The Boeing Company
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June 15, 2021
LE-2021-019

BY EMAIL

David Bartus
U.S. Environmental Protection Agency
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Seattle, WA 98101

Subject: *CMS Phase Semiannual Shoreline Groundwater Monitoring Report March 2021* submittal
Boeing Plant 2, WAD 00925 6819
RCRA Docket #1092-01-22-3008(h)

Dear Dr. Bartus:

Electronic transmittal of this letter includes the subject report as an enclosure, which submits quality-assured data from the March 2021 sampling event for shoreline wells at Plant 2. Note that Mr. Hideo Fujita is included as a recipient of this transmittal.

The sampling and analysis was performed according to the *CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan* and the *Quality Assurance Project Plan Addendum - Groundwater, RCRA Facility Investigation Work*, which are both dated April 2001, as subsequently amended.

This submittal continues the updated format prepared following many discussions held with you and your team. Comparisons of shoreline analytical results are made to the tentative Final Media Cleanup Levels (FMCLs) applicable to shoreline area groundwater, which indicate groundwater flows to the Duwamish largely comply with these levels, and in areas where they do no not, ongoing or pending remedial actions will further this positive trend.

Please call or email me if you have any questions or comments.

Sincerely,

Lindsey Erickson
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Environment Health & Safety l Remediation Group
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Enclosures

cc: Hideo Fujita – Washington Dept. of Ecology

As required by Section 15.2 of the Boeing Plant 2, Seattle/Tukwila, Washington, RCRA Administrative Order on Consent, (USEPA ID No. WAD 00925 6819, RCRA Docket No. 1092-01-22-3008(h)), this Certification Statement and Signature accompanies submittal of the following report:

Report: CMS Phase Semiannual Shoreline Groundwater Monitoring Report March 2021

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

Signature: Kathryn Moxley

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CMS Phase Semiannual Shoreline Groundwater Monitoring Report March 2021

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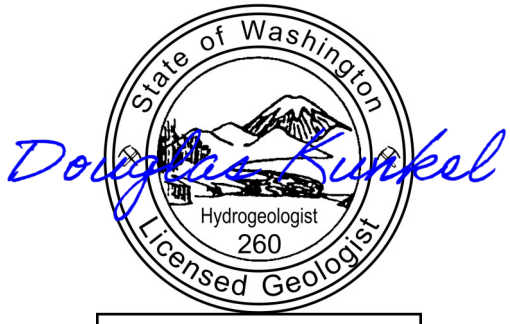

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Attachment B Boeing Plant 2 – March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report
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ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Definition
Boeing	The Boeing Company
cDCE	cis-1,2-Dichloroethene
CL	Confidence limit
CMS	Corrective Measures Study
COC	Constituent of concern
EPA	U.S. Environmental Protection Agency
EPI	Environmental Partners, Inc.
FMCL	Final Media Cleanup Level (proposed)
IM	Interim Measure
Eurofins Lancaster	Eurofins Lancaster Laboratories
µg/L	Micrograms per liter
mg/L	Milligrams per liter
Order	Administrative Order on Consent
PCBs	Polychlorinated biphenyls
PCE	Tetrachloroethene
RCRA	Resource Conservation and Recovery Act
TCE	Trichloroethene
tDCE	trans-1,2-Dichloroethene
TPH	Total petroleum hydrocarbons
TRC	TRC Environmental Corporation
VC	Vinyl chloride
VOCs	Volatile organic compounds
WAD	Weak acid dissociable
Weston	Roy F. Weston, Inc. or Weston Solutions
WQC	Washington State Water Quality Criteria

1.0 INTRODUCTION

This report presents the results of groundwater monitoring activities conducted during the March 2021 Shoreline Monitoring sampling event of the Corrective Measures Study (CMS) Phase groundwater monitoring at The Boeing Company's Plant 2 Facility (Plant 2) in Seattle/Tukwila Washington. This report was prepared to comply with the requirements of the Administrative Order on Consent (the Order) issued by the U.S. Environmental Protection Agency (EPA) to The Boeing Company (Boeing) under the authority of Section 3008(h) of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 USC 6928(h). This Order (RCRA Docket No. 1092-01-22-3008(h)) became effective on January 18, 1994.

1.1 Shoreline Monitoring Program Modifications

Groundwater monitoring in wells located along the Plant 2 shoreline of the Duwamish Waterway was initiated in 2001; this monitoring and reporting is referred to as the Shoreline Monitoring Program. Groundwater samples collected as part of the Shoreline Monitoring Program were initially analyzed for the constituents identified during RCRA Facility Investigation (RFI) activities performed at Plant 2 (Weston 1997). The constituent list, sampling frequency, and wells included in the Shoreline Monitoring Program have been adjusted based on data from subsequent sampling events and investigations.

These modifications to the Shoreline Monitoring Program were initiated by EPA or were requested by Boeing and approved by EPA. Shoreline Monitoring Program modifications generally include changes to analytical requirements, analytical methods, monitoring frequency, regulatory levels, and the addition or removal of wells from the monitoring well network. The earlier part of the historical record of modifications to the Shoreline Monitoring Program was removed from the main body of the report and is presented in Attachment A.

The Shoreline Monitoring Program analytical list currently applicable at all shoreline monitoring wells includes the following constituents: volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) surrogates, total arsenic, and copper. In addition, dissolved cadmium, polychlorinated biphenyls (PCBs), and free cyanide are analyzed in samples from a subset of shoreline monitoring wells as noted on the current sampling matrix presented in Figure 1-1 and described in more detail in later sections of this report.

A summary table of the Shoreline Monitoring Program wells including the purpose(s), and constituents for which they were sampled and analyzed is presented below.

Well Designation	Purpose of Sampling and Analyses Performed
Shoreline Monitoring Wells	
PL2-213A	Shoreline monitoring for VOCs, TPH surrogates, and constituent of concern (COC) metals.
PL2-214A	
PL2-214B	
PL2-214C	
PL2-227A	
PL2-258A	
PL2-258B	
PL2-258C	
PL2-271A	
PL2-614A	Shoreline monitoring for VOCs, TPH surrogates, and COC metals. Additional analysis for dissolved cadmium based on historical detections at concentrations greater than the FMCL.
PL2-614B	Shoreline monitoring for VOCs, TPH surrogates, and COC metals.
PL2-615A	Shoreline monitoring for VOCs, TPH surrogates, and COC metals. Additional analysis for free cyanide based on historical detections of weak acid dissociable (WAD) cyanide at concentrations greater than the proposed FMCL for free cyanide.
PL2-615B	Shoreline monitoring for VOCs, TPH surrogates, and COC metals.
PL2-616A	
PL2-617A	
PL2-618A	
PL2-619A	Shoreline monitoring for VOCs, TPH surrogates, and COC metals. Additional analysis for free cyanide based on historical detections of WAD cyanide at concentrations greater than the proposed FMCL for free cyanide.
PL2-619B	Shoreline monitoring for VOCs, TPH surrogates, and COC metals. Additional analysis for free cyanide based on historical detections of WAD cyanide at concentrations greater than the proposed FMCL for free cyanide. Additional analysis for dissolved cadmium based on historical detections at concentrations greater than the FMCL.
PL2-620A	Shoreline monitoring for VOCs, TPH surrogates, and COC metals.
PL2-620B	
PL2-621A	Shoreline monitoring for VOCs, TPH surrogates, and COC metals. Additional analysis for PCBs based on historical PCB detections. Additional analyses for dissolved cadmium based on historical detections at concentrations greater than the FMCLs.
PL2-621B	Shoreline monitoring for VOCs, TPH surrogates, and COC metals.

More recent changes to the Shoreline Monitoring Program are presented in Sections 1.2 through 1.5, as summarized below.

- Section 1.2 is a description of decommissioning and replacement of monitoring wells comprising the Shoreline Monitoring Program.

- Section 1.3 is a summary of sampling frequencies and planned or completed sampling durations for constituent analyses that were added to a subset of existing shoreline

monitoring wells. This section includes adjustments that were made to the shoreline monitoring inorganics constituent list to optimize groundwater monitoring to focus on proposed Constituents of Concern (COCs) that were identified through extensive groundwater sampling and data evaluations performed as part of the CMS process.

- Section 1.4 is a summary of additional CMS groundwater monitoring that, although not administratively part of the Shoreline Monitoring Program, was performed and is reported concurrently with shoreline monitoring for efficiency.

- Section 1.5 is a summary of the analytical methods that are currently used for sample analysis in the Shoreline Monitoring Program.

1.2 Shoreline Well Decommissioning and Replacement

Boeing decommissioned 19 shoreline monitoring wells under an interim measure (IM) work plan that was approved by EPA on June 8, 2010. The 19 decommissioned shoreline monitoring wells were within the footprint of construction projects or at locations where they would be at high risk of being damaged by demolition activities, which began during the summer in 2010 and continued through 2012.

In June and July 2014 Boeing installed and developed 13 replacement shoreline monitoring wells identified as PL2-614A and PL2-614B through PL2-621A and PL2-621B at the locations shown on Figure 1-1. Construction data for current shoreline wells and for well PL2-007AR, which is sampled concurrently with the shoreline monitoring wells, are presented in Table 1-1. Additional information regarding shoreline well decommissioning and replacement is presented in Attachment A.

1.3 Additional Analyses Performed at Specific Shoreline Monitoring Wells

The groundwater COCs dissolved cadmium, free cyanide, dissolved nickel, and PCBs are, or in the case of nickel, were not uniformly analyzed in samples from all shoreline monitoring wells, but rather each constituent is analyzed in samples from a subset of wells. The rationale for sampling and analysis and the data evaluation requirements for the additional COCs are described in the following sections.

1.3.1 Dissolved Cadmium

Dissolved cadmium was historically detected at concentrations greater than the proposed FMCL in samples from PL2-614A, PL2-619B, and PL2-621A. Sampling and analysis for dissolved cadmium continued at these wells until a minimum of eight rounds of data were available for statistical analysis using the 95 percent confidence limit (CL) statistical test to evaluate if continued dissolved cadmium analysis is warranted. Results of the 95 percent CL statistical test for dissolved cadmium are presented in Section 2.4.1.

1.3.2 Free Cyanide

Weak acid dissociable (WAD) cyanide was historically detected at concentrations greater than the proposed FMCL in two small, well-delineated areas along the shoreline. The historical detections for WAD cyanide are not directly comparable to the proposed FMCL, which is based on the free cyanide fraction (free cyanide is a subset of WAD cyanide). Therefore, sampling and analysis for free cyanide was warranted at three shoreline monitoring wells (PL2-615A, PL2-619A, and PL2-619B) that are completed in the specific areas with historical WAD cyanide concentrations that exceeded the proposed FMCL.

Free cyanide was detected at concentrations greater than the proposed FMCL on multiple events in samples from each of three wells. Therefore, sampling for free cyanide will continue at a minimum, until at least 8 free cyanide sampling events have been completed, which was achieved as of September 2020. Boeing has evaluated the free cyanide data against the proposed FMCL using the 95 percent CL statistical test to evaluate if continued free cyanide analysis is warranted. Results of the 95 percent CL statistical test for free cyanide are presented in Section 2.4.2.

1.3.3 Dissolved Nickel

Samples from PL2-621A had sporadic exceedances for dissolved nickel following implementation of the updated analytical method as described in “Shoreline Monitoring Program Modification History,” which is provided in Attachment A. Sampling and analysis for dissolved nickel at PL2-621A continued so that at least eight rounds of data were available for statistical analysis using the 95 percent CL statistical test to evaluate if continued dissolved nickel analysis is warranted.

The 95 percent CL statistical test of dissolved nickel data through September 2020 demonstrated that both the upper- and lower-95 percent CL are less than the proposed FMCL. In addition, the data indicated a downward trend in dissolved nickel concentrations, as demonstrated by the best fit trend line in the nickel time series graph presented in Attachment E of the September 2020 Shoreline Monitoring Report.

As a result, the Conclusions and Recommendations section of the September 2020 Shoreline Monitoring Report recommended discontinuing dissolved nickel sampling and analysis at PL2-621A based on these findings. EPA concurred with Boeing’s recommendation to discontinue sampling and analysis for dissolved nickel at PL2-621A in their letter “*Approval of CMS Phase Semiannual Shoreline Monitoring Reports for March and September 2020, Boeing Plant 2, Seattle/Tukwila, Washington,”* dated December 11, 2020. As a result, sampling and analysis for dissolved nickel was discontinued at PL2-621A following the September 2020 shoreline monitoring event.

1.3.4 PCBs

Concrete containing low concentrations of PCBs was crushed and placed as backfill in tunnels and other paved industrial areas as part of the building and slab demolition work performed in 2012. The crushed concrete was placed a minimum of 18 inches above the highest recorded historical groundwater elevation

in those areas. After replacement shoreline wells were installed in 2014, Boeing initiated groundwater sampling and analysis for PCBs in five A-Level wells located downgradient of the tunnels to confirm that low concentrations of PCBs present in the concrete rubble backfill do not leach to groundwater.

Groundwater samples from shoreline wells PL2-617A, PL2-618A, PL2-619A, PL2-620A, and PL2-621A were analyzed for PCBs over four consecutive semiannual events, ending in March 2017. PCB results were consistently non-detect in samples from wells PL2-617A, PL2-618A, PL2-619A, and PL2-620A throughout the four sampling events. Based on the consistent non-detect analytical results, and with EPA concurrence, Boeing discontinued monitoring for PCBs in those four wells.

Analytical results for samples from PL2-621A contain PCB detections at concentrations less than the proposed FMCL. However, the detected concentrations were greater than the 2017 Washington State Water Quality Criteria (WQC) for PCBs, which was applicable at the time, but is subject to potential change and may not be applicable for future data evaluations. Therefore, Boeing continued to sample PL2-621A semiannually at low tide for a total of at least eight sampling events. After eight events were completed, Boeing performed a 95 percent CL statistical test on the PCB data from PL2-621A to evaluate if continued PCB analysis is warranted. Results of the 95 percent CL statistical test for PCBs are presented in Section 2.4.3.

In the future, Boeing will conduct PCB analysis for groundwater samples from well PL2-621A using an appropriate analytical method (to be approved by EPA) to achieve a reporting limit equal to or lower than the applicable Washington State WQC, which will establish the Target Media Cleanup Level (TMCL) for PCBs. EPA might also require sampling for PCBs at wells where PCB sampling was previously discontinued (e.g., PL2-617A, PL2-618A, PL2-619A, and PL2-620A).

This requirement will be considered by EPA in a manner to ensure consistency with the requirement as implemented for other areas within the Lower Duwamish Waterway (LDW) Superfund Site. As such, any future requirements for PCB monitoring, data evaluation, and response at Plant 2 will be developed in coordination with regional requirements to ensure uniform implementation of an appropriate analytical method (e.g., EPA Method 1668) and resulting data. As new PCB data become available, Boeing will work with EPA to develop and implement revised requirements as necessary within an Adaptive Management framework for sampling requirements, data evaluation, and corrective action determinations.

1.4 PCB Analysis at PL2-007AR Performed Concurrently with Shoreline Monitoring

Starting with the March 2017 sampling event, Boeing began analyzing for PCBs in samples from well PL2-007AR for a minimum of four annual sampling events. The timing and sampling frequency for PL2-007AR is performed according to the OA-11 Interim Measure Construction Completion Report (Floyd|Snider 2016). This additional sampling is performed and reported concurrently with shoreline monitoring based on sampling and reporting coordination discussions with EPA.

With the completion of the March 2020 semiannual event, four rounds of annual PCB sampling were completed at PL2-007AR with no PCB detections. Because PCBs have not been detected in any of the

four consecutive annual sampling events, annual groundwater sampling for PCBs has been discontinued at PL2-007AR. Approval to discontinue PCB sampling and analysis at PL2-007AR was provided in EPA's letter "*Approval of CMS Phase Semiannual Shoreline Monitoring Reports for March and September 2020, Boeing Plant 2, Seattle/Tukwila, Washington,"* dated December 11, 2020.

1.5 Shoreline Monitoring Program Analytical Methods

Current laboratory methods used by Eurofins Lancaster Laboratories, Inc. of Lancaster, Pennsylvania (Eurofins Lancaster), to analyze the constituent groups quantified and reported in this document are summarized in the following bullets:

- VOCs and naphthalene by EPA SW-846, Method 8260D Gas Chromatography / Mass Spectrometry (GC/MS), 1996;
- Low-level tetrachloroethene (PCE) by EPA SW-846, Method 8260D Selective Ion Monitoring (8260D SIM), 1996;
- PCBs by EPA SW-846, Method 8082A Gas Chromatography / Electron Capture Detector (GC/ECD), 2007;
- Free cyanide by EPA Method OIA-1677-09; and
- Total metals (arsenic and copper) and dissolved metals (cadmium) by EPA Method 200.8, Revision 5.4.

2.0 CMS PHASE SHORELINE GROUNDWATER MONITORING PROGRAM

Descriptions of the objectives, approach, activities, field and analytical data, and data evaluations for the Shoreline Monitoring Program are presented in the following sections.

2.1 Monitoring Objectives and Approach

Analytical data from the Shoreline Monitoring Program have been used to achieve multiple objectives:

- IM Effectiveness Evaluation – The effectiveness of three IM sheet pile structures is evaluated by using the data to assess the groundwater quality downgradient of the structures.
- Sediment Impact Evaluation – Shoreline monitoring data were historically used in calculations to estimate contaminant loading from groundwater discharging from beneath Plant 2 to the completed Duwamish Sediment Other Area (DSOA) sediment project. Note that the DSOA project consisted of full removal of impacted sediment and did not include, or require, a cap over remaining sediment.

- Corrective Measures Study – The data were used to assess the need for further remedial action in conjunction with the November 2017 CMS Volume X Report submittal (EPI et al. 2017). An overarching and ongoing objective of the Shoreline Monitoring Program is to generate point of compliance (POC) groundwater quality data to support the current CMS phase and, eventually, the Corrective Measures Implementation (CMI) phase. To meet these objectives, groundwater is sampled from the shoreline monitoring wells on a semiannual sampling schedule.

2.2 Monitoring Activities

During the March 2021 sampling event, Landau Associates, Inc. obtained groundwater samples from shoreline monitoring wells following the sampling schedule provided on Figure 1-1. Wells PL2-614A, PL2-619A, and PL2-621A were sampled during low tide, adjusted for site-specific tidal response delay, to obtain representative groundwater samples.

All shoreline wells were sampled for VOCs, TPH surrogates, total arsenic, and total copper. Specific wells were sampled for additional constituents as summarized below:

- Wells PL2-614A, PL2-619B, and PL2-621A were sampled for dissolved cadmium based on previous detections of dissolved cadmium in samples from those wells.

- Wells PL2-615A, PL2-619A, and PL2-619B, were sampled for free cyanide based on historical detections of WAD cyanide in those areas during the CMS data gap investigation.

- Well PL2-621A was analyzed for PCBs due to previous PCB detections at concentrations less than the proposed FMCL but greater than the WQS in samples from this well.

Shoreline monitoring wells were purged and sampled following low-flow purging and sampling techniques using the dedicated bladder pumps installed in each of the shoreline monitoring wells. Dissolved cadmium samples were field-filtered with new, single-use, in-line, 0.45-micron cartridge filters connected directly to sample tubing from the dedicated bladder pumps for each well. Pump intake depths and well construction data are presented with well construction data in Table 1-1. Water quality field parameter final stabilization data for each of the shoreline monitoring wells sampled are presented in Table 2-1.

Groundwater sampling procedures, sample handling, and laboratory analysis were conducted in accordance with the project work plans (Weston 1994 and 2001a), *Quality Assurance Project Plan Addendum, Groundwater RCRA Facility Investigation Work Plan, Boeing Plant 2, Seattle/Tukwila, Washington* (QAPP; Weston 2001f), *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington* (EPI 2011), and *Compendium of Sampling and Analysis Plans and Quality Assurance Plans for Boeing Plant 2, Seattle/Tukwila, Washington* (Golder 2015).

Eurofins Lancaster performed VOC, PCB, free cyanide, naphthalene, dissolved metals, and total metals analyses in accordance with procedures described in *Test Methods for Evaluating Solid Waste,*

Physical/Chemical Methods (USEPA SW-846, most recently promulgated methods) and Eurofins Lancaster's Standard Operating Procedures (SOPs). The prescribed SOP is a modification to *EPA Method 200.8, Revision 5.4; Determination of Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry*.

2.3 Shoreline Monitoring Analytical Results

A data summary table of all detected constituents in shoreline monitoring well samples from the current monitoring event is presented in Table 2-2. A data summary table showing results for all analyzed constituents, whether detected or not, is provided in Attachment B. A Quality Assurance Quality Control (QA/QC) data validation memorandum for this monitoring event is provided in Attachment C. Copies of field logs, laboratory data sheets, and Chain of Custody Forms are presented in Attachment D.

Discussions of detected constituents, current concentration ranges, and concentration trends over time are divided by constituent group and presented in the following sections.

2.3.1 VOC Results

During the current monitoring event, groundwater samples from 21 shoreline wells were analyzed for VOCs and TPH surrogates as noted in the sampling matrix presented on Figure 1-1. Analytical results from this monitoring event contain detections of cis-1,2-dichloroethene (cDCE), trichloroethene (TCE), and vinyl chloride (VC).

Graphical illustrations showing the location and distribution of proposed FMCL exceedances for VOCs that are COCs in samples from shoreline monitoring wells are provided as Figures 2-1a and 2-1b.

VOC analysis includes the TPH surrogates benzene, toluene, ethylbenzene, xylene, and naphthalene. In addition to being TPH surrogates, benzene and ethylbenzene are also groundwater COCs. The VOCs toluene, xylene, and naphthalene are not groundwater COCs and are analyzed solely as surrogates for TPH. None of the TPH surrogate compounds were detected in samples collected during this sampling event.

Observations regarding analytical results for each VOC COC that was detected during the current sampling event are summarized below. Additional information regarding historical concentrations of VOC that are COCs in samples from shoreline monitoring wells is presented in the time series graphs (Figures 2-2a through 2-2h).

- TCE was detected in samples from five shoreline wells at concentrations ranging from 0.239 µg/L in the sample from PL2-258B to 15.7 µg/L in the sample from PL2-616A. Two of the five detected TCE concentrations are greater than the proposed FMCL of 0.7 µg/L.

- cDCE was detected in samples from eight shoreline wells at concentrations ranging from 0.257 µg/L in the sample from PL2-614A to 19.6 µg/L in the sample from PL2-616A. None of the detected cDCE concentrations are greater than the proposed FMCL of 130 µg/L.

- VC was detected in the samples from two shoreline wells at concentrations of 0.204 µg/L in the sample from PL2-258A and 0.939 µg/L in the sample from PL2-620A. Both VC detections are at concentrations greater than the proposed FMCL of 0.18 µg/L.

A summary of the number and percentage of shoreline wells sampled with detections, number and percentage of detections at concentrations greater than proposed FMCLs, and concentration range of the VOC COCs is presented in Table 2-3. Field duplicate sample results are included, where applicable, in the concentration ranges but are not counted in the number and percentage of detections or proposed FMCL exceedances.

2.3.2 VOC Time Series Graphs

Time series graphs of TCE, cDCE, and VC concentrations are used to visually assess chlorinated VOC COC concentration trends for each shoreline monitoring well on Figures 2-2a through 2-2h. Time series graphs presented in this report track data from the 12 most recent groundwater sampling events for each shoreline well. This adjustment to the time scale of the graphs was necessary because chlorinated VOC concentrations in samples from most shoreline wells have significantly decreased over time. Inclusion of the older high concentration data forces the range of values in the Y-axis of the time series graphs to be too large to show the detail inherent in more recent data with lower chlorinated VOC concentrations.

The non-chlorinated VOC COCs benzene and ethylbenzene, and the TPH surrogates total xylenes, toluene, and naphthalene have an insufficient number of detections to warrant inclusion on the VOC time series graphs.

2.3.3 Mann-Kendall Trend Analysis for VOCs

Table 2-4 contains results of a Mann-Kendall statistical analysis for trends in VOC concentrations at each shoreline well (Mann 1945, Kendall 1975). An upward trend in concentration is noted as “UP,” a downward trend is noted as “DOWN,” and, if there is no trend in the data, “NT” is used to signify no trend. If a dataset contains too few detections (fewer than four detections) to perform the Mann-Kendall analysis “NA” is used to indicate that no analysis was possible. Some visually apparent trends in the time series graphs are solely the result of changes in analytical reporting limits for non-detections. These cases are considered as having no statistically significant trend (“NT”) or are not analyzed (“NA”) if there are fewer than four detections in the 12-event dataset.

Based on the shoreline monitoring dataset of 12 sampling events, including data from the current sampling event, there were 14 Mann-Kendall statistical trends meeting the 95 percent level of significance: 11 downward trends and three upward trends. Results of the Mann-Kendall trend analysis for VOC COCs and TPH surrogates are noted in Table 2-4 and are summarized below:

- TCE concentrations exhibit downward trends in data from PL2-614A, PL2-616A, PL2-619A, and PL2-621A. Current TCE concentrations in samples from PL2-614A and PL2-621A are less than the proposed FMCL; however, current TCE concentrations in samples from PL2-616A and PL2-619A exceed the proposed FMCL. TCE concentrations exhibit upward trends in data from PL2-258B. The current TCE concentration in the sample from PL2-258B is less than the proposed FMCL.

- cDCE concentrations exhibit downward trends in data from PL2-614A, PL2-615A, PL2-619B, PL2-620A, and PL2-621A. There are upward trends in cDCE data from PL2-258A and PL2-258B. All wells with statistical trends have current cDCE concentrations that are less than the proposed FMCL.

- VC concentrations exhibit a downward trend in data from PL2-620A. The current VC concentration in the sample from PL2-620A exceeds the proposed FMCL. There are no upward trends in VC data.

- Total xylenes concentrations exhibit a downward trend in data from PL2-271A. There were no detections of total xylenes in the sample from PL2-271A or any other shoreline well sampled during this monitoring event. There are too few detections for total xylenes in samples from the remaining shoreline monitoring wells to perform the Mann-Kendall analysis.

- Benzene, ethylbenzene, toluene, and naphthalene have too few detections to perform the Mann-Kendall analysis. These TPH surrogates were not detected in samples from any shoreline wells during this monitoring event.

2.3.4 Inorganics Results

During the current monitoring event, groundwater samples from 20 shoreline wells were analyzed for total arsenic and copper. As noted in Section 1.3 and Figure 1-1, based on technical discussions and agreements with EPA, dissolved cadmium is only analyzed in samples from PL2-614A, PL2-619B, and PL2-621A, and free cyanide is only analyzed in samples from PL2-615A, PL2-619A, and PL2-619B. Analytical data from this monitoring event contain detections total arsenic, total copper, and free cyanide.

Graphical illustrations showing the location and distribution of proposed FMCL exceedances for inorganic COCs in samples from shoreline monitoring wells are provided as Figures 2-1a and 2-1b. Observations regarding metal COC analytical results for the current sampling event are presented in Table 2-5 and are summarized below. Additional historical information regarding metal COC concentrations in shoreline monitoring well samples can be found in the time series graphs presented in Figures 2-3a through 2-3h.

- Total arsenic was detected in samples from 10 shoreline wells at concentrations ranging from 1.27 µg/L (J-qualified) in the sample from PL2-213A to 12.5 µg/L in the sample from PL2-617A. The total arsenic concentrations of 12.1 µg/L and 12.5 µg/L in the samples from PL2-271A and PL2-617A, respectively, are greater than the proposed FMCL of 8.0 µg/L. The

field duplicate sample from PL2-617A had arsenic at a concentration of 12.0 µg/L, which is also greater than the proposed FMCL.

- Total copper was detected in samples from 11 shoreline wells at concentrations ranging from 0.765 µg/L in the sample from PL2-615B to 5.81 µg/L in the sample from PL2-621A. None of the total copper concentrations are greater than the proposed FMCL of 8.0 µg/L.

- Dissolved cadmium was not detected in samples from PL2-614A, PL2-619B, or PL2-621A during this monitoring event. Results of a 95 percent CL statistical test for dissolved cadmium are summarized in Section 2.4.1.

- Free cyanide was not detected in samples from PL2-615A, and PL2-619A but was detected in the sample from PL2-619B at concentration of 0.00714 milligrams per liter (mg/L), which is greater than the proposed FMCL of 0.001 mg/L. Results of a 95 percent CL statistical test for free cyanide are summarized in Section 2.4.2.

2.3.5 Metals Time Series Graphs

Time series graphs of the metal COCs arsenic, cadmium, copper, nickel, and zinc concentrations are presented in Figures 2-3a through 2-3h. Nickel and zinc are no longer analyzed in samples from shoreline monitoring wells due to attainment of FMCLs; however, historical zinc and nickel data remain on the time series graphs for context.

These figures graphically illustrate concentration trends of metal COCs in samples from the shoreline monitoring wells. Time series graphs presented in this report track the most recent 12 rounds of data from each shoreline well. This adjustment to the time scale was necessary because metals concentrations in samples from most shoreline wells have significantly decreased over time and inclusion of the older high concentration data forces the range of values in the Y-axis of the time series graphs to be too large to show the detail inherent in more recent data with lower metals concentrations.

2.3.6 Mann-Kendall Trend Analysis for Inorganics

Table 2-6 contains results of the Mann-Kendall statistical analysis for inorganics COC concentrations at each shoreline well. Mann-Kendall analyses for dissolved cadmium and free cyanide are limited to the wells in which those analyses are performed per EPA's concurrence to focus inorganics analyses to the COC list.

An upward trend in concentration is noted as "UP," a downward trend is noted as "DOWN," and, if there is no trend in the data at a 95 percent confidence factor or greater, then "NT" is used to signify no trend. If a dataset contains too few detections (fewer than 4), to perform the Mann-Kendall analysis then "NA" is used to signify no analysis was possible. Some visually apparent trends in the time series graphs are solely the result of changes in analytical reporting limits for non-detections. These cases are considered

as having no statistically significant trend, represented as “NT,” or are not analyzed, represented as “NA,” if there are fewer than four detections.

Based on the historical shoreline monitoring dataset there are 10 well/constituent combinations where a trend was noted in inorganics data. Of these, five trends are downward and five are upward. Results of the Mann-Kendall test for trends for inorganic COCs are noted in Table 2-6 and are summarized below:

- Total arsenic concentrations exhibit a downward trend in data from PL2-615A and upward trends in data from PL2-213A, PL2-227A, and PL2-617A. Among the wells with trends for arsenic, only the current arsenic concentration in the sample from PL2-617A is greater than the proposed FMCL of 8.0 µg/L.

- Total copper concentrations exhibit downward trends in data from PL2-271A, PL2-617A, PL2-619B, and PL2-621B and upward trends in data from PL2-258B and PL2-616A. None of the current copper concentrations in wells with trends exceed the proposed FMCL of 8.0 µg/L.

- Dissolved cadmium concentrations in data from PL2-614A, PL2-619B, or PL2-621A do not exhibit any trends or had too few detections to perform a valid Mann-Kendall statistical analysis.

- Free cyanide concentrations in data from PL2-615A, PL2-619A, and PL2619B do not exhibit any trends or had too few detections to perform a valid Mann-Kendall statistical analysis.

2.4 Results of 95 Percent Confidence Limit Evaluations

Specific shoreline monitoring wells were selected for additional analyses for dissolved cadmium, free cyanide, or PCBs as an outcome of data evaluation technical meetings with EPA. These additional analytical tests have been performed on samples from specific wells to evaluate groundwater conditions only in the areas where historical data indicate those specific COCs might be present as described in Section 1.3.

The 95 percent CL around the mean statistical test is used as part of the data evaluation process to determine if continued sampling and analysis is warranted for the location-specific additional analyses. The following sections summarize the results of those statistical data evaluations.

2.4.1 Dissolved Cadmium Results

Groundwater samples from wells PL2-614A, PL2-619B, and PL2-621A were analyzed for dissolved cadmium with no detections. The field duplicate sample from PL2-614A was also non-detected for dissolved cadmium.

Dissolved cadmium concentrations are commonly greater during the September semiannual events relative to the March semiannual events in samples from PL2-614A and PL2-621A throughout the sampling history of these wells. There are too few dissolved cadmium detections in samples from PL2-619B to distinguish a pattern (no detections since March 2016). The regular and consistent fluctuations in dissolved cadmium concentrations correlate with field-measured conductivity (a surrogate for salinity) as demonstrated by the PL2-614A and PL2-621A cadmium versus conductivity time series graphs presented in Attachment E. These time series graphs indicate that dissolved cadmium concentrations in samples from PL2-614A and PL2-621A might be affected by saline matrix interference.

Results of the Mann-Kendall test for trend for dissolved cadmium indicate no statistically significant trends for PL2-614A and PL2-621A (Table 2-6). However, best-fit linear trendlines added to the time series graphs presented in Attachment E indicate decreasing trends in dissolved cadmium concentrations for PL2-614A and PL2-621A. There are too few detections in samples from PL2-619B to support a trend line evaluation for that well.

All three wells have had at least one historical exceedance of the proposed FMCL, as summarized in Table 2-7. Dissolved cadmium data have been evaluated using the 95 percent CL statistical test and results of the statistical tests for PL2-614A, PL2-619B, and PL2-621A are summarized below. For these tests, non-detections were input as detected concentrations at half the reporting limit as recommended in *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance* (EPA 2009). The mean, standard deviation, and 95 percent CL were calculated using ProUCL Version 5.1.

Well	Mean Cadmium Concentration (µg/L)	Standard Deviation	Confidence Interval	Lower Confidence Limit	Upper Confidence Limit
PL2-614A	1.16	1.41	±1.40	Non-detect	2.56
PL2-619B	0.20	0.13	±0.23	Non-detect	0.43
PL2-621A	1.82	1.86	±0.95	0.87	2.77

Results of the 95 percent CL indicate that the upper 95 percent CL for dissolved cadmium datasets for all three wells exceed the proposed FMCL of 0.21 µg/L. Data from PL2-621A also have a lower CL that exceeds the proposed FMCL. Because the upper CLs for the three datasets, the lower CL for the PL2-621A dataset, and the mean concentrations for PL2-614A and PL2-621A exceed the proposed FMCL, sampling and analysis for dissolved cadmium should continue at these shoreline monitoring wells.

2.4.2 Free Cyanide Results

Groundwater samples from wells PL2-615A, PL2-619A, and PL2-619B were analyzed for free cyanide. Free cyanide was not detected at a reporting limit of 0.002 mg/L in samples from PL2-615A and PL2-619A. Free cyanide was detected at a concentration of 0.00714 mg/L in the sample from PL2-619B. As of the March 2021 sampling event, nine rounds of free cyanide data have been generated. These data are summarized in Table 2-8.

Free cyanide data have been evaluated using the 95 percent CL statistical test and results of the statistical tests for PL2-615A, PL2-619A, and PL2-619B are summarized below. For these tests, non-detections were input as detected concentrations at half the reporting limit as recommended in *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance* (EPA 2009). The mean, standard deviation, and 95 percent CL were calculated using ProUCL Version 5.1. However, all three ProUCL test outputs noted that datasets have four or fewer detected values, which is not enough to calculate meaningful or reliable statistics and estimates.

Well	Mean Free Cyanide Concentration (mg/L)	Standard Deviation	Confidence Interval	Lower Confidence Limit	Upper Confidence Limit
PL2-615A	0.00228	0.00063	±0.0006	0.0017	0.00283
PL2-619A	0.00237	0.00087	±0.0007	0.0017	0.00303
PL2-619B	0.00305	0.00166	±0.0013	0.0018	0.00424

Results for the lower 95 percent CLs for free cyanide in all three datasets are less than the proposed FMCL of 0.001 mg/L. However, both the upper 95 percent CL and the mean for free cyanide datasets for all three wells exceed the proposed FMCL. Therefore, sampling and analysis for free cyanide should continue at these shoreline monitoring wells.

2.4.3 PCB Results

Aroclor 1260 was detected at a concentration of 0.0121 µg/L in the sample from PL2-621A. PCBs were historically detected in seven of the 12 samples from PL2-621A; however, all PCB detections were at concentrations less than the proposed FMCL of 0.1 µg/L. Boeing has evaluated the data using the 95 percent CL test to evaluate if continued PCB monitoring is warranted at PL2-621A. Results of this statistical analysis are summarized below.

