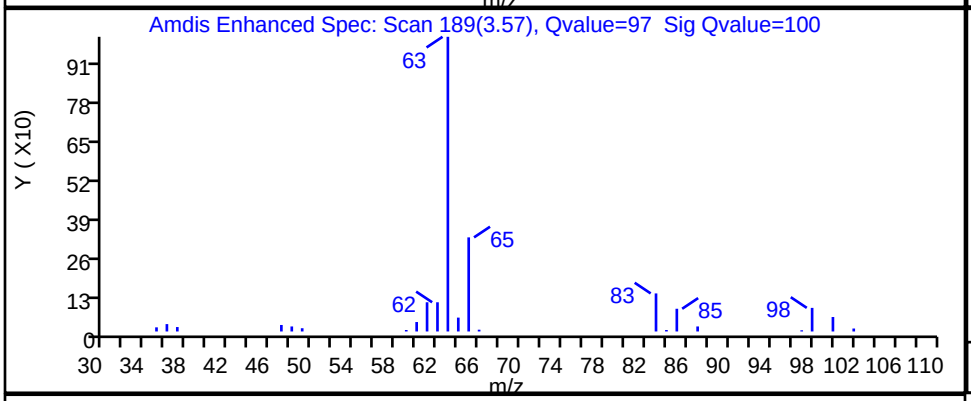
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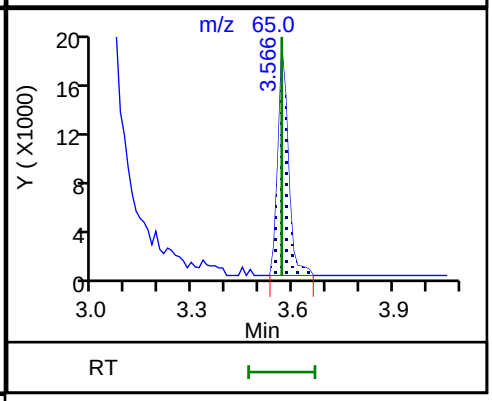
Injection Date:	11-Oct-2021 14:49:30	Instrument ID:	A3UX15
Lims ID:	240-157477-B-5	Lab Sample ID:	240-157477-5
Client ID:	DUP-1/100421/		
Operator ID:	43582	ALS Bottle#:	16 Worklist Smp#: 47
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	8260_15	Limit Group:	MSV 8260B ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

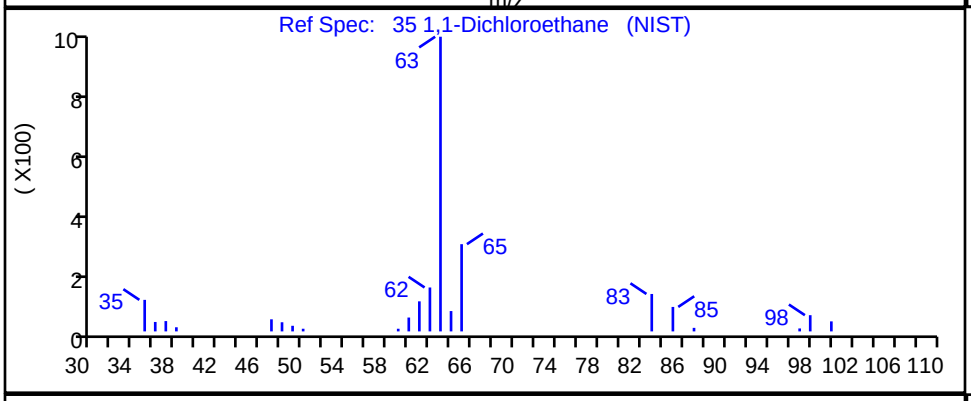
35 1,1-Dichloroethane, CAS: 75-34-3

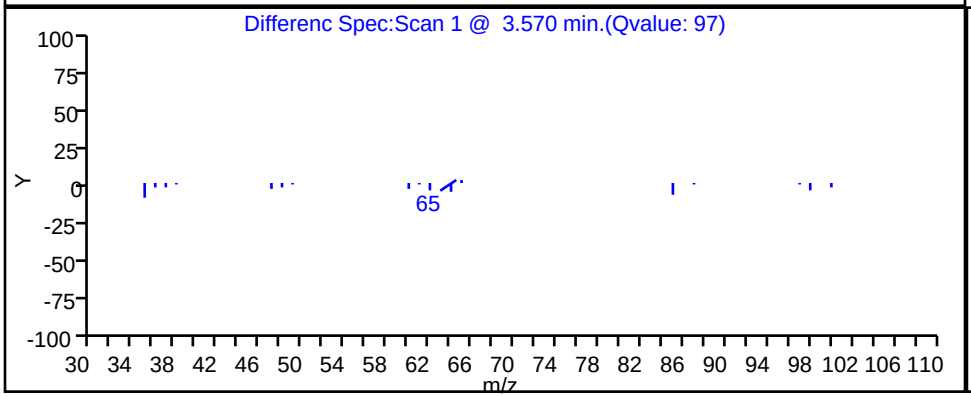


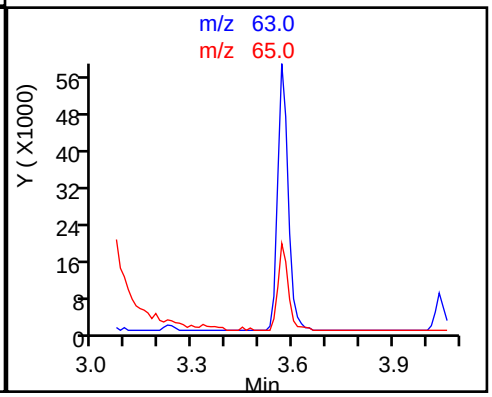








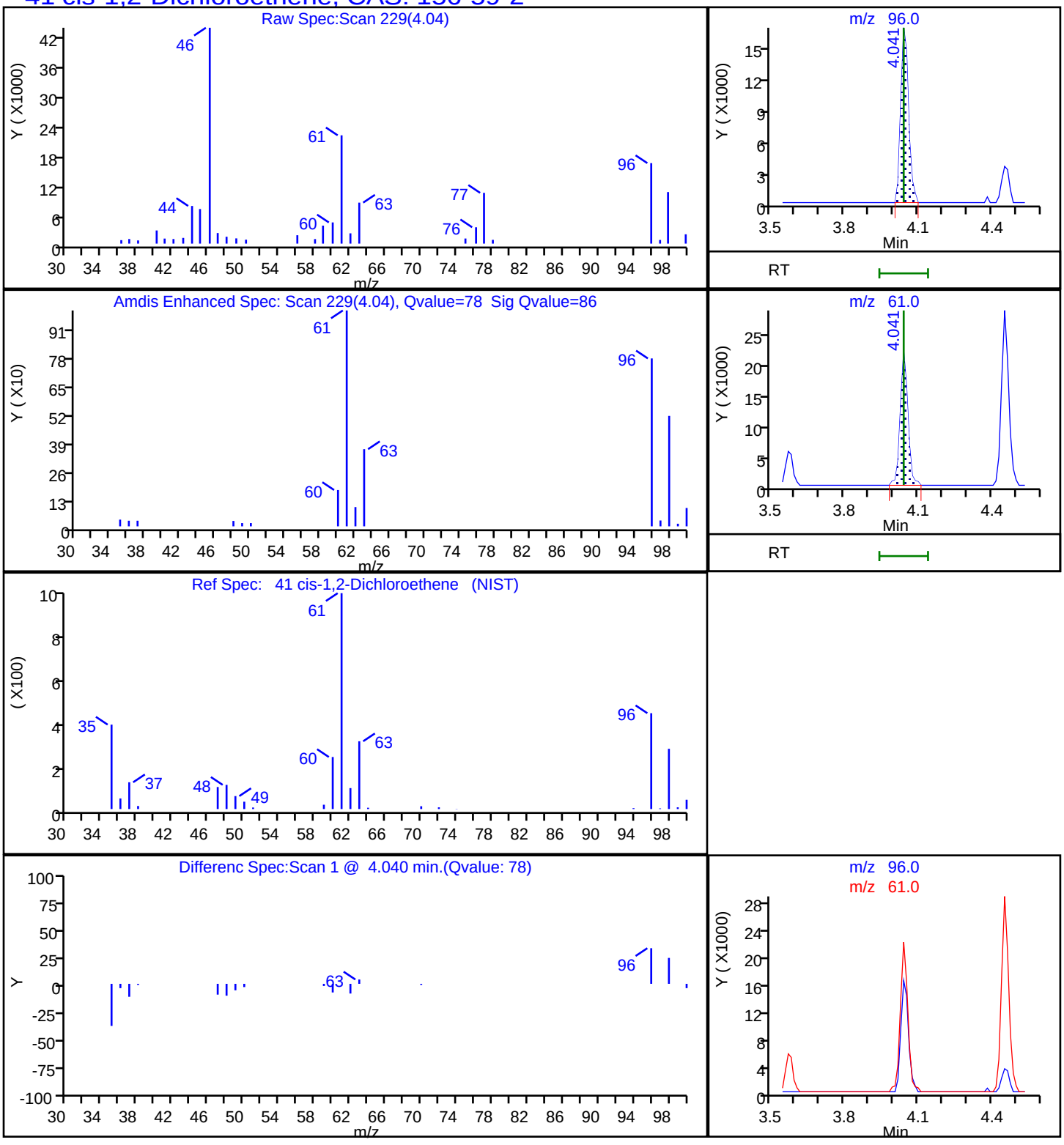




Eurofins TestAmerica, Canton

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9960.D				
Injection Date:	11-Oct-2021 14:49:30	Instrument ID:	A3UX15		
Lims ID:	240-157477-B-5	Lab Sample ID:	240-157477-5		
Client ID:	DUP-1/100421/				
Operator ID:	43582	ALS Bottle#:	16	Worklist Smp#:	47
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260_15	Limit Group:	MSV 8260B ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

41 cis-1,2-Dichloroethene, CAS: 156-59-2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-476941/7	UXC5649.D
Level 2	STD8260 240-476941/6	UXC5648.D
Level 3	STD8260 240-476941/5	UXC5647.D
Level 4	STD8260 240-476941/4	UXC5646.D
Level 5	STD8260 240-476941/3	UXC5645.D
Level 6	STD8260 240-476941/2	UXC5644.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3179 0.2856	0.3024	0.2990	0.3093	0.2937	Ave		0.3013				3.8		15.0			
Chloromethane	0.3871 0.3075	0.3410	0.3529	0.3559	0.3114	Ave		0.3426			0.1000	8.7		15.0			
Vinyl chloride	0.3105 0.2686	0.3356	0.2760	0.2664	0.3046	Ave		0.2936				9.5		15.0			
Butadiene	0.4584 0.3354	0.3649	0.3794	0.3693	0.3400	Ave		0.3746				11.9		15.0			
Bromomethane	0.2768 0.2260	0.2769	0.2353	0.2197	0.2414	Ave		0.2460				10.2		15.0			
Chloroethane	0.2500 0.1946	0.2244	0.2174	0.2026	0.2094	Ave		0.2164				9.0		15.0			
Dichlorofluoromethane	0.6535 0.5185	0.6173	0.5751	0.5610	0.5287	Ave		0.5757				9.0		15.0			
Trichlorofluoromethane	0.5721 0.4983	0.5300	0.5049	0.5023	0.5195	Ave		0.5212				5.3		15.0			
Ethyl ether	0.2699 0.2372	0.2623	0.2530	0.2461	0.2385	Ave		0.2512				5.2		15.0			
Acrolein	0.0123 0.0151	0.0265	0.0166	0.0157	0.0144	Lin	0.0400	0.0147							0.9980		0.9900
1,1-Dichloroethene	0.2595 0.2858	0.3045	0.2995	0.2904	0.2951	Ave		0.2891				5.5		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2193 0.2523	0.2341	0.2455	0.2413	0.2535	Ave		0.2410				5.3		15.0			
Acetone	0.0236 0.0187	0.0236	0.0180	0.0187	0.0188	Ave		0.0202				13.0		15.0			
Iodomethane	0.4069 0.4206	0.4383	0.4410	0.4405	0.5097	Ave		0.4428				8.0		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.7748 0.7495	0.8943	0.7779	0.7790	0.8588	Ave		0.8057				7.1		15.0			
3-Chloro-1-propene	0.1523 0.1727	0.1717	0.1742	0.1728	0.1753	Ave		0.1698				5.1		15.0			
Methyl acetate	0.1303 0.1267	0.1239	0.1291	0.1258	0.1258	Ave		0.1269				1.9		15.0			
Methylene Chloride	0.2754 0.2543	0.2829	0.2711	0.2630	0.2675	Ave		0.2691				3.7		15.0			
2-Methyl-2-propanol	0.0139 0.0139	0.0139	0.0149	0.0145	0.0137	Ave		0.0141				3.2		15.0			
Acrylonitrile	0.0679 0.0681	0.0675	0.0685	0.0682	0.0670	Ave		0.0679				0.8		15.0			
Methyl tert-butyl ether	0.6990 0.7045	0.6881	0.7075	0.7039	0.7051	Ave		0.7014				1.0		15.0			
trans-1,2-Dichloroethene	0.3026 0.2717	0.2966	0.2890	0.2898	0.2827	Ave		0.2887				3.7		15.0			
Hexane	0.0635 0.0565	0.0591	0.0530	0.0577	0.0571	Ave		0.0578				6.0		15.0			
1,1-Dichloroethane	0.4664 0.4434	0.4651	0.4613	0.4568	0.4509	Ave		0.4573			0.1000	1.9		15.0			
Vinyl acetate	0.3496 0.4336	0.3537	0.3849	0.3975	0.4151	Ave		0.3891				8.6		15.0			
cis-1,2-Dichloroethene	0.3175 0.2885	0.3169	0.3097	0.2994	0.2972	Ave		0.3049				3.8		15.0			
2,2-Dichloropropane	0.0915 0.0867	0.0884	0.0888	0.0884	0.0896	Ave		0.0889				1.8		15.0			
2-Butanone (MEK)	0.0250 0.0203	0.0207	0.0206	0.0202	0.0199	Ave		0.0211				9.1		15.0			
Chlorobromomethane	0.1490 0.1374	0.1449	0.1452	0.1451	0.1425	Ave		0.1440				2.7		15.0			
Tetrahydrofuran	0.0654 0.0486	0.0574	0.0475	0.0490	0.0474	Ave		0.0526				14.0		15.0			
Chloroform	0.4702 0.4401	0.4549	0.4601	0.4542	0.4522	Ave		0.4553				2.2		15.0			
1,1,1-Trichloroethane	0.4008 0.4063	0.4114	0.4159	0.4099	0.4153	Ave		0.4100				1.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Cyclohexane	0.4370 0.4135	0.4233	0.4223	0.4167	0.4262	Ave		0.4232				1.9		15.0			
1,1-Dichloropropene	0.3743 0.3536	0.3795	0.3718	0.3710	0.3626	Ave		0.3688				2.5		15.0			
Carbon tetrachloride	0.3477 0.3720	0.3559	0.3693	0.3681	0.3752	Ave		0.3647				2.9		15.0			
Isobutyl alcohol	0.0049 0.0043	0.0044	0.0045	0.0046	0.0042	Ave		0.0045				5.3		15.0			
Benzene	1.2010 1.0461	1.1411	1.0798	1.0653	1.0477	Ave		1.0968				5.6		15.0			
1,2-Dichloroethane	0.3411 0.3175	0.3231	0.3274	0.3265	0.3220	Ave		0.3263				2.5		15.0			
n-Heptane	0.0498 0.0480	0.0560	0.0483	0.0455	0.0492	Ave		0.0495				7.1		15.0			
Trichloroethene	0.3118 0.2826	0.3021	0.2966	0.2911	0.2845	Ave		0.2948				3.8		15.0			
Methylcyclohexane	0.3833 0.3620	0.3762	0.3566	0.3621	0.3694	Ave		0.3683				2.7		15.0			
1,2-Dichloropropane	0.2360 0.2274	0.2187	0.2263	0.2276	0.2272	Ave		0.2272				2.4		15.0			
Dibromomethane	0.1384 0.1274	0.1289	0.1310	0.1317	0.1301	Ave		0.1312				2.9		15.0			
1,4-Dioxane	0.0018 0.0009	0.0021	0.0018	0.0018	0.0016	Qua	-0.016	0.0023	-0.000002						0.9980		0.9900
Dichlorobromomethane	0.2759 0.3033	0.2804	0.2834	0.2964	0.2965	Ave		0.2893				3.8		15.0			
2-Chloroethyl vinyl ether	0.0711 0.0876	0.0746	0.0752	0.0804	0.0825	Ave		0.0786				7.7		15.0			
cis-1,3-Dichloropropene	0.2804 0.3428	0.2988	0.3091	0.3239	0.3343	Ave		0.3149				7.4		15.0			
4-Methyl-2-pentanone (MIBK)	0.1544 0.1523	0.1447	0.1540	0.1535	0.1510	Ave		0.1517				2.4		15.0			
Toluene	1.4749 1.4887	1.5001	1.4604	1.4518	1.4917	Ave		1.4780				1.3		15.0			
trans-1,3-Dichloropropene	0.3347 0.4117	0.3596	0.3694	0.3885	0.4080	Ave		0.3786				7.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Ethyl methacrylate	0.2809 0.2972	0.2641	0.2863	0.2828	0.3017	Ave		0.2855				4.7		15.0			
1,1,2-Trichloroethane	0.2563 0.2365	0.2382	0.2409	0.2401	0.2429	Ave		0.2425				2.9		15.0			
Tetrachloroethene	0.3037 0.3079	0.3201	0.3113	0.3119	0.3130	Ave		0.3113				1.8		15.0			
1,3-Dichloropropane	0.4197 0.4167	0.4153	0.4127	0.4196	0.4177	Ave		0.4170				0.7		15.0			
2-Hexanone	0.1501 0.1200	0.1443	0.1446	0.1397	0.1337	Ave		0.1387				7.7		15.0			
Chlorodibromomethane	0.2323 0.2923	0.2465	0.2649	0.2741	0.2887	Ave		0.2665				8.9		15.0			
Ethylene Dibromide	0.2344 0.2310	0.2379	0.2318	0.2314	0.2384	Ave		0.2342				1.4		15.0			
Chlorobenzene	0.9136 0.8959	0.8886	0.9073	0.8926	0.9138	Ave		0.9020			0.3000	1.2		15.0			
1,1,1,2-Tetrachloroethane	0.3709 0.3850	0.3637	0.3673	0.3752	0.3934	Ave		0.3759				3.0		15.0			
Ethylbenzene	0.4869 0.4992	0.4811	0.4884	0.4972	0.5040	Ave		0.4928				1.8		15.0			
m-Xylene & p-Xylene	1.1891 1.2048	1.1647	1.1868	1.1935	1.2334	Ave		1.1954				1.9		15.0			
o-Xylene	0.6311 0.6468	0.6392	0.6438	0.6364	0.6572	Ave		0.6424				1.4		15.0			
Styrene	0.7794 0.8791	0.7890	0.8297	0.8434	0.8787	Ave		0.8332				5.1		15.0			
Bromoform	0.1330 0.1936	0.1599	0.1548	0.1634	0.1838	Ave		0.1647			0.1000	13.1		15.0			
Isopropylbenzene	1.5146 1.6219	1.5392	1.5891	1.5922	1.6570	Ave		1.5857				3.3		15.0			
1,1,2,2-Tetrachloroethane	0.4957 0.5275	0.4849	0.5173	0.5132	0.5314	Ave		0.5117			0.3000	3.5		15.0			
Bromobenzene	0.7097 0.7040	0.7113	0.6942	0.7071	0.6981	Ave		0.7041				1.0		15.0			
1,2,3-Trichloropropane	0.1614 0.1668	0.1728	0.1633	0.1647	0.1668	Ave		0.1660				2.4		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
trans-1,4-Dichloro-2-butene	0.0847 0.1203	0.1398	0.0974	0.1090	0.1210	Lin1	-0.024	0.1194							0.9950		0.9900
N-Propylbenzene	0.6653 0.7317	0.6810	0.6868	0.6968	0.7241	Ave		0.6976				3.7		15.0			
2-Chlorotoluene	0.6141 0.6675	0.6391	0.6443	0.6600	0.6600	Ave		0.6475				3.0		15.0			
1,3,5-Trimethylbenzene	2.0712 2.3194	2.1346	2.1473	2.2049	2.2987	Ave		2.1960				4.4		15.0			
4-Chlorotoluene	2.0606 2.0977	2.0703	2.0407	2.0504	2.0938	Ave		2.0689				1.1		15.0			
tert-Butylbenzene	1.7730 1.9620	1.8289	1.8362	1.8968	1.9663	Ave		1.8772				4.2		15.0			
1,2,4-Trimethylbenzene	2.0752 2.3637	2.2175	2.2267	2.2798	2.3497	Ave		2.2521				4.7		15.0			
sec-Butylbenzene	2.3353 2.5702	2.4193	2.4140	2.5090	2.5980	Ave		2.4743				4.1		15.0			
1,3-Dichlorobenzene	1.3198 1.2859	1.3553	1.3336	1.3113	1.3072	Ave		1.3189				1.8		15.0			
4-Isopropyltoluene	2.0713 2.3030	2.2050	2.1642	2.2210	2.3142	Ave		2.2131				4.1		15.0			
1,4-Dichlorobenzene	1.4231 1.3122	1.4118	1.3771	1.3493	1.3452	Ave		1.3698				3.1		15.0			
n-Butylbenzene	1.7422 1.7773	1.8664	1.7621	1.7842	1.8219	Ave		1.7923				2.5		15.0			
1,2-Dichlorobenzene	1.3707 1.3458	1.3830	1.3899	1.3753	1.3705	Ave		1.3725				1.1		15.0			
1,2-Dibromo-3-Chloropropane	0.0946 0.1206	0.1171	0.1126	0.1149	0.1172	Ave		0.1128				8.3		15.0			
1,2,4-Trichlorobenzene	1.0114 0.9190	1.1387	1.0099	0.9964	0.9699	Ave		1.0075				7.2		15.0			
Hexachlorobutadiene	0.5947 0.3863	0.5965	0.4754	0.4514	0.4287	Lin1	0.2952	0.3966							0.9960		0.9900
Naphthalene	2.0025 2.1634	2.1584	2.1858	2.1964	2.1872	Ave		2.1490				3.4		15.0			
1,2,3-Trichlorobenzene	0.9724 0.8555	1.1085	0.9556	0.9345	0.9096	Ave		0.9560				8.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.2421 0.2237	0.2290	0.2413	0.2339	0.2324	Ave		0.2337				3.0		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2760 0.2495	0.2670	0.2708	0.2600	0.2566	Ave		0.2633				3.7		15.0			
Toluene-d8 (Surr)	1.2309 1.2106	1.2019	1.2453	1.2250	1.2394	Ave		1.2255				1.4		15.0			
4-Bromofluorobenzene (Surr)	0.4300 0.3945	0.4096	0.4208	0.4175	0.4149	Ave		0.4145				2.9		15.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD8260 240-476941/7	UXC5649.D
Level 2	STD8260 240-476941/6	UXC5648.D
Level 3	STD8260 240-476941/5	UXC5647.D
Level 4	STD8260 240-476941/4	UXC5646.D
Level 5	STD8260 240-476941/3	UXC5645.D
Level 6	STD8260 240-476941/2	UXC5644.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	47955 1985876	96788	236340	505763	1015755	1.00 40.0	2.00	5.00	10.0	20.0
Chloromethane	FB	Ave	58389 2137858	109132	278892	581954	1076987	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl chloride	FB	Ave	46845 1867423	107404	218141	435655	1053493	1.00 40.0	2.00	5.00	10.0	20.0
Butadiene	FB	Ave	69152 2331823	116788	299854	603954	1175768	1.00 40.0	2.00	5.00	10.0	20.0
Bromomethane	FB	Ave	41750 1571689	88628	185985	359282	834840	1.00 40.0	2.00	5.00	10.0	20.0
Chloroethane	FB	Ave	37706 1352876	71803	171841	331296	724185	1.00 40.0	2.00	5.00	10.0	20.0
Dichlorofluoromethane	FB	Ave	98585 3604788	197535	454576	917387	1828501	1.00 40.0	2.00	5.00	10.0	20.0
Trichlorofluoromethane	FB	Ave	86296 3464762	169605	399090	821375	1796517	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl ether	FB	Ave	40718 1648971	83944	199967	402519	824901	1.00 40.0	2.00	5.00	10.0	20.0
Acrolein	FB	Lin	9294 523416	42337	65464	127991	249680	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethene	FB	Ave	39151 1987280	97460	236738	474847	1020497	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	33084 1754372	74912	194077	394578	876594	1.00 40.0	2.00	5.00	10.0	20.0
Acetone	FB	Ave	7111 259443	15117	28520	61024	129995	2.00 80.0	4.00	10.0	20.0	40.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Iodomethane	FB	Ave	61380 2924204	140257	348537	720329	1762805	1.00 40.0	2.00	5.00	10.0	20.0
Carbon disulfide	FB	Ave	116874 5211254	286182	614828	1273944	2970031	1.00 40.0	2.00	5.00	10.0	20.0
3-Chloro-1-propene	FB	Ave	22980 1200557	54960	137672	282597	606147	1.00 40.0	2.00	5.00	10.0	20.0
Methyl acetate	FB	Ave	39316 1761410	79302	204142	411585	869993	2.00 80.0	4.00	10.0	20.0	40.0
Methylene Chloride	FB	Ave	41550 1768190	90541	214303	430176	925140	1.00 40.0	2.00	5.00	10.0	20.0
2-Methyl-2-propanol	FB	Ave	20999 966491	44457	117539	237680	475246	10.0 400	20.0	50.0	100	200
Acrylonitrile	FB	Ave	102496 4734494	216160	541571	1114638	2316749	10.0 400	20.0	50.0	100	200
Methyl tert-butyl ether	FB	Ave	105442 4898428	220217	559170	1151185	2438583	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,2-Dichloroethene	FB	Ave	45650 1888831	94914	228419	473854	977825	1.00 40.0	2.00	5.00	10.0	20.0
Hexane	FB	Ave	9581 392577	18928	41895	94360	197372	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloroethane	FB	Ave	70364 3082713	148843	364589	747006	1559420	1.00 40.0	2.00	5.00	10.0	20.0
Vinyl acetate	FB	Ave	52739 3014699	113199	304236	650063	1435718	1.00 40.0	2.00	5.00	10.0	20.0
cis-1,2-Dichloroethene	FB	Ave	47902 2005786	101403	244751	489671	1027988	1.00 40.0	2.00	5.00	10.0	20.0
2,2-Dichloropropane	FB	Ave	13807 603120	28276	70219	144526	309943	1.00 40.0	2.00	5.00	10.0	20.0
2-Butanone (MEK)	FB	Ave	7540 281791	13268	32640	66059	137808	2.00 80.0	4.00	10.0	20.0	40.0
Chlorobromomethane	FB	Ave	22476 955220	46356	114745	237215	492922	1.00 40.0	2.00	5.00	10.0	20.0
Tetrahydrofuran	FB	Ave	19738 676139	36744	75127	160132	327685	2.00 80.0	4.00	10.0	20.0	40.0
Chloroform	FB	Ave	70935 3059766	145589	363680	742858	1563762	1.00 40.0	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1,1-Trichloroethane	FB	Ave	60467 2825060	131645	328759	670415	1436238	1.00 40.0	2.00	5.00	10.0	20.0
Cyclohexane	FB	Ave	65918 2874773	135465	333807	681490	1474122	1.00 40.0	2.00	5.00	10.0	20.0
1,1-Dichloropropene	FB	Ave	56469 2458560	121447	293864	606744	1253974	1.00 40.0	2.00	5.00	10.0	20.0
Carbon tetrachloride	FB	Ave	52456 2586568	113888	291902	601989	1297566	1.00 40.0	2.00	5.00	10.0	20.0
Isobutyl alcohol	FB	Ave	18341 742762	35137	89469	186811	364589	25.0 1000	50.0	125	250	500
Benzene	FB	Ave	181175 7273390	365182	853447	1742135	3623322	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	51453 2207739	103413	258800	533877	1113535	1.00 40.0	2.00	5.00	10.0	20.0
n-Heptane	FB	Ave	7518 334066	17934	38208	74441	170034	1.00 40.0	2.00	5.00	10.0	20.0
Trichloroethene	FB	Ave	47038 1964997	96690	234414	476021	983943	1.00 40.0	2.00	5.00	10.0	20.0
Methylcyclohexane	FB	Ave	57824 2517271	120389	281838	592186	1277610	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloropropane	FB	Ave	35608 1581278	69979	178849	372280	785821	1.00 40.0	2.00	5.00	10.0	20.0
Dibromomethane	FB	Ave	20875 885521	41243	103540	215335	449938	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dioxane	FB	Qua	5574 120475	13582	28764	59463	110747	20.0 800	40.0	100	200	400
Dichlorobromomethane	FB	Ave	41626 2108837	89718	224007	484704	1025475	1.00 40.0	2.00	5.00	10.0	20.0
2-Chloroethyl vinyl ether	FB	Ave	21442 1217878	47750	118901	263000	570636	2.00 80.0	4.00	10.0	20.0	40.0
cis-1,3-Dichloropropene	FB	Ave	42305 2383514	95626	244291	529695	1156157	1.00 40.0	2.00	5.00	10.0	20.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	46573 2117506	92610	243498	502124	1044731	2.00 80.0	4.00	10.0	20.0	40.0
Toluene	CBNZ d5	Ave	148278	307593	756651	1573355	3370989	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			7004750					40.0				
trans-1,3-Dichloropropene	CBNZ d5	Ave	33643 1937105	73739	191368	420983	922042	1.00 40.0	2.00	5.00	10.0	20.0
Ethyl methacrylate	CBNZ d5	Ave	28235 1398285	54155	148354	306515	681749	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2-Trichloroethane	CBNZ d5	Ave	25770 1112850	48837	124819	260222	549002	1.00 40.0	2.00	5.00	10.0	20.0
Tetrachloroethene	CBNZ d5	Ave	30533 1448870	65641	161314	338041	707318	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichloropropane	CBNZ d5	Ave	42197 1960760	85147	213808	454762	943985	1.00 40.0	2.00	5.00	10.0	20.0
2-Hexanone	CBNZ d5	Ave	30177 1128839	59188	149884	302863	604348	2.00 80.0	4.00	10.0	20.0	40.0
Chlorodibromomethane	CBNZ d5	Ave	23357 1375317	50550	137225	297016	652498	1.00 40.0	2.00	5.00	10.0	20.0
Ethylene Dibromide	CBNZ d5	Ave	23568 1087018	48784	120100	250735	538641	1.00 40.0	2.00	5.00	10.0	20.0
Chlorobenzene	CBNZ d5	Ave	91842 4215604	182215	470075	967329	2065080	1.00 40.0	2.00	5.00	10.0	20.0
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	37283 1811750	74581	190281	406561	888983	1.00 40.0	2.00	5.00	10.0	20.0
Ethylbenzene	CBNZ d5	Ave	48952 2348653	98654	253063	538828	1138861	1.00 40.0	2.00	5.00	10.0	20.0
m-Xylene & p-Xylene	CBNZ d5	Ave	119546	238816	614921	1293431	2787248	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5668949					40.0				
o-Xylene	CBNZ d5	Ave	63450 3043471	131067	333576	689690	1485220	1.00 40.0	2.00	5.00	10.0	20.0
Styrene	CBNZ d5	Ave	78354 4136534	161777	429902	913969	1985697	1.00 40.0	2.00	5.00	10.0	20.0
Bromoform	CBNZ d5	Ave	13367 910703	32788	80220	177112	415352	1.00 40.0	2.00	5.00	10.0	20.0
Isopropylbenzene	CBNZ d5	Ave	152266 7631521	315606	823347	1725432	3744436	1.00 40.0	2.00	5.00	10.0	20.0
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	30042 1413960	58976	160683	328387	704816	1.00 40.0	2.00	5.00	10.0	20.0
Bromobenzene	DCBd 4	Ave	43010 1887184	86512	215609	452432	925930	1.00 40.0	2.00	5.00	10.0	20.0
1,2,3-Trichloropropane	DCBd 4	Ave	9782 447188	21011	50734	105370	221278	1.00 40.0	2.00	5.00	10.0	20.0
trans-1,4-Dichloro-2-butene	DCBd 4	Lin1	5133 322478	17008	30267	69740	160485	1.00 40.0	2.00	5.00	10.0	20.0
N-Propylbenzene	DCBd 4	Ave	40320 1961209	82831	213311	445896	960393	1.00 40.0	2.00	5.00	10.0	20.0
2-Chlorotoluene	DCBd 4	Ave	37216 1789216	77726	200124	422328	875326	1.00 40.0	2.00	5.00	10.0	20.0
1,3,5-Trimethylbenzene	DCBd 4	Ave	125526 6217268	259616	666934	1410902	3048822	1.00 40.0	2.00	5.00	10.0	20.0
4-Chlorotoluene	DCBd 4	Ave	124885	251801	633815	1311993	2777057	1.00	2.00	5.00	10.0	20.0

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5622899					40.0				
tert-Butylbenzene	DCBd 4	Ave	107456 5259257	222437	570303	1213704	2608022	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trimethylbenzene	DCBd 4	Ave	125769 6336062	269709	691594	1458830	3116448	1.00 40.0	2.00	5.00	10.0	20.0
sec-Butylbenzene	DCBd 4	Ave	141534 6889593	294251	749769	1605451	3445811	1.00 40.0	2.00	5.00	10.0	20.0
1,3-Dichlorobenzene	DCBd 4	Ave	79988 3446839	164834	414203	839103	1733837	1.00 40.0	2.00	5.00	10.0	20.0
4-Isopropyltoluene	DCBd 4	Ave	125533 6173286	268187	672177	1421147	3069390	1.00 40.0	2.00	5.00	10.0	20.0
1,4-Dichlorobenzene	DCBd 4	Ave	86247 3517407	171714	427734	863405	1784216	1.00 40.0	2.00	5.00	10.0	20.0
n-Butylbenzene	DCBd 4	Ave	105585 4764027	226998	547299	1141647	2416429	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichlorobenzene	DCBd 4	Ave	83074 3607534	168210	431687	880005	1817774	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	5731 323157	14241	34964	73534	155451	1.00 40.0	2.00	5.00	10.0	20.0
1,2,4-Trichlorobenzene	DCBd 4	Ave	61295 2463296	138494	313669	637594	1286481	1.00 40.0	2.00	5.00	10.0	20.0
Hexachlorobutadiene	DCBd 4	Lin1	36040 1035440	72546	147661	288855	568587	1.00 40.0	2.00	5.00	10.0	20.0
Naphthalene	DCBd 4	Ave	121361	262519	678882	1405465	2900947	1.00	2.00	5.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Canton Job No.: 240-157477-1 Analy Batch No.: 476941

SDG No.:

Instrument ID: A3UX15 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/16/2021 08:36 Calibration End Date: 03/16/2021 10:39 Calibration ID: 60823

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			5799160					40.0				
1,2,3-Trichlorobenzene	DCBd 4	Ave	58935 2293306	134820	296808	597963	1206461	1.00 40.0	2.00	5.00	10.0	20.0
Dibromofluoromethane (Surr)	FB	Ave	36526 1555302	73272	190756	382556	803605	1.00 40.0	2.00	5.00	10.0	20.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	41633 1734501	85434	214048	425239	887545	1.00 40.0	2.00	5.00	10.0	20.0
Toluene-d8 (Surr)	CBNZ d5	Ave	123741 5696194	246447	645215	1327515	2800914	1.00 40.0	2.00	5.00	10.0	20.0
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	43228 1856230	83987	218006	452465	937497	1.00 40.0	2.00	5.00	10.0	20.0

Curve Type Legend

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5644.D
Lims ID: STD8260 L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Mar-2021 08:36:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-002
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:38 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:13:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1738218	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1176310	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	87	670129	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	1555302	40.0	38.3	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	1734501	40.0	37.9	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	5696194	40.0	39.5	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	1856230	40.0	38.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	1985876	40.0	37.9	
10 Chloromethane	50	1.574	1.574	0.000	99	2137858	40.0	35.9	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	1867423	40.0	36.6	
12 Butadiene	54	1.669	1.681	-0.012	99	2331823	40.0	35.8	
13 Bromomethane	94	1.918	1.918	0.000	91	1571689	40.0	36.8	
14 Chloroethane	64	2.001	2.001	0.000	100	1352876	40.0	36.0	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	3604788	40.0	36.0	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	3464762	40.0	38.2	
17 Ethyl ether	59	2.404	2.416	-0.012	91	1648971	40.0	37.8	
18 Acrolein	56	2.523	2.523	0.000	99	523416	200.0	201.9	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	1987280	40.0	39.5	
20 112TCTFE	151	2.629	2.629	0.000	95	1754372	40.0	41.9	
21 Acetone	58	2.653	2.653	0.000	100	259443	80.0	73.8	
22 Iodomethane	142	2.736	2.748	-0.012	98	2924204	40.0	38.0	
24 Carbon disulfide	76	2.796	2.796	0.000	100	5211254	40.0	37.2	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	1200557	40.0	40.7	
27 Methyl acetate	43	2.914	2.914	0.000	97	1761410	80.0	79.8	
28 Methylene Chloride	84	2.997	3.009	-0.012	92	1768190	40.0	37.8	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	99	966491	400.0	393.1	
30 Acrylonitrile	53	3.211	3.211	0.000	99	4734494	400.0	401.3	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	4898428	40.0	40.2	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	96	1888831	40.0	37.6	
34 Hexane	86	3.436	3.436	0.000	92	392577	40.0	39.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	3082713	40.0	38.8	
36 Vinyl acetate	43	3.602	3.602	0.000	97	3014699	40.0	44.6	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	99	281791	80.0	76.7	
42 2,2-Dichloropropane	97	4.053	4.053	0.000	82	603120	40.0	39.0	
41 cis-1,2-Dichloroethene	96	4.041	4.053	-0.011	82	2005786	40.0	37.8	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	955220	40.0	38.2	
47 Tetrahydrofuran	42	4.278	4.278	0.000	86	676139	80.0	74.0	
48 Chloroform	83	4.302	4.302	0.000	93	3059766	40.0	38.7	
49 1,1,1-Trichloroethane	97	4.456	4.468	-0.012	98	2825060	40.0	39.6	
50 Cyclohexane	56	4.503	4.503	0.000	90	2874773	40.0	39.1	
52 Carbon tetrachloride	117	4.598	4.598	0.000	95	2586568	40.0	40.8	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	93	2458560	40.0	38.4	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	742762	1000.0	955.2	
55 Benzene	78	4.764	4.776	-0.012	95	7273390	40.0	38.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	2207739	40.0	38.9	
58 n-Heptane	100	4.966	4.966	0.000	91	334066	40.0	38.8	
60 Trichloroethene	130	5.298	5.298	0.000	96	1964997	40.0	38.3	
62 Methylcyclohexane	83	5.464	5.464	0.000	88	2517271	40.0	39.3	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	93	1581278	40.0	40.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	89	120475	800.0	492.5	
65 Dibromomethane	93	5.606	5.606	0.000	90	885521	40.0	38.8	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	2108837	40.0	41.9	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	93	1217878	80.0	89.2	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	96	2383514	40.0	43.5	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	2117506	80.0	80.3	
72 Toluene	91	6.412	6.412	0.000	98	7004750	40.0	40.3	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	93	1937105	40.0	43.5	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	1398285	40.0	41.6	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	1112850	40.0	39.0	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	1448870	40.0	39.6	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	1960760	40.0	40.0	
78 2-Hexanone	43	6.982	6.982	0.000	96	1128839	80.0	69.2	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	1375317	40.0	43.9	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	1087018	40.0	39.5	
84 Chlorobenzene	112	7.681	7.681	0.000	95	4215604	40.0	39.7	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	95	1811750	40.0	41.0	
86 Ethylbenzene	106	7.776	7.776	0.000	98	2348653	40.0	40.5	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	92	5668949	40.0	40.3	
88 o-Xylene	106	8.262	8.262	0.000	97	3043471	40.0	40.3	
89 Styrene	104	8.274	8.274	0.000	93	4136534	40.0	42.2	
90 Bromoform	173	8.464	8.464	0.000	98	910703	40.0	47.0	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	7631521	40.0	40.9	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	1413960	40.0	41.2	
95 Bromobenzene	156	8.914	8.914	0.000	91	1887184	40.0	40.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	447188	40.0	40.2	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	92	322478	40.0	40.5	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	1961209	40.0	42.0	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	1789216	40.0	41.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	6217268	40.0	42.2	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	5622899	40.0	40.6	
104 tert-Butylbenzene	119	9.507	9.496	0.011	91	5259257	40.0	41.8	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	6336062	40.0	42.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	6889593	40.0	41.6	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	3446839	40.0	39.0	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	6173286	40.0	41.6	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	3517407	40.0	38.3	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	4764027	40.0	39.7	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	99	3607534	40.0	39.2	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	88	323157	40.0	42.7	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	2463296	40.0	36.5	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	1035440	40.0	38.2	
119 Naphthalene	128	12.128	12.128	0.000	96	5799160	40.0	40.3	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	2293306	40.0	35.8	
S 127 1,2-Dichloroethene, Total	96				0			75.5	
S 128 1,3-Dichloropropene, Total	75				0			87.0	
S 129 Xylenes, Total	106				0		80.0	80.6	
S 130 Total BTEX	1				0		200.0	199.5	
S 131 Trihalomethanes, Total	1				0		160.0	171.5	

QC Flag Legend

Processing Flags

Reagents:

vm50ss_stk_00086	Amount Added:	32.00	Units: uL
VM50is_00086	Amount Added:	1.00	Units: uL
VMRPRIMW_00427	Amount Added:	32.00	Units: uL
VMAROLISTDW_00384	Amount Added:	32.00	Units: uL
VMRGAS_00377	Amount Added:	32.00	Units: uL

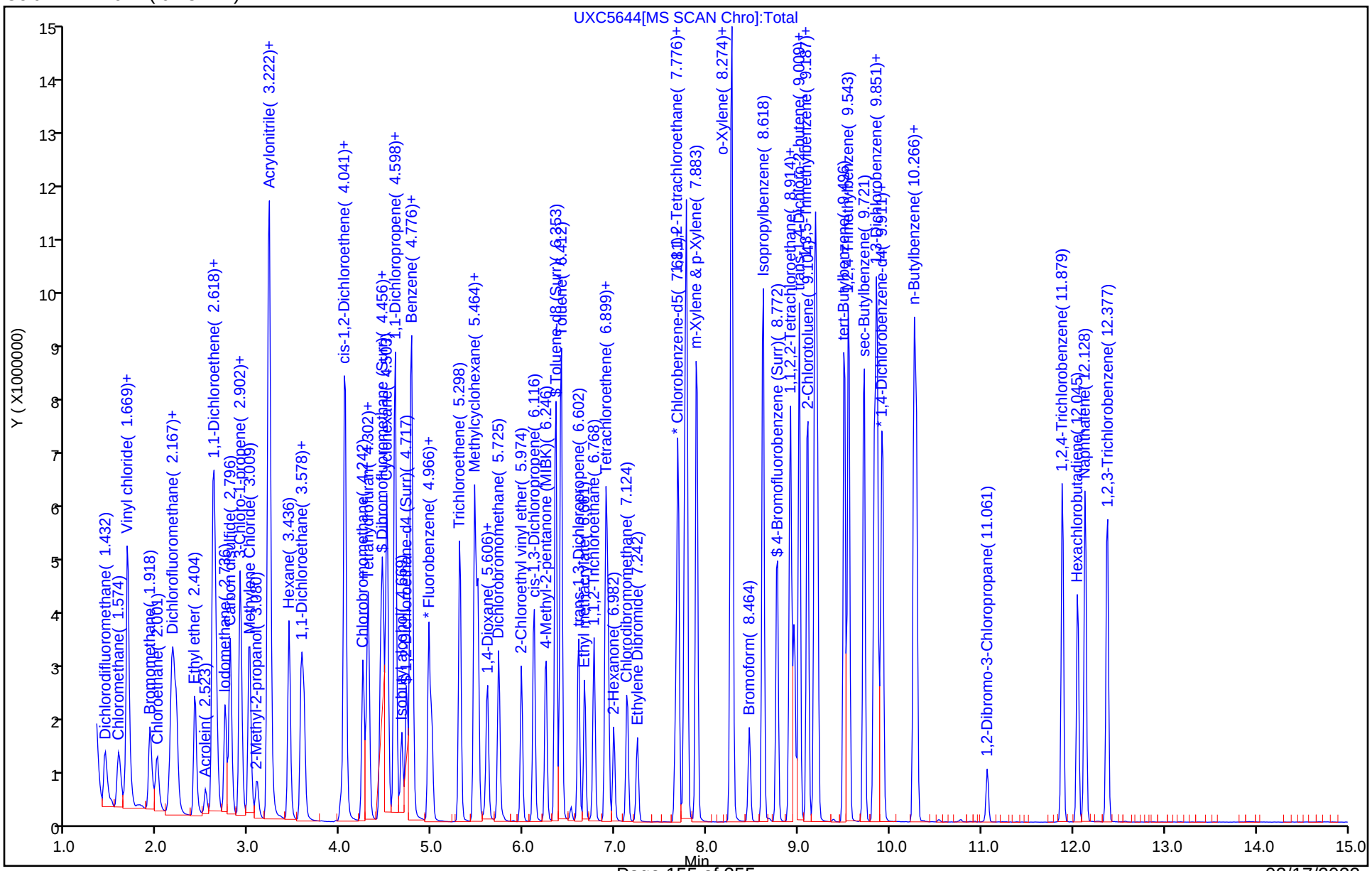
Report Date: 18-Mar-2021 09:00:39 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5644.D

Injection Date:	16-Mar-2021 08:36:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L6			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5645.D
Lims ID: STD8260 L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Mar-2021 08:58:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-003
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:45 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:18:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1729200	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1129906	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	93	663171	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	803605	20.0	19.9	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	887545	20.0	19.5	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	2800914	20.0	20.2	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	937497	20.0	20.0	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	1015755	20.0	19.5	
10 Chloromethane	50	1.574	1.574	0.000	99	1076987	20.0	18.2	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	1053493	20.0	20.7	
12 Butadiene	54	1.669	1.681	-0.012	99	1175768	20.0	18.2	
13 Bromomethane	94	1.918	1.918	0.000	90	834840	20.0	19.6	
14 Chloroethane	64	1.989	2.001	-0.012	100	724185	20.0	19.4	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	1828501	20.0	18.4	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	1796517	20.0	19.9	
17 Ethyl ether	59	2.404	2.416	-0.012	91	824901	20.0	19.0	
18 Acrolein	56	2.523	2.523	0.000	100	249680	100.0	95.4	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	1020497	20.0	20.4	
20 112TCTFE	151	2.629	2.629	0.000	92	876594	20.0	21.0	
21 Acetone	58	2.653	2.653	0.000	100	129995	40.0	37.2	
22 Iodomethane	142	2.736	2.748	-0.012	99	1762805	20.0	23.0	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	2970031	20.0	21.3	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	606147	20.0	20.6	
27 Methyl acetate	43	2.914	2.914	0.000	97	869993	40.0	39.6	
28 Methylene Chloride	84	3.009	3.009	0.000	92	925140	20.0	19.9	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	98	475246	200.0	194.3	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	2316749	200.0	197.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	2438583	20.0	20.1	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	94	977825	20.0	19.6	
34 Hexane	86	3.436	3.436	0.000	93	197372	20.0	19.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	1559420	20.0	19.7	
36 Vinyl acetate	43	3.602	3.602	0.000	97	1435718	20.0	21.3	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	82	1027988	20.0	19.5	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	98	137808	40.0	37.7	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	83	309943	20.0	20.2	
46 Chlorobromomethane	128	4.242	4.242	0.000	94	492922	20.0	19.8	
47 Tetrahydrofuran	42	4.278	4.278	0.000	86	327685	40.0	36.1	
48 Chloroform	83	4.301	4.302	-0.001	93	1563762	20.0	19.9	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	1436238	20.0	20.3	
50 Cyclohexane	56	4.503	4.503	0.000	90	1474122	20.0	20.1	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	1297566	20.0	20.6	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	1253974	20.0	19.7	
53 Isobutyl alcohol	41	4.669	4.669	0.000	94	364589	500.0	471.3	
55 Benzene	78	4.764	4.776	-0.012	95	3623322	20.0	19.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	1113535	20.0	19.7	
58 n-Heptane	100	4.966	4.966	0.000	90	170034	20.0	19.9	
60 Trichloroethene	130	5.298	5.298	0.000	96	983943	20.0	19.3	
62 Methylcyclohexane	83	5.464	5.464	0.000	89	1277610	20.0	20.1	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	785821	20.0	20.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	37	110747	400.0	416.6	
65 Dibromomethane	93	5.606	5.606	0.000	91	449938	20.0	19.8	
67 Dichlorobromomethane	83	5.725	5.725	-0.001	99	1025475	20.0	20.5	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	570636	40.0	42.0	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	1156157	20.0	21.2	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	1044731	40.0	39.8	
72 Toluene	91	6.412	6.412	0.000	98	3370989	20.0	20.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	922042	20.0	21.6	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	681749	20.0	21.1	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	549002	20.0	20.0	
76 Tetrachloroethene	164	6.898	6.899	-0.001	98	707318	20.0	20.1	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	943985	20.0	20.0	
78 2-Hexanone	43	6.982	6.982	0.000	97	604348	40.0	38.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	652498	20.0	21.7	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	538641	20.0	20.4	
84 Chlorobenzene	112	7.681	7.681	0.000	95	2065080	20.0	20.3	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	95	888983	20.0	20.9	
86 Ethylbenzene	106	7.776	7.776	0.000	98	1138861	20.0	20.5	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	2787248	20.0	20.6	
88 o-Xylene	106	8.262	8.262	0.000	95	1485220	20.0	20.5	
89 Styrene	104	8.274	8.274	0.000	90	1985697	20.0	21.1	
90 Bromoform	173	8.464	8.464	0.000	98	415352	20.0	22.3	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	3744436	20.0	20.9	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	95	704816	20.0	20.8	
95 Bromobenzene	156	8.914	8.914	0.000	91	925930	20.0	19.8	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	221278	20.0	20.1	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	87	160485	20.0	20.5	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	960393	20.0	20.8	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	875326	20.0	20.4	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	3048822	20.0	20.9	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	2777057	20.0	20.2	
104 tert-Butylbenzene	119	9.496	9.496	0.000	91	2608022	20.0	20.9	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	3116448	20.0	20.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	3445811	20.0	21.0	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	1733837	20.0	19.8	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	3069390	20.0	20.9	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	97	1784216	20.0	19.6	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	2416429	20.0	20.3	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	1817774	20.0	20.0	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	88	155451	20.0	20.8	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	1286481	20.0	19.3	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	568587	20.0	20.9	
119 Naphthalene	128	12.128	12.128	0.000	97	2900947	20.0	20.4	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	1206461	20.0	19.0	
S 127 1,2-Dichloroethene, Total	96				0			39.1	
S 128 1,3-Dichloropropene, Total	75				0			42.8	
S 129 Xylenes, Total	106				0		40.0	41.1	
S 130 Total BTEX	1				0		100.0	100.8	
S 131 Trihalomethanes, Total	1				0		80.0	84.3	

Reagents:

vm50ss_stk_00086	Amount Added:	16.00	Units: uL
VM50is_00086	Amount Added:	1.00	Units: uL
VMRPRIMW_00427	Amount Added:	16.00	Units: uL
VMAROLISTDW_00384	Amount Added:	16.00	Units: uL
VMRGAS_00377	Amount Added:	16.00	Units: uL

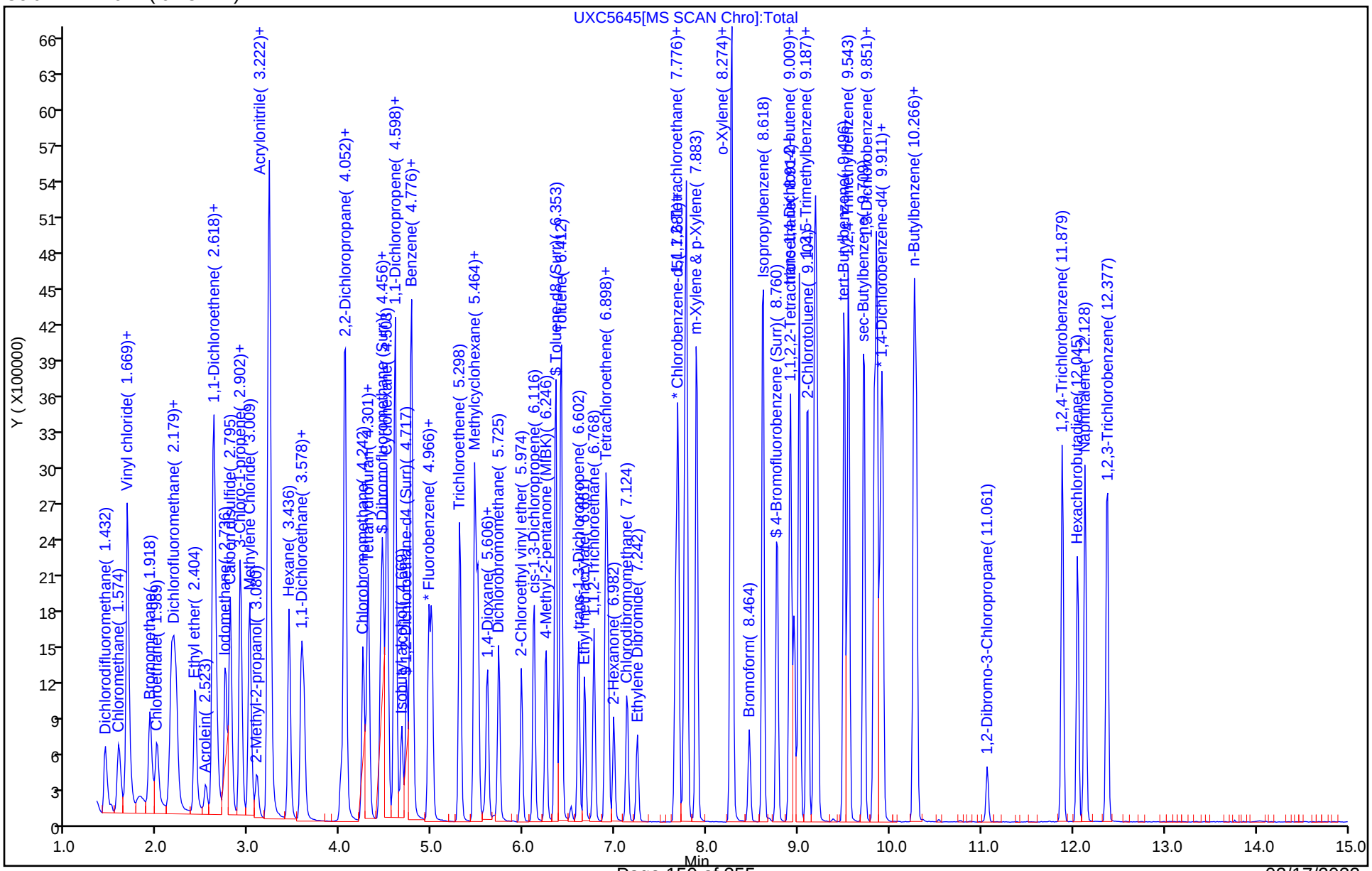
Report Date: 18-Mar-2021 09:00:46 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5645.D

Injection Date:	16-Mar-2021 08:58:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L5			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5646.D
Lims ID: STD8260 L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 16-Mar-2021 09:20:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-004
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:51 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 10:42:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1635381	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	84	1083691	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	639882	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	382556	10.0	10.0	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	425239	10.0	9.88	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1327515	10.0	10.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	452465	10.0	10.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	505763	10.0	10.3	
10 Chloromethane	50	1.574	1.574	0.000	99	581954	10.0	10.4	
11 Vinyl chloride	62	1.669	1.669	0.000	97	435655	10.0	9.07	
12 Butadiene	54	1.681	1.681	0.000	99	603954	10.0	9.86	
13 Bromomethane	94	1.918	1.918	0.000	91	359282	10.0	8.93	
14 Chloroethane	64	2.001	2.001	0.000	100	331296	10.0	9.36	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	917387	10.0	9.74	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	97	821375	10.0	9.64	
17 Ethyl ether	59	2.416	2.416	0.000	90	402519	10.0	9.80	
18 Acrolein	56	2.523	2.523	0.000	99	127991	50.0	50.5	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	474847	10.0	10.0	
20 112TCTFE	151	2.629	2.629	0.000	93	394578	10.0	10.0	
21 Acetone	58	2.653	2.653	0.000	100	61024	20.0	18.5	
22 Iodomethane	142	2.748	2.748	0.000	98	720329	10.0	9.95	
24 Carbon disulfide	76	2.796	2.796	0.000	100	1273944	10.0	9.67	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	90	282597	10.0	10.2	
27 Methyl acetate	43	2.914	2.914	0.000	98	411585	20.0	19.8	
28 Methylene Chloride	84	3.009	3.009	0.000	92	430176	10.0	9.78	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	98	237680	100.0	102.8	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1114638	100.0	100.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1151185	10.0	10.0	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	473854	10.0	10.0	
34 Hexane	86	3.436	3.436	0.000	92	94360	10.0	9.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	747006	10.0	9.99	
36 Vinyl acetate	43	3.602	3.602	0.000	97	650063	10.0	10.2	
42 2,2-Dichloropropane	97	4.053	4.053	0.000	80	144526	10.0	9.94	
41 cis-1,2-Dichloroethene	96	4.053	4.053	0.000	82	489671	10.0	9.82	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	100	66059	20.0	19.1	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	237215	10.0	10.1	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	160132	20.0	18.6	
48 Chloroform	83	4.302	4.302	0.000	93	742858	10.0	9.98	
49 1,1,1-Trichloroethane	97	4.468	4.468	0.000	98	670415	10.0	10.0	
50 Cyclohexane	56	4.503	4.503	0.000	90	681490	10.0	9.85	
52 Carbon tetrachloride	117	4.598	4.598	0.000	93	601989	10.0	10.1	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	606744	10.0	10.1	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	186811	250.0	255.3	
55 Benzene	78	4.776	4.776	0.000	95	1742135	10.0	9.71	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	533877	10.0	10.0	
58 n-Heptane	100	4.966	4.966	0.000	91	74441	10.0	9.20	
60 Trichloroethene	130	5.298	5.298	0.000	97	476021	10.0	9.87	
62 Methylcyclohexane	83	5.464	5.464	0.000	88	592186	10.0	9.83	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	372280	10.0	10.0	
66 1,4-Dioxane	88	5.606	5.606	0.000	85	59463	200.0	191.9	
65 Dibromomethane	93	5.606	5.606	0.000	91	215335	10.0	10.0	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	484704	10.0	10.2	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	263000	20.0	20.5	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	529695	10.0	10.3	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	502124	20.0	20.2	
72 Toluene	91	6.412	6.412	0.000	98	1573355	10.0	9.82	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	420983	10.0	10.3	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	306515	10.0	9.91	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	260222	10.0	9.90	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	338041	10.0	10.0	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	90	454762	10.0	10.1	
78 2-Hexanone	43	6.982	6.982	0.000	97	302863	20.0	20.1	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	297016	10.0	10.3	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	250735	10.0	9.88	
84 Chlorobenzene	112	7.681	7.681	0.000	95	967329	10.0	9.90	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	406561	10.0	9.98	
86 Ethylbenzene	106	7.776	7.776	0.000	98	538828	10.0	10.1	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1293431	10.0	9.98	
88 o-Xylene	106	8.262	8.262	0.000	96	689690	10.0	9.91	
89 Styrene	104	8.274	8.274	0.000	93	913969	10.0	10.1	
90 Bromoform	173	8.464	8.464	0.000	98	177112	10.0	9.92	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	1725432	10.0	10.0	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	328387	10.0	10.0	
95 Bromobenzene	156	8.914	8.914	0.000	90	452432	10.0	10.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	105370	10.0	9.92	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	73	69740	10.0	9.32	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	445896	10.0	9.99	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	422328	10.0	10.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	1410902	10.0	10.0	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	1311993	10.0	9.91	
104 tert-Butylbenzene	119	9.496	9.496	0.000	91	1213704	10.0	10.1	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	1458830	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	94	1605451	10.0	10.1	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	839103	10.0	9.94	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1421147	10.0	10.0	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	863405	10.0	9.85	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	1141647	10.0	9.95	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	99	880005	10.0	10.0	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	87	73534	10.0	10.2	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	637594	10.0	9.89	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	95	288855	10.0	10.6	
119 Naphthalene	128	12.128	12.128	0.000	96	1405465	10.0	10.2	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	597963	10.0	9.77	
S 129 Xylenes, Total	106				0		20.0	19.9	
S 130 Total BTEX	1				0		50.0	49.5	
S 131 Trihalomethanes, Total	1				0		40.0	40.4	

QC Flag Legend

Processing Flags

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	8.00	Units: uL
VMAROLISTDW_00384	Amount Added:	8.00	Units: uL
VMRPRIMW_00427	Amount Added:	8.00	Units: uL
VMRGAS_00377	Amount Added:	8.00	Units: uL

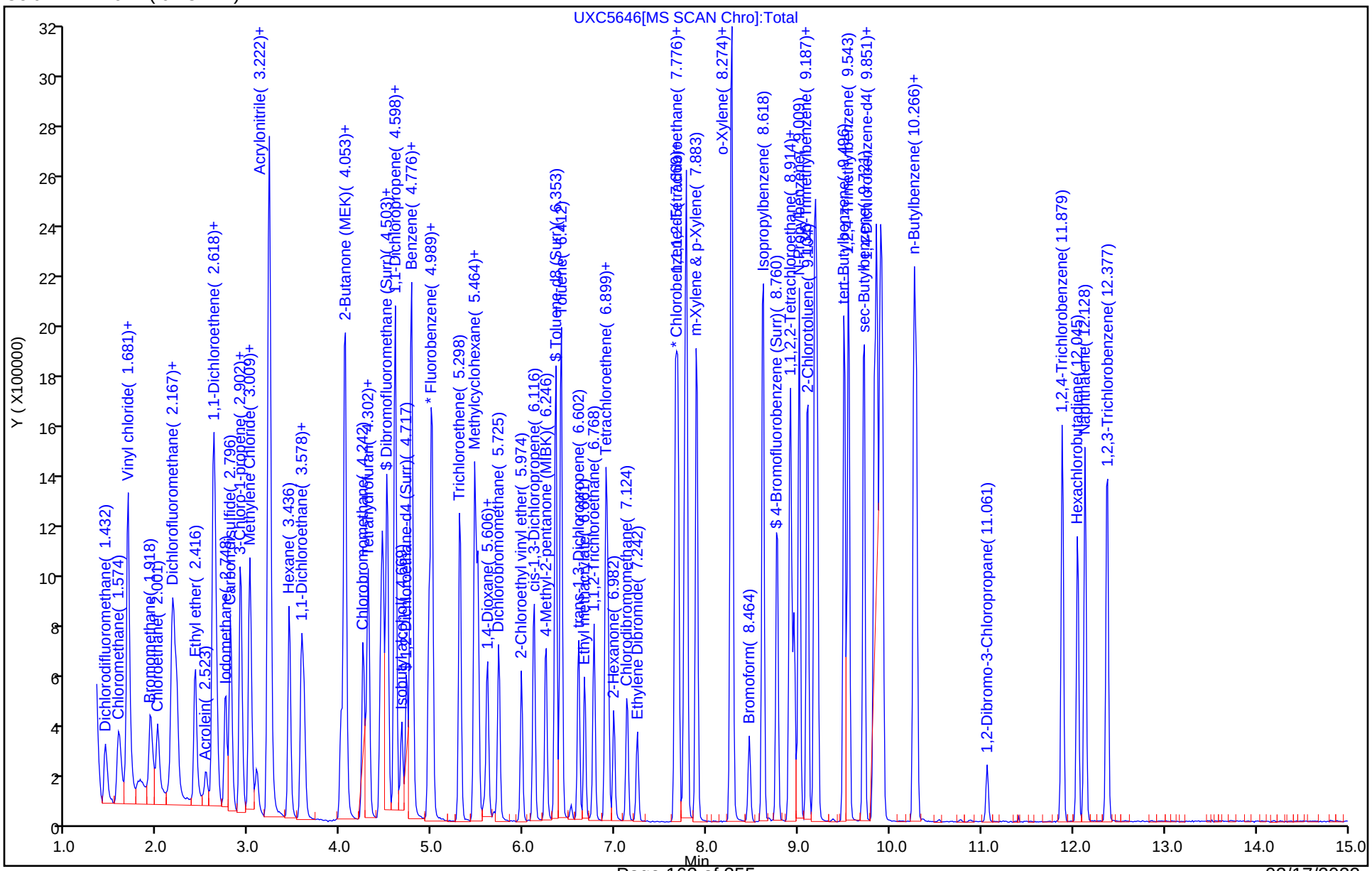
Report Date: 18-Mar-2021 09:00:52 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5646.D

Injection Date:	16-Mar-2021 09:20:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L4			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5647.D
Lims ID: STD8260 L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Mar-2021 09:42:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-005
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:00:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	100	1580769	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1036230	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	93	621189	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	190756	5.00	5.16	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	214048	5.00	5.14	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	645215	5.00	5.08	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	218006	5.00	5.08	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	236340	5.00	4.96	
10 Chloromethane	50	1.574	1.574	0.000	99	278892	5.00	5.15	
11 Vinyl chloride	62	1.669	1.669	0.000	98	218141	5.00	4.70	
12 Butadiene	54	1.681	1.681	0.000	99	299854	5.00	5.06	
13 Bromomethane	94	1.918	1.918	0.000	90	185985	5.00	4.78	
14 Chloroethane	64	2.001	2.001	0.000	100	171841	5.00	5.02	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	454576	5.00	5.00	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	399090	5.00	4.84	
17 Ethyl ether	59	2.416	2.416	0.000	90	199967	5.00	5.04	
18 Acrolein	56	2.523	2.523	0.000	98	65464	25.0	25.4	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	236738	5.00	5.18	
20 112TCTFE	151	2.629	2.629	0.000	93	194077	5.00	5.09	
21 Acetone	58	2.653	2.653	0.000	98	28520	10.0	8.92	
22 Iodomethane	142	2.736	2.748	-0.012	99	348537	5.00	4.98	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	614828	5.00	4.83	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	137672	5.00	5.13	
27 Methyl acetate	43	2.914	2.914	0.000	98	204142	10.0	10.2	
28 Methylene Chloride	84	3.009	3.009	0.000	92	214303	5.00	5.04	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	98	117539	50.0	52.6	
30 Acrylonitrile	53	3.210	3.211	-0.001	98	541571	50.0	50.5	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	559170	5.00	5.04	
32 trans-1,2-Dichloroethene	96	3.234	3.222	0.012	96	228419	5.00	5.00	
34 Hexane	86	3.436	3.436	0.000	92	41895	5.00	4.58	
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	364589	5.00	5.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.602	3.602	0.000	97	304236	5.00	4.95	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	99	32640	10.0	9.77	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	81	70219	5.00	5.00	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	85	244751	5.00	5.08	
46 Chlorobromomethane	128	4.242	4.242	0.000	94	114745	5.00	5.04	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	75127	10.0	9.04	
48 Chloroform	83	4.301	4.302	-0.001	94	363680	5.00	5.05	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	328759	5.00	5.07	
50 Cyclohexane	56	4.503	4.503	0.000	90	333807	5.00	4.99	
52 Carbon tetrachloride	117	4.598	4.598	0.000	94	291902	5.00	5.06	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	293864	5.00	5.04	
53 Isobutyl alcohol	41	4.669	4.669	0.000	95	89469	125.0	126.5	
55 Benzene	78	4.776	4.776	0.000	95	853447	5.00	4.92	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	258800	5.00	5.02	
58 n-Heptane	100	4.966	4.966	0.000	91	38208	5.00	4.88	
60 Trichloroethene	130	5.298	5.298	0.000	96	234414	5.00	5.03	
62 Methylcyclohexane	83	5.464	5.464	0.000	89	281838	5.00	4.84	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	178849	5.00	4.98	
66 1,4-Dioxane	88	5.606	5.606	0.000	38	28764	100.0	91.7	
65 Dibromomethane	93	5.606	5.606	0.000	90	103540	5.00	4.99	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	99	224007	5.00	4.90	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	93	118901	10.0	9.57	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	244291	5.00	4.91	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	243498	10.0	10.2	
72 Toluene	91	6.412	6.412	0.000	98	756651	5.00	4.94	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	191368	5.00	4.88	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	148354	5.00	5.01	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	92	124819	5.00	4.97	
76 Tetrachloroethene	164	6.898	6.899	-0.001	98	161314	5.00	5.00	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	213808	5.00	4.95	
78 2-Hexanone	43	6.981	6.982	-0.001	97	149884	10.0	10.4	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	137225	5.00	4.97	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	120100	5.00	4.95	
84 Chlorobenzene	112	7.681	7.681	0.000	97	470075	5.00	5.03	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	190281	5.00	4.88	
86 Ethylbenzene	106	7.776	7.776	0.000	98	253063	5.00	4.96	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	614921	5.00	4.96	
88 o-Xylene	106	8.262	8.262	0.000	96	333576	5.00	5.01	
89 Styrene	104	8.274	8.274	0.000	93	429902	5.00	4.98	
90 Bromoform	173	8.464	8.464	0.000	98	80220	5.00	4.70	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	823347	5.00	5.01	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	160683	5.00	5.06	
95 Bromobenzene	156	8.914	8.914	0.000	90	215609	5.00	4.93	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	85	50734	5.00	4.92	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	70	30267	5.00	4.28	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	213311	5.00	4.92	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	200124	5.00	4.98	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	666934	5.00	4.89	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	633815	5.00	4.93	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	92	570303	5.00	4.89	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	94	691594	5.00	4.94	
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	749769	5.00	4.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	98	414203	5.00	5.06	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	96	672177	5.00	4.89	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	427734	5.00	5.03	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	547299	5.00	4.92	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	431687	5.00	5.06	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	86	34964	5.00	4.99	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	313669	5.00	5.01	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	147661	5.00	5.25	
119 Naphthalene	128	12.128	12.128	0.000	96	678882	5.00	5.09	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	95	296808	5.00	5.00	
S 127 1,2-Dichloroethene, Total	96				0			10.1	
S 128 1,3-Dichloropropene, Total	75				0			9.79	
S 129 Xylenes, Total	106				0		10.0	9.97	
S 130 Total BTEX	1				0		25.0	24.8	
S 131 Trihalomethanes, Total	1				0		20.0	19.6	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	4.00	Units: uL
VMRPRIMW_00427	Amount Added:	4.00	Units: uL
VMRGAS_00377	Amount Added:	4.00	Units: uL
VMAROLISTDW_00384	Amount Added:	4.00	Units: uL

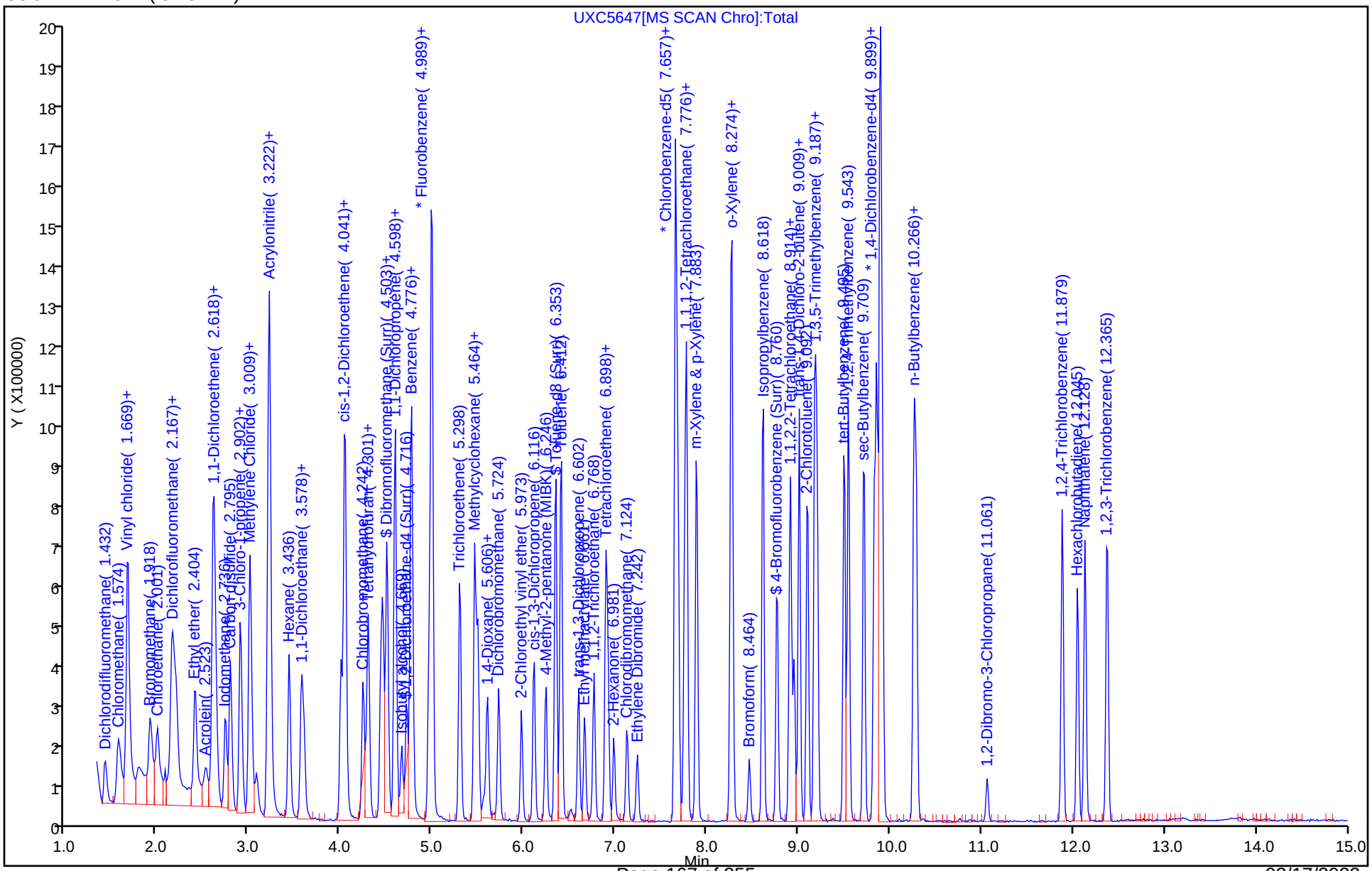
Report Date: 18-Mar-2021 09:00:58 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5647.D

Injection Date:	16-Mar-2021 09:42:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L3			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5648.D
Lims ID: STD8260 L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Mar-2021 10:17:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-006
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:01:02 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 11:41:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1600104	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1025239	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	608128	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	73272	2.00	1.96	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	85434	2.00	2.03	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	246447	2.00	1.96	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	83987	2.00	1.98	
9 Dichlorodifluoromethane	85	1.420	1.432	-0.012	99	96788	2.00	2.01	
10 Chloromethane	50	1.574	1.574	0.000	99	109132	2.00	1.99	
11 Vinyl chloride	62	1.657	1.669	-0.012	98	107404	2.00	2.29	
12 Butadiene	54	1.669	1.681	-0.012	99	116788	2.00	1.95	
13 Bromomethane	94	1.918	1.918	0.000	91	88628	2.00	2.25	
14 Chloroethane	64	1.989	2.001	-0.012	99	71803	2.00	2.07	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	197535	2.00	2.14	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	169605	2.00	2.03	
17 Ethyl ether	59	2.404	2.416	-0.012	89	83944	2.00	2.09	
18 Acrolein	56	2.523	2.523	0.000	97	42337	10.0	15.3	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	99	97460	2.00	2.11	
20 112TCTFE	151	2.617	2.629	-0.012	90	74912	2.00	1.94	
21 Acetone	58	2.653	2.653	0.000	97	15117	4.00	4.67	
22 Iodomethane	142	2.736	2.748	-0.012	99	140257	2.00	1.98	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	286182	2.00	2.22	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	87	54960	2.00	2.02	
27 Methyl acetate	43	2.914	2.914	0.000	97	79302	4.00	3.90	
28 Methylene Chloride	84	3.009	3.009	0.000	91	90541	2.00	2.10	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	97	44457	20.0	19.6	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	216160	20.0	19.9	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	220217	2.00	1.96	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	94	94914	2.00	2.05	
34 Hexane	86	3.436	3.436	0.000	93	18928	2.00	2.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	97	148843	2.00	2.03	
36 Vinyl acetate	43	3.602	3.602	0.000	97	113199	2.00	1.82	
41 cis-1,2-Dichloroethene	96	4.041	4.053	-0.012	81	101403	2.00	2.08	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	45	13268	4.00	3.93	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	76	28276	2.00	1.99	
46 Chlorobromomethane	128	4.242	4.242	0.000	93	46356	2.00	2.01	
47 Tetrahydrofuran	42	4.290	4.278	0.012	87	36744	4.00	4.37	
48 Chloroform	83	4.301	4.302	-0.001	93	145589	2.00	2.00	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	97	131645	2.00	2.01	
50 Cyclohexane	56	4.503	4.503	0.000	90	135465	2.00	2.00	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	113888	2.00	1.95	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	94	121447	2.00	2.06	
53 Isobutyl alcohol	41	4.669	4.669	0.000	91	35137	50.0	49.1	
55 Benzene	78	4.764	4.776	-0.012	95	365182	2.00	2.08	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	103413	2.00	1.98	
58 n-Heptane	100	4.965	4.966	-0.001	91	17934	2.00	2.26	
60 Trichloroethene	130	5.298	5.298	0.000	94	96690	2.00	2.05	
62 Methylcyclohexane	83	5.464	5.464	0.000	90	120389	2.00	2.04	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	92	69979	2.00	1.92	
66 1,4-Dioxane	88	5.606	5.606	0.000	41	13582	40.0	44.9	
65 Dibromomethane	93	5.594	5.606	-0.012	89	41243	2.00	1.96	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	98	89718	2.00	1.94	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	91	47750	4.00	3.80	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	95626	2.00	1.90	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	96	92610	4.00	3.82	
72 Toluene	91	6.412	6.412	0.000	98	307593	2.00	2.03	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	93	73739	2.00	1.90	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	54155	2.00	1.85	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	48837	2.00	1.96	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	65641	2.00	2.06	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	90	85147	2.00	1.99	
78 2-Hexanone	43	6.981	6.982	-0.001	97	59188	4.00	4.16	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	50550	2.00	1.85	
82 Ethylene Dibromide	107	7.242	7.242	0.000	97	48784	2.00	2.03	
84 Chlorobenzene	112	7.681	7.681	0.000	95	182215	2.00	1.97	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	74581	2.00	1.94	
86 Ethylbenzene	106	7.776	7.776	0.000	98	98654	2.00	1.95	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	238816	2.00	1.95	
88 o-Xylene	106	8.262	8.262	0.000	96	131067	2.00	1.99	
89 Styrene	104	8.274	8.274	0.000	91	161777	2.00	1.89	
90 Bromoform	173	8.464	8.464	0.000	96	32788	2.00	1.94	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	315606	2.00	1.94	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.903	-0.001	96	58976	2.00	1.90	
95 Bromobenzene	156	8.914	8.914	0.000	90	86512	2.00	2.02	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	87	21011	2.00	2.08	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	77	17008	2.00	2.54	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	82831	2.00	1.95	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	77726	2.00	1.97	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	259616	2.00	1.94	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	251801	2.00	2.00	
104 tert-Butylbenzene	119	9.507	9.496	0.011	90	222437	2.00	1.95	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	269709	2.00	1.97	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	94	294251	2.00	1.96	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	98	164834	2.00	2.06	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	268187	2.00	1.99	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	171714	2.00	2.06	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	226998	2.00	2.08	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	168210	2.00	2.02	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	82	14241	2.00	2.08	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	138494	2.00	2.26	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	95	72546	2.00	2.26	
119 Naphthalene	128	12.128	12.128	0.000	96	262519	2.00	2.01	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	95	134820	2.00	2.32	
S 127 1,2-Dichloroethene, Total	96				0			4.13	
S 128 1,3-Dichloropropene, Total	75				0			3.80	
S 129 Xylenes, Total	106				0		4.00	3.94	
S 130 Total BTEX	1				0		10.0	10.0	
S 131 Trihalomethanes, Total	1				0		8.00	7.73	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	1.60	Units: uL
VMRPRIMW_00427	Amount Added:	1.60	Units: uL
VMAROLISTDW_00384	Amount Added:	1.60	Units: uL
VMRGAS_00377	Amount Added:	1.60	Units: uL

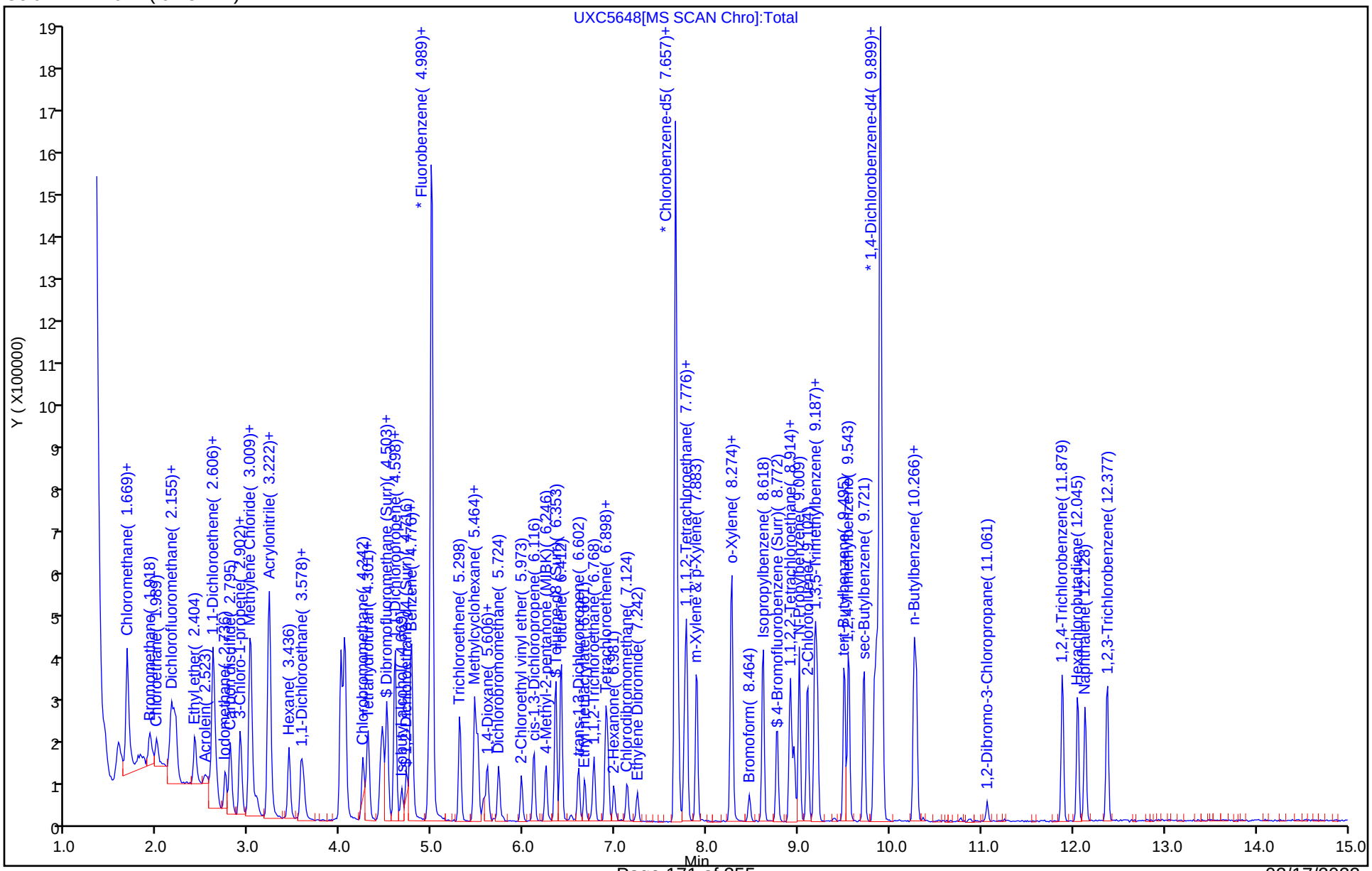
Report Date: 18-Mar-2021 09:01:03 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5648.D

Injection Date:	16-Mar-2021 10:17:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L2			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5649.D
Lims ID: STD8260 L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Mar-2021 10:39:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-007
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:01:07 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 12:42:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	5.001	-0.012	99	1508502	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1005314	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	606056	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	36526	1.00	1.04	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	99	41633	1.00	1.05	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	123741	1.00	1.00	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	95	43228	1.00	1.04	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	98	47955	1.00	1.06	
10 Chloromethane	50	1.574	1.574	0.000	98	58389	1.00	1.13	
11 Vinyl chloride	62	1.657	1.669	-0.012	78	46845	1.00	1.06	
12 Butadiene	54	1.669	1.681	-0.012	96	69152	1.00	1.22	
13 Bromomethane	94	1.918	1.918	0.000	91	41750	1.00	1.12	
14 Chloroethane	64	2.001	2.001	0.000	99	37706	1.00	1.16	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	98585	1.00	1.14	
16 Trichlorofluoromethane	101	2.191	2.191	0.000	98	86296	1.00	1.10	
17 Ethyl ether	59	2.404	2.416	-0.012	88	40718	1.00	1.07	
18 Acrolein	56	2.534	2.523	0.011	96	9294	5.00	1.47	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	98	39151	1.00	0.8976	
20 112TCTFE	151	2.629	2.629	0.000	91	33084	1.00	0.9100	
21 Acetone	58	2.653	2.653	0.000	99	7111	2.00	2.33	
22 Iodomethane	142	2.736	2.748	-0.012	99	61380	1.00	0.9189	
24 Carbon disulfide	76	2.795	2.796	-0.001	99	116874	1.00	0.9616	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	22980	1.00	0.8970	
27 Methyl acetate	43	2.914	2.914	0.000	97	39316	2.00	2.05	
28 Methylene Chloride	84	3.009	3.009	0.000	89	41550	1.00	1.02	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	96	20999	10.0	9.84	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	102496	10.0	10.0	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	105442	1.00	1.00	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	45650	1.00	1.05	
34 Hexane	86	3.436	3.436	0.000	91	9581	1.00	1.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.578	-0.012	96	70364	1.00	1.02	
36 Vinyl acetate	43	3.602	3.602	0.000	97	52739	1.00	0.8986	
42 2,2-Dichloropropane	97	4.041	4.053	-0.011	78	13807	1.00	1.03	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	81	47902	1.00	1.04	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	48	7540	2.00	2.37	
46 Chlorobromomethane	128	4.242	4.242	0.000	87	22476	1.00	1.03	
47 Tetrahydrofuran	42	4.290	4.278	0.012	85	19738	2.00	2.49	
48 Chloroform	83	4.301	4.302	-0.001	93	70935	1.00	1.03	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	97	60467	1.00	0.9778	
50 Cyclohexane	56	4.503	4.503	0.000	90	65918	1.00	1.03	
52 Carbon tetrachloride	117	4.598	4.598	0.000	92	52456	1.00	0.9535	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	93	56469	1.00	1.02	
53 Isobutyl alcohol	41	4.669	4.669	0.000	93	18341	25.0	27.2	
55 Benzene	78	4.764	4.776	-0.012	96	181175	1.00	1.09	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	96	51453	1.00	1.05	
58 n-Heptane	100	4.965	4.966	-0.001	92	7518	1.00	1.01	
60 Trichloroethene	130	5.298	5.298	0.000	95	47038	1.00	1.06	
62 Methylcyclohexane	83	5.464	5.464	0.000	90	57824	1.00	1.04	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	92	35608	1.00	1.04	
66 1,4-Dioxane	88	5.606	5.606	0.000	39	5574	20.0	23.1	
65 Dibromomethane	93	5.606	5.606	0.000	89	20875	1.00	1.05	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	98	41626	1.00	0.9538	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	92	21442	2.00	1.81	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	42305	1.00	0.8906	
71 4-Methyl-2-pentanone (MIBK)	43	6.234	6.246	-0.012	96	46573	2.00	2.04	
72 Toluene	91	6.412	6.412	0.000	98	148278	1.00	1.00	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	33643	1.00	0.8838	
74 Ethyl methacrylate	69	6.673	6.661	0.012	88	28235	1.00	0.9837	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	90	25770	1.00	1.06	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	30533	1.00	0.9755	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	42197	1.00	1.01	
78 2-Hexanone	43	6.981	6.982	-0.001	95	30177	2.00	2.16	
80 Chlorodibromomethane	129	7.124	7.124	0.000	89	23357	1.00	0.8719	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	23568	1.00	1.00	
84 Chlorobenzene	112	7.681	7.681	0.000	95	91842	1.00	1.01	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.764	-0.012	92	37283	1.00	0.9866	
86 Ethylbenzene	106	7.776	7.776	0.000	98	48952	1.00	0.9881	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	95	119546	1.00	0.99	
88 o-Xylene	106	8.262	8.262	0.000	96	63450	1.00	0.9824	
89 Styrene	104	8.274	8.274	0.000	93	78354	1.00	0.9354	
90 Bromoform	173	8.464	8.464	0.000	96	13367	1.00	0.8071	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	152266	1.00	0.9552	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	-0.001	97	30042	1.00	0.9688	
95 Bromobenzene	156	8.914	8.914	0.000	90	43010	1.00	1.01	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	9782	1.00	0.9725	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	66	5133	1.00	0.9070	
98 N-Propylbenzene	120	9.009	9.009	0.000	98	40320	1.00	0.9537	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	37216	1.00	0.9484	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	125526	1.00	0.9432	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	124885	1.00	1.00	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	92	107456	1.00	0.9445	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	94	125769	1.00	0.9214	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	141534	1.00	0.9438	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	96	79988	1.00	1.00	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	96	125533	1.00	0.9359	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	86247	1.00	1.04	
113 n-Butylbenzene	91	10.266	10.266	0.000	96	105585	1.00	0.9720	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	83074	1.00	1.00	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	79	5731	1.00	0.8382	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	61295	1.00	1.00	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	36040	1.00	0.7551	
119 Naphthalene	128	12.128	12.128	0.000	97	121361	1.00	0.9318	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	58935	1.00	1.02	
S 127 1,2-Dichloroethene, Total	96				0			2.09	
S 128 1,3-Dichloropropene, Total	75				0			1.77	
S 129 Xylenes, Total	106				0		2.00	1.98	
S 130 Total BTEX	1				0		5.00	5.06	
S 131 Trihalomethanes, Total	1				0		4.00	3.67	