Well	Mean PCB Concentration (µg/L)	Standard Deviation	Confidence Interval	Lower Confidence Limit	Upper Confidence Limit
PL2-621A	0.0184	0.0115	±0.0065	0.0119	0.0249

The mean PCB concentration and both the upper- and lower-95 percent CLs are less than the proposed FMCL of 0.1 µg/L for PCBs. However, the mean and both the upper- and lower-95 percent CLs exceed the 2017 WQC for PCBs. Therefore, based on these data evaluations, sampling and analysis for PCBs at PL2-621A will continue.

Historical PCB data for shoreline sampling events performed at wells PL2-617A, PL2-618A, PL2-619A, PL2-620A, and PL2-621A are presented in Table 2-9 and summarized below.

- Wells PL2-617A, PL2-618A, PL2-619A, and PL2-620A had no PCB detections during the four-event sampling period that ended in March 2017; therefore, those wells were not sampled during this monitoring event.

- PCBs, specifically Aroclor 1260, were detected in the sample from PL2-621A at a concentration of 0.0121 µg/L during the March 2021 monitoring event.

- PCBs have been detected during seven of the 12 PCB sampling events performed at PL2-621A but have never been detected at a concentration greater than the proposed FMCL of 0.1 µg/L for total PCBs.

As noted in Section 1.3.4, in the future, Boeing will work in coordination with EPA to develop and implement an appropriate strategy for data evaluation and response.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations regarding COCs and TPH surrogates for the March 2021 semiannual groundwater monitoring event are supported by the analytical data presented above:

- At least one of the chlorinated VOCs TCE and VC was detected at concentrations greater than the proposed FMCLs in samples from four of the 21 wells sampled for VOCs during this sampling event. Active remediation is planned for chlorinated VOCs in groundwater as part of Corrective Measures Implementation.

- The chlorinated VOC cDCE was detected in samples from eight shoreline wells, all at concentrations less than the proposed FMCL. Evaluation of historical groundwater monitoring data for all current shoreline monitoring wells demonstrates that cDCE has never exceeded the proposed FMCL in samples from the current shoreline monitoring well network.

- TPH surrogates were not detected in samples from any shoreline monitoring wells during this semiannual monitoring event indicating that TPH is not an issue in groundwater at the shoreline monitoring well network.

- Total arsenic was detected in samples from 10 wells; two of the detects, from wells PL2-271A and PL2-617A, are at concentrations greater than the proposed FMCL. Arsenic concentrations in samples from PL2-617A were consistently less than 2 µg/L from 2014 through 2017; however, beginning in March 2018, arsenic concentrations in samples from PL2-617A have consistently exceeded the proposed FMCL. The sudden increase in arsenic concentrations in samples from PL2-617A in 2018 corresponded with a change from aerobic to anaerobic geochemical conditions in groundwater at PL2-617A.

- Dissolved cadmium was not detected in samples from PL2-614A, PL2-619B, or PL2-621A during this monitoring event. Based on the 95 percent CL statistical test of dissolved

cadmium data, Boeing recommends continued sampling and analysis for dissolved cadmium at PL2-614A, PL2-619B, and PL2-621A.

- Total copper was detected in samples from 10 wells; however, none of the detections are at concentrations greater than the proposed FMCL.

- Free cyanide was not detected in samples from PL2-615A and PL2-619A but was detected at a concentration of 0.00714 mg/L in the sample from PL2-619B. Boeing has now completed nine sampling events for free cyanide and has analyzed the free cyanide data using the 95 percent CL statistical method to assess whether free cyanide analysis should continue. Based on the 95 percent CL statistical test of free cyanide data, Boeing recommends continued sampling and analysis for free cyanide at PL2-615A, PL2-619A, and PL2-619B.

- PCBs, specifically Aroclor 1260, were detected in the sample from PL2-621A at a concentration of 0.0121 µg/L during the March 2021 sampling event. A total of 12 rounds of PCB sampling have been completed at PL2-621A and there have been seven detections, all at concentrations less than the proposed total PCB FMCL. Data from PL2-621A were evaluated using a 95 percent CL. Both the upper- and lower-95 percent CL are less than the proposed FMCL. Boeing will continue PCB analysis of groundwater samples from PL2-621A during the next semiannual shoreline monitoring event, scheduled for September 2021. Boeing will continue to sample PL2-621A at low tide relative to time-lagged tidal influences to collect a representative groundwater sample and evaluate the PL2-621A PCB data using the 95 percent CL statistical method.

4.0 SHORELINE GROUNDWATER MONITORING SAMPLING SCHEDULE

The next shoreline groundwater monitoring well sampling event is scheduled for September 2021 for the constituents and shoreline monitoring wells noted in the sampling matrix included in Table 4-1.

5.0 BIBLIOGRAPHY

Environmental Partners, Inc. (EPI). 2010. *Addendum to CMS-Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan (Shoreline Groundwater Monitoring)* – Proposed Modifications to Analytical Methods. 21 December.

Environmental Partners, Inc. (EPI). 2011. *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan.* 25 January.

Environmental Partners, Inc., Floyd|Snider, Golder Associates. 2017. *Uplands Corrective Measures Study Volume X: Corrective Measures Study Report – Plant 2.* November.

Floyd|Snider. 2011. *Target Media Cleanup Levels Technical Memorandum*. Prepared for the USEPA. Seattle, Washington. 26 May.

Floyd|Snider. 2016. *Interim Measure Construction Completion Report for OA-11*. Prepared for The Boeing Company. Seattle, Washington. November.

Golder Associates Inc. (Golder). 2015. *Compendium of Sampling and Analysis Plans and Quality Assurance Plans for Boeing Plant 2, Seattle/Tukwila, Washington*. March 2015.

Kendall, M. G. 1975. *Rank Correlation Methods*. 4th Edition. London: Charles Griffin.

Leidos, Inc. 2017. *Lower Duwamish Waterway Groundwater Sampling for PCB Congeners and Aroclors Data Report, Final.* Prepared for State of Washington Department of Ecology Toxics Cleanup Program. July 2017

Mann, H. B. 1945. *"Non-Parametric Tests against Trend."* Econometrical 13:245-259.

Roy F. Weston (Weston). 1994. RCRA Facility Investigation Work Plan, Boeing-Plant 2, Seattle/Tukwila, Washington. Prepared for the Boeing Company. November 1994.

———. 1997. *RCRA Facility Investigation Groundwater Investigation Interim Report, Boeing-Plant 2, Seattle/Tukwila, Washington*. Prepared for The Boeing Company. August 1997.

———. 2001a. *CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan, Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. April 2001.

———. 2001b. *CMS Phase Effectiveness of Buildings 2-10 and 2-66 Interim Measures Monitoring Plan, Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. April 2001.

———. 2001c. *Initial CMS Phase Effectiveness of Buildings 2-10 and 2-66 Interim Measures Monitoring Report, Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. August 2001.

———. 2001d. *CMS Phase Quarterly Groundwater Monitoring Report, 1st Quarterly Event, April/May 2001. Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. August 2001.

———. 2001e. *CMS Phase Quarterly Groundwater Monitoring Report, 2nd Quarterly Event, July/ August 2001, Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. October 2001.

———. 2001f. *Quality Assurance Project Plan Addendum, Groundwater RCRA Facility Investigation Work Plan, Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. April 2001.

———. 2002a. *CMS Phase Quarterly Groundwater Monitoring Report, 3rd Quarterly Event, October/November 2001. Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. January 2002.

———. 2002b. *CMS Phase Final Groundwater Monitoring Report, 4th Quarterly Event January/February 2002. Boeing Plant 2, Seattle/Tukwila, Washington*. Prepared for the Boeing Company. September 2002.

U. S. Environmental Protection Agency. 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance*. March 2009.

Tables

Table 1-1
Shoreline Monitoring Well Network Construction Data
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Well Designation	Measuring Point Elevation (feet NGVD 29)	Top of Screen[a] (feet bgs)	Bottom of Screen (feet bgs)	Screen Length (feet)	Pump[b] Intake Depth (feet below top of casing)
PL2-007AR[c]	13.19	7.5	17.5	10	16.5
PL2-213A[d]	13.19	15	30	15	23
PL2-214A	13.27	15	30	15	17
PL2-214B	13.18	45	60	15	50
PL2-214C	13.27	76	80	4	77
PL2-227A	12.79	6	16.5	10.5	14.5
PL2-258A	13.27	8	23	15	16
PL2-258B	13.27	40	50	10	48
PL2-258C	13.29	92	102	8	97
PL2-271A	13.16	20.2	29.7	9.5	25
PL2-601B[c]	12.67	45	50	5	47.5
PL2-602B[c]	12.74	44.5	49.5	5	47
PL2-603B[c]	12.55	44.5	49.5	5	47
PL2-612AR	10.46	12.5	22.5	10	19
PL2-614A	10.68	6	21	15	18
PL2-614B	10.52	50	60	10	55
PL2-615A	13.60	6	21	15	18
PL2-615B	13.63	40	50	10	45
PL2-616A	12.71	6	21	15	18
PL2-617A	13.50	6	21	15	18
PL2-618A	13.16	6	21	15	18
PL2-619A	12.81	6	21	15	18
PL2-619B	12.72	40	50	10	45
PL2-620A	13.26	6	21	15	18
PL2-620B	13.11	40	50	10	45
PL2-621A	12.37	6	21	15	18
PL2-621B	12.10	40	50	10	45

Notes:
- a 2-inch diameter Schedule 40 PVC.
- b Dedicated pumps are QED Well Wizard bladder pumps.
- c Well is not part of the shoreline monitoring well network but is sampled with the shoreline wells.
- d EPA-Selected Replacement well for PL2-232A.
- NGVD National Geodetic Vertical Datum.
- bgs Below ground surface.

Table 2-1
Shoreline Monitoring Network Groundwater Sampling Field Parameters
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Well Designation	Sample Date	Sample Time	Temp. (°C)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH (standard units)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
PL2-213A	3/17/2021	3:26 PM	18.3	373	0.97	6.55	-72.1	6.74
PL2-214A	3/17/2021	1:46 PM	17.0	414	0.42	6.63	-106.9	6.32
PL2-214B	3/17/2021	2:16 PM	17.4	21,338	0.80	6.95	-148.0	6.36
PL2-214C	3/17/2021	2:46 PM	17.2	35,429	0.89	6.82	-117.6	22.82
PL2-227A	3/16/2021	10:46 AM	11.7	257	7.15	6.05	166.3	5.72
PL2-258A	3/17/2021	10:51 AM	15.5	308	1.04	6.65	-32.0	85.23
PL2-258B	3/17/2021	11:26 AM	15.9	25,027	0.93	6.51	-83.4	369.70
PL2-258C	3/17/2021	12:06 PM	16.3	36,259	0.96	6.55	-41.0	5.67
PL2-271A	3/17/2021	1:11 PM	17.5	641	0.46	6.81	-139.3	7.28
PL2-614A	3/16/2021	4:30 PM	11.9	2,015	3.69	6.88	-15.8	3.70
PL2-614B	3/16/2021	8:55 AM	7.2	18,039	2.17	6.84	-17.3	37.90
PL2-615A	3/16/2021	10:05 AM	11.6	588	1.39	6.61	-23.2	109.10
PL2-615B	3/16/2021	10:55 AM	12.5	5,437	1.14	6.71	-24.9	5.80
PL2-616A	3/16/2021	11:55 AM	13.0	788	1.48	6.49	-16.3	22.20
PL2-617A	3/16/2021	1:45 PM	11.3	760	1.71	6.52	-37.0	10.90
PL2-618A	3/16/2021	2:55 PM	12.1	766	1.99	6.67	-33.8	16.80
PL2-619A	3/17/2021	5:00 PM	12.3	874	1.27	6.71	-46.8	6.46
PL2-619B	3/16/2021	2:26 PM	11.6	10,500	1.42	6.82	-38.6	14.72
PL2-620A	3/16/2021	1:34 PM	11.6	605	2.93	7.10	-28.7	26.47
PL2-620B	3/16/2021	12:11 PM	10.4	18,137	1.05	6.97	-81.2	1.56
PL2-621A	3/16/2021	4:29 PM	12.7	3,090	7.15	7.27	72.6	35.89
PL2-621B	3/16/2021	11:26 AM	11.3	28,164	1.28	6.29	39.7	16.41

Notes:

°C	Degrees Celsius
µS/cm	MicroSiemens per centimeter
mg/L	Milligrams per liter
mV	Millivolts
NTU	Nephelometric turbidity units

Table 2-2
March 2021 Shoreline Monitoring Sample Data – Summary of Detected Constituents
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Constituent	Analytical Method	2017 Proposed FMCLs	PL2-213A 3/17/2021	PL2-214A 3/17/2021	PL2-214B 3/17/2021	PL2-214C 3/17/2021	PL2-227A 3/16/2021	PL2-258A 3/17/2021	PL2-258B 3/17/2021	PL2-258C 3/17/2021	PL2-271A 3/17/2021	PL2-614A 3/16/2021	PL2-614A DUP 3/16/2021	PL2-614B 3/16/2021	PL2-615A 3/16/2021	PL2-615B 3/16/2021
Volatile Organic Compounds (µg/L)																
cis-1,2-Dichloroethene	EPA 8260C	130	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	2.26	0.2 U	0.2 U	0.257	0.25	0.2 U	0.571	0.2 U
Trichloroethene	EPA 8260C	0.7	0.2 U	0.2 U	0.2 U	0.2 U	--	0.2 U	0.239	0.2 U	0.2 U	0.365	0.392	0.2 U	0.2 U	0.2 U
Vinyl Chloride	EPA 8260C	0.18	0.2 U	0.2 U	0.2 U	0.2 U	--	0.204	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Polychlorinated Biphenyls (µg/L)																
Aroclor 1260	EPA 8082A	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PCB	EPA 8082A	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Inorganics, Total (µg/L)																
Arsenic	EPA 200.8	8	1.27 J	0.68 U	0.68 U	--	1.72 J	2.38	0.68 U	--	12.1	3.35 J	2.98 J	0.68 U	4.63	0.68 U
Copper	EPA 200.7	8	0.362 U	0.362 U	0.362 U	--	2.53	0.362 U	3.61	--	0.362 U	3.87	4.43	1.29	0.362 U	0.765 J
Other Inorganics (mg/L)																
Free Cyanide	OIA-1677-09	0.001	--	--	--	--	--	--	--	--	--	--	--	--	0.002 U	--

Notes:

	Shaded result exceeds 2017 Proposed Final Media Cleanup Level (FMCL).
--	Sample was not analyzed for this compound.
µg/L	Micrograms per liter.
EPA	U.S. Environmental Protection Agency.
NA	Not applicable.
mg/L	Milligrams per liter.

Qualifiers:

U	Target analyte was not detected at the reported concentration.
J	Indicates an estimated concentration when the value R - Indicates that the constituent was rejected.

Table 2-2
March 2021 Shoreline Monitoring Sample Data – Summary of Detected Constituents
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Constituent	Analytical Method	2017 Proposed FMCLs	PL2-616A 3/16/2021	PL2-617A 3/16/2021	PL2-617A DUP 3/16/2021	PL2-618A 3/16/2021	PL2-619A 3/17/2021	PL2-619B 3/16/2021	PL2-620A 3/16/2021	PL2-620B 3/16/2021	PL2-621A 3/16/2021	PL2-621B 3/16/2021
Volatile Organic Compounds (µg/L)												
cis-1,2-Dichloroethene	EPA 8260C	130	19.6	0.58	0.577	0.2 U	0.269	0.2 U	0.282	0.2 U	0.2 U	0.997
Trichloroethene	EPA 8260C	0.7	15.7	0.2 U	0.2 U	0.2 U	1.3	0.2 U	0.2 U	0.2 U	0.577	0.2 U
Vinyl Chloride	EPA 8260C	0.18	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.939	0.2 U	0.2 U	0.2 U
Polychlorinated Biphenyls (µg/L)												
Aroclor 1260	EPA 8082A	NA	--	--	--	--	--	--	--	--	0.0121 J	--
Total PCB	EPA 8082A	0.1	--	--	--	--	--	--	--	--	0.0121 J	--
Inorganics, Total (µg/L)												
Arsenic	EPA 200.8	8	0.68 U	12.5	12.0	2.16 J	0.68 U	0.68 U	1.3 J	0.68 U	2.65 J	0.68 U
Copper	EPA 200.7	8	3.05	0.362 U	0.362 U	4.97	1.5	0.362 U	1.15	0.362 U	5.81	0.362 U
Other Inorganics (mg/L)												
Free Cyanide	OIA-1677-09	0.001	--	--	--	--	0.002 U	0.00714	--	--	--	--

Notes:

(shaded)	Shaded result exceeds 2017 Proposed Final Media Cleanup Level (FMCL).
--	Sample was not analyzed for this compound.
µg/L	Micrograms per liter.
EPA	U.S. Environmental Protection Agency.
NA	Not applicable.
mg/L	Milligrams per liter.

Qualifiers:

U	Target analyte was not detected at the reported concentration.
J	Indicates an estimated concentration when the value is less than the calculated reporting limit.

Table 2-3
Shoreline Monitoring Network VOC COCs and TPH Surrogate Results
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

VOC COCs	Number of Wells with Detections	Percentage[a] of Wells Sampled with Detections	Number of Wells with Detections > Proposed FMCL	Percentage[a] of Wells with Detections > Proposed FMCL	Concentration Range of Detected Values (µg/L)
Trichloroethene	5	24%	2	10%	0.239 to 15.7
cis-1,2-Dichloroethene	8	38%	0	0%	0.257 to 19.6
Vinyl Chloride	2	10%	2	10%	0.204 and 0.939
Benzene	0	0%	0	0%	ND
Ethylbenzene	0	0%	0	0%	ND
Toluene	0	0%	0	0%	ND
Total Xylenes	0	0%	0	0%	ND
Naphthalene	0	0%	0	0%	ND
All analyzed VOC COCs[b]	10	48%	4	19%	NA

Notes:

a Percentage based on 21 wells sampled for VOCs during this monitoring event.
b Number of wells with one or more detection of any VOC COC or TPH surrogate analyzed.
VOC Volatile organic compound.
TPH Total petroleum hydrocarbons.
COCs Constituents of concern.
FMCL Final Media Cleanup Level.
µg/L Micrograms per liter.
ND Not detected.
NA Not applicable.

Table 2-4
Mann-Kendall Statistical Test for Trend in VOC COCs and TPH Surrogate Data
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Well Number	Mann-Kendall Trend Direction							
	TCE	cDCE	VC	Benzene	Ethyl-benzene	Toluene[a]	Total Xylenes[a]	Naphtha-lene[a]
PL2-213A	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-214A	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-214B	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-214C	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-227A	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-258A	NT<	**UP<**	NT>	NA<	NA<	NA<	NA<	NA<
PL2-258B	**UP<**	**UP<**	NA<	NA<	NA<	NA<	NA<	NA<
PL2-258C	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-271A	NA<	NA<	NA<	NA<	NA<	NA<	**DOWN<**	NA<
PL2-614A	**DOWN<**	**DOWN<**	NA<	NA<	NA<	NA<	NA<	NA<
PL2-614B	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-615A	NA<	**DOWN<**	NA<	NA<	NA<	NA<	NA<	NA<
PL2-615B	NA<	NT<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-616A	**DOWN>**	NT<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-617A	NA<	NT<	NT<	NA<	NA<	NA<	NA<	NA<
PL2-618A	NA<	NA<	NT<	NA<	NA<	NA<	NA<	NA<
PL2-619A	**DOWN>**	NT<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-619B	NA<	**DOWN<**	NA<	NA<	NA<	NA<	NA<	NA<
PL2-620A	NA<	**DOWN<**	**DOWN>**	NA<	NA<	NA<	NA<	NA<
PL2-620B	NA<	NA<	NA<	NA<	NA<	NA<	NA<	NA<
PL2-621A	**DOWN<**	**DOWN<**	NA<	NA<	NA<	NA<	NA<	NA<
PL2-621B	NA<	NT<	NA<	NA<	NA<	NA<	NA<	NA<

Notes:
- a Toluene, total xylenes, and naphthalene are not COCs but are used as surrogates for petroluem hydrocarbons.
- < Most recent concentration is less than the proposed Final Media Cleanup Level.
- > Most recent concentration is greater than the proposed Final Media Cleanup Level.
- VOC Volatile organic compound
- COC Constituent of concern.
- TPH Total petroleum hydrocarbons.
- **DOWN** Mann-Kendall test performed with downward trend.
- NA Insufficient number of detections to perform Mann-Kendall test.
- NT Mann-Kendall test performed with no trend.
- **UP** Mann-Kendall test performed with upward trend.

Constituents:
- TCE Trichloroethene
- cDCE cis-1,2-Dichloroethene
- VC Vinyl chloride

Table 2-5
Shoreline Monitoring Network Inorganics COC Results
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Metal COC and Fraction	Number of Wells with Detections	Percentage[a] of Wells Sampled with Detections	Number of Wells with Detections > Proposed FMCL	Percentage[a] of Wells Sampled with Detections > Proposed FMCL	Concentration Range of Detected Values (µg/L)
Arsenic (total)	10	55%	2	10%	1.27 J to 12.5
Cadmium (dissolved)	0	0%	0	0%	ND
Copper (total)	10	50%	0	0%	0.765 to 5.81
Free Cyanide	1	33%	1	33%	7.14

Notes:
a Percentage based on 20 wells sampled for arsenic and copper, 3 for cadmium and 3 for free cyanide.
COC Constituent of concern.
FMCL Proposed Final Media Cleanup Level.
µg/L Micrograms per liter.

Table 2-6
Mann-Kendall Statistical Test for Trend in Inorganics COC Data
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Well Number	Mann-Kendall Trend Direction			
	Arsenic (total)	Copper (total)	Cadmium (dissolved)	Free Cyanide[1]
PL2-213A	**UP<**	NT<	--	--
PL2-214A	NA<	NA<	--	--
PL2-214B	NA<	NA<	--	--
PL2-214C	NT<	NT<	--	--
PL2-227A	**UP<**	NT<	--	--
PL2-258A	NT<	NT<	--	--
PL2-258B	NA<	**UP<**	--	--
PL2-258C	NT<	NT<	--	--
PL2-271A	NT>	**DOWN<**	--	--
PL2-614A	NT<	NT<	NT<	--
PL2-614B	NA<	NT<	--	--
PL2-615A	**DOWN<**	NT<	--	NA<
PL2-615B	NA<	NT<	--	--
PL2-616A	NT<	**UP<**	--	--
PL2-617A	**UP>**	**DOWN<**	--	--
PL2-618A	NT<	NT<	--	--
PL2-619A	NT<	NT<	--	NA<
PL2-619B	NA<	**DOWN<**	NA<	NT>
PL2-620A	NT<	NT<	--	--
PL2-620B	NA<	NA<	--	--
PL2-621A	NT<	NT<	NT<	--
PL2-621B	NA<	**DOWN<**	--	--

Notes:

[1]	Nine events tested for free cyanide.
<	Most recent concentration is less than the proposed Final Media Cleanup Level.
>	Most recent concentration is greater than the proposed Final Media Cleanup Level.
--	Sample was not analyzed for this compound.
COC	Constituent of concern.
DOWN	Mann-Kendall test performed with downward trend.
NA	Insufficient number of events or detections to perform Mann-Kendall test.
NT	Mann-Kendall test performed with no trend.
UP	Mann-Kendall test performed with upward trend.

Table 2-7
Dissolved Cadmium Analytical Results
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Sample ID	Date	Dissolved Cadmium Concentration (µg/L)[a]	Data Qualifier
PL2-614A	8/18/14	**1.2**	
	3/2/15	**0.74**	
	8/31/15	**2.3**	
	3/1/16	0.23	U
	8/3/16	**0.95**	
	3/9/17	0.19	U
	9/20/17	**4.9**	
	3/13/18	0.16	J
	9/19/18	**3.6**	
	3/20/19	0.15	J
	9/18/19	**0.83**	
	3/23/20	0.16	U
	9/14/20	**0.75**	
	3/16/21	0.515	U
PL2-619B	8/18/14	0.17	U
	3/2/15	0.86	U
	8/31/15	**0.6**	
	3/1/16	**0.29**	J
	8/3/16	0.97	U
	3/8/17	0.19	U
	9/19/17	0.15	U
	3/12/18	0.20	U
	9/18/18	0.15	U
	3/19/19	0.15	U
	9/17/19	0.15	U
	3/23/20	0.16	U
	9/14/20	0.15	U
	3/16/21	0.515	U
PL2-621A	8/19/14	**4.8**	
	3/3/15	0.17	U
	9/1/15	**2.8**	
	3/2/16	0.23	U
	8/4/16	**1.3**	
	3/8/17	0.19	U
	9/19/17	**3.1**	
	3/12/18	0.2	U
	9/18/18	**4.2**	
	3/18/19	0.15	U
	9/17/19	**4.8**	
	3/23/20	0.16	U
	9/15/20	**3.46**	U
	3/16/21	0.515	U

Notes:

a Samples analyzed for dissolved cadmium by EPA Method 200.8

Shaded results exceed the 2017 Proposed Final Media Cleanup Level of 0.21 ug/L.

µg/L Micrograms per liter.

Qualifiers:

U Target analyte was not detected at the reported concentration.

J Indicates an estimated concentration when the value is less than the calculated reporting limit.

Table 2-8
Free Cyanide Analytical Results
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Sample ID	Date	Free Cyanide Concentration (mg/L)[a]	Data Qualifier
PL2-615A	3/9/17	0.002	U
	9/29/17	0.002	U
	3/12/18	**0.0025**	J
	9/18/18	**0.0040**	
	3/18/19	0.002	U
	9/18/19	0.002	U
	3/23/20	0.002	U
	9/14/20	0.002	U
	3/16/21	0.002	U
PL2-619A	3/8/17	0.002	U
	9/29/17	0.002	U
	3/12/18	**0.0021**	J
	9/18/18	**0.0048**	
	3/18/19	0.0020	U
	9/17/19	**0.0024**	J
	3/24/20	0.0020	U
	9/14/20	0.0020	U
	3/17/21	0.0020	U
PL2-619B	3/8/17	**0.0026**	
	9/29/17	0.002	U
	3/12/18	0.002	U
	9/18/18	**0.0046**	
	3/19/19	**0.0031**	J
	9/17/19	0.002	U
	3/23/20	0.002	U
	9/14/20	0.002	U
	3/17/21	**0.00714**	U

Notes:

a Samples analyzed for free cyanide by OIA-1677-09.

mg/L Milligrams per liter.

Shading indicates concentration exceeds 2017 Proposed Final Media Cleanup Level of 0.001 mg/L.

Qualifiers:

U Target analyte was not detected at the reported concentration.

J Indicates an estimated concentration when the value is less than the calculated reporting limit.

Table 2-9
PCB Aroclor Analytical Results
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Sample ID	Date	PCB Aroclor Concentration (µg/L)[a]								
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Total PCB
PL2-617A	8/18/14	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	8/31/15	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	8/4/16	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	3/8/17	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 UJ	--	0.0095 U
PL2-617A DUP	8/4/16	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	3/8/17	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 UJ	--	0.0095 U
PL2-618A	8/18/14	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	8/31/15	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	8/5/16	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	3/8/17	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0095 UJ	--	0.0095 U
PL2-619A	8/18/14	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	8/31/15	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	8/4/16	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	3/8/17	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 UJ	--	0.0095 U
PL2-620A	8/18/14	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	8/31/15	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	8/4/16	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	3/8/17	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0095 UJ	--	0.0095 U
PL2-621A	8/19/14	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	--	0.0094 U
	9/1/15	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	**0.011**	--	**0.011**
	8/4/16	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	--	0.0095 U
	3/8/17	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	**0.022 J-**	--	**0.022**
	9/29/17	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	**0.019**	--	**0.019**
	3/12/18	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	**0.034**	**0.034**
	9/18/18	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
	3/18/19	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	**0.032**	**0.032**
	9/17/19	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U	0.0096 U
	3/23/20	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	**0.044**	0.01 U	**0.044**
	9/15/20	0.0101 U	0.0101 U	0.0101 U	0.0101 U	0.0101 U	0.0101 U	0.0101 U	0.0101 U	0.0101 U
	3/16/21	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	0.0097 U	**0.0121**	0.0097 U	**0.0121**

Notes:

Bold	Bold results exceed the reporting limit.
a	Analyzed by EPA Method 8082.
PCB	Polychlorinated biphenyls.
--	Sample was not analyzed for this compound.

Qualifiers:

U	Target analyte was not detected at the reported concentration.
J-	Indicates an estimated concentration when the value is less than the calculated reporting limit, but the result may be biased low.

Table 4-1
2021 Shoreline Monitoring Schedule
CMS Phase Semiannual Shoreline Groundwater Monitoring Report – March 2021
Boeing Plant 2, Seattle/Tukwila, Washington

Well Designation	2021 Laboratory Analyses and Sampling Schedule									
	VOCs		Total Arsenic and Copper		PCBs		Free Cyanide		Dissolved Cadmium	
	March	Sept.	March	Sept.	March	Sept.	March	Sept.	March	Sept.
PL2-213A	X	X	X	X						
PL2-214A	X	X	X	X						
PL2-214B	X	X	X	X						
PL2-214C	X	X		X						
PL2-227A		X	X	X						
PL2-258A	X	X	X	X						
PL2-258B	X	X	X	X						
PL2-258C	X	X		X						
PL2-271A	X	X	X	X						
PL2-614A[a]	X	X	X	X					X	X
PL2-614B	X	X	X	X						
PL2-615A	X	X	X	X			X	X		
PL2-615B	X	X	X	X						
PL2-616A	X	X	X	X						
PL2-617A	X	X	X	X						
PL2-618A	X	X	X	X						
PL2-619A[a]	X	X	X	X			X	X		
PL2-619B	X	X	X	X			X	X	X	X
PL2-620A	X	X	X	X						
PL2-620B	X	X	X	X						
PL2-621A[a]	X	X	X	X	X	X			X	X
PL2-621B	X	X	X	X						

Notes:

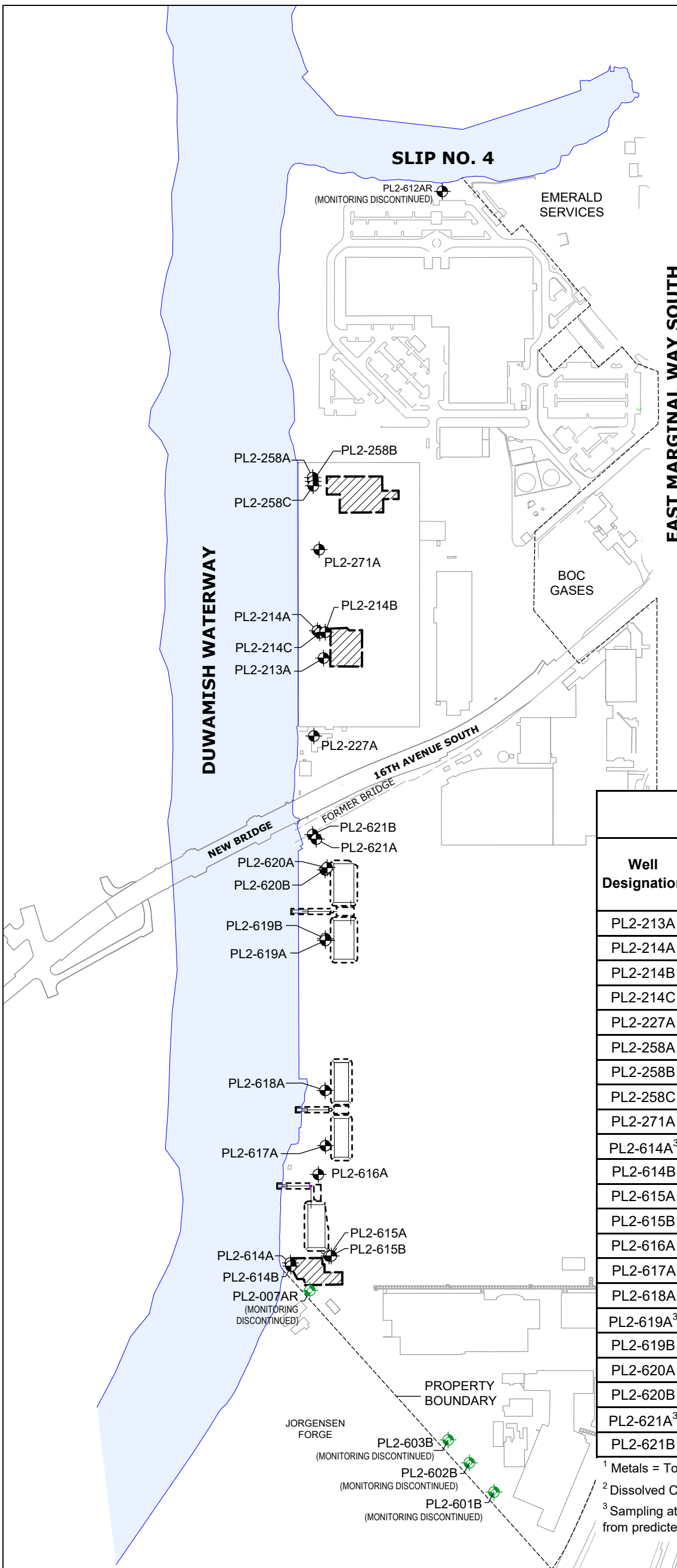
a Sampling at PL2-614A, PL2-621A, and PL2-619A must be performed at low tide (141 minute delay from predicted low tide in the Duwamish Waterway 8th Ave. South Tide Station 9447029).

X Sample will be analyzed for this compound during this event.

VOCs Volatile organic compounds.

PCBs Polychlorinated biphenyls.

Figures



Boeing Plant 2 RCRA Corrective Action
2021 Shoreline Monitoring Schedule

Well Designation	Laboratory Analyses and Sampling Schedule									
	VOCs		Metals[1]		PCBs		Free Cyanide		Cadmium[2]	
	March	Sept.	March	Sept.	March	Sept.	March	Sept.	March	Sept.
PL2-213A	X	X	X	X						
PL2-214A	X	X	X	X						
PL2-214B	X	X	X	X						
PL2-214C	X	X		X						
PL2-227A		X	X	X						
PL2-258A	X	X	X	X						
PL2-258B	X	X	X	X						
PL2-258C	X	X		X						
PL2-271A	X	X	X	X						
PL2-614A[3]	X	X	X	X					X	X
PL2-614B	X	X	X	X						
PL2-615A	X	X	X	X			X	X		
PL2-615B	X	X	X	X						
PL2-616A	X	X	X	X						
PL2-617A	X	X	X	X						
PL2-618A	X	X	X	X						
PL2-619A[3]	X	X	X	X			X	X		
PL2-619B	X	X	X	X			X	X	X	X
PL2-620A	X	X	X	X						
PL2-620B	X	X	X	X						
PL2-621A[3]	X	X	X	X	X	X			X	X
PL2-621B	X	X	X	X						

[1] Metals = Total Arsenic and Total Copper

[2] Dissolved Cadmium

[3] Sampling at PL2-614A, PL2-619A, and PL2-621A must be performed at low tide (141 minute delay from predicted low tide in the Duwamish Waterway 8th Ave. South Tide Station 9447029)

NOTES:

N

0 100 200 400

SCALE: 1" = 400

SHEETPILE STRUCTURE

STORMWATER SWALES

SHORELINE MONITORING WELL

NON-SHORELINE MONITORING WELL SAMPLED CONCURRENTLY WITH SHORELINE MONITORING

TRC
1180 NW MAPLE ST, SUITE 310
ISSAQUAH, WA 98027
WWW.TRCCOMPANIES.COM
425.395.0010

FIGURE 1-1

SHORELINE MONITORING WELL LOCATIONS AND SAMPLING SCHEDULE

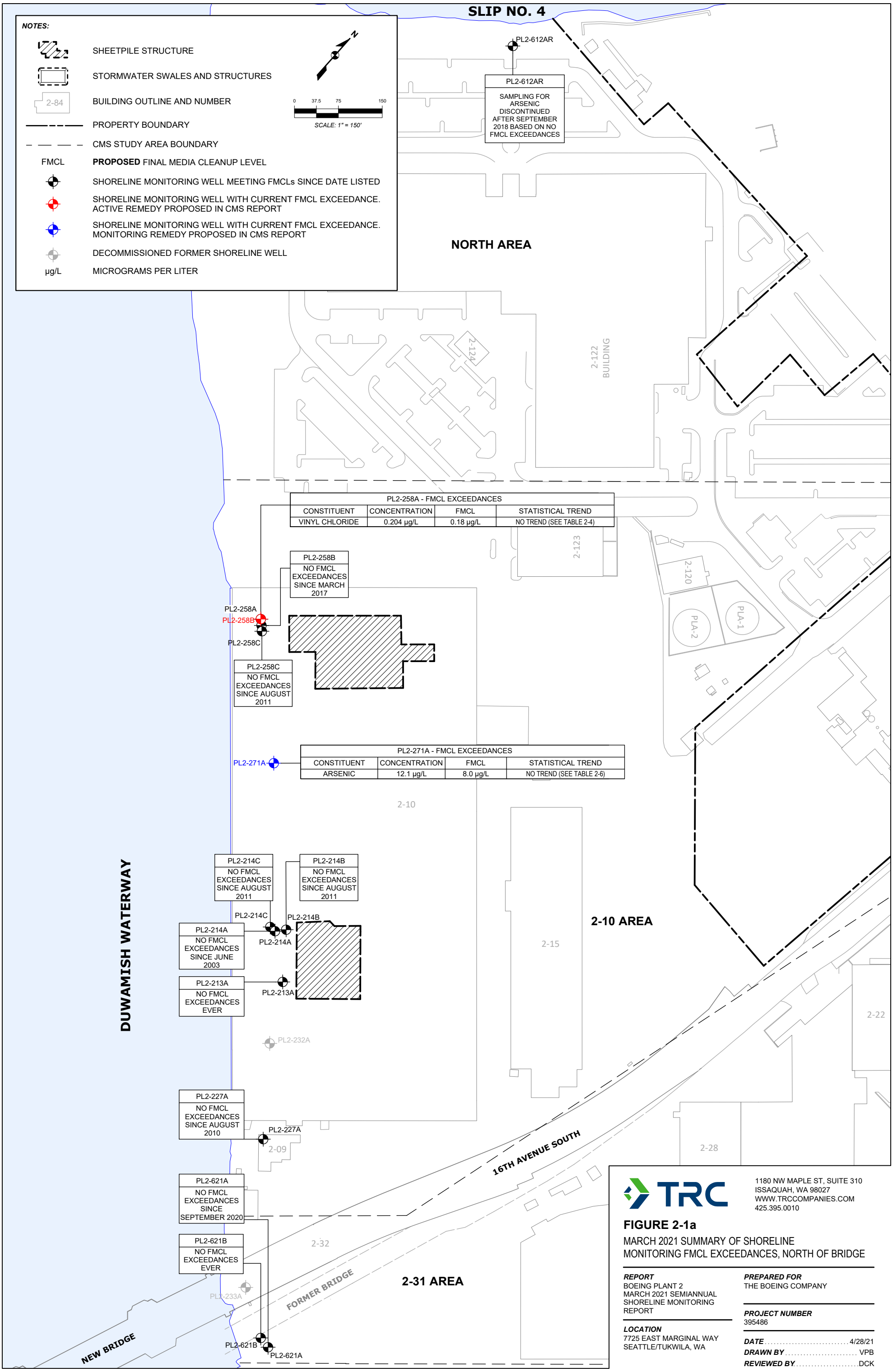
REPORT
BOEING PLANT 2
MARCH 2021 SEMIANNUAL SHORELINE MONITORING REPORT

LOCATION
7725 EAST MARGINAL WAY
SEATTLE/TUKWILA, WA

PREPARED FOR
THE BOEING COMPANY

PROJECT NUMBER
395486

DATE 4/26/21
DRAWN BY ..... VPB
REVIEWED BY ..... DCK



TRC

1180 NW MAPLE ST, SUITE 310
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WWW.TRCCOMPANIES.COM
425.395.0010

FIGURE 2-1a

MARCH 2021 SUMMARY OF SHORELINE MONITORING FMCL EXCEEDANCES, NORTH OF BRIDGE

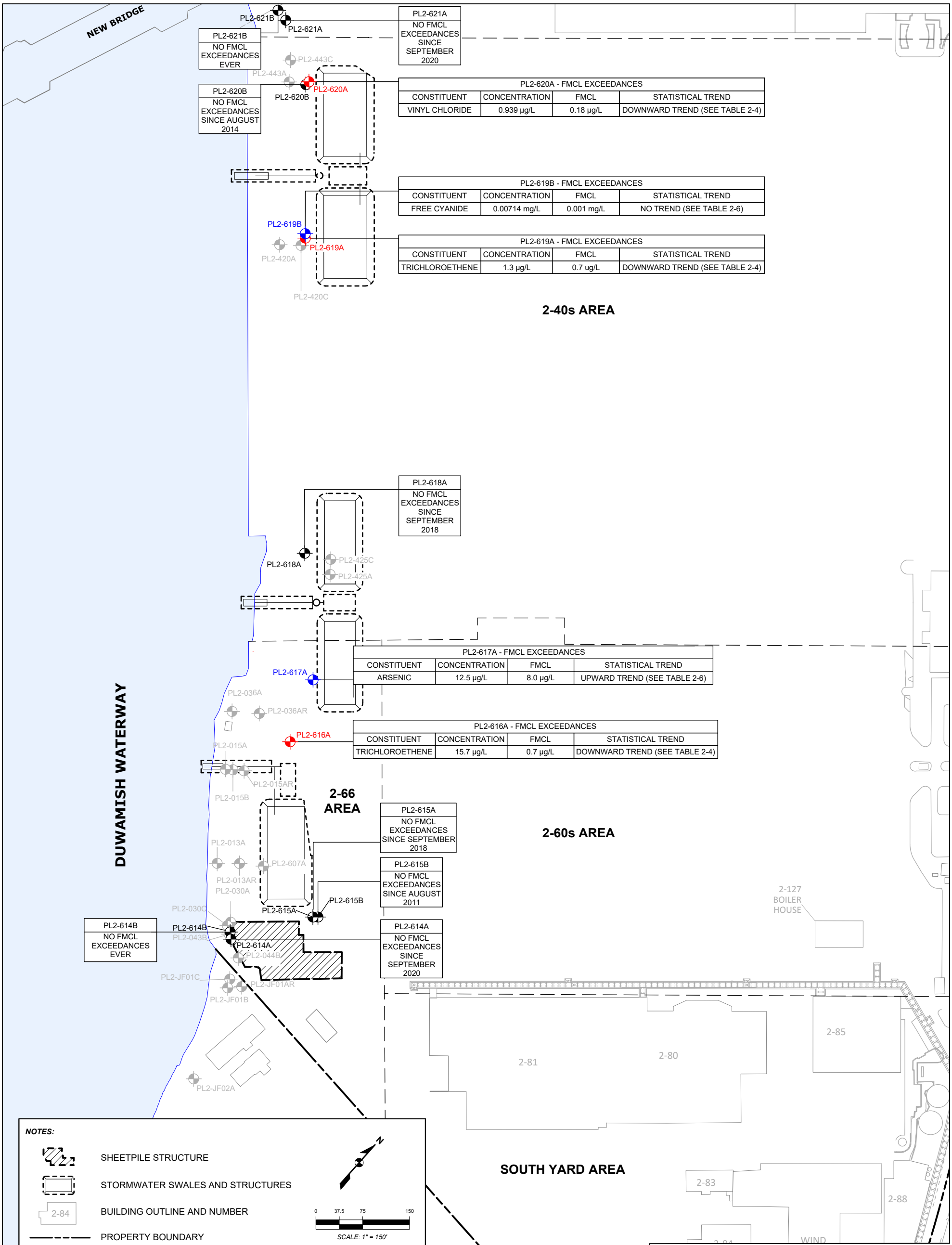
REPORT
BOEING PLANT 2
MARCH 2021 SEMIANNUAL SHORELINE MONITORING REPORT

LOCATION
7725 EAST MARGINAL WAY
SEATTLE/TUKWILA, WA

PREPARED FOR
THE BOEING COMPANY

PROJECT NUMBER
395486

DATE 4/28/21
DRAWN BY ..... VPB
REVIEWED BY ..... DCK



NOTES:

- SHEETPILE STRUCTURE
- STORMWATER SWALES AND STRUCTURES
- 2-84 BUILDING OUTLINE AND NUMBER
- PROPERTY BOUNDARY
- CMS STUDY AREA BOUNDARY
- FMCL **PROPOSED** FINAL MEDIA CLEANUP LEVEL
- SHORELINE MONITORING WELL MEETING FMCLs SINCE DATE LISTED
- SHORELINE MONITORING WELL WITH CURRENT FMCL EXCEEDANCE. ACTIVE REMEDY PROPOSED IN CMS REPORT
- SHORELINE MONITORING WELL WITH CURRENT FMCL EXCEEDANCE. MONITORING REMEDY PROPOSED IN CMS REPORT
- DECOMMISSIONED FORMER SHORELINE WELL
- mg/L MILLIGRAMS PER LITER
- µg/L MICROGRAMS PER LITER

N

0 37.5 75 150

SCALE: 1" = 150'

TRC
1180 NW MAPLE ST, SUITE 310
ISSAQUAH, WA 98027
WWW.TRCCOMPANIES.COM
425.395.0010

FIGURE 2-1b

MARCH 2021 SUMMARY OF SHORELINE MONITORING FMCL EXCEEDANCES, SOUTH OF BRIDGE

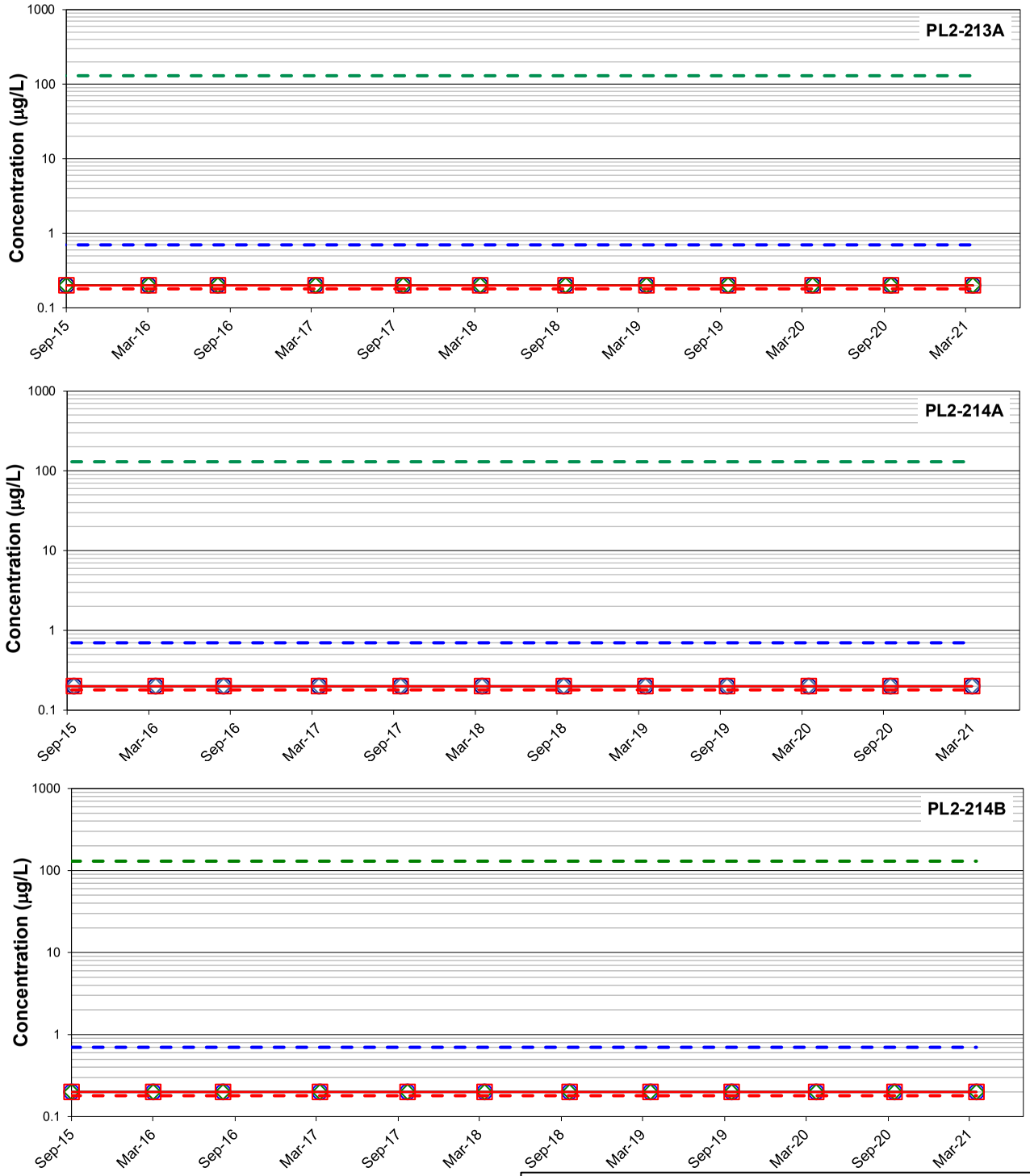
REPORT
BOEING PLANT 2
MARCH 2021 SEMIANNUAL SHORELINE MONITORING REPORT

LOCATION
7725 EAST MARGINAL WAY
SEATTLE/TUKWILA, WA

PREPARED FOR
THE BOEING COMPANY

PROJECT NUMBER
395486

DATE 4/26/21
DRAWN BY ..... VPB
REVIEWED BY ..... DCK

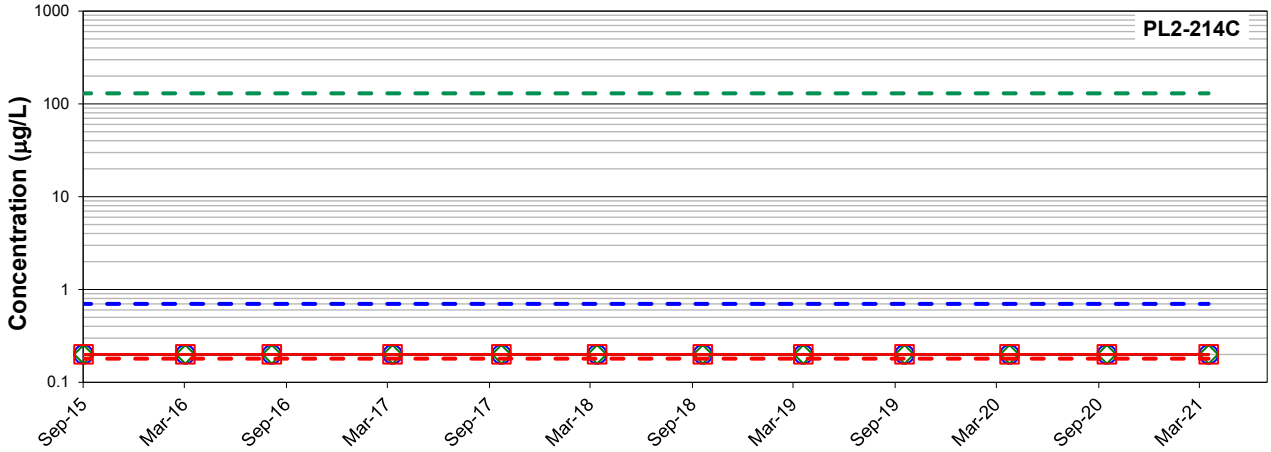


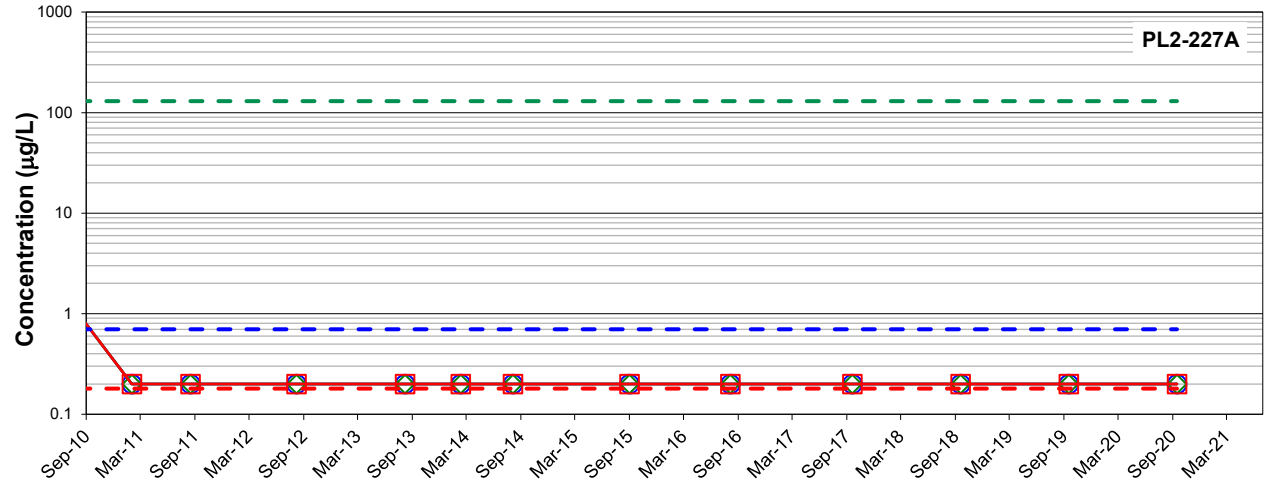
NOTES:

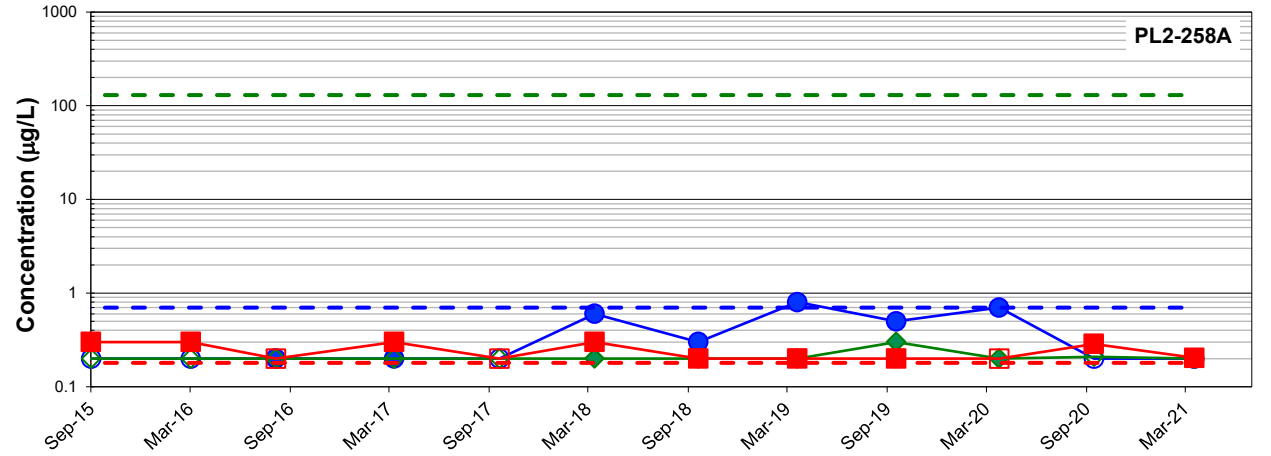
- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2a
CHLORINATED VOC COC TRENDS AT
PL2-213A, PL2-214A, AND PL2-214B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486







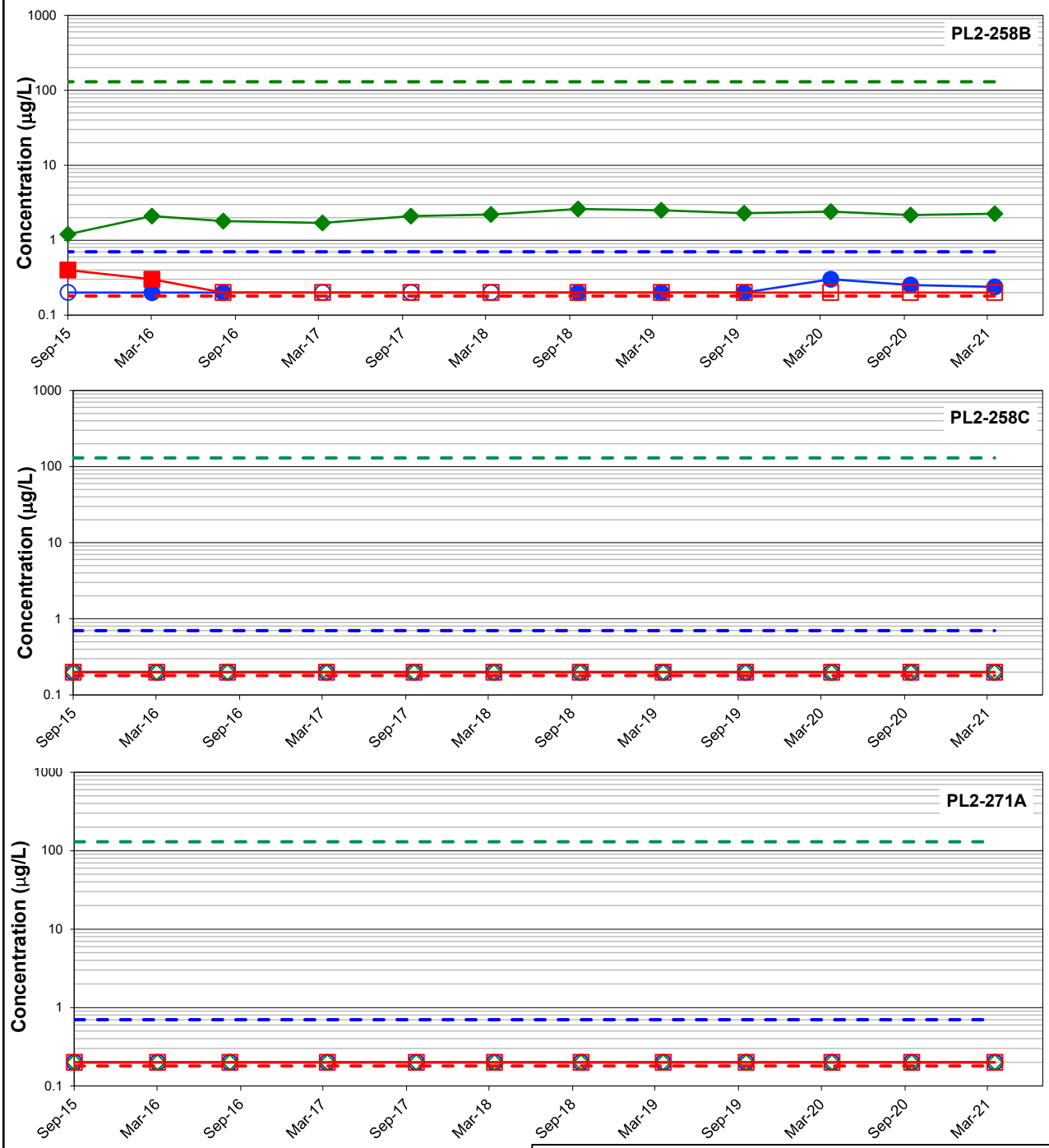
Date

NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2b
CHLORINATED VOC COC TRENDS AT
PL2-214C, PL2-227A, AND PL2-258A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486



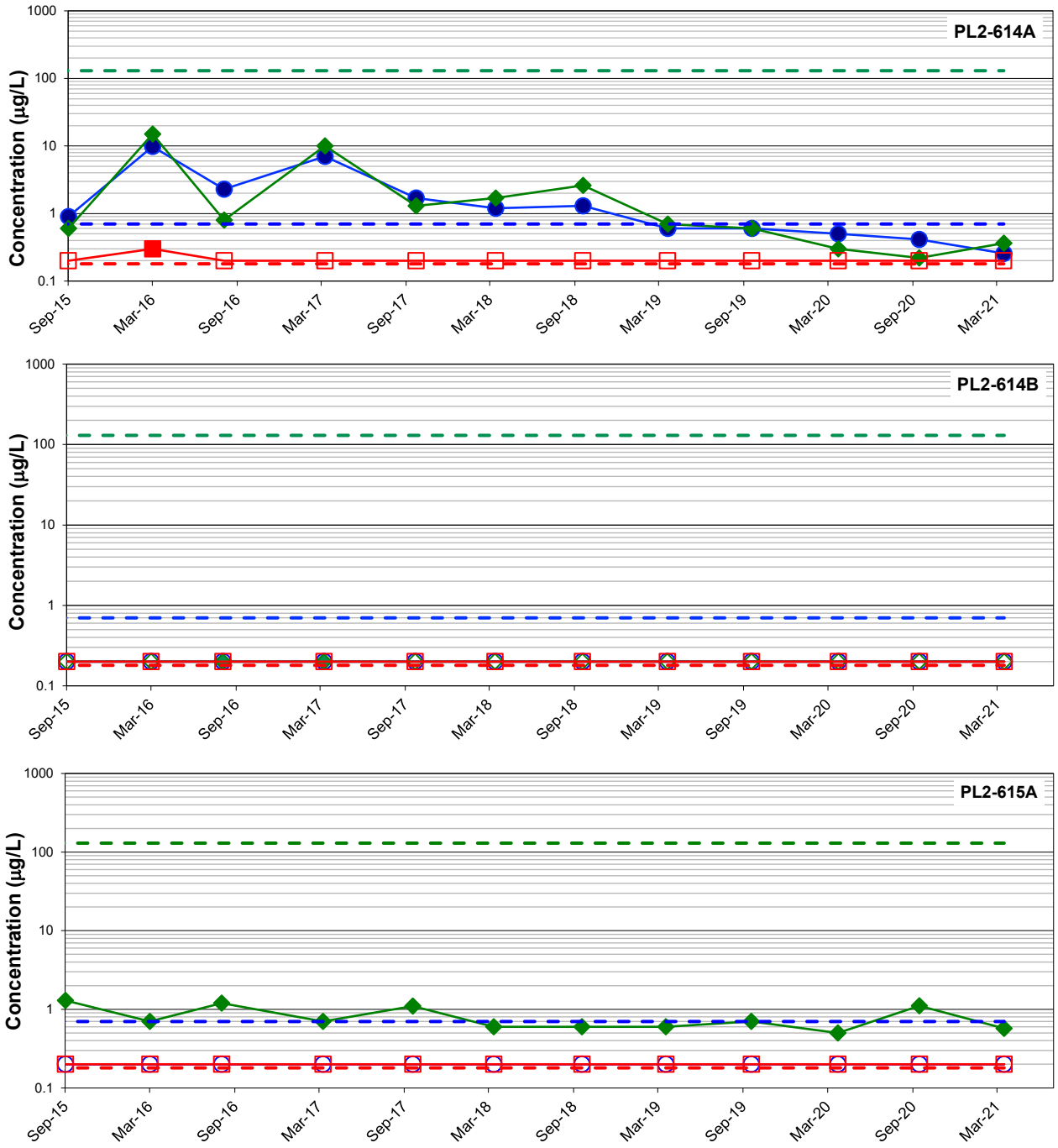
NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2c

CHLORINATED VOC COC TRENDS AT PL2-258B, PL2-258C, AND PL2-271A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

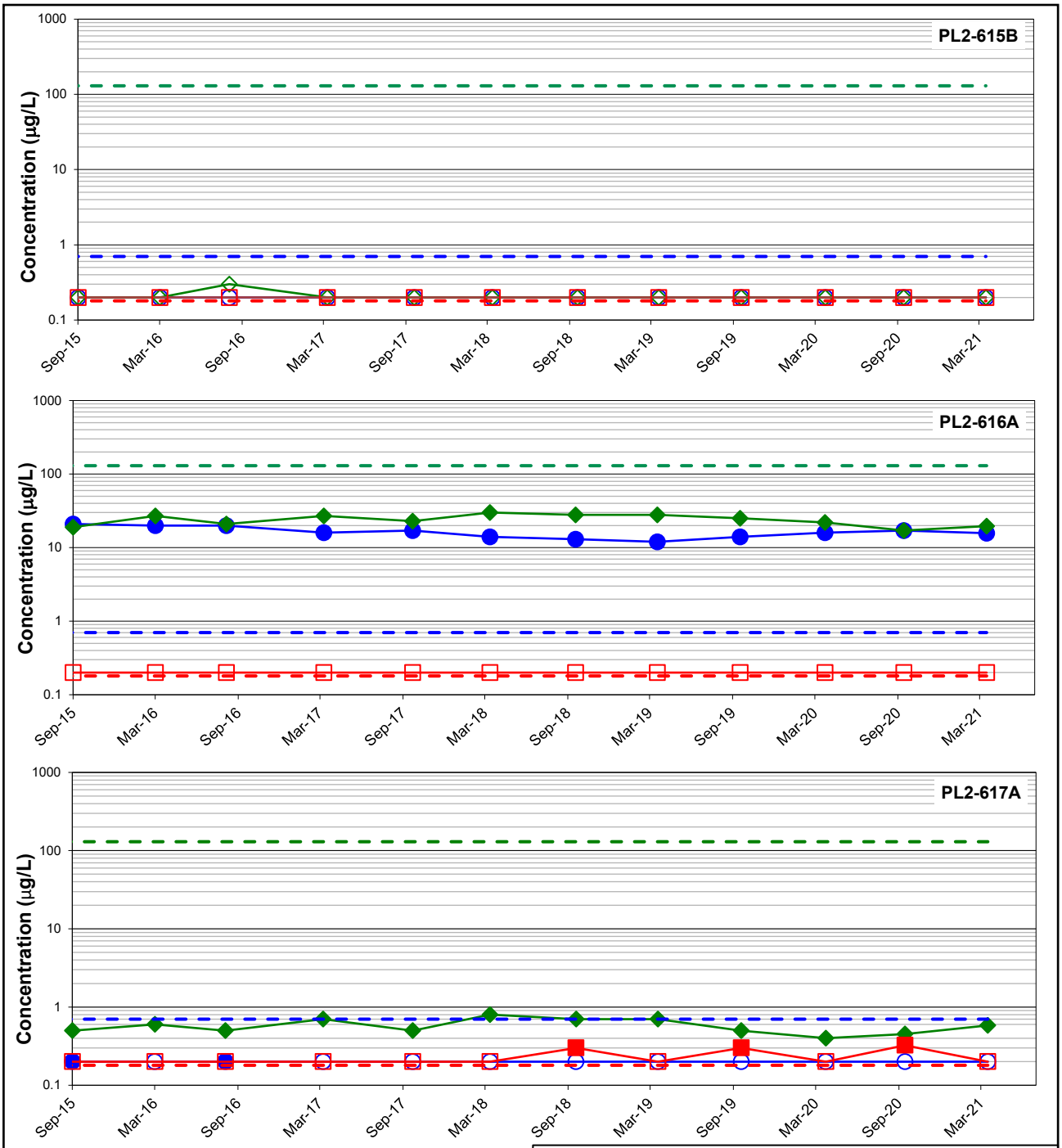


NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2d
CHLORINATED VOC COC TRENDS AT
PL2-614A, PL2-614B, AND PL2-615A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486



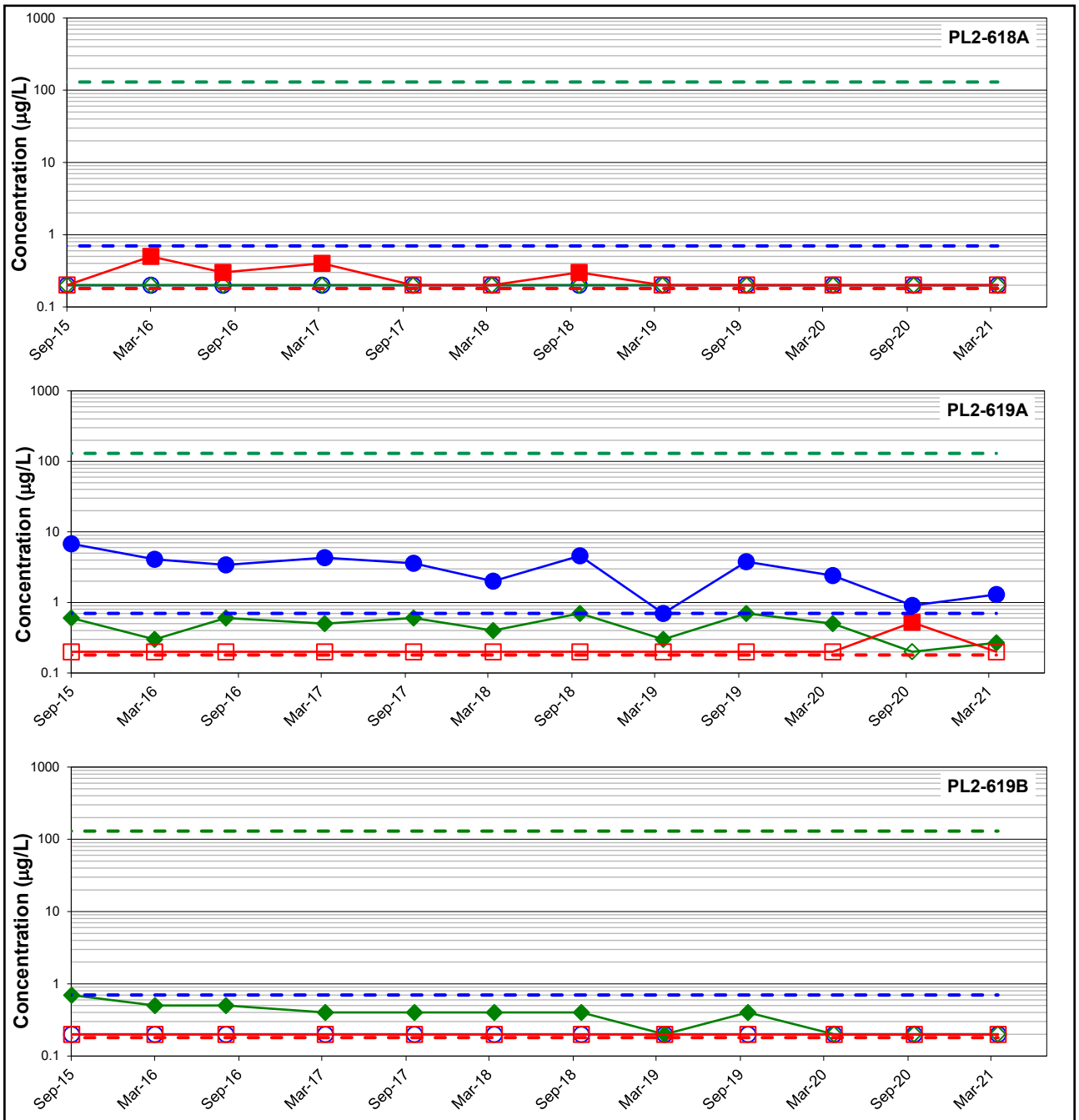
NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2e

CHLORINATED VOC COC TRENDS AT PL2-615B, PL2-616A, AND PL2-617A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE	***CREATED BY***	***REVIEWED BY***	***PROJECT NUMBER***
04/14/2021	DCK	DCK	395486