Reagents:

VM50is_00086	Amount Added:	1.00	Units: uL
vm50ss_stk_00086	Amount Added:	0.80	Units: uL
VMRPRIMW_00427	Amount Added:	0.80	Units: uL
VMAROLISTDW_00384	Amount Added:	0.80	Units: uL
VMRGAS_00377	Amount Added:	0.80	Units: uL

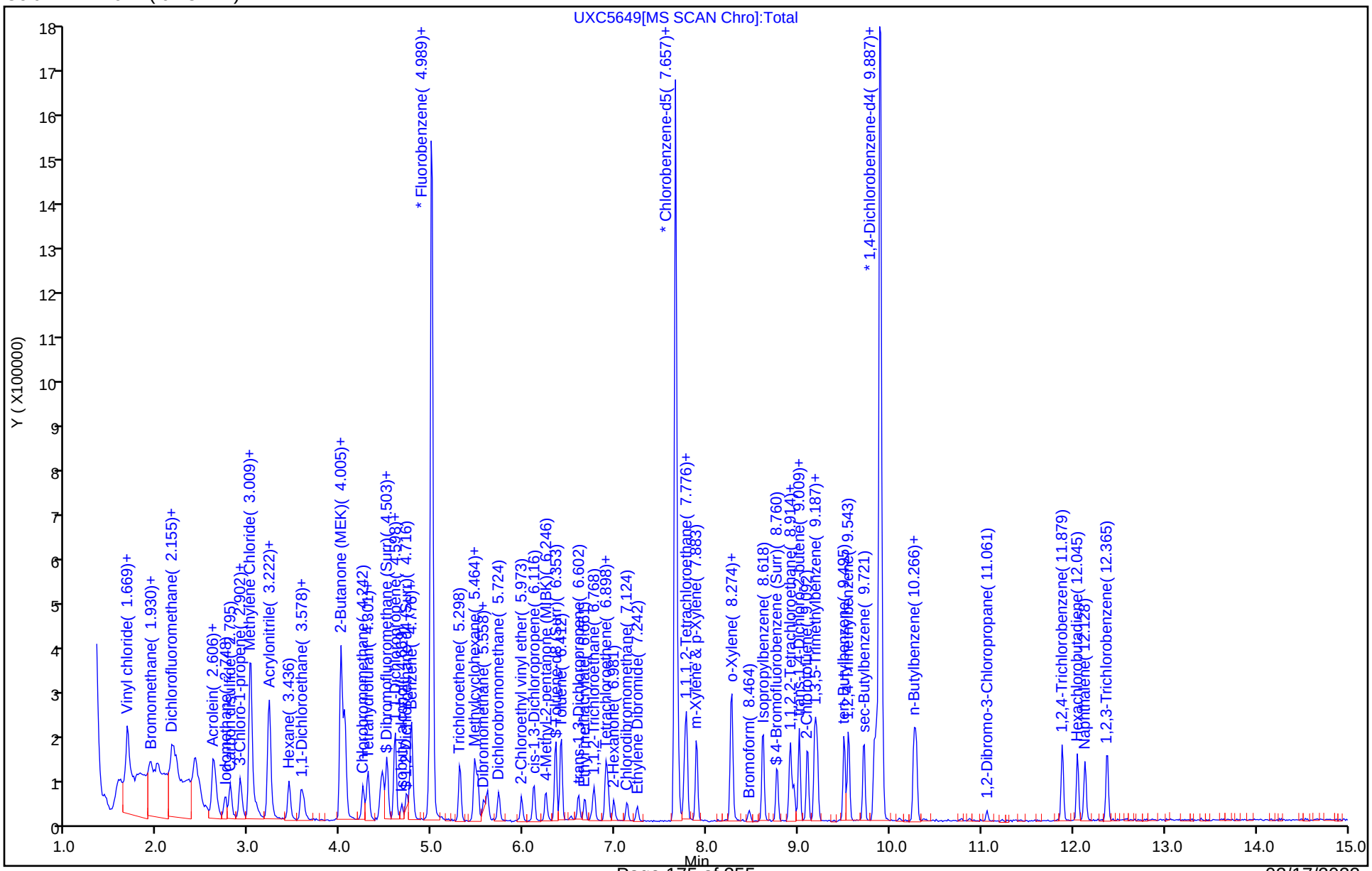
Report Date: 18-Mar-2021 09:01:08 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5649.D

Injection Date:	16-Mar-2021 10:39:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	STD8260 L1			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

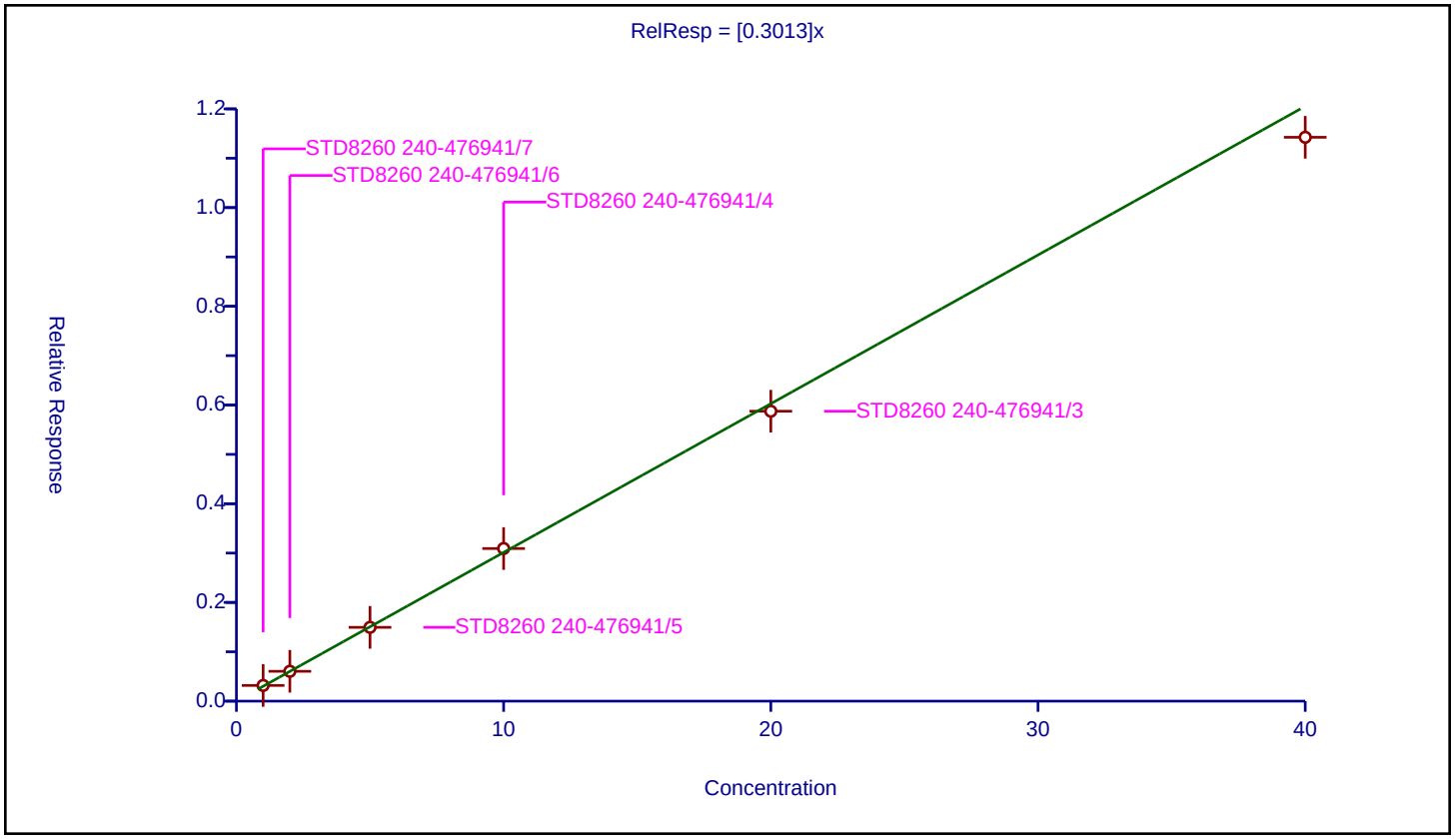
Curve Coefficients

Intercept:	0
Slope:	0.3013

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.317898	10.0	1508502.0	0.317898	Y
2	STD8260 240-476941/6	2.0	0.604886	10.0	1600104.0	0.302443	Y
3	STD8260 240-476941/5	5.0	1.495095	10.0	1580769.0	0.299019	Y
4	STD8260 240-476941/4	10.0	3.092631	10.0	1635381.0	0.309263	Y
5	STD8260 240-476941/3	20.0	5.874133	10.0	1729200.0	0.293707	Y
6	STD8260 240-476941/2	40.0	11.424781	10.0	1738218.0	0.28562	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

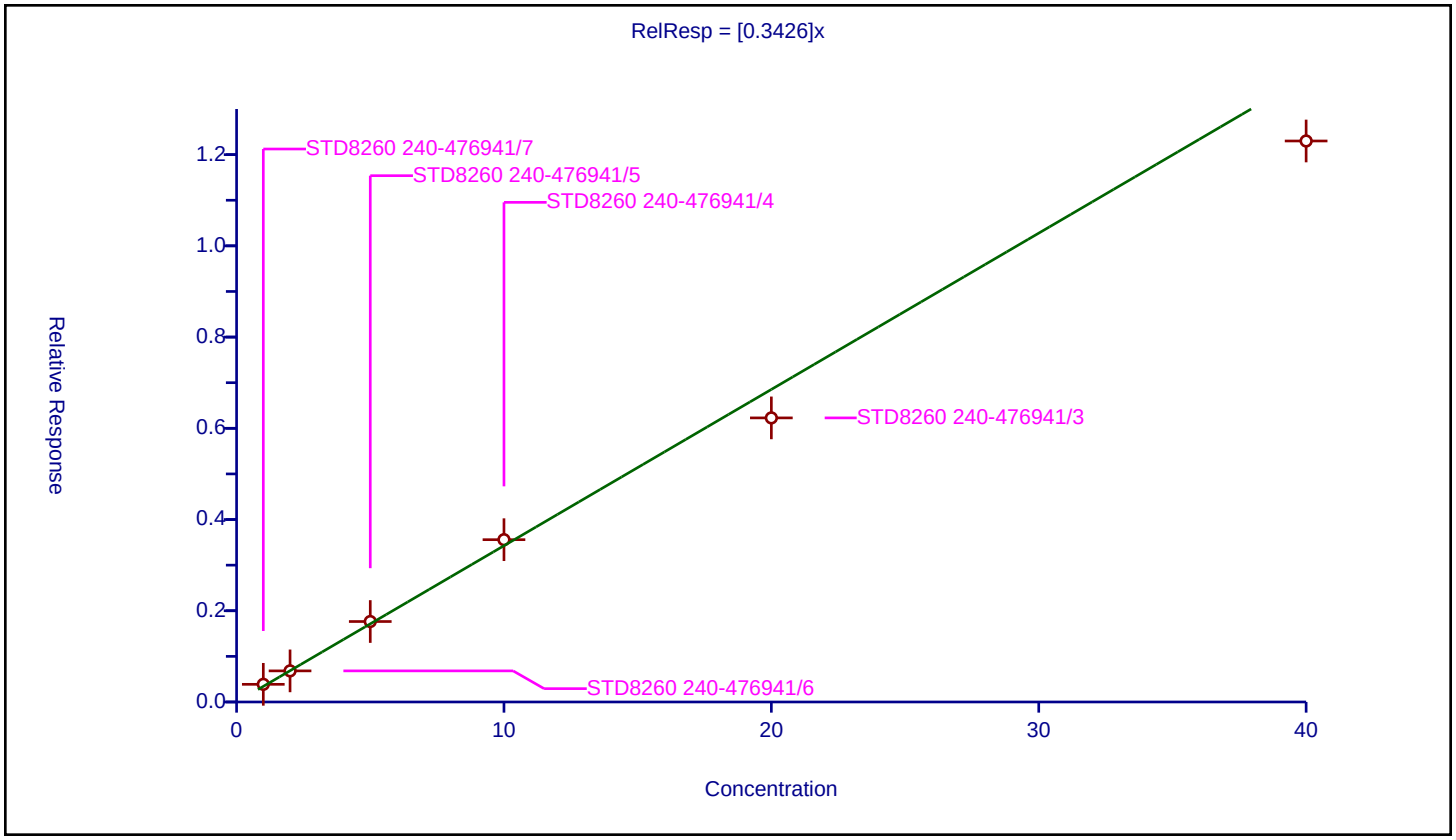
Curve Coefficients

Intercept:	0
Slope:	0.3426

Error Coefficients

Standard Error:	1110000
Relative Standard Error:	8.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.387066	10.0	1508502.0	0.387066	Y
2	STD8260 240-476941/6	2.0	0.682031	10.0	1600104.0	0.341015	Y
3	STD8260 240-476941/5	5.0	1.764281	10.0	1580769.0	0.352856	Y
4	STD8260 240-476941/4	10.0	3.558522	10.0	1635381.0	0.355852	Y
5	STD8260 240-476941/3	20.0	6.228238	10.0	1729200.0	0.311412	Y
6	STD8260 240-476941/2	40.0	12.299136	10.0	1738218.0	0.307478	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

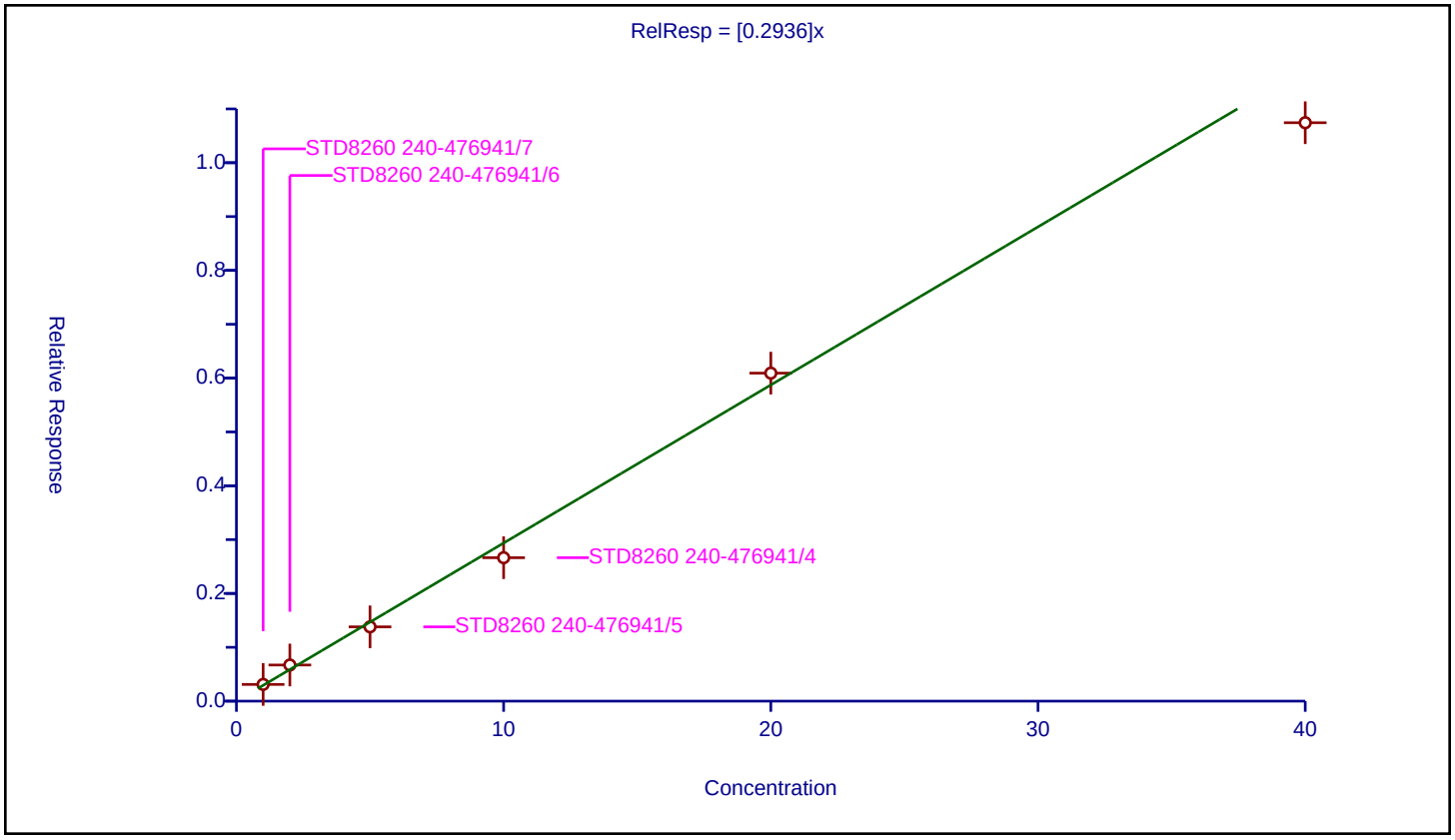
Curve Coefficients

Intercept:	0
Slope:	0.2936

Error Coefficients

Standard Error:	985000
Relative Standard Error:	9.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.31054	10.0	1508502.0	0.31054	Y
2	STD8260 240-476941/6	2.0	0.671231	10.0	1600104.0	0.335616	Y
3	STD8260 240-476941/5	5.0	1.379968	10.0	1580769.0	0.275994	Y
4	STD8260 240-476941/4	10.0	2.663936	10.0	1635381.0	0.266394	Y
5	STD8260 240-476941/3	20.0	6.092372	10.0	1729200.0	0.304619	Y
6	STD8260 240-476941/2	40.0	10.743319	10.0	1738218.0	0.268583	Y



Calibration / Butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

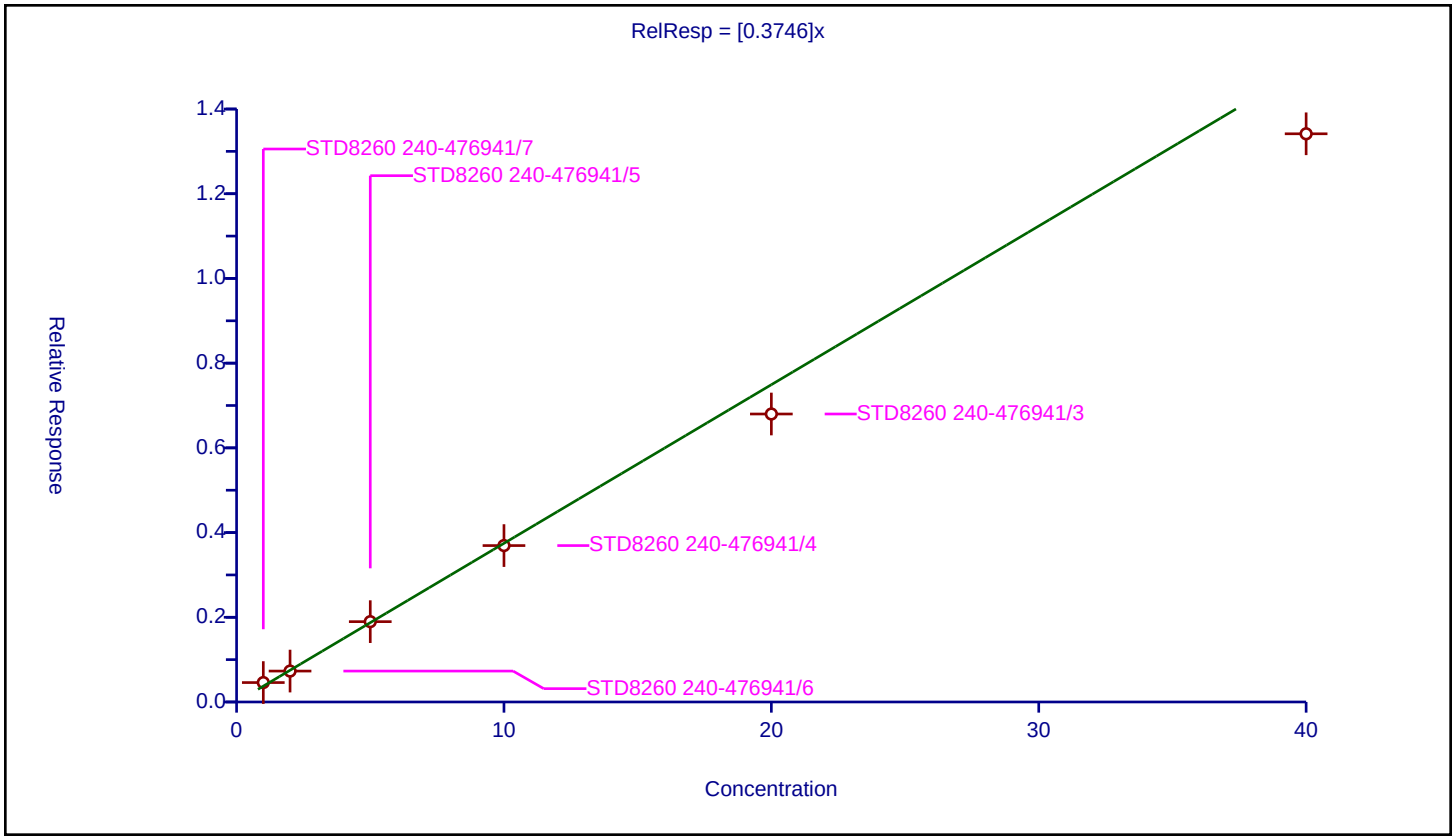
Curve Coefficients

Intercept:	0
Slope:	0.3746

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	11.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.458415	10.0	1508502.0	0.458415	Y
2	STD8260 240-476941/6	2.0	0.729878	10.0	1600104.0	0.364939	Y
3	STD8260 240-476941/5	5.0	1.896887	10.0	1580769.0	0.379377	Y
4	STD8260 240-476941/4	10.0	3.693048	10.0	1635381.0	0.369305	Y
5	STD8260 240-476941/3	20.0	6.799491	10.0	1729200.0	0.339975	Y
6	STD8260 240-476941/2	40.0	13.41502	10.0	1738218.0	0.335376	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

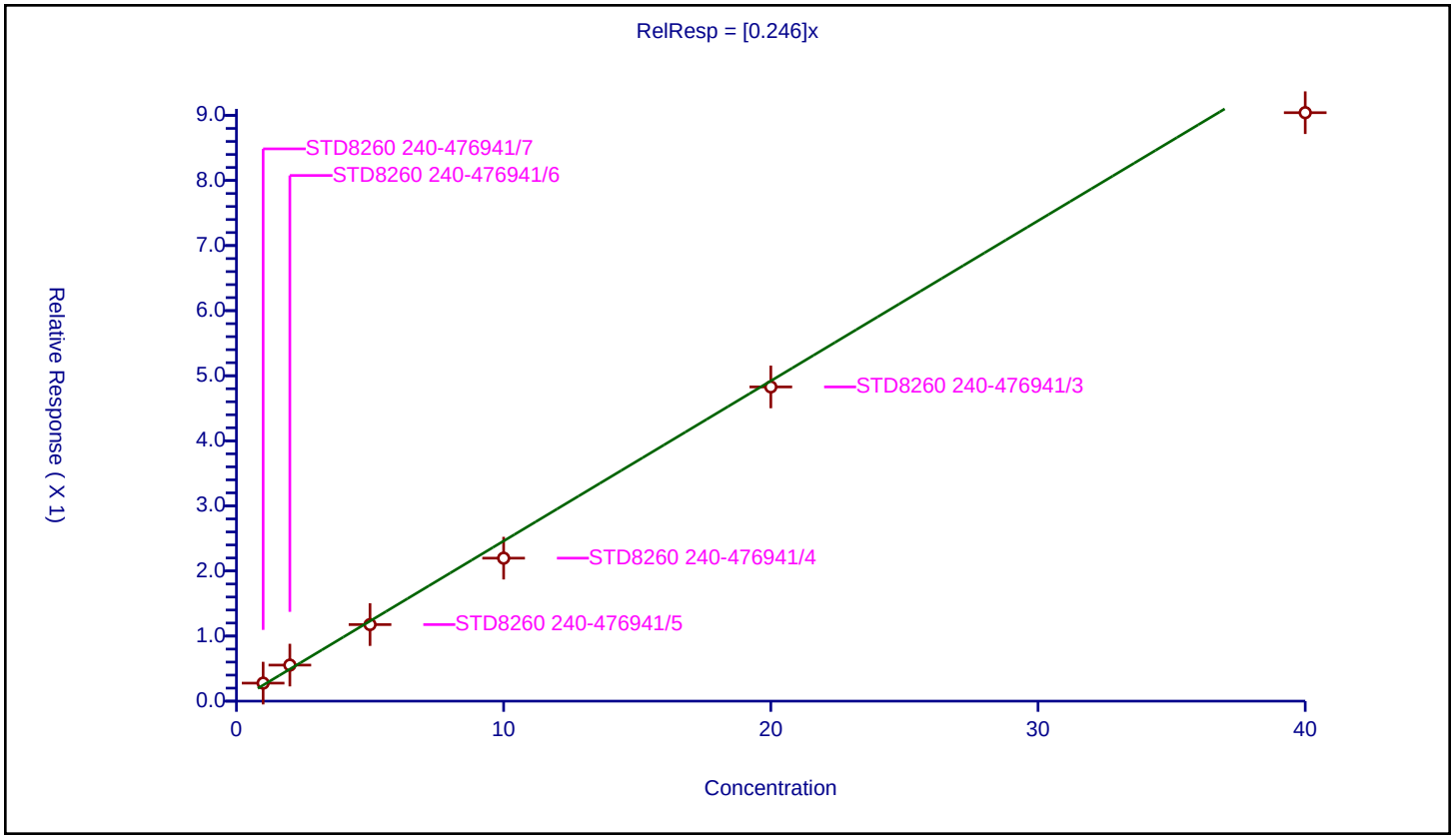
Curve Coefficients

Intercept:	0
Slope:	0.246

Error Coefficients

Standard Error:	817000
Relative Standard Error:	10.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.276765	10.0	1508502.0	0.276765	Y
2	STD8260 240-476941/6	2.0	0.553889	10.0	1600104.0	0.276944	Y
3	STD8260 240-476941/5	5.0	1.176548	10.0	1580769.0	0.23531	Y
4	STD8260 240-476941/4	10.0	2.196931	10.0	1635381.0	0.219693	Y
5	STD8260 240-476941/3	20.0	4.827897	10.0	1729200.0	0.241395	Y
6	STD8260 240-476941/2	40.0	9.041956	10.0	1738218.0	0.226049	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

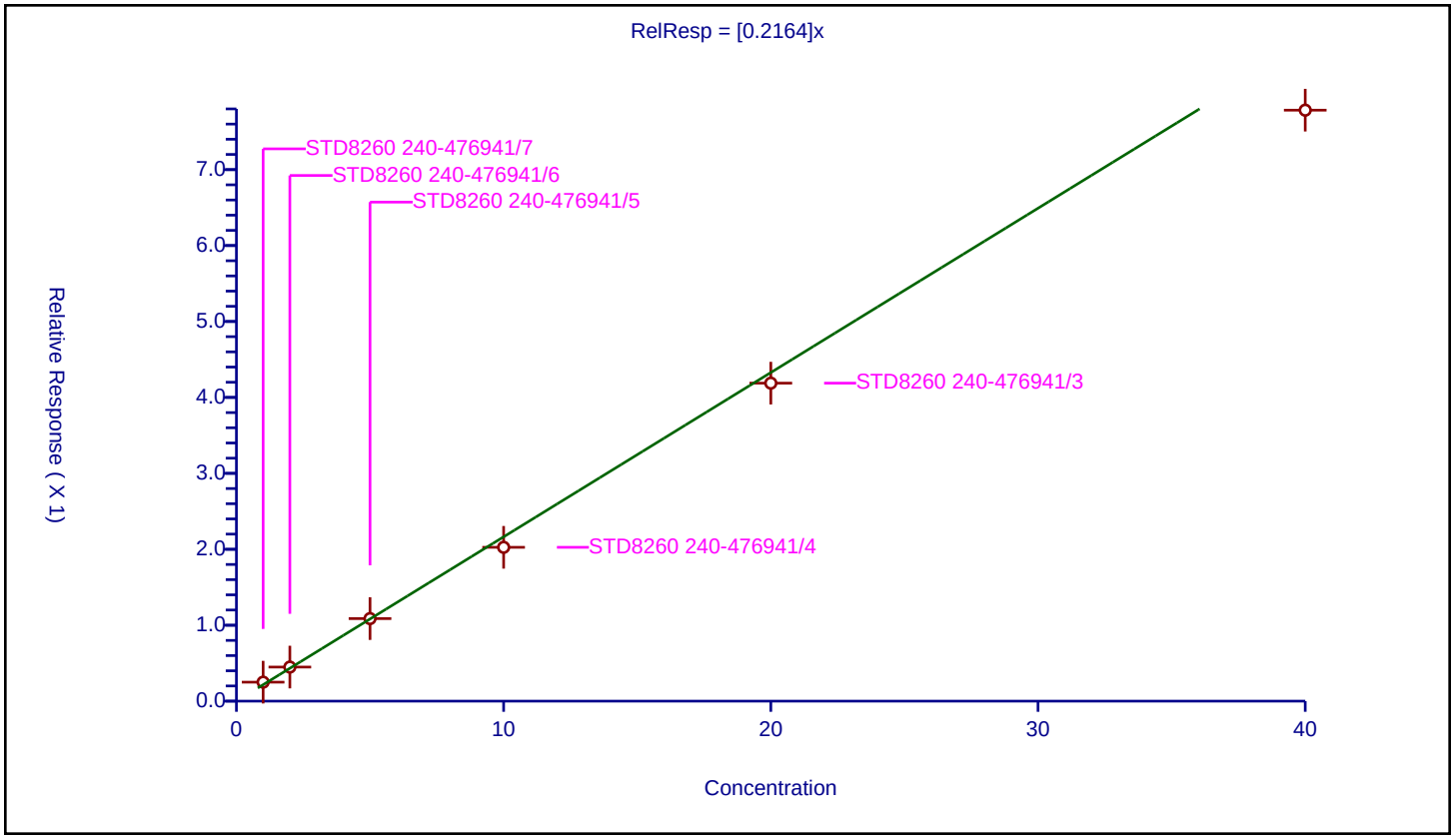
Curve Coefficients

Intercept:	0
Slope:	0.2164

Error Coefficients

Standard Error:	707000
Relative Standard Error:	9.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.249957	10.0	1508502.0	0.249957	Y
2	STD8260 240-476941/6	2.0	0.44874	10.0	1600104.0	0.22437	Y
3	STD8260 240-476941/5	5.0	1.087072	10.0	1580769.0	0.217414	Y
4	STD8260 240-476941/4	10.0	2.025803	10.0	1635381.0	0.20258	Y
5	STD8260 240-476941/3	20.0	4.187977	10.0	1729200.0	0.209399	Y
6	STD8260 240-476941/2	40.0	7.78312	10.0	1738218.0	0.194578	Y



Calibration / Dichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

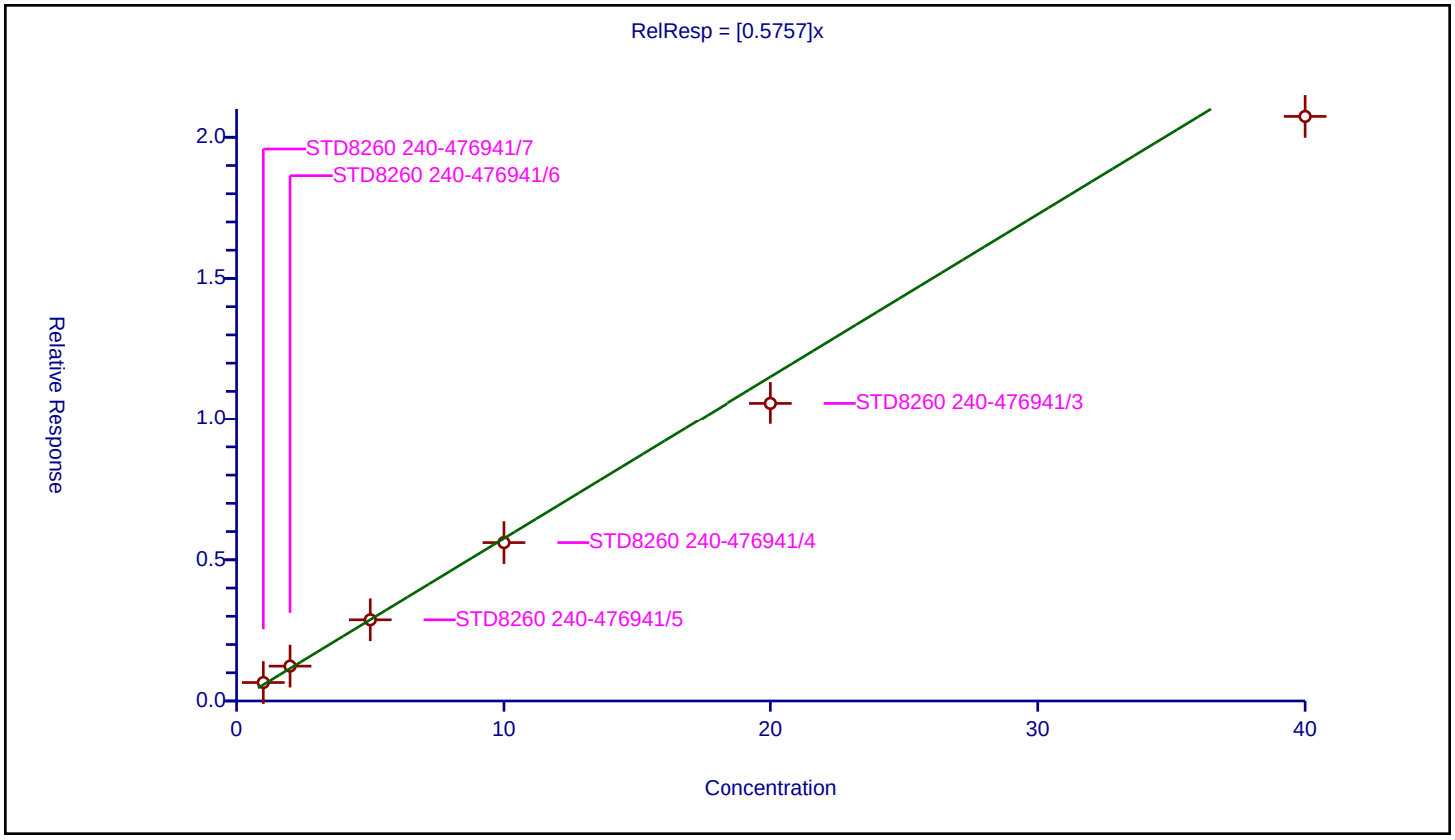
Curve Coefficients

Intercept:	0
Slope:	0.5757

Error Coefficients

Standard Error:	1870000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.653529	10.0	1508502.0	0.653529	Y
2	STD8260 240-476941/6	2.0	1.234514	10.0	1600104.0	0.617257	Y
3	STD8260 240-476941/5	5.0	2.875664	10.0	1580769.0	0.575133	Y
4	STD8260 240-476941/4	10.0	5.609622	10.0	1635381.0	0.560962	Y
5	STD8260 240-476941/3	20.0	10.57426	10.0	1729200.0	0.528713	Y
6	STD8260 240-476941/2	40.0	20.738411	10.0	1738218.0	0.51846	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

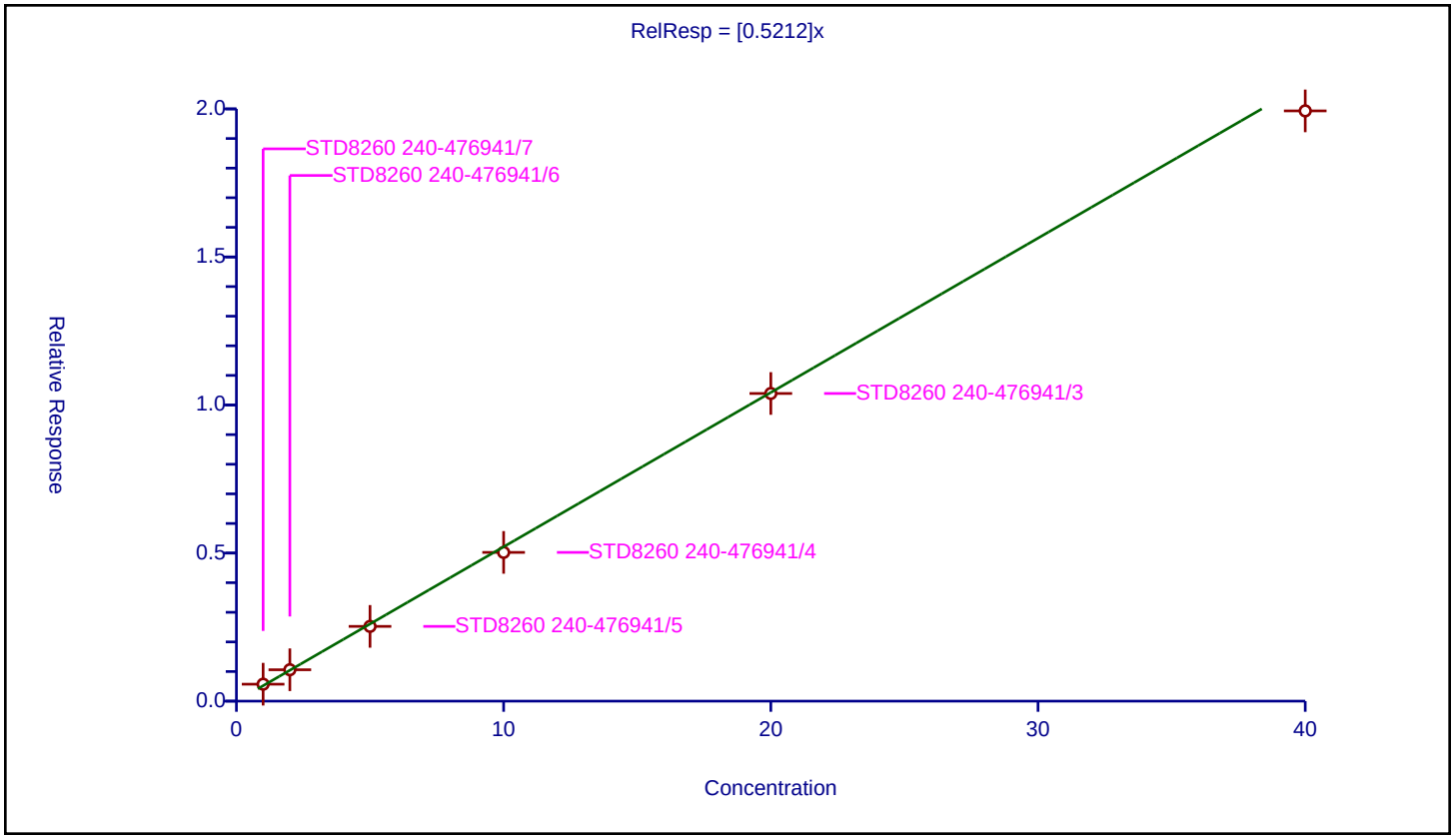
Curve Coefficients

Intercept:	0
Slope:	0.5212

Error Coefficients

Standard Error:	1790000
Relative Standard Error:	5.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.572064	10.0	1508502.0	0.572064	Y
2	STD8260 240-476941/6	2.0	1.059962	10.0	1600104.0	0.529981	Y
3	STD8260 240-476941/5	5.0	2.524657	10.0	1580769.0	0.504931	Y
4	STD8260 240-476941/4	10.0	5.02253	10.0	1635381.0	0.502253	Y
5	STD8260 240-476941/3	20.0	10.389296	10.0	1729200.0	0.519465	Y
6	STD8260 240-476941/2	40.0	19.932839	10.0	1738218.0	0.498321	Y



Calibration / Ethyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

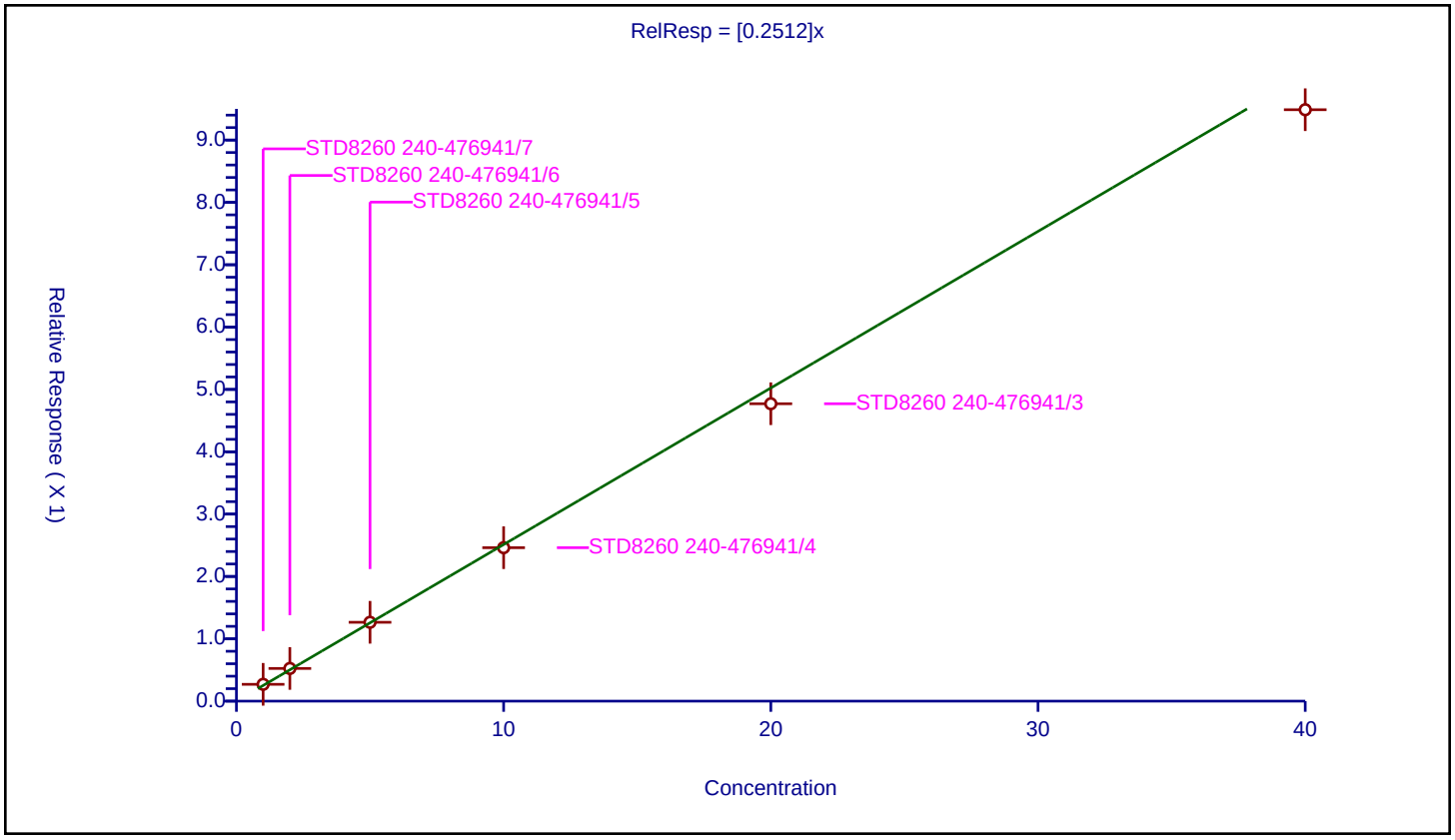
Curve Coefficients

Intercept:	0
Slope:	0.2512

Error Coefficients

Standard Error:	850000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.269923	10.0	1508502.0	0.269923	Y
2	STD8260 240-476941/6	2.0	0.524616	10.0	1600104.0	0.262308	Y
3	STD8260 240-476941/5	5.0	1.264998	10.0	1580769.0	0.253	Y
4	STD8260 240-476941/4	10.0	2.461316	10.0	1635381.0	0.246132	Y
5	STD8260 240-476941/3	20.0	4.77042	10.0	1729200.0	0.238521	Y
6	STD8260 240-476941/2	40.0	9.48656	10.0	1738218.0	0.237164	Y



Calibration / Acrolein

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

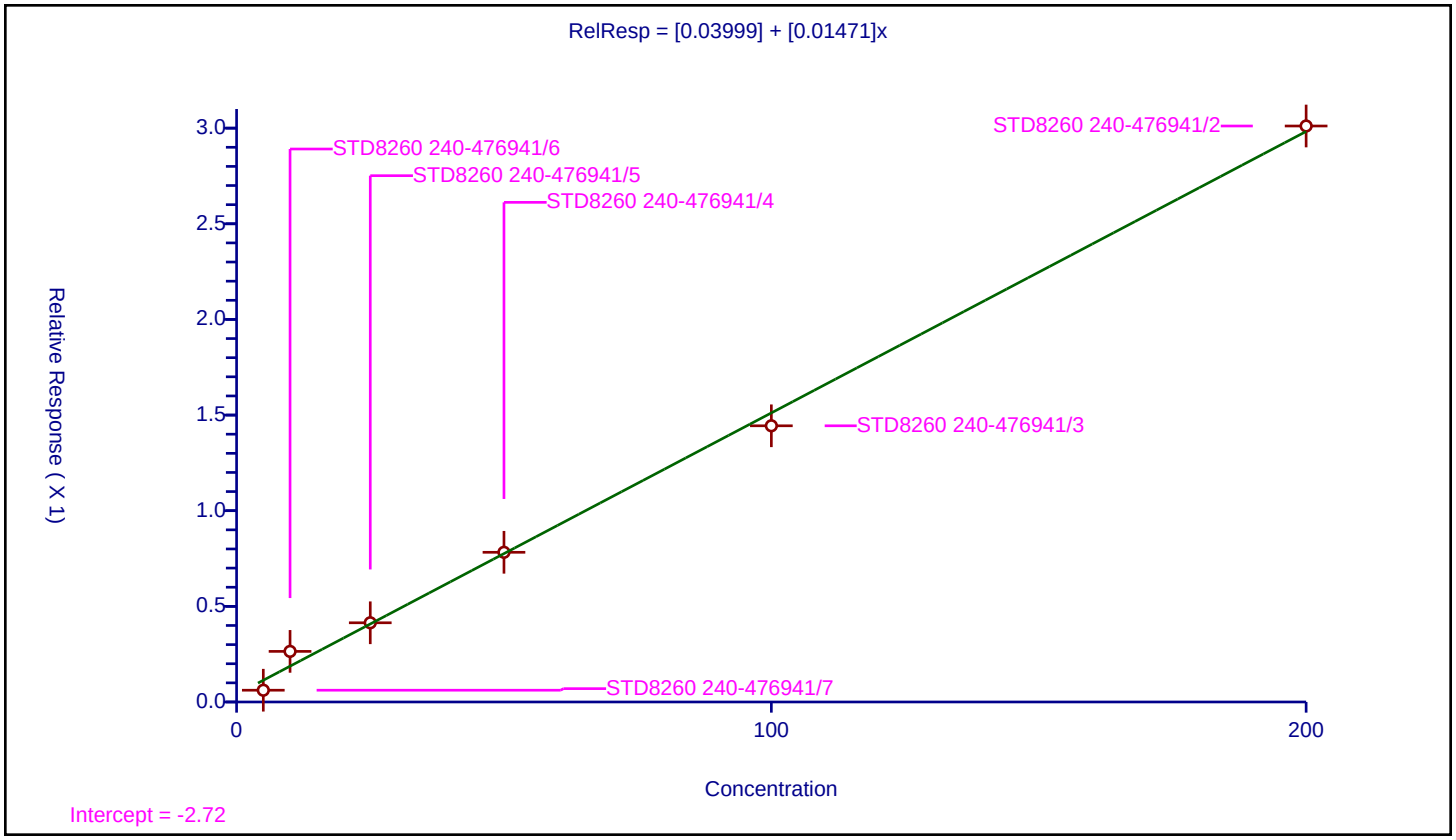
Curve Coefficients

Intercept:	0.03999
Slope:	0.01471

Error Coefficients

Standard Error:	300000
Relative Standard Error:	44.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	5.0	0.061611	10.0	1508502.0	0.012322	Y
2	STD8260 240-476941/6	10.0	0.264589	10.0	1600104.0	0.026459	Y
3	STD8260 240-476941/5	25.0	0.414128	10.0	1580769.0	0.016565	Y
4	STD8260 240-476941/4	50.0	0.782637	10.0	1635381.0	0.015653	Y
5	STD8260 240-476941/3	100.0	1.443905	10.0	1729200.0	0.014439	Y
6	STD8260 240-476941/2	200.0	3.011222	10.0	1738218.0	0.015056	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

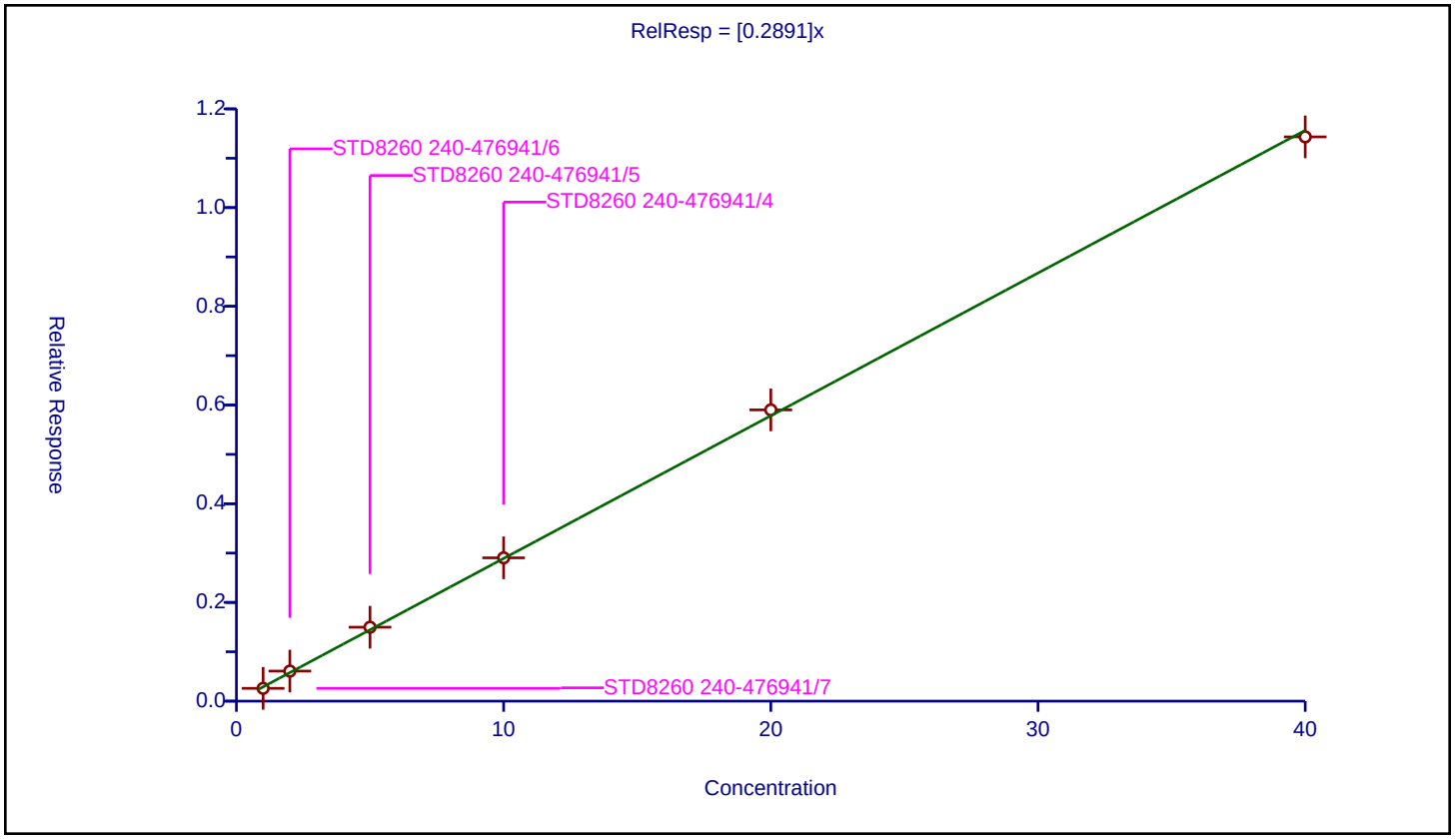
Curve Coefficients

Intercept:	0
Slope:	0.2891

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.259536	10.0	1508502.0	0.259536	Y
2	STD8260 240-476941/6	2.0	0.609085	10.0	1600104.0	0.304543	Y
3	STD8260 240-476941/5	5.0	1.497613	10.0	1580769.0	0.299523	Y
4	STD8260 240-476941/4	10.0	2.903586	10.0	1635381.0	0.290359	Y
5	STD8260 240-476941/3	20.0	5.901556	10.0	1729200.0	0.295078	Y
6	STD8260 240-476941/2	40.0	11.432858	10.0	1738218.0	0.285821	Y



Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

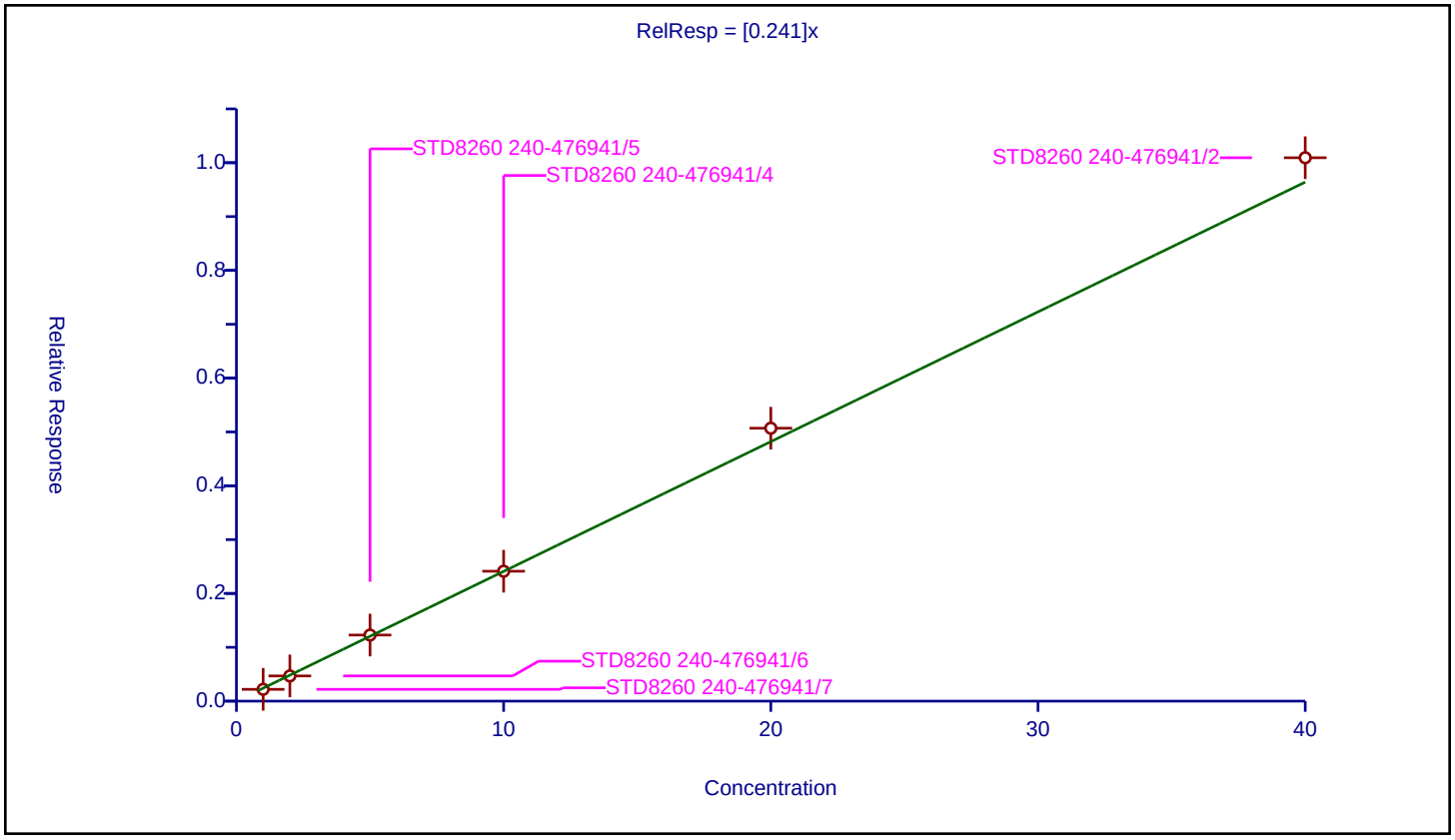
Curve Coefficients

Intercept:	0
Slope:	0.241

Error Coefficients

Standard Error:	900000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.219317	10.0	1508502.0	0.219317	Y
2	STD8260 240-476941/6	2.0	0.46817	10.0	1600104.0	0.234085	Y
3	STD8260 240-476941/5	5.0	1.227738	10.0	1580769.0	0.245548	Y
4	STD8260 240-476941/4	10.0	2.412759	10.0	1635381.0	0.241276	Y
5	STD8260 240-476941/3	20.0	5.069362	10.0	1729200.0	0.253468	Y
6	STD8260 240-476941/2	40.0	10.092934	10.0	1738218.0	0.252323	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

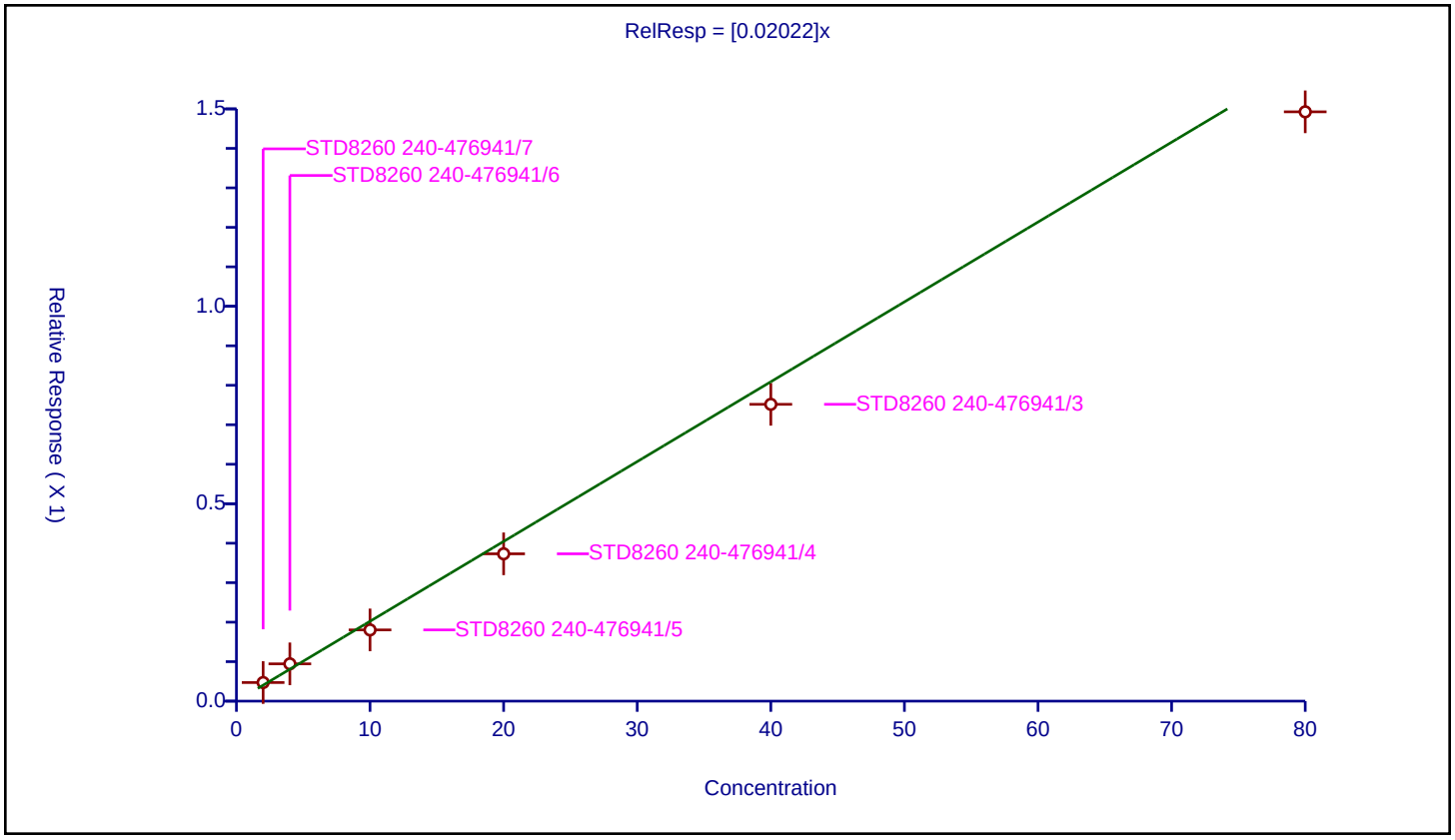
Curve Coefficients

Intercept:	0
Slope:	0.02022

Error Coefficients

Standard Error:	133000
Relative Standard Error:	13.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.969

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.047139	10.0	1508502.0	0.02357	Y
2	STD8260 240-476941/6	4.0	0.094475	10.0	1600104.0	0.023619	Y
3	STD8260 240-476941/5	10.0	0.180419	10.0	1580769.0	0.018042	Y
4	STD8260 240-476941/4	20.0	0.373149	10.0	1635381.0	0.018657	Y
5	STD8260 240-476941/3	40.0	0.751764	10.0	1729200.0	0.018794	Y
6	STD8260 240-476941/2	80.0	1.49258	10.0	1738218.0	0.018657	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

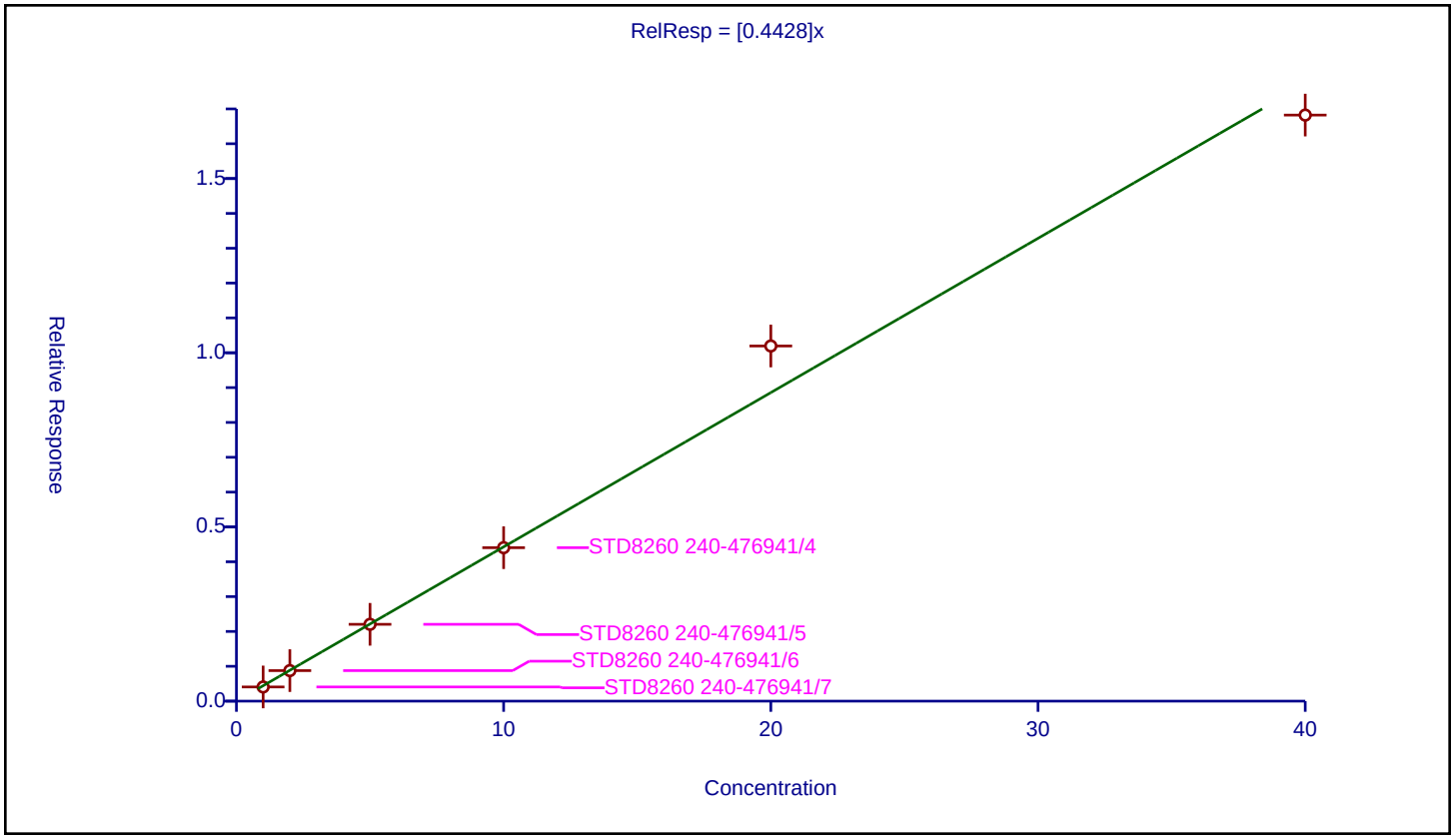
Curve Coefficients

Intercept:	0
Slope:	0.4428

Error Coefficients

Standard Error:	1570000
Relative Standard Error:	8.0
Correlation Coefficient:	0.988
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.406894	10.0	1508502.0	0.406894	Y
2	STD8260 240-476941/6	2.0	0.876549	10.0	1600104.0	0.438275	Y
3	STD8260 240-476941/5	5.0	2.204857	10.0	1580769.0	0.440971	Y
4	STD8260 240-476941/4	10.0	4.404656	10.0	1635381.0	0.440466	Y
5	STD8260 240-476941/3	20.0	10.194338	10.0	1729200.0	0.509717	Y
6	STD8260 240-476941/2	40.0	16.822999	10.0	1738218.0	0.420575	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

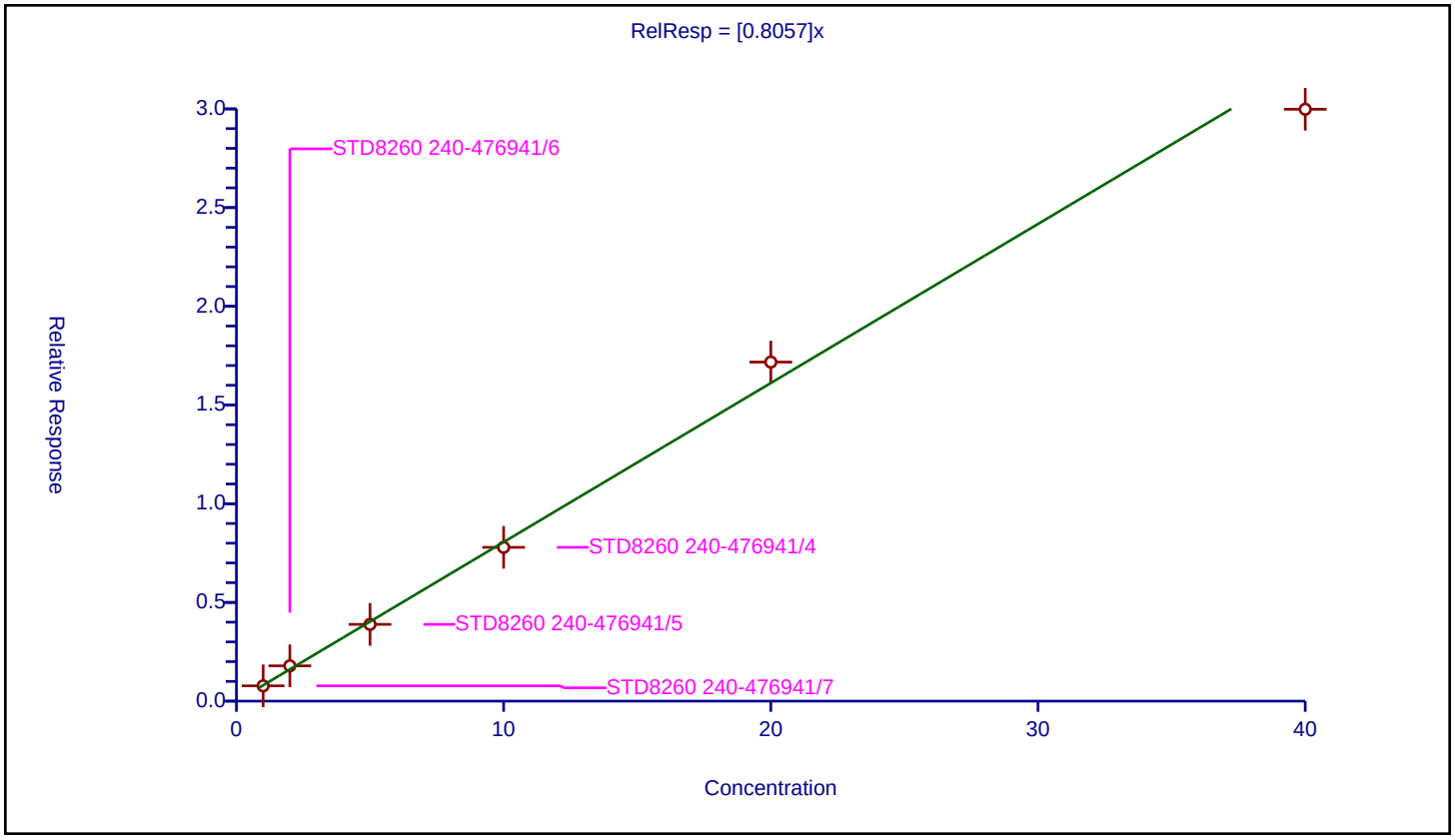
Curve Coefficients

Intercept:	0
Slope:	0.8057

Error Coefficients

Standard Error:	2760000
Relative Standard Error:	7.1
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.774769	10.0	1508502.0	0.774769	Y
2	STD8260 240-476941/6	2.0	1.788521	10.0	1600104.0	0.894261	Y
3	STD8260 240-476941/5	5.0	3.889423	10.0	1580769.0	0.777885	Y
4	STD8260 240-476941/4	10.0	7.789891	10.0	1635381.0	0.778989	Y
5	STD8260 240-476941/3	20.0	17.175752	10.0	1729200.0	0.858788	Y
6	STD8260 240-476941/2	40.0	29.98044	10.0	1738218.0	0.749511	Y



Calibration / 3-Chloro-1-propene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

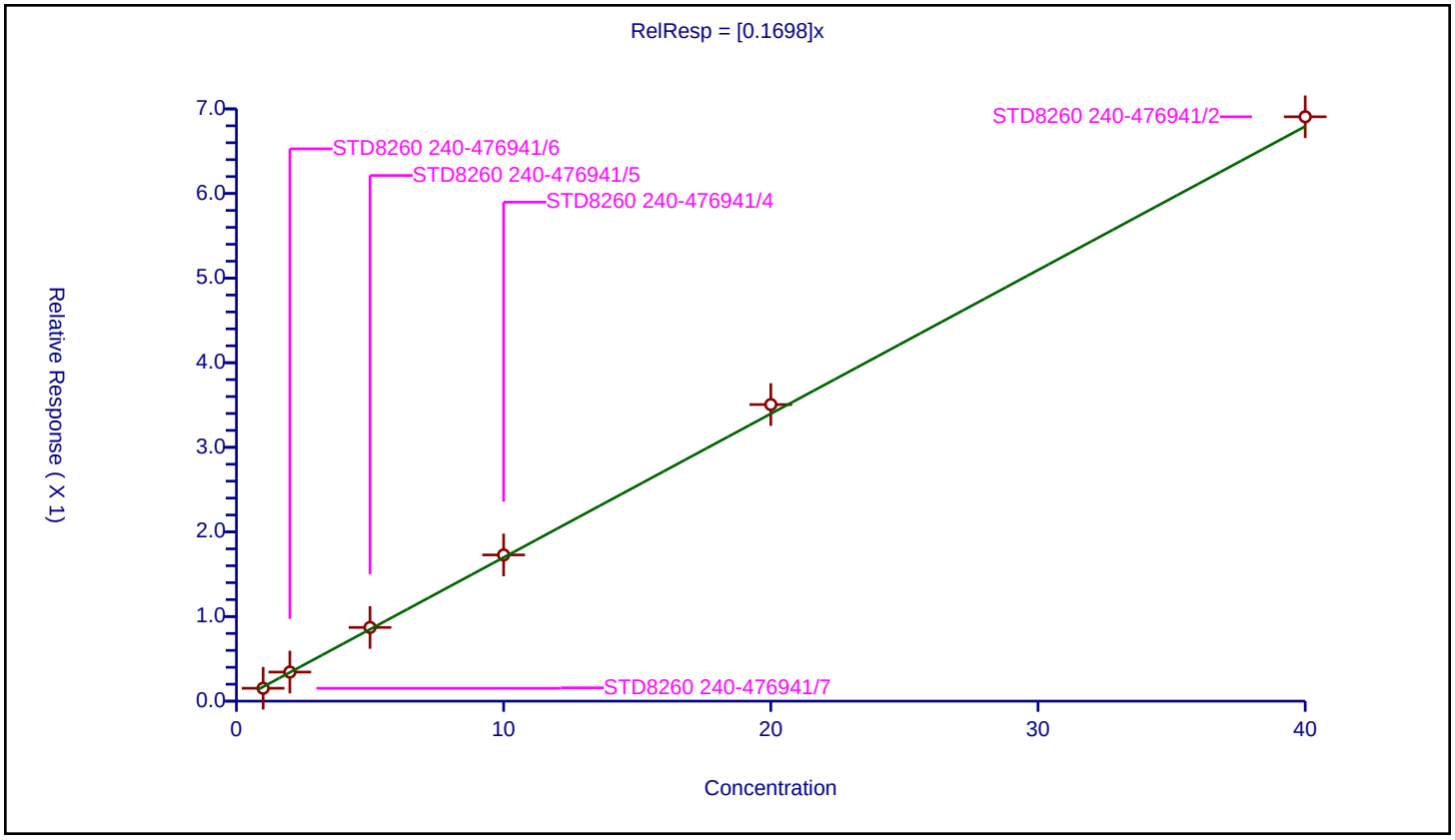
Curve Coefficients

Intercept:	0
Slope:	0.1698

Error Coefficients

Standard Error:	618000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.152337	10.0	1508502.0	0.152337	Y
2	STD8260 240-476941/6	2.0	0.343478	10.0	1600104.0	0.171739	Y
3	STD8260 240-476941/5	5.0	0.870918	10.0	1580769.0	0.174184	Y
4	STD8260 240-476941/4	10.0	1.728019	10.0	1635381.0	0.172802	Y
5	STD8260 240-476941/3	20.0	3.505361	10.0	1729200.0	0.175268	Y
6	STD8260 240-476941/2	40.0	6.906826	10.0	1738218.0	0.172671	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

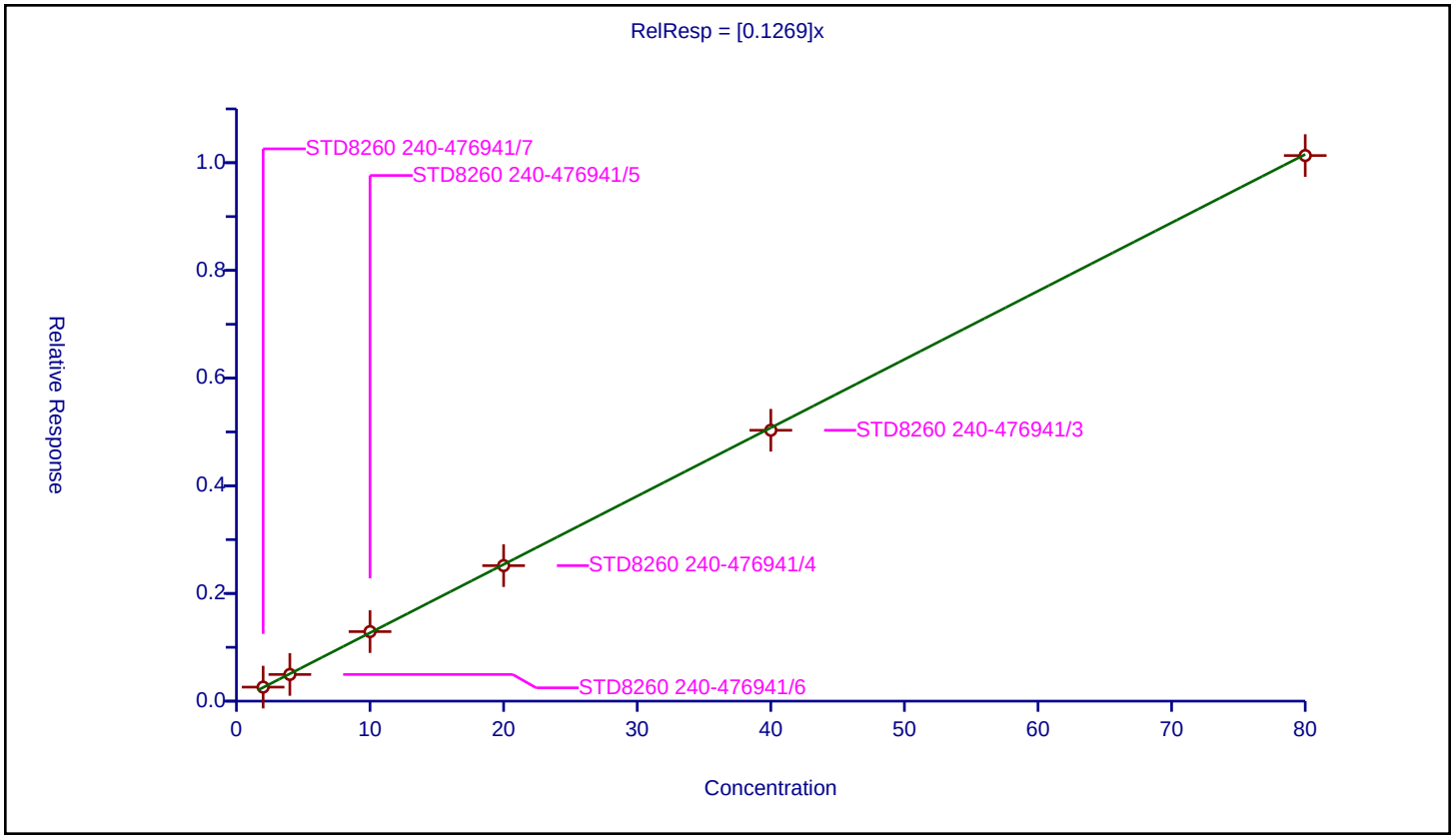
Curve Coefficients

Intercept:	0
Slope:	0.1269

Error Coefficients

Standard Error:	903000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.260629	10.0	1508502.0	0.130315	Y
2	STD8260 240-476941/6	4.0	0.495605	10.0	1600104.0	0.123901	Y
3	STD8260 240-476941/5	10.0	1.291409	10.0	1580769.0	0.129141	Y
4	STD8260 240-476941/4	20.0	2.516753	10.0	1635381.0	0.125838	Y
5	STD8260 240-476941/3	40.0	5.031188	10.0	1729200.0	0.12578	Y
6	STD8260 240-476941/2	80.0	10.133424	10.0	1738218.0	0.126668	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

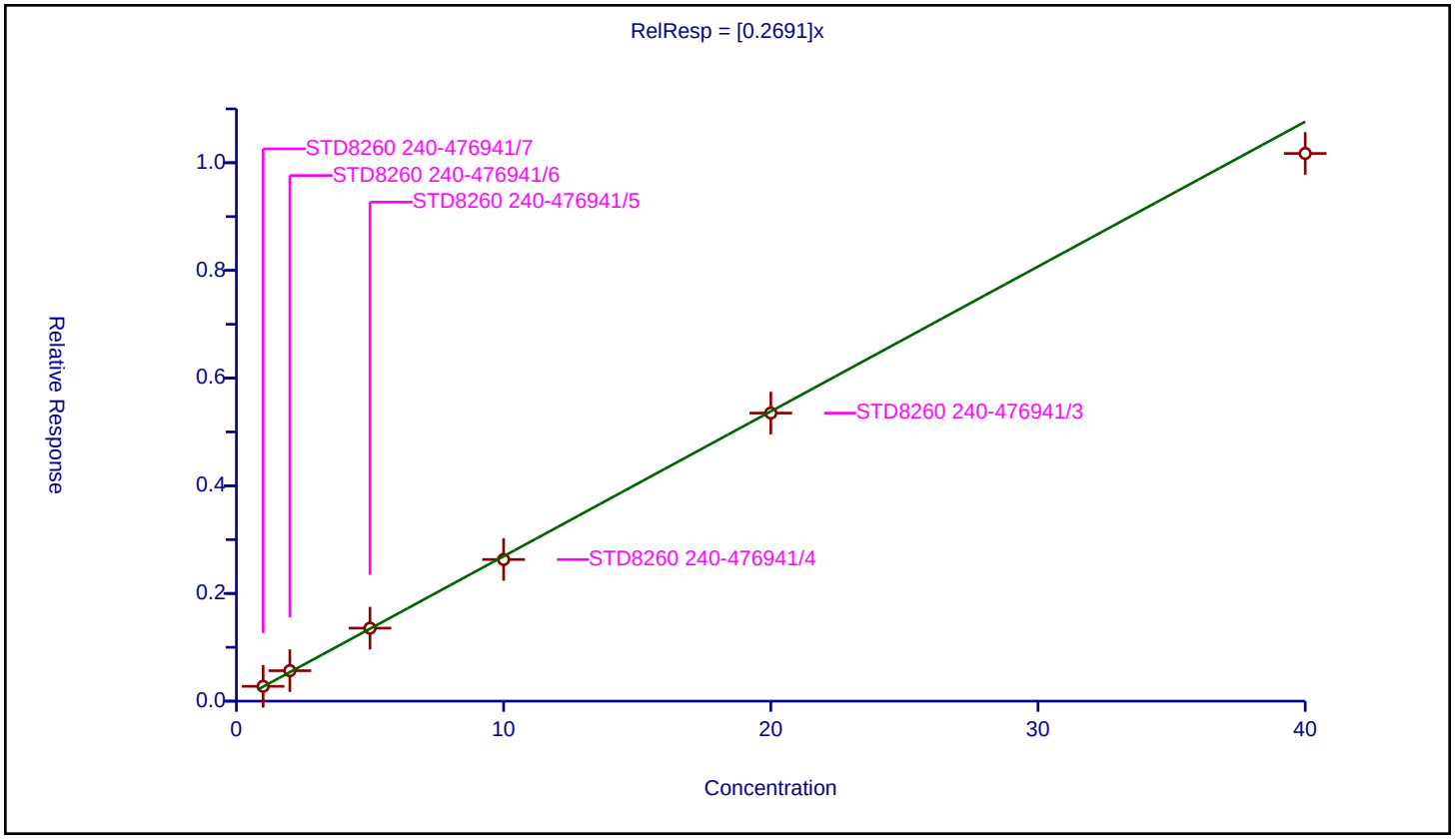
Curve Coefficients

Intercept:	0
Slope:	0.2691

Error Coefficients

Standard Error:	919000
Relative Standard Error:	3.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275439	10.0	1508502.0	0.275439	Y
2	STD8260 240-476941/6	2.0	0.565844	10.0	1600104.0	0.282922	Y
3	STD8260 240-476941/5	5.0	1.355688	10.0	1580769.0	0.271138	Y
4	STD8260 240-476941/4	10.0	2.630433	10.0	1635381.0	0.263043	Y
5	STD8260 240-476941/3	20.0	5.350104	10.0	1729200.0	0.267505	Y
6	STD8260 240-476941/2	40.0	10.172429	10.0	1738218.0	0.254311	Y



Calibration / 2-Methyl-2-propanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

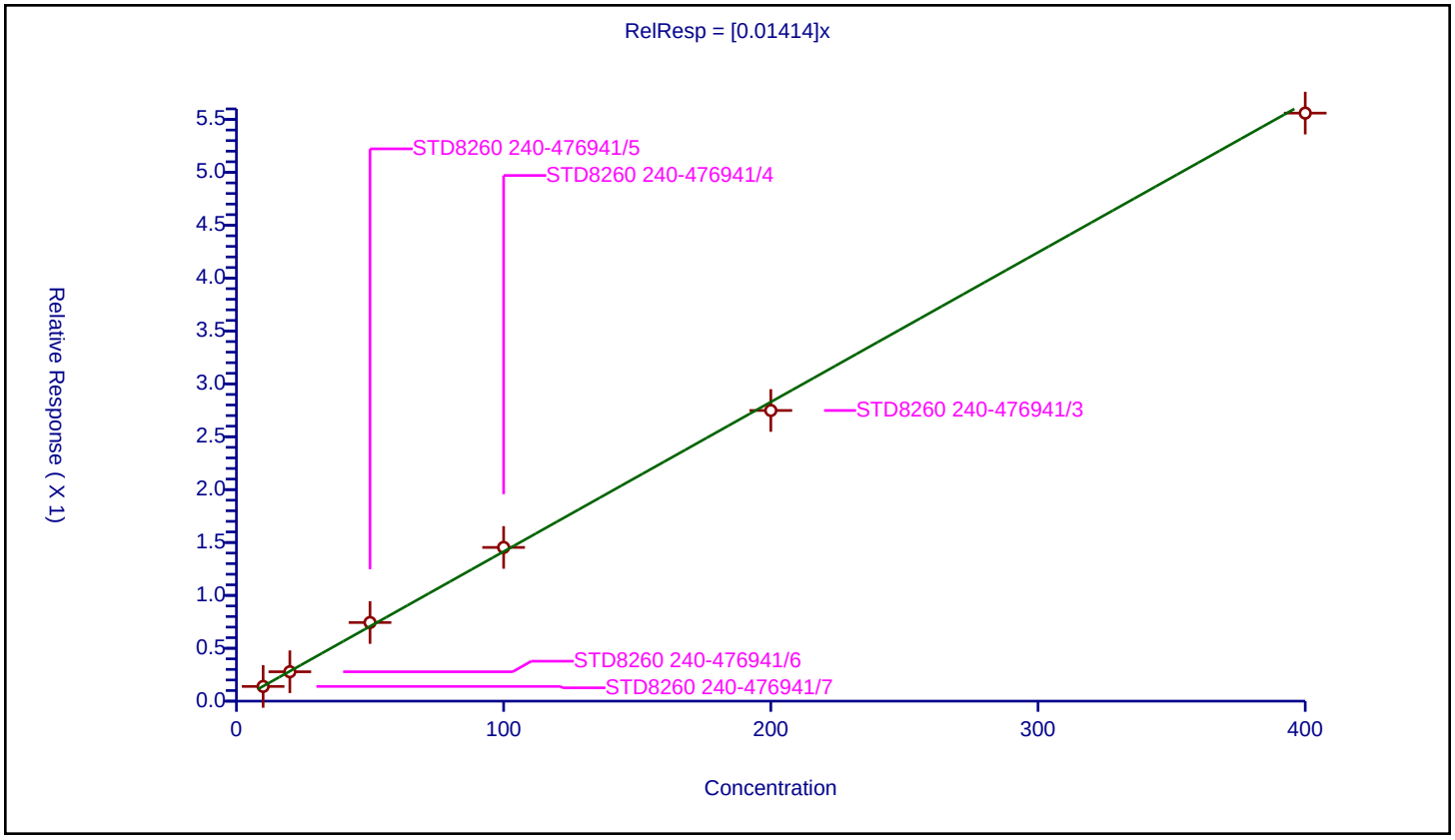
Curve Coefficients

Intercept:	0
Slope:	0.01414

Error Coefficients

Standard Error:	497000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	10.0	0.139204	10.0	1508502.0	0.01392	Y
2	STD8260 240-476941/6	20.0	0.277838	10.0	1600104.0	0.013892	Y
3	STD8260 240-476941/5	50.0	0.743556	10.0	1580769.0	0.014871	Y
4	STD8260 240-476941/4	100.0	1.453362	10.0	1635381.0	0.014534	Y
5	STD8260 240-476941/3	200.0	2.748358	10.0	1729200.0	0.013742	Y
6	STD8260 240-476941/2	400.0	5.56024	10.0	1738218.0	0.013901	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