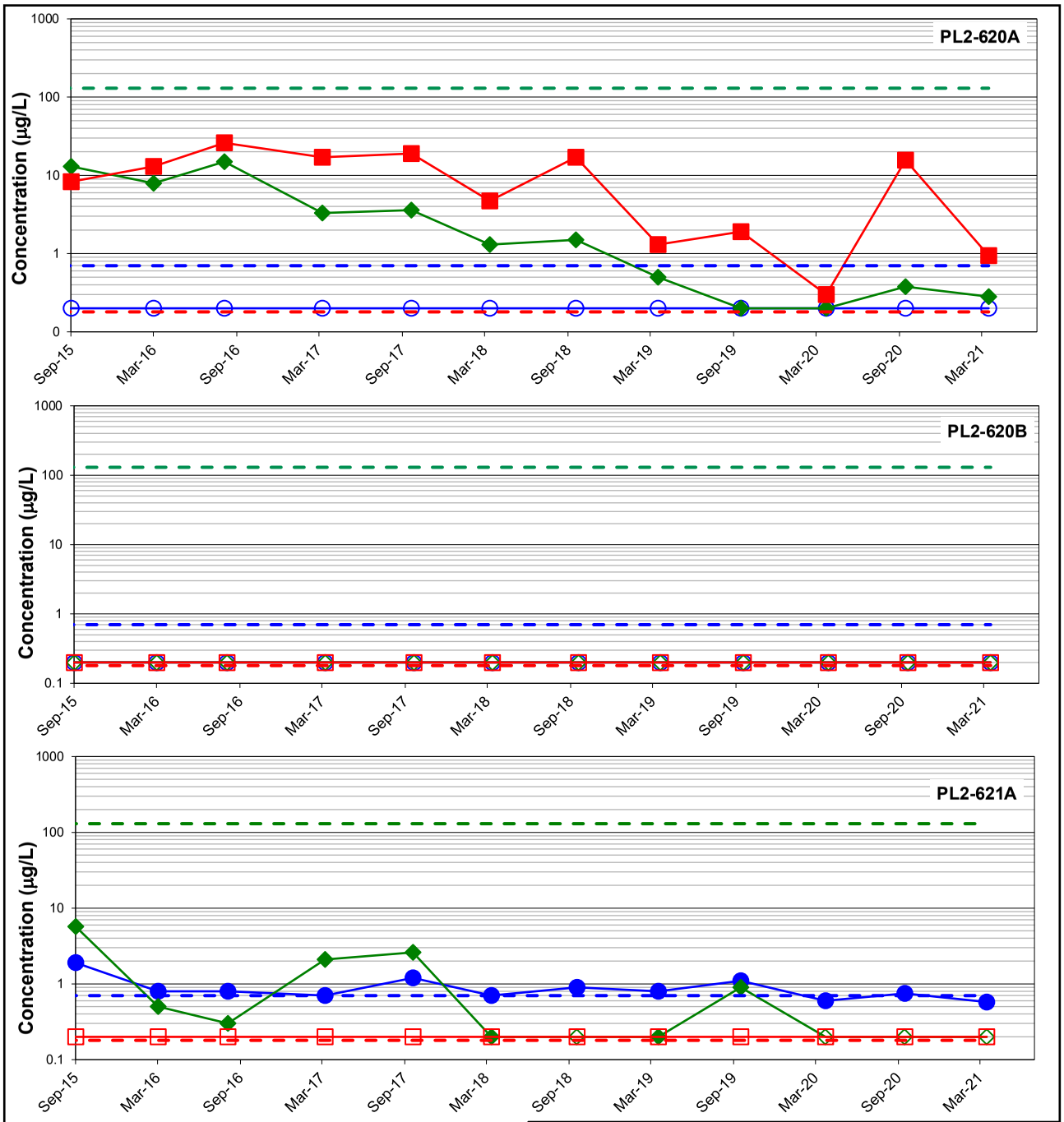


NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2f
CHLORINATED VOC COC TRENDS AT
PL2-618A, PL2-619A, AND PL2-619B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

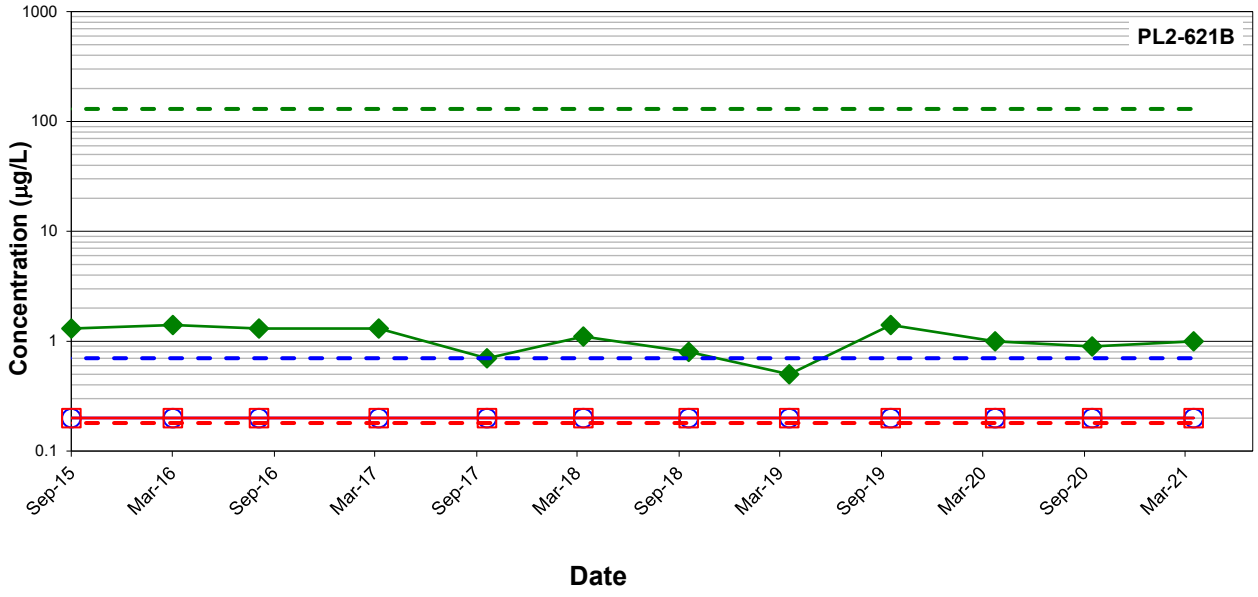


NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2g
CHLORINATED VOC COC TRENDS AT
PL2-620A, PL2-620B, AND PL2-621A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

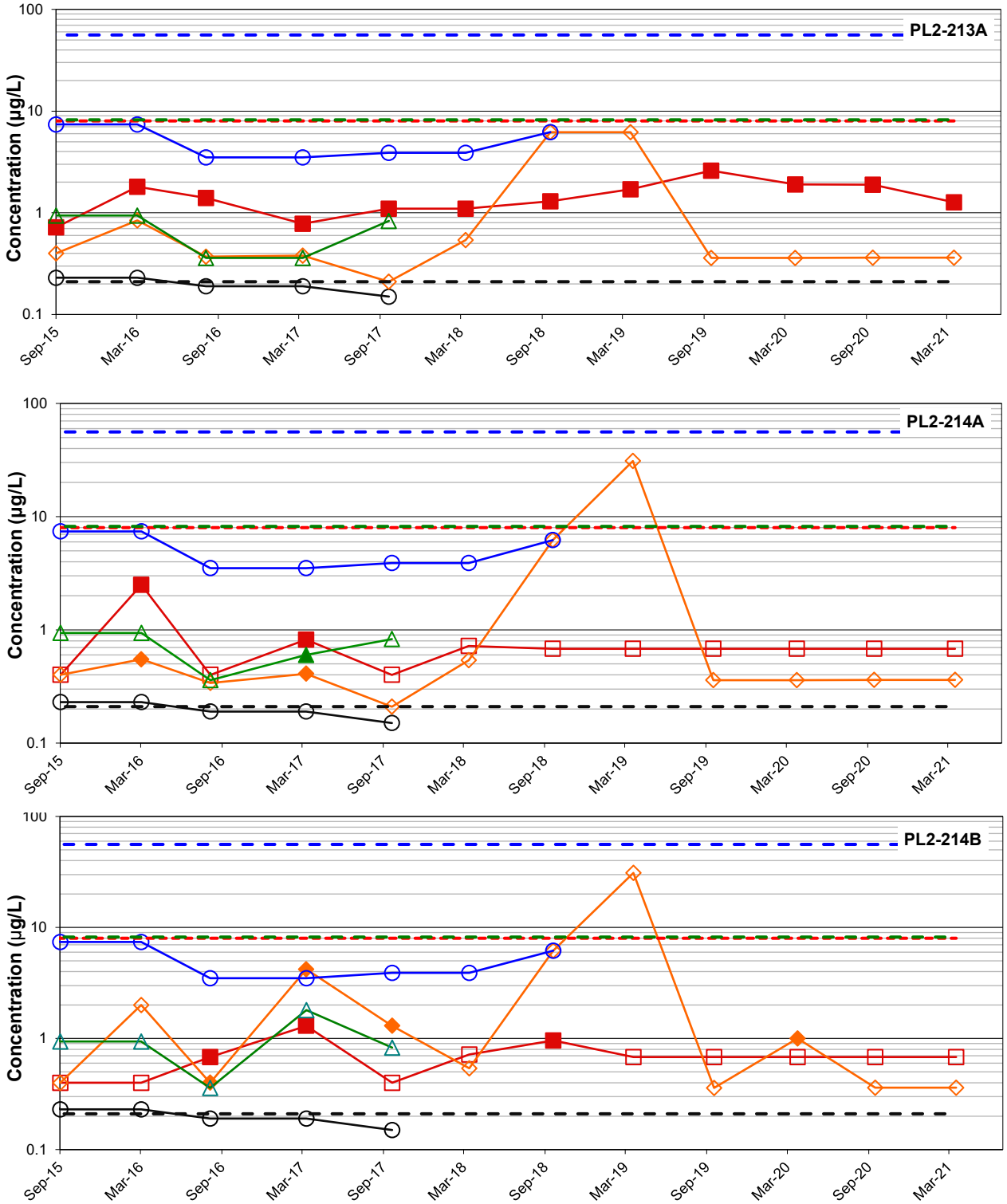


NOTES:

- Trichloroethene (filled marker = detect)
- cis-1,2-Dichloroethene (filled marker = detect)
- Vinyl Chloride (filled marker = detect)
- Trichloroethene FMCL = 0.7 ug/L
- cis-1,2-Dichloroethene FMCL = 130 ug/L
- Vinyl Chloride FMCL = 0.18 ug/L

FIGURE 2-2h
CHLORINATED VOC COC TRENDS AT PL2-621B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

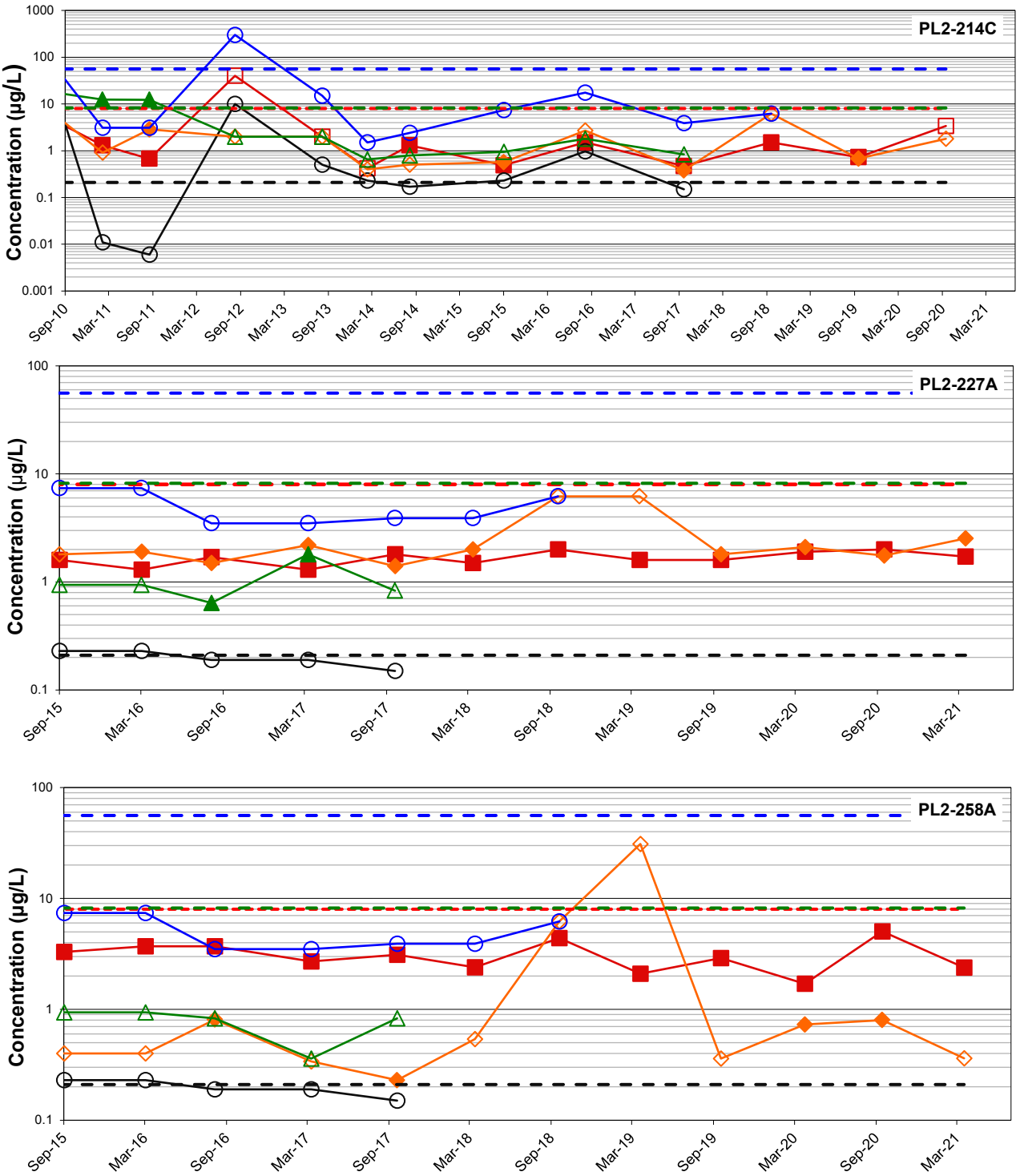


NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3a
METALS COC TRENDS AT
PL2-213A, PL2-214A, AND PL2-214B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE	***CREATED BY***	***REVIEWED BY***	***PROJECT NUMBER***
04/14/2021	DCK	DCK	395486



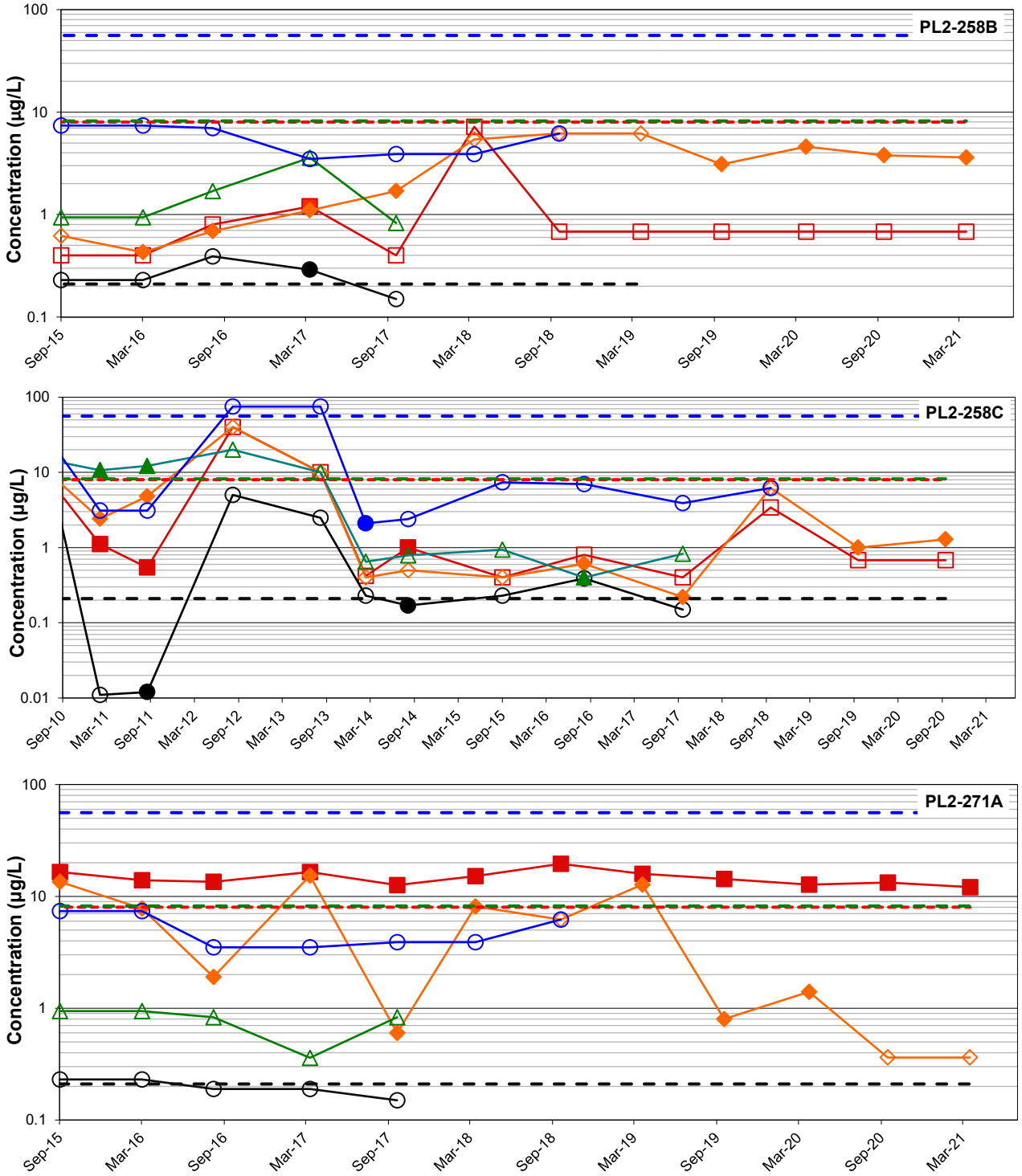
Date

NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3b
METALS COC TRENDS AT
PL2-214C, PL2-227A, AND PL2-258A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

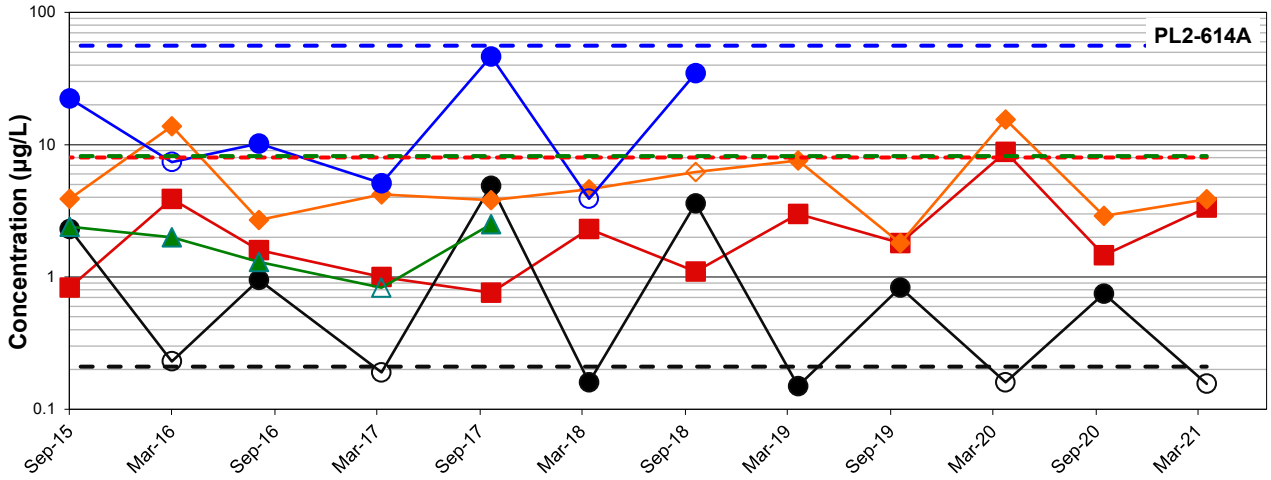


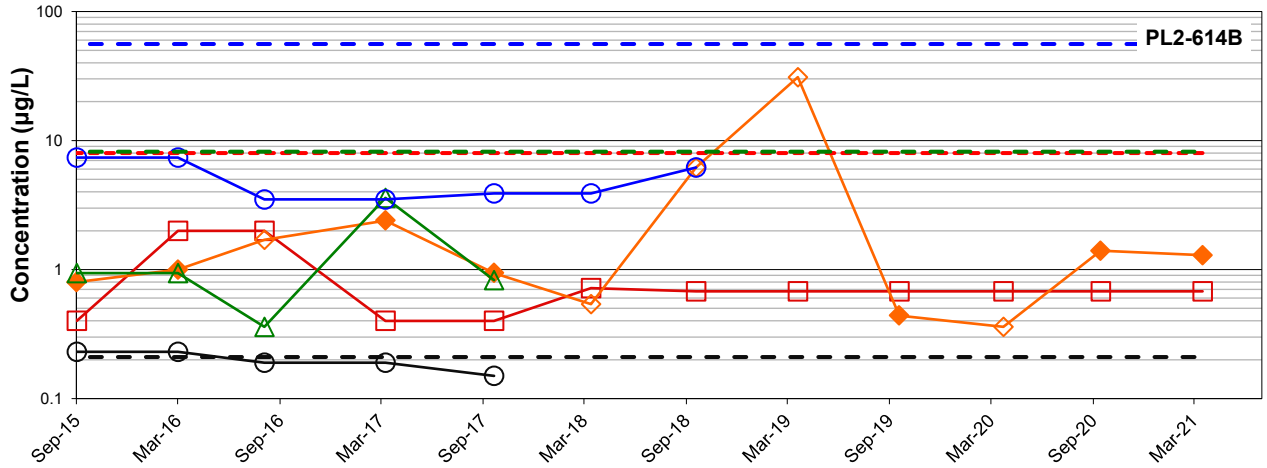
NOTES:

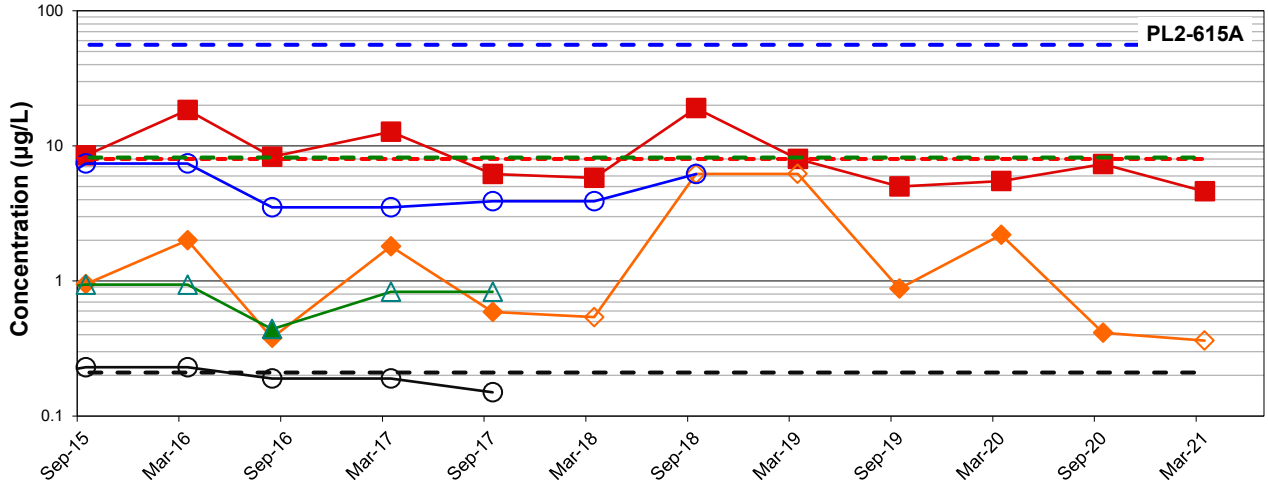
- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3c
METALS COC TRENDS AT
PL2-258B, PL2-258C, AND PL2-271A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 4/14/21	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486







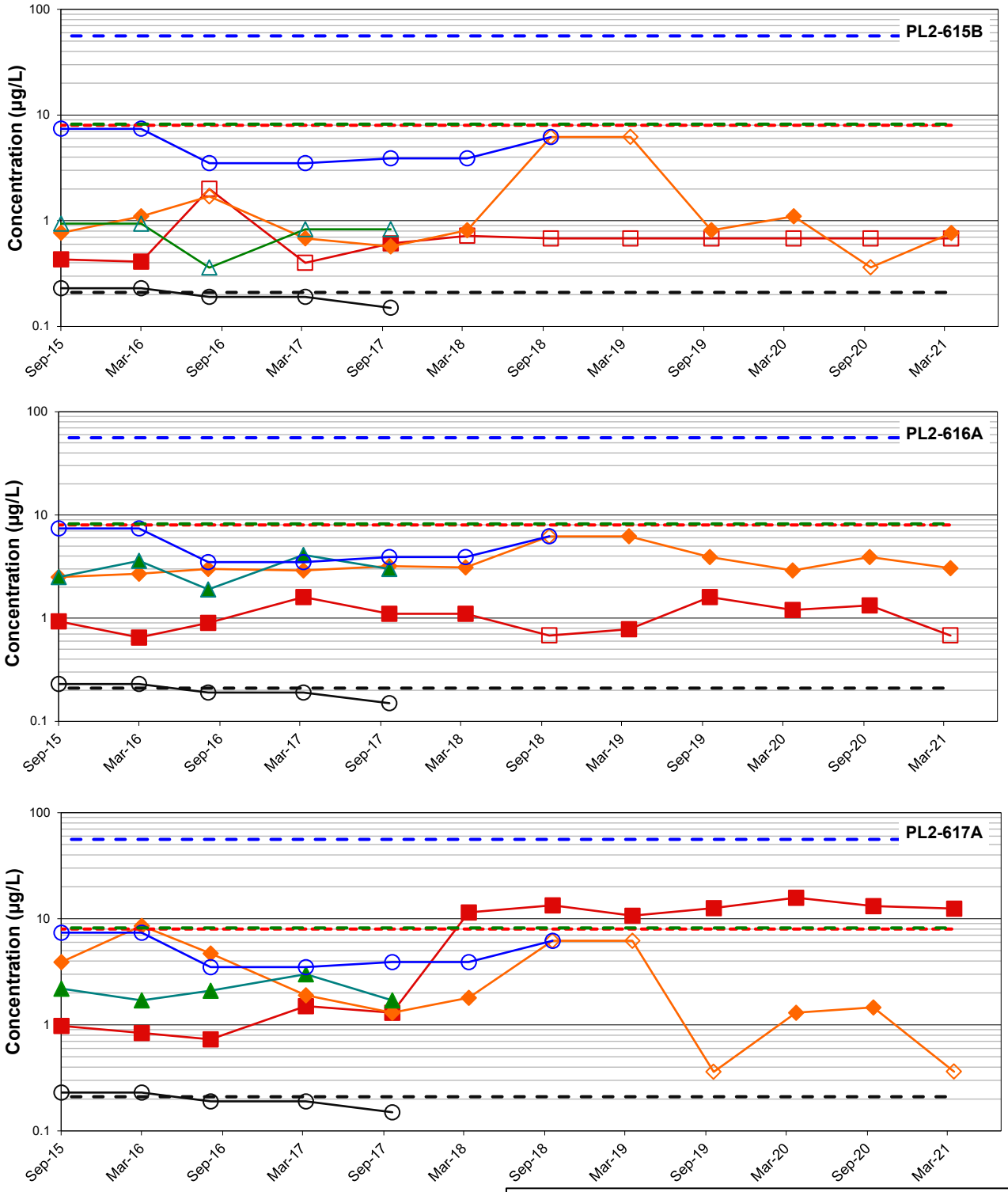
Date

NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3d
METALS COC TRENDS AT
PL2-614A, PL2-614B, AND PL2-615A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE	***CREATED BY***	***REVIEWED BY***	***PROJECT NUMBER***
04/14/2021	DCK	DCK	395486

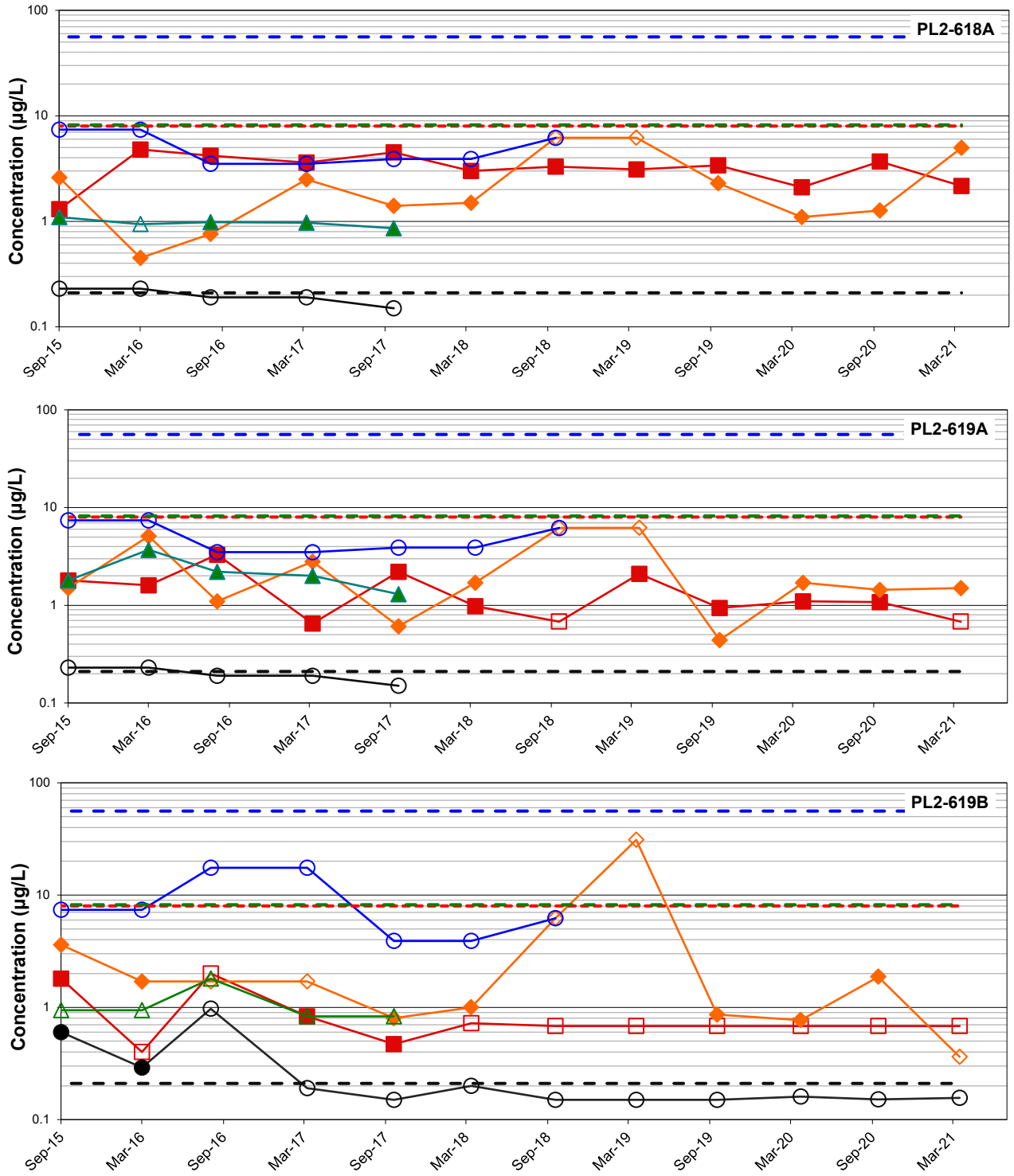


NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3e
METALS COC TRENDS AT
PL2-615B, PL2-616A, AND PL2-617A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE	***CREATED BY***	***REVIEWED BY***	***PROJECT NUMBER***
04/14/2021	DCK	DCK	395486

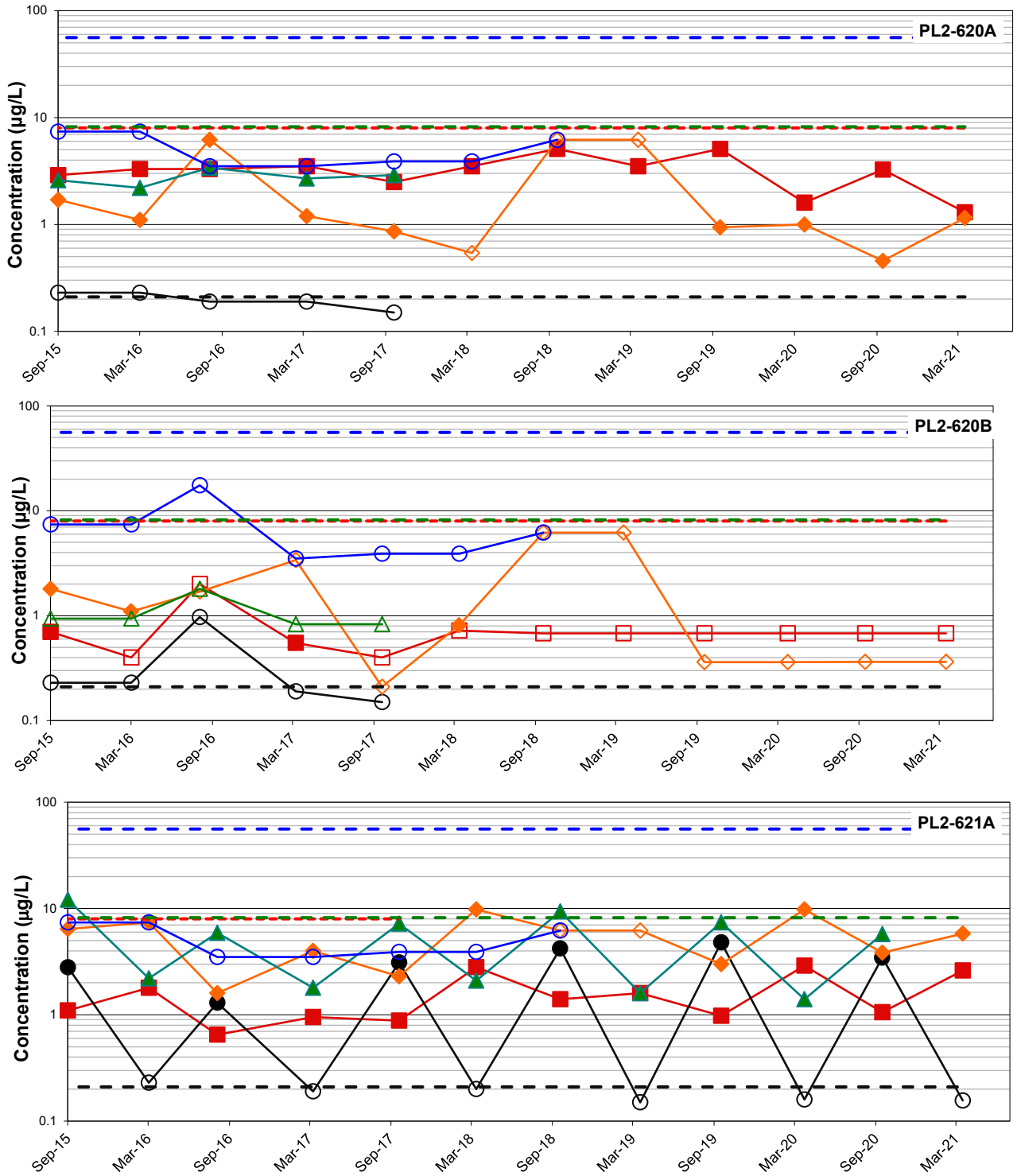


NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3f
METALS COC TRENDS AT
PL2-618A, PL2-619A, AND PL2-619B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE	***CREATED BY***	***REVIEWED BY***	***PROJECT NUMBER***
04/14/2021	DCK	DCK	395486

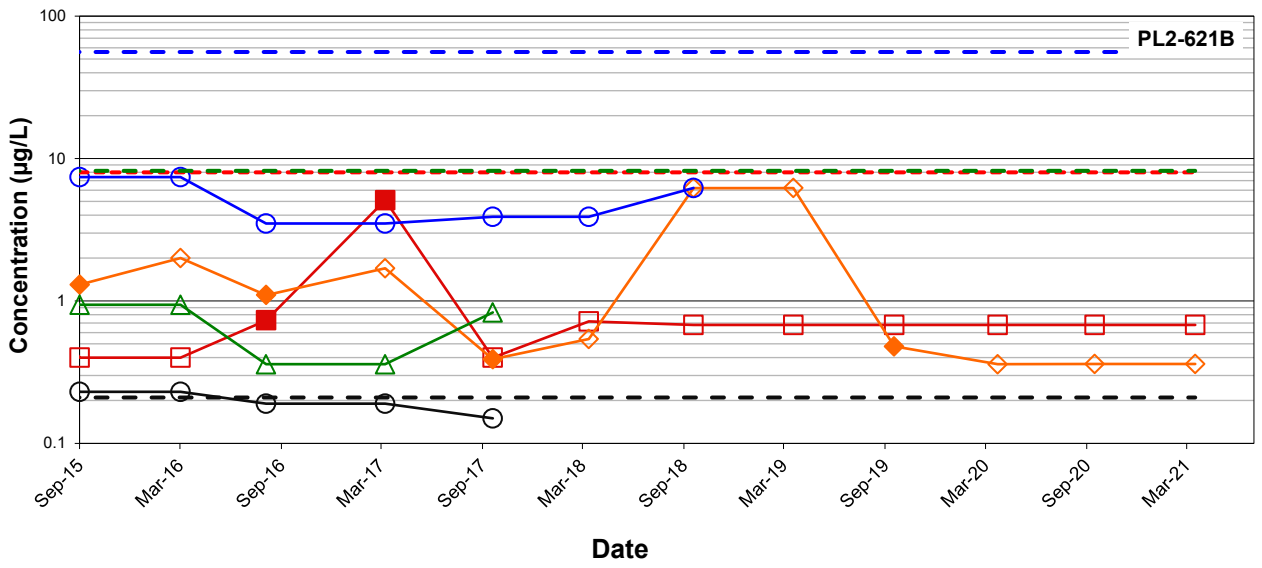


NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3g
METALS COC TRENDS AT
PL2-620A, PL2-620B, AND PL2-621A

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486



NOTES:

- Total Arsenic (filled marker = detect)
- Dissolved Cadmium (filled marker = detect)
- Total Copper (filled marker = detect)
- Dissolved Nickel (filled marker = detect)
- Dissolved Zinc (filled marker = detect)
- Arsenic and Copper FMCL = 8 µg/L
- Cadmium FMCL = 0.21 µg/L
- Nickel FMCL = 8.2 µg/L
- Zinc FMCL = 56 µg/L

FIGURE 2-3h
METALS COC TRENDS AT PL2-621B

PREPARED BY	TRC		
REPORT	CMS PHASE SEMIANNUAL SHORELINE GROUNDWATER MONITORING REPORT MARCH 2021		
LOCATION	BOEING PLANT 2 7725 E. MARGINAL WAY, SEATTLE/TUKWILA, WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 04/14/2021	***CREATED BY*** DCK	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 395486

Attachment A
Shoreline Monitoring Program Modification History

SHORELINE MONITORING PROGRAM MODIFICATIONS – BOEING PLANT 2

Beginning in 2001, groundwater samples were collected and analyzed in support of two separate and concurrent evaluations. The first evaluation, referred to as the Sediment Cap Impact Evaluation, is described in the *CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan, Boeing Plant 2* (Weston 2001a). This first evaluation was designed to provide an assessment of the potential for contaminated groundwater discharging from the Facility to contaminate the clean sediment backfill that is proposed as part of the Duwamish Sediment Other Area (DSOA) remedy. The second evaluation is described in the *CMS Phase Effectiveness of Buildings 2-10 and 2-66 Interim Measures Monitoring Plan* (Weston, 2001b). This second evaluation was designed to assess the effectiveness of the sheet pile containment structure Interim Measures (IMs) and is referred to as the IM Effectiveness Evaluation. Both evaluations involved groundwater monitoring of wells on a quarterly basis for a year. Hydraulic data generated during the initial phase of the IM Effectiveness Evaluation was reported separately in the report titled *Initial CMS Phase Effectiveness of Buildings 2-10 and 2-66 Interim Measures Monitoring Report* (Weston 2001c).