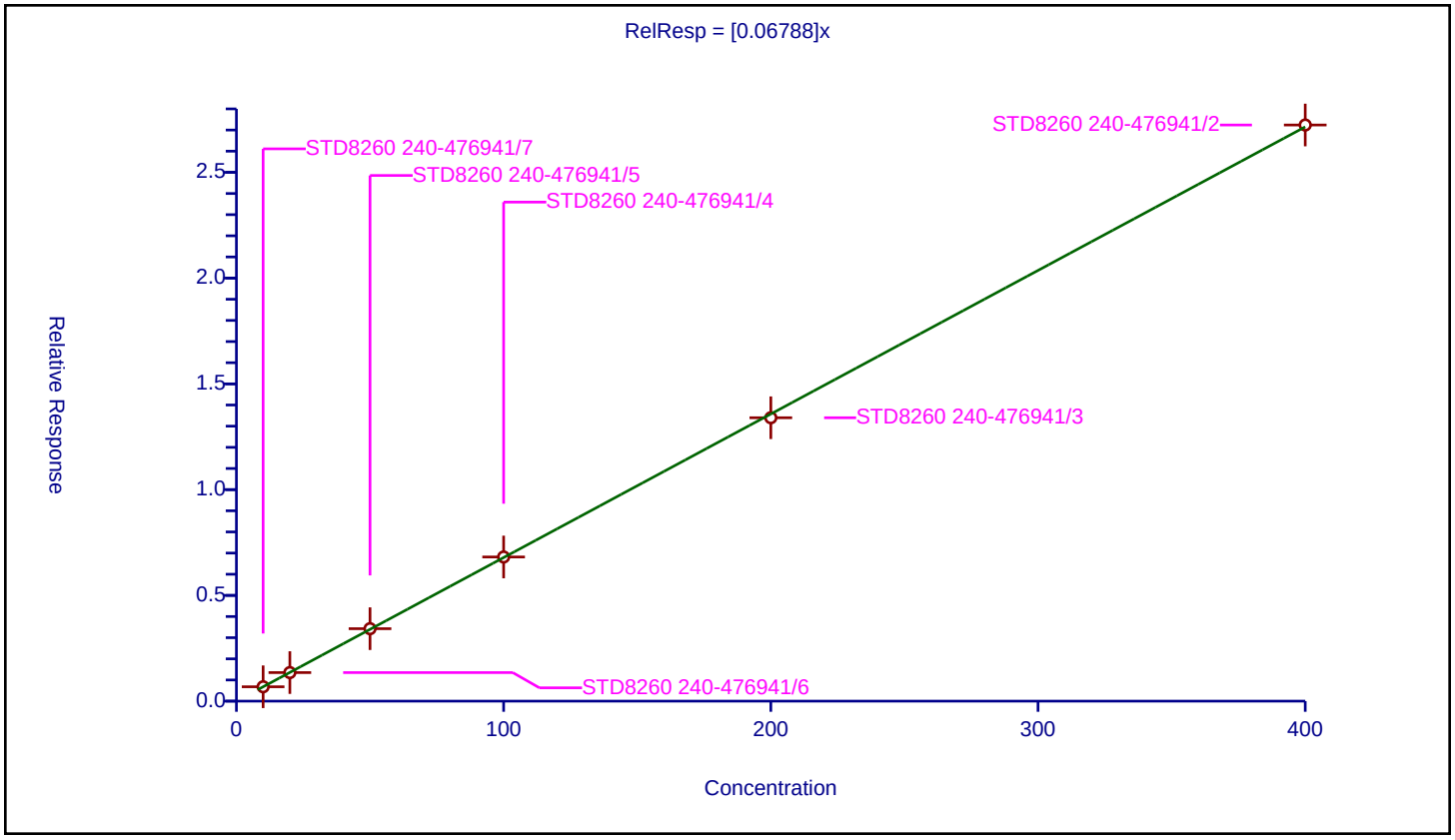
Curve Coefficients

Intercept:	0
Slope:	0.06788

Error Coefficients

Standard Error:	2420000
Relative Standard Error:	0.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	10.0	0.679456	10.0	1508502.0	0.067946	Y
2	STD8260 240-476941/6	20.0	1.350912	10.0	1600104.0	0.067546	Y
3	STD8260 240-476941/5	50.0	3.425997	10.0	1580769.0	0.06852	Y
4	STD8260 240-476941/4	100.0	6.81577	10.0	1635381.0	0.068158	Y
5	STD8260 240-476941/3	200.0	13.397808	10.0	1729200.0	0.066989	Y
6	STD8260 240-476941/2	400.0	27.237631	10.0	1738218.0	0.068094	Y



Calibration / Methyl tert-butyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

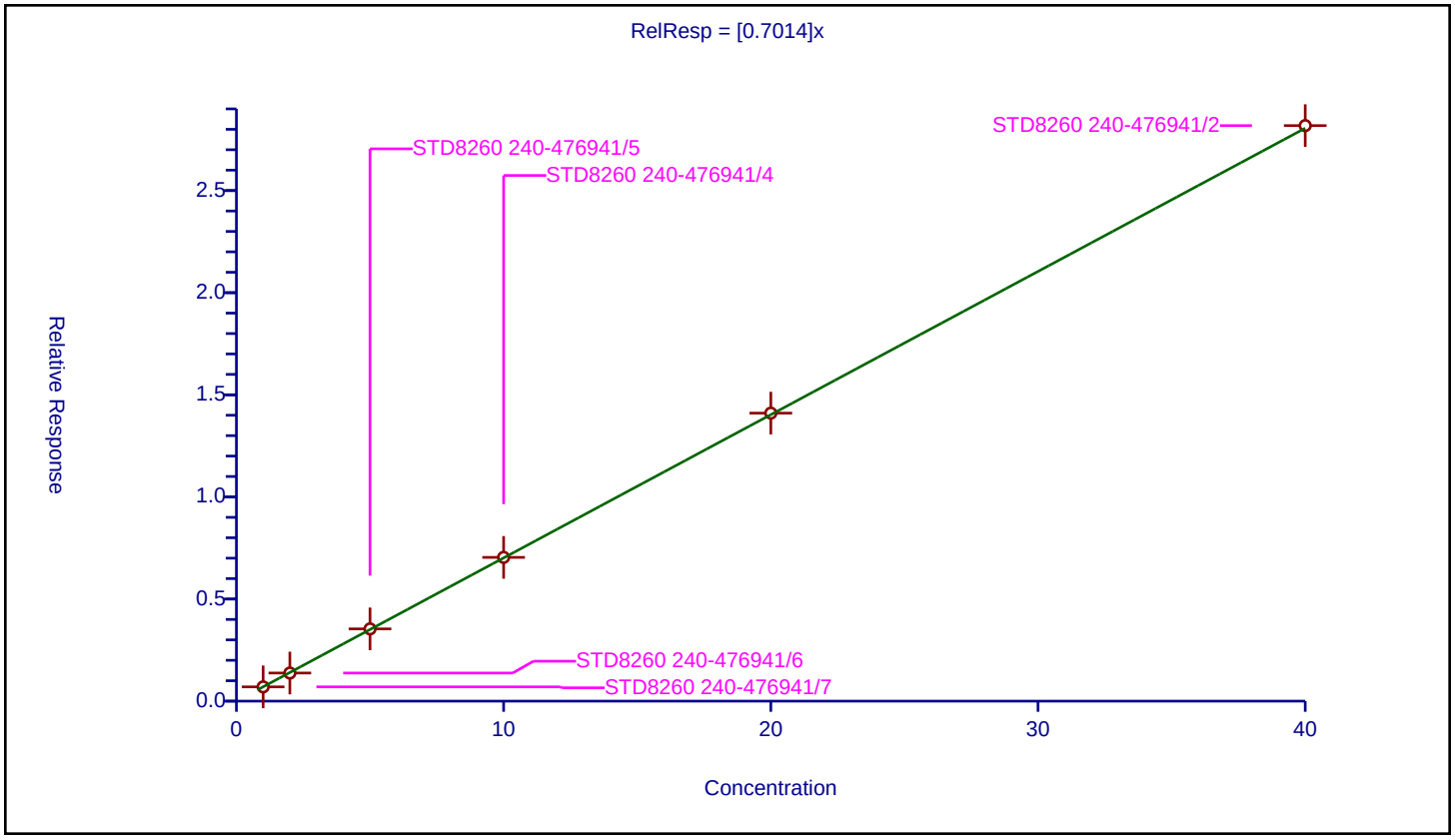
Curve Coefficients

Intercept:	0
Slope:	0.7014

Error Coefficients

Standard Error:	2520000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.698985	10.0	1508502.0	0.698985	Y
2	STD8260 240-476941/6	2.0	1.376267	10.0	1600104.0	0.688133	Y
3	STD8260 240-476941/5	5.0	3.537329	10.0	1580769.0	0.707466	Y
4	STD8260 240-476941/4	10.0	7.039247	10.0	1635381.0	0.703925	Y
5	STD8260 240-476941/3	20.0	14.102377	10.0	1729200.0	0.705119	Y
6	STD8260 240-476941/2	40.0	28.180746	10.0	1738218.0	0.704519	Y



Calibration / trans-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

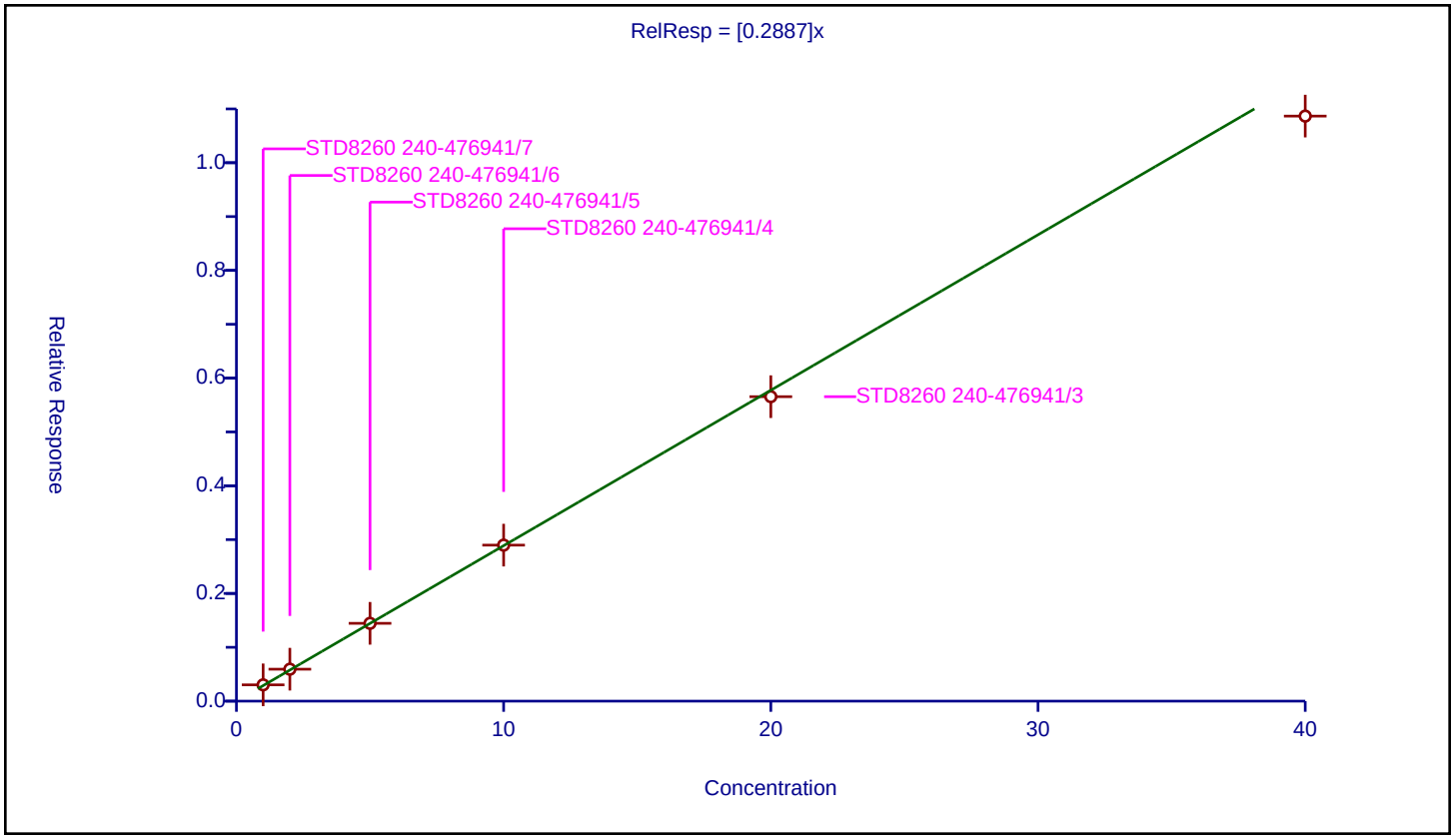
Curve Coefficients

Intercept:	0
Slope:	0.2887

Error Coefficients

Standard Error:	981000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.302618	10.0	1508502.0	0.302618	Y
2	STD8260 240-476941/6	2.0	0.593174	10.0	1600104.0	0.296587	Y
3	STD8260 240-476941/5	5.0	1.444987	10.0	1580769.0	0.288997	Y
4	STD8260 240-476941/4	10.0	2.897514	10.0	1635381.0	0.289751	Y
5	STD8260 240-476941/3	20.0	5.654783	10.0	1729200.0	0.282739	Y
6	STD8260 240-476941/2	40.0	10.866479	10.0	1738218.0	0.271662	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

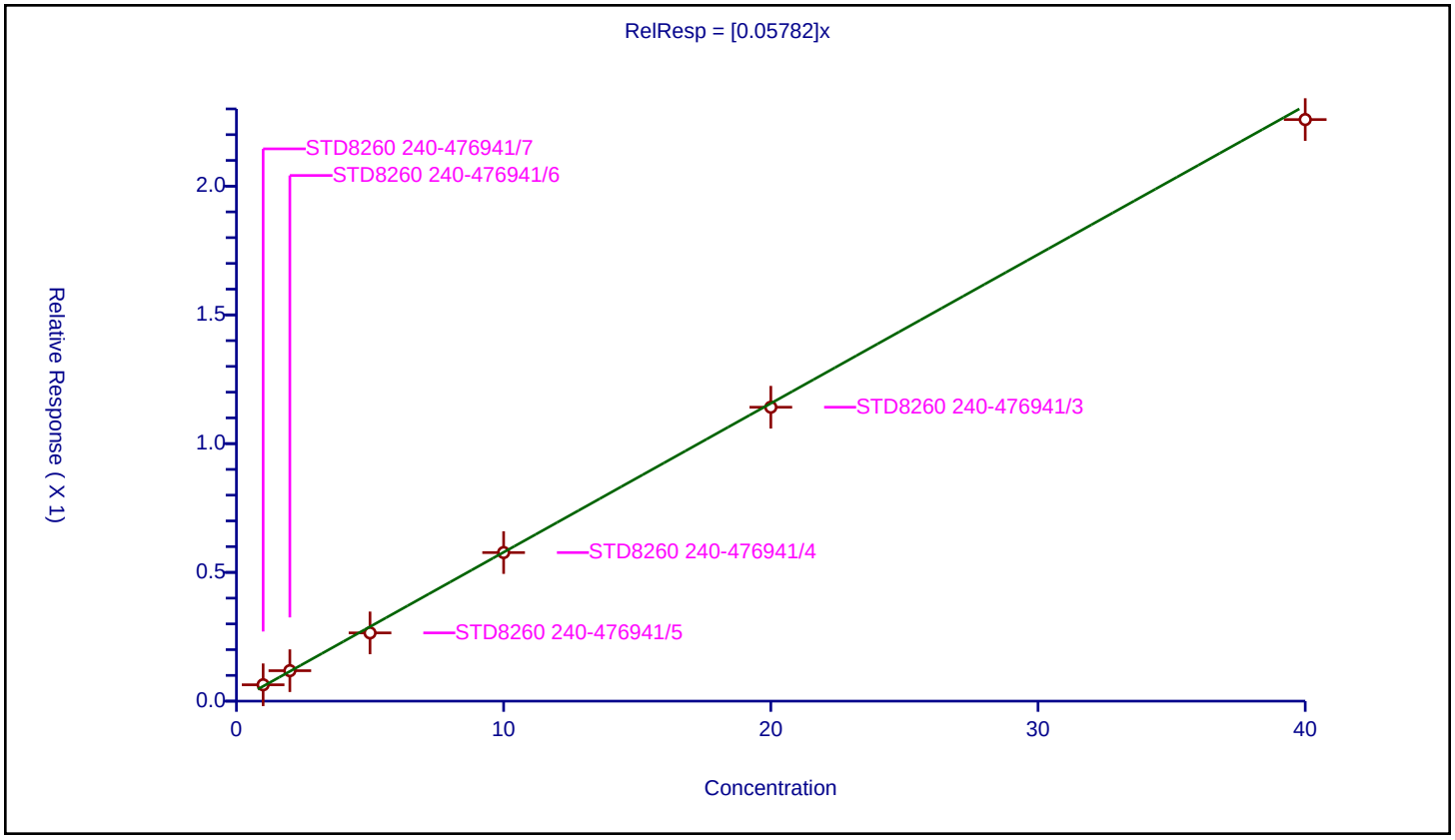
Curve Coefficients

Intercept:	0
Slope:	0.05782

Error Coefficients

Standard Error:	202000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.063513	10.0	1508502.0	0.063513	Y
2	STD8260 240-476941/6	2.0	0.118292	10.0	1600104.0	0.059146	Y
3	STD8260 240-476941/5	5.0	0.265029	10.0	1580769.0	0.053006	Y
4	STD8260 240-476941/4	10.0	0.576991	10.0	1635381.0	0.057699	Y
5	STD8260 240-476941/3	20.0	1.141406	10.0	1729200.0	0.05707	Y
6	STD8260 240-476941/2	40.0	2.258503	10.0	1738218.0	0.056463	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

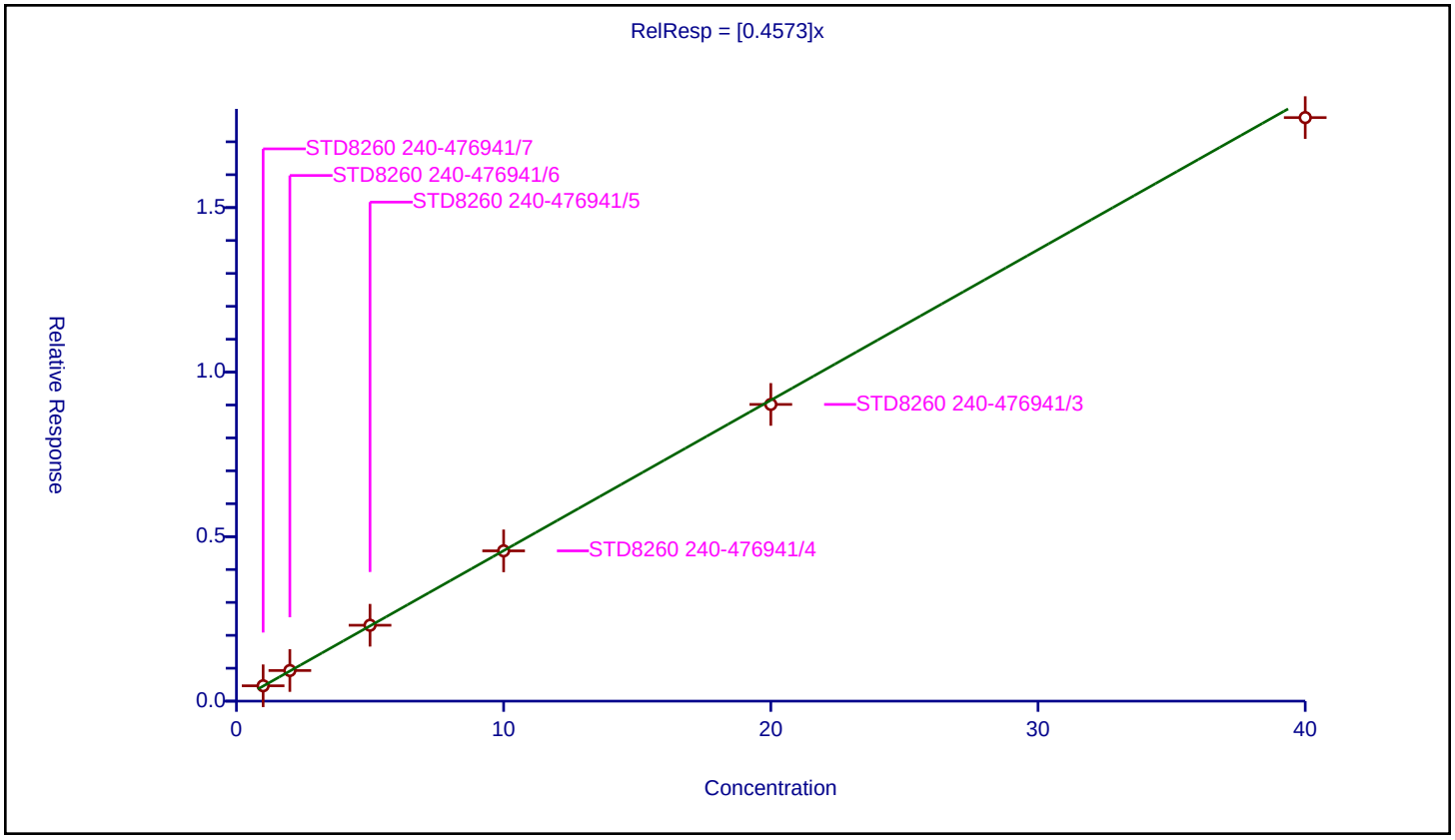
Curve Coefficients

Intercept:	0
Slope:	0.4573

Error Coefficients

Standard Error:	1590000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.466449	10.0	1508502.0	0.466449	Y
2	STD8260 240-476941/6	2.0	0.930208	10.0	1600104.0	0.465104	Y
3	STD8260 240-476941/5	5.0	2.306403	10.0	1580769.0	0.461281	Y
4	STD8260 240-476941/4	10.0	4.56778	10.0	1635381.0	0.456778	Y
5	STD8260 240-476941/3	20.0	9.018159	10.0	1729200.0	0.450908	Y
6	STD8260 240-476941/2	40.0	17.734904	10.0	1738218.0	0.443373	Y



Calibration / Vinyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

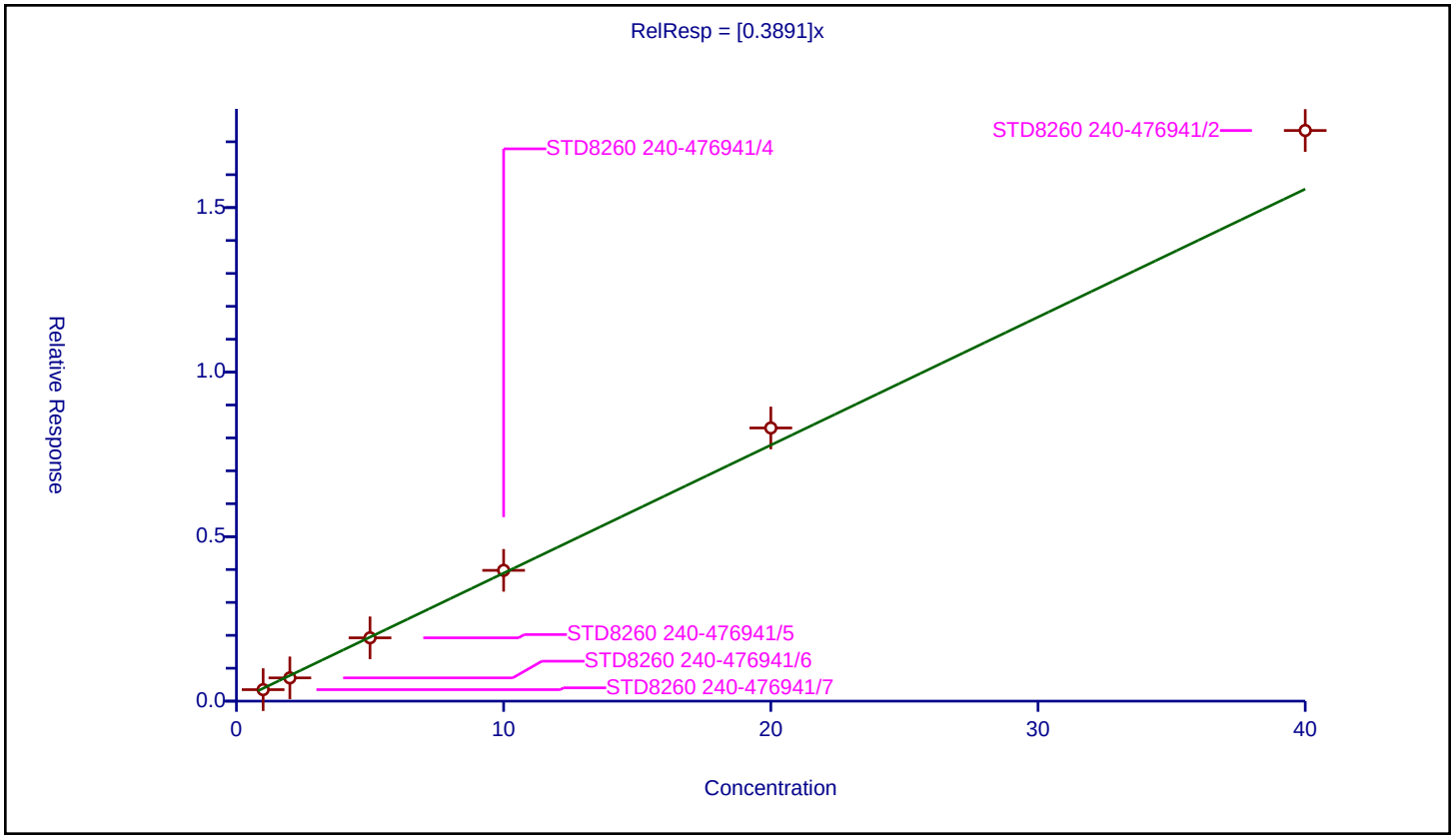
Curve Coefficients

Intercept:	0
Slope:	0.3891

Error Coefficients

Standard Error:	1530000
Relative Standard Error:	8.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.349612	10.0	1508502.0	0.349612	Y
2	STD8260 240-476941/6	2.0	0.707448	10.0	1600104.0	0.353724	Y
3	STD8260 240-476941/5	5.0	1.924608	10.0	1580769.0	0.384922	Y
4	STD8260 240-476941/4	10.0	3.974994	10.0	1635381.0	0.397499	Y
5	STD8260 240-476941/3	20.0	8.302787	10.0	1729200.0	0.415139	Y
6	STD8260 240-476941/2	40.0	17.343619	10.0	1738218.0	0.43359	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

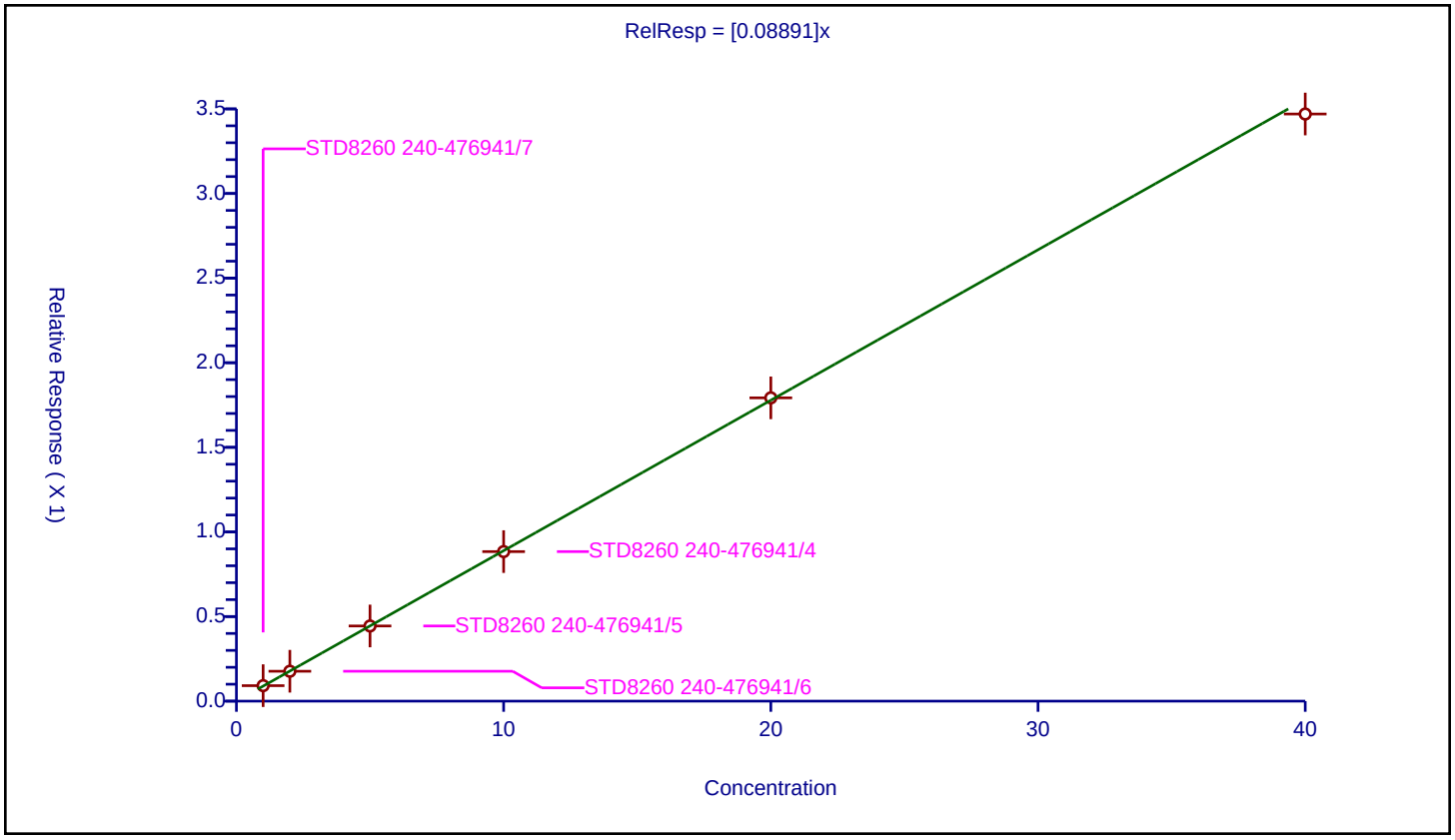
Curve Coefficients

Intercept:	0
Slope:	0.08891

Error Coefficients

Standard Error:	312000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.091528	10.0	1508502.0	0.091528	Y
2	STD8260 240-476941/6	2.0	0.176714	10.0	1600104.0	0.088357	Y
3	STD8260 240-476941/5	5.0	0.444208	10.0	1580769.0	0.088842	Y
4	STD8260 240-476941/4	10.0	0.883745	10.0	1635381.0	0.088375	Y
5	STD8260 240-476941/3	20.0	1.792407	10.0	1729200.0	0.08962	Y
6	STD8260 240-476941/2	40.0	3.46976	10.0	1738218.0	0.086744	Y



Calibration / cis-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

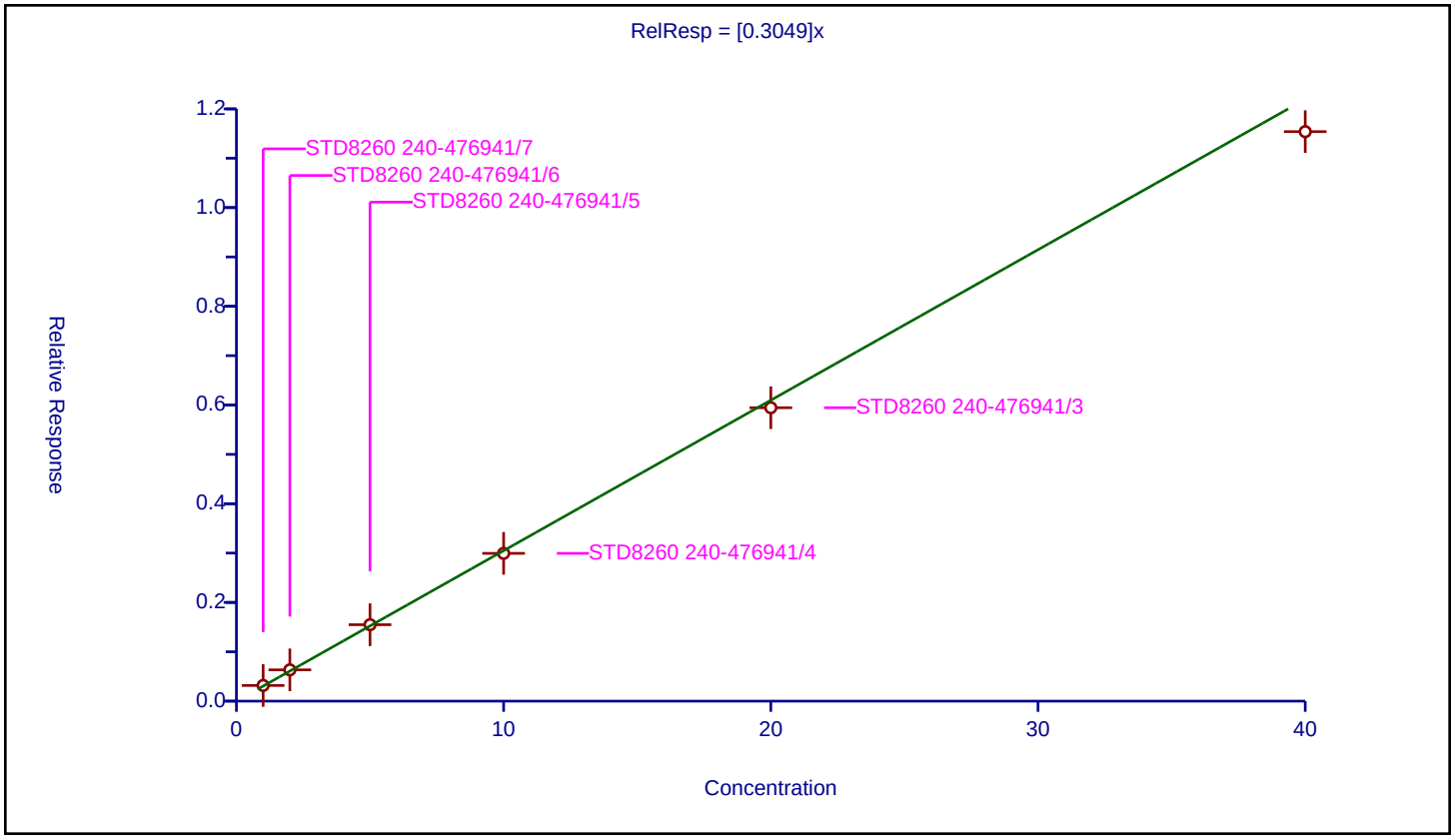
Curve Coefficients

Intercept:	0
Slope:	0.3049

Error Coefficients

Standard Error:	1040000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.317547	10.0	1508502.0	0.317547	Y
2	STD8260 240-476941/6	2.0	0.633728	10.0	1600104.0	0.316864	Y
3	STD8260 240-476941/5	5.0	1.548303	10.0	1580769.0	0.309661	Y
4	STD8260 240-476941/4	10.0	2.994232	10.0	1635381.0	0.299423	Y
5	STD8260 240-476941/3	20.0	5.944876	10.0	1729200.0	0.297244	Y
6	STD8260 240-476941/2	40.0	11.539324	10.0	1738218.0	0.288483	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

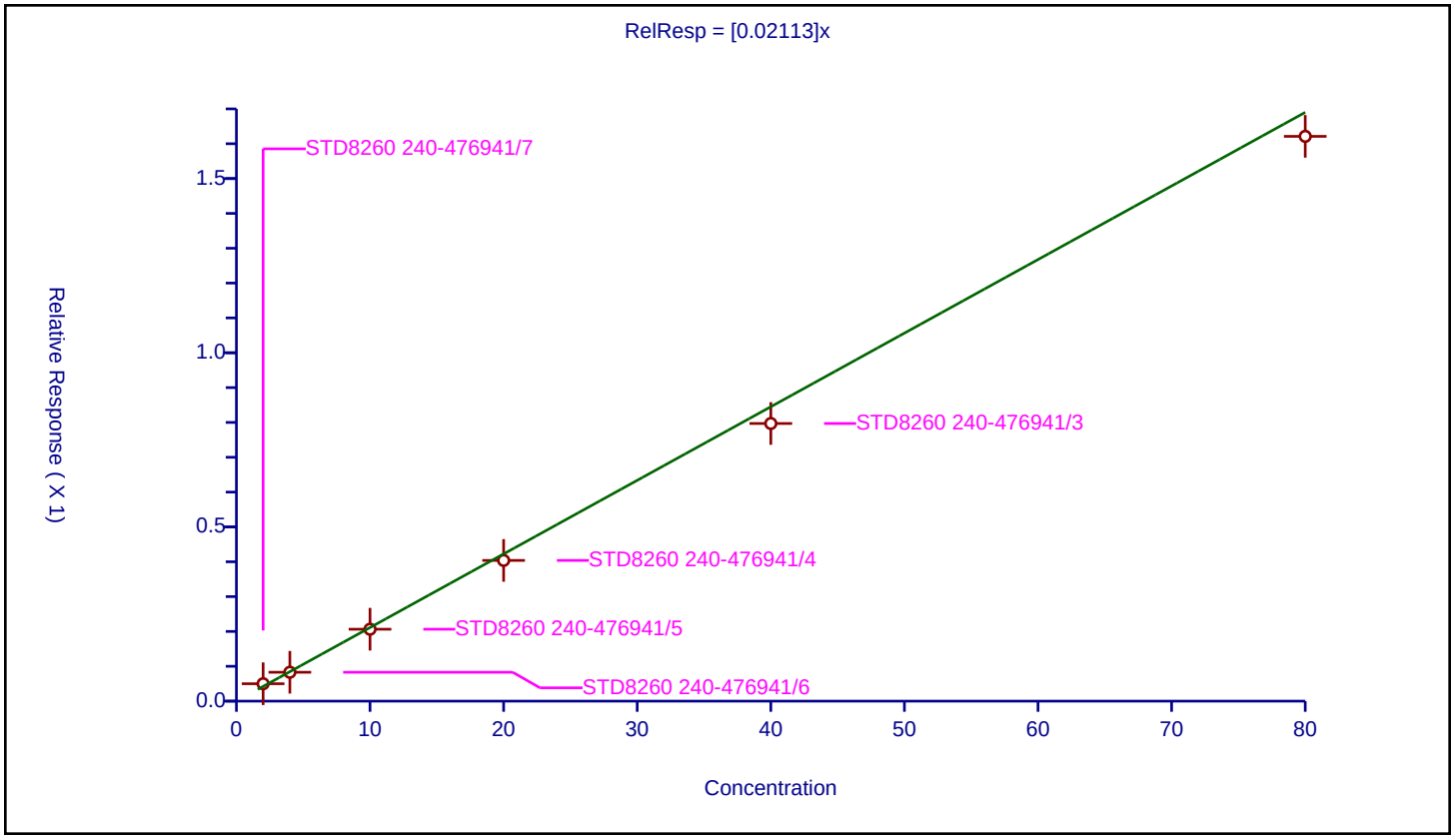
Curve Coefficients

Intercept:	0
Slope:	0.02113

Error Coefficients

Standard Error:	144000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.049983	10.0	1508502.0	0.024992	Y
2	STD8260 240-476941/6	4.0	0.08292	10.0	1600104.0	0.02073	Y
3	STD8260 240-476941/5	10.0	0.206482	10.0	1580769.0	0.020648	Y
4	STD8260 240-476941/4	20.0	0.403936	10.0	1635381.0	0.020197	Y
5	STD8260 240-476941/3	40.0	0.796947	10.0	1729200.0	0.019924	Y
6	STD8260 240-476941/2	80.0	1.621149	10.0	1738218.0	0.020264	Y



Calibration / Chlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

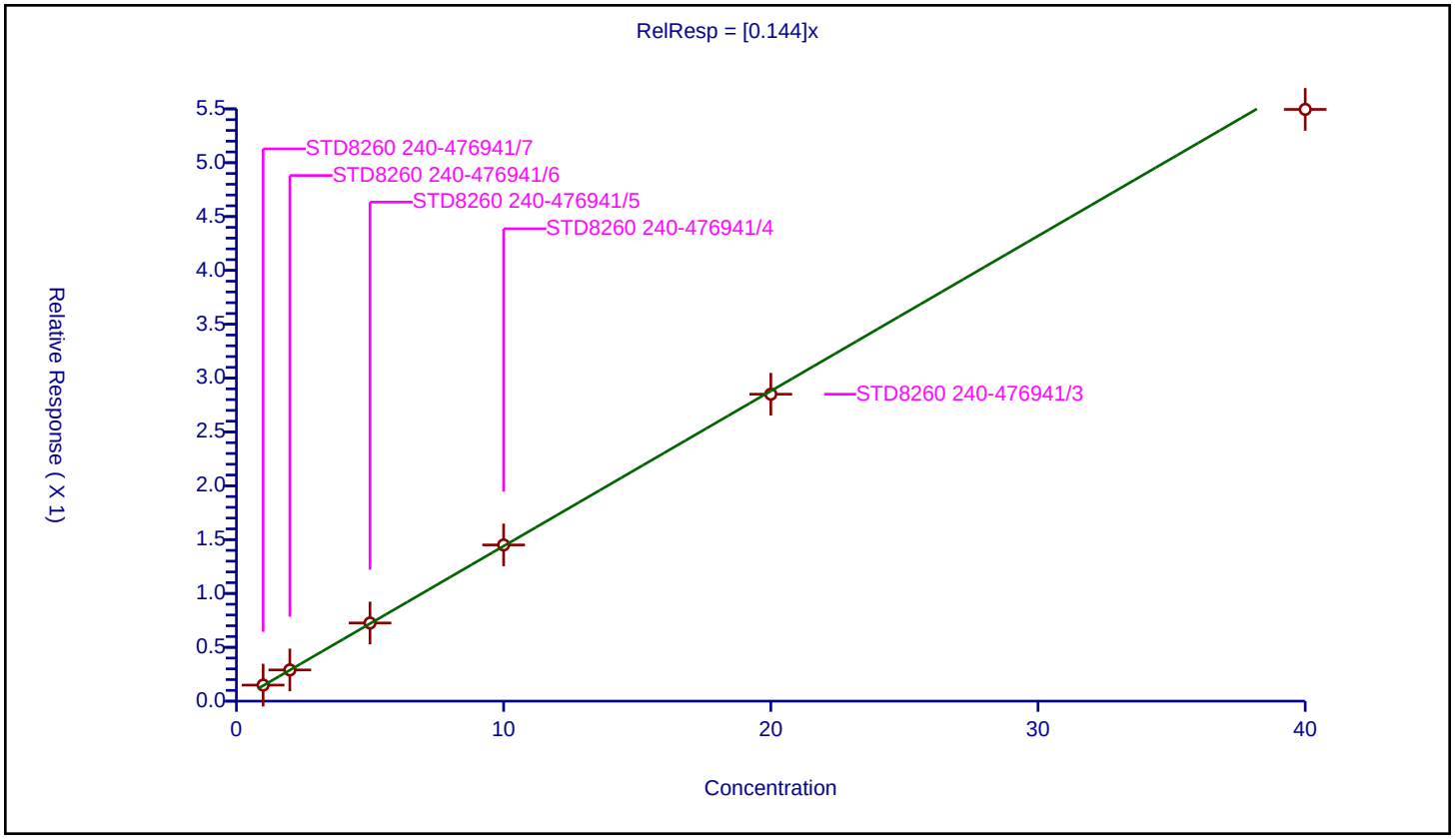
Curve Coefficients

Intercept:	0
Slope:	0.144

Error Coefficients

Standard Error:	495000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.148995	10.0	1508502.0	0.148995	Y
2	STD8260 240-476941/6	2.0	0.289706	10.0	1600104.0	0.144853	Y
3	STD8260 240-476941/5	5.0	0.725881	10.0	1580769.0	0.145176	Y
4	STD8260 240-476941/4	10.0	1.450518	10.0	1635381.0	0.145052	Y
5	STD8260 240-476941/3	20.0	2.850578	10.0	1729200.0	0.142529	Y
6	STD8260 240-476941/2	40.0	5.495398	10.0	1738218.0	0.137385	Y



Calibration / Tetrahydrofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

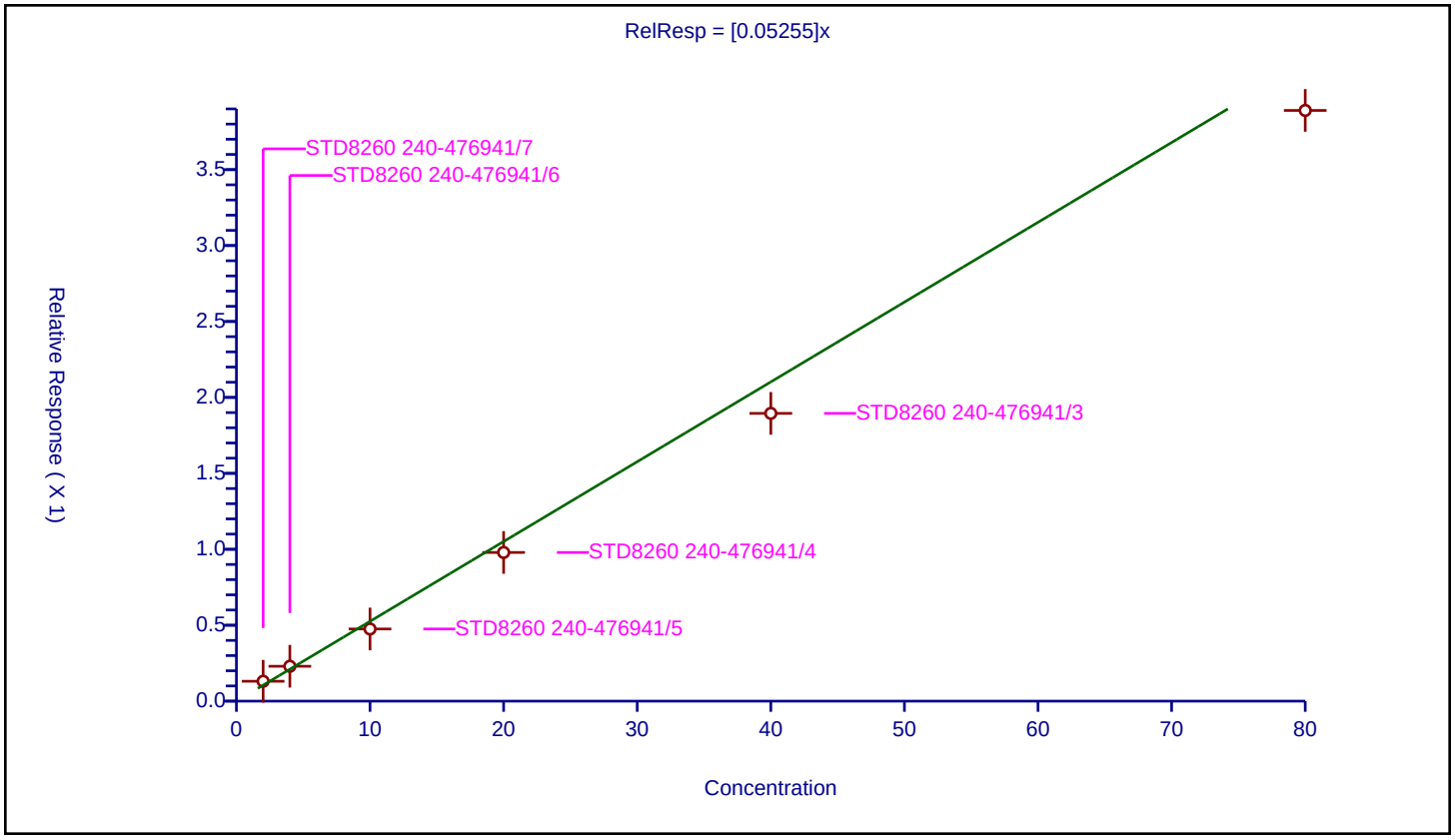
Curve Coefficients

Intercept:	0
Slope:	0.05255

Error Coefficients

Standard Error:	346000
Relative Standard Error:	14.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.963

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.130845	10.0	1508502.0	0.065423	Y
2	STD8260 240-476941/6	4.0	0.229635	10.0	1600104.0	0.057409	Y
3	STD8260 240-476941/5	10.0	0.475256	10.0	1580769.0	0.047526	Y
4	STD8260 240-476941/4	20.0	0.979172	10.0	1635381.0	0.048959	Y
5	STD8260 240-476941/3	40.0	1.895009	10.0	1729200.0	0.047375	Y
6	STD8260 240-476941/2	80.0	3.88984	10.0	1738218.0	0.048623	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

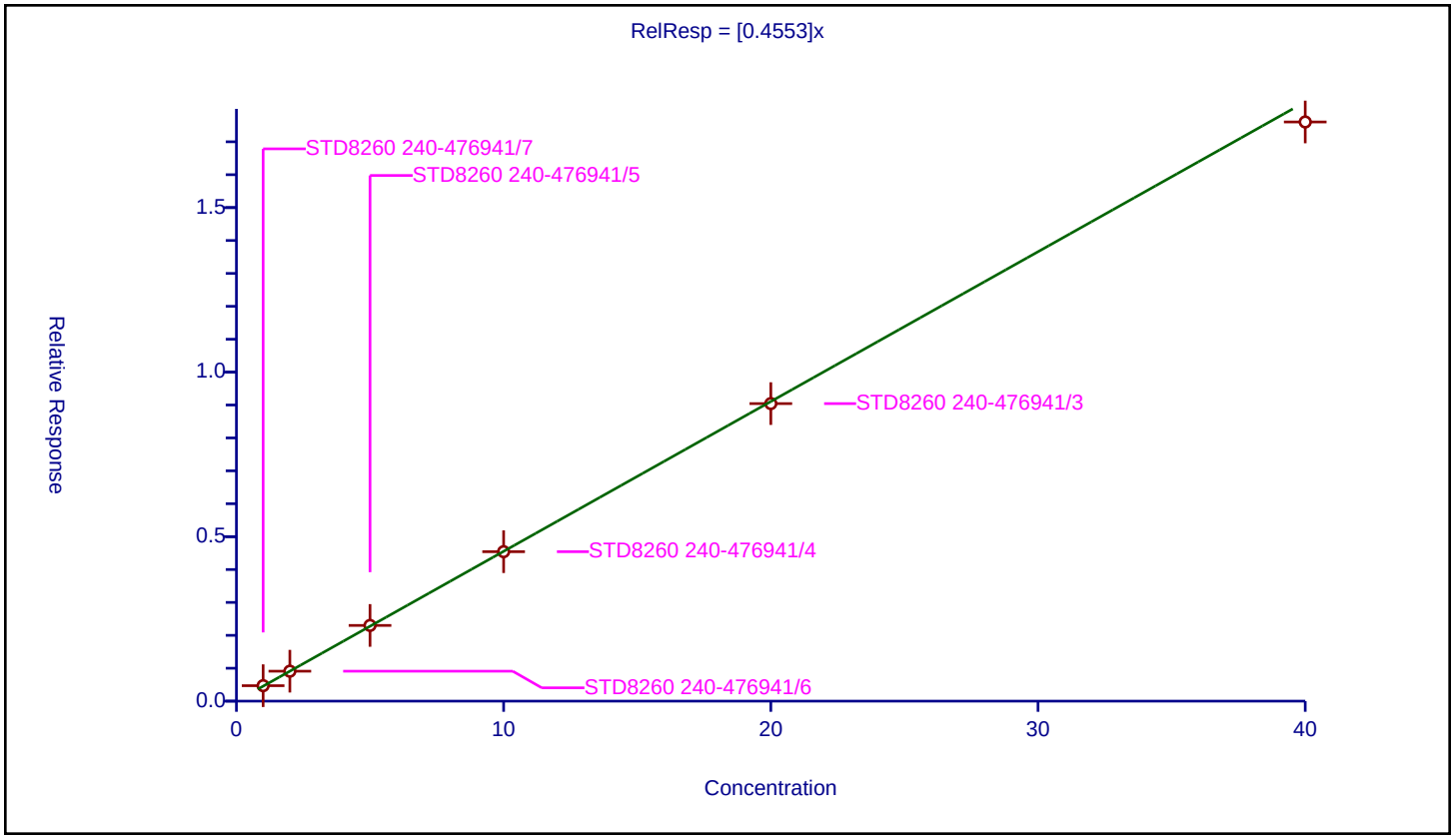
Curve Coefficients

Intercept:	0
Slope:	0.4553

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.470235	10.0	1508502.0	0.470235	Y
2	STD8260 240-476941/6	2.0	0.909872	10.0	1600104.0	0.454936	Y
3	STD8260 240-476941/5	5.0	2.300652	10.0	1580769.0	0.46013	Y
4	STD8260 240-476941/4	10.0	4.542415	10.0	1635381.0	0.454242	Y
5	STD8260 240-476941/3	20.0	9.043269	10.0	1729200.0	0.452163	Y
6	STD8260 240-476941/2	40.0	17.60289	10.0	1738218.0	0.440072	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

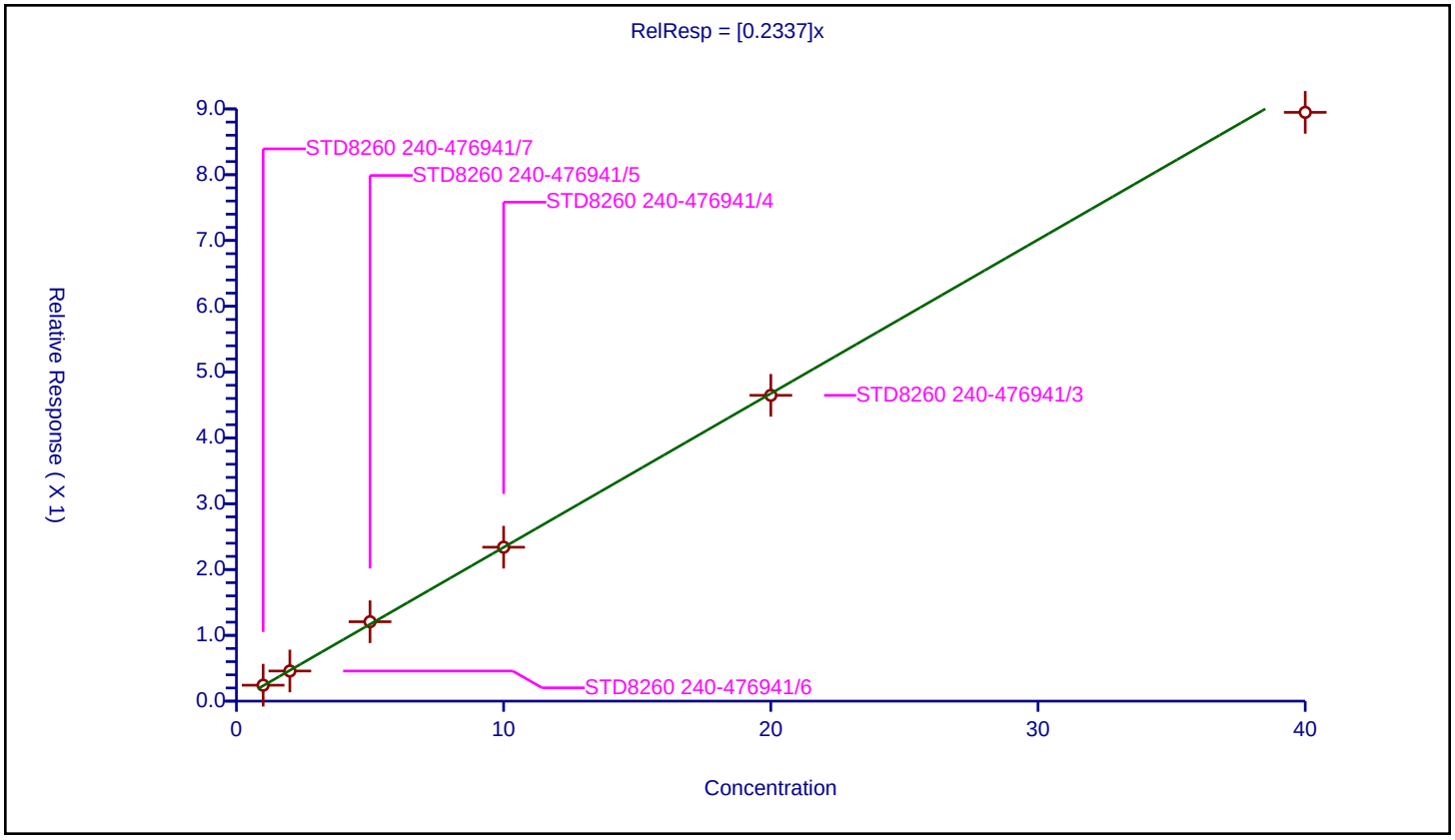
Curve Coefficients

Intercept:	0
Slope:	0.2337

Error Coefficients

Standard Error:	807000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.242134	10.0	1508502.0	0.242134	Y
2	STD8260 240-476941/6	2.0	0.45792	10.0	1600104.0	0.22896	Y
3	STD8260 240-476941/5	5.0	1.206729	10.0	1580769.0	0.241346	Y
4	STD8260 240-476941/4	10.0	2.339247	10.0	1635381.0	0.233925	Y
5	STD8260 240-476941/3	20.0	4.647265	10.0	1729200.0	0.232363	Y
6	STD8260 240-476941/2	40.0	8.947681	10.0	1738218.0	0.223692	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

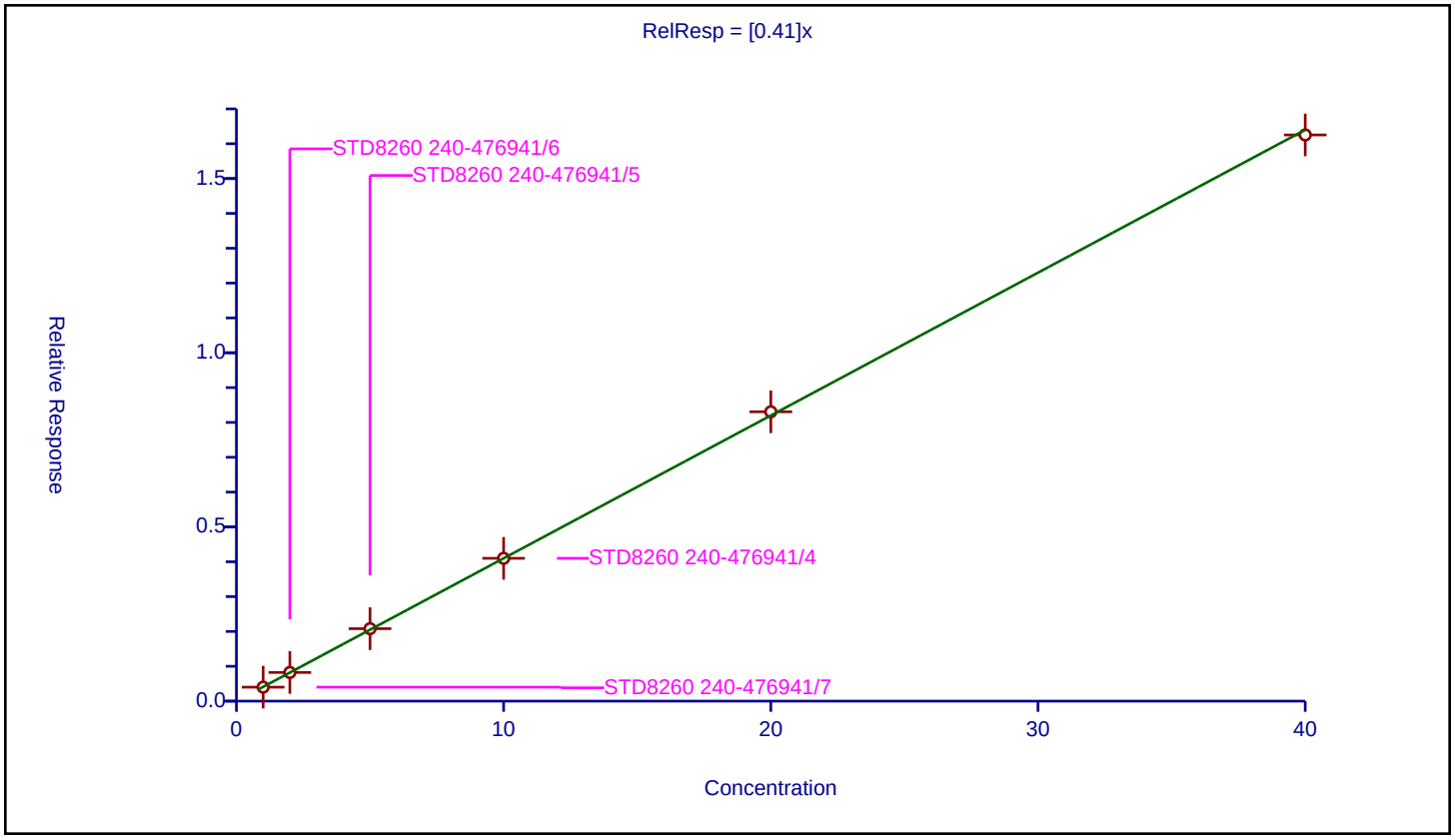
Curve Coefficients

Intercept:	0
Slope:	0.41

Error Coefficients

Standard Error:	1460000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.400841	10.0	1508502.0	0.400841	Y
2	STD8260 240-476941/6	2.0	0.822728	10.0	1600104.0	0.411364	Y
3	STD8260 240-476941/5	5.0	2.079741	10.0	1580769.0	0.415948	Y
4	STD8260 240-476941/4	10.0	4.099442	10.0	1635381.0	0.409944	Y
5	STD8260 240-476941/3	20.0	8.305795	10.0	1729200.0	0.41529	Y
6	STD8260 240-476941/2	40.0	16.252622	10.0	1738218.0	0.406316	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

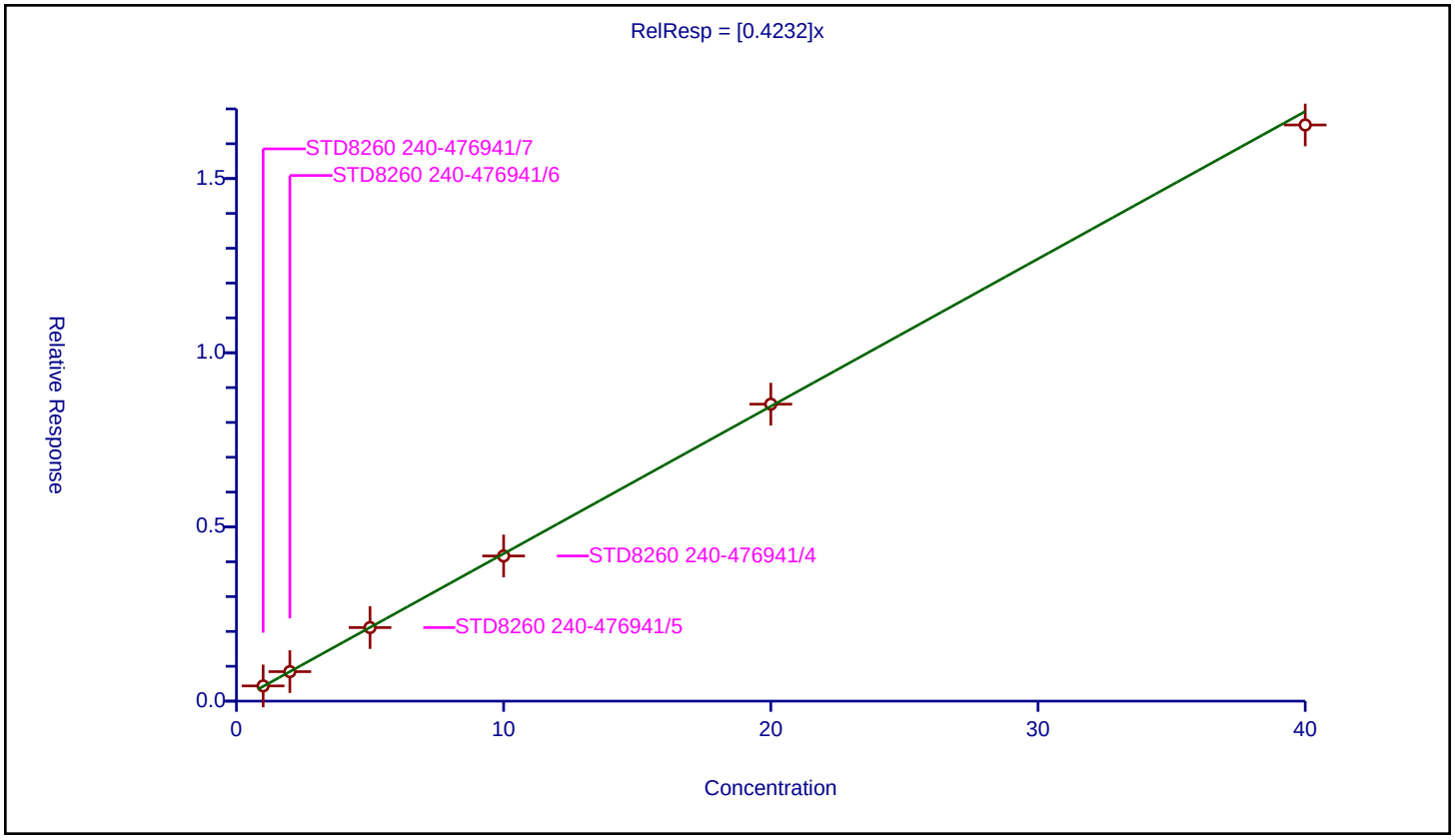
Curve Coefficients

Intercept:	0
Slope:	0.4232

Error Coefficients

Standard Error:	1490000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.436977	10.0	1508502.0	0.436977	Y
2	STD8260 240-476941/6	2.0	0.846601	10.0	1600104.0	0.423301	Y
3	STD8260 240-476941/5	5.0	2.111675	10.0	1580769.0	0.422335	Y
4	STD8260 240-476941/4	10.0	4.167163	10.0	1635381.0	0.416716	Y
5	STD8260 240-476941/3	20.0	8.524879	10.0	1729200.0	0.426244	Y
6	STD8260 240-476941/2	40.0	16.538622	10.0	1738218.0	0.413466	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

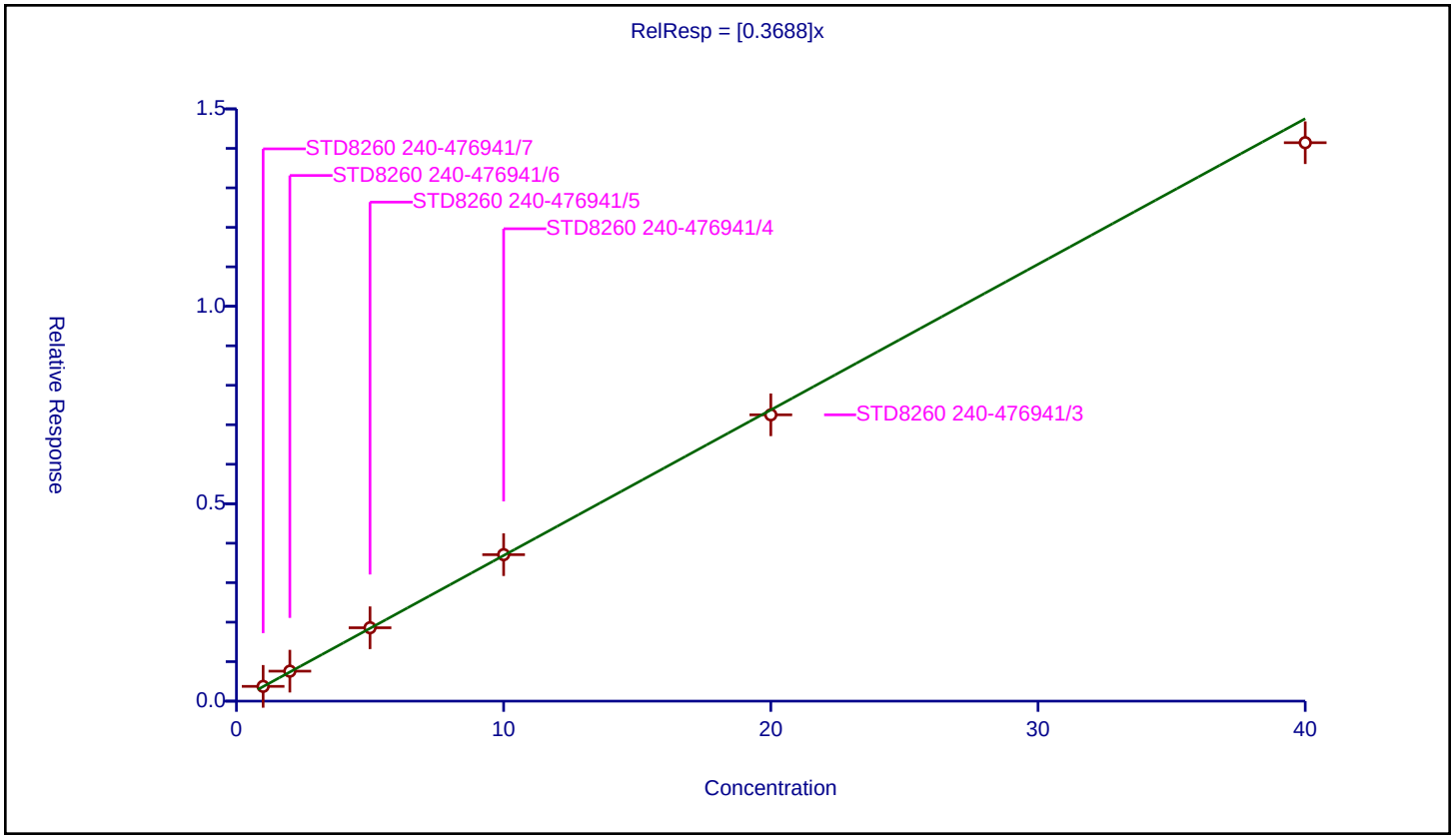
Curve Coefficients

Intercept:	0
Slope:	0.3688

Error Coefficients

Standard Error:	1270000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.374338	10.0	1508502.0	0.374338	Y
2	STD8260 240-476941/6	2.0	0.758994	10.0	1600104.0	0.379497	Y
3	STD8260 240-476941/5	5.0	1.858994	10.0	1580769.0	0.371799	Y
4	STD8260 240-476941/4	10.0	3.710108	10.0	1635381.0	0.371011	Y
5	STD8260 240-476941/3	20.0	7.251758	10.0	1729200.0	0.362588	Y
6	STD8260 240-476941/2	40.0	14.144141	10.0	1738218.0	0.353604	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

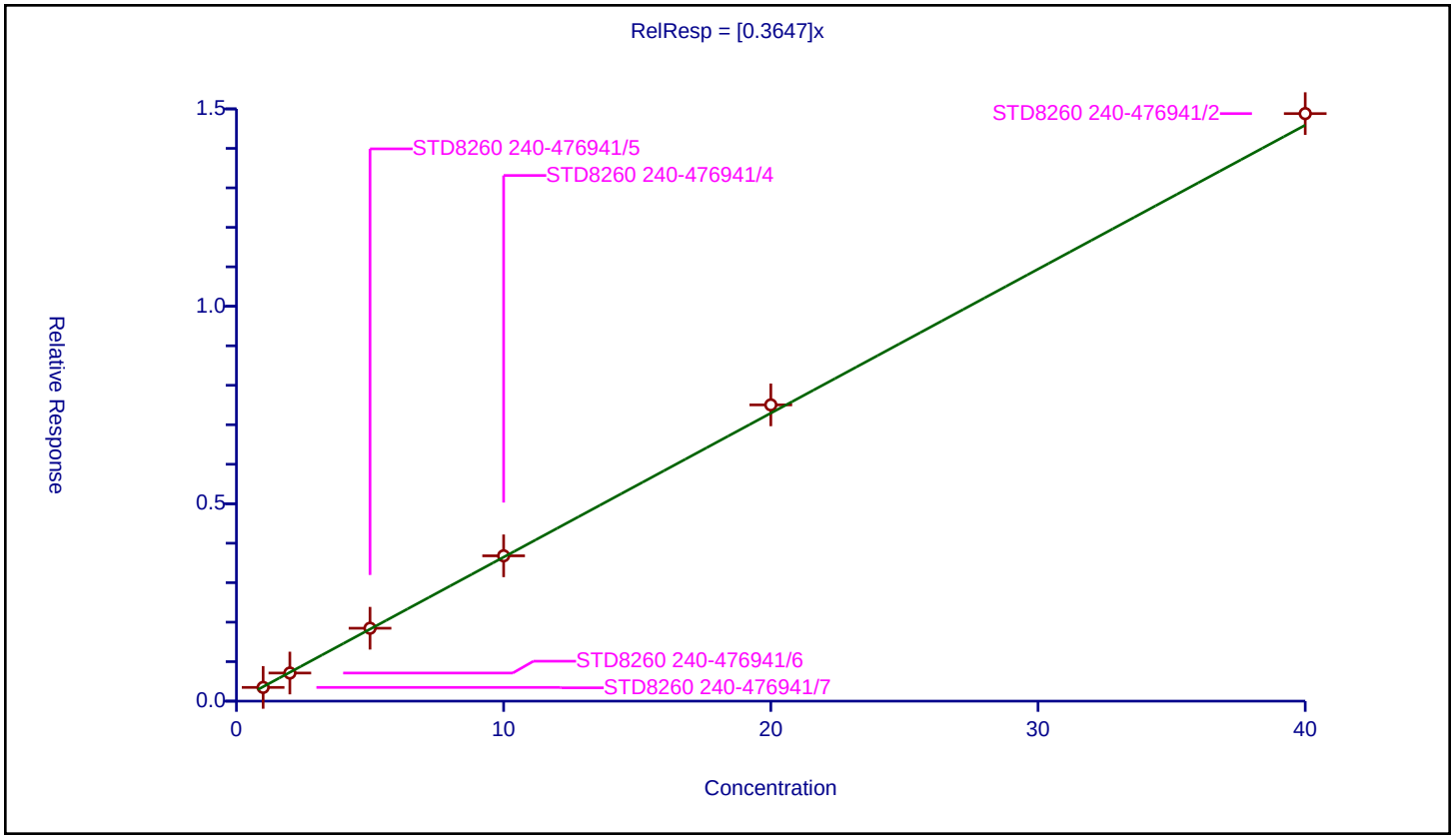
Curve Coefficients

Intercept:	0
Slope:	0.3647

Error Coefficients

Standard Error:	1330000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.347736	10.0	1508502.0	0.347736	Y
2	STD8260 240-476941/6	2.0	0.711754	10.0	1600104.0	0.355877	Y
3	STD8260 240-476941/5	5.0	1.846582	10.0	1580769.0	0.369316	Y
4	STD8260 240-476941/4	10.0	3.681032	10.0	1635381.0	0.368103	Y
5	STD8260 240-476941/3	20.0	7.503851	10.0	1729200.0	0.375193	Y
6	STD8260 240-476941/2	40.0	14.880573	10.0	1738218.0	0.372014	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

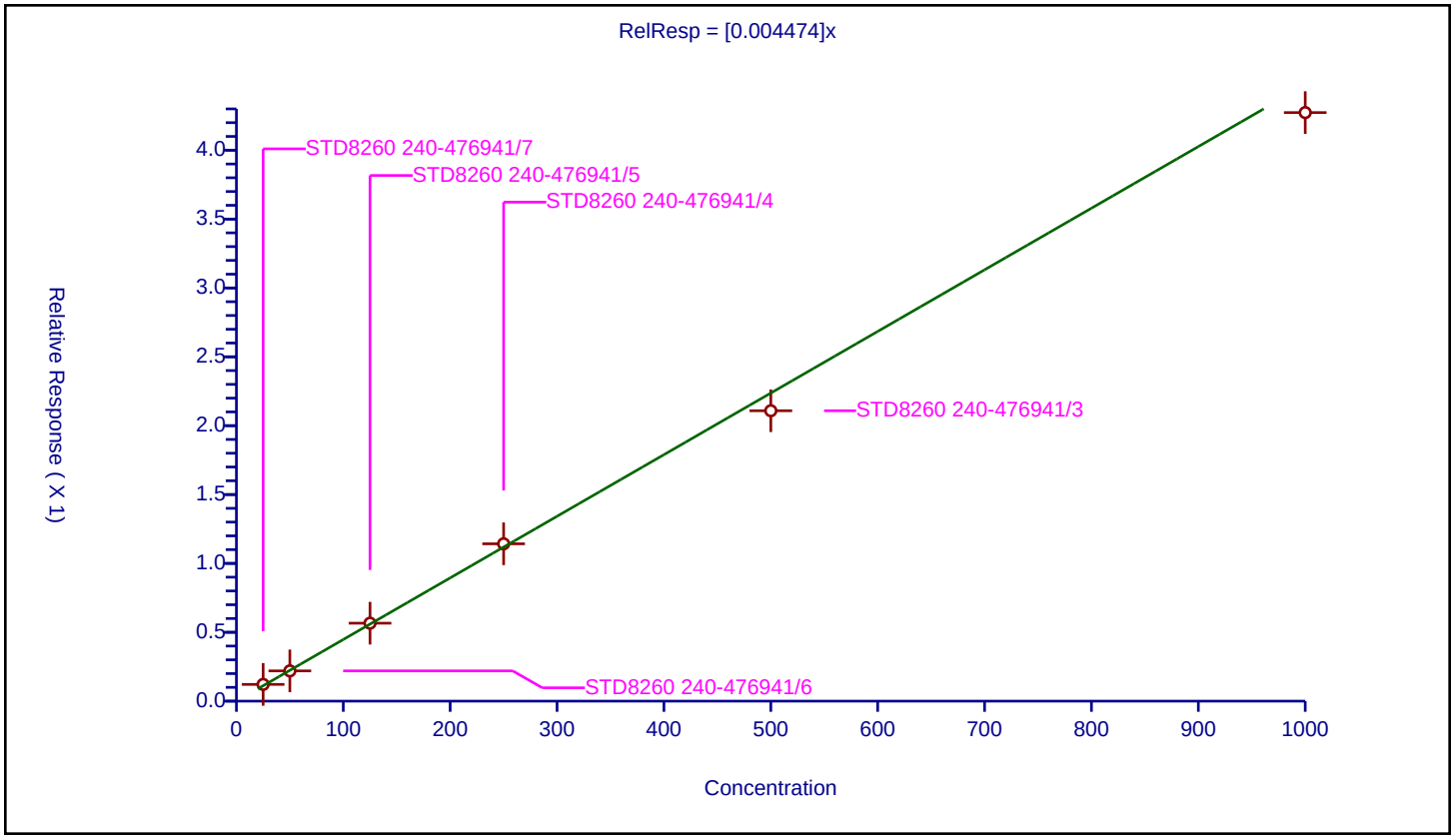
Curve Coefficients

Intercept:	0
Slope:	0.004474

Error Coefficients

Standard Error:	382000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	25.0	0.121584	10.0	1508502.0	0.004863	Y
2	STD8260 240-476941/6	50.0	0.219592	10.0	1600104.0	0.004392	Y
3	STD8260 240-476941/5	125.0	0.565984	10.0	1580769.0	0.004528	Y
4	STD8260 240-476941/4	250.0	1.142309	10.0	1635381.0	0.004569	Y
5	STD8260 240-476941/3	500.0	2.108426	10.0	1729200.0	0.004217	Y
6	STD8260 240-476941/2	1000.0	4.273123	10.0	1738218.0	0.004273	Y



Calibration / 1,2-Dichloroethane-d4 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

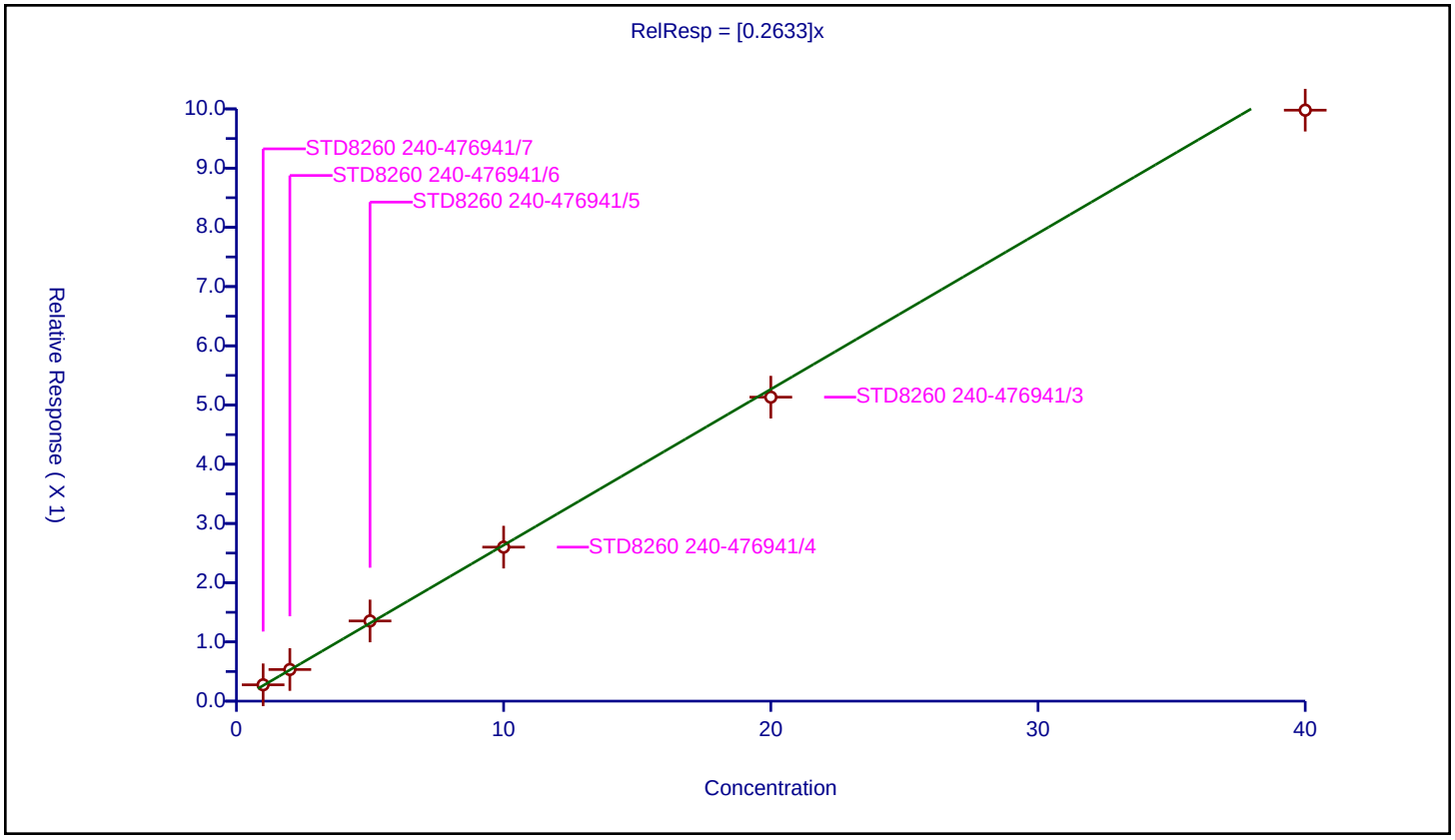
Curve Coefficients

Intercept:	0
Slope:	0.2633

Error Coefficients

Standard Error:	898000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275989	10.0	1508502.0	0.275989	Y
2	STD8260 240-476941/6	2.0	0.533928	10.0	1600104.0	0.266964	Y
3	STD8260 240-476941/5	5.0	1.354075	10.0	1580769.0	0.270815	Y
4	STD8260 240-476941/4	10.0	2.600244	10.0	1635381.0	0.260024	Y
5	STD8260 240-476941/3	20.0	5.132691	10.0	1729200.0	0.256635	Y
6	STD8260 240-476941/2	40.0	9.978616	10.0	1738218.0	0.249465	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

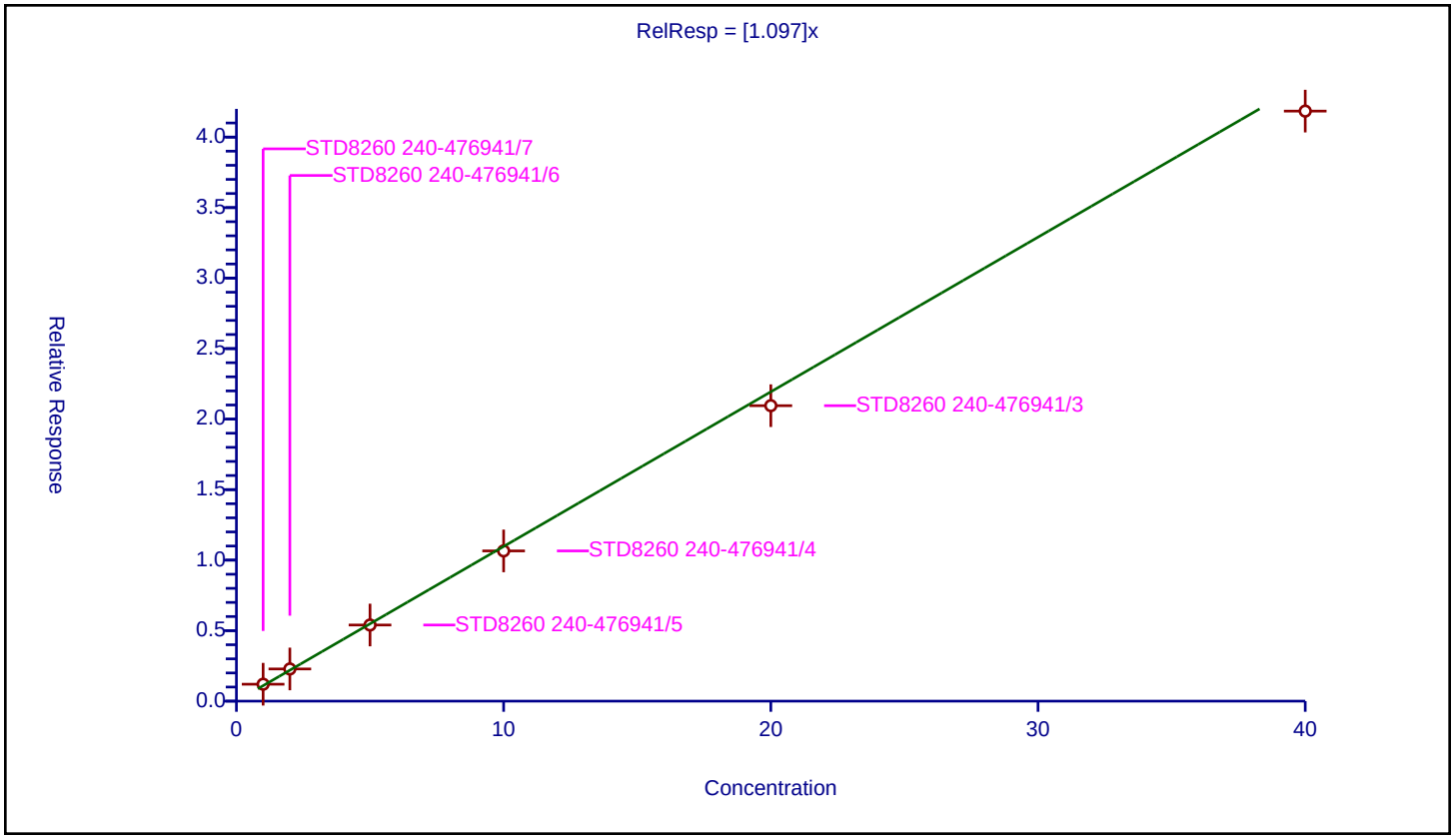
Curve Coefficients

Intercept:	0
Slope:	1.097

Error Coefficients

Standard Error:	3740000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.201026	10.0	1508502.0	1.201026	Y
2	STD8260 240-476941/6	2.0	2.282239	10.0	1600104.0	1.14112	Y
3	STD8260 240-476941/5	5.0	5.398936	10.0	1580769.0	1.079787	Y
4	STD8260 240-476941/4	10.0	10.652778	10.0	1635381.0	1.065278	Y
5	STD8260 240-476941/3	20.0	20.953747	10.0	1729200.0	1.047687	Y
6	STD8260 240-476941/2	40.0	41.843946	10.0	1738218.0	1.046099	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

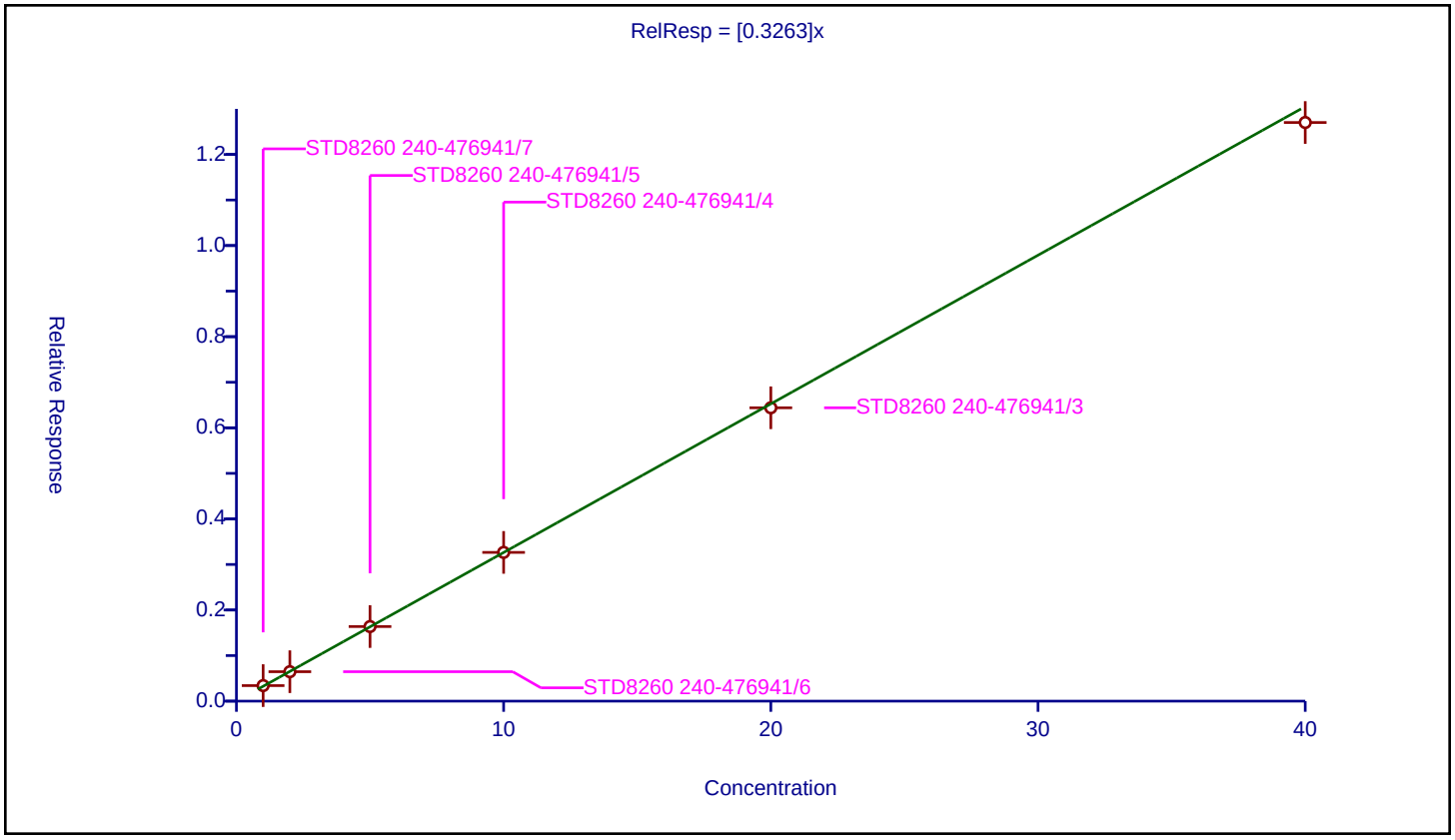
Curve Coefficients

Intercept:	0
Slope:	0.3263

Error Coefficients

Standard Error:	1140000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.341087	10.0	1508502.0	0.341087	Y
2	STD8260 240-476941/6	2.0	0.646289	10.0	1600104.0	0.323145	Y
3	STD8260 240-476941/5	5.0	1.637178	10.0	1580769.0	0.327436	Y
4	STD8260 240-476941/4	10.0	3.264542	10.0	1635381.0	0.326454	Y
5	STD8260 240-476941/3	20.0	6.439596	10.0	1729200.0	0.32198	Y
6	STD8260 240-476941/2	40.0	12.701163	10.0	1738218.0	0.317529	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

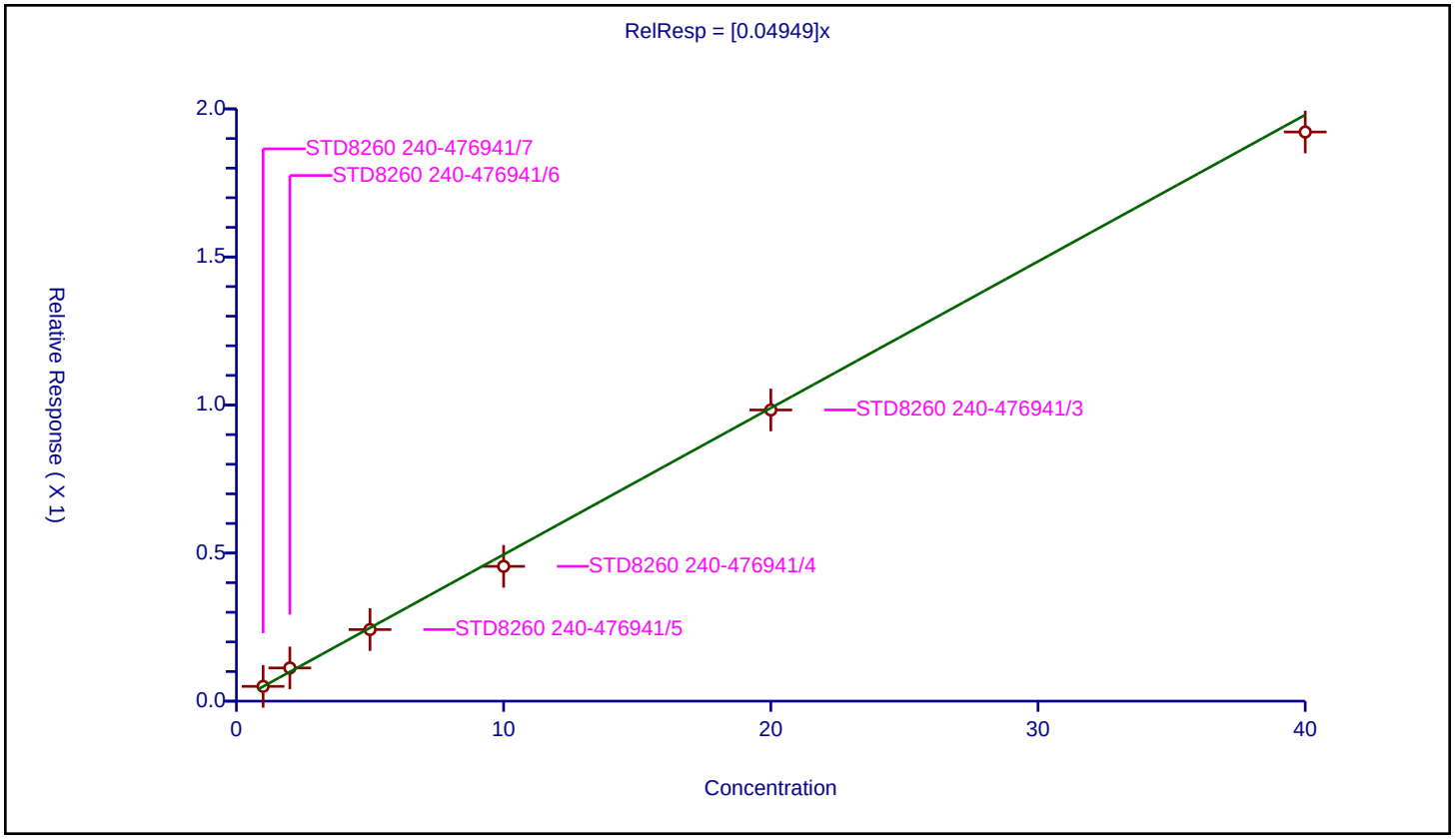
Curve Coefficients

Intercept:	0
Slope:	0.04949

Error Coefficients

Standard Error:	172000
Relative Standard Error:	7.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.049838	10.0	1508502.0	0.049838	Y
2	STD8260 240-476941/6	2.0	0.11208	10.0	1600104.0	0.05604	Y
3	STD8260 240-476941/5	5.0	0.241705	10.0	1580769.0	0.048341	Y
4	STD8260 240-476941/4	10.0	0.455191	10.0	1635381.0	0.045519	Y
5	STD8260 240-476941/3	20.0	0.98331	10.0	1729200.0	0.049166	Y
6	STD8260 240-476941/2	40.0	1.921888	10.0	1738218.0	0.048047	Y



Calibration / Trichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

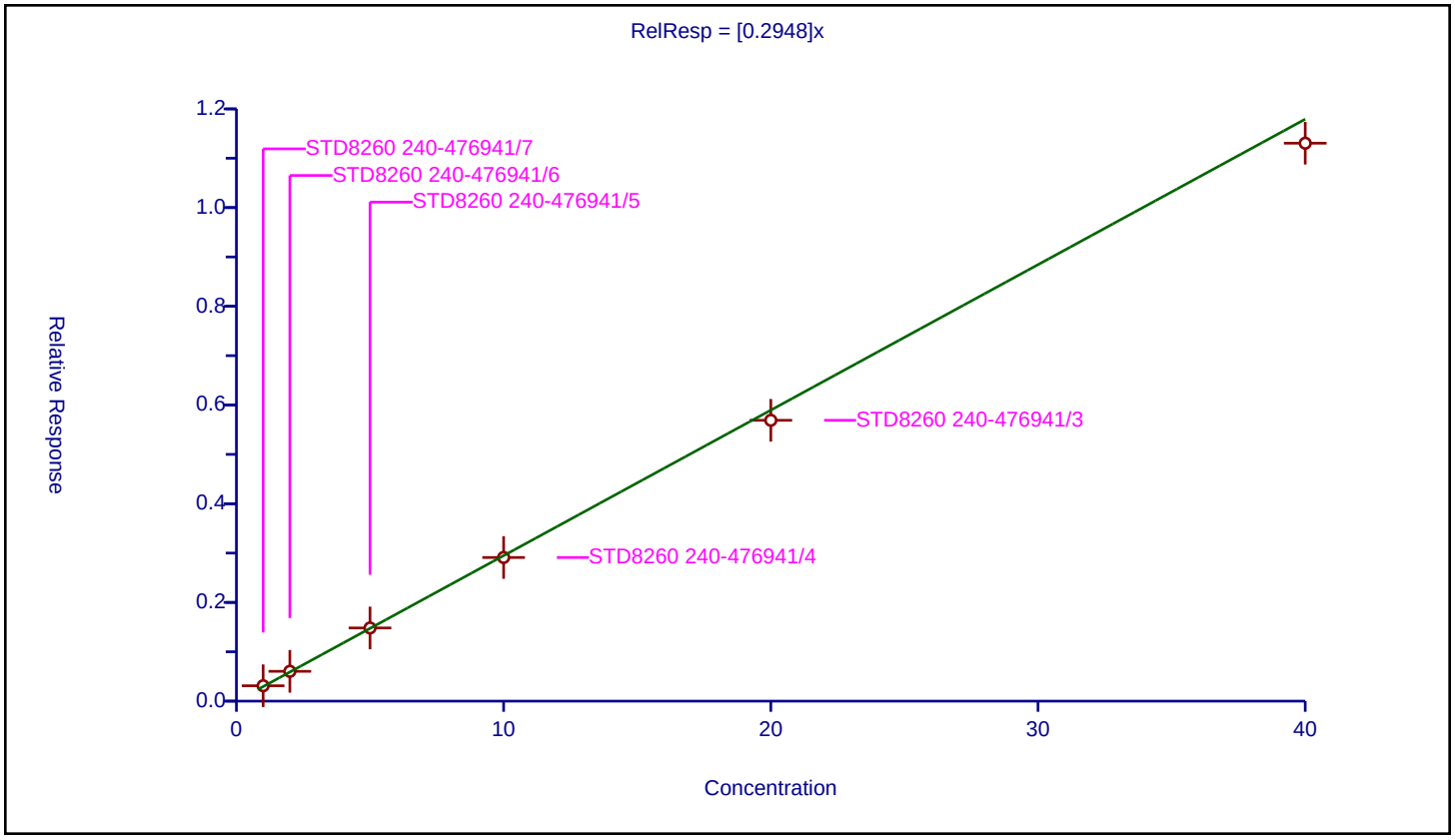
Curve Coefficients

Intercept:	0
Slope:	0.2948

Error Coefficients

Standard Error:	1010000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.311819	10.0	1508502.0	0.311819	Y
2	STD8260 240-476941/6	2.0	0.604273	10.0	1600104.0	0.302137	Y
3	STD8260 240-476941/5	5.0	1.482911	10.0	1580769.0	0.296582	Y
4	STD8260 240-476941/4	10.0	2.910765	10.0	1635381.0	0.291077	Y
5	STD8260 240-476941/3	20.0	5.690163	10.0	1729200.0	0.284508	Y
6	STD8260 240-476941/2	40.0	11.304664	10.0	1738218.0	0.282617	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

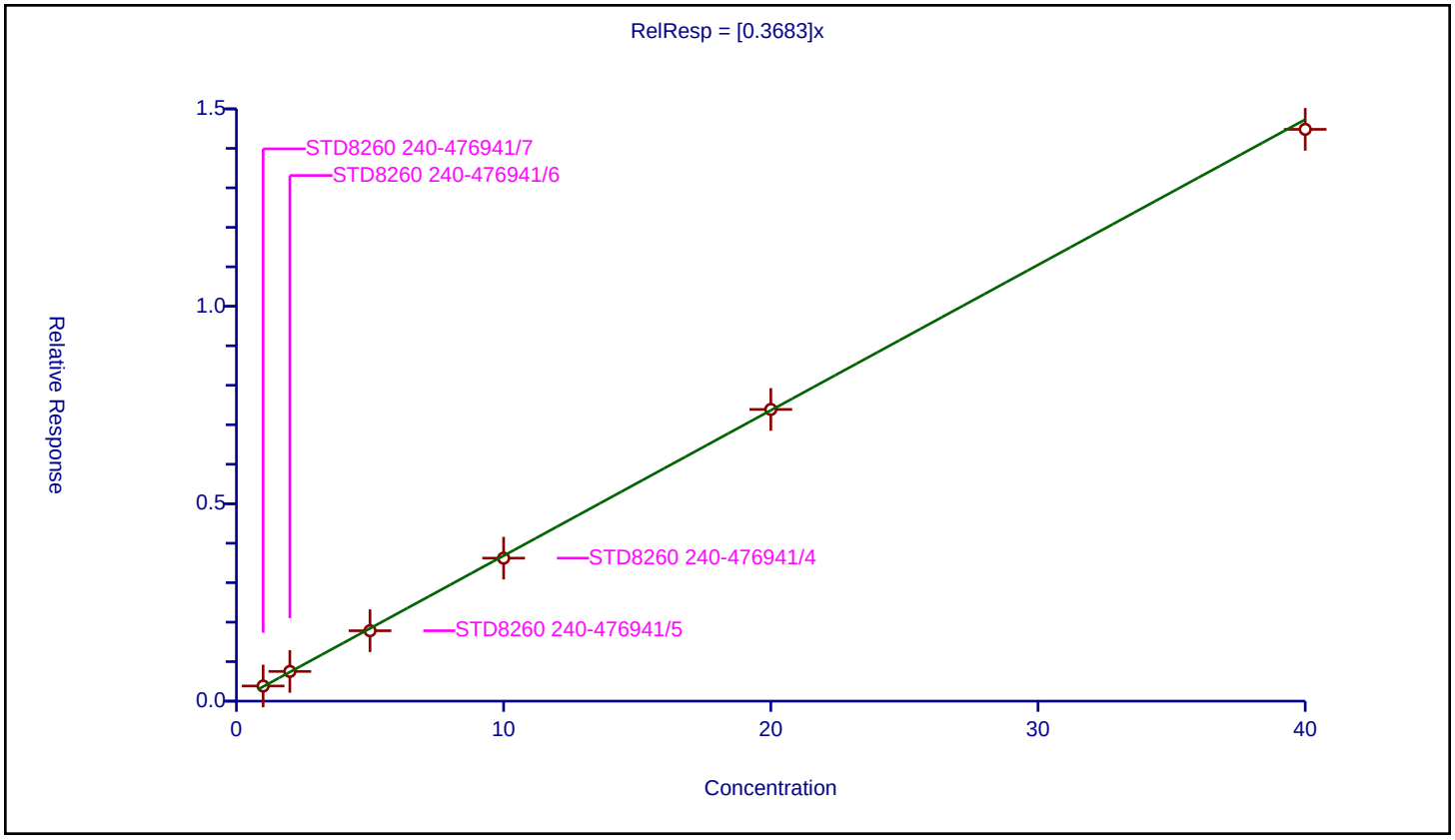
Curve Coefficients

Intercept:	0
Slope:	0.3683

Error Coefficients

Standard Error:	1300000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.383321	10.0	1508502.0	0.383321	Y
2	STD8260 240-476941/6	2.0	0.752382	10.0	1600104.0	0.376191	Y
3	STD8260 240-476941/5	5.0	1.782917	10.0	1580769.0	0.356583	Y
4	STD8260 240-476941/4	10.0	3.621089	10.0	1635381.0	0.362109	Y
5	STD8260 240-476941/3	20.0	7.388446	10.0	1729200.0	0.369422	Y
6	STD8260 240-476941/2	40.0	14.481906	10.0	1738218.0	0.362048	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

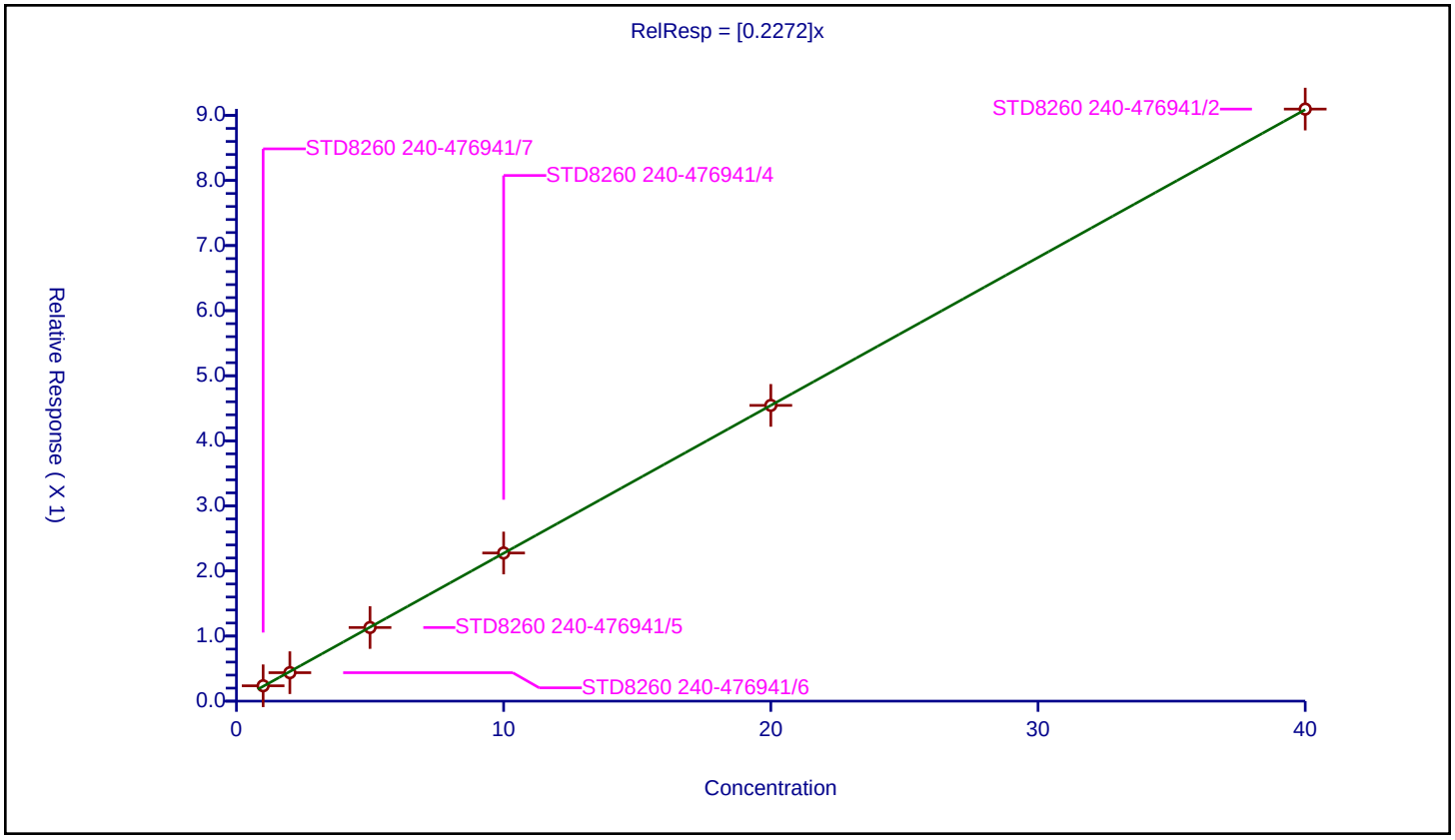
Curve Coefficients

Intercept:	0
Slope:	0.2272

Error Coefficients

Standard Error:	812000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.236049	10.0	1508502.0	0.236049	Y
2	STD8260 240-476941/6	2.0	0.43734	10.0	1600104.0	0.21867	Y
3	STD8260 240-476941/5	5.0	1.131405	10.0	1580769.0	0.226281	Y
4	STD8260 240-476941/4	10.0	2.276411	10.0	1635381.0	0.227641	Y
5	STD8260 240-476941/3	20.0	4.544419	10.0	1729200.0	0.227221	Y
6	STD8260 240-476941/2	40.0	9.097121	10.0	1738218.0	0.227428	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

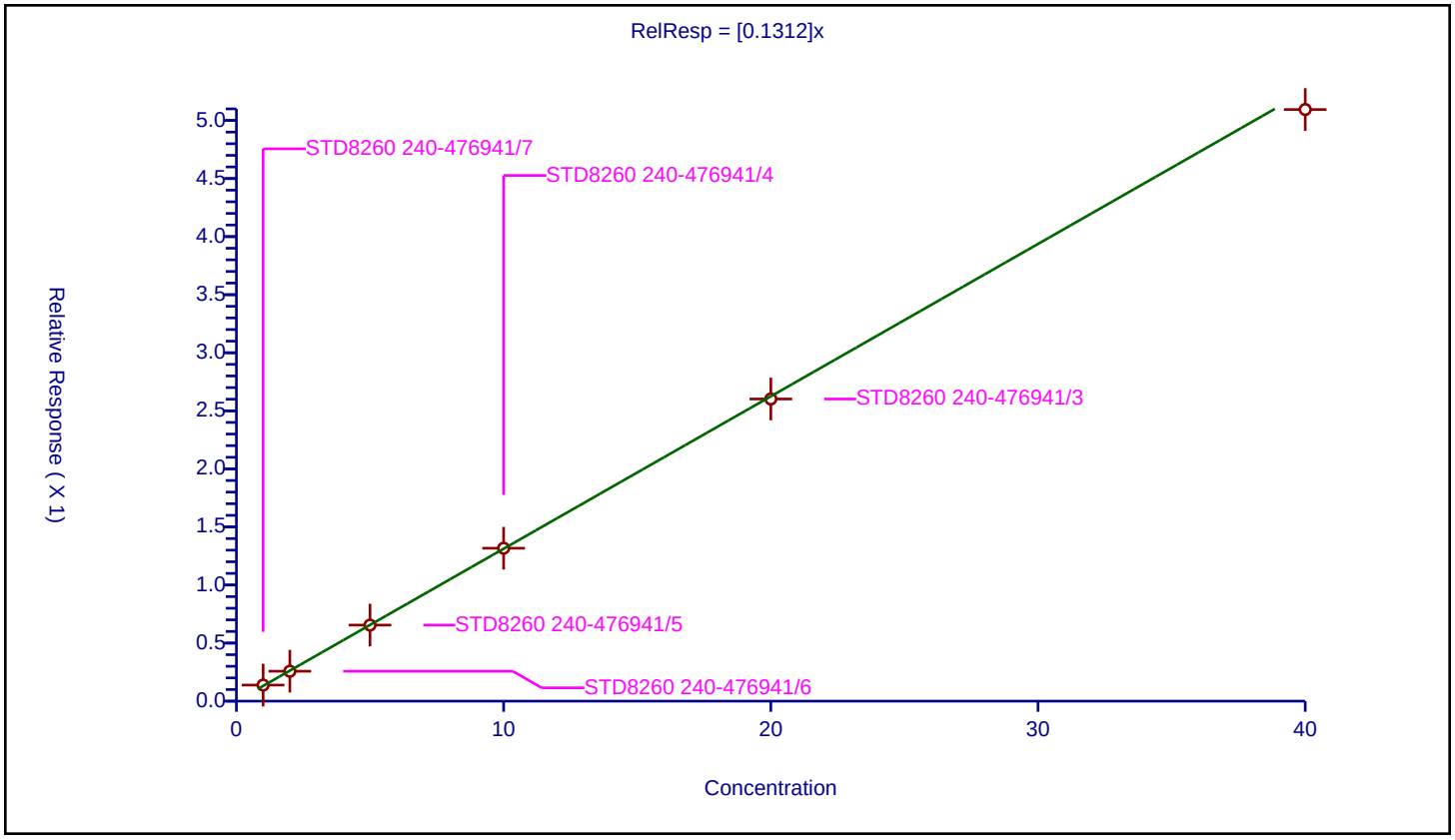
Curve Coefficients

Intercept:	0
Slope:	0.1312

Error Coefficients

Standard Error:	457000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.138382	10.0	1508502.0	0.138382	Y
2	STD8260 240-476941/6	2.0	0.257752	10.0	1600104.0	0.128876	Y
3	STD8260 240-476941/5	5.0	0.654998	10.0	1580769.0	0.131	Y
4	STD8260 240-476941/4	10.0	1.316727	10.0	1635381.0	0.131673	Y
5	STD8260 240-476941/3	20.0	2.602001	10.0	1729200.0	0.1301	Y
6	STD8260 240-476941/2	40.0	5.094419	10.0	1738218.0	0.12736	Y



Calibration / 1,4-Dioxane

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

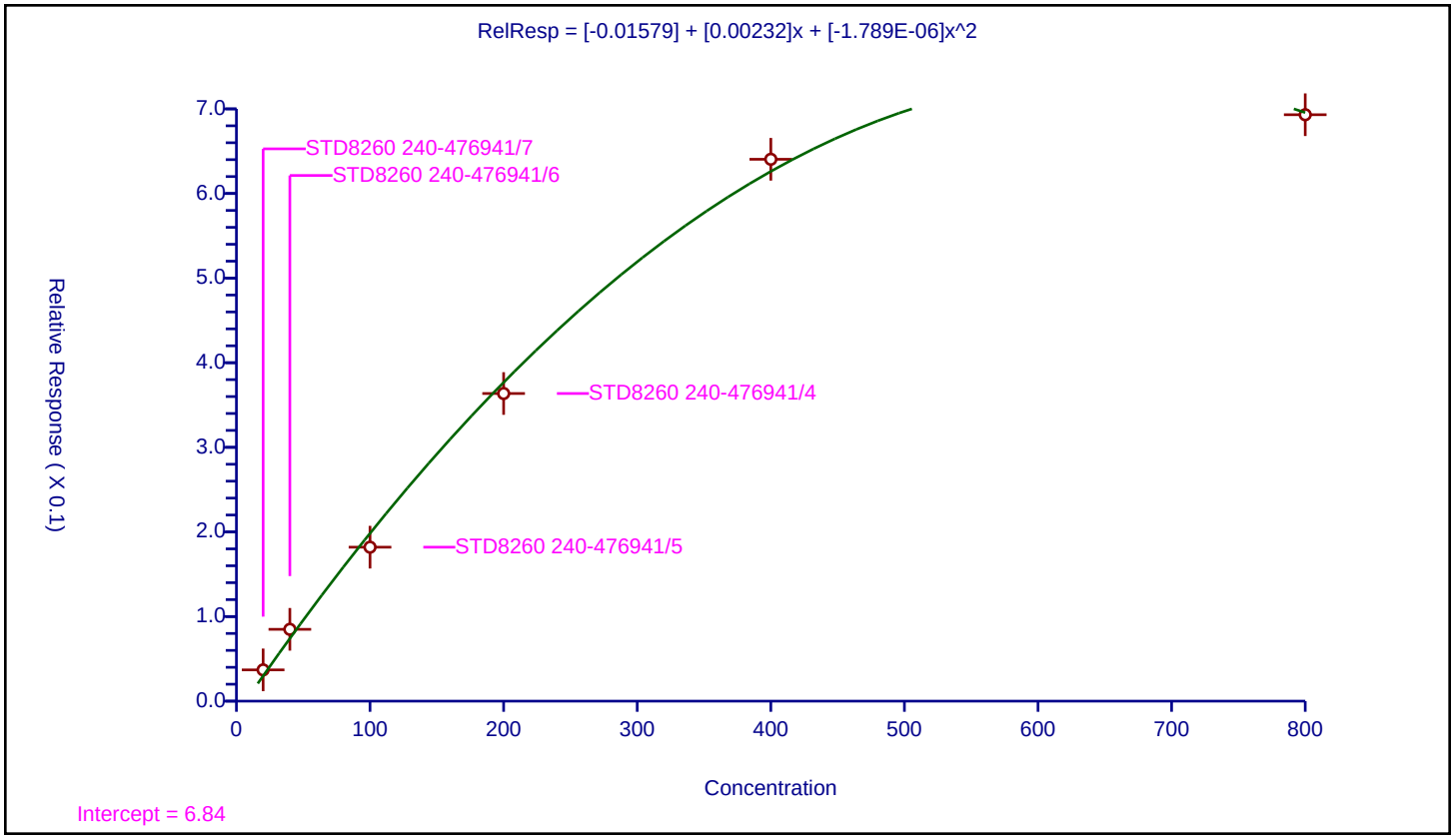
Curve Coefficients

Intercept:	-0.01579
Slope:	0.00232
Second Order:	-1.789E-06

Error Coefficients

Standard Error:	102000
Relative Standard Error:	25.7
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	20.0	0.036951	10.0	1508502.0	0.001848	Y
2	STD8260 240-476941/6	40.0	0.084882	10.0	1600104.0	0.002122	Y
3	STD8260 240-476941/5	100.0	0.181962	10.0	1580769.0	0.00182	Y
4	STD8260 240-476941/4	200.0	0.363603	10.0	1635381.0	0.001818	Y
5	STD8260 240-476941/3	400.0	0.640452	10.0	1729200.0	0.001601	Y
6	STD8260 240-476941/2	800.0	0.693095	10.0	1738218.0	0.000866	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

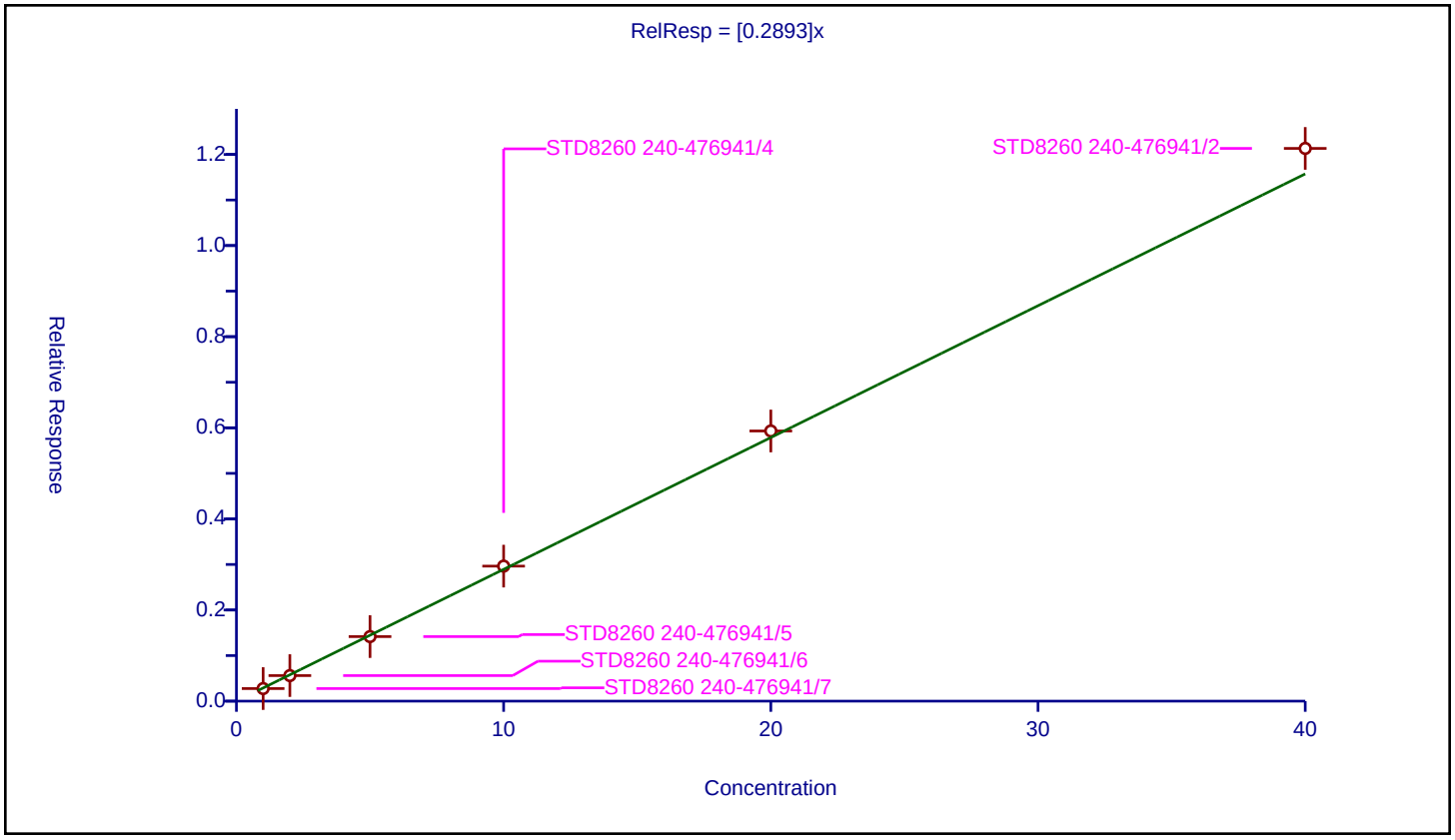
Curve Coefficients

Intercept:	0
Slope:	0.2893

Error Coefficients

Standard Error:	1080000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.275943	10.0	1508502.0	0.275943	Y
2	STD8260 240-476941/6	2.0	0.560701	10.0	1600104.0	0.280351	Y
3	STD8260 240-476941/5	5.0	1.417076	10.0	1580769.0	0.283415	Y
4	STD8260 240-476941/4	10.0	2.96386	10.0	1635381.0	0.296386	Y
5	STD8260 240-476941/3	20.0	5.930344	10.0	1729200.0	0.296517	Y
6	STD8260 240-476941/2	40.0	12.132178	10.0	1738218.0	0.303304	Y



Calibration / 2-Chloroethyl vinyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

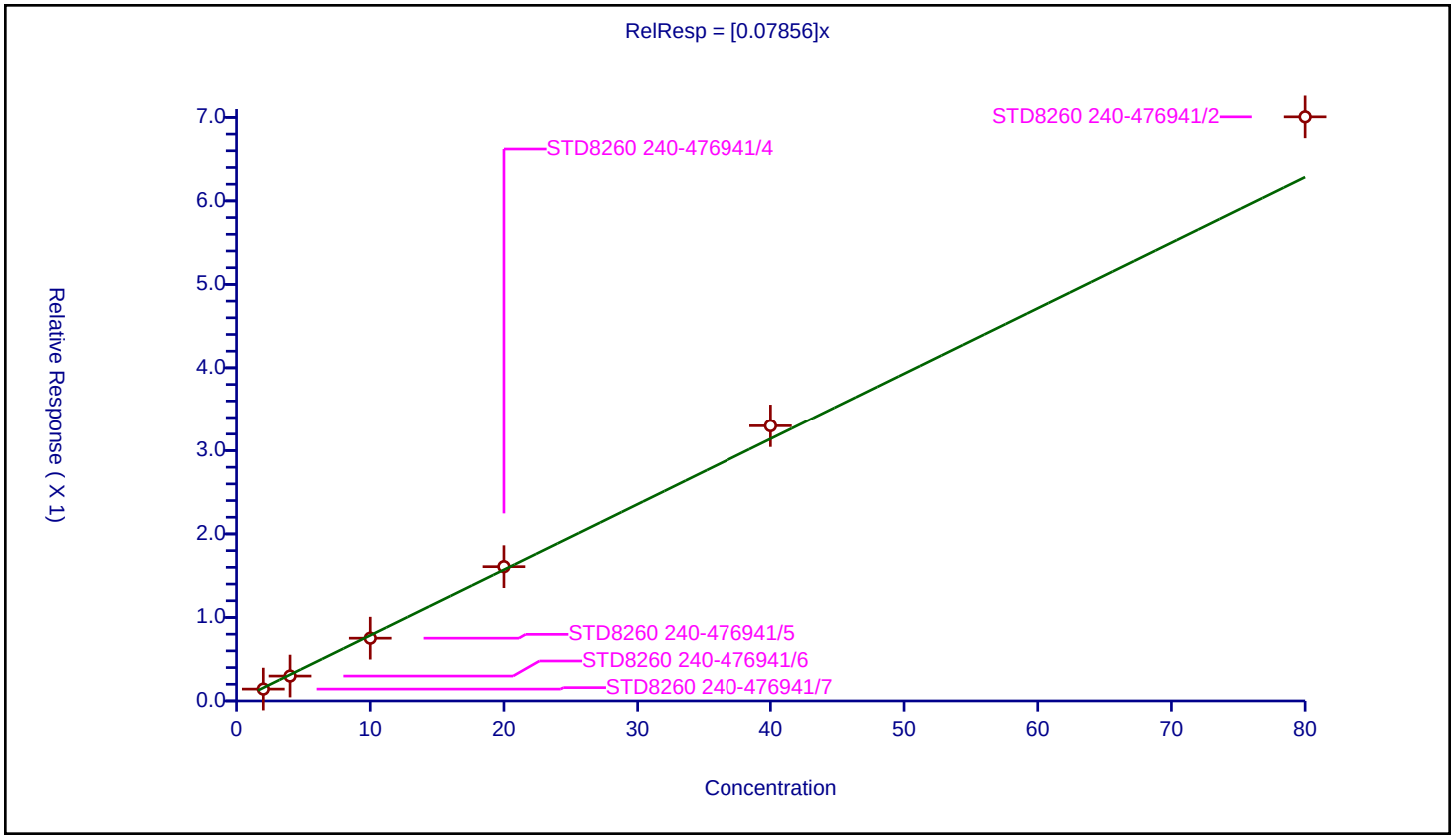
Curve Coefficients

Intercept:	0
Slope:	0.07856

Error Coefficients

Standard Error:	616000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.142141	10.0	1508502.0	0.071071	Y
2	STD8260 240-476941/6	4.0	0.298418	10.0	1600104.0	0.074605	Y
3	STD8260 240-476941/5	10.0	0.752172	10.0	1580769.0	0.075217	Y
4	STD8260 240-476941/4	20.0	1.608188	10.0	1635381.0	0.080409	Y
5	STD8260 240-476941/3	40.0	3.3	10.0	1729200.0	0.0825	Y
6	STD8260 240-476941/2	80.0	7.006474	10.0	1738218.0	0.087581	Y



Calibration / cis-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

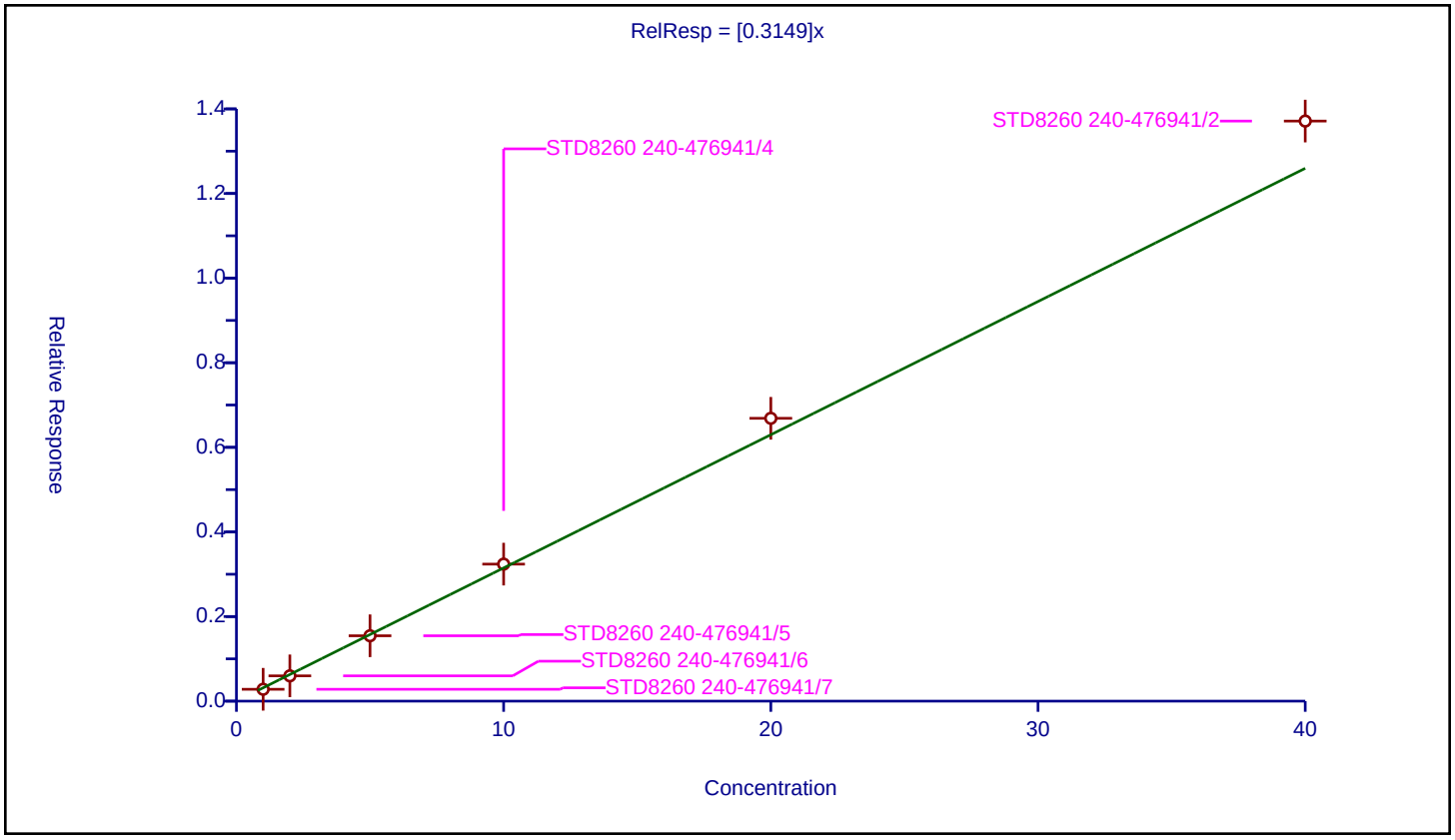
Curve Coefficients

Intercept:	0
Slope:	0.3149

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	7.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.280444	10.0	1508502.0	0.280444	Y
2	STD8260 240-476941/6	2.0	0.597624	10.0	1600104.0	0.298812	Y
3	STD8260 240-476941/5	5.0	1.545393	10.0	1580769.0	0.309079	Y
4	STD8260 240-476941/4	10.0	3.23897	10.0	1635381.0	0.323897	Y
5	STD8260 240-476941/3	20.0	6.68608	10.0	1729200.0	0.334304	Y
6	STD8260 240-476941/2	40.0	13.7124	10.0	1738218.0	0.34281	Y



Calibration / 4-Methyl-2-pentanone (MIBK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

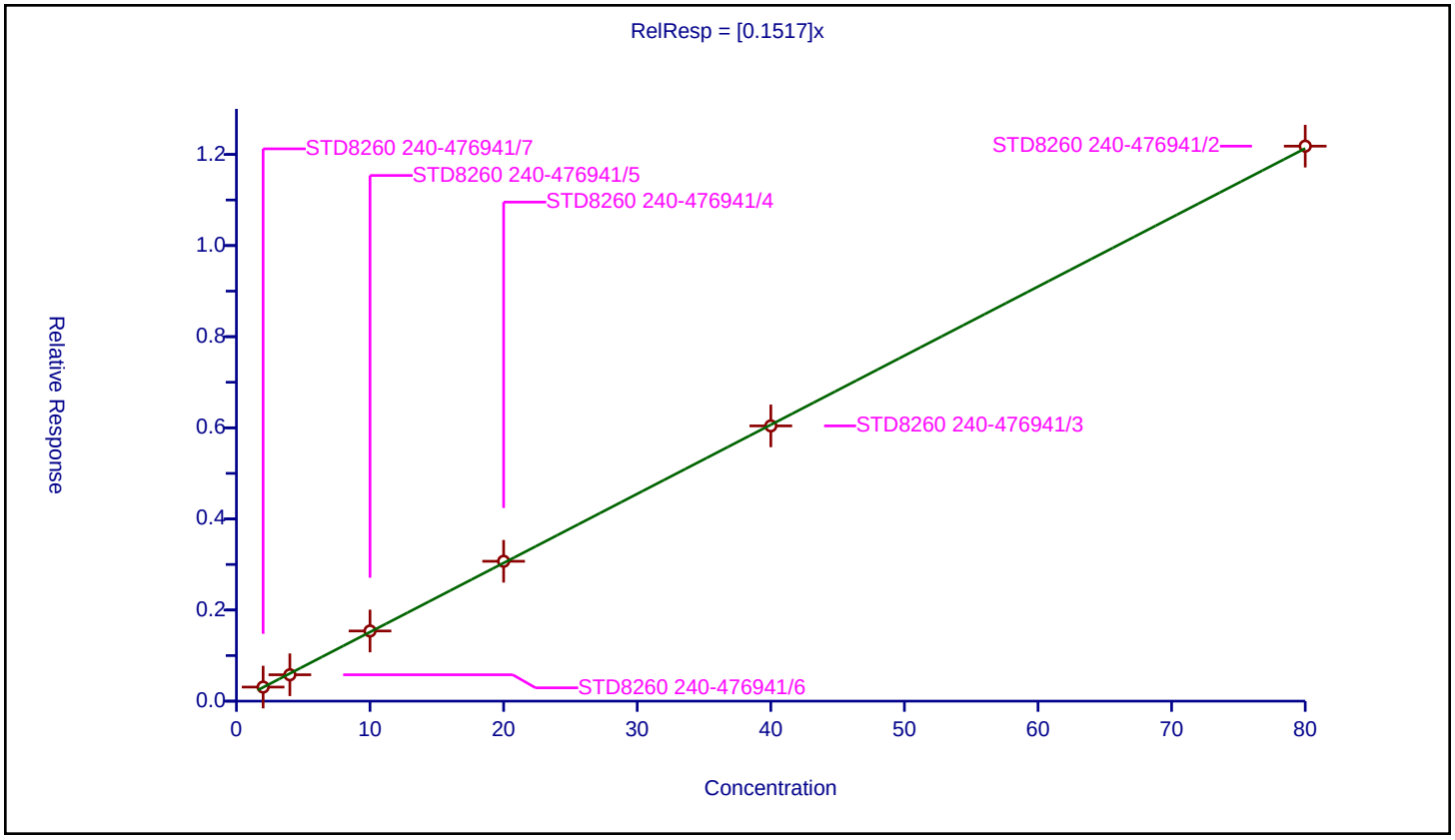
Curve Coefficients

Intercept:	0
Slope:	0.1517

Error Coefficients

Standard Error:	1090000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.308737	10.0	1508502.0	0.154368	Y
2	STD8260 240-476941/6	4.0	0.578775	10.0	1600104.0	0.144694	Y
3	STD8260 240-476941/5	10.0	1.540377	10.0	1580769.0	0.154038	Y
4	STD8260 240-476941/4	20.0	3.070379	10.0	1635381.0	0.153519	Y
5	STD8260 240-476941/3	40.0	6.041701	10.0	1729200.0	0.151043	Y
6	STD8260 240-476941/2	80.0	12.182051	10.0	1738218.0	0.152276	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

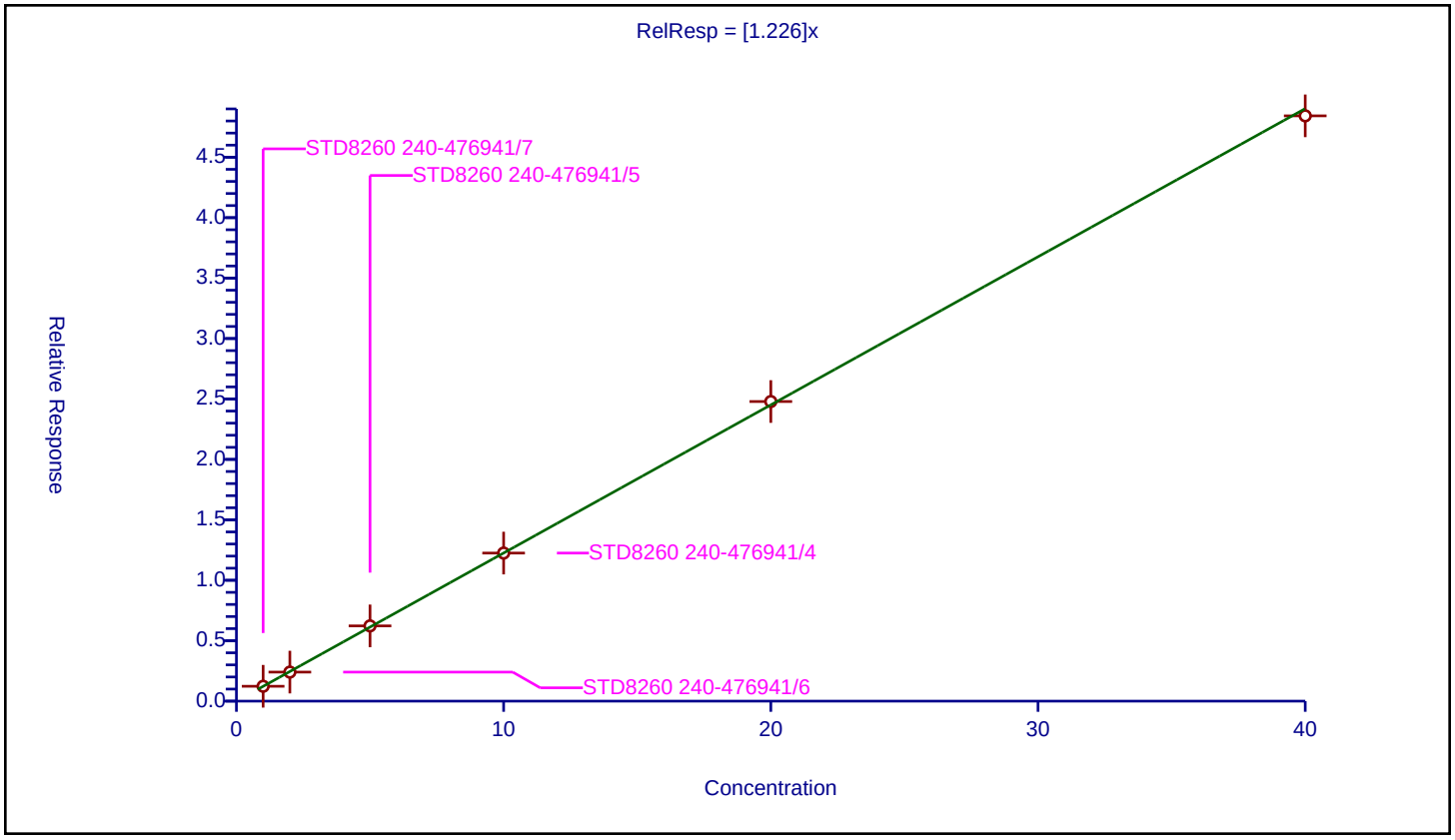
Curve Coefficients

Intercept:	0
Slope:	1.226

Error Coefficients

Standard Error:	2920000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.230869	10.0	1005314.0	1.230869	Y
2	STD8260 240-476941/6	2.0	2.4038	10.0	1025239.0	1.2019	Y
3	STD8260 240-476941/5	5.0	6.226562	10.0	1036230.0	1.245312	Y
4	STD8260 240-476941/4	10.0	12.24994	10.0	1083691.0	1.224994	Y
5	STD8260 240-476941/3	20.0	24.788912	10.0	1129906.0	1.239446	Y
6	STD8260 240-476941/2	40.0	48.424259	10.0	1176310.0	1.210606	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

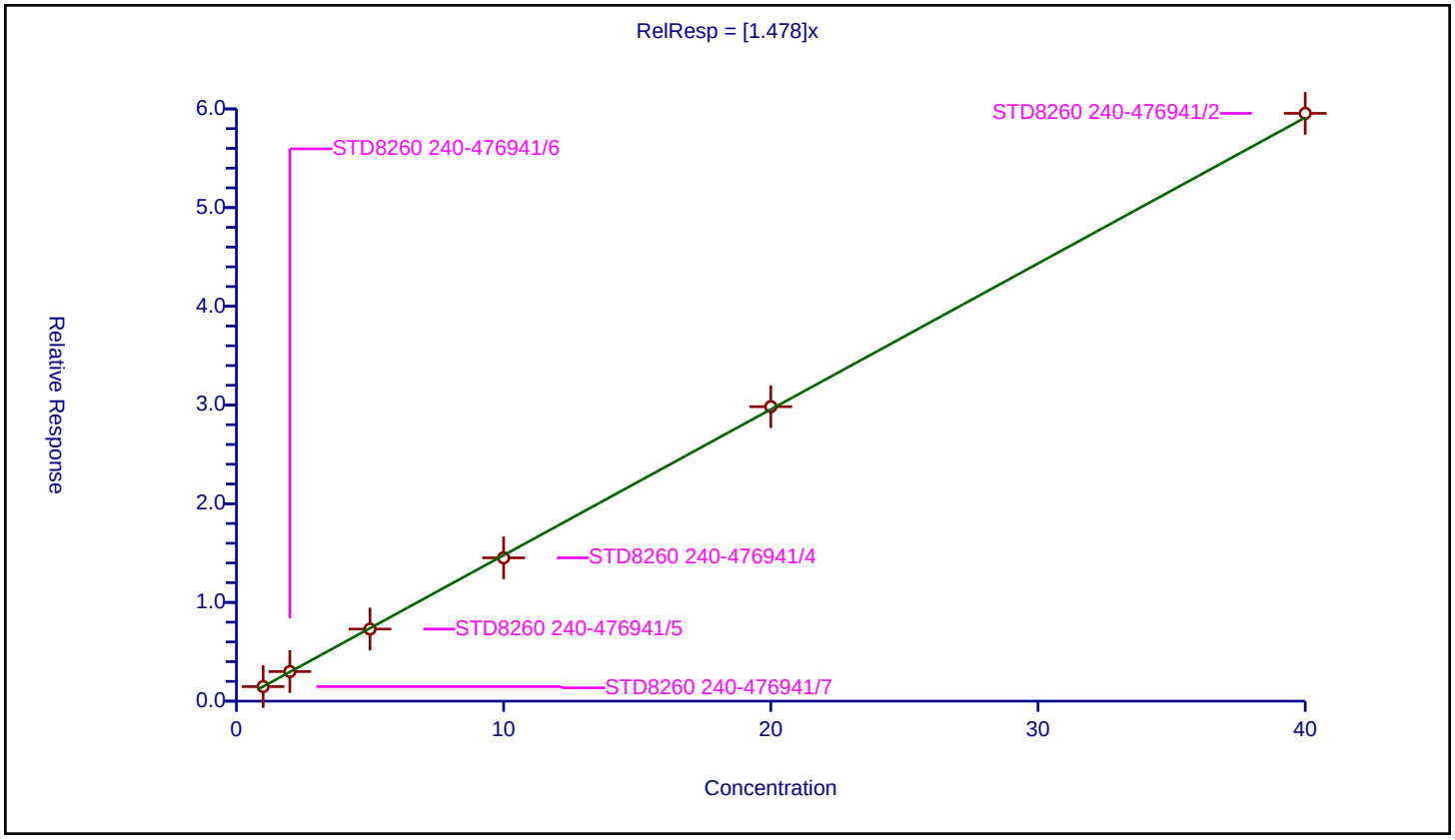
Curve Coefficients

Intercept:	0
Slope:	1.478

Error Coefficients

Standard Error:	3570000
Relative Standard Error:	1.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.474942	10.0	1005314.0	1.474942	Y
2	STD8260 240-476941/6	2.0	3.000208	10.0	1025239.0	1.500104	Y
3	STD8260 240-476941/5	5.0	7.30196	10.0	1036230.0	1.460392	Y
4	STD8260 240-476941/4	10.0	14.518484	10.0	1083691.0	1.451848	Y
5	STD8260 240-476941/3	20.0	29.834243	10.0	1129906.0	1.491712	Y
6	STD8260 240-476941/2	40.0	59.548503	10.0	1176310.0	1.488713	Y



Calibration / trans-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

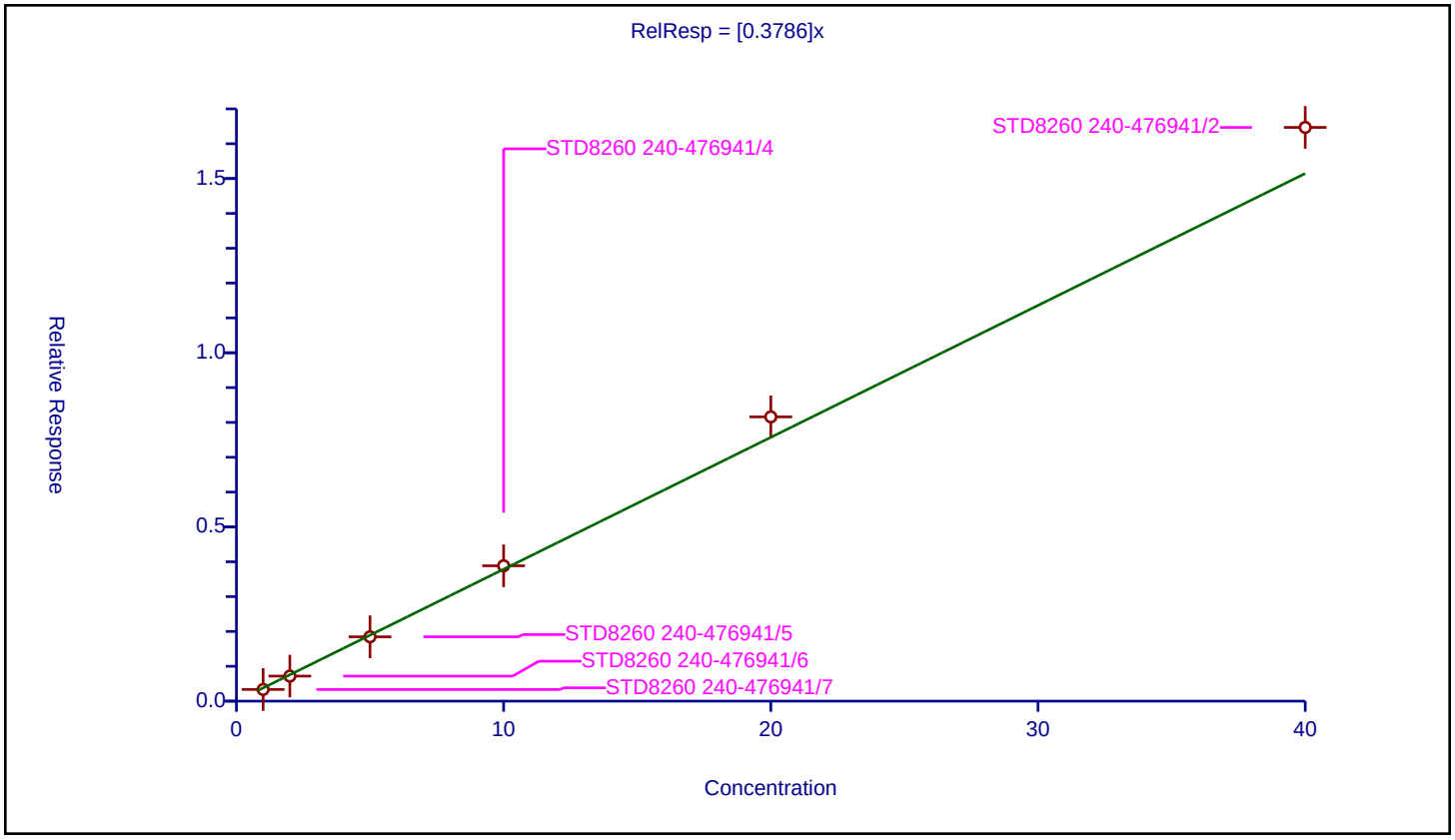
Curve Coefficients

Intercept:	0
Slope:	0.3786

Error Coefficients

Standard Error:	982000
Relative Standard Error:	7.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.334652	10.0	1005314.0	0.334652	Y
2	STD8260 240-476941/6	2.0	0.719237	10.0	1025239.0	0.359619	Y
3	STD8260 240-476941/5	5.0	1.846771	10.0	1036230.0	0.369354	Y
4	STD8260 240-476941/4	10.0	3.884714	10.0	1083691.0	0.388471	Y
5	STD8260 240-476941/3	20.0	8.160343	10.0	1129906.0	0.408017	Y
6	STD8260 240-476941/2	40.0	16.46764	10.0	1176310.0	0.411691	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

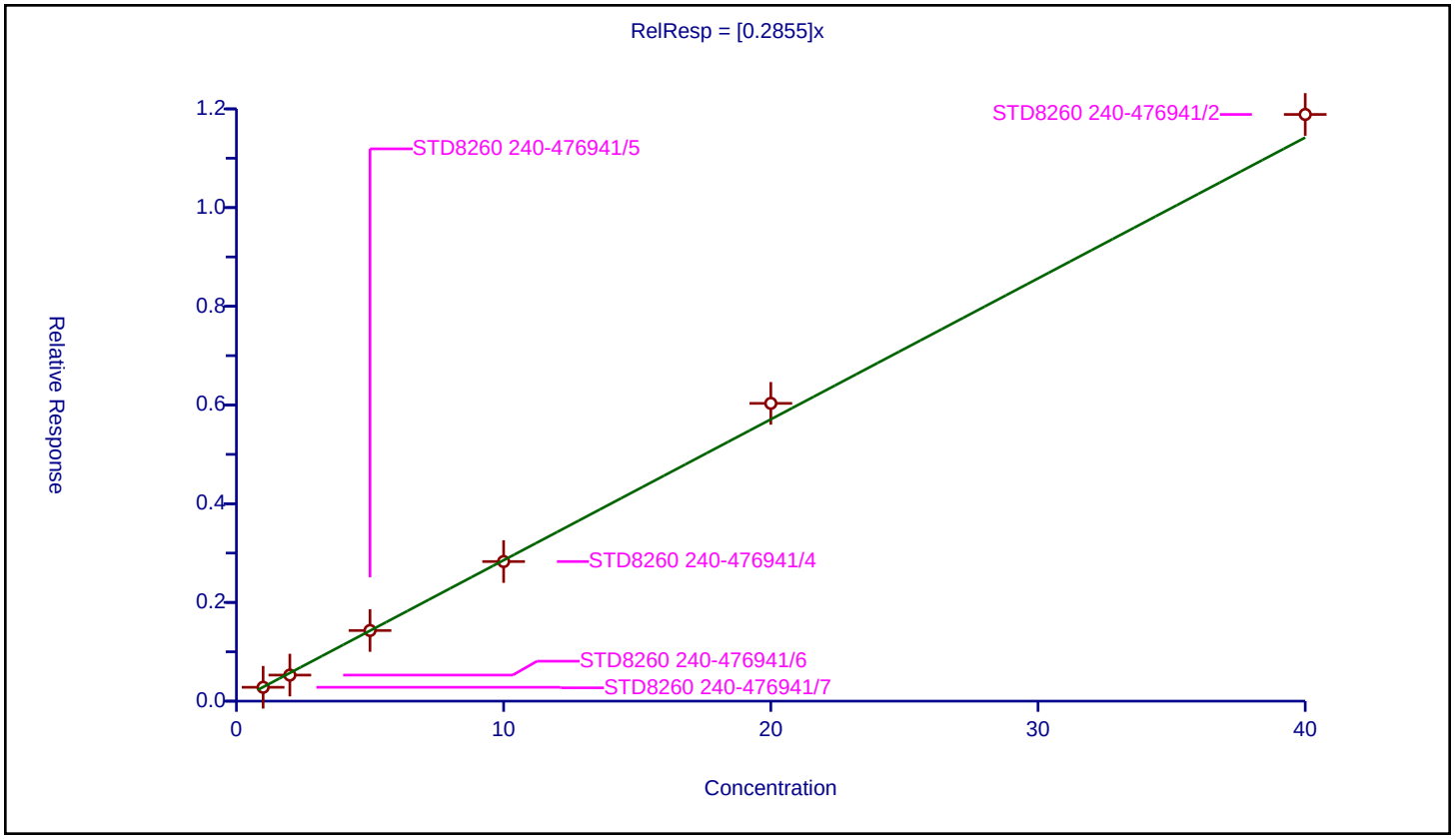
Curve Coefficients

Intercept:	0
Slope:	0.2855

Error Coefficients

Standard Error:	713000
Relative Standard Error:	4.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.280858	10.0	1005314.0	0.280858	Y
2	STD8260 240-476941/6	2.0	0.528218	10.0	1025239.0	0.264109	Y
3	STD8260 240-476941/5	5.0	1.431671	10.0	1036230.0	0.286334	Y
4	STD8260 240-476941/4	10.0	2.828435	10.0	1083691.0	0.282844	Y
5	STD8260 240-476941/3	20.0	6.033679	10.0	1129906.0	0.301684	Y
6	STD8260 240-476941/2	40.0	11.887045	10.0	1176310.0	0.297176	Y



Calibration / 1,1,2-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

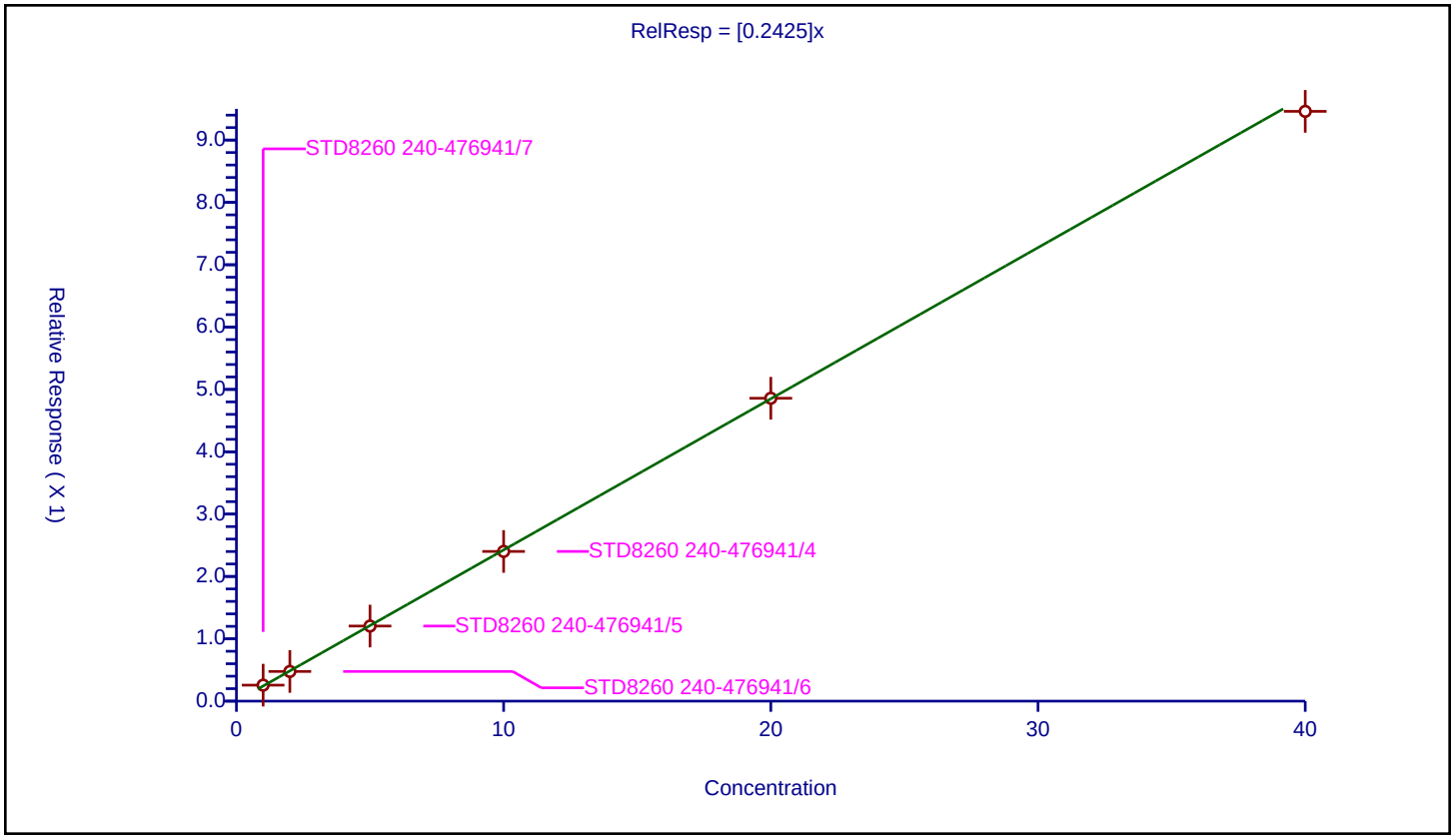
Curve Coefficients

Intercept:	0
Slope:	0.2425

Error Coefficients

Standard Error:	570000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.256338	10.0	1005314.0	0.256338	Y
2	STD8260 240-476941/6	2.0	0.476347	10.0	1025239.0	0.238174	Y
3	STD8260 240-476941/5	5.0	1.204549	10.0	1036230.0	0.24091	Y
4	STD8260 240-476941/4	10.0	2.401256	10.0	1083691.0	0.240126	Y
5	STD8260 240-476941/3	20.0	4.858829	10.0	1129906.0	0.242941	Y
6	STD8260 240-476941/2	40.0	9.460516	10.0	1176310.0	0.236513	Y



Calibration / Tetrachloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

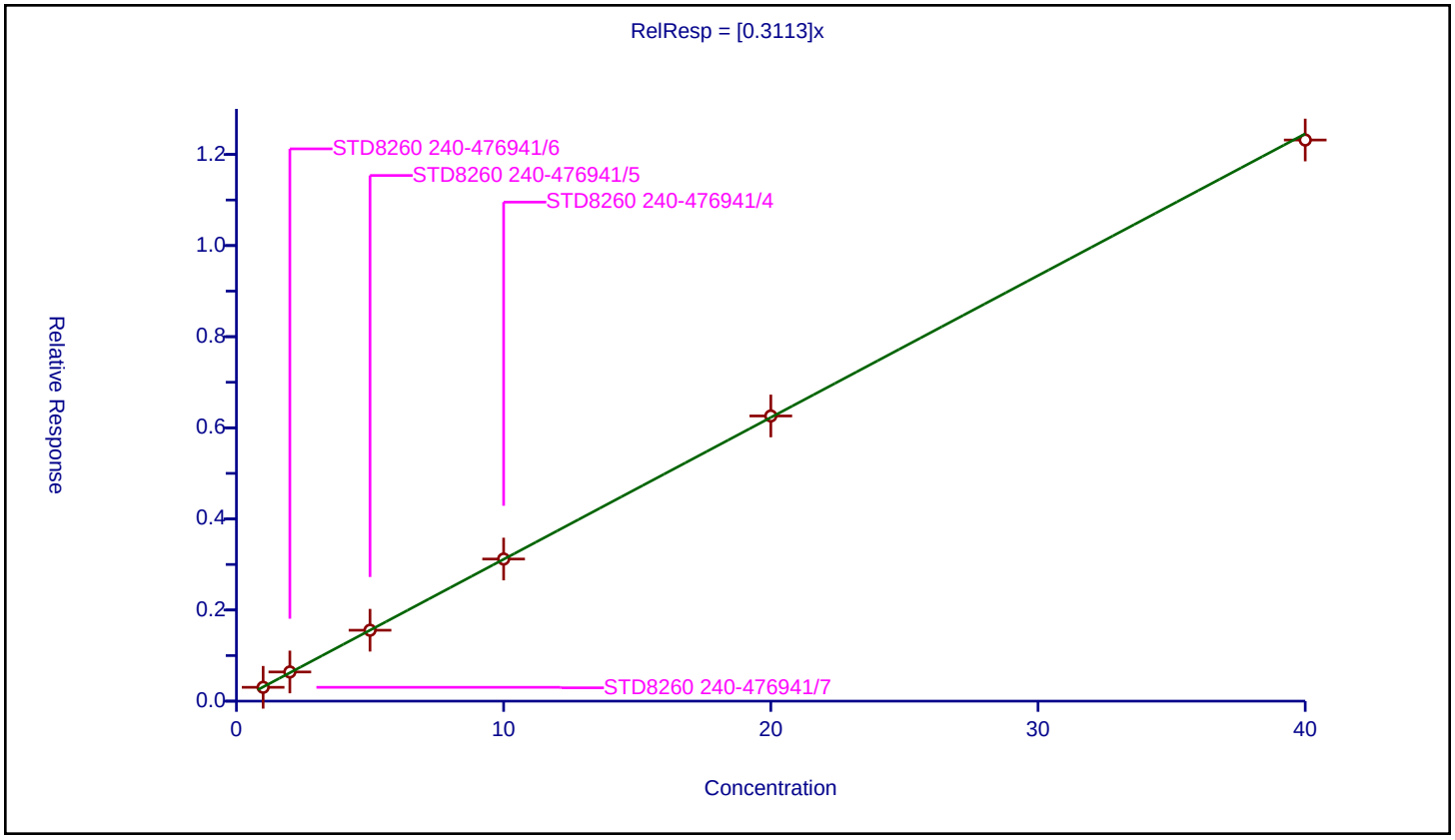
Curve Coefficients

Intercept:	0
Slope:	0.3113

Error Coefficients

Standard Error:	741000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.303716	10.0	1005314.0	0.303716	Y
2	STD8260 240-476941/6	2.0	0.640251	10.0	1025239.0	0.320125	Y
3	STD8260 240-476941/5	5.0	1.556739	10.0	1036230.0	0.311348	Y
4	STD8260 240-476941/4	10.0	3.119349	10.0	1083691.0	0.311935	Y
5	STD8260 240-476941/3	20.0	6.259972	10.0	1129906.0	0.312999	Y
6	STD8260 240-476941/2	40.0	12.317076	10.0	1176310.0	0.307927	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

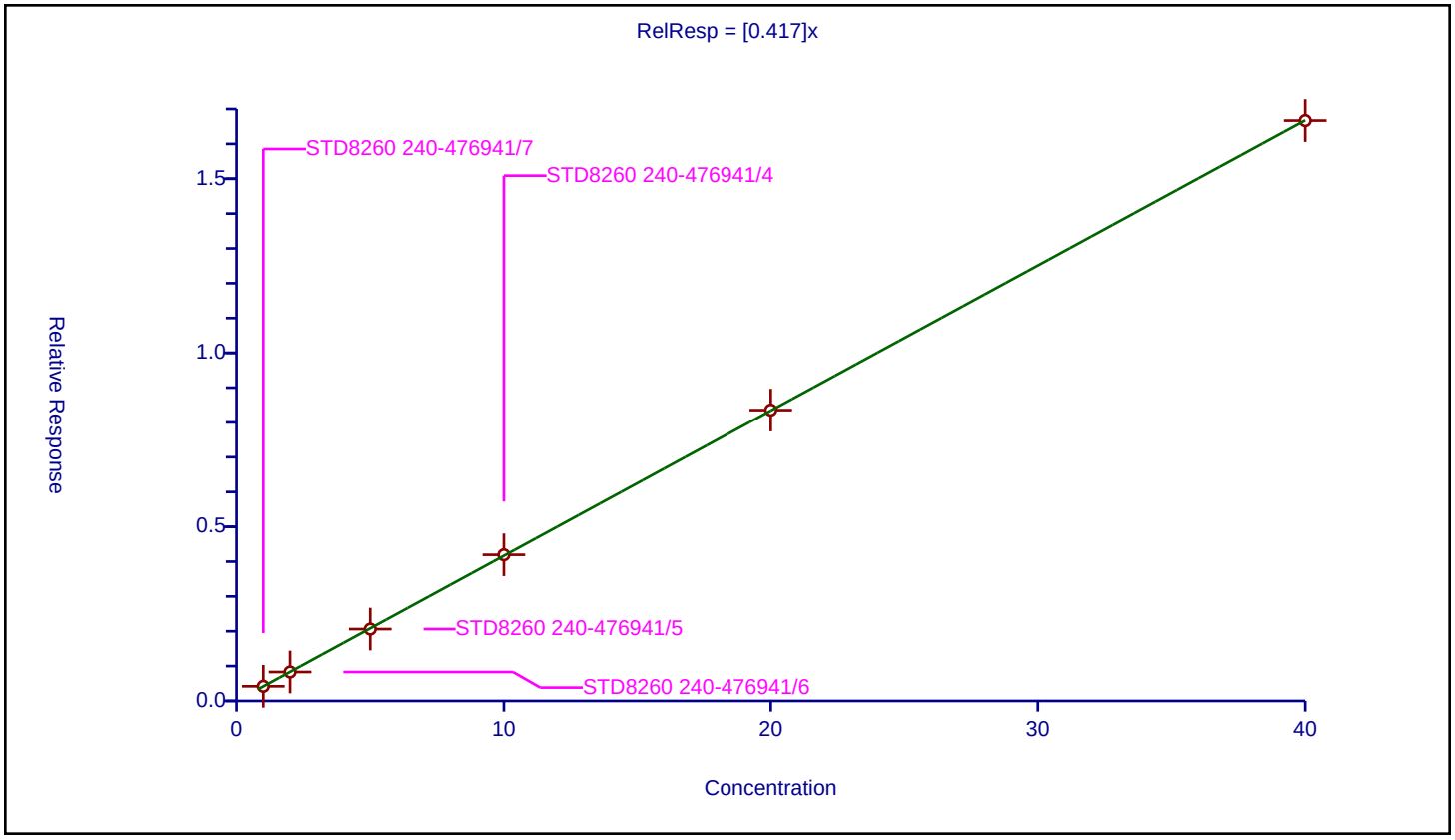
Curve Coefficients

Intercept:	0
Slope:	0.417

Error Coefficients

Standard Error:	1000000
Relative Standard Error:	0.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.41974	10.0	1005314.0	0.41974	Y
2	STD8260 240-476941/6	2.0	0.830509	10.0	1025239.0	0.415254	Y
3	STD8260 240-476941/5	5.0	2.063326	10.0	1036230.0	0.412665	Y
4	STD8260 240-476941/4	10.0	4.196418	10.0	1083691.0	0.419642	Y
5	STD8260 240-476941/3	20.0	8.354545	10.0	1129906.0	0.417727	Y
6	STD8260 240-476941/2	40.0	16.668735	10.0	1176310.0	0.416718	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

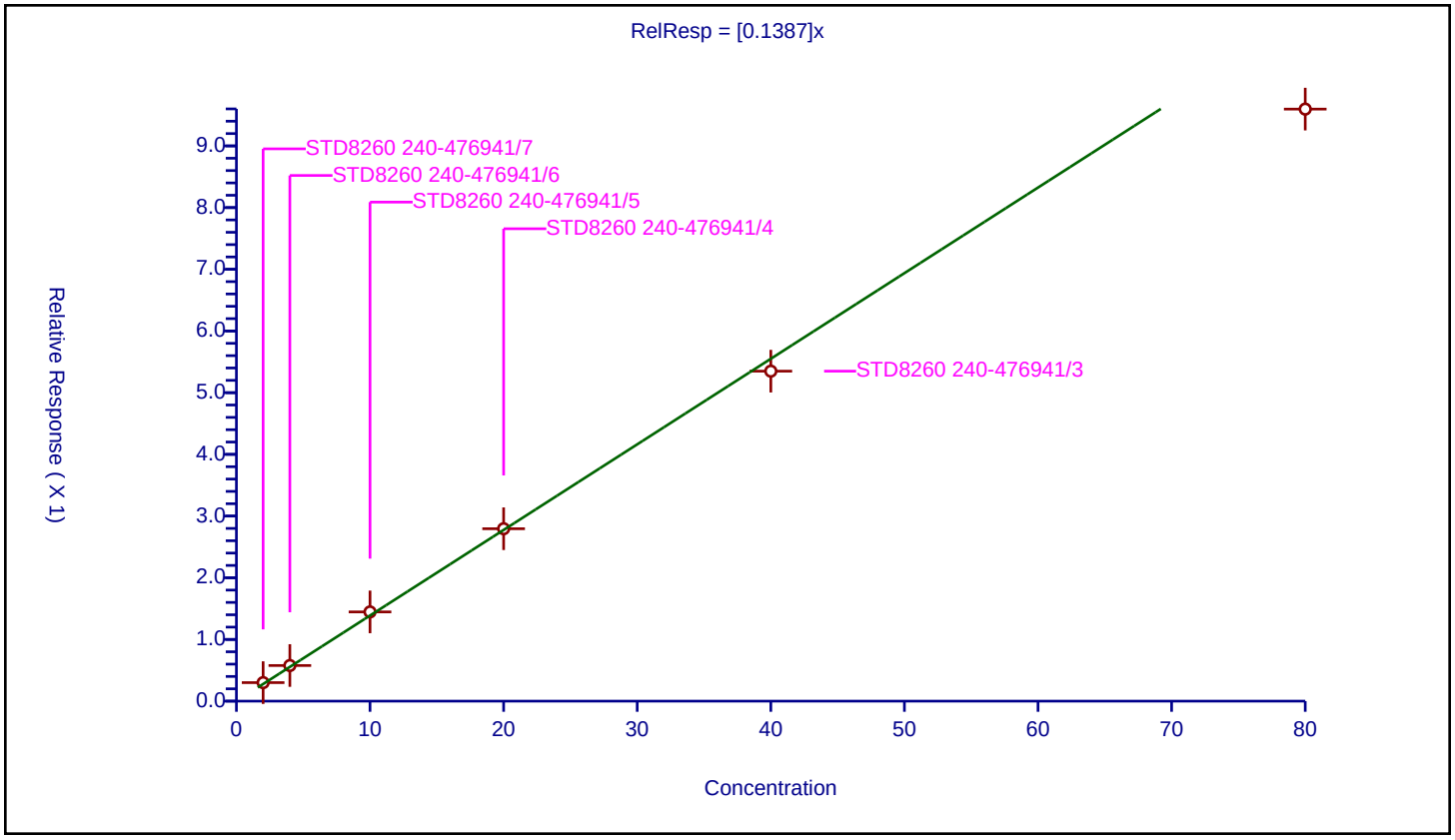
Curve Coefficients

Intercept:	0
Slope:	0.1387

Error Coefficients

Standard Error:	593000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	2.0	0.300175	10.0	1005314.0	0.150087	Y
2	STD8260 240-476941/6	4.0	0.577309	10.0	1025239.0	0.144327	Y
3	STD8260 240-476941/5	10.0	1.446436	10.0	1036230.0	0.144644	Y
4	STD8260 240-476941/4	20.0	2.794736	10.0	1083691.0	0.139737	Y
5	STD8260 240-476941/3	40.0	5.348657	10.0	1129906.0	0.133716	Y
6	STD8260 240-476941/2	80.0	9.596441	10.0	1176310.0	0.119956	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

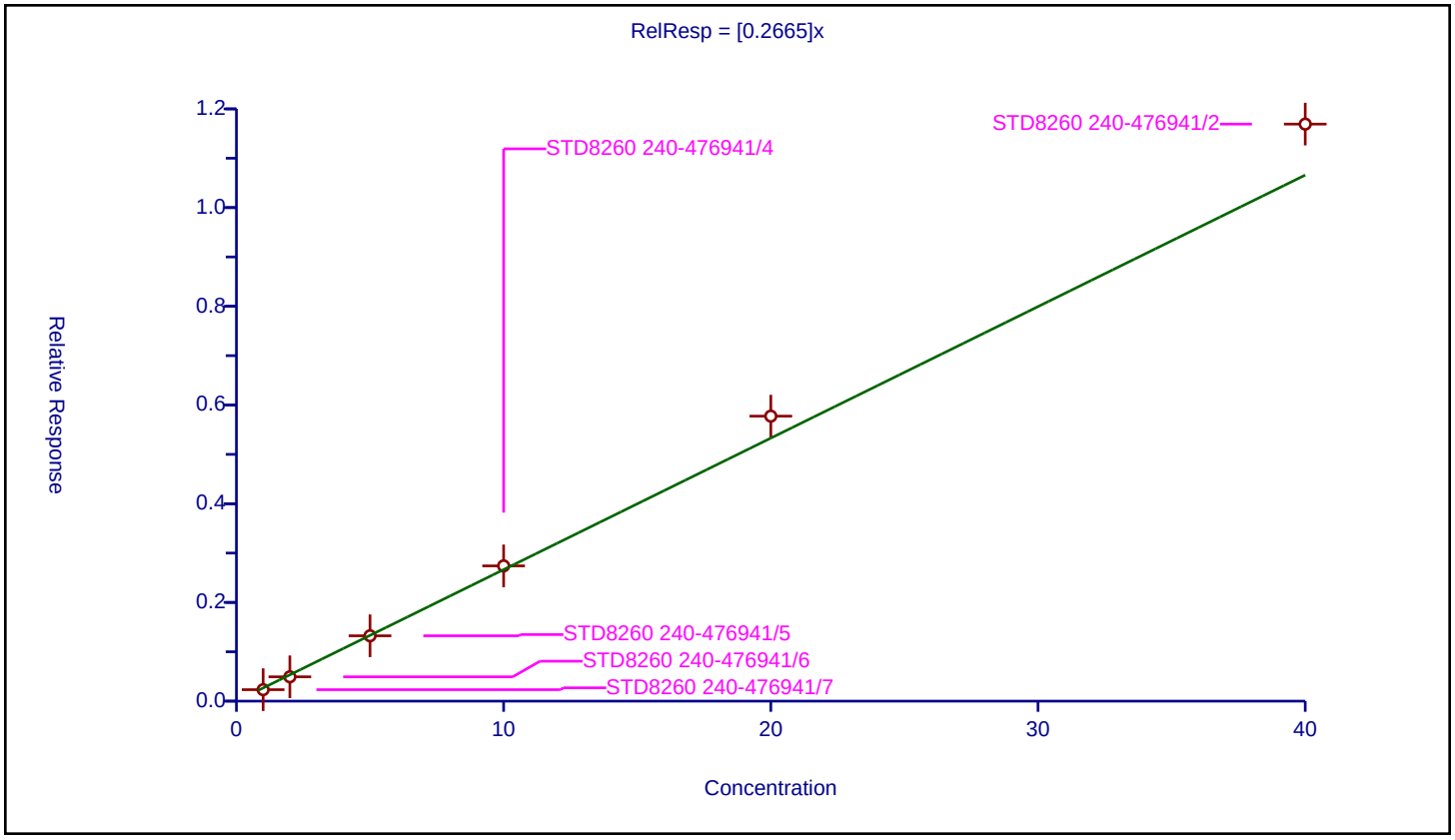
Curve Coefficients

Intercept:	0
Slope:	0.2665

Error Coefficients

Standard Error:	697000
Relative Standard Error:	8.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.232335	10.0	1005314.0	0.232335	Y
2	STD8260 240-476941/6	2.0	0.493056	10.0	1025239.0	0.246528	Y
3	STD8260 240-476941/5	5.0	1.324272	10.0	1036230.0	0.264854	Y
4	STD8260 240-476941/4	10.0	2.740781	10.0	1083691.0	0.274078	Y
5	STD8260 240-476941/3	20.0	5.774799	10.0	1129906.0	0.28874	Y
6	STD8260 240-476941/2	40.0	11.69179	10.0	1176310.0	0.292295	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