The monitoring wells included in these programs were sampled quarterly for a period of 1 year from 2001 to 2002. Results of each quarterly groundwater sampling event were reported in CMS Phase Quarterly Groundwater Monitoring Reports (Weston 2001d, 2001e, 2002a, and 2002b). Work described in those reports was conducted in accordance with the project work plans and with the *RCRA Facility Investigation (RFI) Work Plan* (Weston 1994).

Data from all four quarterly events during 2001 to 2002 were combined with hydrogeologic data to assess the concentrations and mass of constituents potentially being discharged along the Duwamish Waterway shoreline via the groundwater from the Facility. The potential for sediment cap impacts were assessed using two approaches: a total mass loading analysis and an equilibrium partitioning analysis. Information from the four rounds of sampling was also used to assess the effectiveness of the Building 2-10 and Building 2-66 sheet pile structures (IM Effectiveness Evaluation).

The shoreline groundwater monitoring program is based on the results of the original Shoreline Monitoring Program, *CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan, Boeing Plant 2* (Weston 2001a). Following review of those results as specified by Section 4.1 of that work plan, the original monitoring program was modified to establish the present version of the Shoreline Monitoring Program as documented in a letter from Boeing to EPA dated July 14, 2003. Additionally, and starting with an email from EPA on January 23, 2004, EPA and Boeing discussed the presentation formats of the quarterly data; the results of these discussions are reflected beginning with the December 2003 and February 2004 reports.

Laboratory Method Modifications

Target Media Cleanup Level (TMCLs) were developed in 2010 and 2011 for the Facility and approved by EPA in 2011 as submitted in the TMCL Technical Memorandum (TMCL Tech Memo; Floyd Snider 2011). Boeing compared their analytical reporting limits (RLs) for the Shoreline Monitoring Program to the draft TMCLs to determine if changes to the current analytical methods used for the Shoreline Monitoring Program were necessary to achieve RLs that are less than or equal to the draft TMCLs. In addition to

the reporting limit evaluation, Boeing evaluated the shoreline monitoring dataset and identified two other analytical data issues that affect the Shoreline Monitoring Program. The analytical issues that were identified are summarized in the following bullets:

- Some of the laboratory RLs were greater than the draft TMCLs.
- Chromium results were provided as total chromium (the sum of chromium III and chromium VI) but were compared to the draft TMCL, which is specific to chromium VI only.
- Analytical results for some metals, most notably nickel, appeared to be affected by saline groundwater matrix interference.

These analytical issues were first brought to EPA's attention in a letter from Boeing to EPA titled *Addendum to CMS-Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan (Shoreline Groundwater Monitoring) - Proposed Modifications to Analytical Methods,* dated December 21, 2010. EPA provided approval to implement the proposed analytical modifications in an email to Boeing dated January 11, 2011.

In January 2011 Boeing submitted a document titled *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan* (Environmental Partners, Inc. [EPI] 2011) to EPA for its approval. The analytical modifications contained in this document are:

- Volatile organic compounds (VOCs) will be analyzed by EPA Method 8260C with a 10 milliliter (mL) purge to achieve lower RLs.
- Tetrachloroethene (PCE) will be analyzed by EPA Method 8260C with Selective Ion Monitoring (SIM).
- Chromium VI will be analyzed by EPA Method 7199 (modified) – Ion Chromatography – Inductively Coupled Plasma – Mass Spectrometer (IC-ICP-MS).
- Low-level mercury will be analyzed by EPA Method 200.8 (modified) – Cold Vapor – Inductively Coupled Plasma – Mass Spectrometer (CV-ICP-MS).
- The remaining shoreline monitoring metals will be analyzed by EPA Method 200.8 – Inductively Coupled Plasma – Dynamic Reaction Cell – Mass Spectrometer (ICP-DRC-MS).

February 2011 was the first sampling event in which the analytical modifications summarized above and further described in the EPI 2011 modification document were implemented.

Groundwater TMCLs were developed in the 2011 TMCL Tech Memo to be protective of surface water quality and human health exposure pathways for Plant 2. Except for a few TMCLs where Boeing has proposed updates for various reasons in discussions with EPA, Boeing has considered using the 2011 TMCLs (updated for those several exceptions) as the Final Media Cleanup Levels (FMCLs) for the groundwater Contaminants of Potential Concern (COPCs) identified in Appendix B of the TMCL Tech

Memo. In anticipation of the pending CMS Report submittal, therefore, this report compares Shoreline Monitoring data to each corresponding FMCL.

Short-Term Monitoring

Short-term monitoring for specific constituents at specific wells was discontinued, with EPA approval, at several locations based on consistent non-detections or detections at concentrations less than applicable proposed FMCLs. The wells where constituent-specific short-term monitoring was discontinued based on evaluations of laboratory data are summarized below.

- Groundwater samples from well PL2-612AR were analyzed for total arsenic over four consecutive semiannual events. During that monitoring period, total arsenic was never detected at a concentration greater than its proposed FMCL. Boeing evaluated the four rounds of data and, based on the consistently favorable data and approval from EPA, Boeing has discontinued monitoring for total arsenic at PL2-612AR.

- Groundwater samples from wells PL2-258A, PL2-619A, PL2-620A, and PL2-621A were analyzed for BEHP over four consecutive semiannual monitoring events. During that monitoring period, there were no detections of BEHP in samples from these wells. Based on these consistently favorable data and approval from EPA, Boeing has discontinued monitoring for BEHP as part of the Shoreline Monitoring Program.

- Groundwater samples from wells PL2-617A, PL2-618A, PL2-619A, PL2-620A, and PL2-621A are A-Level wells located downgradient of former tunnels backfilled with crushed concrete, which is known to be impacted by low concentrations of PCBs. In response, and although the crushed concrete was placed a minimum of 18 inches above the historical high groundwater table, Boeing analyzed samples from these wells for PCBs for four consecutive shoreline monitoring events. Samples from PL2-617A, PL2-618A, PL2-619A, and PL2-620A were consistently non-detect for PCBs throughout that monitoring period. Based on the consistent non-detect data, sampling for PCBs at those for wells was temporarily discontinued with EPA approval in March 2017.

Shoreline Well Decommissioning and Replacement

Boeing decommissioned 19 shoreline monitoring wells under an interim measure (IM) work plan that was approved by EPA on June 8, 2010. The 19 decommissioned shoreline monitoring wells were within the footprint of construction projects or at locations where they would be at high risk of being damaged by demolition activities, which began during the summer in 2010 and continued through 2012.

Included in the 19 decommissioned wells, Boeing decommissioned 4 shoreline wells on the Jorgensen Forge property in August 2013. This decommissioning work was performed in preparation for work under a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Order for the Jorgensen Forge Outfalls Site, which is located along the Plant 2 southwest property boundary.

In June and July 2014 Boeing installed and developed 13 replacement shoreline monitoring wells identified as PL2-614A and PL2-614B through PL2-621A and PL2-621B. The former locations of the

decommissioned historical shoreline monitoring wells relative to their replacement shoreline monitoring wells are shown on Figure 1-A.

To the extent possible, replacement shoreline monitoring wells were installed at the same depths, screened over the same depth intervals, and were located within the same groundwater flow paths as the decommissioned shoreline wells which they replaced, as shown on Figure 1-A. Flow-path evaluation was performed to guide replacement well locations to the extent practicable. Some decommissioned shoreline wells, generally B- or C-Level wells, were not replaced because their historical datasets indicated consistent non-detections and/or attainment of proposed FMCLs for all groundwater COCs.

Shoreline well locations PL2-213A, PL2-621A, and PL2-621B, were necessarily adjusted from the flow-path alignment of the corresponding decommissioned wells they replaced to avoid obstructions and to ensure drilling rig accessibility of the replacement shoreline well locations. The specific cases where replacement shoreline monitoring wells could not be installed in the same groundwater flow path as the original shoreline monitoring wells they replaced are described in the following bullets:

- Boeing decommissioned shoreline well PL2-232A in July 2014 as part of an electrical upgrade construction project in the 2-10 Building. EPA directed Boeing to add existing well PL2-213A, which is cross-gradient to former well PL2-232A, to the shoreline monitoring network as a replacement well for PL2-232A.

- Wells PL2-621A and PL2-621B were installed as replacements for former shoreline well PL2-233A, which was decommissioned in May 2010 to prepare for demolition and replacement of the South Park Bridge. Replacement wells PL2-621A and PL2-621B could not be installed in the same groundwater flow path as decommissioned well PL2-233A because the new bridge supports made that area inaccessible to a drilling rig. Wells PL2-621A and PL2-621B were installed approximately 50 feet south of the former PL2-233A location as shown in Figure 1-A.

Decommissioned shoreline monitoring wells and their corresponding replacement shoreline monitoring wells are presented below.

Decommissioned Shoreline Monitoring Well	Replacement Shoreline Monitoring Well
PL2-JF01AR	PL2-614A (planned)
PL2-JF01B	PL2-614B (planned)
PL2-JF01C	None
PL2-013AR / PL2-607A	PL2-615A
PL2-015A / PL2-015AR	PL2-616A
PL2-015B	None
PL2-026C	None
PL2-030A	PL2-614A
PL2-030C	None
PL2-036A / PL2-036AR	PL2-617A
PL2-043B	PL2-615B
PL2-044B	PL2-614B

Decommissioned Shoreline Monitoring Well	Replacement Shoreline Monitoring Well
PL2-232A	PL2-213A (not in same flow path as PL2-232A)
PL2-233A	PL2-621A (not in same flow path as PL2-233A)
	PL2-621B (not in same flow path as PL2-233A)
PL2-420A	PL2-619A
PL2-420C	None
PL2-425A	PL2-618A
PL2-425C	None
PL2-443A	PL2-620A
PL2-443C	None
PL2-612A	PL2-612AR

Refinements to the Inorganics Constituent List

In an email sent to EPA on February 28, 2018, Boeing requested refinements to the inorganic constituent list to optimize groundwater monitoring to focus on the proposed COCs, which have been established through the CMS process beginning with the March 2018 semiannual sampling event. The proposed COC list for metals at Plant 2 groundwater includes: arsenic (total), copper (total), and zinc (dissolved). These inorganic COCs were historically analyzed in samples from all shoreline monitoring wells. EPA approved Boeing's request to focus analysis for inorganic constituents on the Plant 2 groundwater proposed COC list in an email to Boeing dated March 9, 2018.

Sampling and analysis for dissolved zinc was discontinued, with EPA concurrence, following the September 2018 sampling event. This refinement to the inorganic COC list was based on no FMCL exceedances for dissolved zinc in any of the shoreline monitoring wells in at least the last 6 years.

Dissolved Nickel Analysis at PL2-621A

Dissolved nickel was analyzed in samples from PL2-621A only based on sporadic historical exceedances of the FMCL. Sampling and analysis for dissolved nickel at PL2-621A continued until at least eight rounds of data were available for statistical analysis using the 95 percent Confidence Limit (CL) statistical test to evaluate if continued dissolved nickel analysis is warranted.

The 95 percent CL statistical test of dissolved nickel data through September 2020 demonstrated that both the upper- and lower-95 percent CL are less than the proposed FMCL. In addition, the data indicated a downward trend in dissolved nickel concentrations, as demonstrated by the best fit trend line in the nickel time series graph presented in Attachment E of the September 2020 Shoreline Monitoring Report.

As a result, the Conclusions and Recommendations section of the September 2020 Shoreline Monitoring Report recommended discontinuing dissolved nickel sampling and analysis at PL2-621A based on these findings. EPA concurred with Boeing's recommendation to discontinue sampling and analysis for dissolved nickel at PL2-621A in their letter "*Approval of CMS Phase Semiannual Shoreline Monitoring Reports for March and September 2020, Boeing Plant 2, Seattle/Tukwila, Washington,"* dated December

11, 2020. As a result, sampling and analysis for dissolved nickel was discontinued at PL2-621A following the September 2020 shoreline monitoring event.

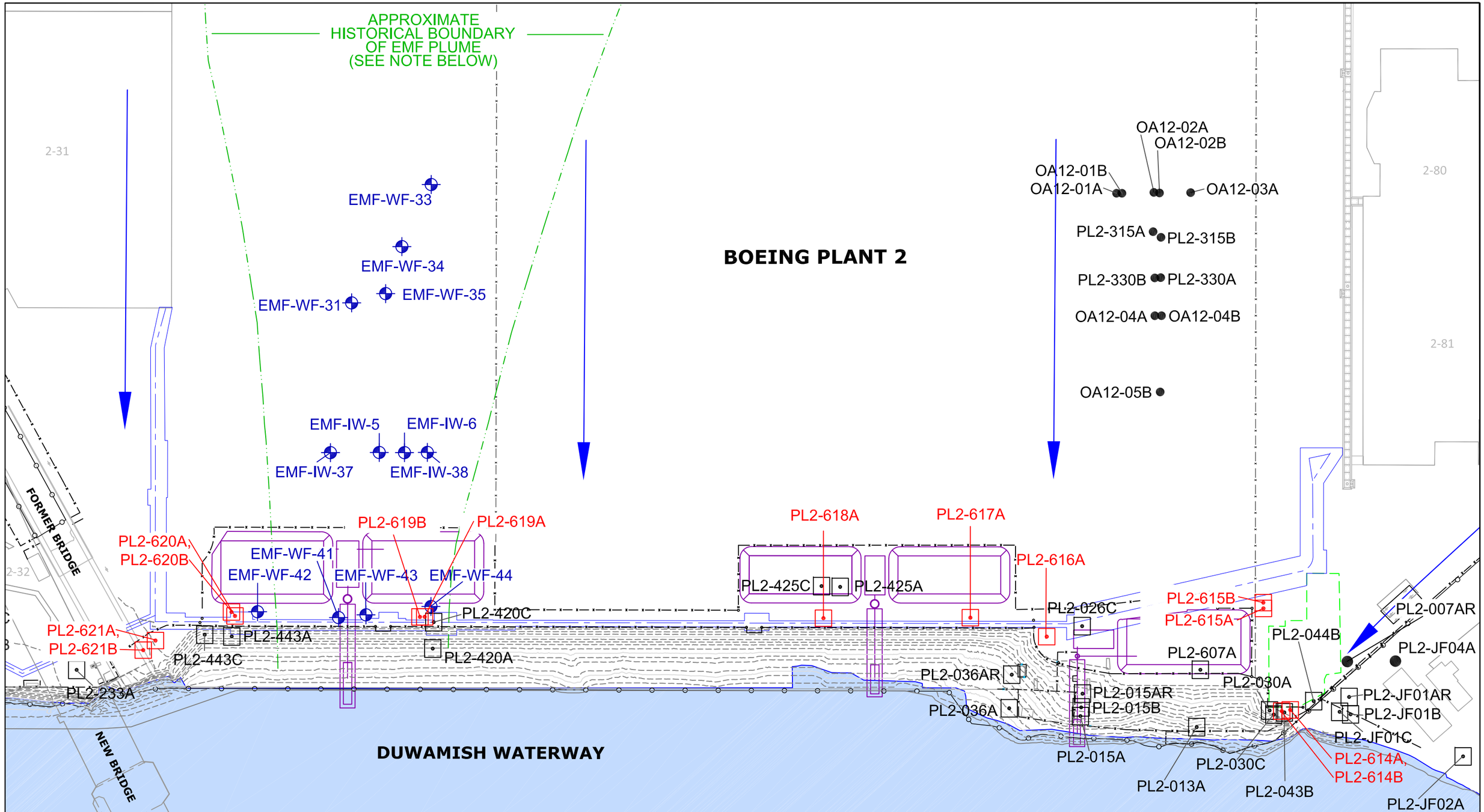
PCB Analysis at PL2-007AR Performed Concurrently with Shoreline Monitoring

Starting with the March 2017 sampling event, Boeing began analyzing samples from well PL2-007AR for PCBs for a minimum of four annual sampling events. This timing and sampling frequency for PL2-007AR is performed according to the OA-11 Interim Measure Construction Completion Report (Floyd Snider 2016). This additional sampling is performed and reported concurrently with shoreline monitoring based on sampling and reporting coordination discussions with EPA.

With the completion of the March 2020 semiannual event, four rounds of annual PCB sampling were completed at PL2-007AR with no PCB detections. Because PCBs were not detected in any of the four consecutive annual sampling events, annual groundwater sampling for PCBs has been discontinued at PL2-007AR. Approval to discontinue PCB sampling and analysis at PL2-007AR was provided in EPA's letter "*Approval of CMS Phase Semiannual Shoreline Monitoring Reports for March and September 2020, Boeing Plant 2, Seattle/Tukwila, Washington,"* dated December 11, 2020.

In the future, Boeing will conduct PCB analysis for groundwater samples using an appropriate analytical method (to be approved by EPA) to achieve a reporting limit equal to or lower than the applicable Washington State Water Quality Criteria (WQC), which will establish the Target Media Cleanup Level (TMCL) for PCBs. EPA might also require sampling for PCBs at wells where PCB sampling was previously discontinued (e.g., PL2-617A, PL2-618A, PL2-619A, and PL2-620A).

This requirement will be considered by EPA in a manner to ensure consistency with the requirement as implemented for other areas within the Lower Duwamish Waterway (LDW) Superfund Site. As such, any future requirements for PCB monitoring, data evaluation, and response at Plant 2 will be developed in coordination with regional requirements to ensure uniform implementation of an appropriate analytical method (e.g., EPA Method 1668) and resulting data. As new PCB data become available, Boeing will work with EPA to develop and implement revised requirements as necessary within an Adaptive Management framework for sampling requirements, data evaluation, and corrective action determinations.



KEY:

- CURRENT SHORELINE MONITORING WELL
- HISTORICAL SHORELINE MONITORING WELL (DECOMMISSIONED)
- CURRENT EMF WELL (IW = INJECTION WF = MONITORING)
- OTHER EXISTING WELL
- PROPERTY LINE AS SPECIFIED IN AGREED ORDER
- FENCE LINE
- HISTORICAL EMF PLUME - BASED ON 2001-2002 TRANSECT DATA
- BUILDINGS
- DUCT BANK
- SHEETPILE CONTAINMENT STRUCTURE
- STORMWATER SWALES

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0 30 60 120

THIS FIGURE WAS ORIGINALLY PRODUCED IN COLOR. REPRODUCTION IN BLACK AND WHITE MAY RESULT IN LOSS OF INFORMATION.

APPROXIMATE GROUNDWATER FLOW DIRECTION BASED ON RCRA FACILITY GROUNDWATER INVESTIGATION INTERIM REPORT, VOLUME V (WESTON, 1996) AND CONCEPTUAL HYDROLOGIC MODEL DATA GAP INVESTIGATION RESULTS (EPI, 2005)

NOTE: FOOTPRINT OF HISTORICAL EMF PLUME (2001 TIMEFRAME). REMEDIAL ACTIONS IMPLEMENTED HAVE REDUCED BOUNDARIES OF THE PLUME FROM THIS HISTORICAL FOOTPRINT.

PROJECT	BOEING PLANT 2		
PREPARED FOR	THE BOEING COMPANY		
LOCATION	BOEING PLANT 2 SEATTLE/TUKWILA, WASHINGTON		
PROJECT 395486	DRAWN BY VPB	REVIEWED BY DCK	DATE 5/12/20

TRC

FIGURE 1-A

HISTORICAL AND CURRENT SHORELINE MONITORING WELLS SOUTH PLANT 2

Attachment B
Boeing Plant 2 – March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report

Attachment B: Boeing Plant 2 - March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report

Constituent	Analytical Method	Fraction	Units	PL2-213A 3/17/2021	PL2-214A 3/17/2021	PL2-214B 3/17/2021	PL2-214C 3/17/2021	PL2-227A 3/16/2021	PL2-258A 3/17/2021	PL2-258B 3/17/2021	PL2-258C 3/17/2021	PL2-271A 3/17/2021	PL2-614A 3/16/2021	PL2-614A DUP 3/16/2021	PL2-614B 3/16/2021	PL2-615A 3/16/2021
VOCs (µg/L)																
1,1,1-Trichloroethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichlorotrifluoroethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 UJ	0.5 UJ
1,1-Dichloroethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	EPA 8260D	N	µg/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	EPA 8260D	N	µg/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	EPA 8260D	N	µg/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	EPA 8260D	N	µg/L	1 U	1 U	1 U	1 U		1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ
Bromomethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U
cis-1,2-Dichloroethene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	2.26	0.2 U	0.2 U	0.257	0.25	0.2 U	0.571
cis-1,3-Dichloropropene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromochloromethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone	EPA 8260D	N	µg/L	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	EPA 8260DSIM	N	µg/L	0.02 U	0.02 U	0.02 U	0.02 U		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Toluene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.2 U	0.239	0.2 U	0.2 U	0.365	0.392	0.2 U	0.2 U
Trichlorofluoromethane	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl acetate	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U
Vinyl chloride	EPA 8260D	N	µg/L	0.2 U	0.2 U	0.2 U	0.2 U		0.204	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SVOCs (µg/L)																
Naphthalene	EPA 8260D	N	µg/L	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Attachment B: Boeing Plant 2 - March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report

Constituent	Analytical Method	Fraction	Units	PL2-213A 3/17/2021	PL2-214A 3/17/2021	PL2-214B 3/17/2021	PL2-214C 3/17/2021	PL2-227A 3/16/2021	PL2-258A 3/17/2021	PL2-258B 3/17/2021	PL2-258C 3/17/2021	PL2-271A 3/17/2021	PL2-614A 3/16/2021	PL2-614A DUP 3/16/2021	PL2-614B 3/16/2021	PL2-615A 3/16/2021
PCBs (µg/L)																
Aroclor 1016	EPA 8082A	N	µg/L													
Aroclor 1221	EPA 8082A	N	µg/L													
Aroclor 1232	EPA 8082A	N	µg/L													
Aroclor 1242	EPA 8082A	N	µg/L													
Aroclor 1248	EPA 8082A	N	µg/L													
Aroclor 1254	EPA 8082A	N	µg/L													
Aroclor 1260	EPA 8082A	N	µg/L													
Aroclor 1262	EPA 8082A	N	µg/L													
Total PCB	EPA 8082A	N	µg/L													
Inorganics (Total) (µg/L)																
Arsenic	EPA 200.8	N	µg/L	1.27 J	0.68 U	0.68 U		1.72 J	2.38	0.68 U		12.1	3.35 J	2.98	0.68 U	4.63 J
Copper	EPA 200.8	N	µg/L	0.362 U	0.362 U	0.362 U		2.53	0.362 U	3.61		0.362 U	3.87	4.43	1.29	0.362 U
Inorganics (Dissolved) (µg/L)																
Cadmium	EPA 200.8	D	µg/L										0.156 U	0.156 U		
Other Inorganics (mg/L)																
Free Cyanide[a]	OIA-1677-09	N	mg/L													0.002 U

Notes:

[a] Cadmium results reported to the Method Detection Limit (MDL) to be consistent with historical data and Eurofins inorganics reporting format.

U - Target analyte was not detected at the reported concentration.

J - Indicates an estimated concentration when the value is less than the calculated reporting limit.

J+ - Indicates an estimated concentration when the value is less than the calculated reporting limit, but the result may be biased high.

J- - Indicates an estimated concentration when the value is less than the calculated reporting limit, but the result may be biased low.

R - Indicates that the constituent was rejected.

Attachment B: Boeing Plant 2 - March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report

Constituent	Analytical Method	PL2-615B 3/16/2021	PL2-616A 3/16/2021	PL2-617A 3/16/2021	PL2-617A DUP 3/16/2021	PL2-618A 3/16/2021	PL2-619A 3/17/2021	PL2-619B 3/16/2021	PL2-620A 3/16/2021	PL2-620B 3/16/2021	PL2-621A 3/16/2021	PL2-621B 3/16/2021
VOCs (µg/L)												
1,1,1-Trichloroethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichlorotrifluoroethane	EPA 8260D	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	EPA 8260D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	EPA 8260D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	EPA 8260D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	EPA 8260D	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chlorobenzene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloromethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	EPA 8260D	0.2 U	19.6	0.58	0.577	0.2 U	0.269	0.2 U	0.282	0.2 U	0.2 U	0.997
cis-1,3-Dichloropropene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromochloromethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl isobutyl ketone	EPA 8260D	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene Chloride	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Tetrachloroethene	EPA 8260DSIM	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Toluene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	EPA 8260D	0.2 U	15.7	0.2 U	0.2 U	0.2 U	1.3	0.2 U	0.2 U	0.2 U	0.577	0.2 U
Trichlorofluoromethane	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl acetate	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	EPA 8260D	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.939	0.2 U	0.2 U	0.2 U
SVOCs (µg/L)												
Naphthalene	EPA 8260D	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Attachment B: Boeing Plant 2 - March 2021 Shoreline Monitoring Groundwater Sample Data, Full Data Report

Constituent	Analytical Method	PL2-615B 3/16/2021	PL2-616A 3/16/2021	PL2-617A 3/16/2021	PL2-617A DUP 3/16/2021	PL2-618A 3/16/2021	PL2-619A 3/17/2021	PL2-619B 3/16/2021	PL2-620A 3/16/2021	PL2-620B 3/16/2021	PL2-621A 3/16/2021	PL2-621B 3/16/2021
PCBs (µg/L)												
Aroclor 1016	EPA 8082A										0.0097 UJ	
Aroclor 1221	EPA 8082A										0.0097 U	
Aroclor 1232	EPA 8082A										0.0097 U	
Aroclor 1242	EPA 8082A										0.0097 U	
Aroclor 1248	EPA 8082A										0.0097 U	
Aroclor 1254	EPA 8082A										0.0097 U	
Aroclor 1260	EPA 8082A										0.0121 J	
Aroclor 1262	EPA 8082A										0.0097 U	
Total PCB	EPA 8082A										0.0121 J	
Inorganics (Total) (µg/L)												
Arsenic	EPA 200.8	0.68 U	0.68 U	12.5	12.0	2.16 J	0.68 U	0.68 U	1.3 J	0.68 U	2.65 J	0.68 U
Copper	EPA 200.8	0.765 J	3.05	0.362 U	0.362 U	4.97	1.5	0.362 U	1.15	0.362 U	5.81	0.362 U
Inorganics (Dissolved) (µg/L)												
Cadmium	EPA 200.8							0.156 U			0.156 U	
Other Inorganics (mg/L)												
Free Cyanide[a]	OIA-1677-09						0.002 U	0.00714				

Notes:

[a] Cadmium results reported to the Method Detection Limit (MDL) to be consistent with historical data and Eurofins inorganics reporting format.

U - Target analyte was not detected at the reported concentration.

J - Indicates an estimated concentration when the value is less than the calculated reporting limit.

J+ - Indicates an estimated concentration when the value is less than the calculated reporting limit, but the result may be biased high.

J- - Indicates an estimated concentration when the value is less than the calculated reporting limit, but the result may be biased low.

R - Indicates that the constituent was rejected.

Attachment C
Data Usability Summary Report, Boeing Plant 2 – Semi-Annual Shoreline Groundwater Monitoring March 2021 Data Validation QA/QC Review

Data Usability Summary Report
Boeing Plant 2 – Semiannual Shoreline Monitoring March 2021
Data Validation QA/QC Review

This Data Usability Summary Report (DUSR) presents the findings of the data quality assessment performed on the analyses of groundwater samples collected March 16 and 17, 2021 at Boeing Plant 2 in Seattle-Tukwila Washington (Site). This work is being conducted as part of the Boeing Plant 2 Shoreline Area Groundwater Monitoring Project and the work is conducted under the most current work plan[1]. Samples in the laboratory sample delivery groups (SDGs) as indicated in Table 1 were reviewed in this DUSR to identify quality issues which could affect the use of the sample data for decision making purposes.

The samples were submitted to Eurofins Lancaster Labs Environmental (ELLE) of Lancaster, Pennsylvania to perform the requested analyses. Information regarding the sample point identifications, analytical parameters, quality control (QC) samples, sampling dates, and laboratory SDG designations are summarized in Table 1. Samples were analyzed utilizing one or more of the following method guidelines:

- Volatile Organic Compounds (VOCs) following United States Environmental Protection Agency (USEPA) SW-846[2] Method 8260D Gas Chromatography/Mass Spectrometry (GC/MS), 2006 and 2018.
- Low Level Tetrachloroethene following USEPA SW-846 Method 8260D-SIM GC/MS with Selective Ion Monitoring (SIM), 2006 and 2018.
- Polychlorinated Biphenyls (PCBs) following USEPA SW-8462 Method 8082A Gas Chromatography/Electron Capture Detector (GC/ECD), 2007.
- Total Arsenic, Total Copper, and Dissolved Cadmium, following USEPA Method 200.8 Revision 5.4: Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), May 1994.
- Available (Free) Cyanide following USEPA Method OIA 1677-09 Ligand Exchange and Flow Injection Analysis, 2009.

In addition to the 22 primary samples, two (2) field duplicate samples, and two (2) trip blanks were collected and analyzed for Quality Control (QC) purposes.

[1] EPI. 2011. Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by EPI, January 2011.

[2] Environmental Protection Agency, United States. USEPA. 1996, Test methods for evaluating solid waste, physical/chemical methods (SW-846): 3rd edition, and subsequent updates, Environmental Protection Agency, National Center for Environmental Publications, Cincinnati, Ohio, accessed at URL http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm.

The data quality assessment of was performed in accordance with the Quality Assurance Project Plan (QAPP)[3], USEPA Contract Laboratory Program National Functional Guidelines for Organic Superfund Data Review[4], and the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review[5]. Where there was a discrepancy between the QC criteria in the Guidelines and the QC criterion established in the analytic methodology, method-specific criteria, the QAPP, or professional judgment was used.

In general, chemical results for the samples collected at the Site were evaluated on the basis of laboratory preservation, hold times, blank contamination, instrument calibration performance, outlying precision or accuracy parameters, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data during the data validation process.

J+ The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased high.

J- The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result may be biased low.

J The constituent was positively identified and detected; however, the concentration reported is an estimated value because the result is less than the quantitation limit or quality control criteria were not met.

U The constituent was analyzed for, but was not detected above the reported sample quantitation limit.

UJ The constituent was not detected; the associated quantitation limit is an estimated value because quality control criteria were not met.

R The constituent is rejected.

R1 More than one set of results are reported due to re-analyses or re-reporting (below reporting level). This result should not be reported as a better result is available.

The validation level for the data provided by ELLE is Tier 2B, and included the following:

- Data Package Completeness
- Verification of required deliverables
- Evaluation of holding times and preservations
- Laboratory narrative evaluation
- Evaluation and qualification of QC elements for: Surrogates, Matrix Spike, Laboratory Control Samples, Laboratory Duplicates, Method Blanks, and Trip Blanks and Field Duplicate evaluation as applicable

[3] Golder Associates Inc. (Golder). 2011. Compendium of Sampling and Analysis Plans and Quality Assurance Plans for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by Golder and EPI, June 2009.

[4] USEPA. 2017. USEPA Contract Laboratory Program, National Functional Guidelines for Organic Superfund Data Review. OLEM 9355.0-136, EPA-540-R-2017-002. January.

[5] USEPA. 2017. USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Superfund Data Review. OLEM 9355.0-135. EPA-540-R-2017-001, January.

- Evaluation of detection limits
- Evaluation of appropriate quantity and quality of initial calibration data including initial calibration standards, initial calibration (ICVs) standards, and initial calibration blanks (ICBs) as applicable to the method
- Evaluation of appropriate quantity and quality of instrument performance checks, continuing calibration verifications (CCVs), instrument blanks, interference checks, internal standards, compound identification, post digest spikes, and serial dilutions, as applicable to method

Data review and validation was performed by an experienced quality assurance chemist independent of the analytical laboratory. Data qualifiers that were applied by the laboratory have been removed from the data summary report sheets, when applicable, and superseded by data validation qualifiers (Table 2).

Overall, the data review showed that data are acceptable for use except as indicated by data qualifiers. In general, the data generated as part of the sampling event met the QC criteria established in the respective methods and the Guidelines. Table 2 summarizes all qualifications applied to the data, with applicable qualifier codes. Refer to Data Evaluation Checklists in Attachment A for details of the data validation. The following bulleted items highlight qualifications to specific parameters and/or samples:

- SDG J32797-1 (Analytical Batch 410-106468): CCV percent difference (%D) is outside QC criteria (outside of specification high) for two 8260D analytes (Freon 113 and bromoform). Associated sample (PL2-614B-210316, PL2-615A-210316, and PL2-615B-210316) Freon 113 and bromoform results are estimated and qualified (UJ) due to an elevated CCV recovery.