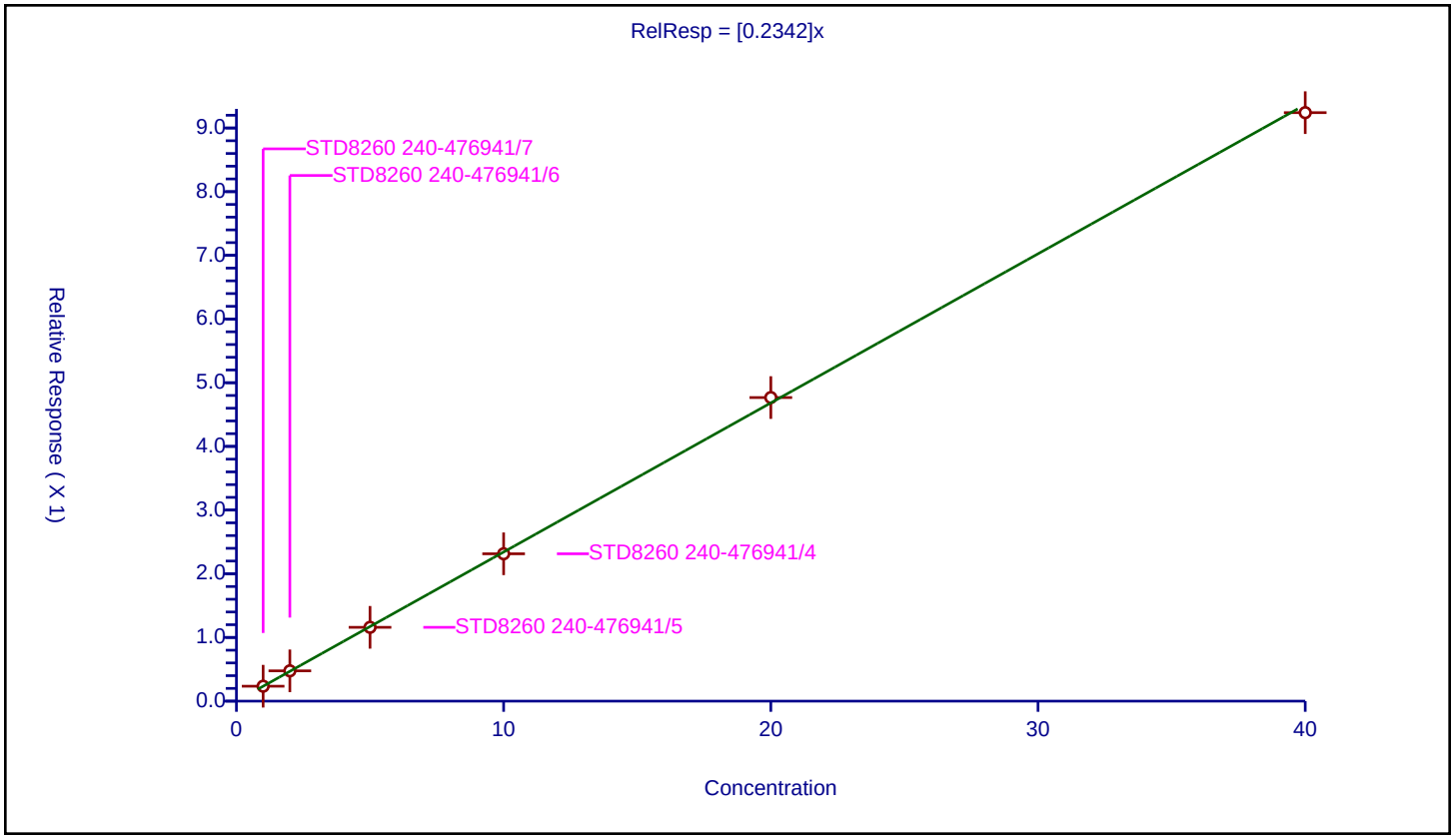
Curve Coefficients

Intercept:	0
Slope:	0.2342

Error Coefficients

Standard Error:	557000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.234434	10.0	1005314.0	0.234434	Y
2	STD8260 240-476941/6	2.0	0.475831	10.0	1025239.0	0.237915	Y
3	STD8260 240-476941/5	5.0	1.159009	10.0	1036230.0	0.231802	Y
4	STD8260 240-476941/4	10.0	2.313713	10.0	1083691.0	0.231371	Y
5	STD8260 240-476941/3	20.0	4.767131	10.0	1129906.0	0.238357	Y
6	STD8260 240-476941/2	40.0	9.240914	10.0	1176310.0	0.231023	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

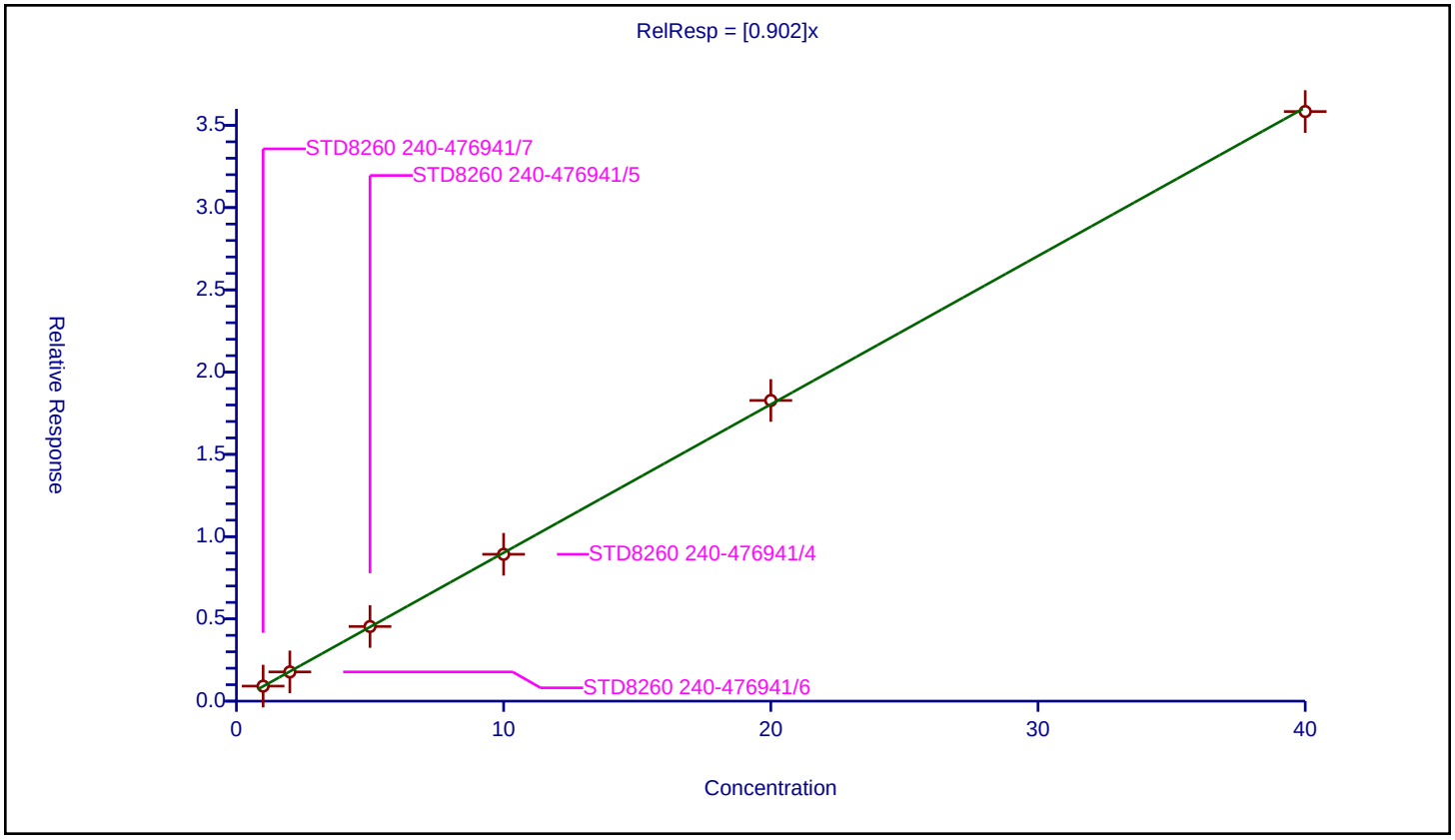
Curve Coefficients

Intercept:	0
Slope:	0.902

Error Coefficients

Standard Error:	2160000
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.913565	10.0	1005314.0	0.913565	Y
2	STD8260 240-476941/6	2.0	1.777293	10.0	1025239.0	0.888646	Y
3	STD8260 240-476941/5	5.0	4.536396	10.0	1036230.0	0.907279	Y
4	STD8260 240-476941/4	10.0	8.926244	10.0	1083691.0	0.892624	Y
5	STD8260 240-476941/3	20.0	18.276565	10.0	1129906.0	0.913828	Y
6	STD8260 240-476941/2	40.0	35.837526	10.0	1176310.0	0.895938	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

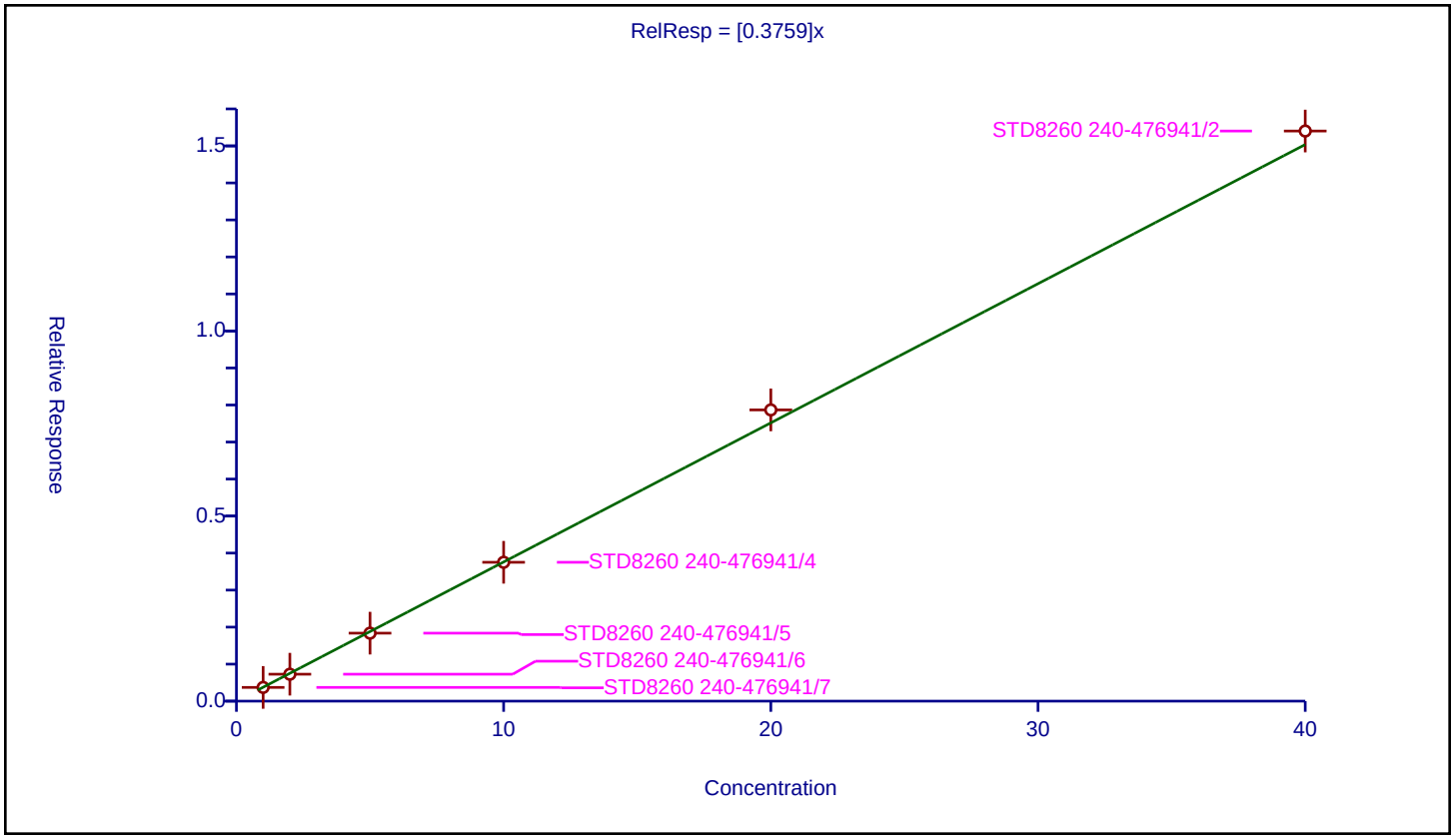
Curve Coefficients

Intercept:	0
Slope:	0.3759

Error Coefficients

Standard Error:	925000
Relative Standard Error:	3.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.370859	10.0	1005314.0	0.370859	Y
2	STD8260 240-476941/6	2.0	0.72745	10.0	1025239.0	0.363725	Y
3	STD8260 240-476941/5	5.0	1.836282	10.0	1036230.0	0.367256	Y
4	STD8260 240-476941/4	10.0	3.751632	10.0	1083691.0	0.375163	Y
5	STD8260 240-476941/3	20.0	7.867761	10.0	1129906.0	0.393388	Y
6	STD8260 240-476941/2	40.0	15.401977	10.0	1176310.0	0.385049	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

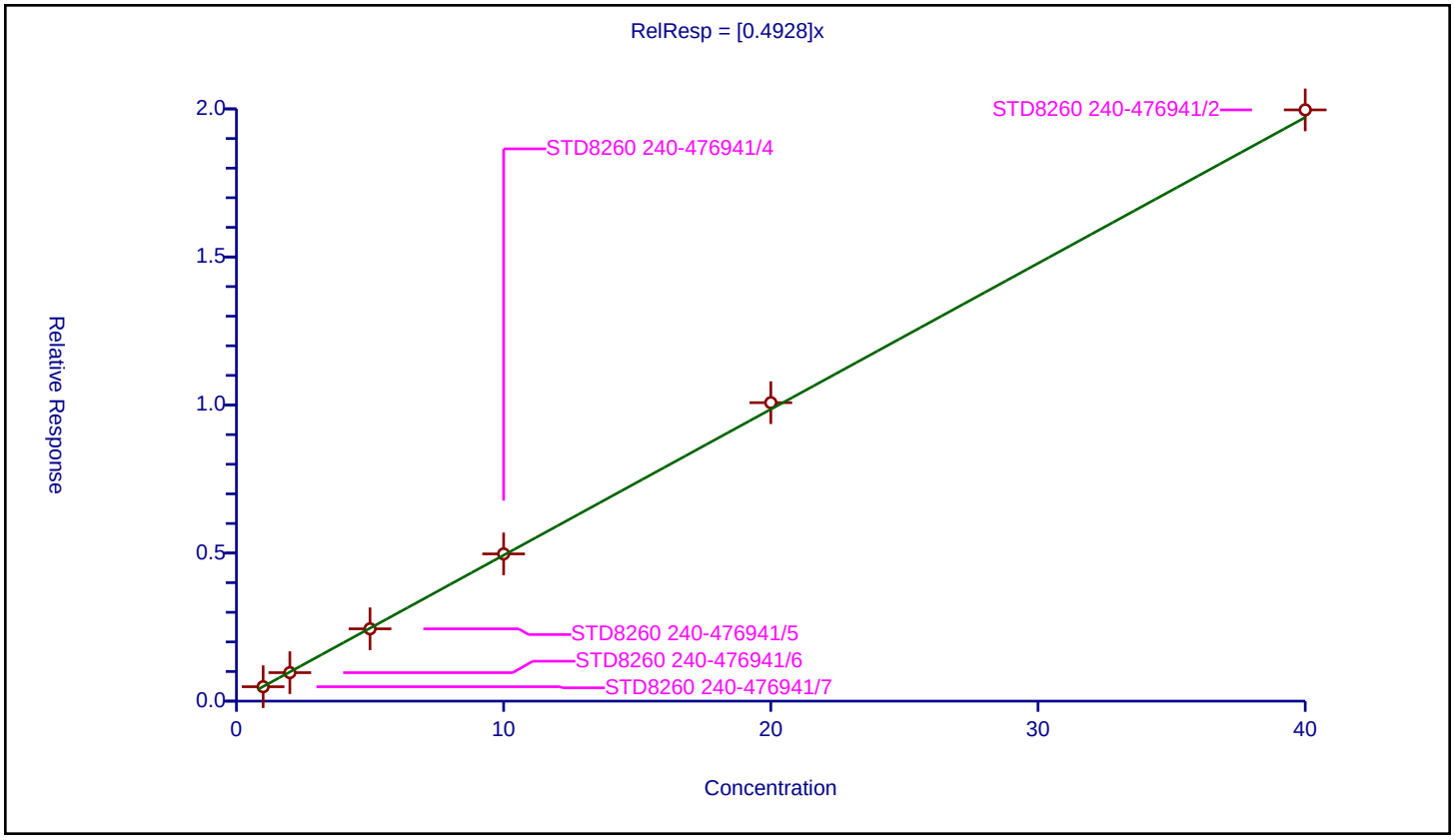
Curve Coefficients

Intercept:	0
Slope:	0.4928

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.486932	10.0	1005314.0	0.486932	Y
2	STD8260 240-476941/6	2.0	0.962254	10.0	1025239.0	0.481127	Y
3	STD8260 240-476941/5	5.0	2.442151	10.0	1036230.0	0.48843	Y
4	STD8260 240-476941/4	10.0	4.972155	10.0	1083691.0	0.497216	Y
5	STD8260 240-476941/3	20.0	10.079254	10.0	1129906.0	0.503963	Y
6	STD8260 240-476941/2	40.0	19.966276	10.0	1176310.0	0.499157	Y



Calibration / m-Xylene & p-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

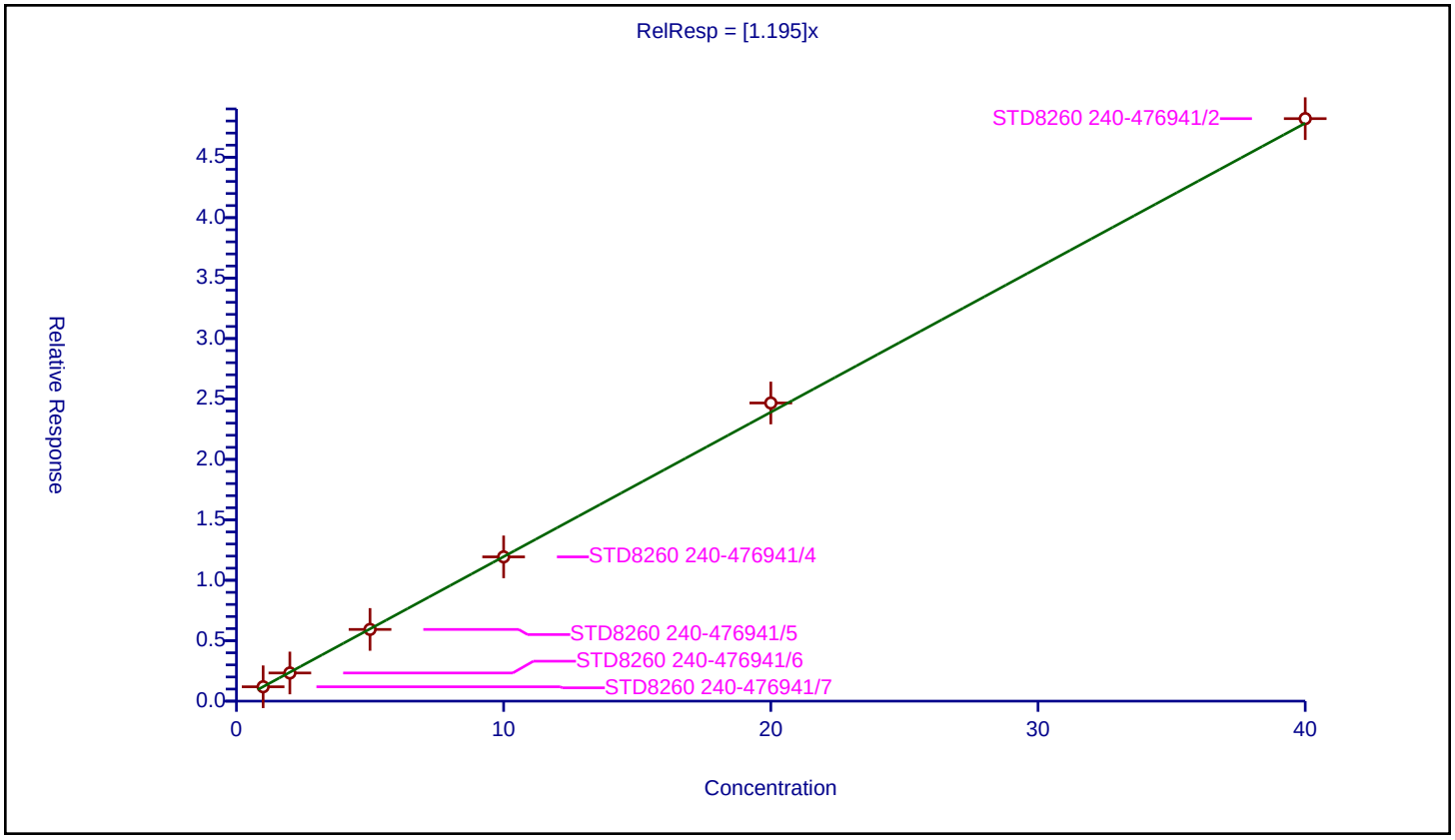
Curve Coefficients

Intercept:	0
Slope:	1.195

Error Coefficients

Standard Error:	2900000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.189141	10.0	1005314.0	1.189141	Y
2	STD8260 240-476941/6	2.0	2.329369	10.0	1025239.0	1.164685	Y
3	STD8260 240-476941/5	5.0	5.934213	10.0	1036230.0	1.186843	Y
4	STD8260 240-476941/4	10.0	11.935423	10.0	1083691.0	1.193542	Y
5	STD8260 240-476941/3	20.0	24.667964	10.0	1129906.0	1.233398	Y
6	STD8260 240-476941/2	40.0	48.192645	10.0	1176310.0	1.204816	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

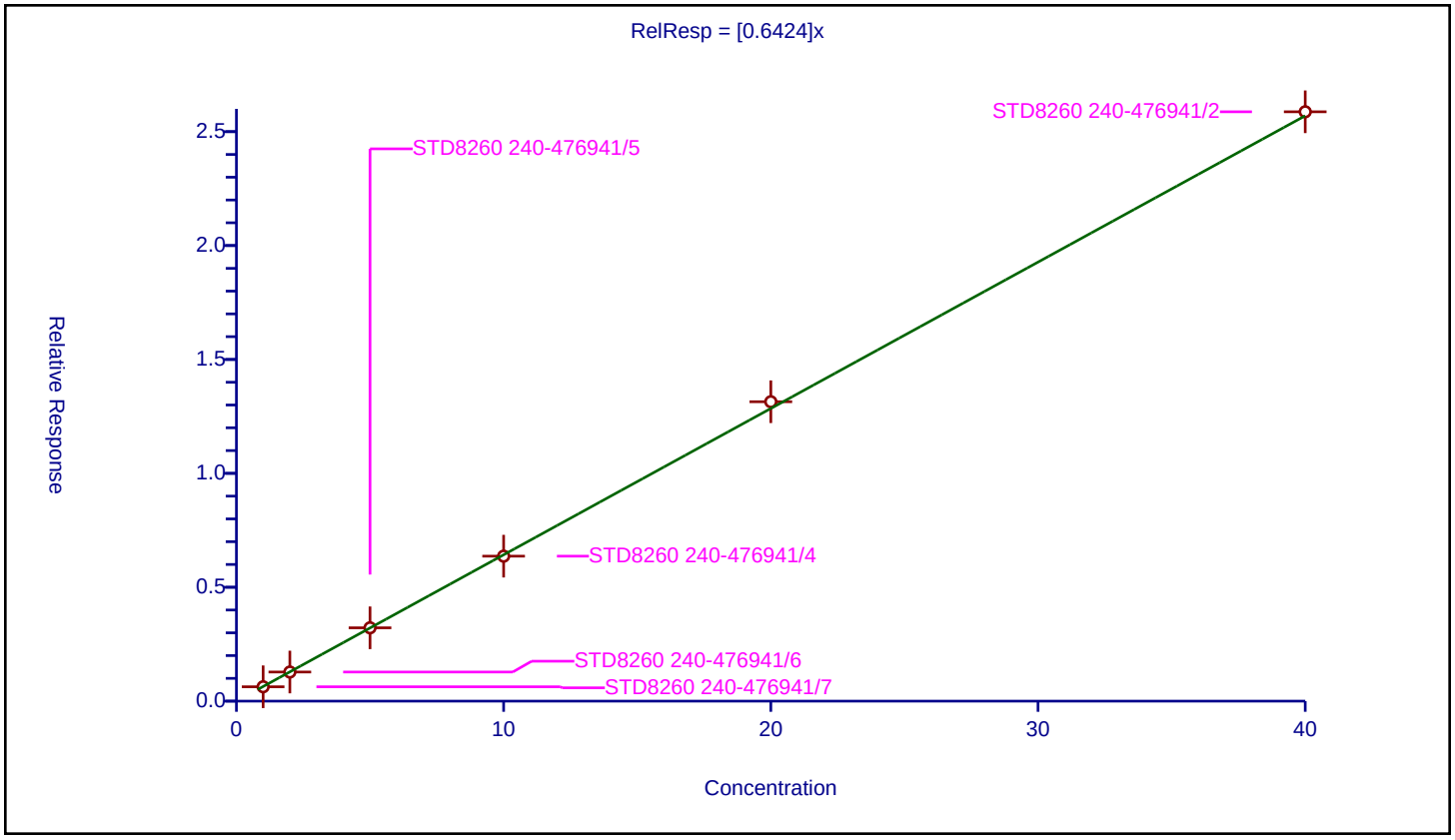
Curve Coefficients

Intercept:	0
Slope:	0.6424

Error Coefficients

Standard Error:	1550000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.631146	10.0	1005314.0	0.631146	Y
2	STD8260 240-476941/6	2.0	1.278404	10.0	1025239.0	0.639202	Y
3	STD8260 240-476941/5	5.0	3.219131	10.0	1036230.0	0.643826	Y
4	STD8260 240-476941/4	10.0	6.364268	10.0	1083691.0	0.636427	Y
5	STD8260 240-476941/3	20.0	13.144633	10.0	1129906.0	0.657232	Y
6	STD8260 240-476941/2	40.0	25.873035	10.0	1176310.0	0.646826	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

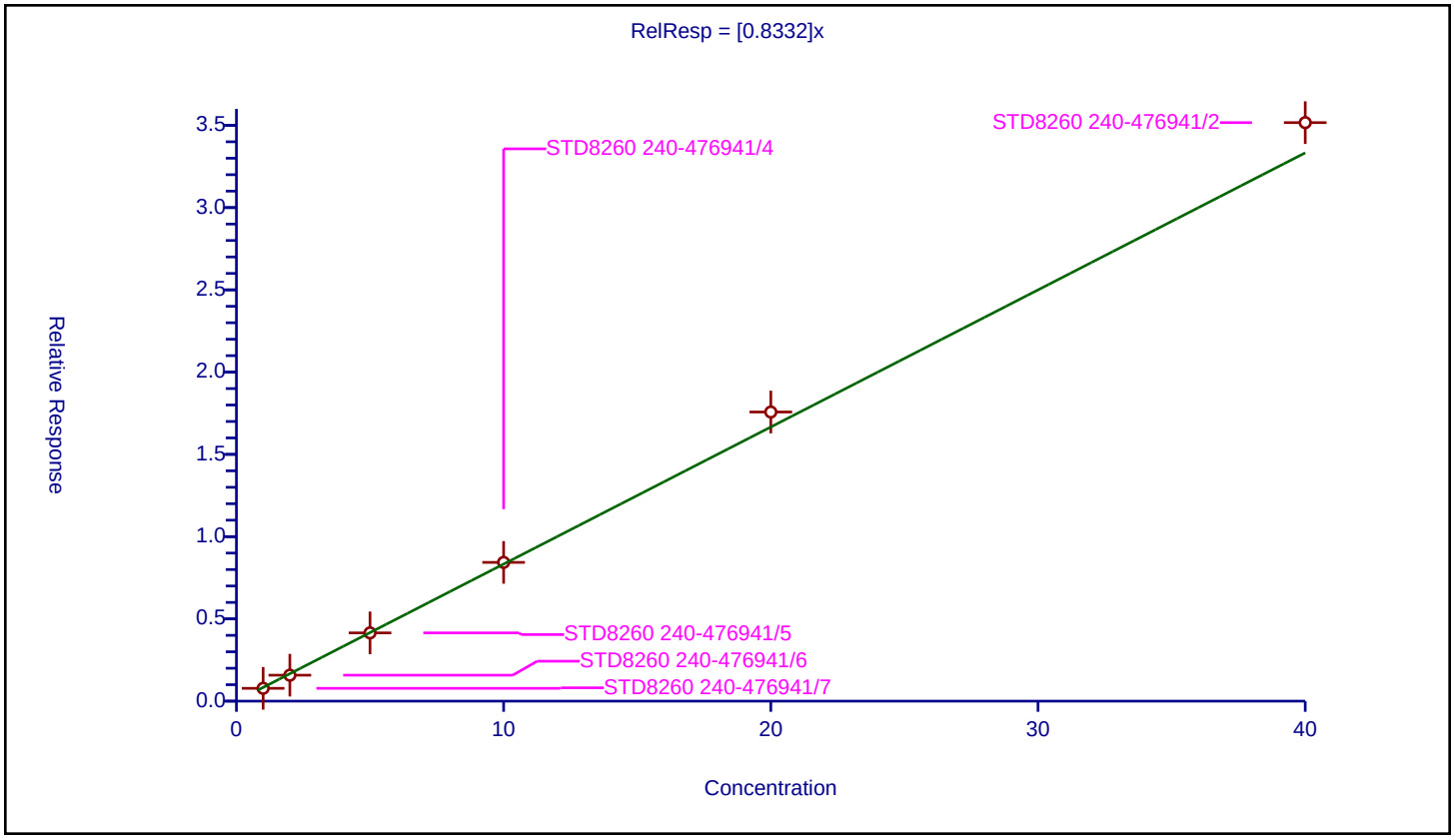
Curve Coefficients

Intercept:	0
Slope:	0.8332

Error Coefficients

Standard Error:	2100000
Relative Standard Error:	5.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.779398	10.0	1005314.0	0.779398	Y
2	STD8260 240-476941/6	2.0	1.577944	10.0	1025239.0	0.788972	Y
3	STD8260 240-476941/5	5.0	4.148712	10.0	1036230.0	0.829742	Y
4	STD8260 240-476941/4	10.0	8.433852	10.0	1083691.0	0.843385	Y
5	STD8260 240-476941/3	20.0	17.574002	10.0	1129906.0	0.8787	Y
6	STD8260 240-476941/2	40.0	35.165339	10.0	1176310.0	0.879133	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

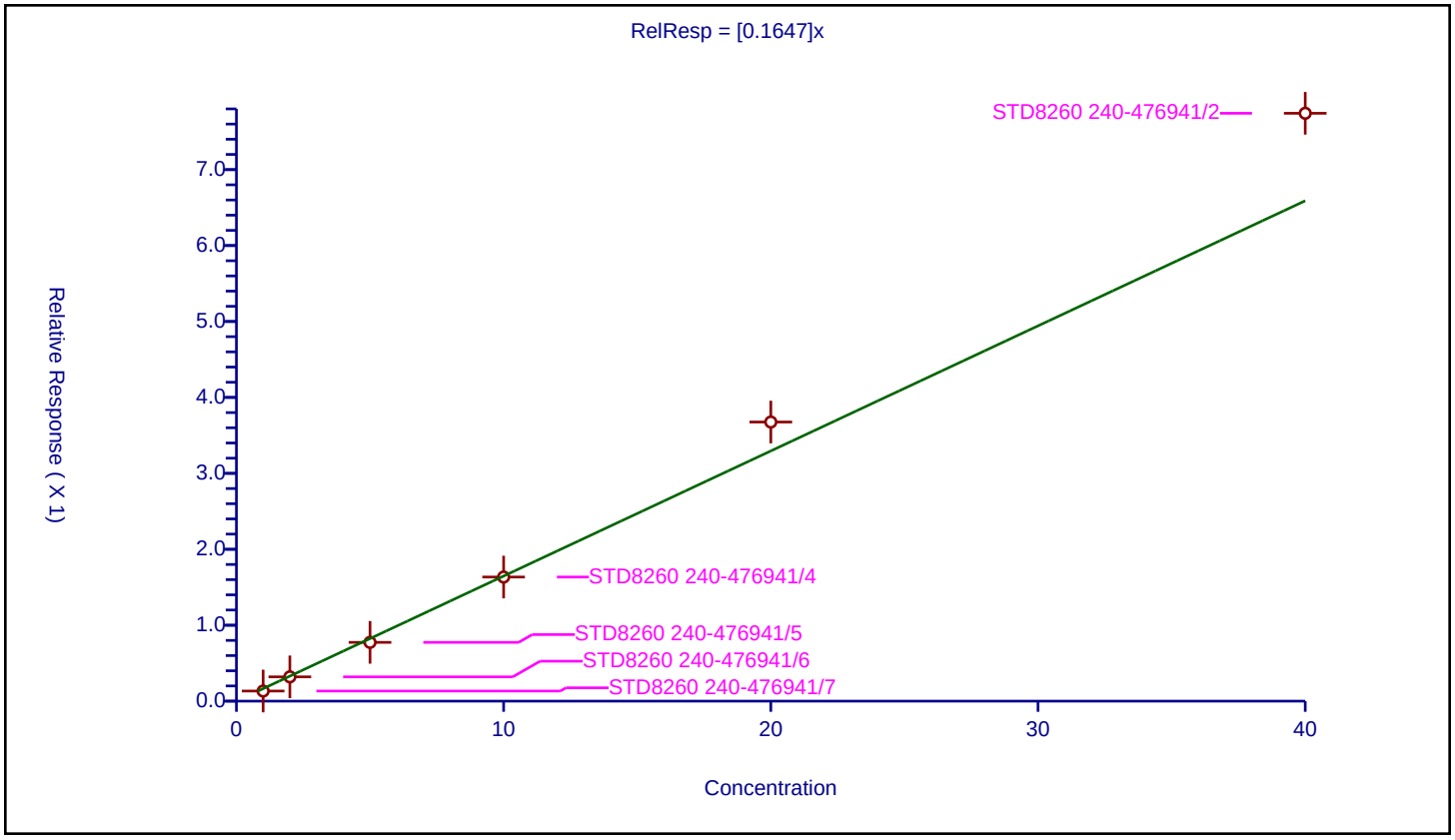
Curve Coefficients

Intercept:	0
Slope:	0.1647

Error Coefficients

Standard Error:	456000
Relative Standard Error:	13.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.132963	10.0	1005314.0	0.132963	Y
2	STD8260 240-476941/6	2.0	0.319808	10.0	1025239.0	0.159904	Y
3	STD8260 240-476941/5	5.0	0.774152	10.0	1036230.0	0.15483	Y
4	STD8260 240-476941/4	10.0	1.63434	10.0	1083691.0	0.163434	Y
5	STD8260 240-476941/3	20.0	3.675987	10.0	1129906.0	0.183799	Y
6	STD8260 240-476941/2	40.0	7.742032	10.0	1176310.0	0.193551	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

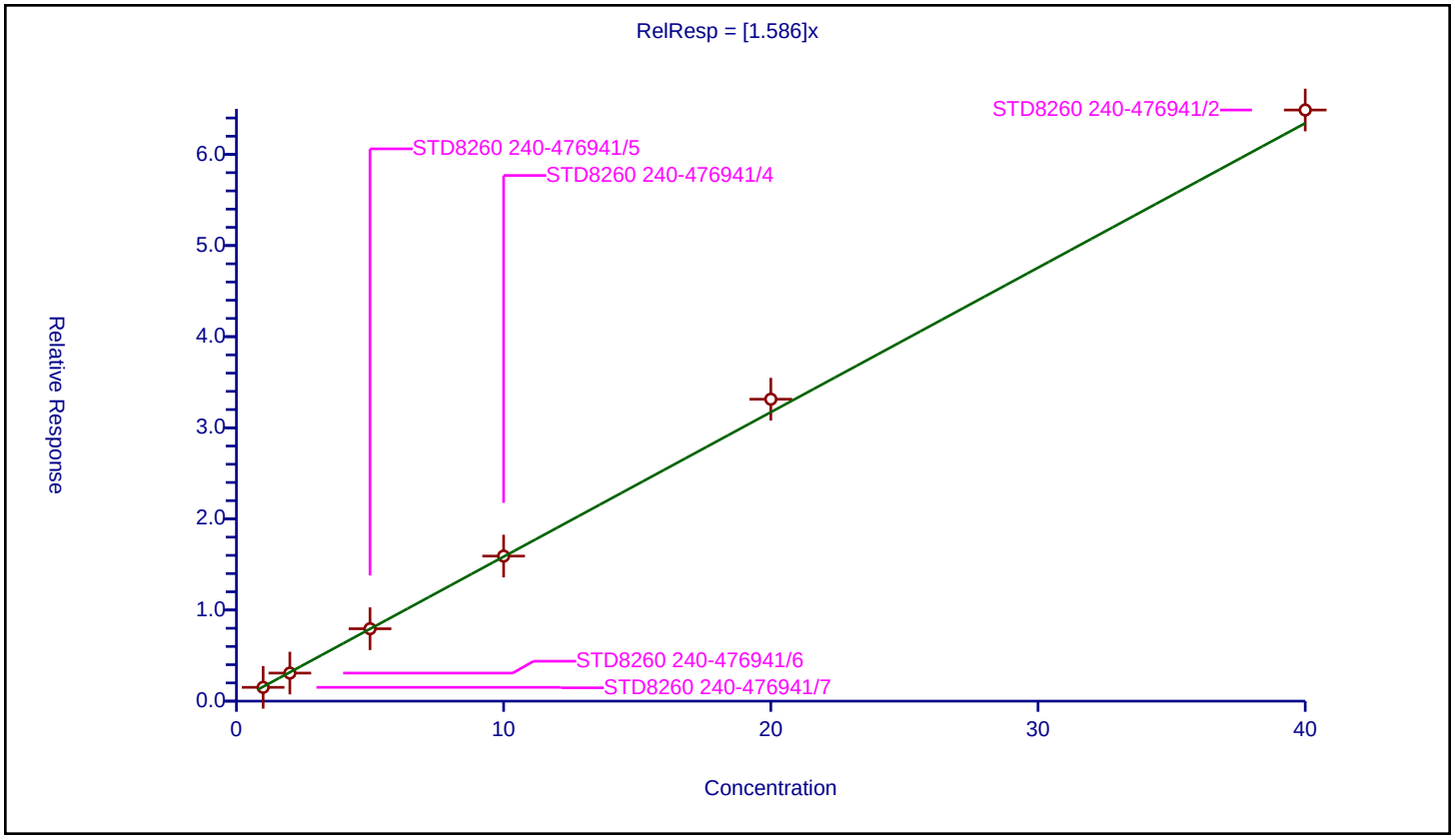
Curve Coefficients

Intercept:	0
Slope:	1.586

Error Coefficients

Standard Error:	3900000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.514611	10.0	1005314.0	1.514611	Y
2	STD8260 240-476941/6	2.0	3.078365	10.0	1025239.0	1.539183	Y
3	STD8260 240-476941/5	5.0	7.945601	10.0	1036230.0	1.58912	Y
4	STD8260 240-476941/4	10.0	15.921808	10.0	1083691.0	1.592181	Y
5	STD8260 240-476941/3	20.0	33.139358	10.0	1129906.0	1.656968	Y
6	STD8260 240-476941/2	40.0	64.876784	10.0	1176310.0	1.62192	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

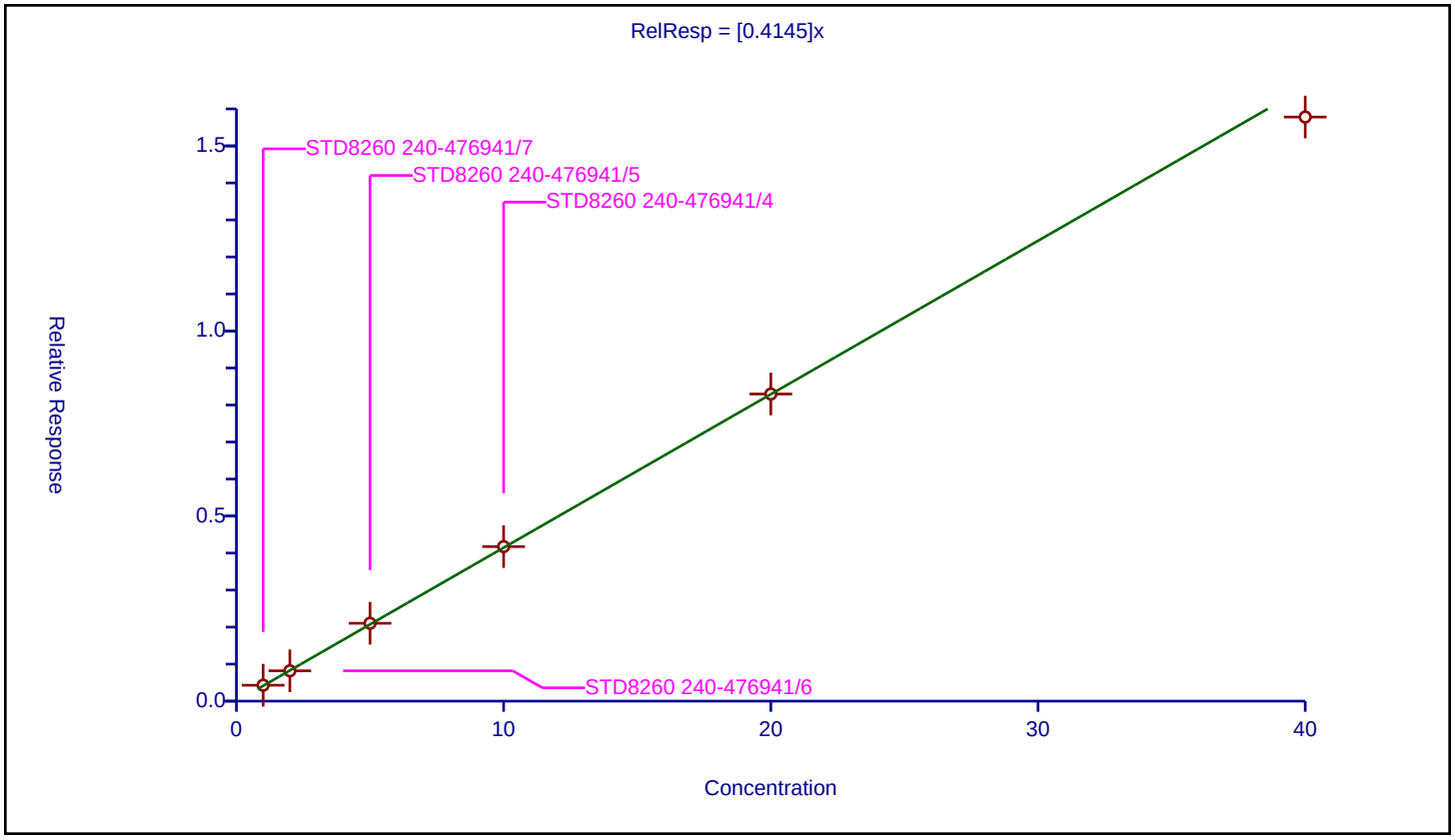
Curve Coefficients

Intercept:	0
Slope:	0.4145

Error Coefficients

Standard Error:	958000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.429995	10.0	1005314.0	0.429995	Y
2	STD8260 240-476941/6	2.0	0.819194	10.0	1025239.0	0.409597	Y
3	STD8260 240-476941/5	5.0	2.103838	10.0	1036230.0	0.420768	Y
4	STD8260 240-476941/4	10.0	4.175222	10.0	1083691.0	0.417522	Y
5	STD8260 240-476941/3	20.0	8.297124	10.0	1129906.0	0.414856	Y
6	STD8260 240-476941/2	40.0	15.780109	10.0	1176310.0	0.394503	Y



Calibration / 1,1,2,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

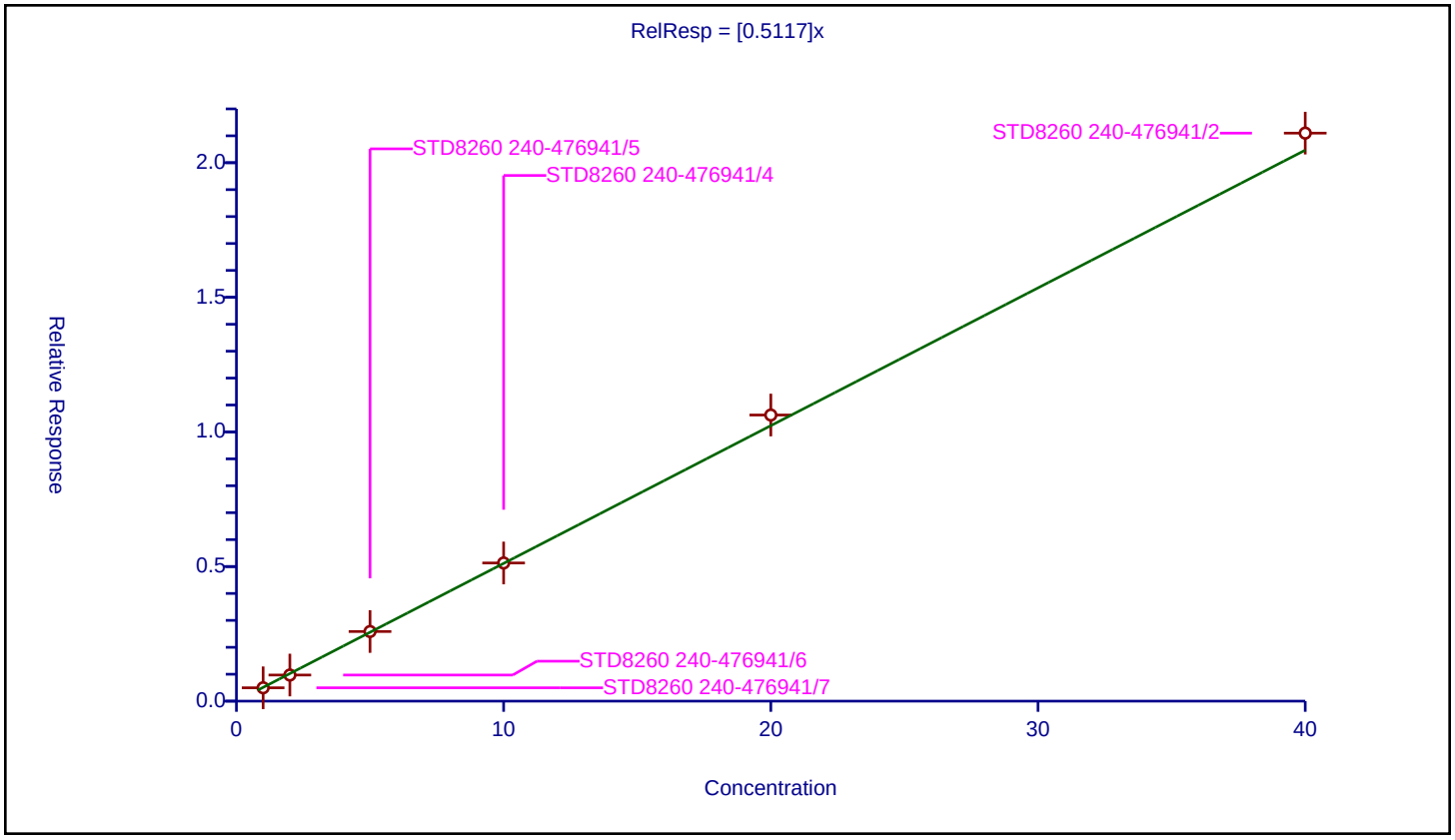
Curve Coefficients

Intercept:	0
Slope:	0.5117

Error Coefficients

Standard Error:	726000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.495697	10.0	606056.0	0.495697	Y
2	STD8260 240-476941/6	2.0	0.969796	10.0	608128.0	0.484898	Y
3	STD8260 240-476941/5	5.0	2.586701	10.0	621189.0	0.51734	Y
4	STD8260 240-476941/4	10.0	5.131993	10.0	639882.0	0.513199	Y
5	STD8260 240-476941/3	20.0	10.627968	10.0	663171.0	0.531398	Y
6	STD8260 240-476941/2	40.0	21.099818	10.0	670129.0	0.527495	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

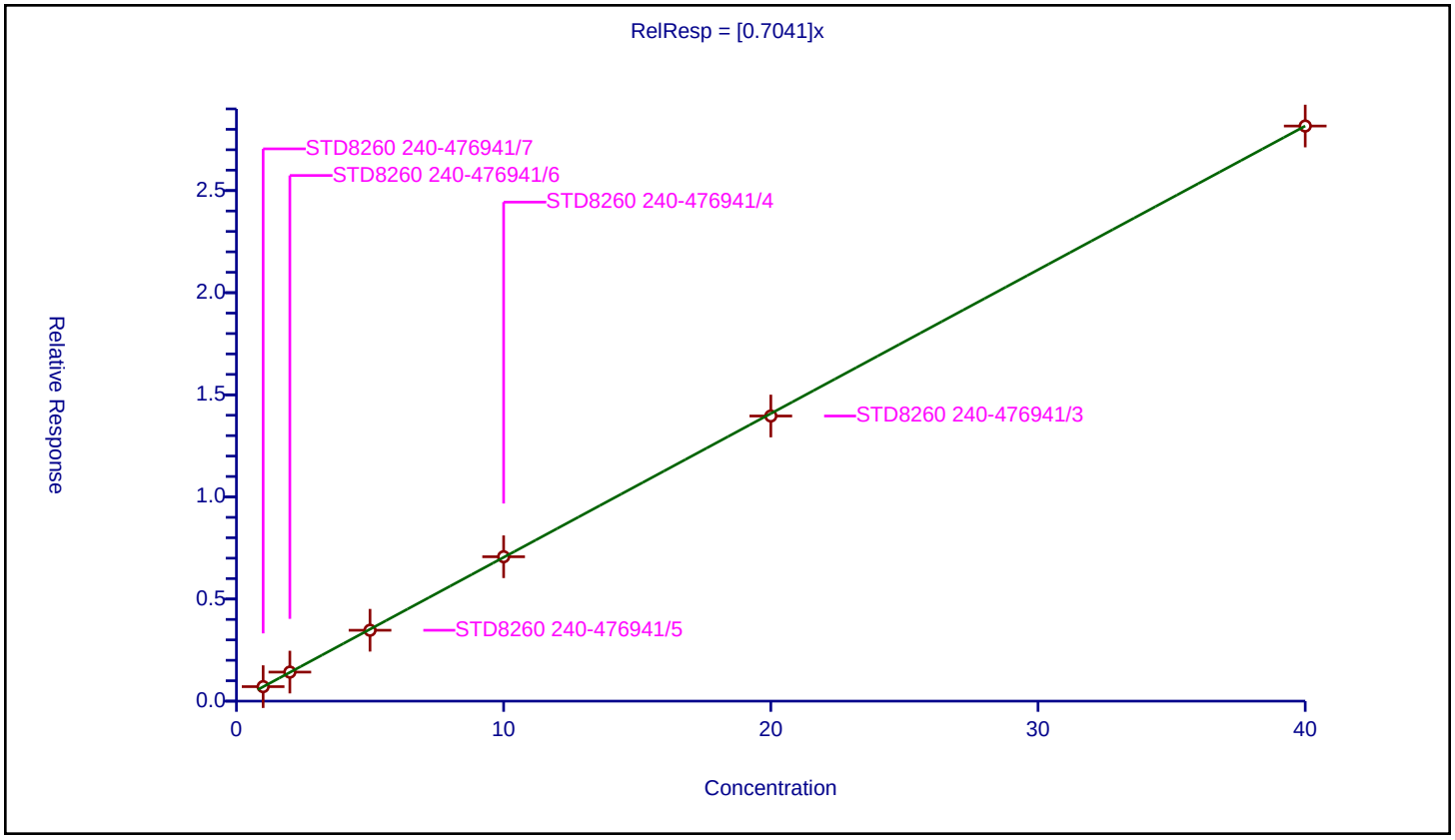
Curve Coefficients

Intercept:	0
Slope:	0.7041

Error Coefficients

Standard Error:	967000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.70967	10.0	606056.0	0.70967	Y
2	STD8260 240-476941/6	2.0	1.422595	10.0	608128.0	0.711298	Y
3	STD8260 240-476941/5	5.0	3.470908	10.0	621189.0	0.694182	Y
4	STD8260 240-476941/4	10.0	7.070554	10.0	639882.0	0.707055	Y
5	STD8260 240-476941/3	20.0	13.962161	10.0	663171.0	0.698108	Y
6	STD8260 240-476941/2	40.0	28.161503	10.0	670129.0	0.704038	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

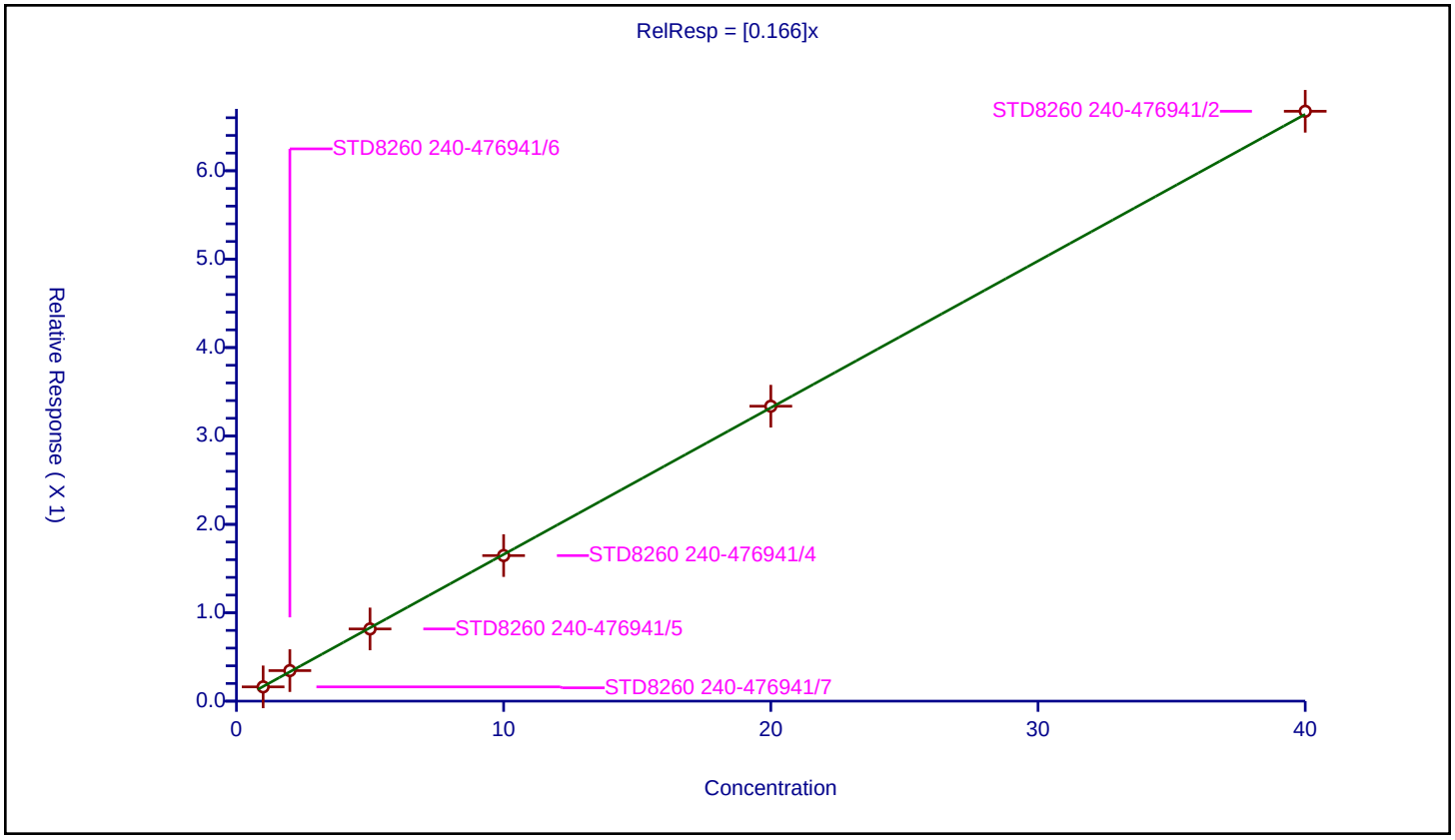
Curve Coefficients

Intercept:	0
Slope:	0.166

Error Coefficients

Standard Error:	229000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.161404	10.0	606056.0	0.161404	Y
2	STD8260 240-476941/6	2.0	0.345503	10.0	608128.0	0.172751	Y
3	STD8260 240-476941/5	5.0	0.816724	10.0	621189.0	0.163345	Y
4	STD8260 240-476941/4	10.0	1.64671	10.0	639882.0	0.164671	Y
5	STD8260 240-476941/3	20.0	3.336666	10.0	663171.0	0.166833	Y
6	STD8260 240-476941/2	40.0	6.673163	10.0	670129.0	0.166829	Y



Calibration / trans-1,4-Dichloro-2-butene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

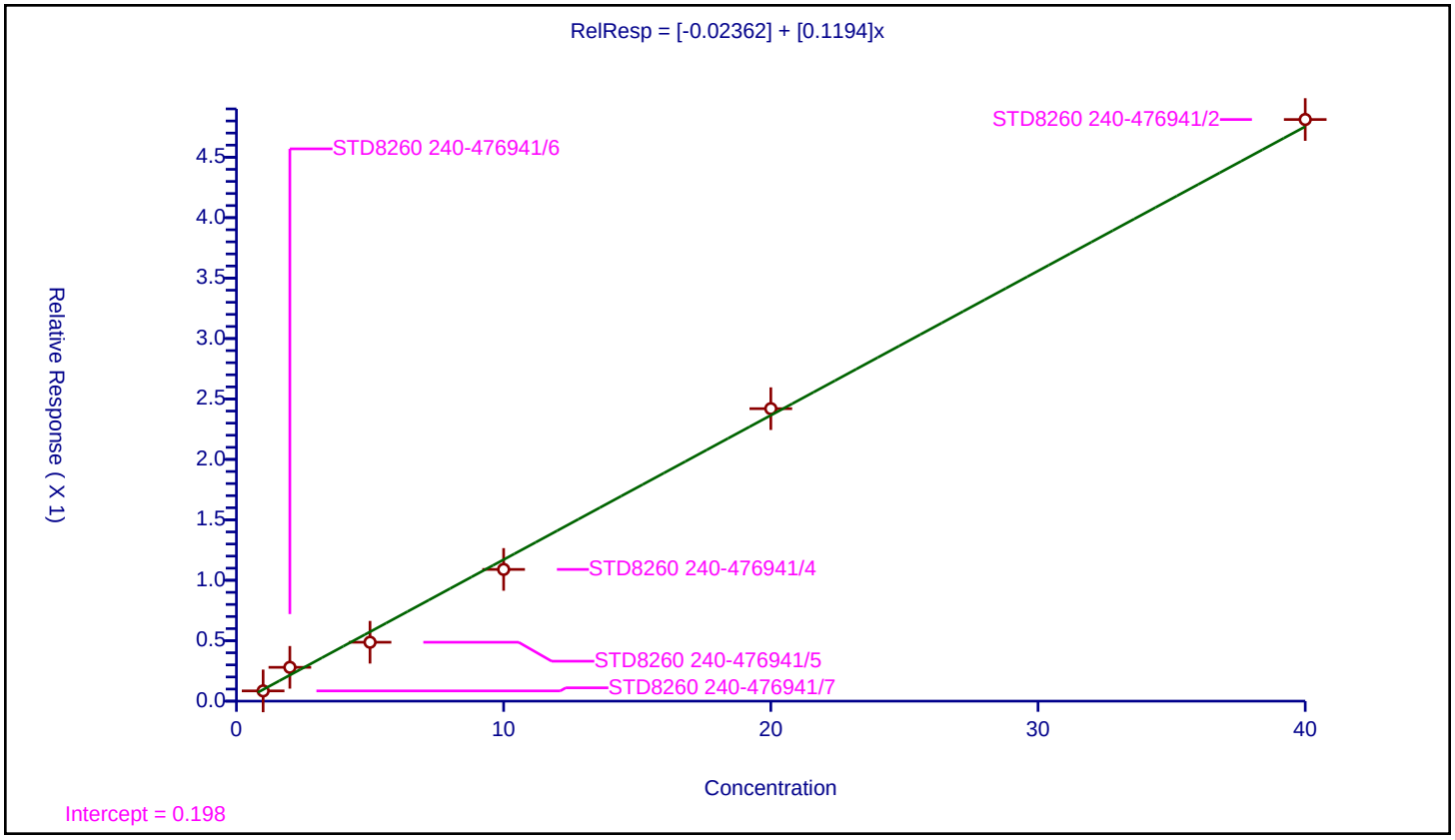
Curve Coefficients

Intercept:	-0.02362
Slope:	0.1194

Error Coefficients

Standard Error:	184000
Relative Standard Error:	16.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.084695	10.0	606056.0	0.084695	Y
2	STD8260 240-476941/6	2.0	0.279678	10.0	608128.0	0.139839	Y
3	STD8260 240-476941/5	5.0	0.487243	10.0	621189.0	0.097449	Y
4	STD8260 240-476941/4	10.0	1.089888	10.0	639882.0	0.108989	Y
5	STD8260 240-476941/3	20.0	2.419964	10.0	663171.0	0.120998	Y
6	STD8260 240-476941/2	40.0	4.812178	10.0	670129.0	0.120304	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

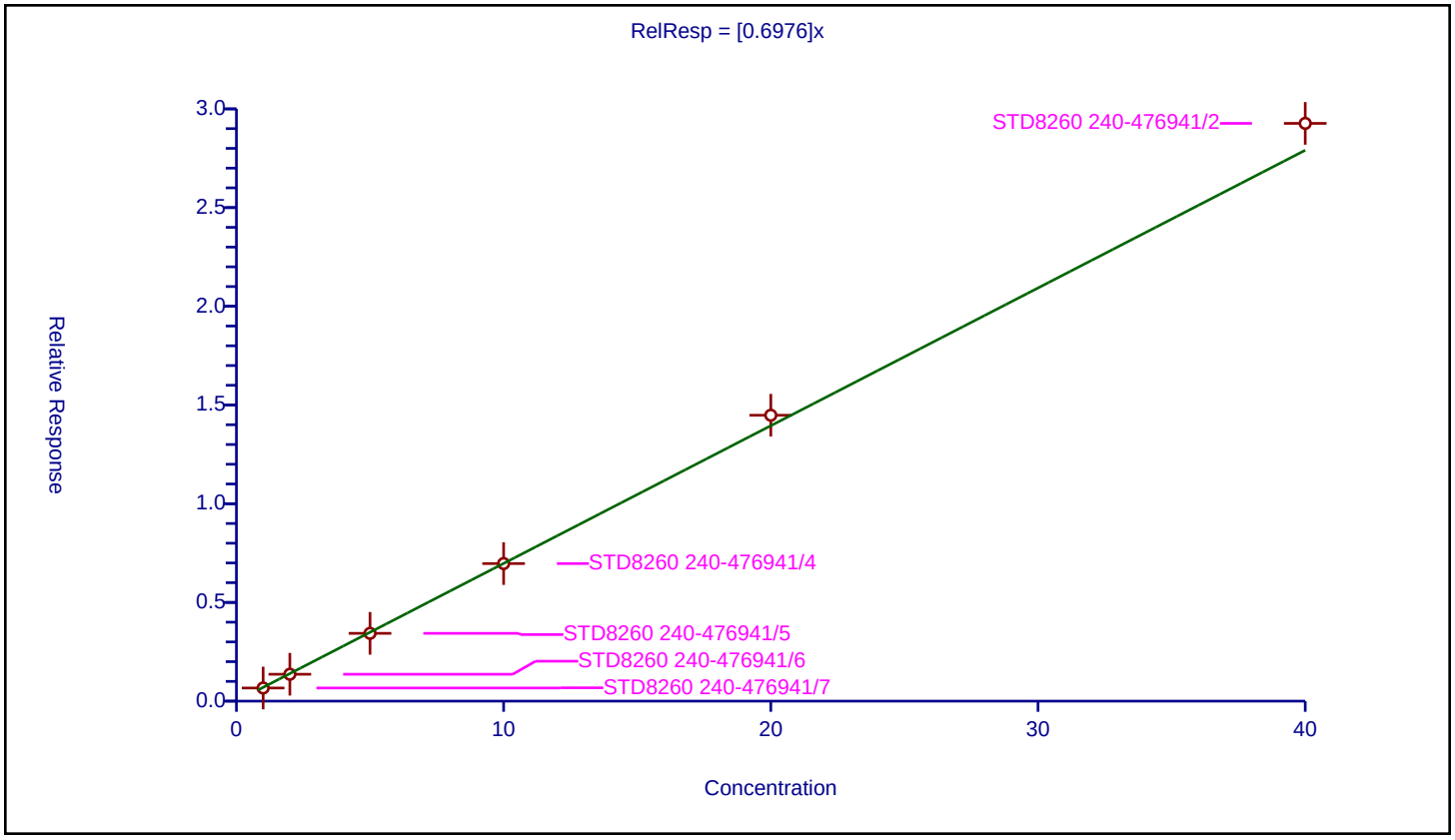
Curve Coefficients

Intercept:	0
Slope:	0.6976

Error Coefficients

Standard Error:	1000000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.665285	10.0	606056.0	0.665285	Y
2	STD8260 240-476941/6	2.0	1.362065	10.0	608128.0	0.681033	Y
3	STD8260 240-476941/5	5.0	3.433915	10.0	621189.0	0.686783	Y
4	STD8260 240-476941/4	10.0	6.96841	10.0	639882.0	0.696841	Y
5	STD8260 240-476941/3	20.0	14.48183	10.0	663171.0	0.724092	Y
6	STD8260 240-476941/2	40.0	29.266141	10.0	670129.0	0.731654	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

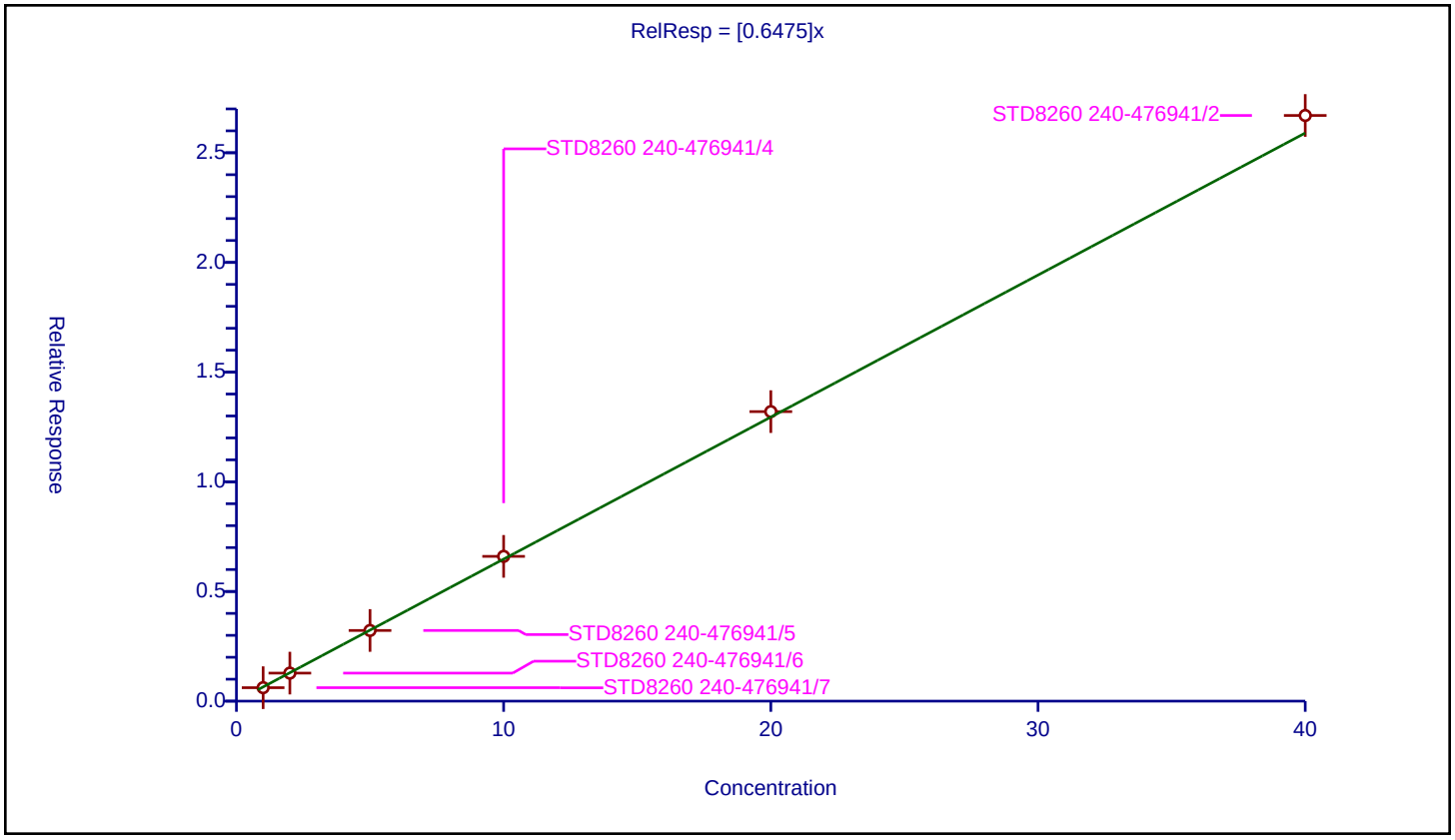
Curve Coefficients

Intercept:	0
Slope:	0.6475

Error Coefficients

Standard Error:	916000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.614069	10.0	606056.0	0.614069	Y
2	STD8260 240-476941/6	2.0	1.278119	10.0	608128.0	0.63906	Y
3	STD8260 240-476941/5	5.0	3.221628	10.0	621189.0	0.644326	Y
4	STD8260 240-476941/4	10.0	6.600092	10.0	639882.0	0.660009	Y
5	STD8260 240-476941/3	20.0	13.199099	10.0	663171.0	0.659955	Y
6	STD8260 240-476941/2	40.0	26.699576	10.0	670129.0	0.667489	Y



Calibration / 1,3,5-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

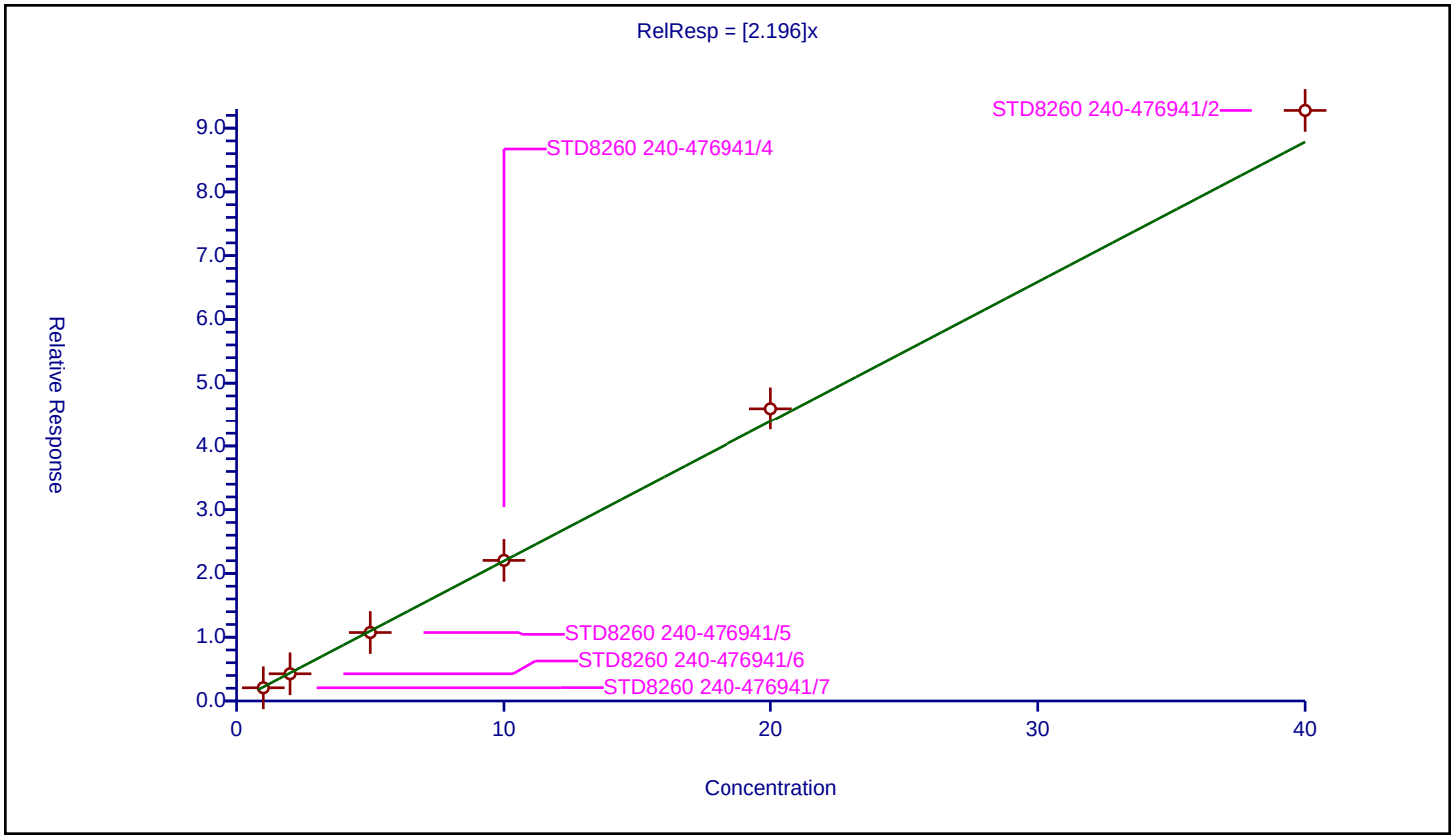
Curve Coefficients

Intercept:	0
Slope:	2.196

Error Coefficients

Standard Error:	3180000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.071195	10.0	606056.0	2.071195	Y
2	STD8260 240-476941/6	2.0	4.269101	10.0	608128.0	2.134551	Y
3	STD8260 240-476941/5	5.0	10.73641	10.0	621189.0	2.147282	Y
4	STD8260 240-476941/4	10.0	22.049409	10.0	639882.0	2.204941	Y
5	STD8260 240-476941/3	20.0	45.973391	10.0	663171.0	2.29867	Y
6	STD8260 240-476941/2	40.0	92.777182	10.0	670129.0	2.31943	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

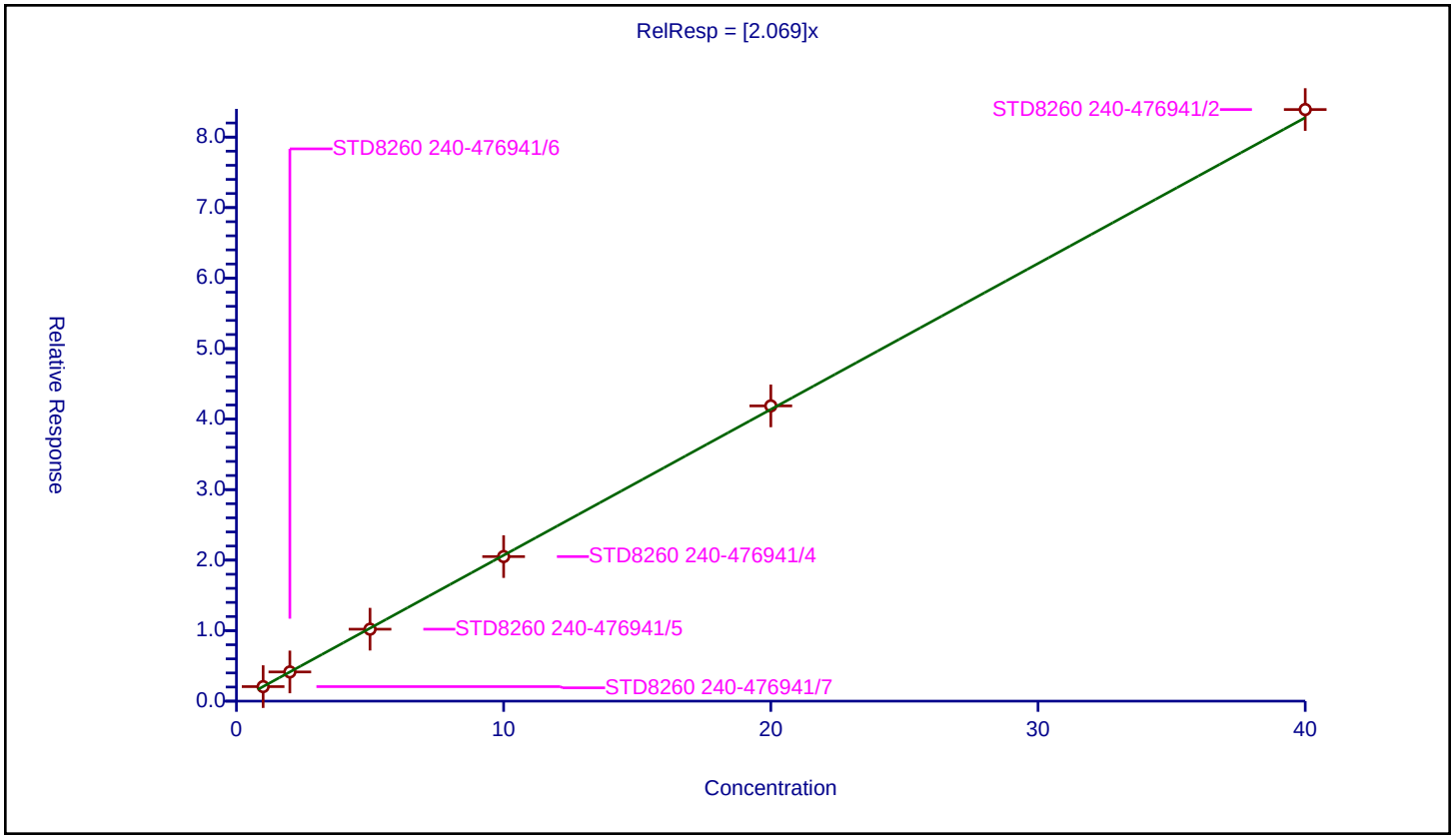
Curve Coefficients

Intercept:	0
Slope:	2.069

Error Coefficients

Standard Error:	2880000
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.060618	10.0	606056.0	2.060618	Y
2	STD8260 240-476941/6	2.0	4.140592	10.0	608128.0	2.070296	Y
3	STD8260 240-476941/5	5.0	10.203255	10.0	621189.0	2.040651	Y
4	STD8260 240-476941/4	10.0	20.503671	10.0	639882.0	2.050367	Y
5	STD8260 240-476941/3	20.0	41.875429	10.0	663171.0	2.093771	Y
6	STD8260 240-476941/2	40.0	83.90771	10.0	670129.0	2.097693	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

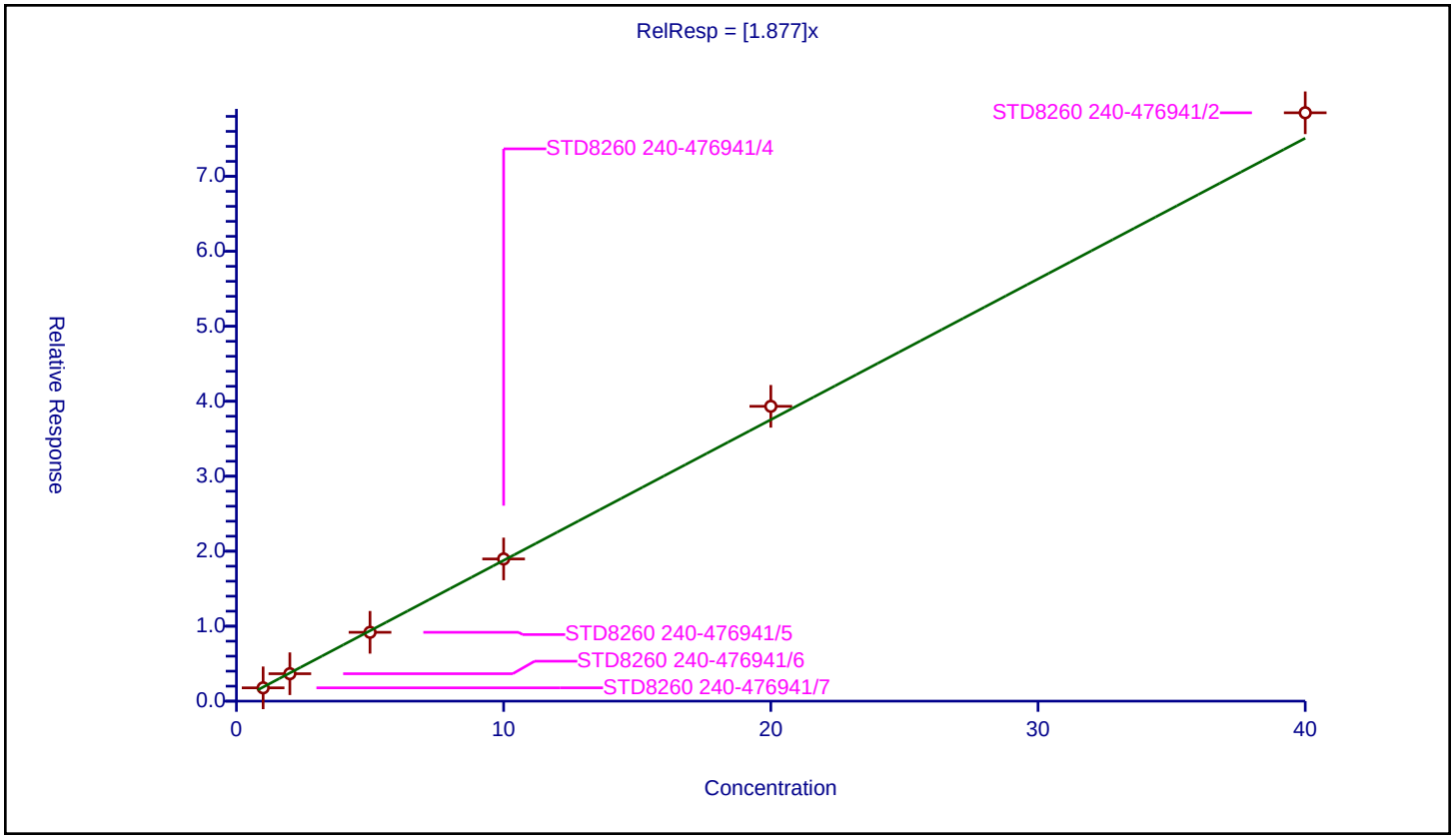
Curve Coefficients

Intercept:	0
Slope:	1.877

Error Coefficients

Standard Error:	2700000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.773037	10.0	606056.0	1.773037	Y
2	STD8260 240-476941/6	2.0	3.657733	10.0	608128.0	1.828867	Y
3	STD8260 240-476941/5	5.0	9.180829	10.0	621189.0	1.836166	Y
4	STD8260 240-476941/4	10.0	18.967622	10.0	639882.0	1.896762	Y
5	STD8260 240-476941/3	20.0	39.326539	10.0	663171.0	1.966327	Y
6	STD8260 240-476941/2	40.0	78.481263	10.0	670129.0	1.962032	Y



Calibration / 1,2,4-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

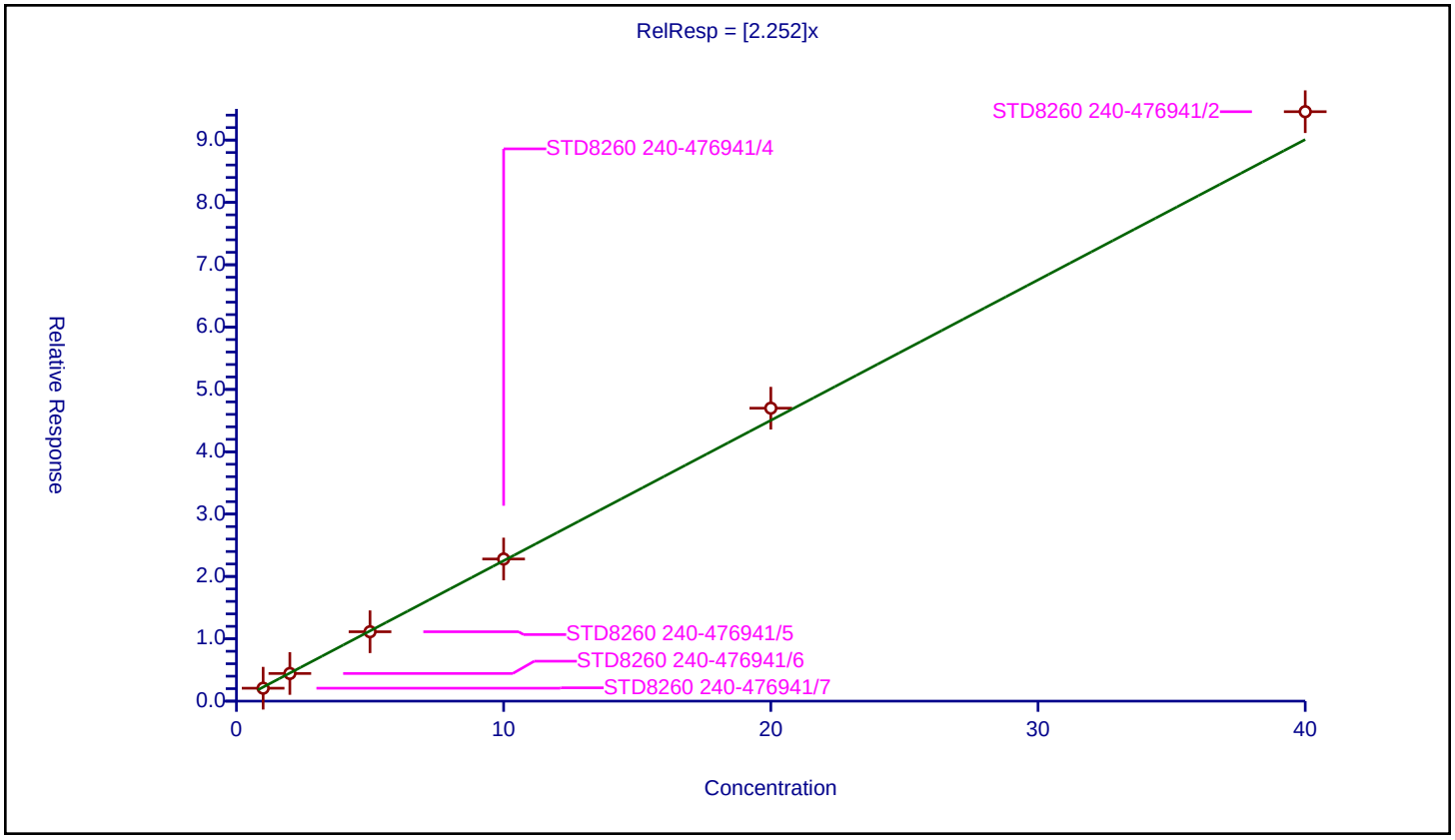
Curve Coefficients

Intercept:	0
Slope:	2.252

Error Coefficients

Standard Error:	3240000
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.075204	10.0	606056.0	2.075204	Y
2	STD8260 240-476941/6	2.0	4.43507	10.0	608128.0	2.217535	Y
3	STD8260 240-476941/5	5.0	11.133391	10.0	621189.0	2.226678	Y
4	STD8260 240-476941/4	10.0	22.798422	10.0	639882.0	2.279842	Y
5	STD8260 240-476941/3	20.0	46.993128	10.0	663171.0	2.349656	Y
6	STD8260 240-476941/2	40.0	94.549885	10.0	670129.0	2.363747	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

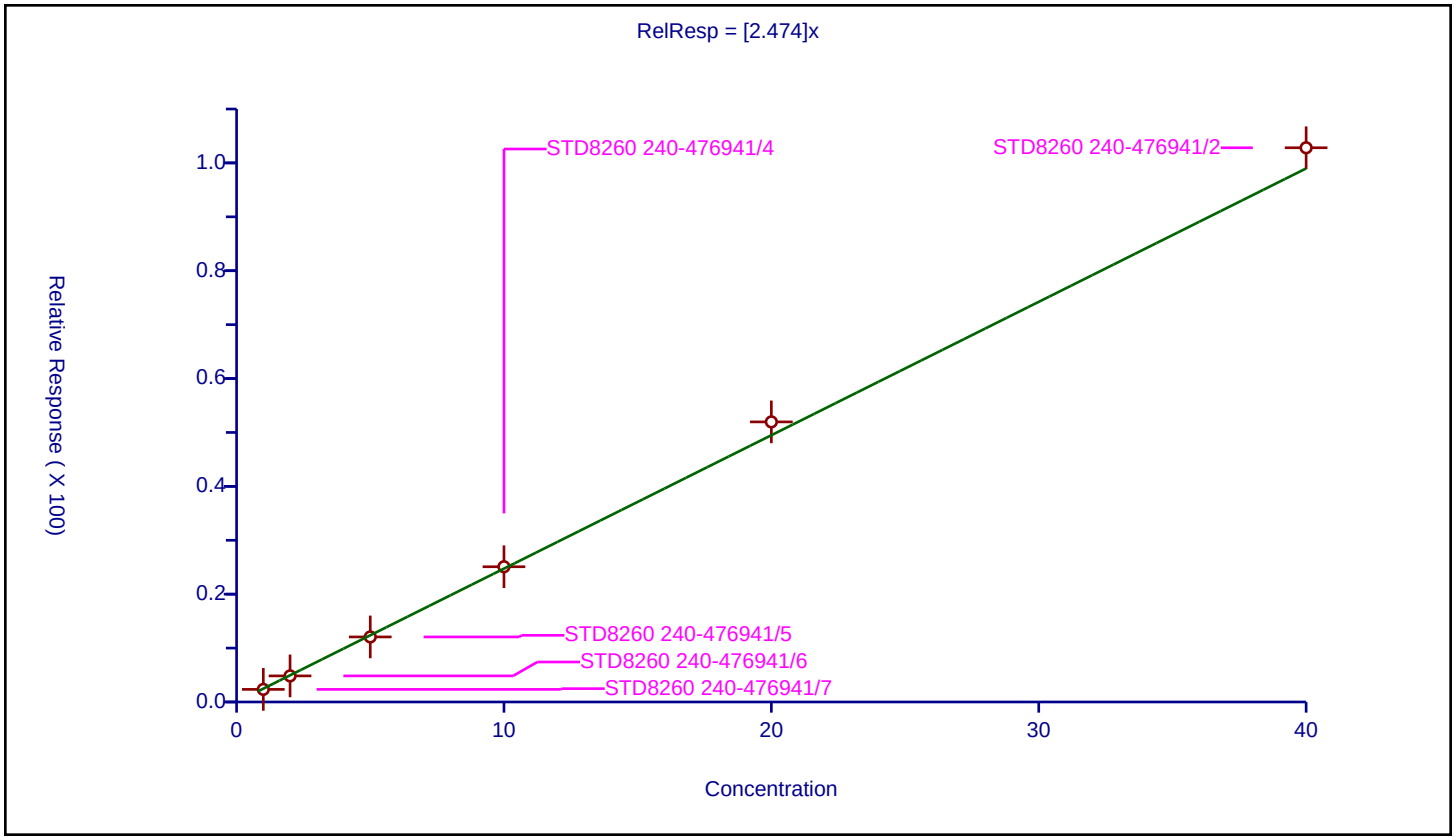
Curve Coefficients

Intercept:	0
Slope:	2.474

Error Coefficients

Standard Error:	3540000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.335329	10.0	606056.0	2.335329	Y
2	STD8260 240-476941/6	2.0	4.838636	10.0	608128.0	2.419318	Y
3	STD8260 240-476941/5	5.0	12.069901	10.0	621189.0	2.41398	Y
4	STD8260 240-476941/4	10.0	25.089798	10.0	639882.0	2.50898	Y
5	STD8260 240-476941/3	20.0	51.959615	10.0	663171.0	2.597981	Y
6	STD8260 240-476941/2	40.0	102.809952	10.0	670129.0	2.570249	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

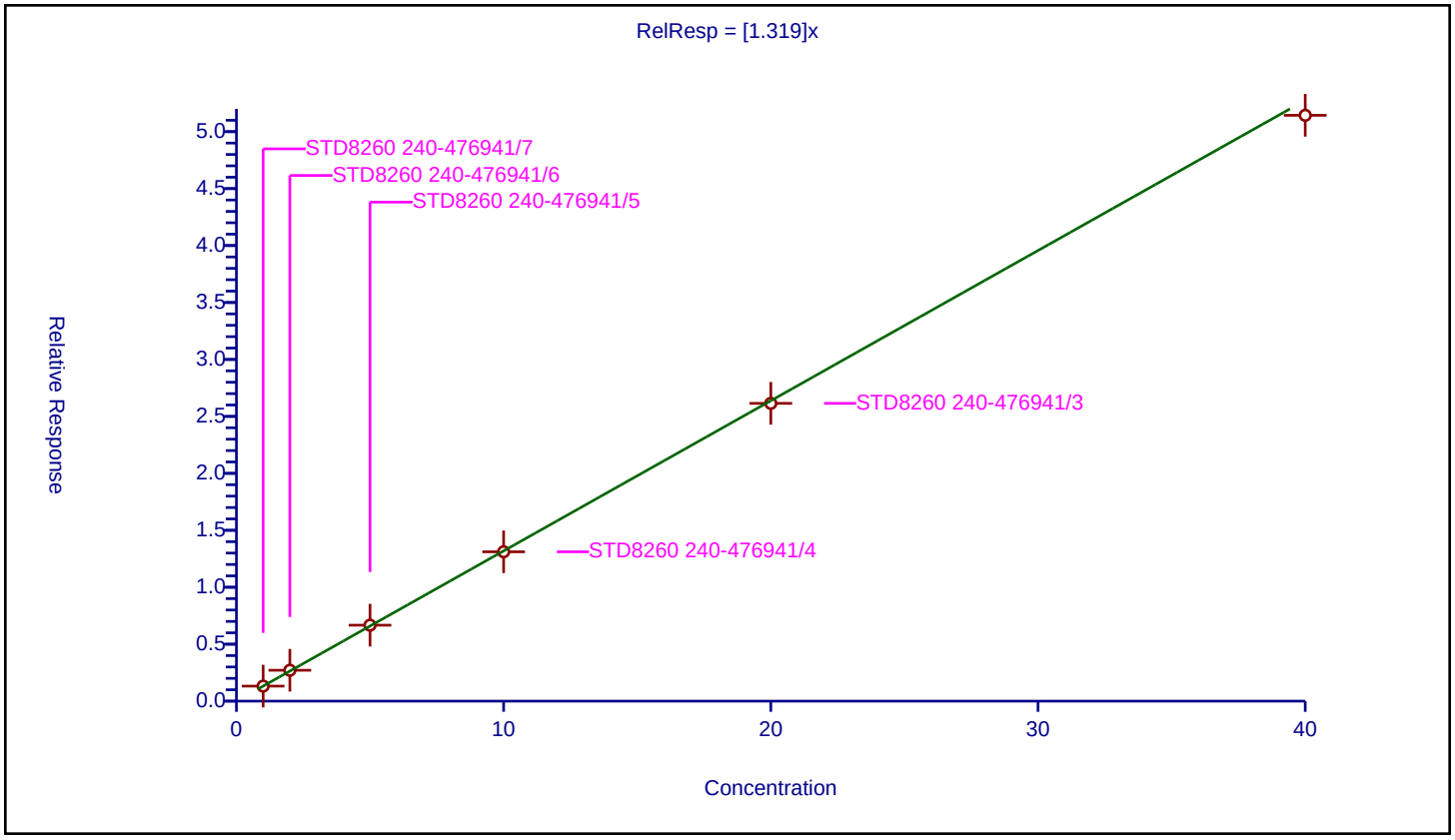
Curve Coefficients

Intercept:	0
Slope:	1.319

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.319812	10.0	606056.0	1.319812	Y
2	STD8260 240-476941/6	2.0	2.710515	10.0	608128.0	1.355257	Y
3	STD8260 240-476941/5	5.0	6.667906	10.0	621189.0	1.333581	Y
4	STD8260 240-476941/4	10.0	13.113402	10.0	639882.0	1.31134	Y
5	STD8260 240-476941/3	20.0	26.144644	10.0	663171.0	1.307232	Y
6	STD8260 240-476941/2	40.0	51.435455	10.0	670129.0	1.285886	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

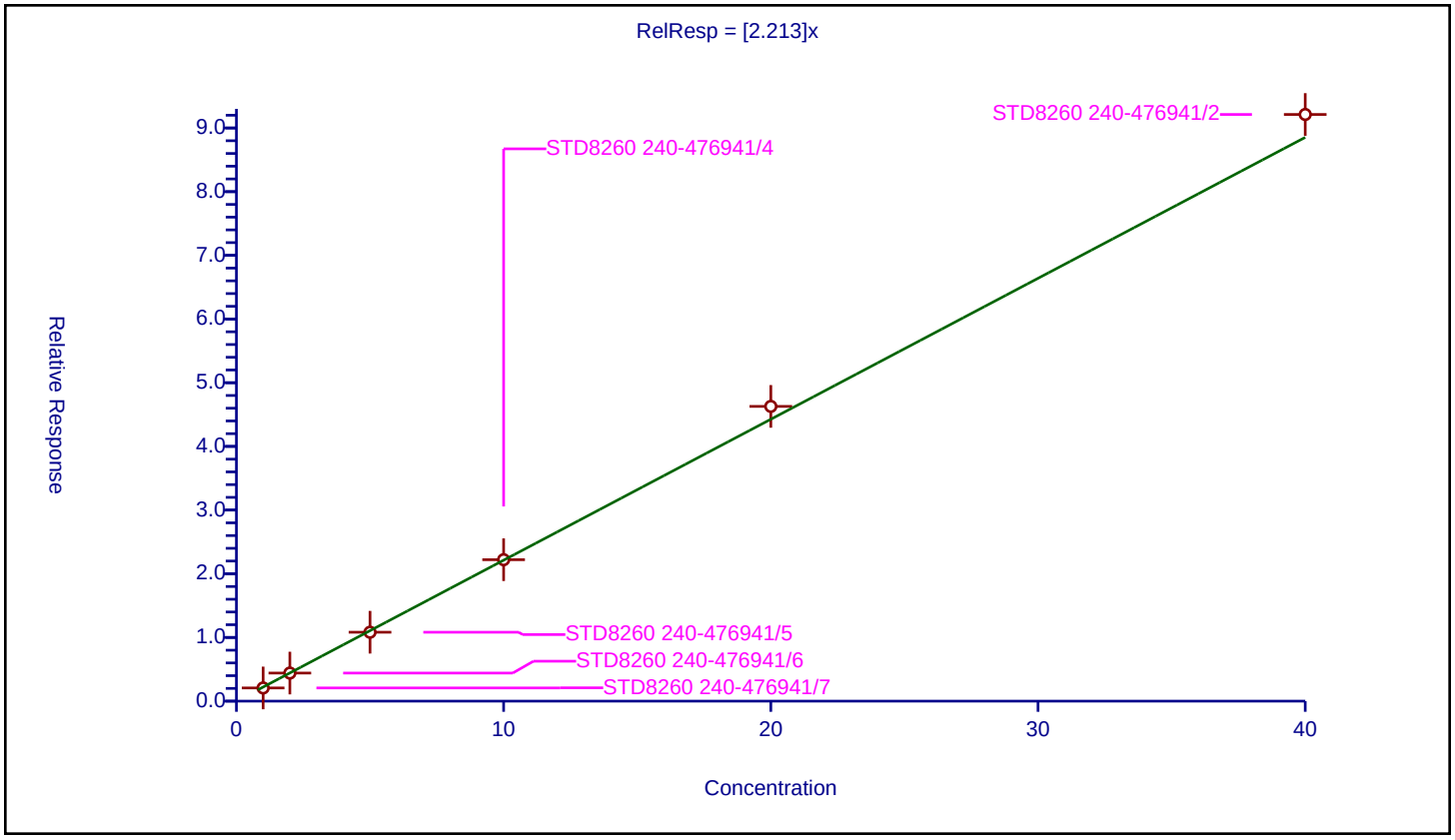
Curve Coefficients

Intercept:	0
Slope:	2.213

Error Coefficients

Standard Error:	3170000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.07131	10.0	606056.0	2.07131	Y
2	STD8260 240-476941/6	2.0	4.410042	10.0	608128.0	2.205021	Y
3	STD8260 240-476941/5	5.0	10.820813	10.0	621189.0	2.164163	Y
4	STD8260 240-476941/4	10.0	22.209517	10.0	639882.0	2.220952	Y
5	STD8260 240-476941/3	20.0	46.283538	10.0	663171.0	2.314177	Y
6	STD8260 240-476941/2	40.0	92.12086	10.0	670129.0	2.303022	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

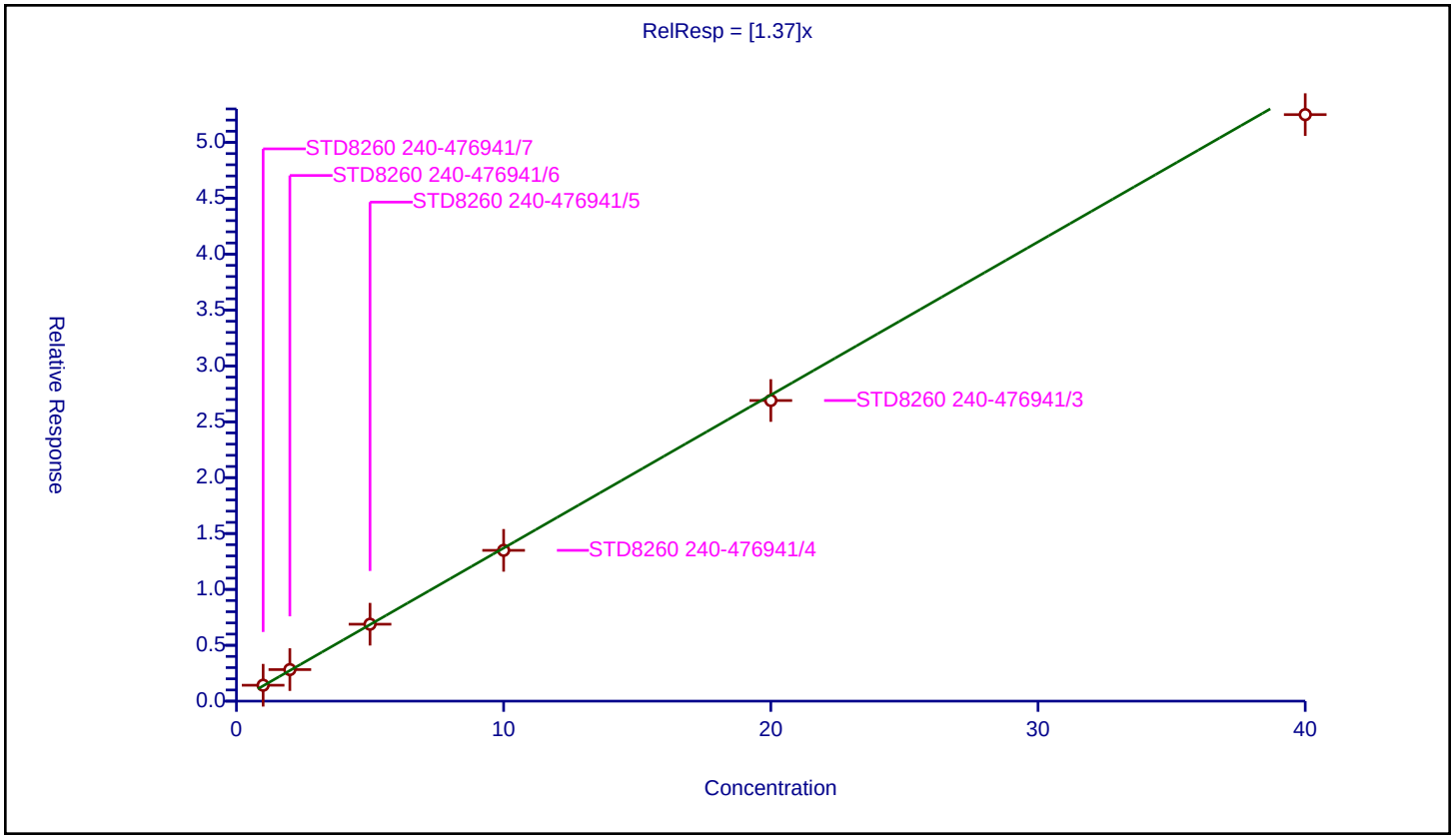
Curve Coefficients

Intercept:	0
Slope:	1.37

Error Coefficients

Standard Error:	1820000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.423086	10.0	606056.0	1.423086	Y
2	STD8260 240-476941/6	2.0	2.823649	10.0	608128.0	1.411824	Y
3	STD8260 240-476941/5	5.0	6.88573	10.0	621189.0	1.377146	Y
4	STD8260 240-476941/4	10.0	13.493191	10.0	639882.0	1.349319	Y
5	STD8260 240-476941/3	20.0	26.904313	10.0	663171.0	1.345216	Y
6	STD8260 240-476941/2	40.0	52.488506	10.0	670129.0	1.312213	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

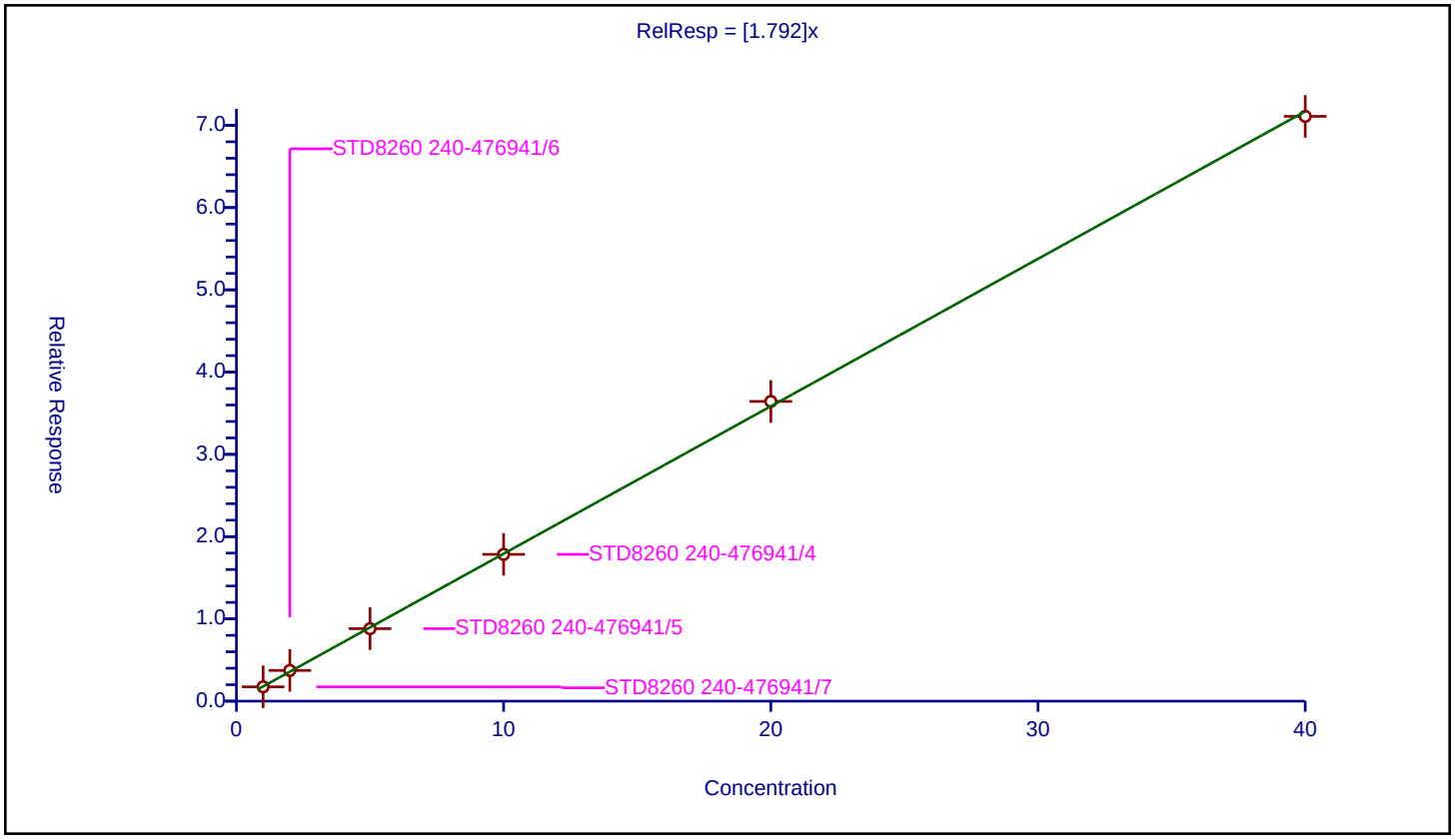
Curve Coefficients

Intercept:	0
Slope:	1.792

Error Coefficients

Standard Error:	2460000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.742166	10.0	606056.0	1.742166	Y
2	STD8260 240-476941/6	2.0	3.732734	10.0	608128.0	1.866367	Y
3	STD8260 240-476941/5	5.0	8.810507	10.0	621189.0	1.762101	Y
4	STD8260 240-476941/4	10.0	17.841524	10.0	639882.0	1.784152	Y
5	STD8260 240-476941/3	20.0	36.437495	10.0	663171.0	1.821875	Y
6	STD8260 240-476941/2	40.0	71.091193	10.0	670129.0	1.77728	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

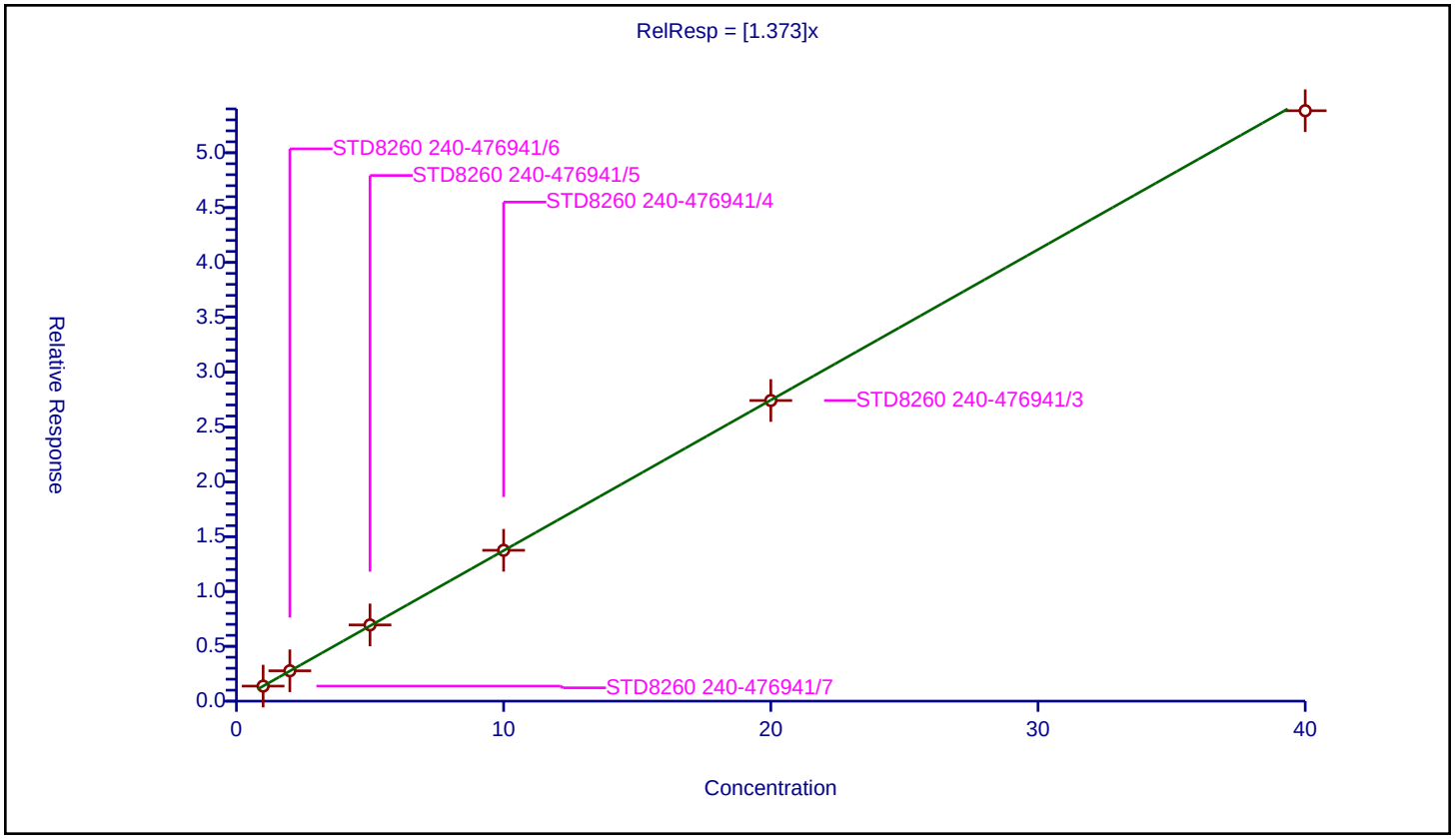
Curve Coefficients

Intercept:	0
Slope:	1.373

Error Coefficients

Standard Error:	1860000
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.370731	10.0	606056.0	1.370731	Y
2	STD8260 240-476941/6	2.0	2.76603	10.0	608128.0	1.383015	Y
3	STD8260 240-476941/5	5.0	6.949366	10.0	621189.0	1.389873	Y
4	STD8260 240-476941/4	10.0	13.752614	10.0	639882.0	1.375261	Y
5	STD8260 240-476941/3	20.0	27.410336	10.0	663171.0	1.370517	Y
6	STD8260 240-476941/2	40.0	53.833426	10.0	670129.0	1.345836	Y



Calibration / 1,2-Dibromo-3-Chloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

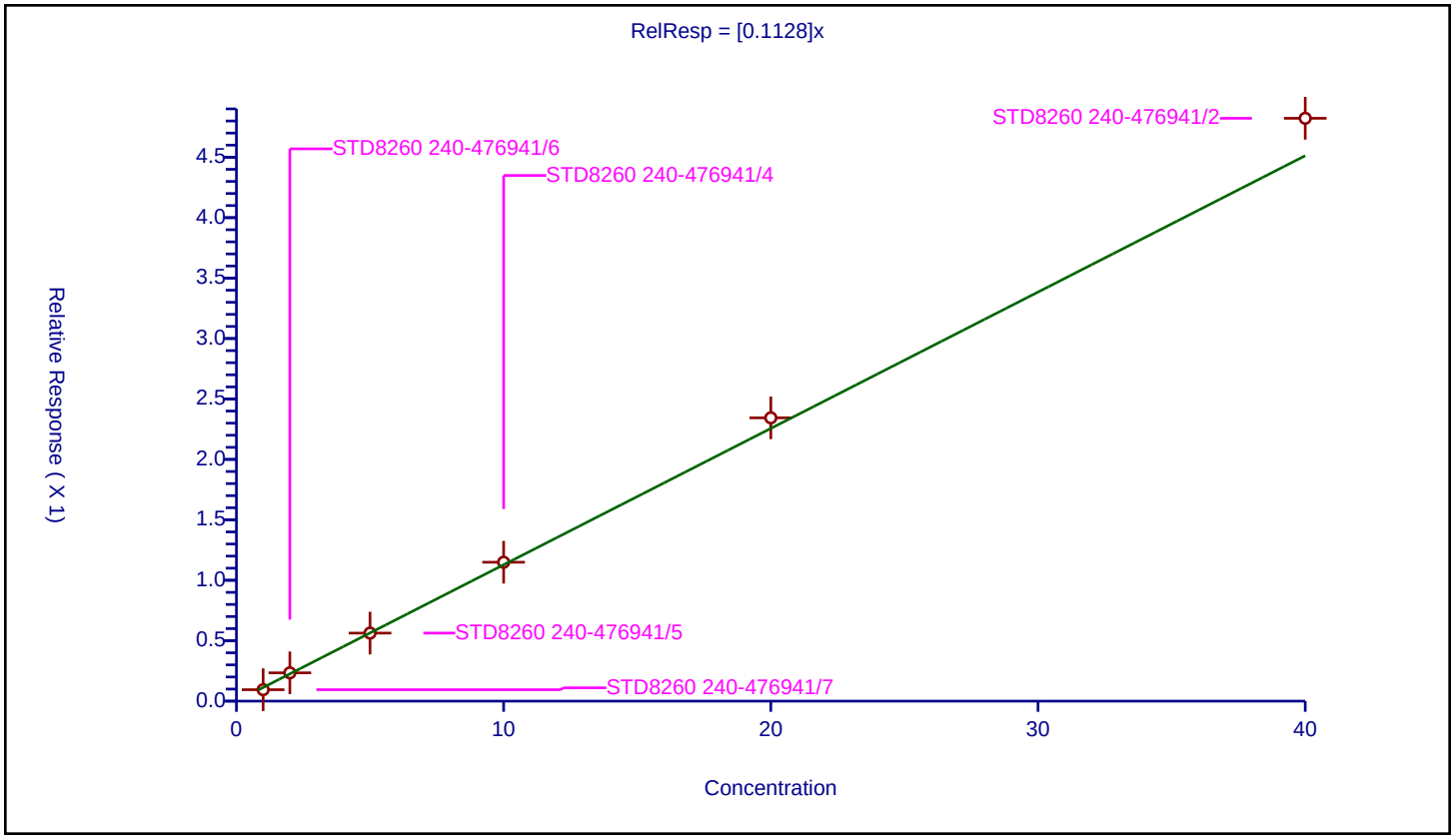
Curve Coefficients

Intercept:	0
Slope:	0.1128

Error Coefficients

Standard Error:	165000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.094562	10.0	606056.0	0.094562	Y
2	STD8260 240-476941/6	2.0	0.234178	10.0	608128.0	0.117089	Y
3	STD8260 240-476941/5	5.0	0.562856	10.0	621189.0	0.112571	Y
4	STD8260 240-476941/4	10.0	1.149181	10.0	639882.0	0.114918	Y
5	STD8260 240-476941/3	20.0	2.344056	10.0	663171.0	0.117203	Y
6	STD8260 240-476941/2	40.0	4.82231	10.0	670129.0	0.120558	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

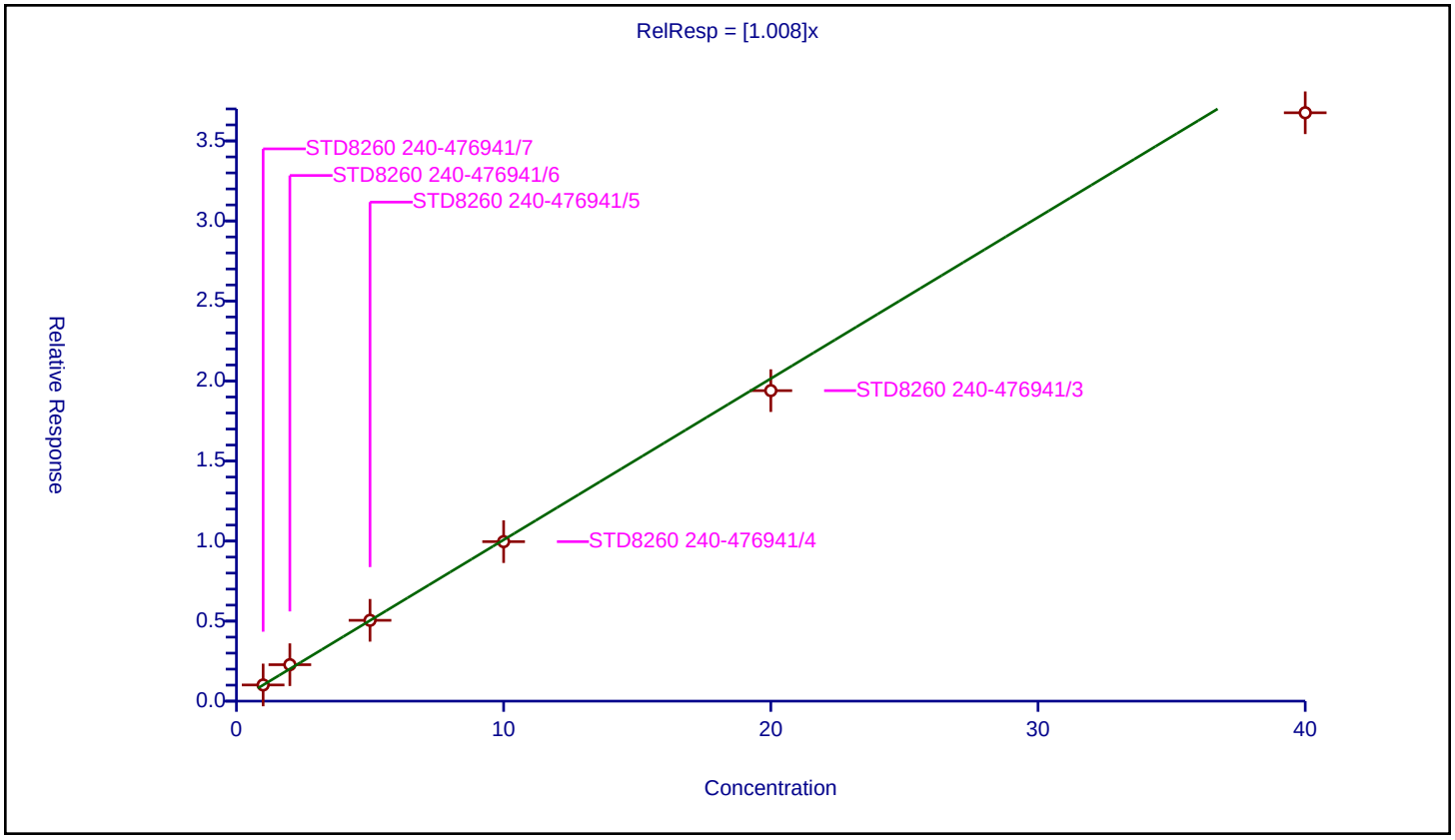
Curve Coefficients

Intercept:	0
Slope:	1.008

Error Coefficients

Standard Error:	1280000
Relative Standard Error:	7.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	1.011375	10.0	606056.0	1.011375	Y
2	STD8260 240-476941/6	2.0	2.277382	10.0	608128.0	1.138691	Y
3	STD8260 240-476941/5	5.0	5.049494	10.0	621189.0	1.009899	Y
4	STD8260 240-476941/4	10.0	9.964243	10.0	639882.0	0.996424	Y
5	STD8260 240-476941/3	20.0	19.398933	10.0	663171.0	0.969947	Y
6	STD8260 240-476941/2	40.0	36.758535	10.0	670129.0	0.918963	Y



Calibration / Hexachlorobutadiene

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

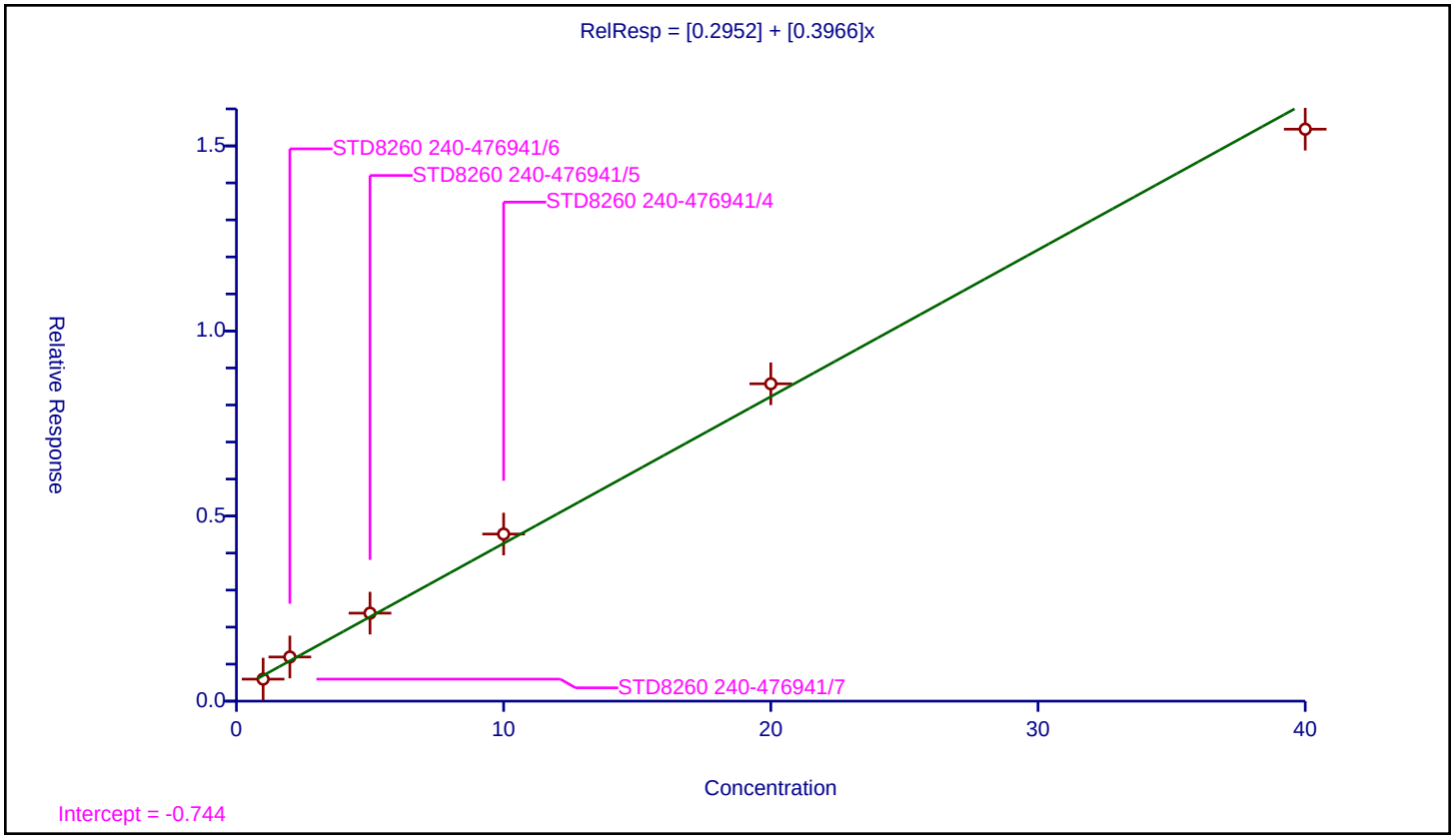
Curve Coefficients

Intercept:	0.2952
Slope:	0.3966

Error Coefficients

Standard Error:	614000
Relative Standard Error:	14.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.594665	10.0	606056.0	0.594665	Y
2	STD8260 240-476941/6	2.0	1.19294	10.0	608128.0	0.59647	Y
3	STD8260 240-476941/5	5.0	2.37707	10.0	621189.0	0.475414	Y
4	STD8260 240-476941/4	10.0	4.514192	10.0	639882.0	0.451419	Y
5	STD8260 240-476941/3	20.0	8.573762	10.0	663171.0	0.428688	Y
6	STD8260 240-476941/2	40.0	15.451353	10.0	670129.0	0.386284	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

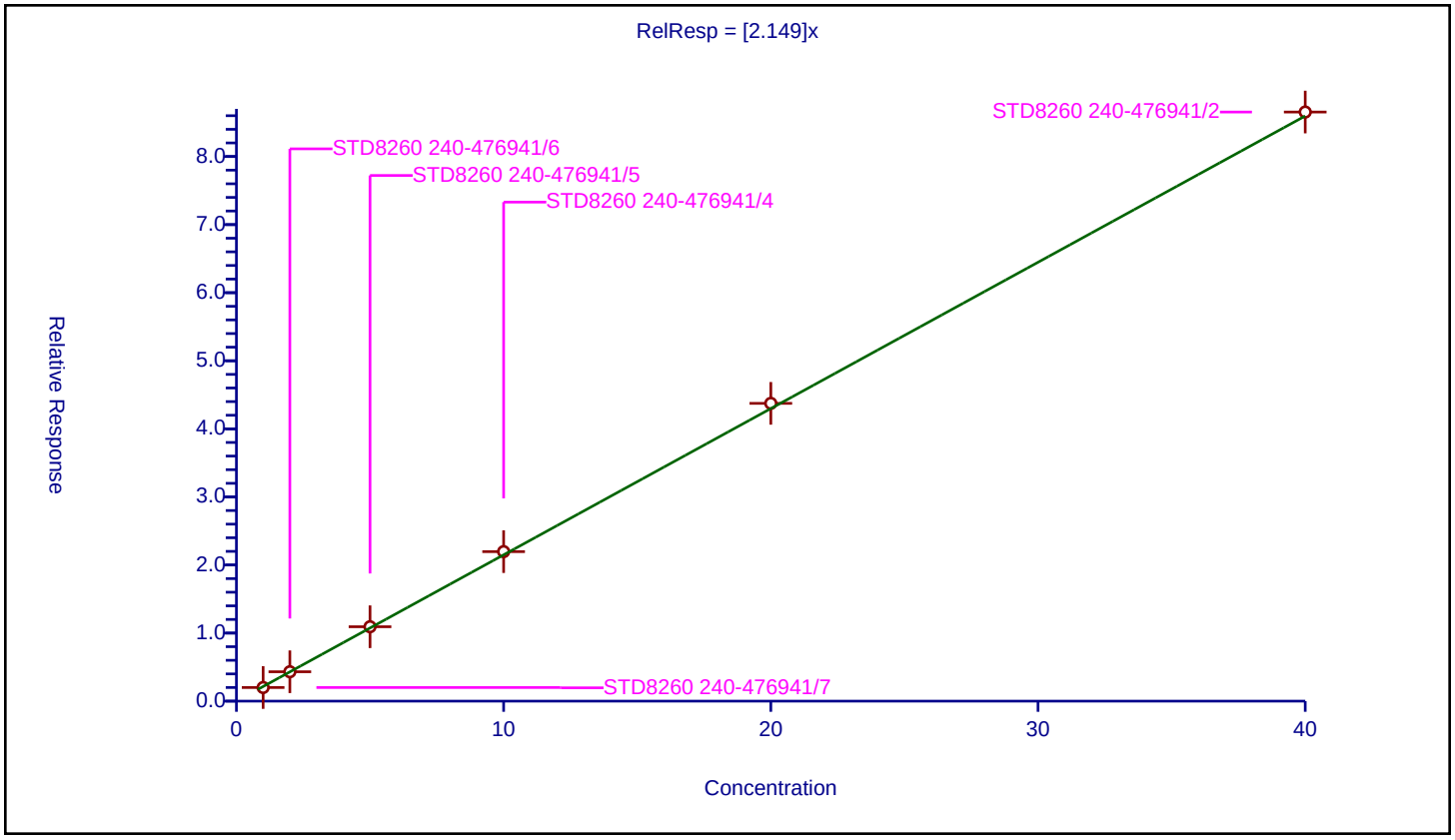
Curve Coefficients

Intercept:	0
Slope:	2.149

Error Coefficients

Standard Error:	2990000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	2.002472	10.0	606056.0	2.002472	Y
2	STD8260 240-476941/6	2.0	4.316838	10.0	608128.0	2.158419	Y
3	STD8260 240-476941/5	5.0	10.928751	10.0	621189.0	2.18575	Y
4	STD8260 240-476941/4	10.0	21.96444	10.0	639882.0	2.196444	Y
5	STD8260 240-476941/3	20.0	43.743574	10.0	663171.0	2.187179	Y
6	STD8260 240-476941/2	40.0	86.537965	10.0	670129.0	2.163449	Y



Calibration / 1,2,3-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

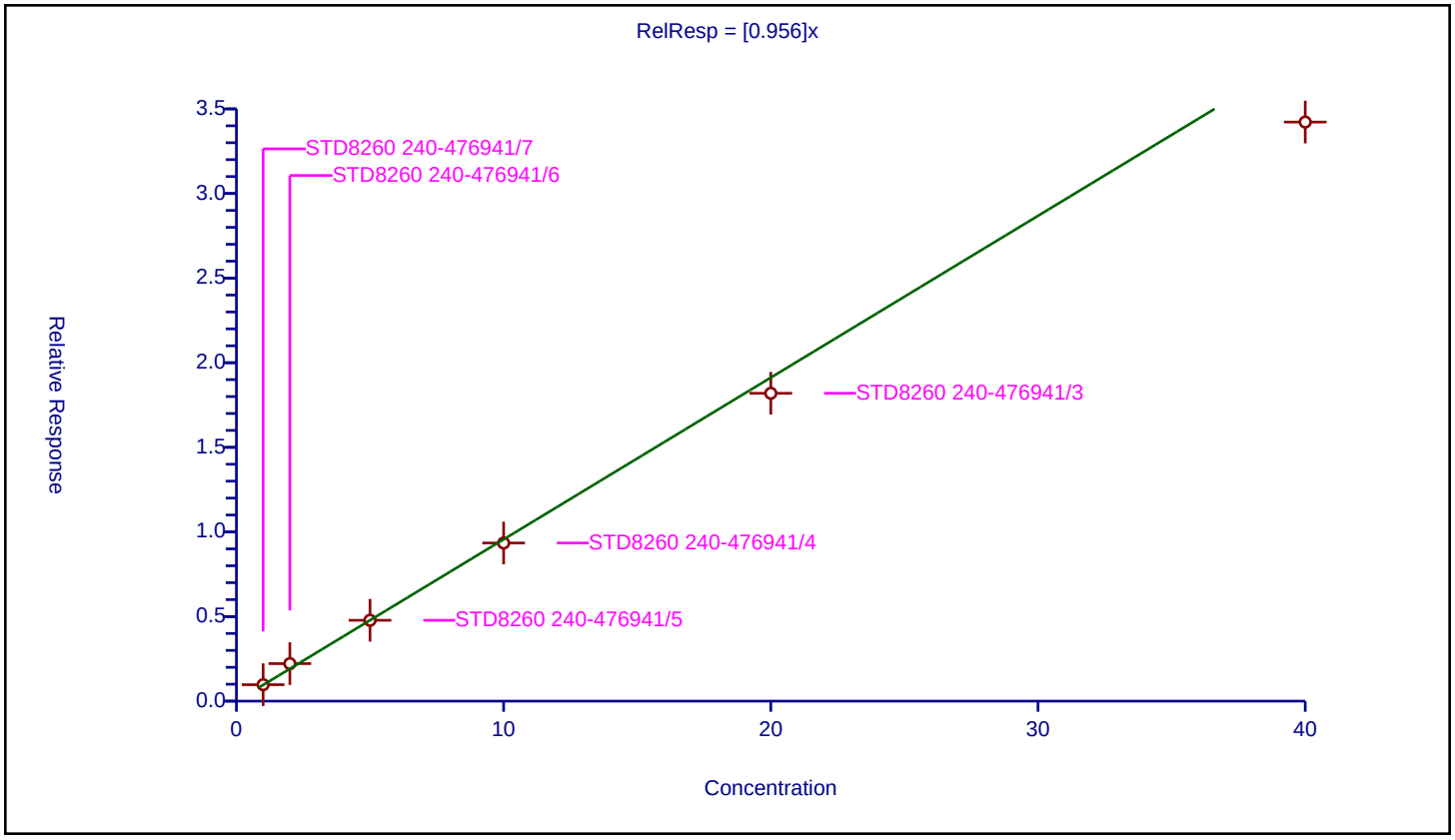
Curve Coefficients

Intercept:	0
Slope:	0.956

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	8.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	STD8260 240-476941/7	1.0	0.972435	10.0	606056.0	0.972435	Y
2	STD8260 240-476941/6	2.0	2.216967	10.0	608128.0	1.108484	Y
3	STD8260 240-476941/5	5.0	4.778063	10.0	621189.0	0.955613	Y
4	STD8260 240-476941/4	10.0	9.344895	10.0	639882.0	0.934489	Y
5	STD8260 240-476941/3	20.0	18.192306	10.0	663171.0	0.909615	Y
6	STD8260 240-476941/2	40.0	34.221859	10.0	670129.0	0.855546	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3162		0.0105	0.0100	4.9	50.0
Chloromethane	Ave	0.3426	0.3320	0.1000	0.00969	0.0100	-3.1	50.0
Vinyl chloride	Ave	0.2936	0.2920		0.00994	0.0100	-0.6	20.0
Butadiene	Ave	0.3746	0.3489		0.00932	0.0100	-6.8	50.0
Bromomethane	Ave	0.2460	0.2290		0.00931	0.0100	-6.9	50.0
Chloroethane	Ave	0.2164	0.2012		0.00930	0.0100	-7.0	50.0
Dichlorofluoromethane	Ave	0.5757	0.5490		0.00954	0.0100	-4.6	50.0
Trichlorofluoromethane	Ave	0.5212	0.5235		0.0100	0.0100	0.5	50.0
Ethyl ether	Ave	0.2512	0.2446		0.00974	0.0100	-2.6	50.0
Acrolein	Lin		0.0072		0.0217	0.0500	-56.5*	50.0
1,1-Dichloroethene	Ave	0.2891	0.2948		0.0102	0.0100	2.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.2477		0.0103	0.0100	2.8	50.0
Acetone	Ave	0.0202	0.0217		0.0215	0.0200	7.4	50.0
Iodomethane	Ave	0.4428	0.4952		0.0112	0.0100	11.8	50.0
Carbon disulfide	Ave	0.8057	0.7778		0.00965	0.0100	-3.5	50.0
3-Chloro-1-propene	Ave	0.1698	0.1619		0.00953	0.0100	-4.7	50.0
Methyl acetate	Ave	0.1269	0.1257		0.0198	0.0200	-1.0	50.0
Methylene Chloride	Ave	0.2691	0.2551		0.00948	0.0100	-5.2	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0135		0.0952	0.100	-4.8	50.0
Acrylonitrile	Ave	0.0679	0.0654		0.0964	0.100	-3.6	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6922		0.00987	0.0100	-1.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2782		0.00964	0.0100	-3.6	50.0
Hexane	Ave	0.0578	0.0516		0.00893	0.0100	-10.7	20.0
1,1-Dichloroethane	Ave	0.4573	0.4471	0.1000	0.00978	0.0100	-2.2	50.0
Vinyl acetate	Ave	0.3891	0.3568		0.00917	0.0100	-8.3	50.0
2,2-Dichloropropane	Ave	0.0889	0.0893		0.0100	0.0100	0.5	50.0
2-Butanone (MEK)	Ave	0.0211	0.0211		0.0200	0.0200	0.0	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.3083		0.0101	0.0100	1.1	50.0
Chlorobromomethane	Ave	0.1440	0.1399		0.00971	0.0100	-2.9	50.0
Tetrahydrofuran	Ave	0.0526	0.0498		0.0189	0.0200	-5.3	50.0
Chloroform	Ave	0.4553	0.4511		0.00991	0.0100	-0.9	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.4200		0.0102	0.0100	2.4	50.0
Cyclohexane	Ave	0.4232	0.4079		0.00964	0.0100	-3.6	50.0
1,1-Dichloropropene	Ave	0.3688	0.3540		0.00960	0.0100	-4.0	50.0
Carbon tetrachloride	Ave	0.3647	0.3645		0.00999	0.0100	-0.0	50.0
Isobutyl alcohol	Ave	0.0045	0.0045		0.250	0.250	-0.0	50.0
Benzene	Ave	1.097	1.041		0.00949	0.0100	-5.1	50.0
1,2-Dichloroethane	Ave	0.3263	0.3199		0.00981	0.0100	-1.9	50.0
n-Heptane	Ave	0.0495	0.0427		0.00864	0.0100	-13.6	50.0
Trichloroethene	Ave	0.2948	0.2849		0.00966	0.0100	-3.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.3434		0.00933	0.0100	-6.7	50.0
1,2-Dichloropropane	Ave	0.2272	0.2268		0.00998	0.0100	-0.2	20.0
1,4-Dioxane	Qua		0.0008		0.0759	0.200	-62.0*	50.0
Dibromomethane	Ave	0.1312	0.1315		0.0100	0.0100	0.2	50.0
Dichlorobromomethane	Ave	0.2893	0.2932		0.0101	0.0100	1.4	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.0771		0.00982	0.0100	-1.8	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3147		0.00999	0.0100	-0.0	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.1567		0.0207	0.0200	3.4	50.0
Toluene	Ave	1.478	1.427		0.00966	0.0100	-3.4	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.3485		0.00920	0.0100	-8.0	50.0
Ethyl methacrylate	Ave	0.2855	0.2734		0.00958	0.0100	-4.2	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2384		0.00983	0.0100	-1.7	50.0
Tetrachloroethene	Ave	0.3113	0.3026		0.00972	0.0100	-2.8	50.0
1,3-Dichloropropane	Ave	0.4170	0.4070		0.00976	0.0100	-2.4	50.0
2-Hexanone	Ave	0.1387	0.1422		0.0205	0.0200	2.5	50.0
Chlorodibromomethane	Ave	0.2665	0.2652		0.00995	0.0100	-0.5	50.0
Ethylene Dibromide	Ave	0.2342	0.2240		0.00957	0.0100	-4.3	50.0
Chlorobenzene	Ave	0.9020	0.8871	0.3000	0.00983	0.0100	-1.7	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3822		0.0102	0.0100	1.7	50.0
Ethylbenzene	Ave	0.4928	0.4906		0.00996	0.0100	-0.4	20.0
m-Xylene & p-Xylene	Ave	1.195	1.180		0.00987	0.0100	-1.3	50.0
o-Xylene	Ave	0.6424	0.6426		0.0100	0.0100	0.0	50.0
Styrene	Ave	0.8332	0.8410		0.0101	0.0100	0.9	50.0
Bromoform	Ave	0.1647	0.1612	0.1000	0.00979	0.0100	-2.1	50.0
Isopropylbenzene	Ave	1.586	1.602		0.0101	0.0100	1.1	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.5091	0.3000	0.00995	0.0100	-0.5	50.0
Bromobenzene	Ave	0.7041	0.7006		0.00995	0.0100	-0.5	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.1703		0.0103	0.0100	2.6	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1015		0.00870	0.0100	-13.0	50.0
N-Propylbenzene	Ave	0.6976	0.6962		0.00998	0.0100	-0.2	50.0
2-Chlorotoluene	Ave	0.6475	0.6591		0.0102	0.0100	1.8	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.185		0.00995	0.0100	-0.5	50.0
4-Chlorotoluene	Ave	2.069	2.053		0.00992	0.0100	-0.8	50.0
tert-Butylbenzene	Ave	1.877	1.840		0.00980	0.0100	-2.0	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.297		0.0102	0.0100	2.0	50.0
sec-Butylbenzene	Ave	2.474	2.409		0.00974	0.0100	-2.6	50.0
1,3-Dichlorobenzene	Ave	1.319	1.302		0.00987	0.0100	-1.3	50.0
4-Isopropyltoluene	Ave	2.213	2.161		0.00977	0.0100	-2.3	50.0
1,4-Dichlorobenzene	Ave	1.370	1.339		0.00978	0.0100	-2.2	50.0
n-Butylbenzene	Ave	1.792	1.672		0.00933	0.0100	-6.7	50.0
1,2-Dichlorobenzene	Ave	1.373	1.340		0.00976	0.0100	-2.4	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: ICV 240-476941/14 Calibration Date: 03/16/2021 11:01

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5650.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.1117		0.00990	0.0100	-1.0	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.9456		0.00939	0.0100	-6.1	50.0
Hexachlorobutadiene	Lin1		0.3990		0.00932	0.0100	-6.8	50.0
Naphthalene	Ave	2.149	2.141		0.00996	0.0100	-0.4	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.8985		0.00940	0.0100	-6.0	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2236		0.00957	0.0100	-4.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2484		0.00943	0.0100	-5.7	50.0
Toluene-d8 (Surr)	Ave	1.226	1.185		0.00967	0.0100	-3.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4194		0.0101	0.0100	1.2	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5650.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 11:01:30 ALS Bottle#: 7 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-014
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 13:17:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1567389	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	86	1054688	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.898	9.899	-0.001	92	623148	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	350444	10.0	9.57	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.717	-0.001	100	389325	10.0	9.43	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1249416	10.0	9.67	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	442373	10.0	10.1	
9 Dichlorodifluoromethane	85	1.432	1.432	0.000	99	495659	10.0	10.5	
10 Chloromethane	50	1.574	1.574	0.000	99	520359	10.0	9.69	
11 Vinyl chloride	62	1.669	1.669	0.000	98	457630	10.0	9.94	
12 Butadiene	54	1.681	1.681	0.000	99	546882	10.0	9.32	
13 Bromomethane	94	1.930	1.918	0.012	91	358879	10.0	9.31	
14 Chloroethane	64	2.001	2.001	0.000	100	315290	10.0	9.30	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	860500	10.0	9.54	
16 Trichlorofluoromethane	101	2.190	2.191	-0.001	98	820589	10.0	10.0	
17 Ethyl ether	59	2.416	2.416	0.000	90	383408	10.0	9.74	
18 Acrolein	56	2.534	2.523	0.011	96	56412	50.0	21.7	
19 1,1-Dichloroethene	96	2.617	2.606	0.011	98	462079	10.0	10.2	
20 112TCTFE	151	2.629	2.629	0.000	93	388305	10.0	10.3	
21 Acetone	58	2.653	2.653	0.000	98	68104	20.0	21.5	
22 Iodomethane	142	2.748	2.748	0.000	99	776173	10.0	11.2	
24 Carbon disulfide	76	2.795	2.796	-0.001	100	1219081	10.0	9.65	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	253795	10.0	9.53	
27 Methyl acetate	43	2.914	2.914	0.000	97	394009	20.0	19.8	
28 Methylene Chloride	84	3.009	3.009	0.000	92	399883	10.0	9.48	
29 2-Methyl-2-propanol	59	3.092	3.080	0.012	97	211021	100.0	95.2	
30 Acrylonitrile	53	3.210	3.211	-0.001	99	1025302	100.0	96.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	96	1084905	10.0	9.87	
32 trans-1,2-Dichloroethene	96	3.234	3.222	0.012	96	436028	10.0	9.64	
34 Hexane	86	3.436	3.436	0.000	93	80909	10.0	8.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.578	3.578	0.000	96	700751	10.0	9.78	
36 Vinyl acetate	43	3.602	3.602	0.000	97	559271	10.0	9.17	
42 2,2-Dichloropropane	97	4.052	4.053	0.000	82	140009	10.0	10.0	
41 cis-1,2-Dichloroethene	96	4.052	4.053	0.000	82	483248	10.0	10.1	
40 2-Butanone (MEK)	72	4.052	4.053	0.000	98	66266	20.0	20.0	
46 Chlorobromomethane	128	4.242	4.242	0.000	92	219218	10.0	9.71	
47 Tetrahydrofuran	42	4.278	4.278	0.000	89	156037	20.0	18.9	
48 Chloroform	83	4.301	4.302	-0.001	93	707088	10.0	9.91	
49 1,1,1-Trichloroethane	97	4.467	4.468	-0.001	98	658226	10.0	10.2	
50 Cyclohexane	56	4.503	4.503	0.000	90	639283	10.0	9.64	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	571263	10.0	10.0	
51 1,1-Dichloropropene	75	4.598	4.598	0.000	95	554900	10.0	9.60	
53 Isobutyl alcohol	41	4.669	4.669	0.000	94	175205	250.0	249.9	
55 Benzene	78	4.776	4.776	0.000	95	1630870	10.0	9.49	
56 1,2-Dichloroethane	62	4.787	4.788	-0.001	98	501437	10.0	9.81	
58 n-Heptane	100	4.965	4.966	-0.001	89	67003	10.0	8.64	
60 Trichloroethene	130	5.309	5.298	0.011	96	446561	10.0	9.66	
62 Methylcyclohexane	83	5.463	5.464	-0.001	87	538310	10.0	9.33	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	93	355502	10.0	9.98	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	23519	200.0	75.9	
65 Dibromomethane	93	5.606	5.606	0.000	89	206169	10.0	10.0	
67 Dichlorobromomethane	83	5.724	5.725	-0.001	99	459603	10.0	10.1	
69 2-Chloroethyl vinyl ether	63	5.973	5.974	-0.001	92	120867	10.0	9.82	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	95	493282	10.0	10.0	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	491361	20.0	20.7	
72 Toluene	91	6.412	6.412	0.000	98	1505186	10.0	9.66	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	94	367547	10.0	9.20	
74 Ethyl methacrylate	69	6.661	6.661	0.000	88	288347	10.0	9.58	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	251484	10.0	9.83	
76 Tetrachloroethene	164	6.898	6.899	-0.001	97	319194	10.0	9.72	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	91	429296	10.0	9.76	
78 2-Hexanone	43	6.981	6.982	-0.001	96	299921	20.0	20.5	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	279748	10.0	9.95	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	236269	10.0	9.57	
84 Chlorobenzene	112	7.681	7.681	0.000	99	935597	10.0	9.83	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	94	403079	10.0	10.2	
86 Ethylbenzene	106	7.776	7.776	0.000	98	517466	10.0	9.96	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1244371	10.0	9.87	
88 o-Xylene	106	8.262	8.262	0.000	97	677724	10.0	10.0	
89 Styrene	104	8.274	8.274	0.000	94	887028	10.0	10.1	
90 Bromoform	173	8.464	8.464	0.000	97	170025	10.0	9.79	
91 Isopropylbenzene	105	8.618	8.618	0.000	95	1690078	10.0	10.1	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.903	-0.001	96	317225	10.0	9.95	
95 Bromobenzene	156	8.914	8.914	0.000	89	436574	10.0	9.95	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	106115	10.0	10.3	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	81	63245	10.0	8.70	
98 N-Propylbenzene	120	9.009	9.009	0.000	98	433860	10.0	9.98	
99 2-Chlorotoluene	126	9.104	9.104	0.000	98	410722	10.0	10.2	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1361735	10.0	9.95	
102 4-Chlorotoluene	91	9.199	9.199	0.000	98	1279373	10.0	9.92	
104 tert-Butylbenzene	119	9.495	9.496	-0.001	91	1146514	10.0	9.80	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	96	1431299	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.721	9.721	0.000	93	1501320	10.0	9.74	
108 1,3-Dichlorobenzene	146	9.827	9.828	-0.001	98	811165	10.0	9.87	
109 4-Isopropyltoluene	119	9.863	9.851	0.012	97	1346833	10.0	9.77	
110 1,4-Dichlorobenzene	146	9.922	9.922	0.000	96	834590	10.0	9.78	
113 n-Butylbenzene	91	10.266	10.266	0.000	97	1041656	10.0	9.33	
114 1,2-Dichlorobenzene	146	10.290	10.290	0.000	98	834752	10.0	9.76	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	86	69628	10.0	9.90	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	589242	10.0	9.39	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	94	248610	10.0	9.32	
119 Naphthalene	128	12.128	12.128	0.000	97	1333933	10.0	9.96	
120 1,2,3-Trichlorobenzene	180	12.377	12.377	0.000	96	559905	10.0	9.40	
S 129 Xylenes, Total	106				0		20.0	19.9	
S 130 Total BTEX	1				0		50.0	49.0	
S 131 Trihalomethanes, Total	1				0		40.0	39.8	

QC Flag Legend

Processing Flags

Reagents:

VMFASAW_00366	Amount Added:	8.00	Units: uL	
VMFASGW_00399	Amount Added:	8.00	Units: uL	
VMFASPW_00390	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

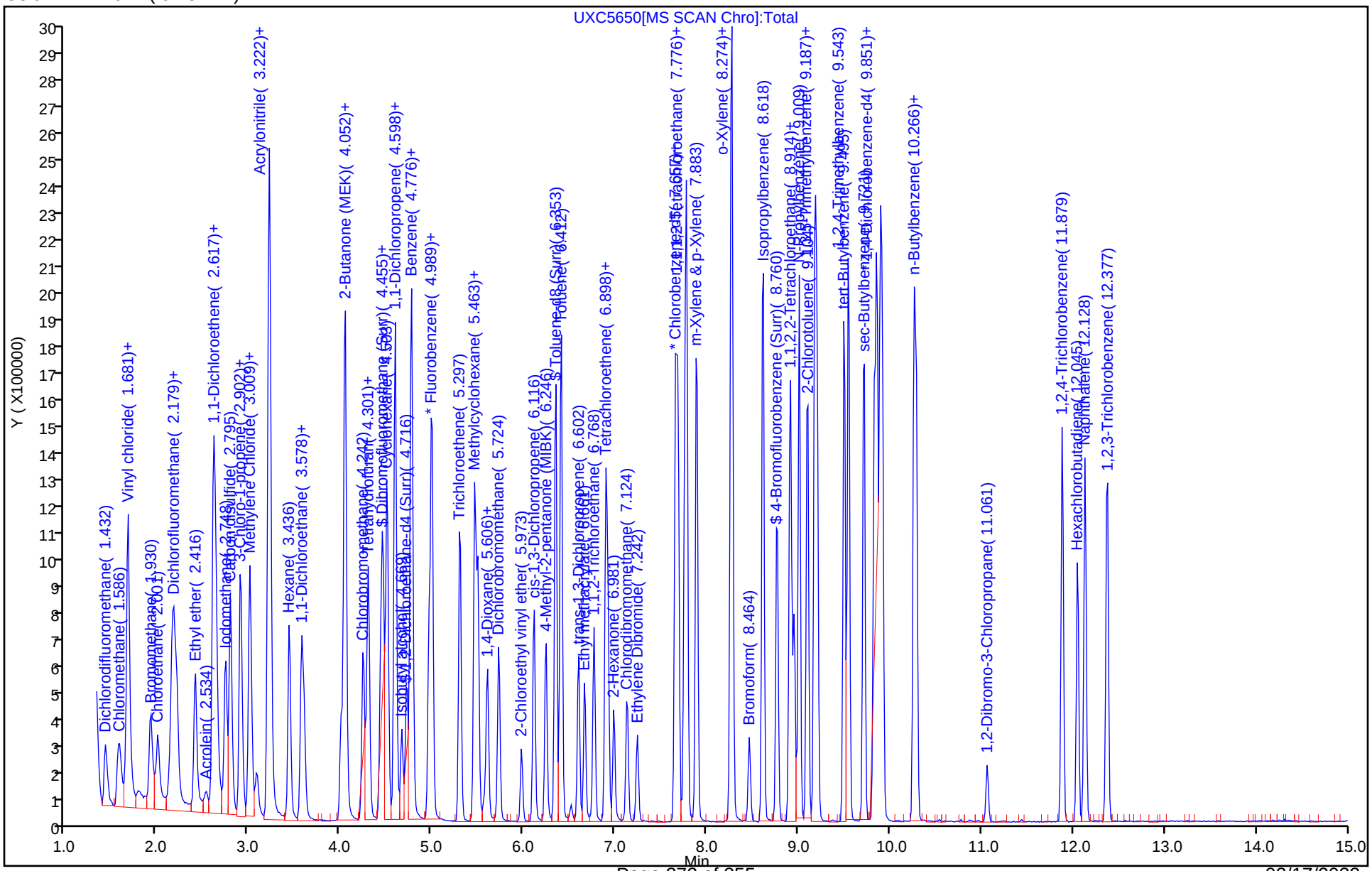
Report Date: 18-Mar-2021 09:02:21 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5650.D

Injection Date:	16-Mar-2021 11:01:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: ICV 240-476941/15 Calibration Date: 03/16/2021 13:34

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC5657.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibromofluoromethane (Surr)	Ave	0.2337	0.2225		0.00952	0.0100	-4.8	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2492		0.00946	0.0100	-5.4	50.0
Toluene-d8 (Surr)	Ave	1.226	1.118		0.00912	0.0100	-8.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.3942		0.00951	0.0100	-4.9	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 13:34:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-015
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1522004	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1034257	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	604775	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	338696	10.0	9.52	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	379316	10.0	9.46	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1156047	10.0	9.12	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	407723	10.0	9.51	
25 Acetonitrile	41	2.890	2.890	0.000	99	249511	100.0	90.9	
37 Isopropyl ether	87	3.614	3.614	0.000	92	325479	10.0	9.55	
38 2-Chloro-1,3-butadiene	53	3.649	3.649	0.000	93	533875	10.0	8.72	
39 Tert-butyl ethyl ether	59	3.910	3.910	0.000	97	1054503	10.0	9.57	
43 Ethyl acetate	43	4.088	4.088	0.000	100	426002	20.0	18.6	
44 Propionitrile	54	4.112	4.112	0.000	99	339954	100.0	96.5	
45 Methacrylonitrile	41	4.230	4.230	0.000	93	1641896	100.0	98.9	
54 Isooctane	57	4.823	4.823	0.000	97	686371	10.0	8.00	
57 Tert-amyl methyl ether	73	4.847	4.847	0.000	98	1001678	10.0	9.77	
59 n-Butanol	56	5.215	5.226	-0.011	86	103032	250.0	210.0	
61 Ethyl acrylate	55	5.381	5.381	0.000	99	250500	10.0	9.92	
64 Methyl methacrylate	41	5.570	5.570	0.000	89	381748	20.0	20.1	
68 2-Nitropropane	41	5.926	5.926	0.000	98	113010	20.0	20.2	
79 n-Butyl acetate	43	7.088	7.088	0.000	97	334991	10.0	9.95	
83 1-Chlorohexane	91	7.646	7.646	0.000	98	340245	10.0	9.36	
92 Cyclohexanone	55	8.713	8.713	0.000	92	77883	100.0	92.8	
105 Pentachloroethane	167	9.531	9.531	0.000	96	211931	20.0	11.3	
111 1,2,3-Trimethylbenzene	105	9.970	9.970	0.000	98	1414631	10.0	10.1	
112 Benzyl chloride	126	10.053	10.053	0.000	98	101362	10.0	8.10	
116 1,3,5-Trichlorobenzene	180	11.262	11.262	0.000	98	578799	10.0	9.26	
121 2-Methylnaphthalene	142	13.361	13.361	0.000	93	1347865	20.0	18.6	
122 1-Methylnaphthalene	142	13.610	13.610	0.000	93	1177496	20.0	18.2	

Reagents:

VMFASA9W_00312	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

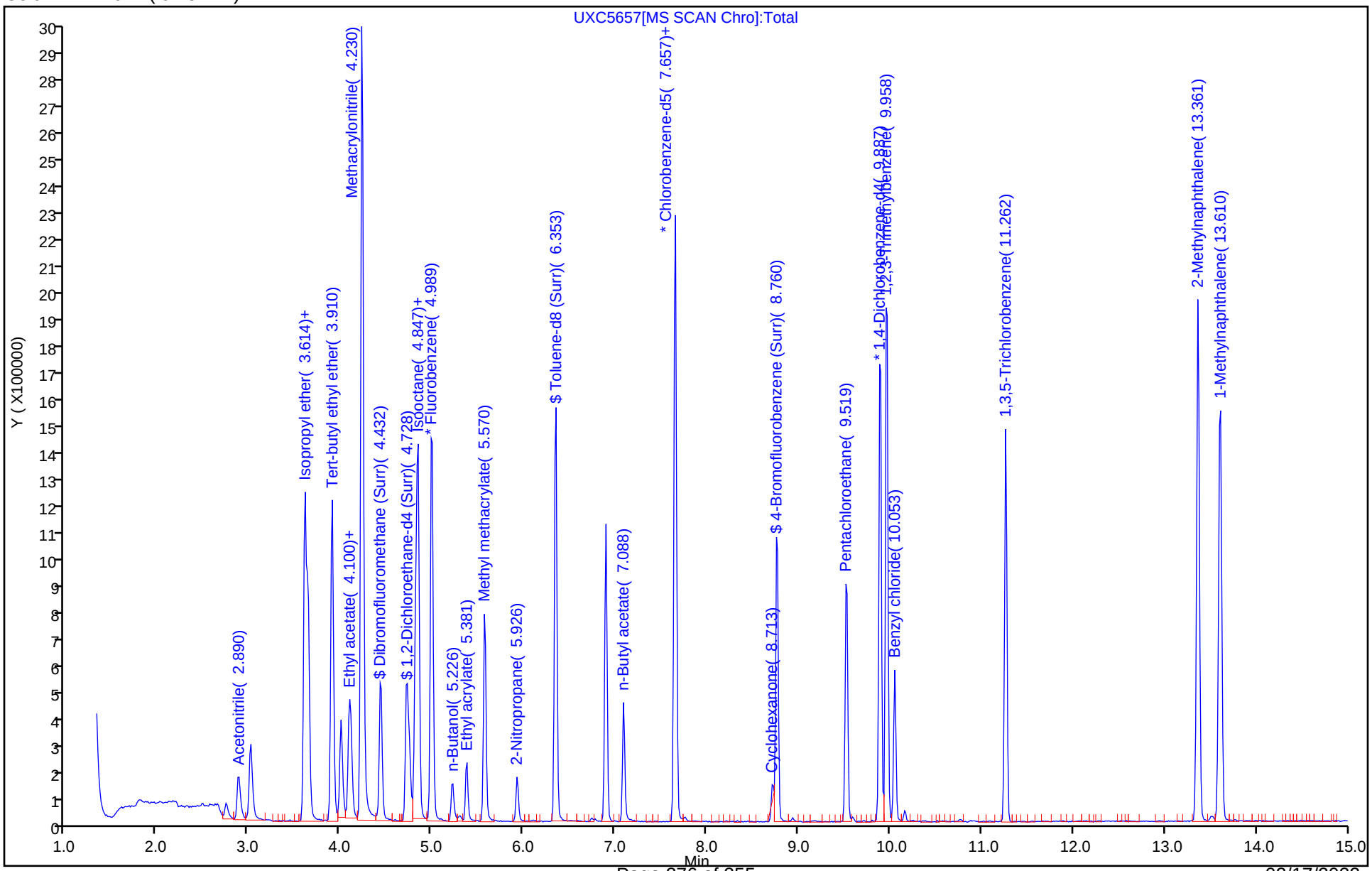
Report Date: 18-Mar-2021 09:02:26 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D

Injection Date:	16-Mar-2021 13:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV A9			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: ICV 240-476941/15 Calibration Date: 03/16/2021 13:34

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 11:23

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 13:12

Lab File ID: UXC5657.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	0.0180	0.0164		0.0909	0.100	-9.1	50.0
Isopropyl ether	Ave	0.2240	0.2138		0.00955	0.0100	-4.5	50.0
2-Chloro-1,3-butadiene	Ave	0.4022	0.3508		0.00872	0.0100	-12.8	50.0
Tert-butyl ethyl ether	Ave	0.7237	0.6928		0.00957	0.0100	-4.3	50.0
Ethyl acetate	Ave	0.1508	0.1399		0.0186	0.0200	-7.2	50.0
Propionitrile	Ave	0.0231	0.0223		0.0965	0.100	-3.5	50.0
Methacrylonitrile	Ave	0.1091	0.1079		0.0989	0.100	-1.1	50.0
Tert-amyl methyl ether	Ave	0.6734	0.6581		0.00977	0.0100	-2.3	50.0
n-Butanol	Ave	0.0032	0.0027		0.210	0.250	-16.0	50.0
Ethyl acrylate	Ave	0.1660	0.1646		0.00992	0.0100	-0.8	50.0
Methyl methacrylate	Ave	0.1247	0.1254		0.0201	0.0200	0.6	50.0
2-Nitropropane	Ave	0.0367	0.0371		0.0202	0.0200	1.2	50.0
n-Butyl acetate	Ave	0.2211	0.2201		0.00995	0.0100	-0.5	50.0
1-Chlorohexane	Ave	0.3516	0.3290		0.00936	0.0100	-6.4	50.0
Cyclohexanone	Ave	0.0139	0.0129		0.0928	0.100	-7.2	50.0
Pentachloroethane	Qua		0.1025		0.0113	0.0200	-43.3	50.0
1,2,3-Trimethylbenzene	Ave	2.318	2.339		0.0101	0.0100	0.9	50.0
Benzyl chloride	Lin1		0.1676		0.00810	0.0100	-19.0	50.0
1,3,5-Trichlorobenzene	Ave	1.033	0.9570		0.00926	0.0100	-7.4	50.0
2-Methylnaphthalene	Ave	1.199	1.114		0.0186	0.0200	-7.1	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D
Lims ID: ICV A9
Client ID:
Sample Type: ICV
Inject. Date: 16-Mar-2021 13:34:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0107311-015
Misc. Info.: C210316A-IC,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:17 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	5.001	5.001	0.000	99	1522004	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	85	1034257	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.899	9.899	0.000	94	604775	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	94	338696	10.0	9.52	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	379316	10.0	9.46	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1156047	10.0	9.12	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	96	407723	10.0	9.51	
25 Acetonitrile	41	2.890	2.890	0.000	99	249511	100.0	90.9	
37 Isopropyl ether	87	3.614	3.614	0.000	92	325479	10.0	9.55	
38 2-Chloro-1,3-butadiene	53	3.649	3.649	0.000	93	533875	10.0	8.72	
39 Tert-butyl ethyl ether	59	3.910	3.910	0.000	97	1054503	10.0	9.57	
43 Ethyl acetate	43	4.088	4.088	0.000	100	426002	20.0	18.6	
44 Propionitrile	54	4.112	4.112	0.000	99	339954	100.0	96.5	
45 Methacrylonitrile	41	4.230	4.230	0.000	93	1641896	100.0	98.9	
54 Isooctane	57	4.823	4.823	0.000	97	686371	10.0	8.00	
57 Tert-amyl methyl ether	73	4.847	4.847	0.000	98	1001678	10.0	9.77	
59 n-Butanol	56	5.215	5.226	-0.011	86	103032	250.0	210.0	
61 Ethyl acrylate	55	5.381	5.381	0.000	99	250500	10.0	9.92	
64 Methyl methacrylate	41	5.570	5.570	0.000	89	381748	20.0	20.1	
68 2-Nitropropane	41	5.926	5.926	0.000	98	113010	20.0	20.2	
79 n-Butyl acetate	43	7.088	7.088	0.000	97	334991	10.0	9.95	
83 1-Chlorohexane	91	7.646	7.646	0.000	98	340245	10.0	9.36	
92 Cyclohexanone	55	8.713	8.713	0.000	92	77883	100.0	92.8	
105 Pentachloroethane	167	9.531	9.531	0.000	96	211931	20.0	11.3	
111 1,2,3-Trimethylbenzene	105	9.970	9.970	0.000	98	1414631	10.0	10.1	
112 Benzyl chloride	126	10.053	10.053	0.000	98	101362	10.0	8.10	
116 1,3,5-Trichlorobenzene	180	11.262	11.262	0.000	98	578799	10.0	9.26	
121 2-Methylnaphthalene	142	13.361	13.361	0.000	93	1347865	20.0	18.6	
122 1-Methylnaphthalene	142	13.610	13.610	0.000	93	1177496	20.0	18.2	

Reagents:

VMFASA9W_00312	Amount Added:	8.00	Units: uL	
vm50ss_stk_00086	Amount Added:	1.00	Units: uL	Run Reagent
vm40ml_vials_00015	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00086	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00189	Amount Added:	0.00	Units:	Run Reagent

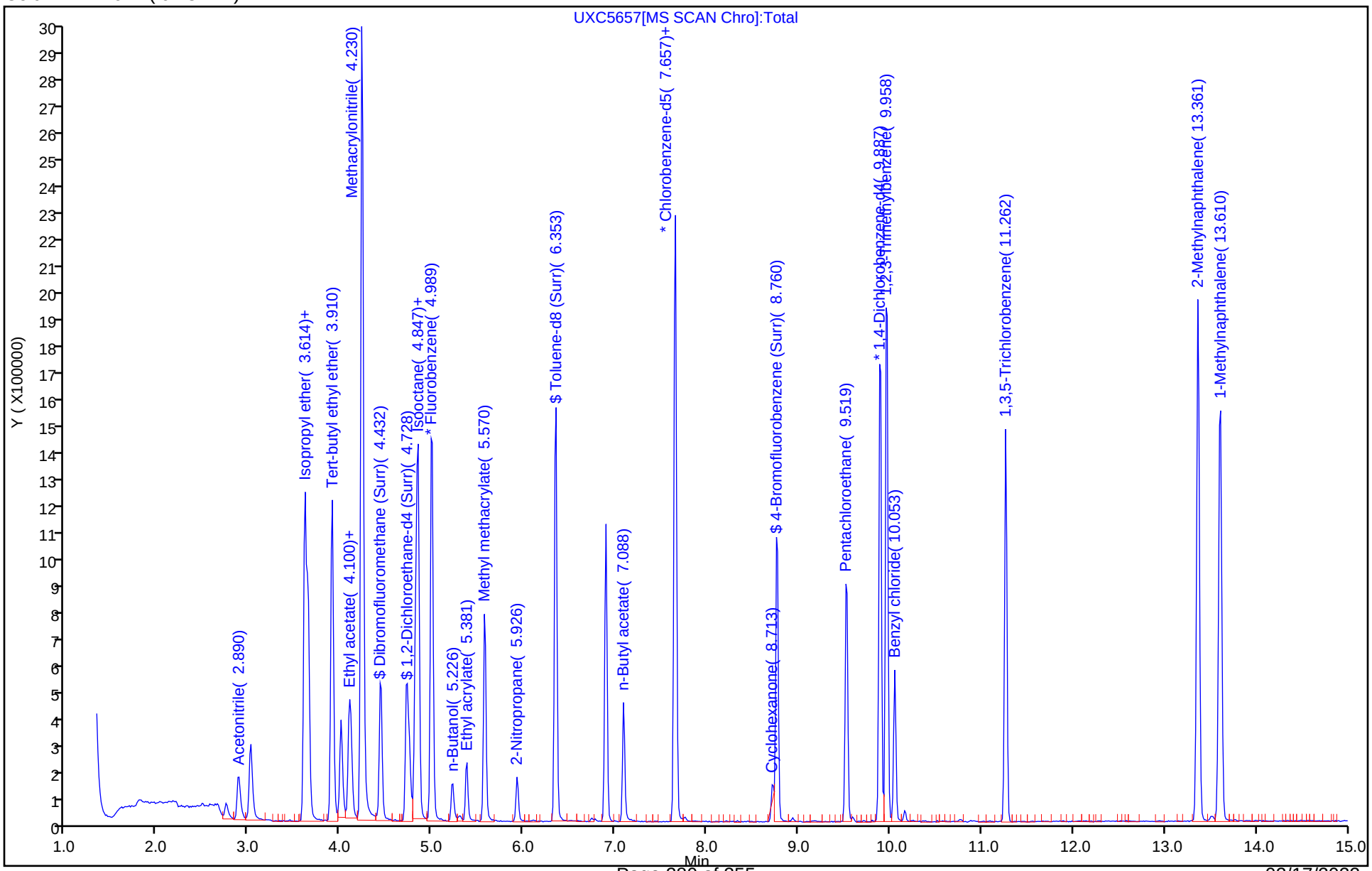
Report Date: 18-Mar-2021 09:02:26 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5657.D

Injection Date:	16-Mar-2021 13:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	ICV A9			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3371		0.0112	0.0100	11.9	50.0
Chloromethane	Ave	0.3426	0.4083	0.1000	0.0119	0.0100	19.2	50.0
Vinyl chloride	Ave	0.2936	0.3658		0.0125	0.0100	24.6*	20.0
Butadiene	Ave	0.3746	0.4018		0.0107	0.0100	7.3	50.0
Bromomethane	Ave	0.2460	0.2054		0.00835	0.0100	-16.5	50.0
Chloroethane	Ave	0.2164	0.2300		0.0106	0.0100	6.3	50.0
Dichlorofluoromethane	Ave	0.5757	0.5189		0.00901	0.0100	-9.9	50.0
Trichlorofluoromethane	Ave	0.5212	0.4604		0.00883	0.0100	-11.7	50.0
Ethyl ether	Ave	0.2512	0.2764		0.0110	0.0100	10.0	50.0
Acrolein	Lin		0.0232		0.0761	0.0500	52.2*	50.0
1,1-Dichloroethene	Ave	0.2891	0.2819		0.00975	0.0100	-2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.2206		0.00915	0.0100	-8.5	50.0
Acetone	Ave	0.0202	0.0249		0.0246	0.0200	23.1	50.0
Iodomethane	Ave	0.4428	0.3925		0.00886	0.0100	-11.4	50.0
Carbon disulfide	Ave	0.8057	0.5936		0.00737	0.0100	-26.3	50.0
3-Chloro-1-propene	Ave	0.1698	0.1823		0.0107	0.0100	7.3	50.0
Methyl acetate	Ave	0.1269	0.1853		0.0292	0.0200	46.0	50.0
Methylene Chloride	Ave	0.2691	0.2946		0.0109	0.0100	9.5	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0118		0.0836	0.100	-16.4	50.0
Acrylonitrile	Ave	0.0679	0.0915		0.135	0.100	34.8	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6991		0.00997	0.0100	-0.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2853		0.00988	0.0100	-1.2	50.0
Hexane	Ave	0.0578	0.0590		0.0102	0.0100	2.0	20.0
1,1-Dichloroethane	Ave	0.4573	0.5095	0.1000	0.0111	0.0100	11.4	50.0
Vinyl acetate	Ave	0.3891	0.4567		0.0117	0.0100	17.4	50.0
2,2-Dichloropropane	Ave	0.0889	0.0737		0.00829	0.0100	-17.1	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.3103		0.0102	0.0100	1.8	50.0
2-Butanone (MEK)	Ave	0.0211	0.0269		0.0255	0.0200	27.5	50.0
Chlorobromomethane	Ave	0.1440	0.1419		0.00985	0.0100	-1.5	50.0
Tetrahydrofuran	Ave	0.0526	0.0647		0.0246	0.0200	23.1	50.0
Chloroform	Ave	0.4553	0.4816		0.0106	0.0100	5.8	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.3875		0.00945	0.0100	-5.5	50.0
Cyclohexane	Ave	0.4232	0.4460		0.0105	0.0100	5.4	50.0
1,1-Dichloropropene	Ave	0.3688	0.3891		0.0105	0.0100	5.5	50.0
Carbon tetrachloride	Ave	0.3647	0.3191		0.00875	0.0100	-12.5	50.0
Isobutyl alcohol	Ave	0.0045	0.0053		0.295	0.250	18.1	50.0
Benzene	Ave	1.097	1.184		0.0108	0.0100	7.9	50.0
1,2-Dichloroethane	Ave	0.3263	0.4079		0.0125	0.0100	25.0	50.0
n-Heptane	Ave	0.0495	0.0467		0.00945	0.0100	-5.5	50.0
Trichloroethene	Ave	0.2948	0.2888		0.00980	0.0100	-2.0	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.3350		0.00910	0.0100	-9.0	50.0
1,2-Dichloropropane	Ave	0.2272	0.2776		0.0122	0.0100	22.2*	20.0
Dibromomethane	Ave	0.1312	0.1474		0.0112	0.0100	12.3	50.0
1,4-Dioxane	Qua		0.0011		0.107	0.200	-46.3	50.0
Dichlorobromomethane	Ave	0.2893	0.2919		0.0101	0.0100	0.9	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.1393		0.0355	0.0200	77.3*	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3592		0.0114	0.0100	14.1	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.2028		0.0267	0.0200	33.7	50.0
Toluene	Ave	1.478	1.662		0.0112	0.0100	12.5	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.4151		0.0110	0.0100	9.6	50.0
Ethyl methacrylate	Ave	0.2855	0.3641		0.0128	0.0100	27.5	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2967		0.0122	0.0100	22.4	50.0
Tetrachloroethene	Ave	0.3113	0.3090		0.00992	0.0100	-0.8	50.0
1,3-Dichloropropane	Ave	0.4170	0.5651		0.0136	0.0100	35.5	50.0
2-Hexanone	Ave	0.1387	0.1775		0.0256	0.0200	27.9	50.0
Chlorodibromomethane	Ave	0.2665	0.2506		0.00940	0.0100	-6.0	50.0
Ethylene Dibromide	Ave	0.2342	0.2835		0.0121	0.0100	21.1	50.0
Chlorobenzene	Ave	0.9020	1.012	0.3000	0.0112	0.0100	12.2	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3219		0.00856	0.0100	-14.4	50.0
Ethylbenzene	Ave	0.4928	0.5332		0.0108	0.0100	8.2	20.0
m-Xylene & p-Xylene	Ave	1.195	1.301		0.0109	0.0100	8.9	50.0
o-Xylene	Ave	0.6424	0.6263		0.00975	0.0100	-2.5	50.0
Styrene	Ave	0.8332	1.027		0.0123	0.0100	23.2	50.0
Bromoform	Ave	0.1647	0.1340	0.1000	0.00814	0.0100	-18.6	50.0
Isopropylbenzene	Ave	1.586	1.464		0.00923	0.0100	-7.7	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.6582	0.3000	0.0129	0.0100	28.6	50.0
Bromobenzene	Ave	0.7041	0.7448		0.0106	0.0100	5.8	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.2243		0.0135	0.0100	35.1	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1595		0.0136	0.0100	35.5	50.0
N-Propylbenzene	Ave	0.6976	0.7303		0.0105	0.0100	4.7	50.0
2-Chlorotoluene	Ave	0.6475	0.6783		0.0105	0.0100	4.8	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.190		0.00997	0.0100	-0.3	50.0
4-Chlorotoluene	Ave	2.069	2.383		0.0115	0.0100	15.2	50.0
tert-Butylbenzene	Ave	1.877	1.724		0.00919	0.0100	-8.1	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.320		0.0103	0.0100	3.0	50.0
sec-Butylbenzene	Ave	2.474	2.252		0.00910	0.0100	-9.0	50.0
1,3-Dichlorobenzene	Ave	1.319	1.342		0.0102	0.0100	1.7	50.0
4-Isopropyltoluene	Ave	2.213	2.004		0.00906	0.0100	-9.4	50.0
1,4-Dichlorobenzene	Ave	1.370	1.397		0.0102	0.0100	2.0	50.0
n-Butylbenzene	Ave	1.792	1.542		0.00860	0.0100	-14.0	50.0
1,2-Dichlorobenzene	Ave	1.373	1.334		0.00972	0.0100	-2.8	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507379/2 Calibration Date: 10/08/2021 10:12