- SDG J33023-1 (Analytical Batch 410-107422): CCV %D is outside QC criteria (outside of specification low) for two 8260D analytes (chloromethane and vinyl acetate). Associated sample (PL2-614A-210316 and PL2-DUP1-210316) chloromethane and vinyl acetate results are estimated and qualified (UJ) due to an elevated CCV recovery.
- SDGs J32797-1 and J33023-1: Tetrachloroethene (PCE) is analyzed via EPA Method 8260D with an RL of 0.2 µg/L and via EPA Method 8260D SIM with an RL of 0.020 µg/L. All associated EPA Method 8260D PCE sample results are qualified R1 to indicate that a lower LOQ for PCE is available via 8260D SIM.

- SDG J32797-1: ELLE Analytical Batches 410-106370 and 410-106659 - LCS recoveries for PCB-1016 and PCB 1260 are below QC criteria. The sample was reanalyzed with associated LCS recoveries outside of control limits. Initial analysis results are reported. Sample PL2-621A-210316 PCB-1016, PCB 1260, and total PCB results are estimated and qualified (UJ/J) due to low LCS recoveries.

- *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan - Table 2:* Low level reporting limits (RLs) were met for VOCs via EPA Method 8260D GC/MS and EPA Method 8260D GC/MS SIM. ELLE data packages include a Quantitation Limit Exceptions Summary (Quantitation Summary) page indicating that sixteen client VOC (via EPA Method 8260D) requested RLs are below laboratory standard quantitation limits (PQL) and results below these PQLs are not as accurate. Based on the last data validation review for the September 2020 sampling event ELLE indicated that the Quantitation Limit Exceptions Summary page is not applicable to the VOC results. Refer to the associated EDDs for RLs and method detection limits (MDLs) for each VOC target analyte.

- *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan (Table 2)* along with Table 2-2 summarizing Proposed Final Media Cleanup Levels (FMCLs) for 2017. All inorganics are reported to the MDL except for cadmium due to laboratory error with the requested reporting format. Cadmium results are reported to the MDL for continuity in reporting format. All inorganic results falling between the respective MDLs and RLs are qualified as estimated (J). Reporting limits for proposed cadmium and cyanide FMCLs were not achieved. However, ELLE's MDL for cadmium (0.156 µg/L) is less than the 2017 Proposed FMCL (0.21 µg/L). ELLE's MDL for cyanide is at 2 µg/L and is slightly greater than the 2017 Proposed FMCL of 1.0 µg/L. In March of 2021 ELLE performed a metals reporting limit study and updated arsenic RLs (5 ug/L for SDG J32797-1 and 2 ug/L for SDG J33023-1) between the two SDGs. Respective arsenic results falling between the MDL and RL are estimated and qualified (J) accordingly.

Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

Based on the data validation review and data quality assessment, the analytical data for samples collected at the Site were determined to be acceptable (including estimated data) for their intended use. The data completeness (i.e., the ratio of the amount of valid data obtained to the amount expected, including estimated (J/UJ) data) was 100%.

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Table 2 Qualifier Summary Table

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Attachment A Data Review Checklists – QA Level 2B

Tables

Table 1
Sample Collection and Analysis Summary
Boeing Plant 2 - Semiannual Shoreline Monitoring March 2021
Seattle/Tukwila, Washington

SDG	Field Identification	Collection Date	Location	Lab Identification	Matrix	QC Samples	Analyses					
							VOCs - 39 - EPA 8260D + Naphthalene	PCE (EPA 8260D SIM)	Total Arsenic and Copper (EPA 200.8)	Dissolved Cadmium (EPA 200.8)	PCBs (EPA 8082A)	Free Cyanide (OIA-1677-09)
410327971	PL2-614B-210316	3/16/2021	PL2-614B	410327971-1	GW	--	X	X	X			
410327971	PL2-615A-210316	3/16/2021	PL2-615A	410327971-2	GW	--	X	X	X			X
410327971	PL2-227A-210316	3/16/2021	PL2-227A	410327971-3	GW	--			X			
410327971	PL2-615B-210316	3/16/2021	PL2-615B	410327971-4	GW	--	X	X	X			
410327971	PL2-621B-210316	3/16/2021	PL2-621B	410327971-5	GW	MS/MSD	X	X	X			
410327971	PL2-616A-210316	3/16/2021	PL2-616A	410327971-6	GW	--	X	X	X			
410327971	PL2-620B-210316	3/16/2021	PL2-620B	410327971-7	GW	--	X	X	X			X
410327971	PL2-620A-210316	3/16/2021	PL2-620A	410327971-8	GW	--	X	X	X			
410327971	PL2-617A-210316	3/16/2021	PL2-617A	410327971-9	GW	--	X	X	X			
410327971	PL2-619B-210316	3/16/2021	PL2-619B	410327971-10	GW	--	X	X	X	X		X
410327971	PL2-618A-210316	3/16/2021	PL2-618A	410327971-11	GW	--	X	X	X			
410327971	PL2-DUP2-210316	3/16/2021	PL2-617A	410327971-12	GW	FD (PL2-617A-210316)	X	X	X			
410327971	PL2-621A-210316	3/16/2021	PL2-621A	410327971-13	GW	--	X	X	X	X	X	
410327971	PL2-614A-210316	3/16/2021	PL2-614A	410327971-14	GW	--	X	X	X	X		
410327971	PL2-DUP1-210316	3/16/2021	PL2-614A	410327971-15	GW	FD (PL2-614A-210316)	X	X	X	X		
410327971	Trip Blanks (410327971)	--	--	410327971-16	DI	--	X	X				
410330231	Trip Blanks (410330231)	--	--	410-33023-1	DI	--	X	X				
410330231	PL2-258A-210317	3/17/2021	PL2-258A	410-33023-2	GW	--	X	X	X			
410330231	PL2-258B-210317	3/17/2021	PL2-258B	410-33023-3	GW	--	X	X	X			
410330231	PL2-258C-210317	3/17/2021	PL2-258C	410-33023-4	GW	--	X	X				
410330231	PL2-271A-210317	3/17/2021	PL2-271A	410-33023-5	GW	--	X	X	X			
410330231	PL2-214A-210317	3/17/2021	PL2-214A	410-33023-6	GW	--	X	X	X			
410330231	PL2-214B-210317	3/17/2021	PL2-214B	410-33023-7	GW	--	X	X	X			
410330231	PL2-214C-210317	3/17/2021	PL2-214C	410-33023-8	GW	--	X	X				
410330231	PL2-213A-210317	3/17/2021	PL2-213A	410-33023-9	GW	--	X	X	X			
410330231	PL2-619A-210317	3/17/2021	PL2-619A	410-33023-10	GW	--	X	X	X			X

Notes:
Analyses on SDGs 410327971and 410330231 were performed by Eurofins Lancaster Laboratories Environmental (ELLE).

Abbreviations:
DI - Deionized Water
FD - Field Duplicate
GW - Groundwater
MS - Matrix Spike
MSD - Matrix Spike Duplicate
PCBs - Polychlorinated Biphenyls
PCE - Tetrachloroethene
QC - Quality Control
SDG - Sample Delivery Group
SIM - Select Ion Monitoring
TB - Trip Blank
VOCs - Volatile Organic Compounds

Table 2
Qualifier Summary Table
Boeing Plant 2 - Semiannual Shoreline Monitoring March 2021
Seattle/Tukwila, Washington

SDG	Sample Name	Constituent	New Result	New RL	Qualifier	Reason
J32797-1	All Samples (EPA 8260D)	Tetrachloroethene	--	--	R1	Report result from EPA Method 8260D SIM
J32797-1	PL2-614B-210316	Freon 113, Bromoform	--	--	UJ	CCV % D > QC criteria
J32797-1	PL2-615A-210316	Freon 113, Bromoform	--	--	UJ	CCV % D > QC criteria
J32797-1	PL2-615B-210316	Freon 113, Bromoform	--	--	UJ	CCV % D > QC criteria
J32797-1	PL2-614A-210316	Chloromethane, Vinyl Acetate	--	--	UJ	CCV % D > QC criteria
J32797-1	PL2-DUP1-210316	Chloromethane, Vinyl Acetate	--	--	UJ	CCV % D > QC criteria
J32797-1	PL2-621A-210316	PCB 1016, PCB 1260, Total PCB	--	--	UJ/J	LCS/LCSD % R < QC criteria
J32797-1	PL2-614A-210316	Cadmium	0.156		U	Non-detect reported to the MDL
J32797-1	PL2-619B-210316	Cadmium	0.156		U	Non-detect reported to the MDL
J32797-1	PL2-621A-210316	Cadmium	0.156		U	Non-detect reported to the MDL
J32797-1	PL2-DUP1-210316	Cadmium	0.156		U	Non-detect reported to the MDL
J32797-1	PL2-620A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-227A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-618A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-621A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-DUP1-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-614A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-615A-210316	Arsenic	--	--	J	Result > MDL and < RL
J32797-1	PL2-615B-210316	Copper	--	--	J	Result > MDL and < RL
J33023-1	PL2-213A-210317	Arsenic	--	--	J	Result > MDL and < RL
J33023-1	PL2-213A-210317	Copper	0.362	--	U	Blank contamination
J33023-1	All Samples (EPA 8260D)	Tetrachloroethene	--	--	R1	Report result from EPA Method 8260D SIM

Notes:
Analyses on SDGs 410327971and 410330231 were performed by Eurofins Lancaster Laboratories Environmental (ELLE).

Abbreviations
CCV - Continuing Calibration Verification
%D - Percent Difference
LCS/LCSD - Laboratory Control Samples and Sample Duplicates
MDL - Method Detection Limit
QC - Quality Control
RL - Reporting Limit
SDG - Sample Delivery Group
SIM - Select Ion Monitoring

Qualifier Definitions
J - estimated
UJ - estimated, non-detect
R1 - Result is acceptable but there is a better result to report

APPENDIX A

DATA REVIEW CHECKLISTS – QA LEVEL 2B

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: Doug Kunkel
Project Name: Boeing Plant 2 Semiannual Shoreline March 2021
Project Number: 013-1646-019.200.01
Reviewer: Jessie Compeau/Informa LLC
Validation Date: 4/12/2021 and 5/24/2021
Reviewed by: Denise Carscadden, Golder Associates
Review Date: 4/25/2021
Laboratory: Eurofins Lancaster Laboratories Environmental (ELLE)
SDG #s: J32797-1

Analytical Method (type and no.): See Table 1

Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐ Other

Work Plan or QAPP Reference: EPI, 2011. Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by EPI, January 2011. Sampling Matrix March 2019 DRAFT.XLS prepared by EPI, March 2019.

Applicable Data Validation Guidance: EPA 2017. National Functional Guidelines for Inorganic Superfund Data Review. OLEM 9355.0-135. EPA-540-R-2017-001. Washington, D.C. January. (Guidelines)

Sample Information: See Table 1 (attached)

Field/COC Information	**YES**	**NO**	**NA**	**COMMENTS**
a) Sampling dates noted?	☒	☐	☐	See Note 1
b) Sampling team indicated?	☒	☐	☐	
c) Sample location noted?	☒	☐	☐	
d) Sample type indicated (grab/composite)?	☐	☒	☐	Not indicated
e) Field QC noted?	☒	☐	☐	See Table 1
f) Field parameters collected (note types)?	☒	☐	☐	See EDD for field parameters
g) Was the COC signed by both field and laboratory personnel?	☒	☐	☐	
h) Were samples received in good condition?	☒	☐	☐	
i) Were the correct preservatives used?	☒	☐	☐	
j) Was the sample cooler temperature within QC limits?	☒	☐	☐	
Laboratory Case Narrative				
a) Does the laboratory narrative indicate deficiencies?	☐	☒	☐	

General (reference QAPP or Method)	**YES**	**NO**	**NA**	**COMMENTS**
a) Were hold times met for sample pretreatment?	☐	☐	☒	
b) Were hold times met for sample analysis?	☒	☐	☐	
c) Was the correct method used?	☒	☐	☐	See Note 2
d) Were appropriate reporting limits achieved?	☒	☐	☐	See Notes 3 and 4
e) Were any sample dilutions noted?	☐	☒	☐	
f) Were any matrix problems noted?	☐	☒	☐	

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Calibration Verification	YES	NO	NA	COMMENTS
a) Complete for all target metals and CN?	☒	☐	☐	
b) ICV criteria achieved?	☒	☐	☐	
c) CCV criteria achieved?	☒	☐	☐	
d) CCV analyzed every 2 hours or 10 samples?	☒	☐	☐	
e) CRDL standard analyzed for ICP and AA?	☒	☐	☐	(Not necessarily required for SW846)
f) If analyzed, run at appropriate frequency?	☒	☐	☐	
g) If analyzed, within control limits?	☒	☐	☐	

Blanks	YES	NO	NA	COMMENTS
a) Were blanks performed at required frequency?	☒	☐	☐	
b) Were analytes detected in the prep blank(s)?	☐	☒	☐	
c) ICB/CCB for all target metals and CN?	☒	☐	☐	
d) ICB criteria achieved?	☒	☐	☐	
e) CCB criteria achieved?	☐	☒	☐	See Notes 5 and 6
f) CCB analyzed every 2 hours or 10 samples?	☒	☐	☐	
g) Were analytes detected in the field/equip blank(s)?	☐	☐	☒	

Laboratory Control Sample	YES	NO	NA	COMMENTS
a) Was an LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Matrix Spike/Matrix Spike Duplicate	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met (note %R)?	☒	☐	☐	MS on As and Cu. For all project specific samples. ELLE uses 70-130% for metals. All recoveries are within 75-125%.
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
b) Was MSD accuracy criteria met (note %R)?	☒	☐	☐	MS/MSD performed on cyanide.
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
c) Were MS/MSD precision criteria met (note RPD)?	☐	☒	☐	Note 7

Duplicates (Lab and Field)	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☒	☐	☐	FD - PL2-617A-210316///PL2-DUP2-210316; FD - PL2-614A-210316///PL2-DUP1-210316.
b) Were field dup. precision criteria met (20%)?	☒	☐	☐	(20% or < +/- 1X LOQ)
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☒	☐	Lab dup on 410-32797-5 for As & Cu. For Cd and CN see Notes 8 and 9
d) Were lab dup. precision criteria met (20%)?	☒	☐	☐	

ICP Serial Dilution	YES	NO	NA	COMMENTS
a) Was an ICP SD analyzed once per SDG?	☒	☐	☐	As and Cu only
b) Was the ICP SD criteria met?	☒	☐	☐	Not applicable to sample results <50XMDL

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Internal Standards	YES	NO	NA	COMMENTS
a) Were Internal Standards analyzed with SDG?	☒	☐	☐	
b) Was the Internal Standard criteria met?	☒	☐	☐	

Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	☐	☒	☐	
b) Checked for transcription errors?	☒	☐	☐	
c) Do target analytes fall within calibration ranges?	☒	☐	☐	
d) Data are acceptable and usable except as noted?	☒	☐	☐	

Comments/Notes:

1. Chain of custody shows a date of collection entry on the first row but no date of collection entries for the remaining samples. No action is taken since sample collection dates are appended to the sample identifications.
2. Chain of custody shows an analytical request for total arsenic and copper analysis by EPA Method 200.8 and 200.7. All samples submitted for metals analysis were analyzed by EPA Method 200.8. No action is taken other than to note this.
3. Samples submitted for metals analyses were analyzed via EPA Method 200.8 (Rev 5.4). Detection limits were evaluated using *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2* Table 2 *along with Table 2-2 GW TMCLs for COPCs for 2017-1017 (a summary of media cleanup levels for 2011, 2014, and 2017)*. For this SDG ELLE inorganic MDLs and/or RLs (except cyanide and cadmium) meet the proposed 2017 Final Media Cleanup Levels (FMCLs).
4. Per client request ELLE has reported various targets less than the RLs and greater than the laboratory MDLs. Sample results (copper and arsenic) reported between the MDL and RL were not laboratory qualified. **Sample results between the MDL and RL are estimated and qualified (J).** Per discussions with ELLE, cadmium results in the EDD and Form 1s are reported to the MDL instead of the RL for continuity in reporting format. Inorganic MDLs and RLs are shown below:

Metal	Units	"Reporting Limit" (RL) Form 1A	Level III Data Package RL - Form 9	Level III Data Package Method Detection Limit (MDL) - Form 9
Arsenic	µg/L	**0.680**	5	**0.68**
Cadmium	µg/L	**0.515**	**0.5**	0.156
Copper	µg/L	**0.362**	1	**0.362**
Cyanide, Free	mg/L	**0.002**	0.006	**0.002**

5. Continuing Calibration Blank (CCB) CCB 410-106828/38: A low level of copper was detected in the CCB at 0.5420 µg/L (above the RL of 0.362 µg/L). No action is taken since copper was not analyzed in associated samples.
6. A low level of copper was detected in CCBs (CCB 410-106830/15 and CCB 410-106830/20). No action was taken since the associated sample PL2-614B-210316 (410-32797-1) copper was detected above the RL.
7. Sample PL2-619B-210316 was used for the cyanide spike. MS/MSD RPD is 5%, exceeds ELLE RPD criteria of 3%, and is laboratory qualified (F2). In this case no action is taken other than to remove the F2 qualifier since ELLE's RPD acceptance criteria is considered too stringent given the comparatively wide QC acceptance criteria for recovery (86-132%).
8. ELLE did not perform a laboratory duplicate on cadmium. Refer to field duplicate samples PL2-614A-210316///PL2-DUP1-210316 for precision data.
9. ELLE did not perform a laboratory duplicate on cyanide. Refer to MS/MSD results for precision data.

NC – Not calculated
RL – Reporting limit is also referred to as LOQ.
MDL – Method Detection limit
DF – Dilution factor
µg/L – parts per billion

Data Qualification: Data qualifiers are assigned. See Table 2 (attached).

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Definitions:

SDG: Sample Delivery Group	QC: Quality Control
COC: Chain of Custody	QAPP: Quality Assurance Project Plan
TAL: Target Analyte List	TOC: Total Organic Carbon
TDS: Total Dissolved Solids	TPH: Total Petroleum Hydrocarbons
% D: Percent Difference	RPD: Relative Percent Difference
LCS: Laboratory Control Sample	RSD: Relative Standard Deviation
MS/MSD: Matrix Spike/Matrix Spike Duplicate	ICP: Inductively Coupled Plasma
ICV: Initial Calibration Verification	AA: Atomic Absorption
CCV: Continuing Calibration Verification	ICB: Initial Calibration Blank
CRDL: Contract Required Detection Limit	CCB: Continuing Calibration Blank
RL: Reporting Limit	MDL: Method Detection Limit
SD: Serial Dilution	LOQ: Limit of Quantitation
MRL: Method Reporting Limit	%R: Percent Recovery

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: Doug Kunkel
Project Name: Boeing Plant 2 Semiannual Shoreline March 2021
Project Number: 013-1646-019.200.01
Reviewer: Jessie Compeau/Informa LLC
Validation Date: 4/9/2021
Reviewed by: Denise Carscadden, Golder Associates
Review Date: : 4/25/2021
Laboratory: Eurofins Lancaster Laboratories Environmental (ELLE)
SDG #: J32797-1

Analytical Method (type and no.): See Table 1

Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐ Other

Work Plan or QAPP Reference: EPI, 2011. Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by EPI, January 2011. Sampling Matrix March 2019 DRAFT.XLS prepared by EPI, March 2019.

Applicable Data Validation Guidance: EPA 2017. National Functional Guidelines for Organic Superfund Data Review. OLEM 9355.0-136. EPA-540-R-2017-002. Washington, D.C. January. (Guidelines)

Sample Information: See Table 1 (attached)

Field/COC Information	**YES**	**NO**	**NA**	**COMMENTS**
a) Sampling dates noted?	☒	☐	☐	See Note 1
b) Sampling team indicated?	☒	☐	☐	
c) Sample location noted?	☒	☐	☐	
d) Sample type indicated (grab/composite)?	☐	☒	☐	Not indicated
e) Field QC noted?	☒	☐	☐	See Table 1
f) Field parameters collected (note types)?	☒	☐	☐	See EDD for field parameters
g) Was the COC signed by both field and laboratory personnel?	☒	☐	☐	
h) Were samples received in good condition?	☒	☐	☐	
i) Were the correct preservatives used?	☒	☐	☐	
j) Was the sample cooler temperature within QC limits?	☒	☐	☐	
Laboratory Case Narrative				
a) Does the laboratory narrative indicate deficiencies?	☒	☐	☐	See Notes 2, 3, and 4

General (reference QAPP or Method)	**YES**	**NO**	**NA**	**COMMENTS**
a) Were hold times met for sample pretreatment?	☒	☐	☐	
b) Were hold times met for sample analysis?	☒	☐	☐	
c) Was the correct method used?	☒	☐	☐	
d) Were appropriate reporting limits achieved?	☒	☐	☐	See Note 4
e) Were any sample dilutions noted?	☐	☒	☐	
f) Were any matrix problems noted?	☐	☒	☐	

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Initial Calibration	YES	NO	NA	COMMENTS
a) Was the system performance evaluation within criteria?	☒	☐	☐	
b) Were the correct standards used for IC?	☒	☐	☐	
c) Was the correct initial calibration used?	☒	☐	☐	
d) Were correct standards used for results calculations?	☐	☐	☒	
e) Were SPCC compounds RRF > 0.3/0.05?	☒	☐	☐	
f) Were other compounds RRF > 0.05?	☒	☐	☐	
g) Was the %RSD < 20%?	☒	☐	☐	

Continuing Calibration	YES	NO	NA	COMMENTS
a) Were the correct standards used for CC?	☒	☐	☐	
b) Was the correct continuing calibration used?	☒	☐	☐	
c) Were correct standards used for results calculations?	☐	☐	☒	
d) Were SPCC compounds RRF >0.3/0.05?	☒	☐	☐	
e) Were other compounds RRF > 0.05?	☒	☐	☐	
f) Was the %D < 20% (for low conc. water %D<30%)?	☐	☒	☐	See Note 2
g) Was the %D < 25% (for PCBs)?	☒	☐	☐	

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Was a method blank analysis performed according to the method used?	☒	☐	☐	
c) Was a method blank analysis performed for each instrument used for sample analyses?	☒	☐	☐	
d) Were analytes detected in the instrument blank(s)?	☐	☐	☒	
e) Were analytes detected in the field blank(s)?	☐	☐	☒	
f) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
g) Were analytes detected in the trip blank(s)?	☐	☒	☐	Sample ID: Trip Blanks
h) Were analytes detected in the storage blank(s)?	☐	☐	☒	

Surrogate (System Monitoring) Compounds	YES	NO	NA	COMMENTS
a) Were surrogate compounds added to all samples?	☒	☐	☐	
b) Were recoveries within control limits?	☒	☐	☐	
c) Were surrogate recoveries not calculated due to dilutions?	☐	☒	☐	
d) Were recoveries not calculated due to interference?	☐	☒	☐	

Internal Standards	YES	NO	NA	COMMENTS
a) Were internal standards added to all samples?	☒	☐	☐	
b) Were area response recoveries within control limits?	☒	☐	☐	
c) Were retention times within control limits?	☒	☐	☐	
d) Were recoveries not calculated due to interference?	☐	☒	☐	

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Laboratory Control Sample	YES	NO	NA	COMMENTS
a) Was an LCS analyzed once per SDG?	☒	☐	☐	LCS/LCSDs analyzed for VOCs
b) Were the proper compounds included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☒	☐	See Note 3 (PCBs)

Matrix Spike/Matrix Spike Duplicate	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met (note %R)? Note 5 PCE via 8260D SIM	☐	☒	☐	MS/MSD analyzed for PCE via SIM. See
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
b) Was MSD accuracy criteria met (note %R)?	☒	☐	☐	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☒	☐	
c) Were MS/MSD precision criteria met (note RPD)?	☒	☐	☐	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)? FD - PL2-614A-210316///PL2-DUP1-210316.	☒	☐	☐	FD - PL2-617A-210316///PL2-DUP2-210316;
b) Were field dup. precision criteria met (20%)?	☒	☐	☐	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☒	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	☒	☐	☐	See Notes 6 and 7
b) Checked for transcription errors?	☒	☐	☐	
c) Do target analytes fall within calibration ranges?	☒	☐	☐	
d) Data are acceptable and usable except as noted?	☒	☐	☐	

Comments/Notes:

1. Chain of custody shows a date of collection entry on the first row but no date of collection entries for the remaining samples. No action is taken since sample collection dates are appended to the sample identifications.
2. ELLE Analytical Batches 410-106468 and 410-107422: As noted in the case narrative the CCV % Difference for several targets is outside of acceptance criteria of 20%. Per Guidance, associated results (all non-detects) are estimated and qualified (UJ).

Associated Samples (Lab ID)	Method	Analyte	Drift (%)	DV Qualifier
PL2-614B-210316 PL2-615A-210316 PL2-615B-210316	8260D	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	21.7	UJ
PL2-614B-210316 PL2-615A-210316 PL2-615B-210316	8260D	Bromoform	21.4	UJ
PL2-614A-210316 PL2-DUP1-210316	8260D	Chloromethane	-28.7	UJ
PL2-614A-210316 PL2-DUP1-210316	8260D	Vinyl acetate	-20.9	UJ

3. ELLE Analytical Batches 410-106370 and 410-106659: Case narrative notes indicate that LCS recoveries for PCB-1016 and PCB 1260 are below QC criteria. The sample was reanalyzed with associated LCS recoveries outside of control limits. Initial

analysis results are reported. **Sample PL2-621A-210316 PCB-1016, PCB 1260, and total PCB results are estimated and qualified (UJ/J) due to low LCS recoveries.**

4. ELLE report format was updated sometime after April of 2020. ELLE Level 3 data package includes a Quantitation Limit Exceptions Summary page which indicates that the client VOC RLs fall below laboratory standard quantitation limits (PQL) and therefore results below these PQLs are less accurate. Quantitation Limit Exceptions Summary page shows 16 VOC RLs below the laboratory PQLs. ELLE indicated that the Quantitation Limit Exceptions Summary page is not applicable to the VOC results. VOC MDLs are not included in the data package for review but are found in the associated EDD.
5. Tetrachloroethene (PCE) matrix spike recovery is at 124%, above control limit criteria (80-120%), and laboratory qualified (F1). No action is taken since the parent sample is non-detect for PCE and associated MSD recovery is within control limit criteria.
6. Tetrachloroethene (PCE) is analyzed via EPA Method 8260D with a LOQ of 0.2 µg/L and via EPA Method 8260D SIM with a LOQ of 0.020 µg/L. **EPA Method 8260D PCE results are qualified R1 to indicate that a lower LOQ for PCE is available via 8260D SIM.**
7. Sample PL2-621A-210316 PCB results are reported from the confirmation column (2C) instead of the primary column (1C). No action is taken other than note this.

Data Qualification: Data qualifiers are assigned. See Table 2 (attached)

Definitions:

SDG: Sample Delivery Group	QC: Quality Control
COC: Chain of Custody	QAPP: Quality Assurance Project Plan
VOC: Volatile Organic Compound	SVOC: Semivolatile Organic Compound
TCL: Target Compound List	PCB: Polychlorinated Biphenyl
% D: Percent Difference	RPD: Relative Percent Difference
LCS: Laboratory Control Sample	RSD: Relative Standard Deviation
MS/MSD: Matrix Spike/Matrix Spike Duplicate	CRQL: Contract Required Quantitation Limit
MDL: Method Detection Limit	RL: Reporting Limit
%R: Percent Recovery	PEM: Performance Evaluation Mixture
IC: Initial Calibration	CC: Continuing Calibration
RRF: Relative Response Factor	SPCC: System Performance Check Compound
TCLP: Toxicity Characteristic Leaching Procedure	RT: Retention Time
SPLP: Synthetic Precipitation Leaching Procedure	LOQ: Limit of Quantitation
DNR: Do Not Report	EDD: Electronic data deliverable

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: Doug Kunkel
Project Name: Boeing Plant 2 Semiannual Shoreline March 2021
Project Number: 013-1646-019.200.01
Reviewer: Jessie Compeau/Informa LLC
Validation Date: 4/13/2021 and 5/24/2021
Reviewed by: Denise Carscadden, Golder Associates
Review Date: 4/25/2021
Laboratory: Eurofins Lancaster Laboratories Environmental (ELLE)
SDG #s: J33023-1

Analytical Method (type and no.): See Table 1

Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐ Other

Work Plan or QAPP Reference: EPI, 2011. Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by EPI, January 2011. Sampling Matrix March 2019 DRAFT.XLS prepared by EPI, March 2019.

Applicable Data Validation Guidance: EPA 2017. National Functional Guidelines for Inorganic Superfund Data Review. OLEM 9355.0-135. EPA-540-R-2017-001. Washington, D.C. January. (Guidelines)

Sample Information: See Table 1 (attached)

Field/COC Information	**YES**	**NO**	**NA**	**COMMENTS**
a) Sampling dates noted?	☒	☐	☐	
b) Sampling team indicated?	☒	☐	☐	
c) Sample location noted?	☒	☐	☐	
d) Sample type indicated (grab/composite)?	☐	☒	☐	Not indicated
e) Field QC noted?	☒	☐	☐	See Table 1
f) Field parameters collected (note types)?	☒	☐	☐	See EDD for field parameters
g) Was the COC signed by both field and laboratory personnel?	☒	☐	☐	
h) Were samples received in good condition?	☒	☐	☐	
i) Were the correct preservatives used?	☒	☐	☐	
j) Was the sample cooler temperature within QC limits?	☒	☐	☐	
Laboratory Case Narrative				
a) Does the laboratory narrative indicate deficiencies?	☐	☒	☐	

General (reference QAPP or Method)	**YES**	**NO**	**NA**	**COMMENTS**
a) Were hold times met for sample pretreatment?	☐	☐	☒	
b) Were hold times met for sample analysis?	☒	☐	☐	
c) Was the correct method used?	☒	☐	☐	
d) Were appropriate reporting limits achieved?	☒	☐	☐	See Notes 2 and 3
e) Were any sample dilutions noted?	☐	☒	☐	
f) Were any matrix problems noted?	☐	☒	☐	

QA LEVEL 2B - INORGANIC DATA EVALUATION CHECKLIST

Calibration Verification	YES	NO	NA	COMMENTS
a) Complete for all target metals and CN?	☒	☐	☐	
b) ICV criteria achieved?	☒	☐	☐	
c) CCV criteria achieved?	☒	☐	☐	
d) CCV analyzed every 2 hours or 10 samples?	☒	☐	☐	
e) CRDL standard analyzed for ICP and AA?	☒	☐	☐	(Not necessarily required for SW846)
f) If analyzed, run at appropriate frequency?	☒	☐	☐	
g) If analyzed, within control limits?	☒	☐	☐	

Blanks	YES	NO	NA	COMMENTS
a) Were blanks performed at required frequency?	☒	☐	☐	
b) Were analytes detected in the prep blank(s)?	☒	☐	☐	See Note 4
c) ICB/CCB for all target metals and CN?	☒	☐	☐	
d) ICB criteria achieved?	☒	☐	☐	
e) CCB criteria achieved?	☐	☒	☐	See Note 4
f) CCB analyzed every 2 hours or 10 samples?	☒	☐	☐	
g) Were analytes detected in the field/equip blank(s)?	☐	☐	☒	

Laboratory Control Sample	YES	NO	NA	COMMENTS
a) Was an LCS analyzed once per SDG?	☒	☐	☐	
b) Were the proper analytes included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	

Matrix Spike/Matrix Spike Duplicate	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met (note %R)?	☐	☒	☐	Refer to LCS/LCSD results.
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met (note %R)?	☐	☐	☒	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met (note RPD)?	☐	☐	☒	

Duplicates (Lab and Field)	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☒	☐	Refer to SDG J32797-1 for field duplicates
b) Were field dup. precision criteria met (20%)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☒	☐	
d) Were lab dup. precision criteria met (20%)?	☐	☐	☒	

ICP Serial Dilution	YES	NO	NA	COMMENTS
a) Was an ICP SD analyzed once per SDG?	☐	☒	☐	
b) Was the ICP SD criteria met?	☐	☐	☒	

Internal Standards	YES	NO	NA	COMMENTS
a) Were Internal Standards analyzed with SDG?	☒	☐	☐	

b) Was the Internal Standard criteria met?	☒	☐	☐	

Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	☐	☒	☐	
b) Checked for transcription errors?	☒	☐	☐	
c) Do target analytes fall within calibration ranges?	☒	☐	☐	
d) Data are acceptable and usable except as noted?	☒	☐	☐	

Comments/Notes:

1. Chain of custody shows an analytical request for total arsenic and copper analysis by EPA Method 200.8 and 200.7. All samples submitted for metals analysis were analyzed by EPA Method 200.8. No action is taken other than to note this.
2. Samples submitted for metals analyses were analyzed via EPA Method 200.8 (Rev 5.4). Detection limits were evaluated using *Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2* Table 2 *along with Table 2-2 GW TMCLs for COPCs for 2017-1017 (a summary of media cleanup levels for 2011, 2014, and 2017)*. For this SDG ELLE inorganic MDLs and RLs (except cyanide) are meet the proposed 2017 Final Media Cleanup Levels (FMCLs).
3. Per client request ELLE has reported various targets less than the RLs and greater than the laboratory MDLs. Sample result (arsenic) reported between the MDL and RL was not laboratory qualified. **Sample result between the MDL and RL is estimated and qualified (J).** Inorganic MDLs and RLs are shown below:

Metal	Units	"Reporting Limit" (RL) Form 1A	Level III Data Package RL - Form 9	Level III Data Package Method Detection Limit (MDL) Form 9
Arsenic	µg/L	**0.680**	2	**0.68**
Copper	µg/L	**0.362**	1	**0.362**
Cyanide, Free	mg/L	**0.002**	0.006	**0.002**

4. Copper is detected at 0.4210 µg/L in the method blank (MB 410-106174/1-A) and at 0.5420 µg/L in continuing calibration blank (CCB 410-106828/38). Review of the Analysis Run Log shows that Sample PL2-214B-210317 (410-33023-7) and PL2-213A-210317 (410-33023-9) are associated with prep batch 106174 and analysis batch 107371. Copper was not detected in the associated sample PL2-214B-210317 and in this case no action is required. **Copper was detected above the MDL and below the RL (1.0 µg/L in sample PL2-213A-210317 (410-33023-9) and as a result the copper detection is qualified as not detected (U) due to blank contamination.**

Data Qualification: Data qualifiers are assigned. See Table 2 (attached).

Definitions:

SDG: Sample Delivery Group	QC: Quality Control
COC: Chain of Custody	QAPP: Quality Assurance Project Plan
TAL: Target Analyte List	TOC: Total Organic Carbon
TDS: Total Dissolved Solids	TPH: Total Petroleum Hydrocarbons
% D: Percent Difference	RPD: Relative Percent Difference
LCS: Laboratory Control Sample	RSD: Relative Standard Deviation
MS/MSD: Matrix Spike/Matrix Spike Duplicate	ICP: Inductively Coupled Plasma
ICV: Initial Calibration Verification	AA: Atomic Absorption
CCV: Continuing Calibration Verification	ICB: Initial Calibration Blank
CRDL: Contract Required Detection Limit	CCB: Continuing Calibration Blank
RL: Reporting Limit	MDL: Method Detection Limit
SD: Serial Dilution	LOQ: Limit of Quantitation
MRL: Method Reporting Limit	%R: Percent Recovery

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: Doug Kunkel
Project Name: Boeing Plant 2 Semiannual Shoreline March 2021
Project Number: 013-1646-019.200.01
Reviewer: Jessie Compeau/Informa LLC
Validation Date: 4/13/2021
Reviewed by: Denise Carscadden, Golder Associates
Review Date: : 4/25/2021
Laboratory: Eurofins Lancaster Laboratories Environmental (ELLE)
SDG #: J33023-1

Analytical Method (type and no.): See Table 1

Matrix: ☐ Air ☐ Soil/Sed. ☒ Water ☐ Waste ☐ Other

Work Plan or QAPP Reference: EPI, 2011. Modification to CMS Phase Sediment Cap Impact Evaluation Groundwater Monitoring Plan for Boeing Plant 2, Seattle/Tukwila, Washington. Prepared by EPI, January 2011. Sampling Matrix March 2019 DRAFT.XLS prepared by EPI, March 2019.