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9916.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.0785		0.00696	0.0100	-30.4	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.5802		0.00576	0.0100	-42.4	50.0
Hexachlorobutadiene	Lin1		0.2160		0.00470	0.0100	-53.0*	50.0
Naphthalene	Ave	2.149	1.398		0.00650	0.0100	-35.0	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.5248		0.00549	0.0100	-45.1	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2021		0.00865	0.0100	-13.5	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2777		0.0105	0.0100	5.5	50.0
Toluene-d8 (Surr)	Ave	1.226	1.204		0.00982	0.0100	-1.8	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4046		0.00976	0.0100	-2.4	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9916.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 08-Oct-2021 10:12:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-002
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:09 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 11:04:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1775696	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1282332	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	93	700798	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	358942	10.0	8.65	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.716	4.716	0.000	100	493194	10.0	10.5	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	93	1543444	10.0	9.82	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	518821	10.0	9.76	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	598625	10.0	11.2	
10 Chloromethane	50	1.562	1.562	0.000	98	725005	10.0	11.9	
11 Vinyl chloride	62	1.657	1.657	0.000	98	649586	10.0	12.5	
12 Butadiene	54	1.669	1.669	0.000	98	713514	10.0	10.7	
13 Bromomethane	94	1.930	1.930	0.000	90	364643	10.0	8.35	
14 Chloroethane	64	1.989	1.989	0.000	99	408430	10.0	10.6	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	921395	10.0	9.01	
16 Trichlorofluoromethane	101	2.202	2.202	0.000	98	817606	10.0	8.83	
17 Ethyl ether	59	2.404	2.404	0.000	92	490830	10.0	11.0	
18 Acrolein	56	2.523	2.523	0.000	100	205931	50.0	76.1	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	97	500487	10.0	9.75	
20 112TCTFE	151	2.617	2.617	0.000	92	391647	10.0	9.15	
21 Acetone	58	2.641	2.641	0.000	99	88392	20.0	24.6	
22 Iodomethane	142	2.748	2.748	0.000	98	696983	10.0	8.86	
24 Carbon disulfide	76	2.807	2.807	0.000	100	1053985	10.0	7.37	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	88	323712	10.0	10.7	
27 Methyl acetate	43	2.914	2.914	0.000	98	658210	20.0	29.2	
28 Methylene Chloride	84	3.009	3.009	0.000	94	523121	10.0	10.9	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	90	209957	100.0	83.6	
30 Acrylonitrile	53	3.210	3.210	0.000	98	1625263	100.0	134.8	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1241351	10.0	9.97	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	99	506671	10.0	9.88	
34 Hexane	86	3.436	3.436	0.000	95	104712	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	904760	10.0	11.1	
36 Vinyl acetate	43	3.602	3.602	0.000	98	811048	10.0	11.7	
42 2,2-Dichloropropane	97	4.040	4.040	0.000	81	130845	10.0	8.29	
41 cis-1,2-Dichloroethene	96	4.040	4.040	0.000	84	551045	10.0	10.2	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	100	95625	20.0	25.5	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	251951	10.0	9.85	
47 Tetrahydrofuran	42	4.278	4.278	0.000	87	229666	20.0	24.6	
48 Chloroform	83	4.301	4.301	0.000	94	855240	10.0	10.6	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	98	688065	10.0	9.45	
50 Cyclohexane	56	4.503	4.503	0.000	92	791908	10.0	10.5	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	92	690854	10.0	10.5	
52 Carbon tetrachloride	117	4.598	4.598	0.000	83	566670	10.0	8.75	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	234591	250.0	295.3	
55 Benzene	78	4.764	4.764	0.000	96	2102424	10.0	10.8	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	724348	10.0	12.5	
58 n-Heptane	100	4.965	4.965	0.000	90	83011	10.0	9.45	
60 Trichloroethene	130	5.297	5.297	0.000	97	512836	10.0	9.80	
62 Methylcyclohexane	83	5.463	5.463	0.000	92	594858	10.0	9.10	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	94	493017	10.0	12.2	
65 Dibromomethane	93	5.594	5.594	0.000	95	261688	10.0	11.2	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	37762	200.0	107.3	
67 Dichlorobromomethane	83	5.724	5.724	0.000	99	518301	10.0	10.1	
69 2-Chloroethyl vinyl ether	63	5.973	5.973	0.000	92	494711	20.0	35.5	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	637835	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	720177	20.0	26.7	
72 Toluene	91	6.412	6.412	0.000	97	2131404	10.0	11.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	97	532302	10.0	11.0	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	466909	10.0	12.8	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	380526	10.0	12.2	
76 Tetrachloroethene	164	6.898	6.898	0.000	96	396191	10.0	9.92	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	724678	10.0	13.6	
78 2-Hexanone	43	6.981	6.981	0.000	98	455152	20.0	25.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	321351	10.0	9.40	
82 Ethylene Dibromide	107	7.242	7.242	0.000	97	363512	10.0	12.1	
84 Chlorobenzene	112	7.681	7.681	0.000	93	1297713	10.0	11.2	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.752	0.000	93	412808	10.0	8.56	
86 Ethylbenzene	106	7.776	7.776	0.000	99	683719	10.0	10.8	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1668686	10.0	10.9	
88 o-Xylene	106	8.262	8.262	0.000	96	803089	10.0	9.75	
89 Styrene	104	8.274	8.274	0.000	94	1316668	10.0	12.3	
90 Bromoform	173	8.464	8.464	0.000	95	171875	10.0	8.14	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1877108	10.0	9.23	
94 1,1,2,2-Tetrachloroethane	83	8.902	8.902	0.000	96	461256	10.0	12.9	
95 Bromobenzene	156	8.914	8.914	0.000	95	521922	10.0	10.6	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	157173	10.0	13.5	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	68	111773	10.0	13.6	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	511803	10.0	10.5	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	475338	10.0	10.5	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	95	1534845	10.0	9.97	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1670058	10.0	11.5	
104 tert-Butylbenzene	119	9.495	9.495	0.000	93	1208369	10.0	9.19	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1625800	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1578120	10.0	9.10	
108 1,3-Dichlorobenzene	146	9.827	9.827	0.000	97	940293	10.0	10.2	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1404556	10.0	9.06	
110 1,4-Dichlorobenzene	146	9.910	9.910	0.000	95	979075	10.0	10.2	
113 n-Butylbenzene	91	10.254	10.254	0.000	97	1080834	10.0	8.60	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	934529	10.0	9.72	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	90	55014	10.0	6.96	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	406585	10.0	5.76	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	98	151384	10.0	4.70	
119 Naphthalene	128	12.128	12.128	0.000	97	979588	10.0	6.50	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	96	367762	10.0	5.49	
S 129 Xylenes, Total	106				0		20.0	20.6	
S 130 Total BTEX	1				0		50.0	53.5	
S 131 Trihalomethanes, Total	1				0		40.0	38.2	

QC Flag Legend

Processing Flags

Reagents:

vmarolistdw_00411	Amount Added:	8.00	Units: uL	
VMRPRIMW_00454	Amount Added:	8.00	Units: uL	
VMRGAS_00402	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

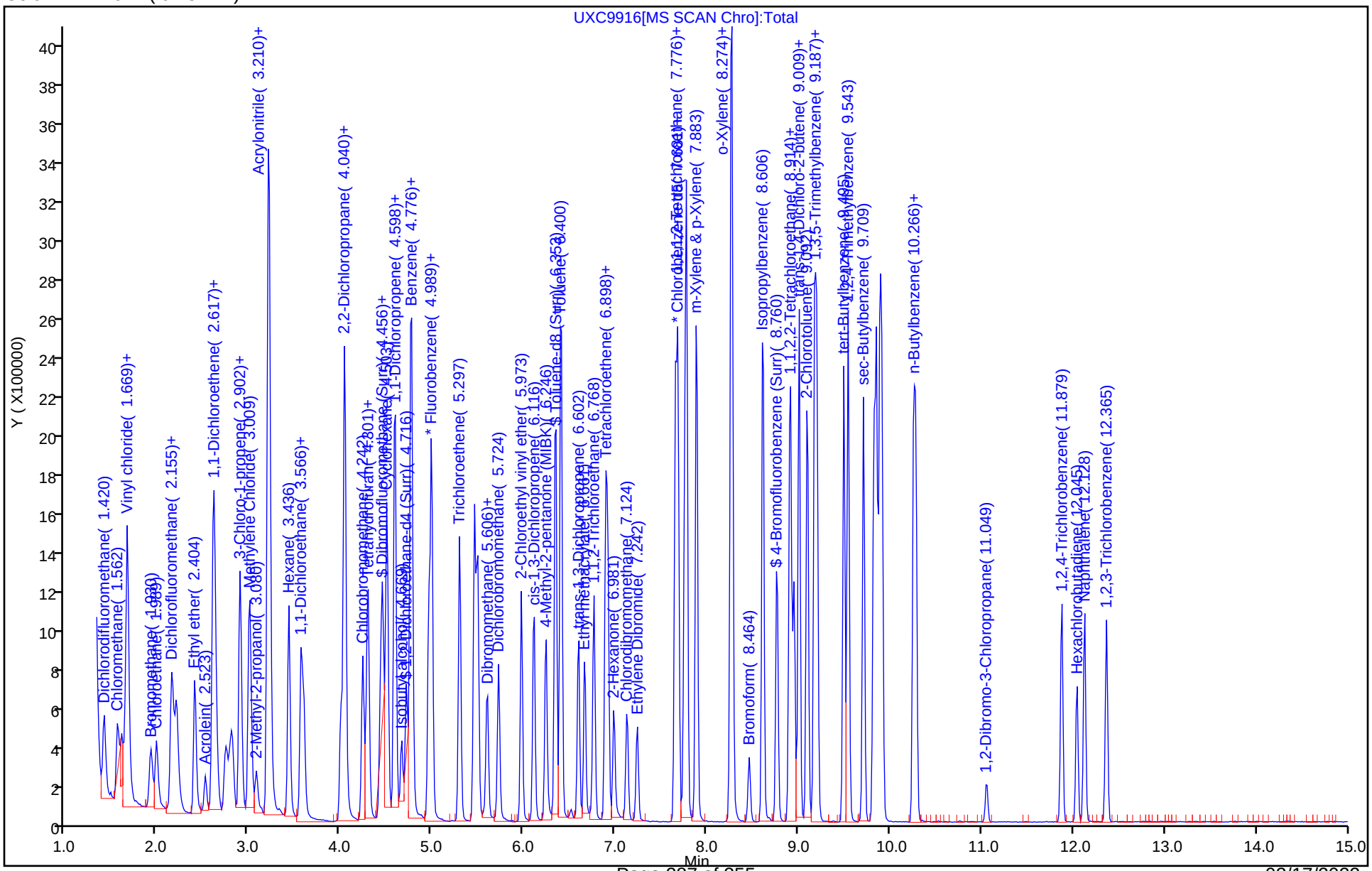
Report Date: 11-Oct-2021 07:47:09 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9916.D

Injection Date:	08-Oct-2021 10:12:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3013	0.3364		0.0112	0.0100	11.6	50.0
Chloromethane	Ave	0.3426	0.3597	0.1000	0.0105	0.0100	5.0	50.0
Vinyl chloride	Ave	0.2936	0.2813		0.00958	0.0100	-4.2	20.0
Butadiene	Ave	0.3746	0.3148		0.00840	0.0100	-16.0	50.0
Bromomethane	Ave	0.2460	0.1517		0.00617	0.0100	-38.3	50.0
Chloroethane	Ave	0.2164	0.1805		0.00834	0.0100	-16.6	50.0
Dichlorofluoromethane	Ave	0.5757	0.4033		0.00700	0.0100	-30.0	50.0
Trichlorofluoromethane	Ave	0.5212	0.3371		0.00647	0.0100	-35.3	50.0
Ethyl ether	Ave	0.2512	0.2494		0.00993	0.0100	-0.7	50.0
Acrolein	Lin		0.0205		0.0669	0.0500	33.7	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2410	0.1870		0.00776	0.0100	-22.4	50.0
1,1-Dichloroethene	Ave	0.2891	0.2386		0.00825	0.0100	-17.5	20.0
Acetone	Ave	0.0202	0.0214		0.0212	0.0200	6.0	50.0
Iodomethane	Ave	0.4428	0.3534		0.00798	0.0100	-20.2	50.0
Carbon disulfide	Ave	0.8057	0.5435		0.00675	0.0100	-32.5	50.0
3-Chloro-1-propene	Ave	0.1698	0.1892		0.0111	0.0100	11.4	50.0
Methyl acetate	Ave	0.1269	0.1761		0.0277	0.0200	38.7	50.0
Methylene Chloride	Ave	0.2691	0.2731		0.0101	0.0100	1.5	50.0
2-Methyl-2-propanol	Ave	0.0141	0.0119		0.0842	0.100	-15.8	50.0
Acrylonitrile	Ave	0.0679	0.0877		0.129	0.100	29.2	50.0
Methyl tert-butyl ether	Ave	0.7014	0.6779		0.00967	0.0100	-3.3	50.0
trans-1,2-Dichloroethene	Ave	0.2887	0.2705		0.00937	0.0100	-6.3	50.0
Hexane	Ave	0.0578	0.0511		0.00884	0.0100	-11.6	20.0
1,1-Dichloroethane	Ave	0.4573	0.4815	0.1000	0.0105	0.0100	5.3	50.0
Vinyl acetate	Ave	0.3891	0.4267		0.0110	0.0100	9.7	50.0
2,2-Dichloropropane	Ave	0.0889	0.0707		0.00795	0.0100	-20.5	50.0
cis-1,2-Dichloroethene	Ave	0.3049	0.2944		0.00966	0.0100	-3.4	50.0
2-Butanone (MEK)	Ave	0.0211	0.0247		0.0234	0.0200	16.9	50.0
Chlorobromomethane	Ave	0.1440	0.1379		0.00958	0.0100	-4.2	50.0
Tetrahydrofuran	Ave	0.0526	0.0631		0.0240	0.0200	20.0	50.0
Chloroform	Ave	0.4553	0.4731		0.0104	0.0100	3.9	20.0
1,1,1-Trichloroethane	Ave	0.4100	0.3662		0.00893	0.0100	-10.7	50.0
Cyclohexane	Ave	0.4232	0.3921		0.00926	0.0100	-7.4	50.0
1,1-Dichloropropene	Ave	0.3688	0.3626		0.00983	0.0100	-1.7	50.0
Carbon tetrachloride	Ave	0.3647	0.2906		0.00797	0.0100	-20.3	50.0
Isobutyl alcohol	Ave	0.0045	0.0060		0.333	0.250	33.1	50.0
Benzene	Ave	1.097	1.131		0.0103	0.0100	3.1	50.0
1,2-Dichloroethane	Ave	0.3263	0.3922		0.0120	0.0100	20.2	50.0
n-Heptane	Ave	0.0495	0.0417		0.00843	0.0100	-15.7	50.0
Trichloroethene	Ave	0.2948	0.2781		0.00944	0.0100	-5.6	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.3683	0.2983		0.00810	0.0100	-19.0	50.0
1,2-Dichloropropane	Ave	0.2272	0.2746		0.0121	0.0100	20.8*	20.0
Dibromomethane	Ave	0.1312	0.1454		0.0111	0.0100	10.8	50.0
1,4-Dioxane	Qua		0.0012		0.125	0.200	-37.5	50.0
Dichlorobromomethane	Ave	0.2893	0.2879		0.00995	0.0100	-0.5	50.0
2-Chloroethyl vinyl ether	Ave	0.0786	0.1351		0.0344	0.0200	72.0*	50.0
cis-1,3-Dichloropropene	Ave	0.3149	0.3586		0.0114	0.0100	13.9	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1517	0.1899		0.0250	0.0200	25.2	50.0
Toluene	Ave	1.478	1.569		0.0106	0.0100	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.3786	0.4111		0.0109	0.0100	8.6	50.0
Ethyl methacrylate	Ave	0.2855	0.3477		0.0122	0.0100	21.8	50.0
1,1,2-Trichloroethane	Ave	0.2425	0.2921		0.0120	0.0100	20.4	50.0
Tetrachloroethene	Ave	0.3113	0.2753		0.00884	0.0100	-11.6	50.0
1,3-Dichloropropane	Ave	0.4170	0.5456		0.0131	0.0100	30.9	50.0
2-Hexanone	Ave	0.1387	0.1635		0.0236	0.0200	17.8	50.0
Chlorodibromomethane	Ave	0.2665	0.2435		0.00914	0.0100	-8.6	50.0
Ethylene Dibromide	Ave	0.2342	0.2690		0.0115	0.0100	14.9	50.0
Chlorobenzene	Ave	0.9020	0.9741	0.3000	0.0108	0.0100	8.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.3759	0.3098		0.00824	0.0100	-17.6	50.0
Ethylbenzene	Ave	0.4928	0.4947		0.0100	0.0100	0.4	20.0
m-Xylene & p-Xylene	Ave	1.195	1.200		0.0100	0.0100	0.3	50.0
o-Xylene	Ave	0.6424	0.5887		0.00916	0.0100	-8.4	50.0
Styrene	Ave	0.8332	0.9903		0.0119	0.0100	18.9	50.0
Bromoform	Ave	0.1647	0.1274	0.1000	0.00773	0.0100	-22.7	50.0
Isopropylbenzene	Ave	1.586	1.361		0.00858	0.0100	-14.2	50.0
1,1,2,2-Tetrachloroethane	Ave	0.5117	0.6351	0.3000	0.0124	0.0100	24.1	50.0
Bromobenzene	Ave	0.7041	0.7071		0.0100	0.0100	0.4	50.0
1,2,3-Trichloropropane	Ave	0.1660	0.2141		0.0129	0.0100	29.0	50.0
trans-1,4-Dichloro-2-butene	Lin1		0.1628		0.0138	0.0100	38.3	50.0
N-Propylbenzene	Ave	0.6976	0.6698		0.00960	0.0100	-4.0	50.0
2-Chlorotoluene	Ave	0.6475	0.6241		0.00964	0.0100	-3.6	50.0
1,3,5-Trimethylbenzene	Ave	2.196	2.048		0.00932	0.0100	-6.8	50.0
4-Chlorotoluene	Ave	2.069	2.306		0.0111	0.0100	11.4	50.0
tert-Butylbenzene	Ave	1.877	1.581		0.00842	0.0100	-15.8	50.0
1,2,4-Trimethylbenzene	Ave	2.252	2.166		0.00962	0.0100	-3.8	50.0
sec-Butylbenzene	Ave	2.474	2.038		0.00824	0.0100	-17.6	50.0
1,3-Dichlorobenzene	Ave	1.319	1.271		0.00964	0.0100	-3.6	50.0
4-Isopropyltoluene	Ave	2.213	1.833		0.00828	0.0100	-17.2	50.0
1,4-Dichlorobenzene	Ave	1.370	1.331		0.00971	0.0100	-2.9	50.0
n-Butylbenzene	Ave	1.792	1.399		0.00780	0.0100	-22.0	50.0
1,2-Dichlorobenzene	Ave	1.373	1.239		0.00903	0.0100	-9.7	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Lab Sample ID: CCVIS 240-507592/2 Calibration Date: 10/11/2021 09:21

Instrument ID: A3UX15 Calib Start Date: 03/16/2021 08:36

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/16/2021 10:39

Lab File ID: UXC9945.D Conc. Units: ng/uL Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1128	0.0754		0.00668	0.0100	-33.2	50.0
1,2,4-Trichlorobenzene	Ave	1.008	0.5434		0.00539	0.0100	-46.1	50.0
Hexachlorobutadiene	Lin1		0.2047		0.00442	0.0100	-55.8*	50.0
Naphthalene	Ave	2.149	1.236		0.00575	0.0100	-42.5	50.0
1,2,3-Trichlorobenzene	Ave	0.9560	0.4692		0.00491	0.0100	-50.9*	50.0
Dibromofluoromethane (Surr)	Ave	0.2337	0.2032		0.00869	0.0100	-13.1	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2633	0.2812		0.0107	0.0100	6.8	50.0
Toluene-d8 (Surr)	Ave	1.226	1.195		0.00975	0.0100	-2.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.4145	0.4055		0.00978	0.0100	-2.2	50.0

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9945.D
Lims ID: CCVIS L4 8260
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Oct-2021 09:21:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-002
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15
Sublist: chrom-8260_15*sub83

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:54 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1948739	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.658	0.000	89	1425825	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	774100	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	395907	10.0	8.69	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	100	548005	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1703731	10.0	9.75	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	578112	10.0	9.78	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	655596	10.0	11.2	
10 Chloromethane	50	1.562	1.562	0.000	99	700882	10.0	10.5	
11 Vinyl chloride	62	1.657	1.657	0.000	98	548148	10.0	9.58	
12 Butadiene	54	1.669	1.669	0.000	97	613367	10.0	8.40	
13 Bromomethane	94	1.930	1.930	0.000	89	295601	10.0	6.17	
14 Chloroethane	64	2.001	2.001	0.000	99	351717	10.0	8.34	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	785838	10.0	7.00	
16 Trichlorofluoromethane	101	2.214	2.214	0.000	98	656927	10.0	6.47	
17 Ethyl ether	59	2.404	2.404	0.000	92	486109	10.0	9.93	
18 Acrolein	56	2.523	2.523	0.000	98	199478	50.0	66.9	
19 1,1-Dichloroethene	96	2.618	2.618	0.000	97	465035	10.0	8.25	
20 112TCTFE	151	2.618	2.618	0.000	93	364318	10.0	7.76	
21 Acetone	58	2.641	2.641	0.000	100	83573	20.0	21.2	
22 Iodomethane	142	2.748	2.748	0.000	98	688644	10.0	7.98	
24 Carbon disulfide	76	2.819	2.819	0.000	100	1059144	10.0	6.75	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	368702	10.0	11.1	
27 Methyl acetate	43	2.914	2.914	0.000	98	686398	20.0	27.7	
28 Methylene Chloride	84	2.997	2.997	0.000	96	532163	10.0	10.1	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	90	232197	100.0	84.2	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1709005	100.0	129.2	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1321011	10.0	9.67	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	99	527180	10.0	9.37	
34 Hexane	86	3.436	3.436	0.000	94	99628	10.0	8.84	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	938246	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Vinyl acetate	43	3.602	3.602	0.000	97	831607	10.0	11.0	
42 2,2-Dichloropropane	97	4.041	4.041	0.000	76	137763	10.0	7.95	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	84	573719	10.0	9.66	
40 2-Butanone (MEK)	72	4.053	4.053	0.000	100	96275	20.0	23.4	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	268753	10.0	9.58	
47 Tetrahydrofuran	42	4.278	4.278	0.000	88	245883	20.0	24.0	
48 Chloroform	83	4.302	4.302	0.000	93	922007	10.0	10.4	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	98	713724	10.0	8.93	
50 Cyclohexane	56	4.503	4.503	0.000	91	764014	10.0	9.26	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	706600	10.0	9.83	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	566315	10.0	7.97	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	290051	250.0	332.7	
55 Benzene	78	4.764	4.764	0.000	96	2204566	10.0	10.3	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	764248	10.0	12.0	
58 n-Heptane	100	4.966	4.966	0.000	92	81334	10.0	8.43	
60 Trichloroethene	130	5.298	5.298	0.000	97	542029	10.0	9.44	
62 Methylcyclohexane	83	5.464	5.464	0.000	91	581374	10.0	8.10	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	535098	10.0	12.1	
65 Dibromomethane	93	5.594	5.594	0.000	95	283292	10.0	11.1	
66 1,4-Dioxane	88	5.606	5.606	0.000	32	48026	200.0	125.1	
67 Dichlorobromomethane	83	5.725	5.725	0.000	98	561074	10.0	9.95	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	92	526591	20.0	34.4	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	698739	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	740102	20.0	25.0	
72 Toluene	91	6.412	6.412	0.000	98	2236809	10.0	10.6	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	95	586131	10.0	10.9	
74 Ethyl methacrylate	69	6.661	6.661	0.000	89	495781	10.0	12.2	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	416418	10.0	12.0	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	392534	10.0	8.84	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	777917	10.0	13.1	
78 2-Hexanone	43	6.982	6.982	0.000	97	466269	20.0	23.6	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	347132	10.0	9.14	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	383501	10.0	11.5	
84 Chlorobenzene	112	7.681	7.681	0.000	95	1388938	10.0	10.8	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.764	0.000	93	441711	10.0	8.24	
86 Ethylbenzene	106	7.776	7.776	0.000	99	705401	10.0	10.0	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1710376	10.0	10.0	
88 o-Xylene	106	8.262	8.262	0.000	97	839376	10.0	9.16	
89 Styrene	104	8.274	8.274	0.000	94	1412052	10.0	11.9	
90 Bromoform	173	8.464	8.464	0.000	96	181581	10.0	7.73	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1940542	10.0	8.58	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	491642	10.0	12.4	
95 Bromobenzene	156	8.915	8.915	0.000	97	547400	10.0	10.0	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	86	165719	10.0	12.9	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	73	125987	10.0	13.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	518517	10.0	9.60	
99 2-Chlorotoluene	126	9.092	9.092	0.000	99	483098	10.0	9.64	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1585156	10.0	9.32	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1784823	10.0	11.1	
104 tert-Butylbenzene	119	9.496	9.496	0.000	93	1223775	10.0	8.42	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1676912	10.0	9.62	
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1577502	10.0	8.24	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	97	983868	10.0	9.64	
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1419122	10.0	8.28	
110 1,4-Dichlorobenzene	146	9.911	9.911	0.000	93	1030130	10.0	9.71	
113 n-Butylbenzene	91	10.255	10.255	0.000	98	1082601	10.0	7.80	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	958908	10.0	9.03	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	78	58372	10.0	6.68	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	420651	10.0	5.39	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	97	158475	10.0	4.42	
119 Naphthalene	128	12.128	12.128	0.000	97	956981	10.0	5.75	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	363223	10.0	4.91	
S 129 Xylenes, Total	106				0		20.0	19.2	
S 130 Total BTEX	1				0		50.0	50.2	
S 131 Trihalomethanes, Total	1				0		40.0	37.2	

Reagents:

vmarolistdw_00411	Amount Added:	8.00	Units: uL	
VMRPRIMW_00454	Amount Added:	8.00	Units: uL	
vmrgas_00403	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

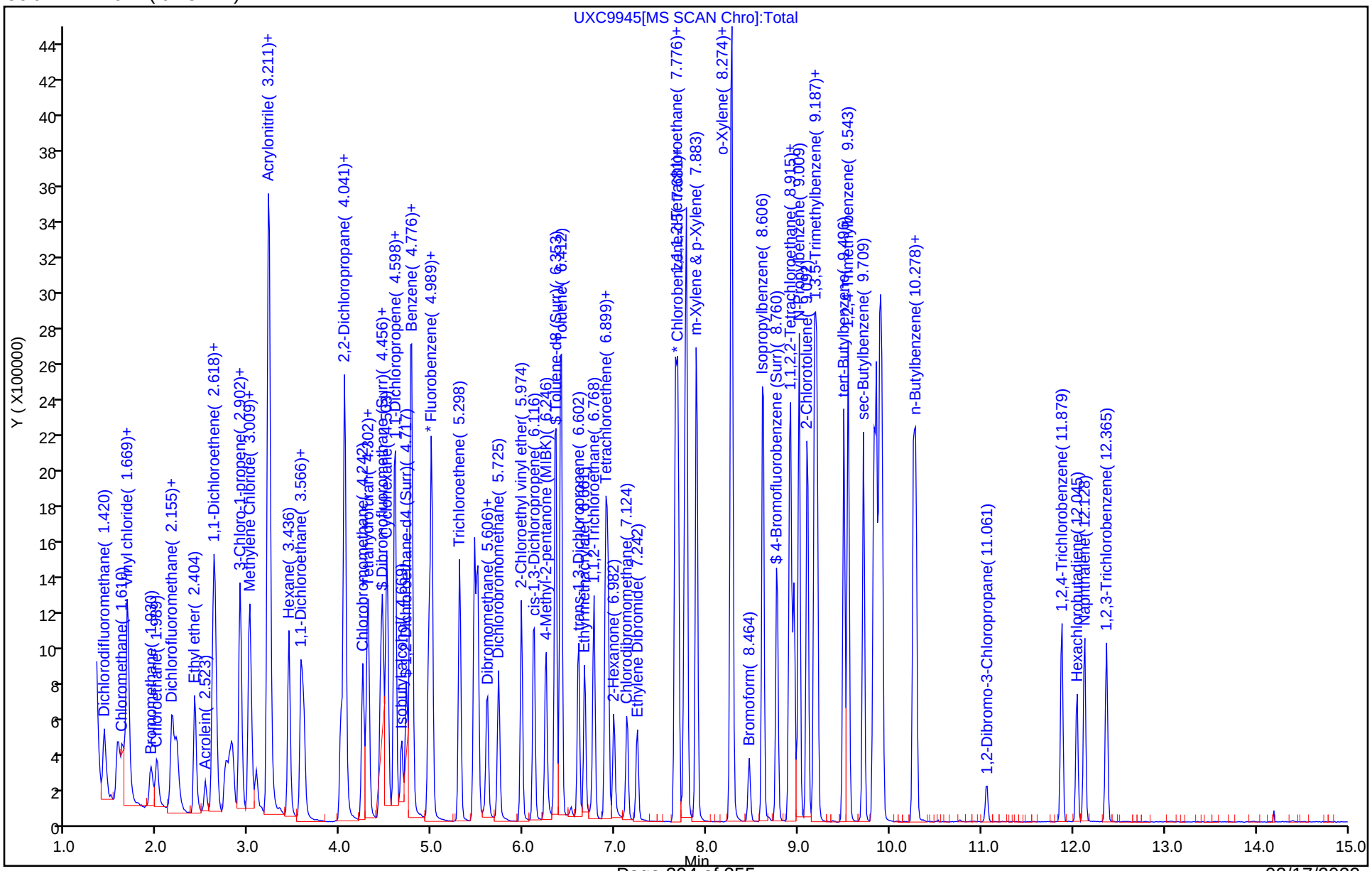
Report Date: 12-Oct-2021 11:12:55 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9945.D

Injection Date:	11-Oct-2021 09:21:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	CCVIS L4 8260			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Mar-2021 07:33:30 ALS Bottle#: 22 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: C210316A-IC,BFBUX15,,43582
Operator ID: Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 18-Mar-2021 09:02:03 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: evansle Date: 16-Mar-2021 09:13:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.464	3.464	0.000	0	12980962	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

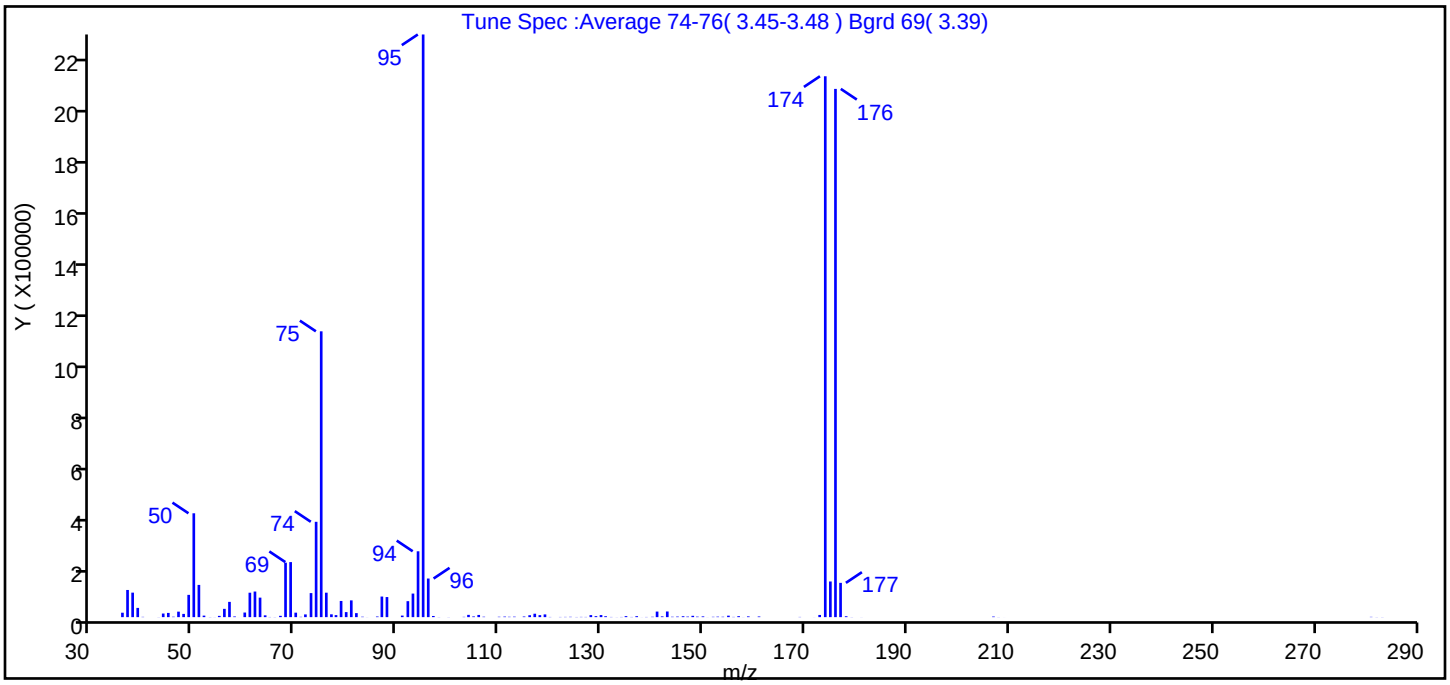
vmbfb_00026 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D
Injection Date: 16-Mar-2021 07:33:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 22 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.8
75	30 to 60% of m/z 95	49.1
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	92.8
175	5 to 9% of m/z 174	6.1 (6.6)
176	Greater than 95% but less than 101% of m/z 174	90.7 (97.7)
177	5 to 9% of m/z 176	5.9 (6.5)

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D\8260_15.rslt\spectra.d
Injection Date: 16-Mar-2021 07:33:30
Spectrum: Tune Spec :Average 74-76(3.45-3.48) Bgrd 69(3.39)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 129

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16880	71.00	1192	112.00	1398	147.00	2065
37.00	103512	72.00	10425	113.00	1810	148.00	5062
38.00	93368	73.00	91640	115.00	2423	149.00	1937
39.00	35200	74.00	363264	116.00	7263	150.00	2821
40.00	1066	75.00	1089024	117.00	13025	151.00	170
43.00	361	76.00	93176	118.00	7601	152.00	1293
44.00	13749	77.00	10749	119.00	10428	153.00	1876
45.00	16087	78.00	7751	120.00	739	154.00	1489
46.00	1615	79.00	61672	122.00	737	155.00	5638
47.00	20936	80.00	19224	123.00	917	156.00	889
48.00	12364	81.00	63848	124.00	1253	157.00	3652
49.00	84896	82.00	15314	125.00	632	158.00	202
50.00	395712	83.00	1583	126.00	938	159.00	2845
51.00	122808	84.00	213	127.00	784	161.00	2540
52.00	5792	86.00	2435	128.00	7717	169.00	809
53.00	502	87.00	78456	129.00	3744	172.00	179
54.00	245	88.00	76536	130.00	7922	173.00	8353
55.00	4829	91.00	5917	131.00	3474	174.00	2060800
56.00	31600	92.00	60880	132.00	744	175.00	135872
57.00	58176	93.00	89824	133.00	288	176.00	2012672
58.00	2588	94.00	250944	134.00	724	177.00	130672
59.00	93	95.00	2220032	135.00	3865	178.00	3355
60.00	17568	96.00	147136	136.00	743	179.00	386
61.00	93088	97.00	4411	137.00	3697	181.00	204
62.00	97576	98.00	401	138.00	176	207.00	2206
63.00	74344	100.00	351	139.00	728	208.00	343
64.00	6883	103.00	1109	140.00	1437	209.00	84
65.00	642	104.00	8683	141.00	21232	281.00	1098
66.00	418	105.00	2675	142.00	2849	282.00	371
67.00	4988	106.00	8403	143.00	21520	283.00	376
68.00	207552	107.00	1621	144.00	1519		
69.00	209728	110.00	1489	145.00	2150		
70.00	17056	111.00	2088	146.00	3420		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16880	71.00	1192	112.00	1398	147.00	2065
37.00	103512	72.00	10425	113.00	1810	148.00	5062
38.00	93368	73.00	91640	115.00	2423	149.00	1937
39.00	35200	74.00	363264	116.00	7263	150.00	2821
40.00	1066	75.00	1089024	117.00	13025	151.00	170
43.00	361	76.00	93176	118.00	7601	152.00	1293
44.00	13749	77.00	10749	119.00	10428	153.00	1876
45.00	16087	78.00	7751	120.00	739	154.00	1489
46.00	1615	79.00	61672	122.00	737	155.00	5638
47.00	20936	80.00	19224	123.00	917	156.00	889
48.00	12364	81.00	63848	124.00	1253	157.00	3652
49.00	84896	82.00	15314	125.00	632	158.00	202
50.00	395712	83.00	1583	126.00	938	159.00	2845
51.00	122808	84.00	213	127.00	784	161.00	2540
52.00	5792	86.00	2435	128.00	7717	169.00	809
53.00	502	87.00	78456	129.00	3744	172.00	179
54.00	245	88.00	76536	130.00	7922	173.00	8353
55.00	4829	91.00	5917	131.00	3474	174.00	2060800
56.00	31600	92.00	60880	132.00	744	175.00	135872
57.00	58176	93.00	89824	133.00	288	176.00	2012672
58.00	2588	94.00	250944	134.00	724	177.00	130672
59.00	93	95.00	2220032	135.00	3865	178.00	3355
60.00	17568	96.00	147136	136.00	743	179.00	386
61.00	93088	97.00	4411	137.00	3697	181.00	204
62.00	97576	98.00	401	138.00	176	207.00	2206
63.00	74344	100.00	351	139.00	728	208.00	343
64.00	6883	103.00	1109	140.00	1437	209.00	84
65.00	642	104.00	8683	141.00	21232	281.00	1098
66.00	418	105.00	2675	142.00	2849	282.00	371
67.00	4988	106.00	8403	143.00	21520	283.00	376
68.00	207552	107.00	1621	144.00	1519		
69.00	209728	110.00	1489	145.00	2150		
70.00	17056	111.00	2088	146.00	3420		

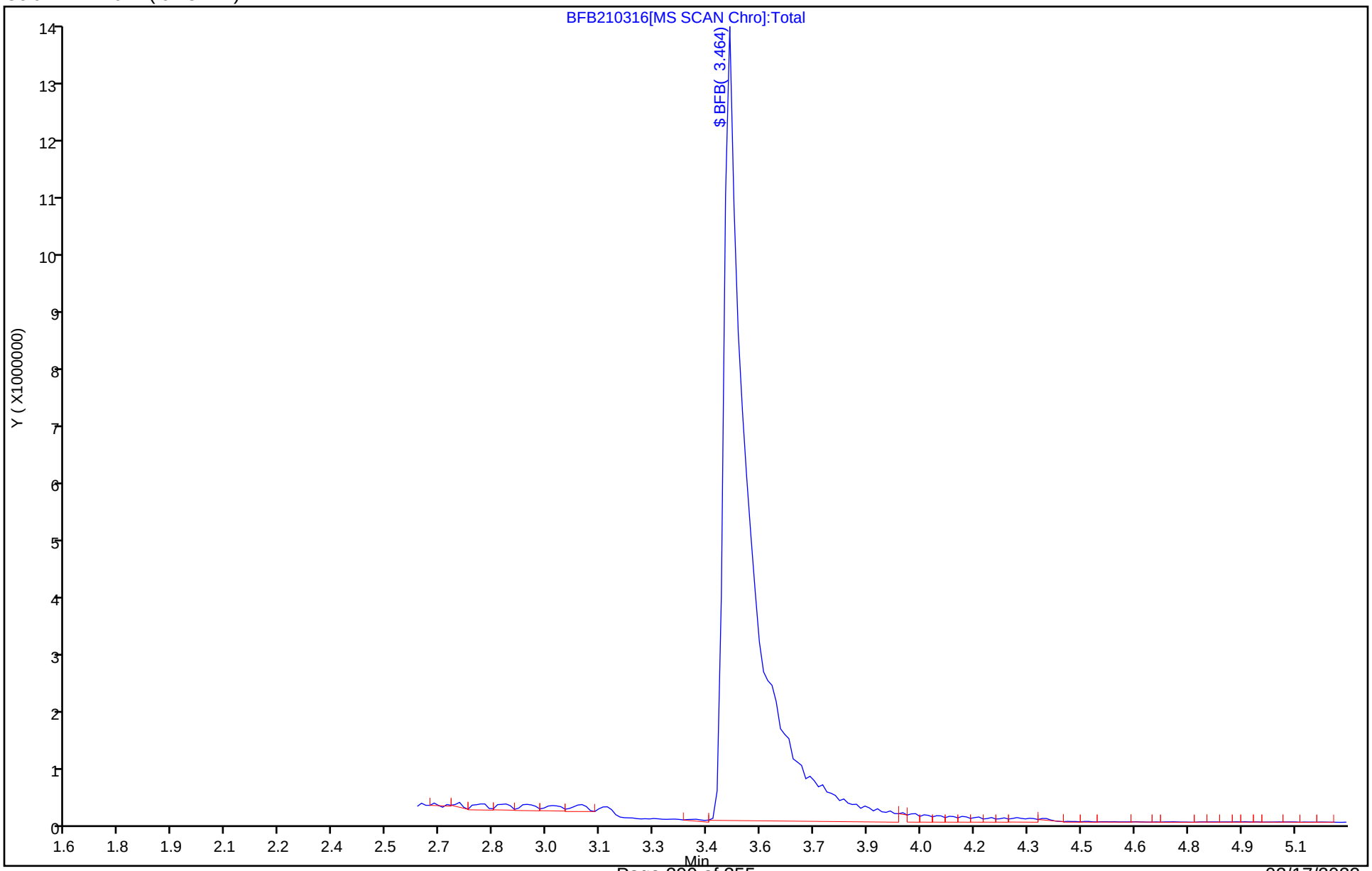
Report Date: 18-Mar-2021 09:02:03 Chrom Revision: 2.3 05-Feb-2021 00:13:28

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\BFB210316.D

Injection Date:	16-Mar-2021 07:33:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Oct-2021 09:43:30	ALS Bottle#:	30	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	C211008A,BFBUX15,,43582				
Operator ID:		Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	11-Oct-2021 07:47:08	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1633				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.476	3.476	0.000	0	11930295	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

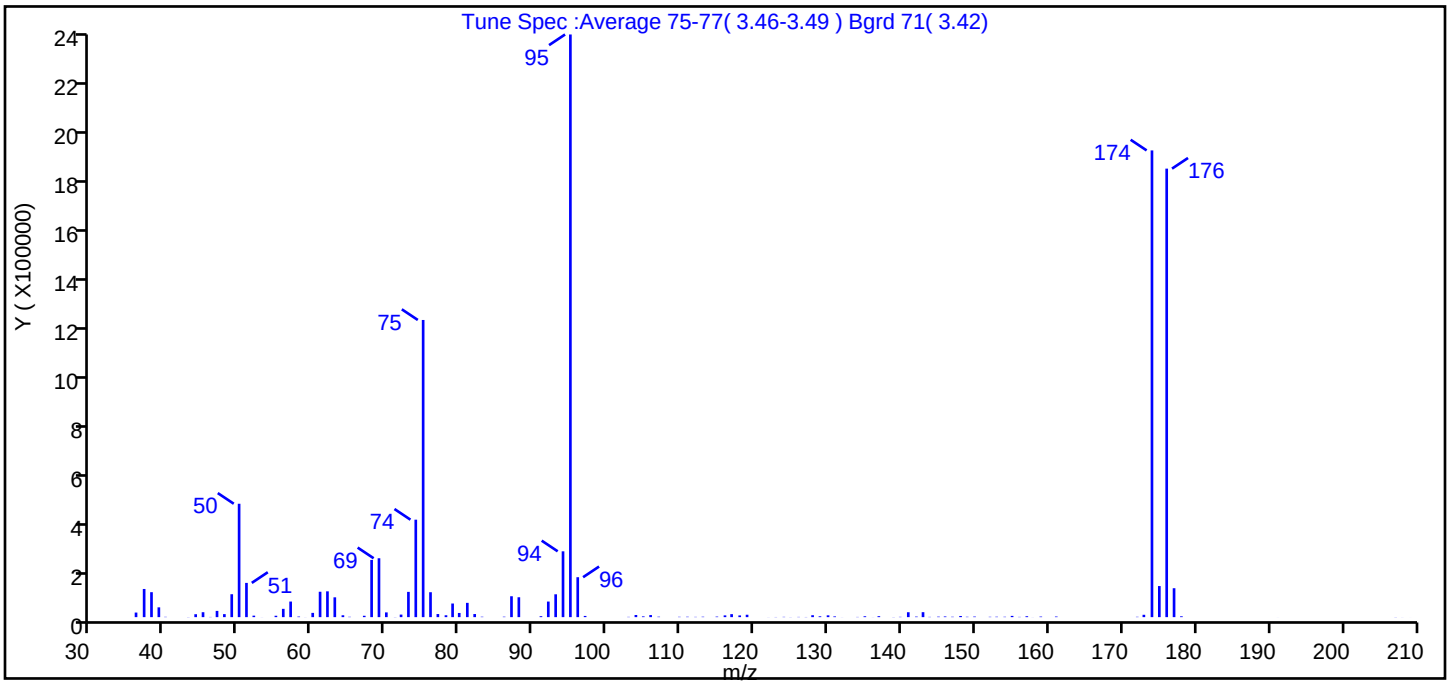
vmbfb_00027 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D
Injection Date: 08-Oct-2021 09:43:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 30 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.5
75	30 to 60% of m/z 95	51.0
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	80.1
175	5 to 9% of m/z 174	5.3 (6.7)
176	Greater than 95% but less than 101% of m/z 174	77.0 (96.1)
177	5 to 9% of m/z 176	5.0 (6.4)

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D\8260_15.rslt\spectra.d
Injection Date: 08-Oct-2021 09:43:30
Spectrum: Tune Spec :Average 75-77(3.46-3.49) Bgrd 71(3.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 115

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	18328	69.00	235072	107.00	1757	143.00	19832
37.00	112472	70.00	18952	110.00	1360	144.00	1040
38.00	99656	71.00	501	111.00	1624	145.00	1947
39.00	39112	72.00	10189	112.00	1077	146.00	2722
40.00	1216	73.00	100872	113.00	1670	147.00	1543
43.00	508	74.00	389056	115.00	2210	148.00	4611
44.00	11677	75.00	1186304	116.00	7016	149.00	1463
45.00	19688	76.00	99520	117.00	11963	150.00	2286
46.00	787	77.00	12364	118.00	6863	152.00	1387
47.00	24936	78.00	7504	119.00	9580	153.00	1673
48.00	12039	79.00	54424	122.00	250	154.00	1478
49.00	91512	80.00	16688	123.00	632	155.00	5004
50.00	452672	81.00	57016	124.00	1146	156.00	1019
51.00	136704	82.00	12409	125.00	417	157.00	3627
52.00	5949	83.00	1662	126.00	931	158.00	203
53.00	204	86.00	1758	127.00	650	159.00	2239
55.00	5570	87.00	83416	128.00	7704	161.00	2439
56.00	33128	88.00	79368	129.00	3290	172.00	1363
57.00	62248	91.00	3783	130.00	7197	173.00	9435
58.00	2318	92.00	62224	131.00	2910	174.00	1863168
59.00	232	93.00	91208	132.00	214	175.00	124104
60.00	17040	94.00	262784	134.00	839	176.00	1790464
61.00	101376	95.00	2326016	135.00	3492	177.00	115480
62.00	103024	96.00	159424	136.00	219	178.00	3333
63.00	79120	97.00	4836	137.00	3802	191.00	98
64.00	7497	103.00	1088	139.00	509	207.00	485
65.00	1355	104.00	8556	140.00	1173	208.00	181
67.00	5488	105.00	3026	141.00	19576	209.00	65
68.00	228352	106.00	8308	142.00	2185		

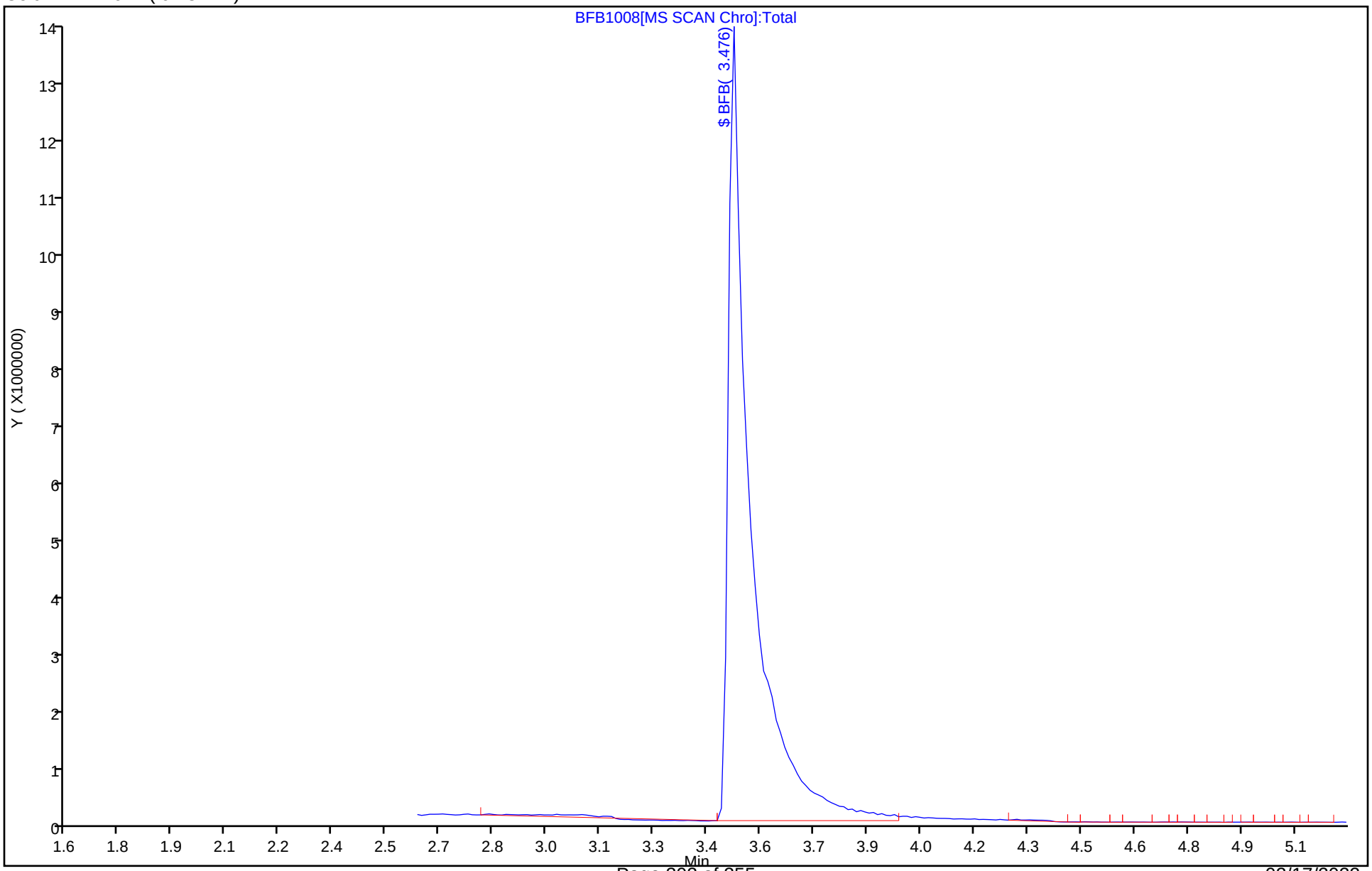
Report Date: 11-Oct-2021 07:47:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\BFB1008.D

Injection Date:	08-Oct-2021 09:43:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	11-Oct-2021 08:54:30	ALS Bottle#:	29	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	C211011A,BFBUX15,,43582				
Operator ID:		Instrument ID:	A3UX15		
Method:	\\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m				
Limit Group:	MSV 8260B ICAL				
Last Update:	12-Oct-2021 11:12:53	Calib Date:	16-Mar-2021 13:12:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	CTX1669				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 8 BFB	95	3.476	3.476	0.000	0	11638927	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

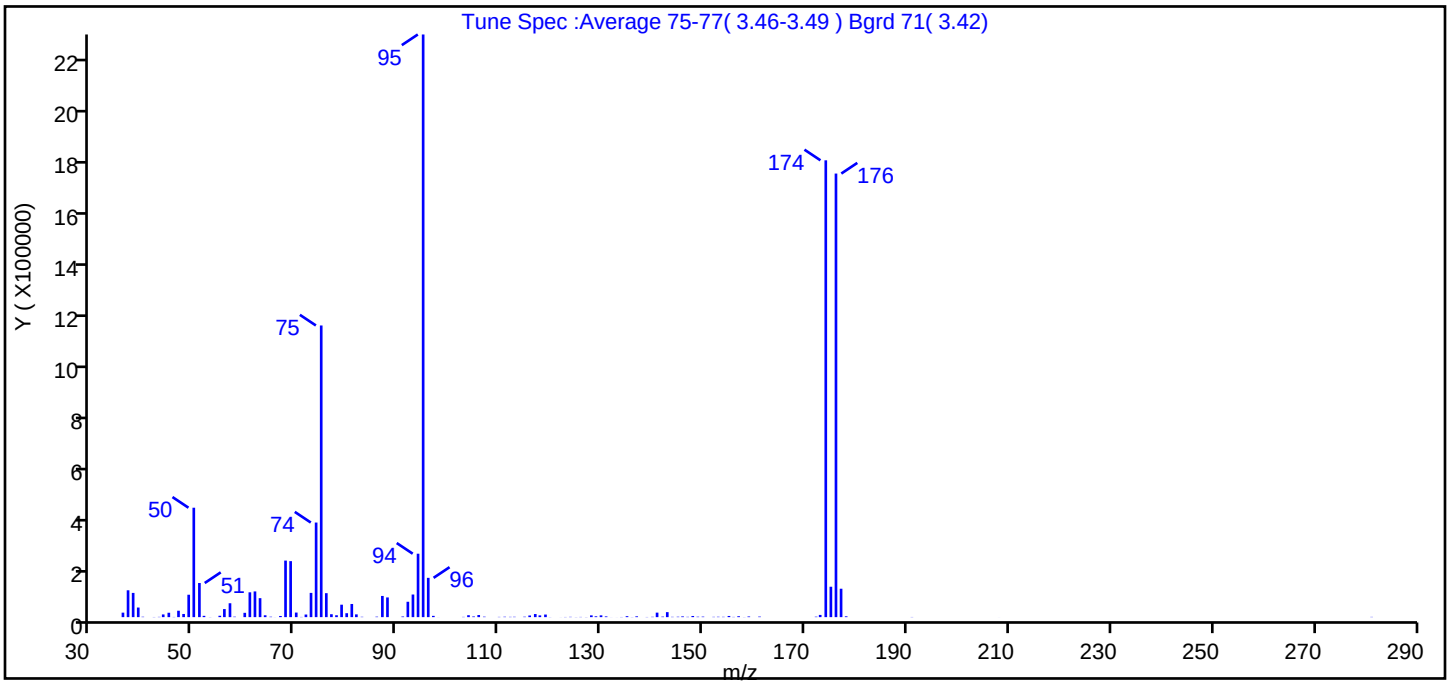
vmbfb_00027 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D
Injection Date: 11-Oct-2021 08:54:30 Instrument ID: A3UX15
Lims ID: BFB
Client ID:
Operator ID: ALS Bottle#: 29 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_15 Limit Group: MSV 8260B ICAL
Tune Method: BFB Method 8260

$ 8 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.8
75	30 to 60% of m/z 95	50.1
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	78.4
175	5 to 9% of m/z 174	5.2 (6.7)
176	Greater than 95% but less than 101% of m/z 174	76.1 (97.1)
177	5 to 9% of m/z 176	4.9 (6.4)

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D\8260_15.rslt\spectra.d
Injection Date: 11-Oct-2021 08:54:30
Spectrum: Tune Spec :Average 75-77(3.46-3.49) Bgrd 71(3.42)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	17232	69.00	214400	107.00	1784	142.00	2010
37.00	102824	70.00	17536	110.00	974	143.00	19112
38.00	92776	71.00	780	111.00	1553	144.00	1178
39.00	36776	72.00	10047	112.00	1098	145.00	1571
40.00	1501	73.00	92824	113.00	1359	146.00	2799
42.00	605	74.00	362176	115.00	1689	147.00	1179
43.00	1023	75.00	1116672	116.00	6288	148.00	4427
44.00	10372	76.00	91768	117.00	11882	149.00	1644
45.00	16816	77.00	11186	118.00	6687	150.00	1978
46.00	732	78.00	7289	119.00	9936	152.00	1130
47.00	24544	79.00	47656	120.00	365	153.00	1477
48.00	12118	80.00	15021	122.00	171	154.00	1237
49.00	85816	81.00	50392	123.00	666	155.00	4498
50.00	418944	82.00	10635	124.00	1128	156.00	885
51.00	130656	83.00	1328	125.00	411	157.00	3460
52.00	4985	86.00	1833	126.00	833	158.00	376
53.00	441	87.00	81144	127.00	446	159.00	2512
55.00	5248	88.00	75456	128.00	6758	161.00	2126
56.00	30928	91.00	2453	129.00	3181	172.00	1776
57.00	53200	92.00	58872	130.00	6857	173.00	8478
58.00	1782	93.00	86640	131.00	2793	174.00	1748992
60.00	16552	94.00	242880	132.00	176	175.00	116408
61.00	95064	95.00	2230784	133.00	150	176.00	1698304
62.00	98464	96.00	150464	134.00	628	177.00	108816
63.00	72664	97.00	4893	135.00	3685	178.00	3137
64.00	7135	98.00	168	136.00	407	191.00	664
65.00	1640	103.00	973	137.00	3137	208.00	106
66.00	193	104.00	7413	139.00	646	281.00	968
67.00	4452	105.00	2564	140.00	1309		
68.00	216512	106.00	8080	141.00	17264		

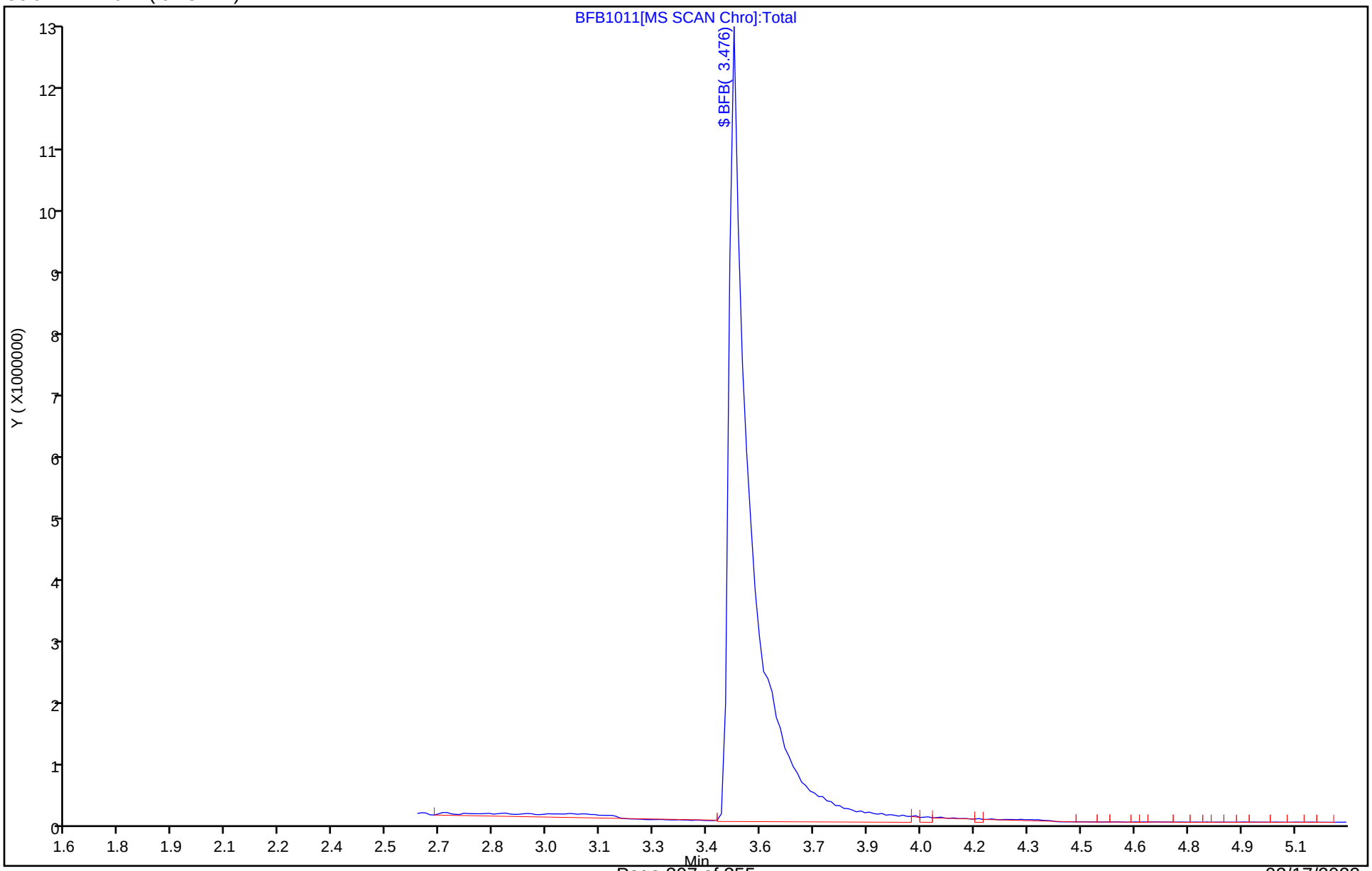
Report Date: 12-Oct-2021 11:12:53 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\BFB1011.D

Injection Date:	11-Oct-2021 08:54:30	Instrument ID:	A3UX15	Operator ID:	
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-507379/7

Matrix: Water | Lab File ID: UXC9921.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 12:02

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	84		56-136
1868-53-7	Dibromofluoromethane (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	114		62-137
2037-26-5	Toluene-d8 (Surr)	94		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2021 12:02:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-007
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 12:35:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	98	1606868	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.657	0.001	87	1187492	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	587709	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	325374	10.0	8.66	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	99	482928	10.0	11.4	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1373675	10.0	9.44	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	90	413717	10.0	8.40	
9 Dichlorodifluoromethane	85		1.420					ND	
10 Chloromethane	50		1.562					ND	
11 Vinyl chloride	62		1.657					ND	
12 Butadiene	54		1.669					ND	
13 Bromomethane	94		1.930					ND	
14 Chloroethane	64		1.989					ND	
15 Dichlorofluoromethane	67		2.155					ND	
16 Trichlorofluoromethane	101		2.202					ND	
17 Ethyl ether	59		2.404					ND	
18 Acrolein	56		2.523					ND	7
19 1,1-Dichloroethene	96		2.606					ND	
20 112TCTFE	151		2.617					ND	
21 Acetone	58	2.653	2.641	0.012	96	3838		1.18	
22 Iodomethane	142		2.748					ND	
24 Carbon disulfide	76		2.807					ND	7
23 Methylal	45		2.872					ND	
25 Acetonitrile	41		2.879					ND	U
26 3-Chloro-1-propene	76		2.902					ND	
27 Methyl acetate	43		2.914					ND	
28 Methylene Chloride	84		3.009					ND	
29 2-Methyl-2-propanol	59		3.080					ND	U
30 Acrylonitrile	53		3.210					ND	
31 Methyl tert-butyl ether	73		3.222					ND	
32 trans-1,2-Dichloroethene	96		3.222					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	86		3.436					ND	
33 Chlorodifluoromethane TIC	51		3.441					ND	
35 1,1-Dichloroethane	63		3.566					ND	
36 Vinyl acetate	43		3.602					ND	
37 Isopropyl ether	87		3.614					ND	
38 2-Chloro-1,3-butadiene	53		3.637					ND	
39 Tert-butyl ethyl ether	59		3.910					ND	
42 2,2-Dichloropropane	97		4.040					ND	
41 cis-1,2-Dichloroethene	96		4.040					ND	
40 2-Butanone (MEK)	72		4.052					ND	
43 Ethyl acetate	43		4.088					ND	
44 Propionitrile	54		4.112					ND	U
45 Methacrylonitrile	41		4.230					ND	
46 Chlorobromomethane	128		4.242					ND	
47 Tetrahydrofuran	42		4.278					ND	
48 Chloroform	83		4.301					ND	
49 1,1,1-Trichloroethane	97		4.456					ND	
50 Cyclohexane	56		4.503					ND	
51 1,1-Dichloropropene	75		4.586					ND	
52 Carbon tetrachloride	117		4.598					ND	
53 Isobutyl alcohol	41		4.669					ND	
55 Benzene	78	4.788	4.764	0.024	89	26444		0.1500	
56 1,2-Dichloroethane	62		4.788					ND	
54 Isooctane	57		4.823					ND	
57 Tert-amyl methyl ether	73		4.847					ND	
58 n-Heptane	100		4.965					ND	
59 n-Butanol	56	5.238	5.226	0.012	22	1855		3.58	
60 Trichloroethene	130		5.297					ND	
61 Ethyl acrylate	55		5.381					ND	
62 Methylcyclohexane	83		5.463					ND	
63 1,2-Dichloropropane	63		5.499					ND	
64 Methyl methacrylate	41		5.570					ND	
65 Dibromomethane	93		5.594					ND	
66 1,4-Dioxane	88		5.606					ND	
67 Dichlorobromomethane	83		5.724					ND	
68 2-Nitropropane	41		5.926					ND	
69 2-Chloroethyl vinyl ether	63		5.973					ND	
70 cis-1,3-Dichloropropene	75		6.116					ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246					ND	
72 Toluene	91		6.412					ND	7
73 trans-1,3-Dichloropropene	75		6.602					ND	
74 Ethyl methacrylate	69		6.661					ND	
75 1,1,2-Trichloroethane	97		6.768					ND	
76 Tetrachloroethene	164		6.898					ND	
77 1,3-Dichloropropane	76		6.922					ND	
78 2-Hexanone	43		6.981					ND	
79 n-Butyl acetate	43		7.088					ND	
80 Chlorodibromomethane	129		7.124					ND	
82 Ethylene Dibromide	107		7.242					ND	
81 Tetrahydrothiophene	60		7.292					ND	
83 1-Chlorohexane	91		7.646					ND	7
84 Chlorobenzene	112		7.681					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131		7.752					ND	
86 Ethylbenzene	106		7.776					ND	
87 m-Xylene & p-Xylene	91		7.883					ND	
88 o-Xylene	106		8.262					ND	
89 Styrene	104		8.274					ND	
90 Bromoform	173		8.464					ND	
91 Isopropylbenzene	105		8.618					ND	
92 Cyclohexanone	55		8.713					ND	U
93 1,4-Dichlorobutane	55		8.881					ND	
94 1,1,2,2-Tetrachloroethane	83		8.902					ND	
95 Bromobenzene	156		8.914					ND	
96 1,2,3-Trichloropropane	110		8.950					ND	
97 trans-1,4-Dichloro-2-butene	53		8.962					ND	
98 N-Propylbenzene	120		9.009					ND	
99 2-Chlorotoluene	126		9.092					ND	
101 1,3,5-Trimethylbenzene	105		9.175					ND	
102 4-Chlorotoluene	91		9.199					ND	
100 3-Ethyltoluene	105		9.324					ND	
104 tert-Butylbenzene	119		9.495					ND	
105 Pentachloroethane	167		9.519					ND	
106 1,2,4-Trimethylbenzene	105		9.543					ND	
103 2-Ethyltoluene	105		9.609					ND	
107 sec-Butylbenzene	105		9.709					ND	
108 1,3-Dichlorobenzene	146		9.827					ND	
109 4-Isopropyltoluene	119		9.851					ND	
110 1,4-Dichlorobenzene	146		9.910					ND	
111 1,2,3-Trimethylbenzene	105		9.958					ND	
112 Benzyl chloride	126		10.053					ND	
113 n-Butylbenzene	91		10.254					ND	
114 1,2-Dichlorobenzene	146		10.278					ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061					ND	
116 1,3,5-Trichlorobenzene	180		11.262					ND	7
117 1,2,4-Trichlorobenzene	180		11.879					ND	
118 Hexachlorobutadiene	225		12.045					ND	7
119 Naphthalene	128		12.128					ND	
120 1,2,3-Trichlorobenzene	180		12.365					ND	
121 2-Methylnaphthalene	142	13.350	13.361	-0.011	94	13589		0.1928	
122 1-Methylnaphthalene	142	13.599	13.599	0.000	88	13819		0.2200	
123 Epichlorohydrin	1		0.000					ND	
125 Propene oxide	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
126 1,3-Diethylbenzene TIC	1		0.000					ND	
S 127 1,2-Dichloroethene, Total	96		1.140					ND	
S 128 1,3-Dichloropropene, Total	75		6.760					ND	
S 129 Xylenes, Total	106		16.530					ND	
S 130 Total BTEX	1				0			0.1500	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

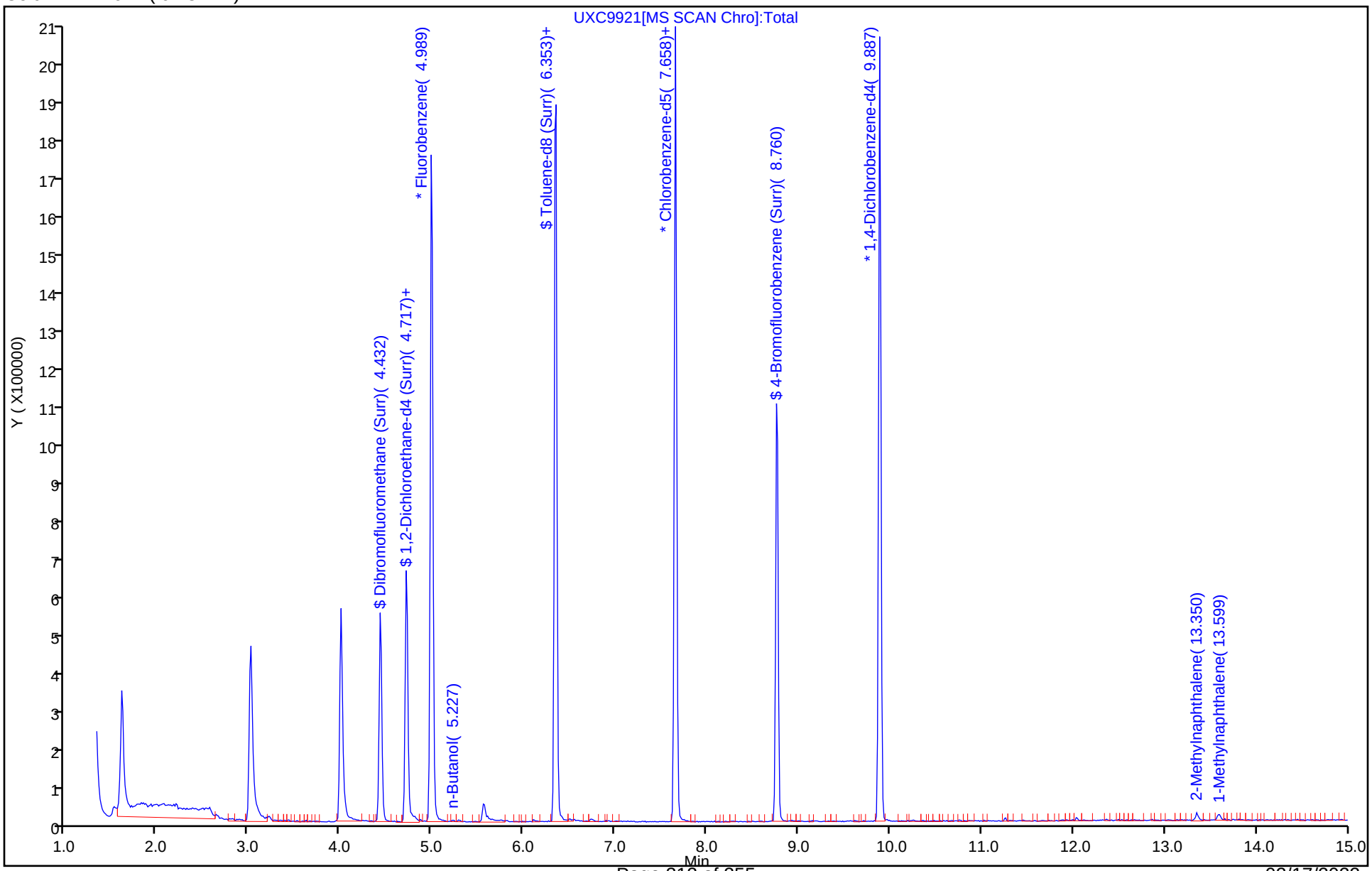
Report Date: 11-Oct-2021 07:47:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D

Injection Date:	08-Oct-2021 12:02:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9921.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 08-Oct-2021 12:02:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-007
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 08-Oct-2021 12:35:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.66	86.63
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.4	114.14
$ 6 Toluene-d8 (Surr)	10.0	9.44	94.39
$ 7 4-Bromofluorobenzene (Surr)	10.0	8.40	84.04

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-507592/7

Matrix: Water | Lab File ID: UXC9950.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 11:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	2.0	U	2.0	0.42
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.48
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.47
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.49
71-43-2	Benzene	1.0	U	1.0	0.42
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.46
100-41-4	Ethylbenzene	1.0	U	1.0	0.42
127-18-4	Tetrachloroethene	1.0	U	1.0	0.44
108-88-3	Toluene	1.0	U	1.0	0.44
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.51
79-01-6	Trichloroethene	1.0	U	1.0	0.44
75-01-4	Vinyl chloride	1.0	U	1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	82		56-136
1868-53-7	Dibromofluoromethane (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		62-137
2037-26-5	Toluene-d8 (Surr)	93		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Oct-2021 11:10:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-007
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 11-Oct-2021 11:49:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1633823	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1222030	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	96	610519	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	336833	10.0	8.82	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	99	501670	10.0	11.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1398580	10.0	9.34	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	91	417456	10.0	8.24	
9 Dichlorodifluoromethane	85		1.420					ND	
10 Chloromethane	50		1.562					ND	
11 Vinyl chloride	62		1.657					ND	
12 Butadiene	54		1.669					ND	
13 Bromomethane	94		1.930					ND	
14 Chloroethane	64		2.001					ND	
15 Dichlorofluoromethane	67		2.155					ND	
16 Trichlorofluoromethane	101		2.214					ND	
17 Ethyl ether	59		2.404					ND	
18 Acrolein	56		2.523					ND	7
19 1,1-Dichloroethene	96		2.618					ND	
20 112TCTFE	151		2.618					ND	
21 Acetone	58	2.653	2.641	0.012	94	969		0.2933	
22 Iodomethane	142		2.748					ND	
24 Carbon disulfide	76		2.819					ND	7
23 Methylal	45		2.872					ND	
25 Acetonitrile	41		2.878					ND	
26 3-Chloro-1-propene	76		2.902					ND	
27 Methyl acetate	43		2.914					ND	
28 Methylene Chloride	84		2.997					ND	
29 2-Methyl-2-propanol	59		3.080					ND	U
30 Acrylonitrile	53		3.211					ND	
31 Methyl tert-butyl ether	73		3.222					ND	
32 trans-1,2-Dichloroethene	96		3.222					ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 Hexane	86		3.436					ND	
33 Chlorodifluoromethane TIC	51		3.441					ND	
35 1,1-Dichloroethane	63		3.566					ND	
36 Vinyl acetate	43		3.602					ND	
37 Isopropyl ether	87		3.614					ND	
38 2-Chloro-1,3-butadiene	53		3.637					ND	
39 Tert-butyl ethyl ether	59		3.898					ND	
42 2,2-Dichloropropane	97		4.041					ND	
41 cis-1,2-Dichloroethene	96		4.041					ND	
40 2-Butanone (MEK)	72		4.053					ND	
43 Ethyl acetate	43		4.088					ND	
44 Propionitrile	54		4.112					ND	
45 Methacrylonitrile	41		4.230					ND	
46 Chlorobromomethane	128		4.242					ND	
47 Tetrahydrofuran	42		4.278					ND	
48 Chloroform	83		4.302					ND	
49 1,1,1-Trichloroethane	97		4.456					ND	
50 Cyclohexane	56		4.503					ND	
51 1,1-Dichloropropene	75		4.586					ND	
52 Carbon tetrachloride	117		4.598					ND	
53 Isobutyl alcohol	41		4.669					ND	
55 Benzene	78	4.776	4.764	0.012	93	23747		0.1325	
56 1,2-Dichloroethane	62		4.788					ND	
54 Isooctane	57	4.823	4.811	0.012	93	3398		0.0369	
57 Tert-amyl methyl ether	73		4.847					ND	
58 n-Heptane	100		4.966					ND	
59 n-Butanol	56		5.215					ND	
60 Trichloroethene	130		5.298					ND	7
61 Ethyl acrylate	55		5.381					ND	
62 Methylcyclohexane	83		5.464					ND	
63 1,2-Dichloropropane	63		5.499					ND	
64 Methyl methacrylate	41		5.570					ND	
65 Dibromomethane	93		5.594					ND	
66 1,4-Dioxane	88		5.606					ND	
67 Dichlorobromomethane	83		5.725					ND	
68 2-Nitropropane	41		5.926					ND	
69 2-Chloroethyl vinyl ether	63		5.974					ND	
70 cis-1,3-Dichloropropene	75		6.116					ND	
71 4-Methyl-2-pentanone (MIBK)	43		6.246					ND	
72 Toluene	91		6.412					ND	7
73 trans-1,3-Dichloropropene	75		6.602					ND	
74 Ethyl methacrylate	69		6.661					ND	
75 1,1,2-Trichloroethane	97		6.768					ND	
76 Tetrachloroethene	164		6.899					ND	
77 1,3-Dichloropropane	76		6.922					ND	
78 2-Hexanone	43		6.982					ND	
79 n-Butyl acetate	43		7.088					ND	
80 Chlorodibromomethane	129		7.124					ND	
82 Ethylene Dibromide	107		7.242					ND	
81 Tetrahydrothiophene	60		7.292					ND	
83 1-Chlorohexane	91		7.646					ND	7
84 Chlorobenzene	112		7.681					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,1,1,2-Tetrachloroethane	131		7.764					ND	
86 Ethylbenzene	106		7.776					ND	
87 m-Xylene & p-Xylene	91		7.883					ND	
88 o-Xylene	106		8.262					ND	
89 Styrene	104		8.274					ND	
90 Bromoform	173		8.464					ND	
91 Isopropylbenzene	105		8.618					ND	
92 Cyclohexanone	55		8.713					ND	
93 1,4-Dichlorobutane	55		8.881					ND	
94 1,1,2,2-Tetrachloroethane	83		8.903					ND	
95 Bromobenzene	156		8.915					ND	
96 1,2,3-Trichloropropane	110		8.950					ND	
97 trans-1,4-Dichloro-2-butene	53		8.962					ND	
98 N-Propylbenzene	120		9.009					ND	
99 2-Chlorotoluene	126		9.092					ND	
101 1,3,5-Trimethylbenzene	105		9.175					ND	
102 4-Chlorotoluene	91		9.199					ND	
100 3-Ethyltoluene	105		9.324					ND	
104 tert-Butylbenzene	119		9.496					ND	
105 Pentachloroethane	167		9.519					ND	
106 1,2,4-Trimethylbenzene	105		9.543					ND	
103 2-Ethyltoluene	105		9.609					ND	
107 sec-Butylbenzene	105		9.709					ND	
108 1,3-Dichlorobenzene	146		9.828					ND	
109 4-Isopropyltoluene	119		9.851					ND	
110 1,4-Dichlorobenzene	146		9.911					ND	
111 1,2,3-Trimethylbenzene	105		9.958					ND	
112 Benzyl chloride	126		10.053					ND	
113 n-Butylbenzene	91		10.255					ND	
114 1,2-Dichlorobenzene	146		10.278					ND	
115 1,2-Dibromo-3-Chloropropane	157		11.061					ND	
116 1,3,5-Trichlorobenzene	180		11.262					ND	7
117 1,2,4-Trichlorobenzene	180		11.879					ND	
118 Hexachlorobutadiene	225		12.045					ND	7
119 Naphthalene	128		12.128					ND	
120 1,2,3-Trichlorobenzene	180		12.365					ND	
121 2-Methylnaphthalene	142	13.350	13.361	-0.011	93	15458		0.2111	
122 1-Methylnaphthalene	142	13.599	13.598	0.001	91	16659		0.2553	
123 Epichlorohydrin	1		0.000					ND	
125 Propene oxide	1		0.000					ND	
124 Ethylene oxide	1		0.000					ND	
126 1,3-Diethylbenzene TIC	1		0.000					ND	
S 127 1,2-Dichloroethene, Total	96		1.140					ND	
S 128 1,3-Dichloropropene, Total	75		6.760					ND	
S 129 Xylenes, Total	106		16.530					ND	
S 130 Total BTEX	1				0			0.1325	
S 131 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

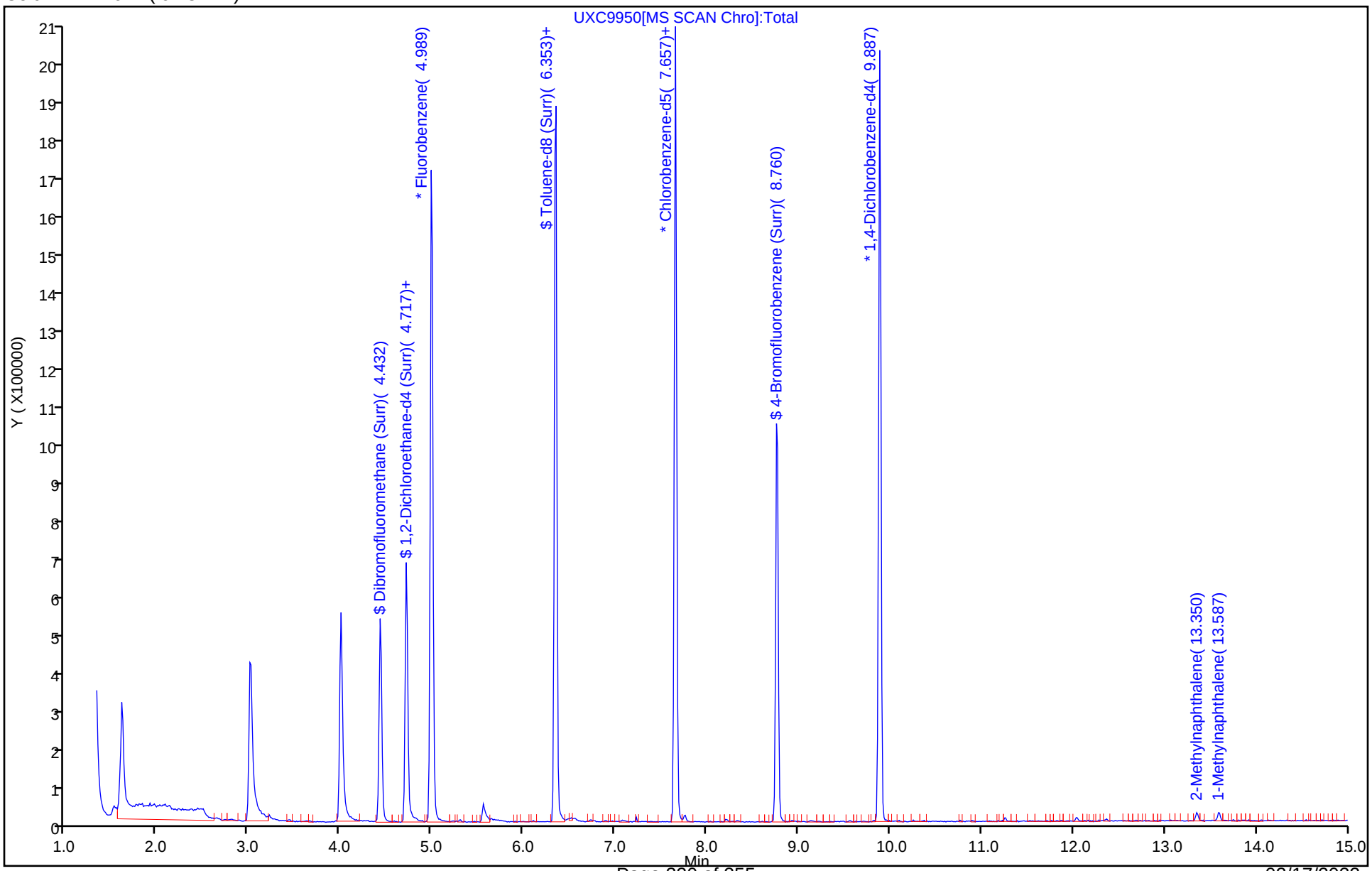
Report Date: 12-Oct-2021 11:13:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D

Injection Date:	11-Oct-2021 11:10:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9950.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 11-Oct-2021 11:10:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-007
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

First Level Reviewer: evansle Date: 11-Oct-2021 11:49:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.82	88.20
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.7	116.61
$ 6 Toluene-d8 (Surr)	10.0	9.34	93.39
$ 7 4-Bromofluorobenzene (Surr)	10.0	8.24	82.41

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-507379/4

Matrix: Water | Lab File ID: UXC9917.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 10:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	20.5		2.0	0.42
71-55-6	1,1,1-Trichloroethane	9.11		1.0	0.48
75-34-3	1,1-Dichloroethane	10.9		1.0	0.47
75-35-4	1,1-Dichloroethene	9.14		1.0	0.49
71-43-2	Benzene	10.5		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	9.75		1.0	0.46
100-41-4	Ethylbenzene	10.4		1.0	0.42
127-18-4	Tetrachloroethene	9.21		1.0	0.44
108-88-3	Toluene	10.7		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.51
79-01-6	Trichloroethene	9.29		1.0	0.44
75-01-4	Vinyl chloride	8.25		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		56-136
1868-53-7	Dibromofluoromethane (Surr)	88		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		62-137
2037-26-5	Toluene-d8 (Surr)	100		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2021 10:34:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-004
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1734705	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	88	1259192	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	95	701641	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	356368	10.0	8.79	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	100	492579	10.0	10.8	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1548426	10.0	10.0	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	519660	10.0	9.96	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	208304	10.0	3.99	
10 Chloromethane	50	1.562	1.562	0.000	99	475505	10.0	8.00	
11 Vinyl chloride	62	1.657	1.657	0.000	98	420276	10.0	8.25	
12 Butadiene	54	1.669	1.669	0.000	99	455657	10.0	7.01	
13 Bromomethane	94	1.930	1.930	0.000	90	243687	10.0	5.71	
14 Chloroethane	64	1.989	1.989	0.000	100	316518	10.0	8.43	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	97	793404	10.0	7.94	
16 Trichlorofluoromethane	101	2.214	2.202	0.012	98	620252	10.0	6.86	
17 Ethyl ether	59	2.404	2.404	0.000	93	488013	10.0	11.2	
18 Acrolein	56	2.523	2.523	0.000	100	279693	50.0	106.9	
19 1,1-Dichloroethene	96	2.618	2.606	0.012	96	458620	10.0	9.14	
20 112TCTFE	151	2.618	2.617	0.001	80	374847	10.0	8.97	
21 Acetone	58	2.641	2.641	0.000	99	82468	20.0	23.5	
22 Iodomethane	142	2.760	2.748	0.012	98	659600	10.0	8.59	
24 Carbon disulfide	76	2.819	2.807	0.012	100	1041527	10.0	7.45	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	88	351355	10.0	11.9	
27 Methyl acetate	43	2.914	2.914	0.000	98	618263	20.0	28.1	
28 Methylene Chloride	84	3.009	3.009	0.000	96	493241	10.0	10.6	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	89	227042	100.0	92.5	
30 Acrylonitrile	53	3.211	3.210	0.000	98	1568871	100.0	133.2	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1168246	10.0	9.60	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	490835	10.0	9.80	
34 Hexane	86	3.436	3.436	0.000	94	100411	10.0	10.0	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	96	861168	10.0	10.9	
36 Vinyl acetate	43	3.602	3.602	0.000	98	710645	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	97	4.052	4.040	0.012	79	123421	10.0	8.00	
41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	84	515561	10.0	9.75	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	99	90393	20.0	24.7	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	240505	10.0	9.63	
47 Tetrahydrofuran	42	4.278	4.278	0.000	89	209728	20.0	23.0	
48 Chloroform	83	4.301	4.301	0.000	94	824200	10.0	10.4	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	647972	10.0	9.11	
50 Cyclohexane	56	4.503	4.503	0.000	92	767294	10.0	10.5	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	94	667067	10.0	10.4	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	540398	10.0	8.54	
53 Isobutyl alcohol	41	4.669	4.669	0.000	92	271355	250.0	349.7	
55 Benzene	78	4.764	4.764	0.000	96	2006350	10.0	10.5	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	98	693150	10.0	12.2	
58 n-Heptane	100	4.966	4.965	0.001	92	81084	10.0	9.44	
60 Trichloroethene	130	5.298	5.297	0.001	97	475110	10.0	9.29	
62 Methylcyclohexane	83	5.464	5.463	0.001	92	580624	10.0	9.09	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	474277	10.0	12.0	
65 Dibromomethane	93	5.594	5.594	0.000	95	257572	10.0	11.3	
66 1,4-Dioxane	88	5.606	5.606	0.000	96	54315	200.0	162.0	
67 Dichlorobromomethane	83	5.725	5.724	0.000	99	499943	10.0	9.96	
69 2-Chloroethyl vinyl ether	63	5.974	5.973	0.001	93	214535	10.0	15.7	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	585711	10.0	10.7	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	98	695316	20.0	26.4	
72 Toluene	91	6.412	6.412	0.000	98	1990875	10.0	10.7	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	513060	10.0	10.8	
74 Ethyl methacrylate	69	6.661	6.661	0.000	90	446078	10.0	12.4	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	376286	10.0	12.3	
76 Tetrachloroethene	164	6.898	6.898	0.000	97	360985	10.0	9.21	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	94	690899	10.0	13.2	
78 2-Hexanone	43	6.982	6.981	0.001	98	440089	20.0	25.2	
80 Chlorodibromomethane	129	7.124	7.124	0.000	91	319151	10.0	9.51	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	339913	10.0	11.5	
84 Chlorobenzene	112	7.681	7.681	0.000	94	1252332	10.0	11.0	
85 1,1,1,2-Tetrachloroethane	131	7.764	7.752	0.012	93	390697	10.0	8.25	
86 Ethylbenzene	106	7.776	7.776	0.000	99	646139	10.0	10.4	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1622364	10.0	10.8	
88 o-Xylene	106	8.262	8.262	0.000	95	783026	10.0	9.68	
89 Styrene	104	8.274	8.274	0.000	91	1260443	10.0	12.0	
90 Bromoform	173	8.464	8.464	0.000	95	163050	10.0	7.86	
91 Isopropylbenzene	105	8.606	8.618	-0.012	96	1799386	10.0	9.01	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.902	0.001	96	452914	10.0	12.6	
95 Bromobenzene	156	8.914	8.914	0.000	95	504003	10.0	10.2	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	144014	10.0	12.4	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	68	95451	10.0	11.6	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	489531	10.0	10.0	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	453827	10.0	9.99	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	94	1498167	10.0	9.72	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1654010	10.0	11.4	
104 tert-Butylbenzene	119	9.496	9.495	0.001	93	1164761	10.0	8.84	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1578465	10.0	9.99	
107 sec-Butylbenzene	105	9.709	9.709	0.000	94	1560485	10.0	8.99	
108 1,3-Dichlorobenzene	146	9.828	9.827	0.001	97	914123	10.0	9.88	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1388275	10.0	8.94	
110 1,4-Dichlorobenzene	146	9.911	9.910	0.001	96	957588	10.0	9.96	
113 n-Butylbenzene	91	10.254	10.254	0.000	98	1057799	10.0	8.41	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	918710	10.0	9.54	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	76	52446	10.0	6.63	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	93	438469	10.0	6.20	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	98	170331	10.0	5.38	
119 Naphthalene	128	12.128	12.128	0.000	97	1026488	10.0	6.81	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	403292	10.0	6.01	
S 129 Xylenes, Total	106				0		20.0	20.5	
S 130 Total BTEX	1				0		50.0	52.1	
S 131 Trihalomethanes, Total	1				0		40.0	37.8	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
VMFASAW_00393	Amount Added:	8.00	Units: uL	
VMFASGW_00427	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

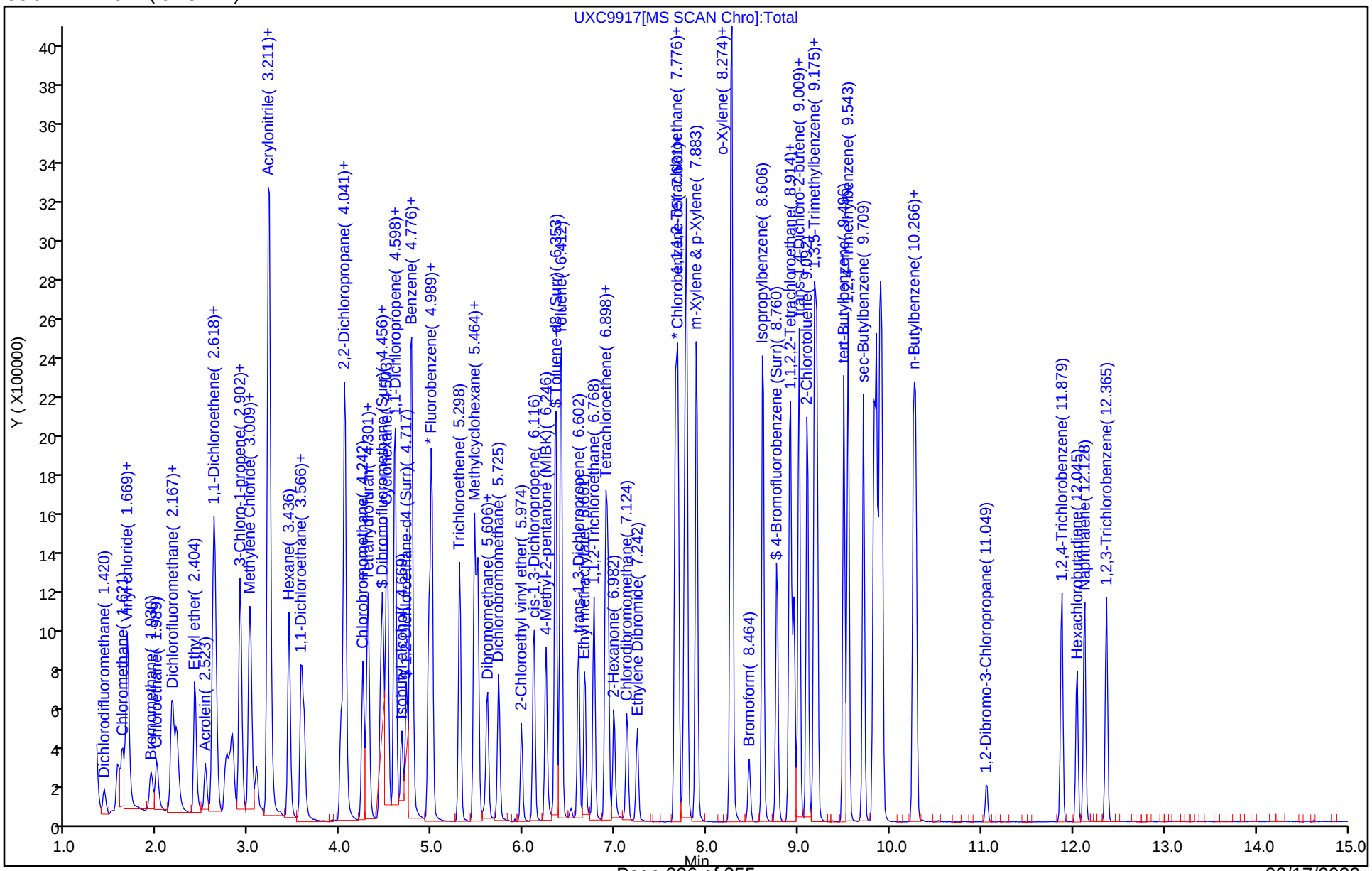
Report Date: 11-Oct-2021 07:47:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D

Injection Date:	08-Oct-2021 10:34:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9917.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 08-Oct-2021 10:34:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-004
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.79	87.89
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.84
$ 6 Toluene-d8 (Surr)	10.0	10.0	100.34
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.96	99.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-507592/4

Matrix: Water | Lab File ID: UXC9946.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 10/11/2021 09:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507592 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	20.9		2.0	0.42
71-55-6	1,1,1-Trichloroethane	9.39		1.0	0.48
75-34-3	1,1-Dichloroethane	11.0		1.0	0.47
75-35-4	1,1-Dichloroethene	9.30		1.0	0.49
71-43-2	Benzene	11.1		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.46
100-41-4	Ethylbenzene	10.6		1.0	0.42
127-18-4	Tetrachloroethene	9.55		1.0	0.44
108-88-3	Toluene	11.2		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	10.0		1.0	0.51
79-01-6	Trichloroethene	9.69		1.0	0.44
75-01-4	Vinyl chloride	10.3		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		56-136
1868-53-7	Dibromofluoromethane (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		62-137
2037-26-5	Toluene-d8 (Surr)	101		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Oct-2021 09:43:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-004
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1889156	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1368722	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	754760	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	382850	10.0	8.67	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.717	0.000	99	531211	10.0	10.7	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1686528	10.0	10.1	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	562394	10.0	9.91	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	507172	10.0	8.91	
10 Chloromethane	50	1.562	1.562	0.000	99	666909	10.0	10.3	
11 Vinyl chloride	62	1.657	1.657	0.000	99	571327	10.0	10.3	
12 Butadiene	54	1.669	1.669	0.000	99	593007	10.0	8.38	
13 Bromomethane	94	1.930	1.930	0.000	91	320531	10.0	6.90	
14 Chloroethane	64	1.989	2.001	-0.012	100	373768	10.0	9.14	
15 Dichlorofluoromethane	67	2.155	2.155	0.000	98	822221	10.0	7.56	
16 Trichlorofluoromethane	101	2.203	2.214	-0.011	99	641451	10.0	6.52	
17 Ethyl ether	59	2.404	2.404	0.000	93	496034	10.0	10.5	
18 Acrolein	56	2.523	2.523	0.000	100	314134	50.0	110.3	
19 1,1-Dichloroethene	96	2.618	2.618	0.000	96	507772	10.0	9.30	
20 112TCTFE	151	2.618	2.618	0.000	93	393599	10.0	8.64	
21 Acetone	58	2.641	2.641	0.000	99	91840	20.0	24.0	
22 Iodomethane	142	2.748	2.748	0.000	98	782879	10.0	9.36	
24 Carbon disulfide	76	2.807	2.819	-0.012	100	1203438	10.0	7.91	
26 3-Chloro-1-propene	76	2.902	2.902	0.000	89	366641	10.0	11.4	
27 Methyl acetate	43	2.914	2.914	0.000	97	705554	20.0	29.4	
28 Methylene Chloride	84	2.997	2.997	0.000	95	560479	10.0	11.0	
29 2-Methyl-2-propanol	59	3.080	3.080	0.000	91	226860	100.0	84.9	
30 Acrylonitrile	53	3.211	3.211	0.000	99	1740839	100.0	135.8	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	97	1324688	10.0	10.0	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	98	546555	10.0	10.0	
34 Hexane	86	3.436	3.436	0.000	94	107229	10.0	9.82	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	946365	10.0	11.0	
36 Vinyl acetate	43	3.602	3.602	0.000	97	774062	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	97	4.041	4.041	0.000	80	135217	10.0	8.05	
41 cis-1,2-Dichloroethene	96	4.041	4.041	0.000	84	582515	10.0	10.1	
40 2-Butanone (MEK)	72	4.052	4.053	-0.001	99	100240	20.0	25.1	
46 Chlorobromomethane	128	4.242	4.242	0.000	97	264745	10.0	9.73	
47 Tetrahydrofuran	42	4.278	4.278	0.000	92	223015	20.0	22.5	
48 Chloroform	83	4.302	4.302	0.000	93	903615	10.0	10.5	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	727545	10.0	9.39	
50 Cyclohexane	56	4.503	4.503	0.000	92	854839	10.0	10.7	
51 1,1-Dichloropropene	75	4.586	4.586	0.000	95	741202	10.0	10.6	
52 Carbon tetrachloride	117	4.598	4.598	0.000	97	599600	10.0	8.70	
53 Isobutyl alcohol	41	4.669	4.669	0.000	93	308753	250.0	365.3	
55 Benzene	78	4.764	4.764	0.000	96	2292236	10.0	11.1	
56 1,2-Dichloroethane	62	4.788	4.788	0.000	97	773031	10.0	12.5	
58 n-Heptane	100	4.966	4.966	0.000	92	86220	10.0	9.22	
60 Trichloroethene	130	5.298	5.298	0.000	98	539641	10.0	9.69	
62 Methylcyclohexane	83	5.464	5.464	0.000	92	624837	10.0	8.98	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	544808	10.0	12.7	
65 Dibromomethane	93	5.594	5.594	0.000	95	291803	10.0	11.8	
66 1,4-Dioxane	88	5.606	5.606	0.000	31	49216	200.0	132.6	
67 Dichlorobromomethane	83	5.725	5.725	0.000	99	566334	10.0	10.4	
69 2-Chloroethyl vinyl ether	63	5.974	5.974	0.000	94	239477	10.0	16.1	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	94	680585	10.0	11.4	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	97	744203	20.0	26.0	
72 Toluene	91	6.412	6.412	0.000	98	2265432	10.0	11.2	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	585499	10.0	11.3	
74 Ethyl methacrylate	69	6.661	6.661	0.000	91	492657	10.0	12.6	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	91	428614	10.0	12.9	
76 Tetrachloroethene	164	6.899	6.899	0.000	97	407143	10.0	9.55	
77 1,3-Dichloropropane	76	6.922	6.922	0.000	93	791125	10.0	13.9	
78 2-Hexanone	43	6.982	6.982	0.000	98	515159	20.0	27.1	
80 Chlorodibromomethane	129	7.124	7.124	0.000	91	358507	10.0	9.83	
82 Ethylene Dibromide	107	7.242	7.242	0.000	99	398606	10.0	12.4	
84 Chlorobenzene	112	7.681	7.681	0.000	94	1419304	10.0	11.5	
85 1,1,1,2-Tetrachloroethane	131	7.752	7.764	-0.012	93	448530	10.0	8.72	
86 Ethylbenzene	106	7.776	7.776	0.000	99	713134	10.0	10.6	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1810452	10.0	11.1	
88 o-Xylene	106	8.262	8.262	0.000	97	865138	10.0	9.84	
89 Styrene	104	8.274	8.274	0.000	94	1398665	10.0	12.3	
90 Bromoform	173	8.464	8.464	0.000	96	183858	10.0	8.15	
91 Isopropylbenzene	105	8.606	8.618	-0.012	96	1976324	10.0	9.11	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.903	0.000	96	515887	10.0	13.4	
95 Bromobenzene	156	8.914	8.915	-0.001	95	560885	10.0	10.6	
96 1,2,3-Trichloropropane	110	8.950	8.950	0.000	88	168349	10.0	13.4	
97 trans-1,4-Dichloro-2-butene	53	8.962	8.962	0.000	67	113346	10.0	12.8	
98 N-Propylbenzene	120	9.009	9.009	0.000	99	534201	10.0	10.1	
99 2-Chlorotoluene	126	9.092	9.092	0.000	98	501029	10.0	10.3	
101 1,3,5-Trimethylbenzene	105	9.175	9.175	0.000	93	1611275	10.0	9.72	
102 4-Chlorotoluene	91	9.199	9.199	0.000	99	1818863	10.0	11.6	
104 tert-Butylbenzene	119	9.496	9.496	0.000	93	1281461	10.0	9.04	
106 1,2,4-Trimethylbenzene	105	9.543	9.543	0.000	95	1759833	10.0	10.4	
107 sec-Butylbenzene	105	9.709	9.709	0.000	95	1683167	10.0	9.01	
108 1,3-Dichlorobenzene	146	9.828	9.828	0.000	97	1008504	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
109 4-Isopropyltoluene	119	9.851	9.851	0.000	97	1472875	10.0	8.82	
110 1,4-Dichlorobenzene	146	9.911	9.911	0.000	94	1058601	10.0	10.2	
113 n-Butylbenzene	91	10.254	10.255	-0.001	98	1138910	10.0	8.42	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	97	1014367	10.0	9.79	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	91	58891	10.0	6.92	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	95	434251	10.0	5.71	
118 Hexachlorobutadiene	225	12.045	12.045	0.000	96	169658	10.0	4.92	
119 Naphthalene	128	12.128	12.128	0.000	97	1033614	10.0	6.37	
120 1,2,3-Trichlorobenzene	180	12.365	12.365	0.000	95	400431	10.0	5.55	
S 129 Xylenes, Total	106				0		20.0	20.9	
S 130 Total BTEX	1				0		50.0	53.7	
S 131 Trihalomethanes, Total	1				0		40.0	38.9	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
vmfasaw_00394	Amount Added:	8.00	Units: uL	
vmfasgw_00428	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00203	Amount Added:	0.00	Units:	Run Reagent

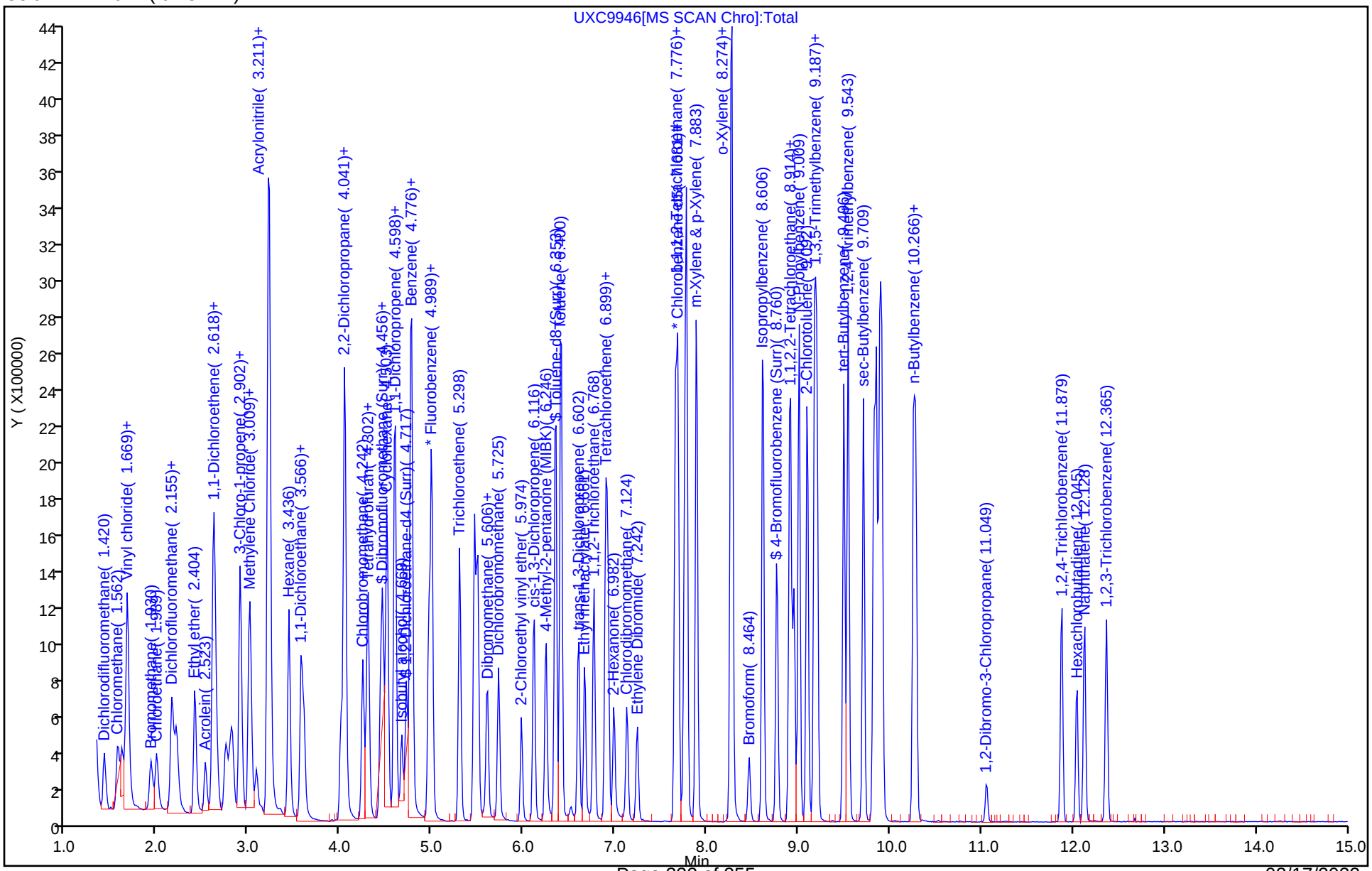
Report Date: 12-Oct-2021 11:12:59 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D

Injection Date:	11-Oct-2021 09:43:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\UXC9946.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 11-Oct-2021 09:43:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113979-004
Misc. Info.: C211011A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211011-113979.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 12-Oct-2021 11:12:57 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1669

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.67	86.70
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.79
$ 6 Toluene-d8 (Surr)	10.0	10.1	100.54
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.91	99.12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: HR-4/100421/ MS | Lab Sample ID: 240-157477-4 MS

Matrix: Water | Lab File ID: UXC9942.D

Analysis Method: 8260B | Date Collected: 10/04/2021 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 20:08

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	19.2		2.0	0.42
71-55-6	1,1,1-Trichloroethane	10.6		1.0	0.48
75-34-3	1,1-Dichloroethane	12.6		1.0	0.47
75-35-4	1,1-Dichloroethene	9.65		1.0	0.49
71-43-2	Benzene	10.3		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	10.3		1.0	0.46
100-41-4	Ethylbenzene	9.81		1.0	0.42
127-18-4	Tetrachloroethene	8.83		1.0	0.44
108-88-3	Toluene	10.8		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	9.56		1.0	0.51
79-01-6	Trichloroethene	9.13		1.0	0.44
75-01-4	Vinyl chloride	8.99		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		56-136
1868-53-7	Dibromofluoromethane (Surr)	91		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		62-137
2037-26-5	Toluene-d8 (Surr)	101		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9942.D
Lims ID: 240-157477-E-4 MS
Client ID: HR-4/100421/
Sample Type: MS
Inject. Date: 08-Oct-2021 20:08:30 ALS Bottle#: 27 Worklist Smp#: 63
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-063
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1635891	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.657	7.657	0.000	87	1142988	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	95	654582	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	348444	10.0	9.11	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	100	473033	10.0	11.0	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1416366	10.0	10.1	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	88	458767	10.0	9.68	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	160921	10.0	3.26	
10 Chloromethane	50	1.562	1.562	0.000	99	425631	10.0	7.59	
11 Vinyl chloride	62	1.657	1.657	0.000	97	431970	10.0	8.99	
13 Bromomethane	94	1.918	1.930	-0.012	90	296264	10.0	7.36	
14 Chloroethane	64	1.989	1.989	0.000	100	308109	10.0	8.70	
16 Trichlorofluoromethane	101	2.203	2.202	0.001	99	555526	10.0	6.52	
19 1,1-Dichloroethene	96	2.606	2.606	0.000	97	456425	10.0	9.65	
20 112TCTFE	151	2.618	2.617	0.001	89	278463	10.0	7.06	
21 Acetone	58	2.641	2.641	0.000	99	74435	20.0	22.5	
24 Carbon disulfide	76	2.807	2.807	0.000	100	979360	10.0	7.43	
27 Methyl acetate	43	2.914	2.914	0.000	98	533693	20.0	25.7	
28 Methylene Chloride	84	2.997	3.009	-0.012	96	464764	10.0	10.6	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	983435	10.0	8.57	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	97	451492	10.0	9.56	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	943170	10.0	12.6	
41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	84	514908	10.0	10.3	
40 2-Butanone (MEK)	72	4.052	4.052	0.000	99	72634	20.0	21.0	
48 Chloroform	83	4.302	4.301	0.001	94	768886	10.0	10.3	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	708199	10.0	10.6	
50 Cyclohexane	56	4.503	4.503	0.000	92	541923	10.0	7.83	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	487885	10.0	8.18	
55 Benzene	78	4.764	4.764	0.000	96	1848153	10.0	10.3	
56 1,2-Dichloroethane	62	4.776	4.788	-0.012	98	648800	10.0	12.2	
60 Trichloroethene	130	5.298	5.297	0.001	97	440213	10.0	9.13	
62 Methylcyclohexane	83	5.464	5.463	0.001	92	356784	10.0	5.92	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
63 1,2-Dichloropropane	63	5.499	5.499	0.000	96	435020	10.0	11.7	
67 Dichlorobromomethane	83	5.725	5.724	0.001	98	459346	10.0	9.71	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	450677	10.0	8.75	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	98	533029	20.0	21.5	
72 Toluene	91	6.400	6.412	-0.012	98	1828854	10.0	10.8	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	404205	10.0	9.34	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	344406	10.0	12.4	
76 Tetrachloroethene	164	6.899	6.898	0.001	98	314203	10.0	8.83	
78 2-Hexanone	43	6.982	6.981	0.001	97	357593	20.0	22.5	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	287177	10.0	9.43	
82 Ethylene Dibromide	107	7.242	7.242	0.000	100	301124	10.0	11.3	
84 Chlorobenzene	112	7.681	7.681	0.000	94	1122785	10.0	10.9	
86 Ethylbenzene	106	7.776	7.776	0.000	99	552330	10.0	9.81	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1385925	10.0	10.1	
88 o-Xylene	106	8.262	8.262	0.000	97	668374	10.0	9.10	
89 Styrene	104	8.274	8.274	0.000	94	1104133	10.0	11.6	
90 Bromoform	173	8.464	8.464	0.000	96	143703	10.0	7.63	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1453068	10.0	8.02	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.902	0.001	95	416262	10.0	12.4	
108 1,3-Dichlorobenzene	146	9.828	9.827	0.001	97	802091	10.0	9.29	
110 1,4-Dichlorobenzene	146	9.911	9.910	0.001	94	840076	10.0	9.37	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	811796	10.0	9.04	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	78	42453	10.0	5.75	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	284942	10.0	4.32	
S 129 Xylenes, Total	106				0		20.0	19.2	

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
VMFASAW_00393	Amount Added:	8.00	Units: uL	
VMFASGW_00427	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

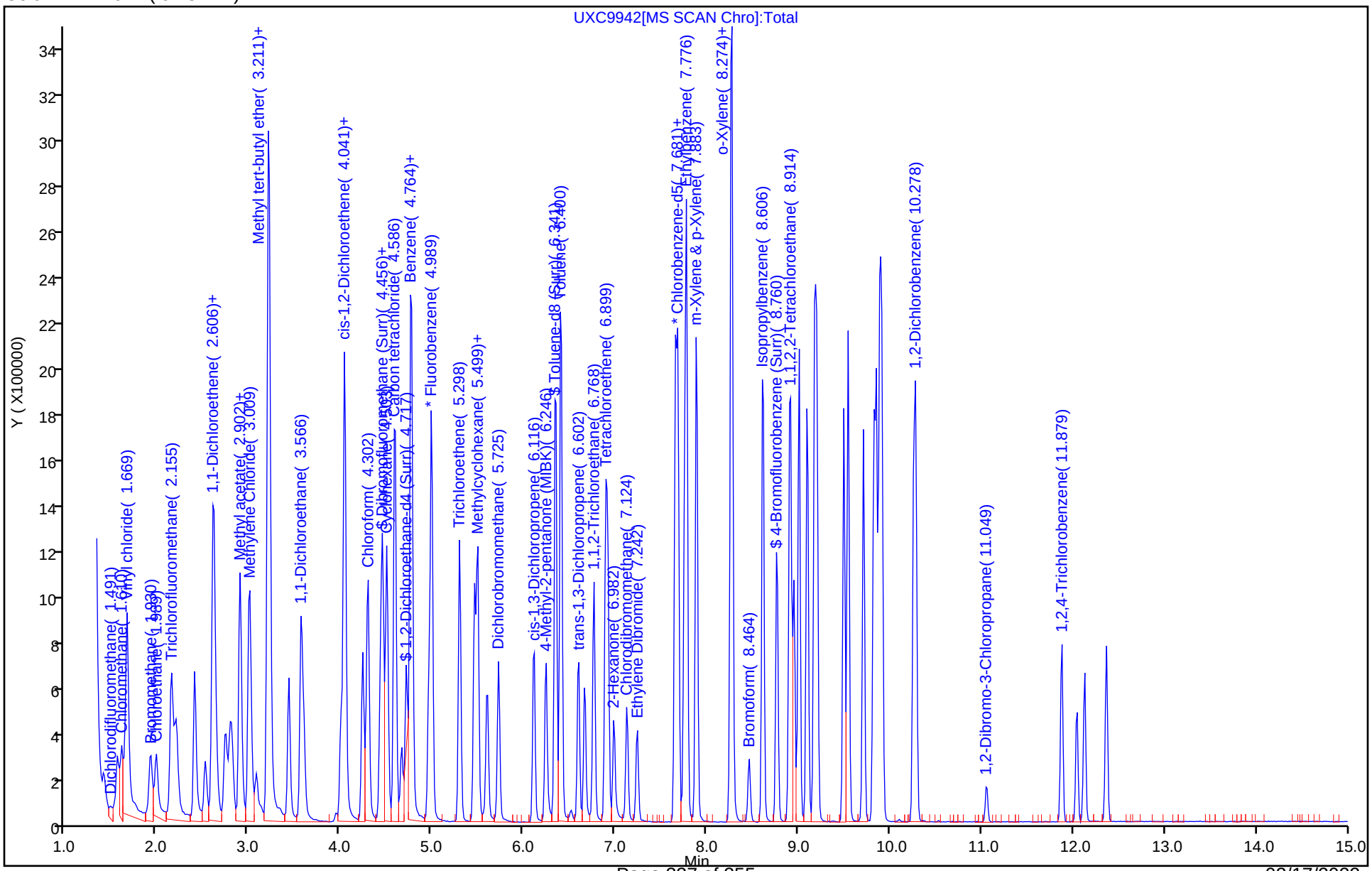
Report Date: 11-Oct-2021 07:48:03 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9942.D

Injection Date:	08-Oct-2021 20:08:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-E-4 MS			Worklist Smp#:	63
Client ID:	HR-4/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9942.D
Lims ID: 240-157477-E-4 MS
Client ID: HR-4/100421/
Sample Type: MS
Inject. Date: 08-Oct-2021 20:08:30 ALS Bottle#: 27 Worklist Smp#: 63
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-063
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	9.11	91.13
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	11.0	109.81
$ 6 Toluene-d8 (Surr)	10.0	10.1	101.11
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.68	96.82

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Canton | Job No.: 240-157477-1

SDG No.:

Client Sample ID: HR-4/100421/ MSD | Lab Sample ID: 240-157477-4 MSD

Matrix: Water | Lab File ID: UXC9943.D

Analysis Method: 8260B | Date Collected: 10/04/2021 11:15

Sample wt/vol: 5(mL) | Date Analyzed: 10/08/2021 20:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 507379 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	19.3		2.0	0.42
71-55-6	1,1,1-Trichloroethane	10.3		1.0	0.48
75-34-3	1,1-Dichloroethane	12.1		1.0	0.47
75-35-4	1,1-Dichloroethene	8.66		1.0	0.49
71-43-2	Benzene	10.3		1.0	0.42
156-59-2	cis-1,2-Dichloroethene	10.0		1.0	0.46
100-41-4	Ethylbenzene	9.89		1.0	0.42
127-18-4	Tetrachloroethene	9.05		1.0	0.44
108-88-3	Toluene	10.8		1.0	0.44
156-60-5	trans-1,2-Dichloroethene	9.53		1.0	0.51
79-01-6	Trichloroethene	8.96		1.0	0.44
75-01-4	Vinyl chloride	8.22		1.0	0.45

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		56-136
1868-53-7	Dibromofluoromethane (Surr)	87		73-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		62-137
2037-26-5	Toluene-d8 (Surr)	104		78-122

Eurofins TestAmerica, Canton
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9943.D
Lims ID: 240-157477-H-4 MSD
Client ID: HR-4/100421/
Sample Type: MSD
Inject. Date: 08-Oct-2021 20:30:30 ALS Bottle#: 28 Worklist Smp#: 64
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-064
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:47:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	4.989	4.989	0.000	99	1693896	10.0	10.0	
* 2 Chlorobenzene-d5	117	7.658	7.657	0.001	88	1173429	10.0	10.0	
* 3 1,4-Dichlorobenzene-d4	152	9.887	9.887	0.000	94	661372	10.0	10.0	
$ 4 Dibromofluoromethane (Surr)	113	4.432	4.432	0.000	93	345756	10.0	8.73	
$ 5 1,2-Dichloroethane-d4 (Surr)	65	4.717	4.716	0.001	99	481584	10.0	10.8	
$ 6 Toluene-d8 (Surr)	98	6.353	6.353	0.000	94	1493045	10.0	10.4	
$ 7 4-Bromofluorobenzene (Surr)	95	8.760	8.760	0.000	89	466772	10.0	9.60	
9 Dichlorodifluoromethane	85	1.420	1.420	0.000	99	169229	10.0	3.32	
10 Chloromethane	50	1.562	1.562	0.000	98	452416	10.0	7.80	
11 Vinyl chloride	62	1.657	1.657	0.000	98	408755	10.0	8.22	
13 Bromomethane	94	1.930	1.930	0.000	90	256035	10.0	6.14	
14 Chloroethane	64	1.989	1.989	0.000	100	295683	10.0	8.07	
16 Trichlorofluoromethane	101	2.203	2.202	0.001	97	546171	10.0	6.19	
19 1,1-Dichloroethene	96	2.618	2.606	0.012	96	423949	10.0	8.66	
20 112TCTFE	151	2.618	2.617	0.001	93	302326	10.0	7.41	
21 Acetone	58	2.641	2.641	0.000	98	63995	20.0	18.7	
24 Carbon disulfide	76	2.807	2.807	0.000	100	983654	10.0	7.21	
27 Methyl acetate	43	2.914	2.914	0.000	98	546776	20.0	25.4	
28 Methylene Chloride	84	2.997	3.009	-0.012	96	474189	10.0	10.4	
31 Methyl tert-butyl ether	73	3.222	3.222	0.000	95	1017375	10.0	8.56	
32 trans-1,2-Dichloroethene	96	3.222	3.222	0.000	99	466206	10.0	9.53	
35 1,1-Dichloroethane	63	3.566	3.566	0.000	97	936758	10.0	12.1	
41 cis-1,2-Dichloroethene	96	4.041	4.040	0.001	84	517343	10.0	10.0	
40 2-Butanone (MEK)	72	4.053	4.052	0.001	99	77114	20.0	21.5	
48 Chloroform	83	4.302	4.301	0.001	93	777512	10.0	10.1	
49 1,1,1-Trichloroethane	97	4.456	4.456	0.000	97	716398	10.0	10.3	
50 Cyclohexane	56	4.503	4.503	0.000	92	611476	10.0	8.53	
52 Carbon tetrachloride	117	4.598	4.598	0.000	96	491480	10.0	7.96	
55 Benzene	78	4.764	4.764	0.000	96	1911622	10.0	10.3	
56 1,2-Dichloroethane	62	4.776	4.788	-0.012	98	654343	10.0	11.8	
60 Trichloroethene	130	5.298	5.297	0.001	97	447528	10.0	8.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
62 Methylcyclohexane	83	5.464	5.463	0.001	92	434482	10.0	6.96	
63 1,2-Dichloropropane	63	5.499	5.499	0.000	95	448162	10.0	11.6	
67 Dichlorobromomethane	83	5.725	5.724	0.001	98	472778	10.0	9.65	
70 cis-1,3-Dichloropropene	75	6.116	6.116	0.000	93	478371	10.0	8.97	
71 4-Methyl-2-pentanone (MIBK)	43	6.246	6.246	0.000	98	568954	20.0	22.1	
72 Toluene	91	6.412	6.412	0.000	97	1871837	10.0	10.8	
73 trans-1,3-Dichloropropene	75	6.602	6.602	0.000	96	435444	10.0	9.80	
75 1,1,2-Trichloroethane	97	6.768	6.768	0.000	93	349778	10.0	12.3	
76 Tetrachloroethene	164	6.899	6.898	0.001	97	330761	10.0	9.05	
78 2-Hexanone	43	6.982	6.981	0.001	97	389817	20.0	23.9	
80 Chlorodibromomethane	129	7.124	7.124	0.000	90	292893	10.0	9.37	
82 Ethylene Dibromide	107	7.242	7.242	0.000	98	319816	10.0	11.6	
84 Chlorobenzene	112	7.681	7.681	0.000	93	1128191	10.0	10.7	
86 Ethylbenzene	106	7.776	7.776	0.000	99	571719	10.0	9.89	
87 m-Xylene & p-Xylene	91	7.883	7.883	0.000	93	1430212	10.0	10.2	
88 o-Xylene	106	8.262	8.262	0.000	96	684163	10.0	9.08	
89 Styrene	104	8.274	8.274	0.000	91	1129789	10.0	11.6	
90 Bromoform	173	8.464	8.464	0.000	95	146464	10.0	7.58	
91 Isopropylbenzene	105	8.618	8.618	0.000	96	1517437	10.0	8.16	
94 1,1,2,2-Tetrachloroethane	83	8.903	8.902	0.001	96	425553	10.0	12.6	
108 1,3-Dichlorobenzene	146	9.828	9.827	0.001	97	822665	10.0	9.43	
110 1,4-Dichlorobenzene	146	9.911	9.910	0.001	94	860522	10.0	9.50	
114 1,2-Dichlorobenzene	146	10.278	10.278	0.000	96	821234	10.0	9.05	
115 1,2-Dibromo-3-Chloropropane	157	11.061	11.061	0.000	76	43868	10.0	5.88	
117 1,2,4-Trichlorobenzene	180	11.879	11.879	0.000	94	314144	10.0	4.71	
S 129 Xylenes, Total	106				0		20.0	19.3	

QC Flag Legend

Processing Flags

Reagents:

vmfaspw_00417	Amount Added:	8.00	Units: uL	
VMFASAW_00393	Amount Added:	8.00	Units: uL	
VMFASGW_00427	Amount Added:	8.00	Units: uL	
vm40ml_vials_00016	Amount Added:	0.00	Units:	Run Reagent
vm50ss_stk_00088	Amount Added:	1.00	Units: uL	Run Reagent
vmDist_H2o_00202	Amount Added:	0.00	Units:	Run Reagent
VM50IS_00090	Amount Added:	1.00	Units: uL	Run Reagent

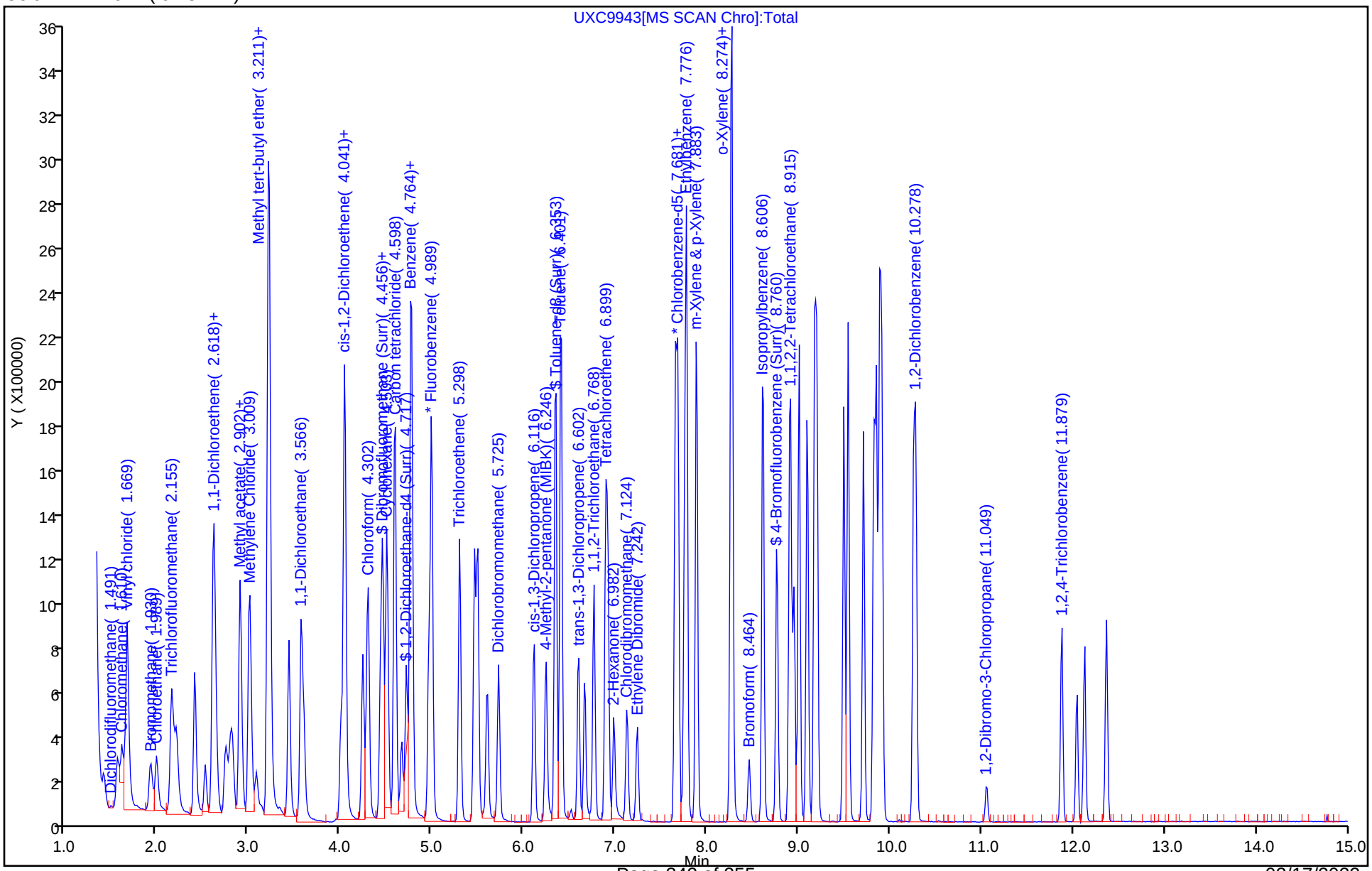
Report Date: 11-Oct-2021 07:48:04 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Canton

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9943.D

Injection Date:	08-Oct-2021 20:30:30	Instrument ID:	A3UX15	Operator ID:	43582
Lims ID:	240-157477-H-4 MSD			Worklist Smp#:	64
Client ID:	HR-4/100421/				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8260_15	Limit Group:	MSV 8260B ICAL		

Column: DB-624 (0.18 mm)



Eurofins TestAmerica, Canton
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\UXC9943.D
Lims ID: 240-157477-H-4 MSD
Client ID: HR-4/100421/
Sample Type: MSD
Inject. Date: 08-Oct-2021 20:30:30 ALS Bottle#: 28 Worklist Smp#: 64
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0113940-064
Misc. Info.: C211008A,8260LLUX15,,43582
Operator ID: 43582 Instrument ID: A3UX15

Method: \\chromfs\Canton\ChromData\A3UX15\20211008-113940.b\8260_15.m
Limit Group: MSV 8260B ICAL
Last Update: 11-Oct-2021 07:47:11 Calib Date: 16-Mar-2021 13:12:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX15\20210316-107311.b\UXC5656.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1633

First Level Reviewer: evansle Date: 11-Oct-2021 07:47:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 4 Dibromofluoromethane (Surr)	10.0	8.73	87.33
$ 5 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.97
$ 6 Toluene-d8 (Surr)	10.0	10.4	103.82
$ 7 4-Bromofluorobenzene (Surr)	10.0	9.60	95.96

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Instrument ID: A3UX15 Start Date: 03/16/2021 07:33

Analysis Batch Number: 476941 End Date: 03/16/2021 13:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-476941/1		03/16/2021 07:33	1	BFB210316.D	DB-624 0.18(mm)
STD8260 240-476941/2 IC		03/16/2021 08:36	1	UXC5644.D	DB-624 0.18(mm)
STD8260 240-476941/3 IC		03/16/2021 08:58	1	UXC5645.D	DB-624 0.18(mm)
STD8260 240-476941/4 ICIS		03/16/2021 09:20	1	UXC5646.D	DB-624 0.18(mm)
STD8260 240-476941/5 IC		03/16/2021 09:42	1	UXC5647.D	DB-624 0.18(mm)
STD8260 240-476941/6 IC		03/16/2021 10:17	1	UXC5648.D	DB-624 0.18(mm)
STD8260 240-476941/7 IC		03/16/2021 10:39	1	UXC5649.D	DB-624 0.18(mm)
ICV 240-476941/14		03/16/2021 11:01	1	UXC5650.D	DB-624 0.18(mm)
STD 240-476941/8 IC		03/16/2021 11:23	1		DB-624 0.18(mm)
STD 240-476941/9 IC		03/16/2021 11:45	1		DB-624 0.18(mm)
STD 240-476941/10 IC		03/16/2021 12:06	1		DB-624 0.18(mm)
STD 240-476941/11 IC		03/16/2021 12:28	1		DB-624 0.18(mm)
STD 240-476941/12 IC		03/16/2021 12:50	1		DB-624 0.18(mm)
STD 240-476941/13 IC		03/16/2021 13:12	1		DB-624 0.18(mm)
ICV 240-476941/15		03/16/2021 13:34	1	UXC5657.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Instrument ID: A3UX15 Start Date: 10/08/2021 09:43

Analysis Batch Number: 507379 End Date: 10/08/2021 20:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-507379/1		10/08/2021 09:43	1	BFB1008.D	DB-624 0.18(mm)
CCVIS 240-507379/2		10/08/2021 10:12	1	UXC9916.D	DB-624 0.18(mm)
LCS 240-507379/4		10/08/2021 10:34	1	UXC9917.D	DB-624 0.18(mm)
CCV 240-507379/3		10/08/2021 10:56	1	UXC9918.D	DB-624 0.18(mm)
ZZZZZ		10/08/2021 11:18	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 11:40	1		DB-624 0.18(mm)
MB 240-507379/7		10/08/2021 12:02	1	UXC9921.D	DB-624 0.18(mm)
ZZZZZ		10/08/2021 12:23	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 12:45	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 13:29	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:13	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:35	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 14:57	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 15:18	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:08	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:29	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 16:51	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 17:13	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 17:35	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 17:57	1		DB-624 0.18(mm)
ZZZZZ		10/08/2021 18:19	1		DB-624 0.18(mm)
240-157477-2	W-4-N/100421/	10/08/2021 19:02	1	UXC9939.D	DB-624 0.18(mm)
240-157477-3	W-2-N/100421/	10/08/2021 19:24	1	UXC9940.D	DB-624 0.18(mm)
240-157477-4	HR-4/100421/	10/08/2021 19:46	1	UXC9941.D	DB-624 0.18(mm)
240-157477-4 MS	HR-4/100421/ MS	10/08/2021 20:08	1	UXC9942.D	DB-624 0.18(mm)
240-157477-4 MSD	HR-4/100421/ MSD	10/08/2021 20:30	1	UXC9943.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Instrument ID: A3UX15 Start Date: 10/11/2021 08:54

Analysis Batch Number: 507592 End Date: 10/11/2021 19:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 240-507592/1		10/11/2021 08:54	1	BFB1011.D	DB-624 0.18(mm)
CCVIS 240-507592/2		10/11/2021 09:21	1	UXC9945.D	DB-624 0.18(mm)
LCS 240-507592/4		10/11/2021 09:43	1	UXC9946.D	DB-624 0.18(mm)
CCV 240-507592/3		10/11/2021 10:05	1	UXC9947.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 10:27	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 10:48	1		DB-624 0.18(mm)
MB 240-507592/7		10/11/2021 11:10	1	UXC9950.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 11:32	333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 11:54	3.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 12:38	2000		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:00	200		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:22	3333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 13:43	20000		DB-624 0.18(mm)
ZZZZZ		10/11/2021 14:05	2		DB-624 0.18(mm)
240-157477-1	W-3-N/100421/	10/11/2021 14:27	1	UXC9959.D	DB-624 0.18(mm)
240-157477-5	DUP-1/100421/	10/11/2021 14:49	1	UXC9960.D	DB-624 0.18(mm)
ZZZZZ		10/11/2021 15:11	3.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 15:33	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 15:55	10		DB-624 0.18(mm)
ZZZZZ		10/11/2021 16:16	5		DB-624 0.18(mm)
ZZZZZ		10/11/2021 16:38	5		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:00	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:22	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 17:44	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:06	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:27	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 18:49	1		DB-624 0.18(mm)
ZZZZZ		10/11/2021 19:11	333.33		DB-624 0.18(mm)
ZZZZZ		10/11/2021 19:33	333.33		DB-624 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 476941 Batch Start Date: 03/16/21 07:33 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	VM50is 00086	vm50ss_stk 00086	VMAROLISTDW 00384	vmbfb 00026
BFB 240-476941/1		8260B		5 mL	5 mL				1 uL
STD8260 240-476941/2 IC		8260B		5 mL	5 mL	1 uL	32 uL	32 uL	
STD8260 240-476941/3 IC		8260B		5 mL	5 mL	1 uL	16 uL	16 uL	
STD8260 240-476941/4 ICIS		8260B		5 mL	5 mL	1 uL	8 uL	8 uL	
STD8260 240-476941/5 IC		8260B		5 mL	5 mL	1 uL	4 uL	4 uL	
STD8260 240-476941/6 IC		8260B		5 mL	5 mL	1 uL	1.6 uL	1.6 uL	
STD8260 240-476941/7 IC		8260B		5 mL	5 mL	1 uL	0.8 uL	0.8 uL	
ICV 240-476941/14		8260B		5 mL	5 mL	1 uL	1 uL		
ICV 240-476941/15		8260B		5 mL	5 mL	1 uL	1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMFASA9W 00312	VMFASAW 00366	VMFASGW 00399	VMFASPW 00390	VMRGAS 00377	VMRPRIMW 00427
BFB 240-476941/1		8260B							
STD8260 240-476941/2 IC		8260B						32 uL	32 uL
STD8260 240-476941/3 IC		8260B						16 uL	16 uL
STD8260 240-476941/4 ICIS		8260B						8 uL	8 uL
STD8260 240-476941/5 IC		8260B						4 uL	4 uL
STD8260 240-476941/6 IC		8260B						1.6 uL	1.6 uL
STD8260 240-476941/7 IC		8260B						0.8 uL	0.8 uL
ICV 240-476941/14		8260B			8 uL	8 uL	8 uL		
ICV 240-476941/15		8260B		8 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 476941 Batch Start Date: 03/16/21 07:33 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Batch Notes	
pH Indicator ID	HC907861

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 507379 Batch Start Date: 10/08/21 09:43 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is 00089	VM50IS 00090	vm50ss_stk 00088
BFB 240-507379/1		8260B		5 mL	5 mL				
CCVIS 240-507379/2		8260B		5 mL	5 mL			1 uL	1 uL
CCV 240-507379/3		8260B		5 mL	5 mL		1 uL		
LCS 240-507379/4		8260B		5 mL	5 mL			1 uL	1 uL
MB 240-507379/7		8260B		5 mL	5 mL			1 uL	1 uL
240-157477-B-2	W-4-N/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157477-B-3	W-2-N/100421/	8260B	T	5 mL	5 mL	6 SU		1 uL	1 uL
240-157477-B-4	HR-4/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157477-E-4 MS	HR-4/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157477-H-4 MSD	HR-4/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00411	vmbfb 00027	VMFASAW 00393	VMFASGW 00427	vmfaspw 00417	VMRA9W 00409
BFB 240-507379/1		8260B			1 uL				
CCVIS 240-507379/2		8260B		8 uL					
CCV 240-507379/3		8260B							8 uL
LCS 240-507379/4		8260B				8 uL	8 uL	8 uL	
MB 240-507379/7		8260B							
240-157477-B-2	W-4-N/100421/	8260B	T						
240-157477-B-3	W-2-N/100421/	8260B	T						
240-157477-B-4	HR-4/100421/	8260B	T						
240-157477-E-4 MS	HR-4/100421/	8260B	T			8 uL	8 uL	8 uL	
240-157477-H-4 MSD	HR-4/100421/	8260B	T			8 uL	8 uL	8 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRGAS 00402	VMRPRIMW 00454				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 507379 Batch Start Date: 10/08/21 09:43 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	VMRGAS 00402	VMRPRIMW 00454				
BFB 240-507379/1		8260B							
CCVIS 240-507379/2		8260B		8 uL	8 uL				
CCV 240-507379/3		8260B							
LCS 240-507379/4		8260B							
MB 240-507379/7		8260B							
240-157477-B-2	W-4-N/100421/	8260B	T						
240-157477-B-3	W-2-N/100421/	8260B	T						
240-157477-B-4	HR-4/100421/	8260B	T						
240-157477-E-4 MS	HR-4/100421/	8260B	T						
240-157477-H-4 MSD	HR-4/100421/	8260B	T						

Batch Notes	
pH Indicator ID	HC042657

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 507592 Batch Start Date: 10/11/21 08:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	vm50is 00089	VM50IS 00090	vm50ss_stk 00088
BFB 240-507592/1		8260B		5 mL	5 mL				
CCVIS 240-507592/2		8260B		5 mL	5 mL			1 uL	1 uL
CCV 240-507592/3		8260B		5 mL	5 mL		1 uL		
LCS 240-507592/4		8260B		5 mL	5 mL			1 uL	1 uL
MB 240-507592/7		8260B		5 mL	5 mL			1 uL	1 uL
240-157477-A-1	W-3-N/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL
240-157477-B-5	DUP-1/100421/	8260B	T	5 mL	5 mL	<2 SU		1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmarolistdw 00411	vmbfb 00027	vmfasaw 00394	vmfasgw 00428	vmfaspw 00417	VMRA9W 00409
BFB 240-507592/1		8260B			1 uL				
CCVIS 240-507592/2		8260B		8 uL					
CCV 240-507592/3		8260B							8 uL
LCS 240-507592/4		8260B				8 uL	8 uL	8 uL	
MB 240-507592/7		8260B							
240-157477-A-1	W-3-N/100421/	8260B	T						
240-157477-B-5	DUP-1/100421/	8260B	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00454				
BFB 240-507592/1		8260B							
CCVIS 240-507592/2		8260B		8 uL	8 uL				
CCV 240-507592/3		8260B							
LCS 240-507592/4		8260B							
MB 240-507592/7		8260B							
240-157477-A-1	W-3-N/100421/	8260B	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Canton Job No.: 240-157477-1

SDG No.:

Batch Number: 507592 Batch Start Date: 10/11/21 08:54 Batch Analyst: Evans, Laura

Batch Method: 8260B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	vmrgas 00403	VMRPRIMW 00454				
240-157477-B-5	DUP-1/100421/	8260B	T						

Batch Notes	
pH Indicator ID	HC042657

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

2.7/2.8

eurofins | Environment Testing America

Client Information	Sampler: H. Smith, A. Donclausburg	Lab PM: DelMonico, Michael	Carrier Tracking No(s):	COC No: 240-86616-33146.5
Client Contact: Carolyn Grogan	Phone: 937-269-9271	E-Mail: Michael.DelMonico@Eurofinset.com	State of Origin:	Page: Page ~~5 of 8~~ 2 of 2
Company: ARCADIS U.S., Inc.	PWSID:	Analysis Requested		Job #:
Address: 100 E. Campus View Blvd Suite 200	Due Date Requested:			Preservation Codes:
City: Columbus	TAT Requested (days): Standard			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 43235	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30042873.0004B			Other:
Email: carolyn.grogan@arcadis.com	WO #:			
Project Name: Racer Moraine Annual	Project #: 24006917			
Site: Racer Moraine	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260B - TCL OLM03.1/4.2 Volatile Analyte List	9060 - TOC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	S		
W-3-N/100421/	10.4.21	1320	G	Water	N	N	X		3	
W-4-N/100421/	10.4.21	1120	G	Water	N	N	X		3	
W-2-N/100421/	10.4.21	1315	G	Water	N	N	X		3	
TRR-4/100421/	10.4.21	1115	G	Water	N	Y	X		9	MS/MSD
Dup-1/100421/	10.4.21	-	G	Water	N	N	X		3	
				Water						
				Water						
				Water						
				Water						
				Water						
				Water						

240-157477 Chain of Custody

210 Dayton

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Hannah Smith/Hmalkan	10.5.21 ~~0800~~ 1400 MS	ARCADIS	K Lilley	10-5-21 1400	ETA
2	K Lilley	10-5-21 1600	ETA	Tammy Royer	10-6-21 800	ETA
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

02/17/2022

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 157447**
Canton Facility

Client ARCADIS Site Name _____ Cooler unpacked by: Nancy Player

Cooler Received on 10-6-21 Opened on 10-6-21

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-14 (CF +0.1 °C) Observed Cooler Temp. 2.7 °C Corrected Cooler Temp. 2.8 °C
   IR GUN #IR-15 (CF +0.2°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC157842
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 59072	Yes	No TR
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Appendix F

DN-13 Pumping Well Operation and Maintenance

Appendix F
DN-13 Pumping Well
Operation and Maintenance

DN-13 Operation and Maintenance

Background

Extraction well DN-13 is a lower aquifer extraction well that is owned by Montgomery County and operated by Montgomery County and Revitalizing Auto Communities Environmental Response Trust (RACER Trust). Extraction well DN-13 was part of the former Greater Moraine Water System located in the North Dryden Road well field. The well has been used in a Pump-to-Waste Program since March 1990 in cooperation with former General Motors Corporation and Motors Liquidation Company until March 31, 2011 and has continued operation since that time in cooperation with the RACER Trust.

The interim measure for the lower aquifer at the Site consists of continued pumping of extraction well DN-13 to capture impacted groundwater. The outfall for DN-13 discharges to the Great Miami River and, as required by the National Pollutant Discharge Elimination System (NPDES) permit regulated by the Ohio Environmental Protection Agency (Ohio EPA), monthly sampling is performed at the outfall to monitor water quality along with the discharge flow rate collected at the well head. Additional information regarding DN-13 capture can be found in Section 2.5 of the 2021 Groundwater Monitoring Report (Report).

Per the operation and maintenance (O&M) plan, defined in the Extraction Well DN-13 Operation and Maintenance Memorandum (Arcadis, Inc. 2015a) and the RACER Trust Moraine Facilities: Extraction well DN-13 Operation and Maintenance Status (Arcadis, Inc. 2015b), data collected monthly since April 2015 is used to evaluate and maintain the performance of extraction well DN-13 and includes the following:

1. Date and time of measurements
2. Electric motor power consumption
3. Flow meter readings (totalizer)
4. Flow control valve setting
5. Wellhead pressure
6. Water-level measurements including both manual depth-to-water measurements during pumping and high frequency water-level data from the pressure transducers deployed in well DN-13 and monitoring well GM-14 (up-gradient).

The objective of the data collection and subsequent analysis is to recognize, in a timely manner, indications of deteriorating pump/motor and/or fouling/encrustation of the well screen through evaluation of specific performance criteria that will prompt appropriate action.

Data was analyzed and summarized in semi-annual progress reports submitted to the United State Environmental Protection Agency (U.S. EPA) and the Ohio EPA. As outlined in the RACER Trust Moraine Facilities: Extraction Well DN-13 Operation and Maintenance Status (Arcadis, Inc. 2015b), Arcadis indicated the following items would be reported in the Annual Site-Wide Groundwater Monitoring Report:

- An annual data summary
- Corresponding figures and tables
- An evaluation and recommendations regarding future data collection and/or corrective actions
- Documentation of O&M activities/actions performed during the reporting year

As part of this annual performance summary, extraction well DN-13 groundwater elevation data are shown graphically on **Figure F-1**, and specific capacity (SC) and average monthly flow rate data are shown on **Figure F-2**. Annual average flow rate data for the year is summarized in Section 2.5 of the Report.

As part of the semi-annual evaluations in 2021, some corrective actions were prompted. The following is a summary of observations and activities from 2021:

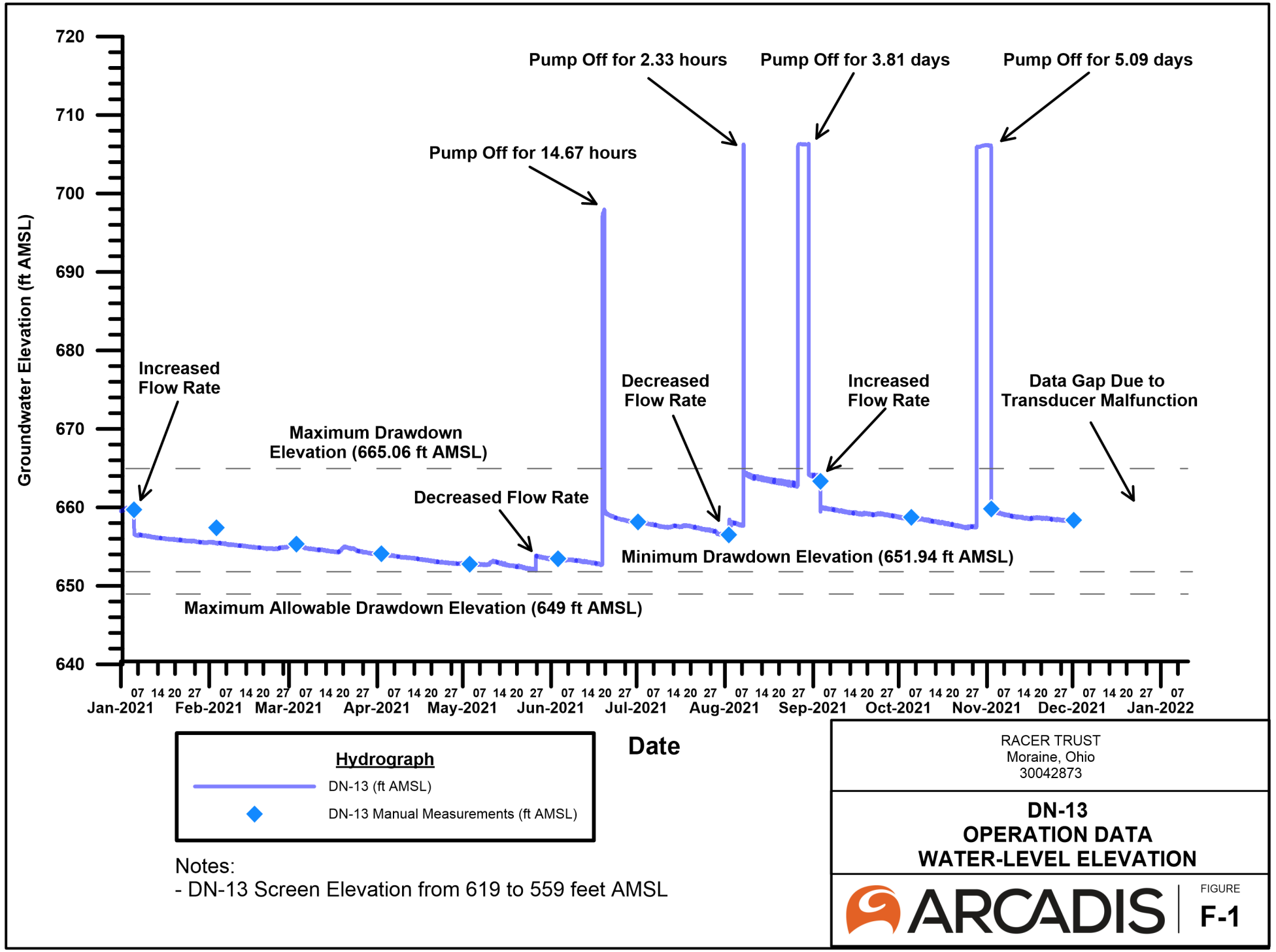
- **First Half 2021:** Extraction well DN-13 was operational for 100% of the first half of 2021. Average operational flow rate was 752 gpm.
- **Second Half 2021**: Extraction well DN-13 was operational for 95.1% of the second half of 2021. Average operational flow rate was 593 gpm. Flow rates and specific capacity have slowly declined since the re-development of extraction well DN-13 in October 2019. Re-development of DN-13 is scheduled for the first half of 2022.

Monitoring, flow rate adjustments, re-development, and necessary maintenance will continue in 2022 to ensure appropriate DN-13 operation. In addition, monitoring of the operation parameters of DN-13 and the surrounding groundwater quality will continue.

References

Arcadis, Inc. 2015a. Extraction Well DN-13 Operation and Maintenance Memorandum, RACER Trust, Moraine, Ohio. April 8, 2015.

Arcadis, Inc. 2015b. RACER Trust Moraine Facilities: Extraction Well DN-13 Operation and Maintenance Status, RACER Trust, Moraine, Ohio. September 24, 2015.



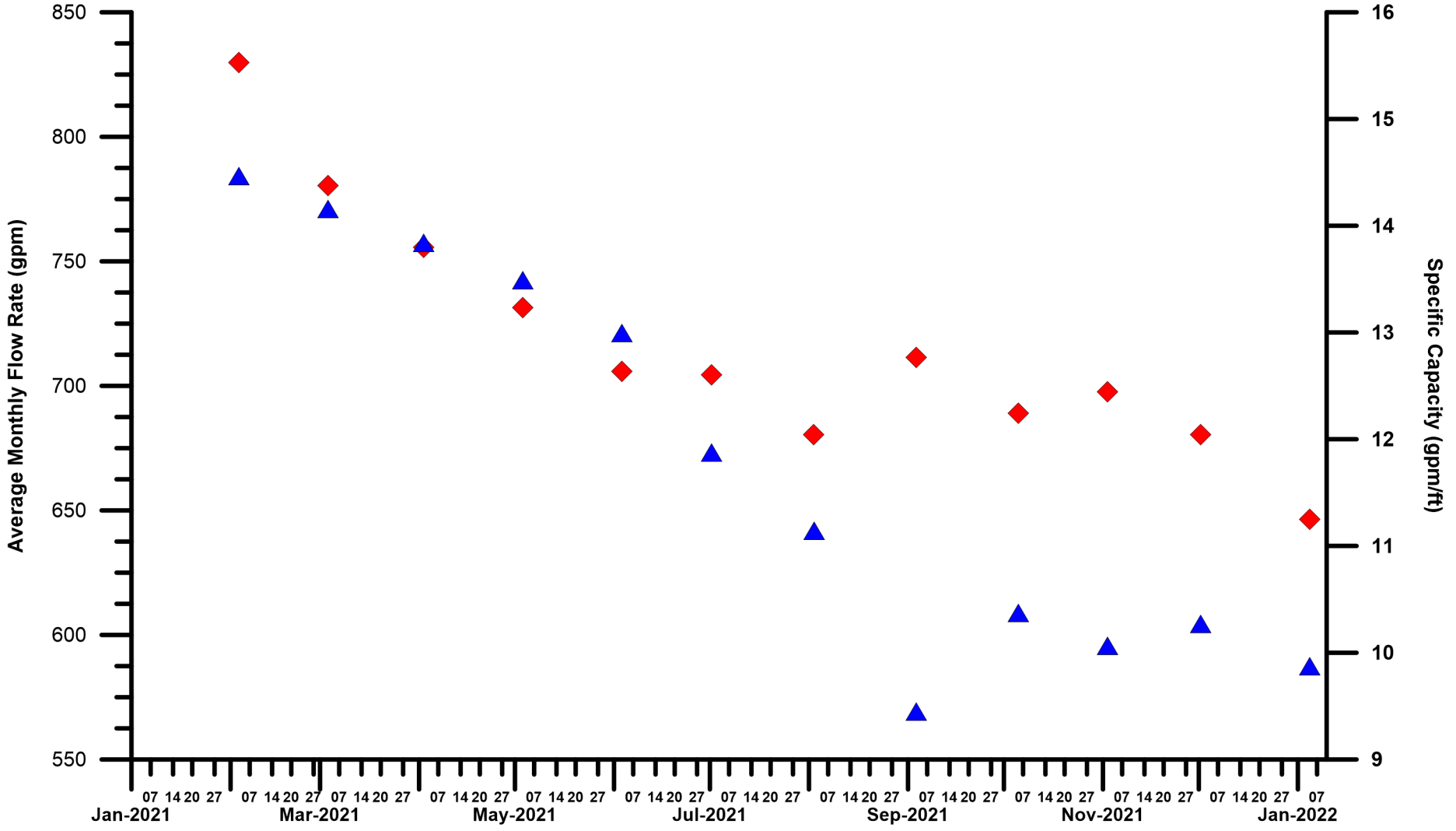
Notes:
- DN-13 Screen Elevation from 619 to 559 feet AMSL

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30042873

DN-13
OPERATION DATA
WATER-LEVEL ELEVATION

ARCADIS

FIGURE
F-1



DN-13 Flow Rate and Specific Capacity

- Specific Capacity (gpm/ft)
- Average Monthly Flow Rate (gpm)

Notes:
1. Specific Capacity in gallons per minute per foot (gpm/ft)
2. Flow Rate in gallons per minute (gpm)
3. Measurements are taken near the end or beginning of each reporting month

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Moraine, Ohio
30075938

DN-13 OPERATION DATA FLOW RATE AND SPECIFIC CAPACITY

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FIGURE
F-2

Appendix G

Phase 1 DGR™ Operation, Maintenance, and Performance

Appendix G

Phase 1 DGR™
Operation, Maintenance, and
Performance

Phase 1 DGR™ System Summary

As detailed in the 2021 Groundwater Monitoring Report (Report), Phase 1 Dynamic Groundwater Recirculation (DGR™) system operation began on October 28, 2019. Baseline groundwater samples and hydraulic information were collected during the July 2019 groundwater monitoring event. Performance monitoring groundwater sampling and operation and maintenance (O&M) activities were completed throughout 2021 and are summarized below.

O&M

Phase 1 DGR™ system data (i.e., flow rates, water-levels, and influent/mid-treatment site-specific volatile organic compound [VOC] sampling) were collected throughout 2021. The Phase 1 DGR™ system well locations consist of extraction wells EW-1, EW-2, and EW-3 and injection wells IW-1, IW-2, IW-3, and IW-4 and are shown on **Figure G-1**.

During 2021, there were periods of partial to full system downtime that ranged from 14 to 87 days due to maintenance activities. These activities included system mechanical repairs and bag filter replacements. There was additional downtime for the following:

- Troubleshooting mechanical issues with the pitless adapter at extraction well EW-3 from January 1 through February 22, 2021. Injection well IW-4 is used to inject treated groundwater from extraction well EW-3 and therefore injection well IW-4 was also off during this time.
- Motor failure and repairs of the extraction pump at extraction well EW-3 occurred from March 30 through April 20, 2021, which is also reflective of downtime at injection well IW-4.
- On June 18, 2021, strong storms caused power disruptions to the three treatment systems resulting in shut down. Following troubleshooting and repair, all systems were restarted on June 21, 2021.
- The storms that caused the power disruptions in June also resulted in damage to the water level pressure transducers in injection wells IW-1 and IW-4 and the flowmeter in injection well IW-1. On July 13, 2021, the water level transducers were repaired, and troubleshooting was completed for the flowmeter. On October 19, 2021, the flowmeter in IW-1 was replaced.

Influent and mid-point or effluent treatment system samples were typically collected on a bi-weekly basis and analyzed for site-specific VOCs. The results were utilized to determine the need for carbon media replacement. Carbon media replacement was required in all three treatment systems in July 2021. Sampling will continue in 2022 on a monthly basis, or as needed, to assess the need for carbon media replacement.

Additional preventative maintenance activities were completed in 2021 on the treatment system buildings to prolong the lifespan. In August 2021, air conditioning units and dehumidifiers were installed in each building to reduce condensation and moisture that may cause corrosion of the system units. In November 2021, the system buildings were cleaned, and the exterior paint was touched up.

Appendix G

Phase 1 DGR™
Operation, Maintenance, and
Performance

Performance

The system average extraction flow rate for 2021 was approximately 265 gallons per minute (gpm) and accounts for downtime. The average system flow rate excluding the downtime periods was approximately 287 gpm. The flow rates and water levels calibrated to elevation (feet above mean sea level) for the extraction and injection wells were charted for January through December of 2021 and are shown on **Figures G-2** and **G-3**, respectively. Also charted are cumulative daily and monthly precipitation levels from Dayton Wright Brothers Airport. A detailed flow rate summary is provided below.

	Average Flow Rate Including Downtime (gpm)	Average Flow Rate Excluding Downtime (gpm)
System Total	266	288
EW-1	96	100
EW-2	96	100
EW-3	74	88
IW-1	48	50
IW-2	48	50
IW-3	96	100
IW-4	74	88

The flow rates for all extraction wells and injection wells are performing as expected (**Figures G-2** and **G-3**). Extraction groundwater elevations during operation are generally lower than groundwater elevations at side gradient well HR-16, suggesting an inward horizontal hydraulic gradient toward the extraction wells. Main report Figure 8 that shows the monitoring well network groundwater elevations and resulting potentiometric map for the upper aquifer in the Phase I DGR™ area also shows inward flow towards the extraction wells. Groundwater levels in the vicinity of the injection wells indicate minimal mounding as demonstrated during initial startup and continual groundwater level monitoring with minor increases of less than 0.5 feet in groundwater elevation at GM-63, which is located just downgradient of the injection wells and upgradient of the Riverview Plat neighborhood (**Figures G-1** and **G-3**).

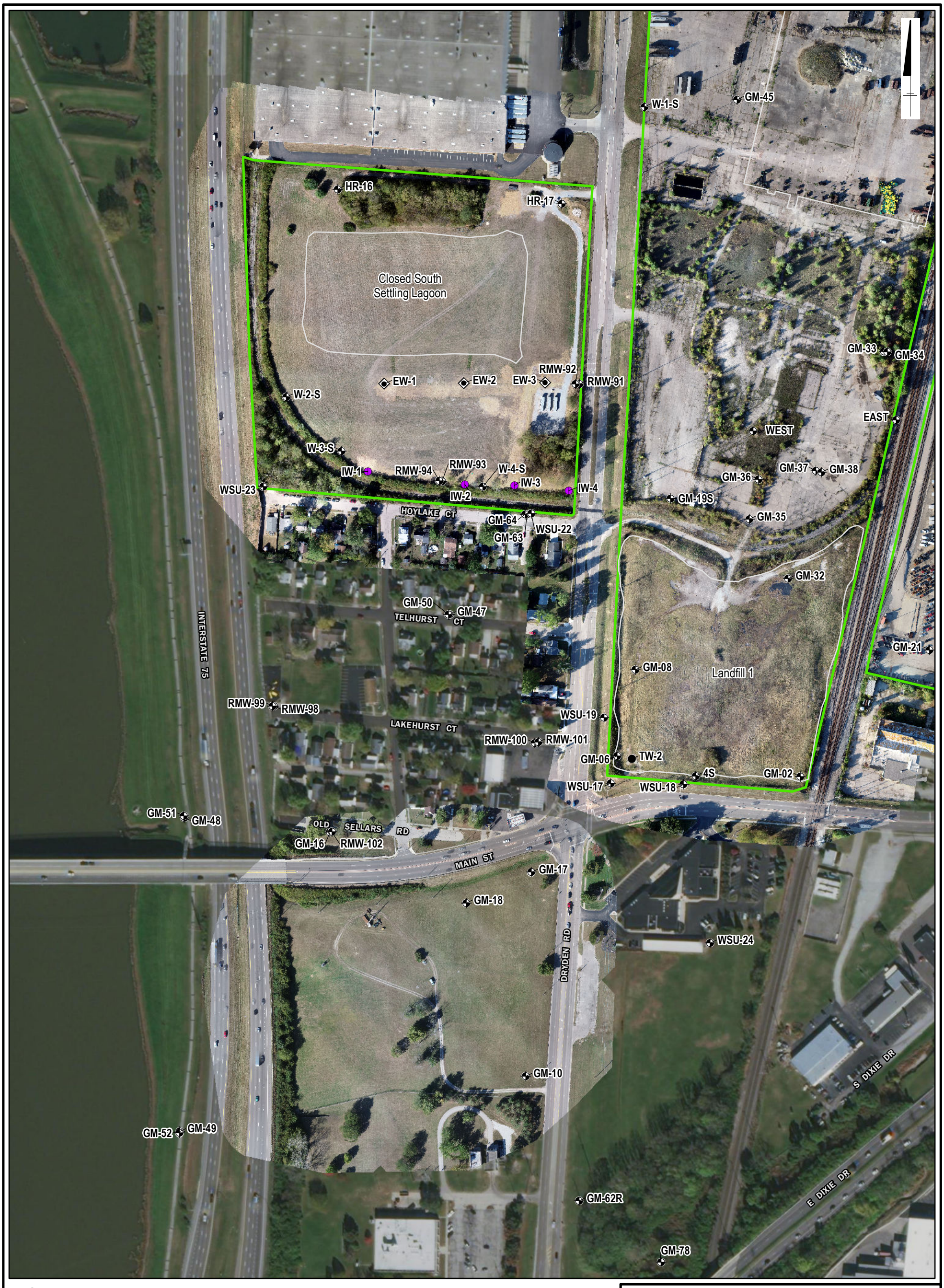
The system average injection flow rate for 2021 is equal to the extraction flow rate. The system is designed to divert flow from extraction wells through the treatment systems, and treated water is then pumped into the injection wells. Treated water from extraction well EW-1 is evenly divided between injection wells IW-1 and IW-2, and the flow from extraction wells EW-2 and EW-3 is directly tied to injection wells IW-3 and IW-4, respectively. The performance data for the injection wells was charted from continuous data collected and is presented on **Figure G-3**. As with the extraction wells, hydrographs for

the groundwater elevation within the injection wells is provided on the main y-axis and were calibrated to manual groundwater elevations to a known survey point. Flow rate and injectability (flow rate divided by mounding) is provided on secondary y-axes. The specific capacity and injectability for the system wells are operating within the design criteria.

Conclusions

The Phase 1 DGR™ system is performing as designed. System samples will continue to be collected throughout 2022 on a monthly basis as needed to monitor breakthrough and evaluate the carbon change-out schedule. Flow rates and water levels will continue to be collected throughout 2022 to monitor system performance. Groundwater samples will be collected in 2022 to confirm and verify system performance. Continued data collection will be evaluated and reported in forthcoming Semi-Annual Progress Reports and annual Groundwater Monitoring Reports.

Created By: jchen Last Saved By: jchen
C:\Users\jchen\OneDrive - ARCADIS\Documents_PROJECT\RACER_MORAINE\GIS\ArcMaps\2021_GW_MonitoringReport\FigG-1_Phase1 DGR Site Area.mxd 2/14/2022 11:35:36 AM



LEGEND

PHASE 1 DGR™ (UPPER AQUIFER)

- EXTRACTION WELL
- INJECTION WELL

UPPER AQUIFER

- UPPER AQUIFER WELL
- INACTIVE RECOVERY WELL
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

0 250 500 Feet

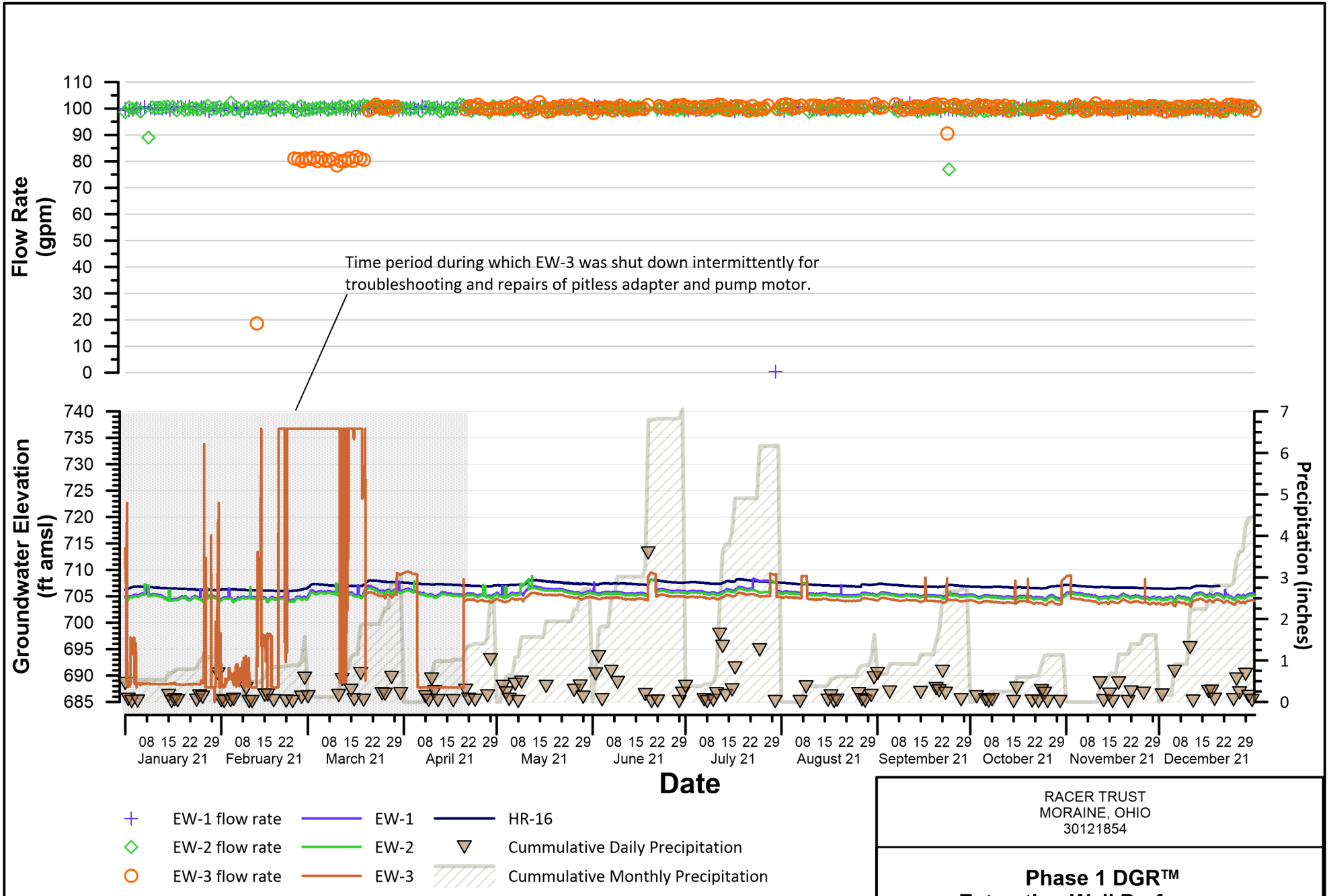
Notes:
1. High-resolution orthomosaic developed using imagery collected by Arcadis US via DJI Zenmuse X4S camera mounted to a DJI Inspire 2 UAV during the dates of 10/09/2019-10/10/2019.
2. Additional Aerial Source; DigitalGlobe, dated 8/22/2018, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/14/2022.

RACER TRUST
MORAINE, OHIO
2021 GROUNDWATER MONITORING REPORT

PHASE 1 DGR™ SITE AREA

ARCADIS Design & Consultancy for natural and built assets

FIGURE G-1



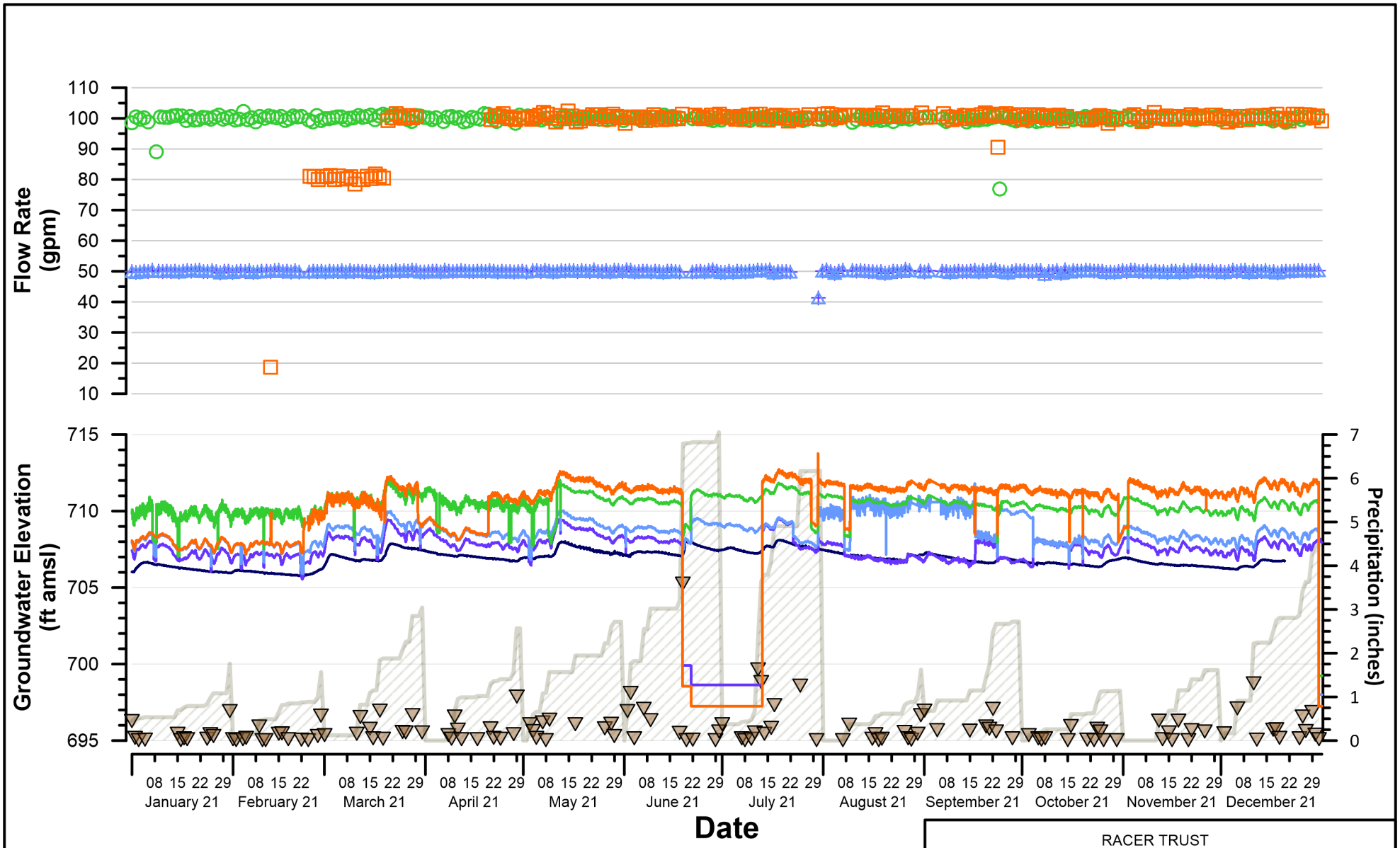
Notes:
gpm = gallons per minute
ft = feet
amsl = above mean sea level (NAVD88 datum)
Rainfall data collected from NOAA Online Climate Data for Dayton - Wright Brothers Airport and Weather Underground Online Weather History for Vandalia, Ohio

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30121854

Phase 1 DGR™
Extraction Well Performance

ARCADIS

FIGURE
G-2



Notes:
gpm = gallons per minute
ft = feet
amsl = above mean sea level (NAVD88 datum)
Rainfall data collected from NOAA Online Climate Data for Dayton - Wright Brothers Airport and Weather Underground Online Weather History for Vandalia, Ohio

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30121854

Phase 1 DGR™
Injection Well Performance

ARCADIS

FIGURE
G-3

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Fax: 614 985 9170
www.arcadis.com