Applicable Data Validation Guidance: EPA 2017. National Functional Guidelines for Organic Superfund Data Review. OLEM 9355.0-136. EPA-540-R-2017-002. Washington, D.C. January. (Guidelines)

Sample Information: See Table 1 (attached)

Field/COC Information	**YES**	**NO**	**NA**	**COMMENTS**
a) Sampling dates noted?	☒	☐	☐	
b) Sampling team indicated?	☒	☐	☐	
c) Sample location noted?	☒	☐	☐	
d) Sample type indicated (grab/composite)?	☐	☒	☐	Not indicated
e) Field QC noted?	☒	☐	☐	See Table 1
f) Field parameters collected (note types)?	☒	☐	☐	See EDD for field parameters
g) Was the COC signed by both field and laboratory personnel?	☒	☐	☐	
h) Were samples received in good condition?	☒	☐	☐	
i) Were the correct preservatives used?	☒	☐	☐	
j) Was the sample cooler temperature within QC limits?	☒	☐	☐	
Laboratory Case Narrative				
a) Does the laboratory narrative indicate deficiencies?	☒	☐	☐	See Notes 1, 2, and 3

General (reference QAPP or Method)	**YES**	**NO**	**NA**	**COMMENTS**
a) Were hold times met for sample pretreatment?	☒	☐	☐	
b) Were hold times met for sample analysis?	☒	☐	☐	See Note 1
c) Was the correct method used?	☒	☐	☐	
d) Were appropriate reporting limits achieved?	☒	☐	☐	See Note 2
e) Were any sample dilutions noted?	☐	☒	☐	
f) Were any matrix problems noted?	☐	☒	☐	

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Initial Calibration	YES	NO	NA	COMMENTS
a) Was the system performance evaluation within criteria?	☒	☐	☐	
b) Were the correct standards used for IC?	☒	☐	☐	
c) Was the correct initial calibration used?	☒	☐	☐	
d) Were correct standards used for results calculations?	☐	☐	☒	
e) Were SPCC compounds RRF > 0.3/0.05?	☒	☐	☐	
f) Were other compounds RRF > 0.05?	☒	☐	☐	
g) Was the %RSD < 20%?	☒	☐	☐	

Continuing Calibration	YES	NO	NA	COMMENTS
a) Were the correct standards used for CC?	☒	☐	☐	
b) Was the correct continuing calibration used?	☒	☐	☐	
c) Were correct standards used for results calculations?	☐	☐	☒	
d) Were SPCC compounds RRF >0.3/0.05?	☒	☐	☐	
e) Were other compounds RRF > 0.05?	☒	☐	☐	
f) Was the %D < 20% (for low conc. water %D<30%)?	☐	☐	☐	
g) Was the %D < 25% (for PCBs)?	☐	☐	☒	

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☒	☐	
b) Was a method blank analysis performed according to the method used?	☒	☐	☐	
c) Was a method blank analysis performed for each instrument used for sample analyses?	☒	☐	☐	
d) Were analytes detected in the instrument blank(s)?	☐	☐	☒	
e) Were analytes detected in the field blank(s)?	☐	☐	☒	
f) Were analytes detected in the equipment blank(s)?	☐	☐	☒	
g) Were analytes detected in the trip blank(s)?	☐	☒	☐	Sample ID: Trip Blanks
h) Were analytes detected in the storage blank(s)?	☐	☐	☒	

Surrogate (System Monitoring) Compounds	YES	NO	NA	COMMENTS
a) Were surrogate compounds added to all samples?	☒	☐	☐	
b) Were recoveries within control limits?	☒	☐	☐	
c) Were surrogate recoveries not calculated due to dilutions?	☐	☒	☐	
d) Were recoveries not calculated due to interference?	☐	☒	☐	

Internal Standards	YES	NO	NA	COMMENTS
a) Were internal standards added to all samples?	☒	☐	☐	
b) Were area response recoveries within control limits?	☒	☐	☐	
c) Were retention times within control limits?	☒	☐	☐	
d) Were recoveries not calculated due to interference?	☐	☒	☐	

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Laboratory Control Sample	YES	NO	NA	COMMENTS
a) Was an LCS analyzed once per SDG?	☒	☐	☐	In lieu of an MS/MSD an LCS/LCSD was analyzed. Also refer to field duplicate results associated with SDG J32797-1.
b) Were the proper compounds included in the LCS?	☒	☐	☐	
c) Was the LCS accuracy criteria met?	☒	☐	☐	LCS/LCSD RPD laboratory specified criteria of 30% was met

Matrix Spike/Matrix Spike Duplicate	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met (note %R)?	☐	☐	☒	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
b) Was MSD accuracy criteria met (note %R)?	☐	☐	☒	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☒	
c) Were MS/MSD precision criteria met (note RPD)?	☐	☐	☒	

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☒	☐	Refer to SDG J32797-1
b) Were field dup. precision criteria met (20%)?	☐	☐	☒	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☐	☒	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☒	

Overall Evaluation	YES	NO	NA	COMMENTS
a) Were there any other technical problems not previously addressed?	☐	☒	☐	
b) Checked for transcription errors?	☒	☐	☐	
c) Do target analytes fall within calibration ranges?	☒	☐	☐	
d) Data are acceptable and usable except as noted?	☒	☐	☐	

Comments/Notes:

1. Case narrative notes indicate that sample PL2-214C-210317 (410-33023-8) was received at a pH of 7 and analyzed for VOCs by SIM and analyzed within 7 days for an unpreserved sample. No action is required since the sample was analyzed within recommended hold time.
2. ELLE report format was updated sometime after April of 2020. ELLE Level 3 data package includes a Quantitation Limit Exceptions Summary page which indicates that the client VOC RLs fall below laboratory standard quantitation limits (PQL) and therefore results below these PQLs are less accurate. Quantitation Limit Exceptions Summary page shows 16 VOC RLs below the laboratory PQLs. ELLE indicated that the Quantitation Limit Exceptions Summary page is not applicable to the VOC results. VOC MDLs are not included in the data package for review but are found in the associated EDD.
3. ELLE: Tetrachloroethene (PCE) is analyzed via EPA Method 8260D with a LOQ of 0.2 µg/L and via EPA Method 8260D SIM with a LOQ of 0.020 µg/L. **EPA Method 8260D PCE results are qualified R1 to indicate that a lower LOQ for PCE is available via 8260D SIM.**

Data Qualification: Data qualifiers are assigned. See Table 2 (attached)

QA LEVEL IIB - ORGANIC DATA EVALUATION CHECKLIST

Definitions:

SDG: Sample Delivery Group	QC: Quality Control
COC: Chain of Custody	QAPP: Quality Assurance Project Plan
VOC: Volatile Organic Compound	SVOC: Semivolatile Organic Compound
TCL: Target Compound List	PCB: Polychlorinated Biphenyl
% D: Percent Difference	RPD: Relative Percent Difference
LCS: Laboratory Control Sample	RSD: Relative Standard Deviation
MS/MSD: Matrix Spike/Matrix Spike Duplicate	CRQL: Contract Required Quantitation Limit
MDL: Method Detection Limit	RL: Reporting Limit
%R: Percent Recovery	PEM: Performance Evaluation Mixture
IC: Initial Calibration	CC: Continuing Calibration
RRF: Relative Response Factor	SPCC: System Performance Check Compound
TCLP: Toxicity Characteristic Leaching Procedure	RT: Retention Time
SPLP: Synthetic Precipitation Leaching Procedure	LOQ: Limit of Quantitation
DNR: Do Not Report	EDD: Electronic data deliverable

Attachment D
March 2021 Field Logs, Case Narratives, Laboratory Data Sheets, and Chain-of-Custody Forms

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/ 16/2021 @ 855
Sample Number: PL2-614B- 210316 Weather: SUNNY 40S
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 8.59 Time: 829 Flow through cell vol. GW Meter No.(s 3
Begin Purge: Date/Time: 3/16/21 @ 833 End Purge: Date/Time: 3/ 16 /21 @ 854 Gallons Purged: 0.25
Purge water disposed to: ☐ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
836	7.5	17111	8.09	7.88	-5.1	184.5	8.51		
839	7.0	17432	8.19	7.64	-10.1	152.2	8.49		
842	6.9	17402	6.16	7.52	-11.8	123.1	8.48		
845	7.0	17595	4.32	7.32	-14.1	91.12			
848	7.0	17676	3.33	7.19	-15.1	68.00			
851	7.1	17930	2.35	6.93	-16.7	60.61			
853	7.2	17987	2.28	6.88	-16.9	53.32			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR. LOW TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	7.1	18021	2.21	6.85	-17.2				
2	7.2	18035	2.18	6.84	-17.2				
3	7.2	18045	2.16	6.83	-17.4				
4	7.2	18054	2.14	6.82	-17.5	37.9			
Average:	7.2	18039	2.17	6.84	-17.3	37.9	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):
Comments:
Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/ 16/2021 @ 1630
Sample Number: PL2-614A- 210316 Weather: SUNNY 50S
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 15.42 Time: 1601 Flow through cell vol. GW Meter No.(s 3
Begin Purge: Date/Time: 3/16/21 @ 1603 End Purge: Date/Time: 3/ 16 /21 @ 1625 Gallons Purged: 0.25
Purge water disposed to: ☐ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1606	11.8	3364	8.19	6.96	-12.9	6.35	15.15		
1609	12.2	3219	7.53	6.92	-12.2	8.31	15.04		
1612	12.2	2764	5.74	6.87	-13.9	13.26	15.03		
1615	12.0	2531	4.95	6.86	-13.8	14.76			
1618	12.0	2348	4.76	6.85	-14.2	13.89			
1621	11.8	2106	4.12	6.87	-15.3	12.21			
1623	11.8	2047	3.66	6.87	-15.8	13.61			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHE

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.9	2024	3.76	6.88	-15.6				
2	11.8	2022	3.73	6.88	-15.7				
3	11.9	2013	3.67	6.87	-15.8				
4	11.8	1999	3.59	6.88	-15.9	3.7			
Average:	11.9	2015	3.69	6.88	-15.8	3.7	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	(**Total Metals**) **(As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
1	(**Dissolved Metals**)* (As) (Sb) (Ba) (Be) (Ca) (**Cd**) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
	***= dissolved metals samples were field filtered**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s): Duplicate Location (PL2-DUP1)
Comments:

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/ 16/2021 @ 840

Sample Number: PL2-DUP1- 210316 Weather:

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) Time: Flow through cell vol. GW Meter No.(s 3

Begin Purge: Date/Time: 3/16/21 @ End Purge: Date/Time: 3/ 16 /21 @ Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11,9	1974	3.41	6.88	-16.3				
2	11.8	1962	3.45	6.88	-16.3				
3	11.8	1962	3.39	6.88	-16.3				
4	11.9	1952	3.32	6.87	-16.3				
Average:	11.8	1963	3.39	6.88	-16.3	#DIV/0!	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	(**Total Metals**) **(As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
1	(**Dissolved Metals**)* (As) (Sb) (Ba) (Be) (Ca) (**Cd**) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
	***= dissolved metals samples were field filtered**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s): Duplicate to PL2-614A

Comments: -

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/ 16/2021 @ 1005
Sample Number: PL2-615A- 210316 Weather: SUNNY 40S
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 10.41 Time: 934 Flow through cell vol. GW Meter No.(s 3
Begin Purge: Date/Time: 3/16/21 @ 940 End Purge: Date/Time: 3/ 16 /21 @ 1004 Gallons Purged: 0.25
Purge water disposed to: ☐ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
943	11.3	505	3.96	6.67	-23.1	20.97			
946	11.3	531	3.38	6.65	-23.1	79.14	10.47		
949	11.3	545	3.25	6.62	-23.4	131.60	10.49		
952	11.1	587	2.49	6.62	-23.8	161.20			
955	11.3	594	2.03	6.61	-23.1	174.20			
958	11.4	593	1.59	6.61	-23.1	178.30			
1000	11.6	591	1.45	6.61	-23.1	166.90			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): YELLOWISH, LOW-MED TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.6	588	1.43	6.62	-23.1				
2	11.6	589	1.39	6.61	-23.1				
3	11.6	589	1.38	6.61	-23.2				
4	11.6	585	1.36	6.61	-23.2	109.1			
Average:	11.6	588	1.39	6.61	-23.2	109.1	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Free Cyanide (OIA-1677-09)**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):
Comments:
Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/ 16/2021 @ 1055

Sample Number: PL2-615B- 210316 Weather: SUNNY 40S

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 10.79 Time: 1024 Flow through cell vol. GW Meter No.(s 3

Begin Purge: Date/Time: 3/16/21 @ 1030 End Purge: Date/Time: 3/ 16 /21 @ 1052 Gallons Purged: 0.25

Purge water disposed to: ☒ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1033	13.7	7016	3.80	6.40	-11.7	27.89	10.79		
1036	13.4	6566	2.81	6.44	-14.5	12.82	10.79		
1039	13.0	5931	1.65	6.54	-18.5	7.01	10.81		
1042	12.9	5673	1.36	6.59	-21.1	6.45			
1045	12.9	5543	1.21	6.65	-22.8	7.24			
1048	12.8	5508	1.16	6.68	-23.8	6.67			
1050	12.5	5470	1.19	6.70	-24.5	6.13			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☒ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☒ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☒ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.6	5450	1.15	6.70	-24.7				
2	12.4	5441	1.15	6.71	-24.9				
3	12.4	5436	1.12	6.71	-24.8				
4	12.4	5419	1.15	6.71	-25.1	5.8			
Average:	12.5	5437	1.14	6.71	-24.9	5.8	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments:

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/ 16/2021 @ 1155

Sample Number: PL2-616A- 210316 Weather: SUNNY 50S

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 11.86 Time: Flow through cell vol. GW Meter No.(s 3

Begin Purge: Date/Time: 3/16/21 @ 1130 End Purge: Date/Time: 3/ 16 /21 @ 1152 Gallons Purged: 0.25

Purge water disposed to: ☒ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1133	13.3	822	1.32	6.66	-13.5	41.29	11.98		
1136	13.1	812	1.33	6.57	-14.3	35.57	12.04		
1139	12.9	803	1.41	6.56	-15.1	29.28	12.04		
1142	12.9	798	1.43	6.54	-15.3	27.27	11.99		
1145	12.8	790	1.38	6.52	-15.7	24.40			
1148	12.8	787	1.43	6.51	-15.9	22.73			
1150	12.9	788	1.43	6.50	-16.2	18.68			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☒ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☒ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☒ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.9	788	1.45	6.49	-16.1				
2	12.9	787	1.45	6.49	-16.3				
3	13.0	788	1.51	6.50	-16.3				
4	13.0	788	1.49	6.49	-16.3	22.2			
Average:	13.0	788	1.48	6.49	-16.3	22.2	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments:

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/ 16/2021 @ 1345
Sample Number: PL2-617A- 210316 Weather: SUNNY 40S
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 13.96 Time: 1317 Flow through cell vol. GW Meter No.(s 3
Begin Purge: Date/Time: 3/16/21 @ 1320 End Purge: Date/Time: 3/ 16 /21 @ 1342 Gallons Purged: 0.25
Purge water disposed to: ☒ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1323	12.6	809	4.44	6.65	-14.3	15.12	13.96		
1326	12.6	809	3.16	6.61	-16.3	20.09	13.96		
1329	12.1	800	2.19	6.59	-22.3	15.12	13.96		
1332	11.8	786	1.82	6.58	-28.5	16.92			
1335	11.4	775	1.77	6.59	-30.8	15.42			
1338	11.2	761	1.79	6.58	-33.1	10.67			
1340	11.2	760	1.79	6.58	-34.2	10.96			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☒ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☒ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☒ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN,

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.2	760	1.73	6.35	-35.1				
2	11.3	760	1.72	6.58	-36.9				
3	11.3	760	1.67	6.58	-37.5				
4	11.4	761	1.73	6.58	-38.3	10.9			
Average:	11.3	760	1.71	6.52	-37.0	10.9	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s): Duplicate Location (PL2-DUP2)
Comments:
Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/ 16/2021 @ 830

Sample Number: PL2-DUP2- 210316 Weather:

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) Time: Flow through cell vol. GW Meter No.(s 3

Begin Purge: Date/Time: 3/16/21 @ End Purge: Date/Time: 3/ 16 /21 @ Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN,

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.5	761	1.65	6.58	-38.8				
2	11.5	762	1.62	6.58	-39.5				
3	11.5	762	1.63	6.58	-39.7				
4	11.5	762	1.58	6.58	-39.9				
Average:	11.5	762	1.62	6.58	-39.5	#DIV/0!	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s): Duplicate to PL2-617A

Comments:

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/ 16/2021 @ 1455
Sample Number: PL2-618A- 210316 Weather: SUNNY 40s
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 14.65 Time: 1427 Flow through cell vol. GW Meter No.(s 3
Begin Purge: Date/Time: 3/16/21 @ 1430 End Purge: Date/Time: 3/ 16 /21 @ 1452 Gallons Purged: 0.25
Purge water disposed to: ☐ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1433	12.5	730	3.69	6.60	-22.9	43.18			
1436	12.3	746	3.18	6.63	-26.5	41.29			
1439	12.2	752	2.72	6.64	-29.1	44.20			
1442	12.1	756	2.26	6.65	-30.8	32.95			
1445	12.1	758	2.16	6.67	-32.1	31.47			
1448	12.1	763	2.05	6.67	-33.1	27.40			
1450	12.1	764	2.02	6.67	-33.3	34.25			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO ODOR, NO SHEEN

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.1	765	1.99	6.67	-33.7				
2	12.1	765	1.99	6.68	-33.9				
3	12.1	766	2.01	6.67	-33.7				
4	12.0	766	1.97	6.67	-33.9	16.8			
Average:	12.1	766	1.99	6.67	-33.8	16.8	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):
Comments: HAD TO PULL OUT THE WHOLE PUMP TO GET WATER LVL. COULDN'T GET WATER LEVEL DURING PURGING. METER KEEPS I

Signature: AHA Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/16/2021 @ 1336

Sample Number: PL2-620A- 210316 Weather: PARTLY SUNNY

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) - Time: - Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/16/21 @ 1313 End Purge: Date/Time: 3/16/21 @ 1334 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1316	11.5	1047	6.91	7.13	0.2	34.33			
1319	11.6	925	6.84	7.11	5.4	24.88			
1322	11.8	777	4.79	7.12	-5.1	26.68			
1325	11.8	715	4.47	7.12	-12.3	29.62			
1328	11.7	647	3.41	7.12	-17.6	27.89			
1331	11.6	608	2.97	7.10	-25.8	29.89			
1333	11.6	607	2.97	7.10	-27.9				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW-MED TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.6	607	2.87	7.10	-28.2				
2	11.6	604	2.95	7.10	-28.6				
3	11.6	605	2.99	7.10	-28.9				
4	11.6	604	2.92	7.09	-29.2	26.47			
Average:	11.6	605	2.93	7.10	-28.7	26.47	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments: UNABLE TO GET DTW MEASUREMENT.

Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/16/2021 @ 1046
Sample Number: PL2-227A- 210316 Weather: SUNNY
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 10.17 Time: 1015 Flow through cell vol. GW Meter No.(s 8
Begin Purge: Date/Time: 3/16/21 @ 1021 End Purge: Date/Time: 3/16/21 @ 1042 Gallons Purged: 0.25
Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1024	12.7	322.2	7.19	6.64	126.0	7.78	10.34		
1027	11.9	291.5	7.50	6.64	120.2	7.81	10.42		
1030	11.9	279.1	7.36	6.51	129.6	6.48	10.44		
1033	11.9	267.9	7.53	6.35	142.2	5.39	10.46		
1036	11.9	262.5	7.14	6.19	153.7	7.92	10.47		
1039	11.8	256.4	7.08	6.09	161.0				
1041	11.7	257.0	7.14	6.06	164.2				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.7	256.7	7.16	6.06	164.4				
2	11.7	256.8	7.18	6.05	165.4				
3	11.7	257.0	7.14	6.05	167.1				
4	11.7	257.1	7.13	6.04	168.3	5.72			
Average:	11.7	256.9	7.15	6.05	166.3	5.72	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
	VOC's (8260C) (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):
Comments:

Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/16/2021 @ 1426

Sample Number: PL2-619B- 210316 Weather: SUNNY

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 15.23 Time: 1357 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/16/21 @ 1359 End Purge: Date/Time: 3/16/21 @ 1420 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1402	11.6	14729	2.69	6.92	-17.1	6.36	15.31		
1405	11.9	15461	1.80	6.94	-71.6	5.46	15.32		
1408	11.8	15673	1.45	6.77	-44.3	3.64	15.32		
1411	11.8	14664	1.46	6.75	-38.8	6.01	15.33		
1414	11.8	12889	1.44	6.77	-37.2	12.72	15.33		
1417	11.7	11348	1.37	6.80	-37.6	15.21			
1419	11.6	10759	1.46	6.81	-38.6				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.6	10629	1.44	6.82	-38.6				
2	11.6	10530	1.41	6.82	-38.4				
3	11.7	10481	1.39	6.82	-38.7				
4	11.6	10360	1.45	6.82	-38.8	14.72			
Average:	11.6	10500	1.42	6.82	-38.6	14.72	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	(**Total Metals**) **(As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
1	(**Dissolved Metals**)* (As) (Sb) (Ba) (Be) (Ca) (**Cd**) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
	***= dissolved metals samples were field filtered**		
1	**Free Cyanide (OIA-1677-09)**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/16/2021 @ 1211
Sample Number: PL2-620B- 210316 Weather: SUNNY
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 13.03 Time: 1142 Flow through cell vol. GW Meter No.(s 8
Begin Purge: Date/Time: 3/16/21 @ 1144 End Purge: Date/Time: 3/16/21 @ 1206 Gallons Purged: 0.25
Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1147	11.2	25893	1.64	6.90	-58.4	8.34	13.21		
1150	10.8	25588	1.21	6.86	-63.1	3.71	13.22		
1153	10.6	24905	1.14	6.82	-61.5	3.34	13.24		
1156	10.6	22090	1.04	6.87	-66.1	2.84	13.25		
1159	10.5	19822	1.04	6.92	-73.8				
1202	10.4	18499	1.07	6.96	-79.6				
1204	10.4	18258	1.05	6.97	-80.6				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	10.4	18211	1.02	6.97	-80.9				
2	10.4	18156	1.09	6.97	-80.9				
3	10.4	18130	1.07	6.97	-81.3				
4	10.4	18050	1.02	6.97	-81.5	1.56			
Average:	10.4	18137	1.05	6.97	-81.2	1.56	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):
Comments:
Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/16/2021 @ 1629

Sample Number: PL2-621A- 210316 Weather: SUNNY

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 13.42 Time: 1535 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/16/21 @ 1602 End Purge: Date/Time: 3/16/21 @ 1623 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1605	13.0	7473	6.71	6.83	82.2	21.37	13.13		
1608	12.9	5912	6.97	6.98	80.3	41.54	13.13		
1611	12.8	4766	7.08	7.08	77.5	56.06	13.13		
1614	12.8	4024	7.33	7.16	75.1	51.12			
1617	12.7	3567	7.49	7.24	72.9	45.94			
1620	12.6	3234	7.33	7.27	72.4	37.30			
1622	12.6	3113	7.46	7.27	72.5				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW-MED TURB, NO/NS, PARTICULATES.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.7	3104	7.17	7.26	72.8				
2	12.7	3095	6.99	7.27	72.9				
3	12.7	3086	6.90	7.26	72.3				
4	12.7	3075	7.53	7.28	72.4	35.89			
Average:	12.7	3090	7.15	7.27	72.6	35.89	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	(**Total Metals**) **(As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
1	(**Dissolved Metals**)* (As) (Sb) (Ba) (Be) (Ca) (**Cd**) (**Ni**) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
	***= dissolved metals samples were field filtered**		
2	**Low-Level PCB's (EPA 8082**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/16/2021 @ 1126

Sample Number: PL2-621B- 210316 Weather: SUNNY

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 10.18 Time: 1056 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/16/21 @ 1059 End Purge: Date/Time: 3/16/21 @ 1121 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1102	12.9	28390	1.37	6.31	46.1	42.57	10.41		
1105	12.7	28246	1.57	6.28	48.1	22.04	10.42		
1108	12.0	27902	1.47	6.22	52.0	19.98	10.43		
1111	11.5	27488	1.42	6.18	59.2	14.83	10.44		
1114	11.4	27608	1.36	6.20	56.7	11.19	10.44		
1117	11.3	27984	1.31	6.26	44.5	11.31	10.44		
1119	11.3	28114	1.27	6.28	41.2				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	11.3	28147	1.31	6.28	40.1				
2	11.3	28160	1.29	6.29	39.8				
3	11.3	28170	1.27	6.28	39.6				
4	11.3	28180	1.25	6.29	39.3	16.41			
Average:	11.3	28164	1.28	6.29	39.7	16.41	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s): MSMSD Location

Comments:

Signature: JAN Date: 3/16/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/17/2021 @ 1700
Sample Number: PL2-619A- 210317 Weather: SUNNY
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 13.55 Time: 1558 Flow through cell vol. GW Meter No.(s 8
Begin Purge: Date/Time: 3/17/21 @ 1634 End Purge: Date/Time: 3/17/21 @ 1655 Gallons Purged: 0.25
Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1637	12.2	1077	4.10	6.44	-3.0	25.01	13.59		
1640	12.5	1046	3.72	6.49	-3.3	16.91	13.59		
1643	12.5	961	2.53	6.60	-17.5	14.75	13.59		
1646	12.4	913	1.84	6.65	-28.7	11.44			
1649	12.5	887	1.43	6.69	-39.5	14.59			
1652	12.4	877	1.30	6.71	-44.6	7.78			
1654	12.3	874	1.34	6.71	-46.3				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS, SLIGHT PARTICULATES.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	12.3	874	1.29	6.71	-46.4				
2	12.3	874	1.25	6.71	-46.4				
3	12.3	874	1.22	6.70	-46.7				
4	12.3	873	1.31	6.72	-47.5	6.46			
Average:	12.3	874	1.27	6.71	-46.8	6.46	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Free Cyanide (OIA-1677-09)**		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):
Comments:
Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1526

Sample Number: PL2-213A- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 13.75 Time: 1459 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 1501 End Purge: Date/Time: 3/17/21 @ 1522 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1504	18.5	583	0.88	6.64	-37.0	43.89	13.79		
1507	18.4	522	1.02	6.56	-50.0	24.09	13.79		
1510	18.4	484.9	1.08	6.51	-48.3	18.97	13.79		
1513	18.4	444.8	1.10	6.49	-49.6	14.82			
1516	18.4	411.2	1.09	6.52	-59.9	10.70			
1519	18.4	382.9	1.04	6.56	-70.4	8.61			
1521	18.3	375.5	1.04	6.55	-72.8				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	18.3	374.3	0.98	6.55	-72.3				
2	18.3	372.7	0.99	6.55	-72.1				
3	18.3	372.7	0.96	6.55	-72.0				
4	18.3	372.6	0.94	6.55	-72.0	6.74			
Average:	18.3	373.1	0.97	6.55	-72.1	6.74	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	**Turbidity Readings**		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1346

Sample Number: PL2-214A- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 13.44 Time: 1322 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 1323 End Purge: Date/Time: 3/17/21 @ 1340 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1326	17.0	433.9	0.42	6.55	-95.1	29.97	13.49		
1329	17.0	423.5	0.41	6.59	-100.9	16.26	13.49		
1332	17.0	417.8	0.39	6.61	-104.7	10.56	13.49		
1335	17.0	415.2	0.39	6.63	-106.4	8.08			
1338	17.0	414.5	0.41	6.63	-106.9	6.04			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	17.0	414.4	0.40	6.63	-106.9				
2	17.0	414.2	0.43	6.63	-107.0				
3	17.0	414.2	0.42	6.63	-106.9				
4	17.0	414.2	0.41	6.63	-106.9	6.32			
Average:	17.0	414.3	0.42	6.63	-106.9	6.32	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1416

Sample Number: PL2-214B- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 13.37 Time: 1349 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 1352 End Purge: Date/Time: 3/17/21 @ 1406 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1355	17.3	20988	0.86	6.99	-145.5	10.61	13.44		
1358	17.3	21140	0.84	6.96	-152.8	5.91	13.44		
1401	17.3	21244	0.80	6.95	-154.4	6.93	13.44		
1404	17.4	21320	0.80	6.95	-149.5	5.28			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	17.4	21330	0.76	6.95	-149.0				
2	17.4	21336	0.86	6.95	-148.1				
3	17.3	21341	0.81	6.95	-147.7				
4	17.3	21346	0.78	6.95	-147.3	6.36			
Average:	17.4	21338	0.80	6.95	-148.0	6.36	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1446

Sample Number: PL2-214C- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 13.81 Time: 1415 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 1421 End Purge: Date/Time: 3/17/21 @ 1442 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1424	17.1	35088	1.44	6.93	-57.0	48.33	13.92		
1427	17.0	35164	1.38	6.83	-58.1	30.31	13.92		
1430	17.1	35255	1.29	6.80	-61.2	18.78	13.92		
1433	17.1	35334	1.16	6.80	-86.9	25.53			
1436	17.2	35382	0.96	6.81	-104.6	29.98			
1439	17.2	35414	0.91	6.81	-113.9	27.84			
1441	17.2	35425	0.92	6.82	-116.0				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	17.2	35428	0.87	6.82	-116.6				
2	17.2	35429	0.84	6.82	-117.2				
3	17.2	35428	0.96	6.82	-118.1				
4	17.2	35429	0.89	6.82	-118.5	22.82			
Average:	17.2	35429	0.89	6.82	-117.6	22.82	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
	(Total Metals) (As) (Sb) (Be) (Ca) (Cd) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/17/2021 @ 1051
Sample Number: PL2-258A- 210317 Weather: INSIDE
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 10.39 Time: 1024 Flow through cell vol. GW Meter No.(s 8
Begin Purge: Date/Time: 3/17/21 @ 1028 End Purge: Date/Time: 3/17/21 @ 1049 Gallons Purged: 0.25
Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1031	15.3	314.9	2.70	6.58	23.1	67.84	10.58		
1034	15.2	314.0	1.97	6.60	8.2	104.5	10.58		
1037	15.3	313.3	1.51	6.62	-5.7	110.0	10.58		
1040	15.4	312.0	1.25	6.63	-14.9	106.6			
1043	15.5	309.4	1.20	6.64	-23.1	100.9			
1046	15.5	308.4	0.98	6.65	-30.1	95.38			
1048	15.5	308.0	1.01	6.65	-30.9				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, MED-HIGH TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	15.5	307.7	1.09	6.65	-31.6				
2	15.5	307.5	1.04	6.65	-31.9				
3	15.5	307.4	1.03	6.65	-32.1				
4	15.5	307.4	1.00	6.65	-32.3	85.23			
Average:	15.5	307.5	1.04	6.65	-32.0	85.23	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):
Comments:
Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1126

Sample Number: PL2-258B- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 10.34 Time: 1100 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 11.02 End Purge: Date/Time: 3/17/21 @ 1123 Gallons Purged: 0.25

Purge water disposed to: ☐ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1105	15.7	26470	1.25	6.18	-8.7	76.33	10.38		
1108	15.7	26119	1.19	6.29	-31.0	117.3	10.38		
1111	15.7	25814	1.10	6.38	-52.6	208.8	10.38		
1114	15.8	25469	1.06	6.45	-67.9	310.4			
1117	15.9	25325	0.95	6.48	-75.4	359.9			
1120	16.0	25123	0.89	6.50	-82.6	374.0			
1122	15.9	25053	0.90	6.51	-84.1				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ☐ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ☐ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ☐ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): LIGHT ORANGE, HIGH TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	15.9	25042	0.93	6.51	-83.3				
2	15.9	25035	0.91	6.51	-83.1				
3	15.9	25025	0.90	6.51	-83.2				
4	15.9	25004	0.99	6.52	-84.0	369.7			
Average:	15.9	25027	0.93	6.51	-83.4	369.7	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089

Event: March Semiannually Date/Time: 3/17/2021 @ 1206

Sample Number: PL2-258C- 210317 Weather: INSIDE

Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount

DTW Before Purging (ft) 12.26 Time: 1138 Flow through cell vol. GW Meter No.(s 8

Begin Purge: Date/Time: 3/17/21 @ 1141 End Purge: Date/Time: 3/17/21 @ 1200 Gallons Purged: 0.25

Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							**>/= 1 flow through cell**	
	+/- 3%	**+/- 3%**	**+/- 10%**	**+/- 0.1 units**	**+/- 10 mV**	**+/- 10%**	**< 0.3 ft**		
1144	16.4	36205	1.54	6.72	-44.5	8.81	12.57		
1147	16.3	36210	0.94	6.65	-52.7	4.67	12.57		
1150	16.4	36288	0.88	6.58	-35.8	5.93	12.57		
1153	16.3	36299	0.90	6.54	-28.4	5.86			
1156	16.3	36276	0.92	6.54	-35.9	5.88			

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER

Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated

Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated

(By Numerical Order) ☐ Other

Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	16.3	36267	0.95	6.55	-39.0				
2	16.3	36262	0.90	6.55	-40.0				
3	16.3	36257	1.01	6.55	-42.2				
4	16.3	36251	0.96	6.55	-42.6	5.67			
Average:	16.3	36259	0.96	6.55	-41.0	5.67	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
	(Total Metals) (As) (Sb) (Be) (Ca) (Cd) (Cu) (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):

Comments:

Signature: JAN Date: 3/17/2021

Groundwater Low-Flow Sample Collection Form

Project Name: Regional GW Monitoring - Plant 2 Project Number: 0025217.099.089
Event: March Semiannually Date/Time: 3/17/2021 @ 1311
Sample Number: PL2-271A- 210317 Weather: INSIDE
Landau Representative: JAN/AHA

WATER LEVEL/WELL/PURGE DATA

Well Condition: Secure (**YES** or NO) Damaged (YES or **NO**) Describe: Flush Mount
DTW Before Purging (ft) 12.39 Time: 1245 Flow through cell vol. GW Meter No.(s 8
Begin Purge: Date/Time: 3/17/21 @ 1247 End Purge: Date/Time: 3/17/21 @ 1308 Gallons Purged: 0.25
Purge water disposed to: ■ 55-gal Drum ☐ Storage Tank ☐ Ground ☐ Other

Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Internal Purge Volume (gal)	Comments/ Observations
	Purge Goals: Stablization of Parameters for three consecutive readings within the following limits							>/= 1 flow through cell	
	+/- 3%	+/- 3%	+/- 10%	+/- 0.1 units	+/- 10 mV	+/- 10%	< 0.3 ft		
1250	17.5	1009	0.74	6.77	-100.2	18.88	12.52		
1253	17.6	878	0.62	6.80	-116.0	12.18	12.52		
1256	17.6	767	0.53	6.82	-126.9	8.97	12.52		
1259	17.6	719	0.49	6.83	-135.3	7.67			
1302	17.5	676	0.48	6.82	-137.4	7.49			
1305	17.5	648	0.46	6.82	-138.8	5.72			
1307	17.5	646	0.44	6.82	-138.9				

SAMPLE COLLECTION DATA

Sample Collected With: ☐ Bailer ■ Pump/Pump Type DED. BLADDER
Made of: ☐ Stainless Steel ☐ PVC ☐ Teflon ☐ Polyethylene ☐ Other ■ Dedicated
Decon Procedure: ☐ Alconox Wash ☐ Tap Rinse ☐ DI Water ■ Dedicated
(By Numerical Order) ☐ Other
Sample Description (color, turbidity, odor, sheen, etc.): NO COLOR, LOW TURB, NO/NS.

Replicate	Temp (°C)	Cond. (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTU)	DTW (ft)	Ferrous iron (Fe II)	Comments/ Observations
1	17.5	644	0.47	6.82	-139.3				
2	17.6	640	0.46	6.81	-139.3				
3	17.5	640	0.45	6.81	-139.3				
4	17.5	639	0.44	6.81	-139.3	7.28			
Average:	17.5	641	0.46	6.81	-139.3	7.28	#DIV/0!	#DIV/0!	

QUANTITY	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)		
5	**VOC's (8260C)** (8010) (8020) (NWTPH-G) (NWTPH-Gx) (BTEX)	WA ☐	OR ☐
	(8270) (PAH) (NWTPH-D) (NWTPH-Dx) (TPH-HCID) (8081) (8141) (Oil & Grease)	WA ☐	OR ☐
	(pH) (Conductivity) (TDS) (TSS) (BOD) (Turbidity) (Alkalinity) (HCO3/CO3) (Cl) (SO4) (NO3) (NO2) (F)		
	(COD) (TOC) (Total PO4) (Total Kiedahl Nitrogen) (NH3) (NO3/NO2)		
	(Total Cyanide) (WAD Cyanide) (Free Cyanide)		
1	**(Total Metals) (As)** (Sb) (Be) (Ca) (Cd) **(Cu)** (Fe) (Pb) (Mg) (Mn) (Ni) (Ag) (Se) (V) (Zn) (Th)		
	(Dissolved Metals)* (As) (Sb) (Ba) (Be) (Ca) (Cd) (Co) (Cr-VI) (Cu) (Fe) (Hardness) (Silica)		
1	Turbidity Readings		
	others		

Duplicate Sample No(s):
Comments: CONDENSOR LEAKING WATER ABOVE MONITORING WELL.
Signature: JAN Date: 3/17/2021

ANALYTICAL REPORT

Job Number: 410-33023-1

Job Description: Plant 2 Semi Annual GW Sampling

For:
The Boeing Company
Support Services
PO BOX 34083
Seattle, WA 98124

Attention: Jennifer A Parsons

Approved for release.
Vanessa Badman
Project Manager
3/30/2021 7:48 AM

Vanessa Badman, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-9762
vanessa.badman@eurofinset.com
03/30/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
410-33023-1

Receipt
The samples were received on 3/19/2021 11:21 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 time was -0.2°C

GC/MS VOA
Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-107422 recovered outside acceptance criteria, low biased, for Chloromethane and Vinyl acetate. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D_SIM: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: PL2-214C-210317 (410-33023-8).

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

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

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

Detection Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks — Lab Sample ID: 410-33023-1

No Detections.

Client Sample ID: PL2-258A-210317 — Lab Sample ID: 410-33023-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.204		0.200		ug/L	1		8260D	Total/NA
Arsenic	2.38		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-258B-210317 — Lab Sample ID: 410-33023-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.26		0.200		ug/L	1		8260D	Total/NA
Trichloroethene	0.239		0.200		ug/L	1		8260D	Total/NA
Copper	3.61		0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-258C-210317 — Lab Sample ID: 410-33023-4

No Detections.

Client Sample ID: PL2-271A-210317 — Lab Sample ID: 410-33023-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12.1		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-214A-210317 — Lab Sample ID: 410-33023-6

No Detections.

Client Sample ID: PL2-214B-210317 — Lab Sample ID: 410-33023-7

No Detections.

Client Sample ID: PL2-214C-210317 — Lab Sample ID: 410-33023-8

No Detections.

Client Sample ID: PL2-213A-210317 — Lab Sample ID: 410-33023-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.27		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable
Copper	0.709	B	0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-619A-210317 — Lab Sample ID: 410-33023-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.269		0.200		ug/L	1		8260D	Total/NA
Trichloroethene	1.30		0.200		ug/L	1		8260D	Total/NA
Copper	1.50		0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks

Date Collected: 03/17/21 00:00
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 14:27*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/23/21 14:27*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 01:30	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
Acetone	5.00	U	5.00		ug/L			03/26/21 01:30	1
Benzene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 01:30	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 01:30	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 01:30	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 01:30	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 01:30	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 01:30	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Styrene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Toluene	0.200	U	0.200		ug/L			03/26/21 01:30	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 01:30	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*03/26/21 01:30*	*1*

Client Sample ID: Trip Blanks

Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 01:30*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 01:30*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 01:30*	*1*

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:34*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 20:34*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 02:59	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Acetone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Benzene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 02:59	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 02:59	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 02:59	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Styrene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl chloride	**0.204**		0.200		ug/L			03/26/21 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 02:59*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 02:59*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 02:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 02:59*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.38**		0.680		ug/L		03/23/21 12:53	03/25/21 20:57	1
Copper	0.362	U	0.362		ug/L		03/23/21 12:53	03/25/21 20:57	1

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:55*	*1*
1,4-Difluorobenzene (Surr)	*101*		*80 - 120*		*03/23/21 20:55*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:21	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:21	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1

Client Sample ID: PL2-258B-210317
Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
cis-1,2-Dichloroethene	**2.26**		0.200		ug/L			03/26/21 03:21	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:21	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:21	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Trichloroethene	**0.239**		0.200		ug/L			03/26/21 03:21	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/26/21 03:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 03:21*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:21*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 12:53	03/25/21 22:06	1
Copper	**3.61**		0.362		ug/L		03/23/21 12:53	03/27/21 14:04	1

Client Sample ID: PL2-258C-210317
Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 12:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 12:43*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1

Client Sample ID: PL2-258C-210317

Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:42	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:42	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:42	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:42	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 03:42*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 03:42*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:42*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:42*	*1*

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:04	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-271A-210317

Date Collected: 03/17/21 13:11
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-5

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/29/21 13:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*80 - 120*		*03/29/21 13:04*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:04	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:04	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:04	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:04	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/26/21 04:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:04*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.1**		0.680		ug/L		03/23/21 13:29	03/24/21 15:29	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:29	03/24/21 15:29	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 13:24*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 13:24*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:27	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:27	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:27	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:27	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:27	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/26/21 04:27*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:27*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:27*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:20	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:08	03/25/21 20:20	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 13:45*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 13:45*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:49	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:49	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:49	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:49	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 04:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:49*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 04:49*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 16:58	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:16	03/25/21 17:23	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:05*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 14:05*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:11	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:11	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:11	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:11	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*80 - 120*		*03/26/21 05:11*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/26/21 05:11*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*03/26/21 05:11*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 05:11*	*1*

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:25	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Date Collected: 03/17/21 15:26
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-9

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*80 - 120*		*03/29/21 14:25*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:33	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:33	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:33	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:33	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 05:33*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 05:33*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:33*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.27**		0.680		ug/L		03/23/21 13:16	03/24/21 17:06	1
Copper	**0.709**	**B**	0.362		ug/L		03/23/21 13:16	03/25/21 17:25	1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:46*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 14:46*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:54	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:54	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
cis-1,2-Dichloroethene	**0.269**		0.200		ug/L			03/26/21 05:54	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:54	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:54	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:54	1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Trichloroethene	**1.30**		0.200		ug/L			03/26/21 05:54	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 05:54*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:14	1
Copper	**1.50**		0.362		ug/L		03/23/21 13:08	03/25/21 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/25/21 13:49	1

Default Detection Limits

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

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

Analyte	RL	MDL	Units
Tetrachloroethene	0.0200	0.00500	ug/L

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	0.500	0.0600	ug/L
1,1,2,2-Tetrachloroethane	0.200	0.0700	ug/L
1,1,2-Trichloroethane	0.200	0.0600	ug/L
1,1-Dichloroethane	0.500	0.0700	ug/L
1,1-Dichloroethene	0.200	0.0600	ug/L
1,2-Dichloroethane	0.200	0.0500	ug/L
1,2-Dichloropropane	0.500	0.0600	ug/L
2-Butanone	5.00	0.600	ug/L
2-Hexanone	5.00	0.600	ug/L
4-Methyl-2-pentanone	5.00	0.700	ug/L
Acetone	5.00	0.900	ug/L
Benzene	0.200	0.0500	ug/L
Bromodichloromethane	0.500	0.0500	ug/L
Bromoform	1.00	0.300	ug/L
Bromomethane	0.500	0.0700	ug/L
Carbon disulfide	0.500	0.0600	ug/L
Carbon tetrachloride	0.200	0.0700	ug/L
Chlorobenzene	0.500	0.0600	ug/L
Chloroethane	0.500	0.0700	ug/L
Chloroform	0.200	0.0900	ug/L
Chloromethane	0.500	0.0600	ug/L
cis-1,2-Dichloroethene	0.200	0.0500	ug/L
cis-1,3-Dichloropropene	0.200	0.0500	ug/L
Dibromochloromethane	0.500	0.0700	ug/L
Ethylbenzene	0.500	0.0600	ug/L
Freon 113	0.500	0.0600	ug/L
m&p-Xylene	0.500	0.100	ug/L
Methylene Chloride	0.500	0.0700	ug/L
Naphthalene	0.500	0.0500	ug/L
o-Xylene	0.500	0.0500	ug/L
Styrene	0.500	0.0500	ug/L
Tetrachloroethene	0.200	0.0600	ug/L
Toluene	0.200	0.0700	ug/L
trans-1,2-Dichloroethene	0.200	0.0600	ug/L
trans-1,3-Dichloropropene	0.200	0.0600	ug/L
Trichloroethene	0.200	0.0600	ug/L
Trichlorofluoromethane	0.500	0.0500	ug/L
Vinyl acetate	0.500	0.0400	ug/L
Vinyl chloride	0.200	0.100	ug/L

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Prep: 200.8 Rev 5.4

Analyte	RL	MDL	Units
Arsenic	0.680	0.680	ug/L
Copper	0.362	0.362	ug/L

General Chemistry

Default Detection Limits

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

General Chemistry

Analyte	RL	MDL	Units
Cyanide, Free	0.00200	0.00200	mg/L

Surrogate Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Method: 8260D - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-33023-1	Trip Blanks	101	96	102	100
410-33023-2	PL2-258A-210317	104	97	103	100
410-33023-3	PL2-258B-210317	105	97	103	99
410-33023-4	PL2-258C-210317	107	96	103	99
410-33023-5	PL2-271A-210317	102	97	101	101
410-33023-6	PL2-214A-210317	103	97	102	101
410-33023-7	PL2-214B-210317	107	97	102	100
410-33023-8	PL2-214C-210317	110	95	104	99
410-33023-9	PL2-213A-210317	104	97	102	100
410-33023-10	PL2-619A-210317	100	96	102	100
LCS 410-107422/5	Lab Control Sample	101	97	102	100
LCS 410-107422/7	Lab Control Sample	104	97	103	100
LCSD 410-107422/6	Lab Control Sample Dup	102	96	103	101
LCSD 410-107422/8	Lab Control Sample Dup	104	98	102	99
MB 410-107422/10	Method Blank	100	96	103	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		TOL	DFBZ
Lab Sample ID	Client Sample ID	(80-120)	(80-120)
410-33023-1	Trip Blanks	99	103
410-33023-2	PL2-258A-210317	98	102
410-33023-3	PL2-258B-210317	98	101
410-33023-4	PL2-258C-210317	97	103
410-33023-5	PL2-271A-210317	98	106
410-33023-6	PL2-214A-210317	97	105
410-33023-7	PL2-214B-210317	96	103
410-33023-8	PL2-214C-210317	96	103
410-33023-9	PL2-213A-210317	96	104
410-33023-10	PL2-619A-210317	96	105
LCS 410-106103/4	Lab Control Sample	100	103
LCS 410-108294/4	Lab Control Sample	98	105
LCSD 410-106103/5	Lab Control Sample Dup	100	103
LCSD 410-108294/5	Lab Control Sample Dup	98	105
MB 410-106103/7	Method Blank	99	102
MB 410-108294/7	Method Blank	97	105

Surrogate Legend

TOL = Toluene-d8 (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-107422/10
Matrix: Water
Analysis Batch: 107422

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 00:46	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
Acetone	5.00	U	5.00		ug/L			03/26/21 00:46	1
Benzene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 00:46	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 00:46	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 00:46	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 00:46	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 00:46	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 00:46	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Styrene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Toluene	0.200	U	0.200		ug/L			03/26/21 00:46	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 00:46	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 00:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*03/26/21 00:46*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 00:46*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 00:46*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 00:46*	*1*

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

Lab Sample ID: LCS 410-107422/5
Matrix: Water
Analysis Batch: 107422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.00	4.826		ug/L		97	78 - 126
1,1,2,2-Tetrachloroethane	5.00	4.797		ug/L		96	75 - 123
1,1,2-Trichloroethane	5.00	4.949		ug/L		99	80 - 120
1,1-Dichloroethane	5.00	4.605		ug/L		92	74 - 120
1,1-Dichloroethene	5.00	4.782		ug/L		96	80 - 131
1,2-Dichloroethane	5.00	4.722		ug/L		94	69 - 122
1,2-Dichloropropane	5.00	4.668		ug/L		93	80 - 120
2-Butanone	37.5	34.45		ug/L		92	59 - 141
2-Hexanone	25.0	22.11		ug/L		88	52 - 140
4-Methyl-2-pentanone	25.0	21.71		ug/L		87	55 - 140
Acetone	37.5	35.17		ug/L		94	60 - 146
Benzene	5.00	4.675		ug/L		94	80 - 120
Bromodichloromethane	5.00	4.872		ug/L		97	73 - 124
Bromoform	5.00	5.246		ug/L		105	49 - 144
Bromomethane	5.00	4.589		ug/L		92	60 - 136
Carbon disulfide	5.00	4.404		ug/L		88	67 - 130
Carbon tetrachloride	5.00	4.940		ug/L		99	64 - 141
Chlorobenzene	5.00	4.897		ug/L		98	80 - 120
Chloroethane	5.00	4.492		ug/L		90	63 - 120
Chloroform	5.00	4.738		ug/L		95	80 - 120
Chloromethane	5.00	4.329		ug/L		87	56 - 124
cis-1,2-Dichloroethene	5.00	4.795		ug/L		96	80 - 122
cis-1,3-Dichloropropene	5.00	4.436		ug/L		89	67 - 121
Dibromochloromethane	5.00	5.033		ug/L		101	64 - 138
Naphthalene	5.00	4.881		ug/L		98	64 - 122
Ethylbenzene	5.00	4.670		ug/L		93	80 - 120
Freon 113	5.00	4.782		ug/L		96	75 - 133
m&p-Xylene	10.0	9.663		ug/L		97	80 - 120
Methylene Chloride	5.00	4.836		ug/L		97	80 - 120
o-Xylene	5.00	4.827		ug/L		97	80 - 120
Styrene	5.00	4.790		ug/L		96	80 - 120
Tetrachloroethene	5.00	5.194		ug/L		104	80 - 120
Toluene	5.00	4.579		ug/L		92	80 - 120
trans-1,2-Dichloroethene	5.00	4.762		ug/L		95	80 - 122
trans-1,3-Dichloropropene	5.00	4.552		ug/L		91	61 - 129
Trichloroethene	5.00	4.816		ug/L		96	80 - 120
Trichlorofluoromethane	5.00	5.225		ug/L		104	62 - 136
Vinyl chloride	5.00	4.593		ug/L		92	60 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: LCS 410-107422/7
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Vinyl acetate			12.5	7.125		ug/L		57	38 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-107422/6
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			5.00	4.624		ug/L		92	78 - 126	4	30
1,1,2,2-Tetrachloroethane			5.00	4.574		ug/L		91	75 - 123	5	30
1,1,2-Trichloroethane			5.00	4.824		ug/L		96	80 - 120	3	30
1,1-Dichloroethane			5.00	4.379		ug/L		88	74 - 120	5	30
1,1-Dichloroethene			5.00	4.532		ug/L		91	80 - 131	5	30
1,2-Dichloroethane			5.00	4.561		ug/L		91	69 - 122	3	30
1,2-Dichloropropane			5.00	4.455		ug/L		89	80 - 120	5	30
2-Butanone			37.5	34.28		ug/L		91	59 - 141	1	30
2-Hexanone			25.0	22.10		ug/L		88	52 - 140	0	30
4-Methyl-2-pentanone			25.0	21.78		ug/L		87	55 - 140	0	30
Acetone			37.5	34.32		ug/L		92	60 - 146	2	30
Benzene			5.00	4.468		ug/L		89	80 - 120	5	30
Bromodichloromethane			5.00	4.557		ug/L		91	73 - 124	7	30
Bromoform			5.00	4.984		ug/L		100	49 - 144	5	30
Bromomethane			5.00	4.535		ug/L		91	60 - 136	1	30
Carbon disulfide			5.00	4.153		ug/L		83	67 - 130	6	30
Carbon tetrachloride			5.00	4.727		ug/L		95	64 - 141	4	30
Chlorobenzene			5.00	4.677		ug/L		94	80 - 120	5	30
Chloroethane			5.00	4.241		ug/L		85	63 - 120	6	30
Chloroform			5.00	4.572		ug/L		91	80 - 120	4	30
Chloromethane			5.00	4.295		ug/L		86	56 - 124	1	30
cis-1,2-Dichloroethene			5.00	4.622		ug/L		92	80 - 122	4	30
cis-1,3-Dichloropropene			5.00	4.280		ug/L		86	67 - 121	4	30
Dibromochloromethane			5.00	4.869		ug/L		97	64 - 138	3	30
Naphthalene			5.00	4.769		ug/L		95	64 - 122	2	30
Ethylbenzene			5.00	4.475		ug/L		89	80 - 120	4	30
Freon 113			5.00	4.597		ug/L		92	75 - 133	4	30
m&p-Xylene			10.0	9.181		ug/L		92	80 - 120	5	30
Methylene Chloride			5.00	4.705		ug/L		94	80 - 120	3	30
o-Xylene			5.00	4.621		ug/L		92	80 - 120	4	30
Styrene			5.00	4.628		ug/L		93	80 - 120	3	30
Tetrachloroethene			5.00	4.867		ug/L		97	80 - 120	7	30
Toluene			5.00	4.465		ug/L		89	80 - 120	3	30
trans-1,2-Dichloroethene			5.00	4.564		ug/L		91	80 - 122	4	30
trans-1,3-Dichloropropene			5.00	4.390		ug/L		88	61 - 129	4	30

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

Lab Sample ID: LCSD 410-107422/6
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene			5.00	4.577		ug/L		92	80 - 120	5	30
Trichlorofluoromethane			5.00	5.040		ug/L		101	62 - 136	4	30
Vinyl chloride			5.00	4.531		ug/L		91	60 - 125	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-107422/8
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl acetate			12.5	6.634		ug/L		53	38 - 145	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

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

Lab Sample ID: MB 410-106103/7
Matrix: Water
Analysis Batch: 106103

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 13:25*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 13:25*	*1*

Lab Sample ID: LCS 410-106103/4
Matrix: Water
Analysis Batch: 106103

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Tetrachloroethene			2.00	2.360		ug/L		118	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*

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

Lab Sample ID: LCSD 410-106103/5
Matrix: Water
Analysis Batch: 106103

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			2.00	2.300		ug/L		115	80 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 410-108294/7
Matrix: Water
Analysis Batch: 108294

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 12:23*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 12:23*	*1*

Lab Sample ID: LCS 410-108294/4
Matrix: Water
Analysis Batch: 108294

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Tetrachloroethene			2.00	2.332		ug/L		117	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 120*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-108294/5
Matrix: Water
Analysis Batch: 108294

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			2.00	2.350		ug/L		118	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 120*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: MB 410-106157/1-A
Matrix: Water
Analysis Batch: 107450

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 12:53	03/25/21 20:34	1
Copper	0.362	U	0.362		ug/L		03/23/21 12:53	03/25/21 20:34	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: LCS 410-106157/2-A
Matrix: Water
Analysis Batch: 107450

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	59.80		ug/L		100	85 - 115
Copper	40.0	39.63		ug/L		99	85 - 115

Lab Sample ID: MB 410-106168/1-A
Matrix: Water
Analysis Batch: 107449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 19:57	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:08	03/25/21 19:57	1

Lab Sample ID: LCS 410-106168/2-A
Matrix: Water
Analysis Batch: 107449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	57.98		ug/L		97	85 - 115
Copper	40.0	38.97		ug/L		97	85 - 115

Lab Sample ID: MB 410-106174/1-A
Matrix: Water
Analysis Batch: 106828

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 16:40	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:16	03/24/21 16:40	1

Lab Sample ID: MB 410-106174/1-A
Matrix: Water
Analysis Batch: 107371

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/25/21 17:13	1
Copper	0.4210		0.362		ug/L		03/23/21 13:16	03/25/21 17:13	1

Lab Sample ID: LCS 410-106174/2-A
Matrix: Water
Analysis Batch: 106828

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	57.19		ug/L		95	85 - 115
Copper	40.0	38.77		ug/L		97	85 - 115

Lab Sample ID: LCS 410-106174/2-A
Matrix: Water
Analysis Batch: 107371

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	56.98		ug/L		95	85 - 115
Copper	40.0	38.45		ug/L		96	85 - 115

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: LCSD 410-106174/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106828 — **Prep Batch: 106174**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.66		ug/L		96	85 - 115	1	20
Copper	40.0	39.26		ug/L		98	85 - 115	1	20

Lab Sample ID: LCSD 410-106174/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 107371 — **Prep Batch: 106174**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.65		ug/L		96	85 - 115	1	20
Copper	40.0	38.25		ug/L		96	85 - 115	1	20

Lab Sample ID: MB 410-106181/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:29	03/24/21 15:11	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:29	03/24/21 15:11	1

Lab Sample ID: LCS 410-106181/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	56.75		ug/L		95	85 - 115
Copper	40.0	38.69		ug/L		97	85 - 115

Lab Sample ID: LCSD 410-106181/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.25		ug/L		95	85 - 115	1	20
Copper	40.0	38.91		ug/L		97	85 - 115	1	20

Lab Sample ID: LRC 410-106828/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 106828

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	483.3		ug/L		96	
Copper	502	462.8		ug/L		92	

Lab Sample ID: LRC 410-106836/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 106836

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	483.3		ug/L		96	
Copper	502	462.8		ug/L		92	

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: LRC 410-107371/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 107371

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	485.1		ug/L		96	
Copper	502	469.5		ug/L		94	

Lab Sample ID: LRC 410-107449/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 107449

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	508.8		ug/L		101	
Copper	502	495.2		ug/L		99	

Lab Sample ID: LRC 410-107450/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 107450

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	508.8		ug/L		101	
Copper	502	495.2		ug/L		99	

Lab Sample ID: LRC 410-107984/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water
Analysis Batch: 107984

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	503	499.2		ug/L		99	
Copper	502	468.6		ug/L		93	

Method: OIA-1677 - Cyanide, Free (Flow Injection)

Lab Sample ID: MB 410-107299/33 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 107299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/25/21 13:31	1

Lab Sample ID: LCS 410-107299/32 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 107299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	0.0400	0.04039		mg/L		101	86 - 132

QC Association Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

GC/MS VOA

Analysis Batch: 106103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-1	Trip Blanks	Total/NA	Water	8260D SIM	
410-33023-2	PL2-258A-210317	Total/NA	Water	8260D SIM	
410-33023-3	PL2-258B-210317	Total/NA	Water	8260D SIM	
MB 410-106103/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 410-106103/4	Lab Control Sample	Total/NA	Water	8260D SIM	
LCSD 410-106103/5	Lab Control Sample Dup	Total/NA	Water	8260D SIM	

Analysis Batch: 107422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-1	Trip Blanks	Total/NA	Water	8260D	
410-33023-2	PL2-258A-210317	Total/NA	Water	8260D	
410-33023-3	PL2-258B-210317	Total/NA	Water	8260D	
410-33023-4	PL2-258C-210317	Total/NA	Water	8260D	
410-33023-5	PL2-271A-210317	Total/NA	Water	8260D	
410-33023-6	PL2-214A-210317	Total/NA	Water	8260D	
410-33023-7	PL2-214B-210317	Total/NA	Water	8260D	
410-33023-8	PL2-214C-210317	Total/NA	Water	8260D	
410-33023-9	PL2-213A-210317	Total/NA	Water	8260D	
410-33023-10	PL2-619A-210317	Total/NA	Water	8260D	
MB 410-107422/10	Method Blank	Total/NA	Water	8260D	
LCS 410-107422/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 410-107422/7	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-107422/6	Lab Control Sample Dup	Total/NA	Water	8260D	
LCSD 410-107422/8	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 108294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-4	PL2-258C-210317	Total/NA	Water	8260D SIM	
410-33023-5	PL2-271A-210317	Total/NA	Water	8260D SIM	
410-33023-6	PL2-214A-210317	Total/NA	Water	8260D SIM	
410-33023-7	PL2-214B-210317	Total/NA	Water	8260D SIM	
410-33023-8	PL2-214C-210317	Total/NA	Water	8260D SIM	
410-33023-9	PL2-213A-210317	Total/NA	Water	8260D SIM	
410-33023-10	PL2-619A-210317	Total/NA	Water	8260D SIM	
MB 410-108294/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 410-108294/4	Lab Control Sample	Total/NA	Water	8260D SIM	
LCSD 410-108294/5	Lab Control Sample Dup	Total/NA	Water	8260D SIM	

Metals

Prep Batch: 106157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-2	PL2-258A-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106157/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106157/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-6	PL2-214A-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-10	PL2-619A-210317	Total Recoverable	Water	200.8 Rev 5.4	

Metals (Continued)

Prep Batch: 106168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-106168/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106168/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-5	PL2-271A-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106181/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106181/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	
LCSD 410-106181/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	

Analysis Batch: 106828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106174
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106174
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106174
LRC 410-106828/9	Lab Control Sample		Water	200.8 Rev 5.4	

Analysis Batch: 106836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-5	PL2-271A-210317	Total Recoverable	Water	200.8 Rev 5.4	106181
MB 410-106181/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106181
LCS 410-106181/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106181
LCSD 410-106181/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106181
LRC 410-106836/9	Lab Control Sample		Water	200.8 Rev 5.4	

Analysis Batch: 107371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106174
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106174
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106174
LRC 410-107371/9	Lab Control Sample		Water	200.8 Rev 5.4	

Analysis Batch: 107449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-6	PL2-214A-210317	Total Recoverable	Water	200.8 Rev 5.4	106168
410-33023-10	PL2-619A-210317	Total Recoverable	Water	200.8 Rev 5.4	106168
MB 410-106168/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106168
LCS 410-106168/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106168
LRC 410-107449/9	Lab Control Sample		Water	200.8 Rev 5.4	

QC Association Summary

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

Metals

Analysis Batch: 107450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-2	PL2-258A-210317	Total Recoverable	Water	200.8 Rev 5.4	106157
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	106157
MB 410-106157/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106157
LCS 410-106157/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106157
LRC 410-107450/9	Lab Control Sample		Water	200.8 Rev 5.4	

Analysis Batch: 107984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	106157
LRC 410-107984/9	Lab Control Sample		Water	200.8 Rev 5.4	

General Chemistry

Analysis Batch: 107299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-10	PL2-619A-210317	Total/NA	Water	OIA-1677	
MB 410-107299/33	Method Blank	Total/NA	Water	OIA-1677	
LCS 410-107299/32	Lab Control Sample	Total/NA	Water	OIA-1677	

Lab Chronicle

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks — Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 01:30	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 14:27	USEJ	ELLE

Client Sample ID: PL2-258A-210317 — Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 02:59	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 20:34	USEJ	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107450	03/25/21 20:57	S4PD	ELLE

Client Sample ID: PL2-258B-210317 — Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 03:21	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 20:55	USEJ	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107450	03/25/21 22:06	S4PD	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107984	03/27/21 14:04	S8DY	ELLE

Client Sample ID: PL2-258C-210317 — Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 03:42	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 12:43	UJML	ELLE

Client Sample ID: PL2-271A-210317 — Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:04	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:04	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106181	03/23/21 13:29	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106836	03/24/21 15:29	MG7H	ELLE

Client Sample ID: PL2-214A-210317 — Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:27	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:24	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106168	03/23/21 13:08	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107449	03/25/21 20:20	S4PD	ELLE

Client Sample ID: PL2-214B-210317 — Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:49	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:45	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106828	03/24/21 16:58	MG7H	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107371	03/25/21 17:23	MG7H	ELLE

Client Sample ID: PL2-214C-210317 — Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:11	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:05	UJML	ELLE

Client Sample ID: PL2-213A-210317 — Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:33	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:25	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106828	03/24/21 17:06	MG7H	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107371	03/25/21 17:25	MG7H	ELLE

Client Sample ID: PL2-619A-210317 — Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:54	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:46	UJML	ELLE

Lab Chronicle

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-619A-210317

Date Collected: 03/17/21 17:00
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8 Rev 5.4			106168	03/23/21 13:08	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107449	03/25/21 20:14	S4PD	ELLE
Total/NA	Analysis	OIA-1677		1	107299	03/25/21 13:49	UJE2	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-11-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260D SIM		Water	Tetrachloroethene

Method Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	ELLE
200.8 Rev 5.4	Metals (ICP/MS)	EPA	ELLE
OIA-1677	Cyanide, Free (Flow Injection)	OI CORP	ELLE
200.8 Rev 5.4	Preparation, Total Recoverable Metals	EPA	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

OI CORP = OI Corporation Instrument Manual.

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-33023-1	Trip Blanks	Water	03/17/21 00:00	03/19/21 11:21	
410-33023-2	PL2-258A-210317	Water	03/17/21 10:51	03/19/21 11:21	
410-33023-3	PL2-258B-210317	Water	03/17/21 11:26	03/19/21 11:21	
410-33023-4	PL2-258C-210317	Water	03/17/21 12:06	03/19/21 11:21	
410-33023-5	PL2-271A-210317	Water	03/17/21 13:11	03/19/21 11:21	
410-33023-6	PL2-214A-210317	Water	03/17/21 13:46	03/19/21 11:21	
410-33023-7	PL2-214B-210317	Water	03/17/21 14:16	03/19/21 11:21	
410-33023-8	PL2-214C-210317	Water	03/17/21 14:46	03/19/21 11:21	
410-33023-9	PL2-213A-210317	Water	03/17/21 15:26	03/19/21 11:21	
410-33023-10	PL2-619A-210317	Water	03/17/21 17:00	03/19/21 11:21	

Quantitation Limit Exceptions Summary

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

The requested project specific reporting limits listed below were less than laboratory standard quantitation limits (PQL) but greater than or equal to the laboratory method detection limits (MDL). It must be noted that results reported below lab standard quantitation limits may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Analyte	Matrix	Prep Type	Unit	Client RL	Lab PQL
8260D	1,1,2,2-Tetrachloroethane	Water	Total/NA	ug/L	0.200	0.5
8260D	1,1,2-Trichloroethane	Water	Total/NA	ug/L	0.200	0.5
8260D	1,1-Dichloroethene	Water	Total/NA	ug/L	0.200	0.5
8260D	1,2-Dichloroethane	Water	Total/NA	ug/L	0.200	0.5
8260D	Benzene	Water	Total/NA	ug/L	0.200	0.5
8260D	Carbon disulfide	Water	Total/NA	ug/L	0.500	1
8260D	Carbon tetrachloride	Water	Total/NA	ug/L	0.200	0.5
8260D	Chloroform	Water	Total/NA	ug/L	0.200	0.5
8260D	cis-1,2-Dichloroethene	Water	Total/NA	ug/L	0.200	0.5
8260D	cis-1,3-Dichloropropene	Water	Total/NA	ug/L	0.200	0.5
8260D	Tetrachloroethene	Water	Total/NA	ug/L	0.200	0.5
8260D	Toluene	Water	Total/NA	ug/L	0.200	0.5
8260D	trans-1,2-Dichloroethene	Water	Total/NA	ug/L	0.200	0.5
8260D	trans-1,3-Dichloropropene	Water	Total/NA	ug/L	0.200	0.5
8260D	Trichloroethene	Water	Total/NA	ug/L	0.200	0.5
8260D	Vinyl chloride	Water	Total/NA	ug/L	0.200	0.5
200.8 Rev 5.4	Arsenic	Water	Total Recoverable	ug/L	0.680	2
200.8 Rev 5.4	Copper	Water	Total Recoverable	ug/L	0.362	1
OIA-1677	Cyanide, Free	Water	Total/NA	mg/L	0.00200	0.006

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: IC 410-70996/3 Client Sample ID:

Date Analyzed: 11/30/20 12:50 Lab File ID: GN30I01.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.95	Other	virayd	12/01/20 11:38
1,2-Dichloroethane	7.33	Other	virayd	12/01/20 11:38

Lab Sample ID: ICIS 410-70996/4 Client Sample ID:

Date Analyzed: 11/30/20 13:12 Lab File ID: GN30I02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.56	Other	virayd	12/01/20 11:45

Lab Sample ID: IC 410-70996/5 Client Sample ID:

Date Analyzed: 11/30/20 13:34 Lab File ID: GN30I03.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol	4.31	Other	virayd	12/01/20 11:47
1,2-Dichloroethane	7.33	Other	virayd	12/01/20 11:47
1,4-Dioxane	8.57	Other	virayd	12/01/20 11:47

Lab Sample ID: IC 410-70996/6 Client Sample ID:

Date Analyzed: 11/30/20 13:56 Lab File ID: GN30I04.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.97	Other	virayd	12/01/20 11:49
t-Butyl alcohol	4.34	Other	virayd	12/01/20 11:49
1,4-Dioxane	8.57	Other	virayd	12/01/20 11:49

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: IC 410-70996/7 Client Sample ID:

Date Analyzed: 11/30/20 14:19 Lab File ID: GN30I05.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.97	Other	virayd	12/01/20 11:51
n-Butanol	8.05	Other	virayd	12/01/20 11:51
1,4-Dioxane	8.57	Other	virayd	12/01/20 11:52

Lab Sample ID: IC 410-70996/8 Client Sample ID:

Date Analyzed: 11/30/20 14:41 Lab File ID: GN30I06.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.96	Other	virayd	12/01/20 11:53
1,3-Butadiene	2.26	Other	virayd	12/01/20 11:53
Bromomethane	2.59	Other	virayd	12/01/20 11:53
Dichlorofluoromethane	2.90	Other	virayd	12/01/20 11:53
Ethyl ether	3.21	Other	virayd	12/01/20 11:53
Acetone	3.55	Other	virayd	12/01/20 11:54
Methyl iodide	3.71	Other	virayd	12/01/20 11:54
t-Butyl alcohol	4.34	Other	virayd	12/01/20 11:54
2,2-Dichloropropane	6.10	Other	virayd	12/01/20 11:54
Carbon tetrachloride	6.99	Other	virayd	12/01/20 11:55
1,4-Dioxane	8.57	Other	virayd	12/01/20 11:55
Dibromomethane	8.58	Other	virayd	12/01/20 11:55

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: IC 410-70996/9 Client Sample ID:

Date Analyzed: 11/30/20 15:03 Lab File ID: GN30I07.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.25	Other	virayd	12/01/20 11:56
Vinyl chloride	2.25	Other	virayd	12/01/20 11:57
Dichlorofluoromethane	2.90	Other	virayd	12/01/20 11:57
Trichlorofluoromethane	2.96	Other	virayd	12/01/20 11:57
Ethyl ether	3.20	Other	virayd	12/01/20 11:57
Acrolein	3.37	Other	virayd	12/01/20 11:57
Acetone	3.54	Other	virayd	12/01/20 11:58
Methyl acetate	3.96	Other	virayd	12/01/20 11:58
Allyl chloride	3.98	Other	virayd	12/01/20 11:58
Methylene Chloride	4.16	Other	virayd	12/01/20 11:58
t-Butyl alcohol	4.32	Other	virayd	12/01/20 11:58
2,2-Dichloropropane	6.08	Other	virayd	12/01/20 11:58
Methacrylonitrile	6.35	Other	virayd	12/01/20 11:58
1,1,1-Trichloroethane	6.79	Other	virayd	12/01/20 11:59
Cyclohexane	6.87	Other	virayd	12/01/20 11:59
Carbon tetrachloride	6.99	Other	virayd	12/01/20 11:59
Isobutyl alcohol	7.17	Other	virayd	12/01/20 11:59
Trichloroethene	8.14	Other	virayd	12/01/20 11:59
Methyl methacrylate	8.56	Other	virayd	12/01/20 11:59
1,4-Dioxane	8.57	Other	virayd	12/01/20 11:59

Lab Sample ID: ICV 410-70996/10 Client Sample ID:

Date Analyzed: 11/30/20 15:26 Lab File ID: GN30V01.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.34	Other	virayd	12/01/20 12:02
1,4-Dioxane	8.57	Other	virayd	12/01/20 12:02

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: IC 410-70996/12 Client Sample ID:

Date Analyzed: 11/30/20 16:10 Lab File ID: GN30I11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.93	Other	virayd	12/01/20 13:19
Chloroacetonitrile	9.20	Other	virayd	12/01/20 13:20

Lab Sample ID: IC 410-70996/13 Client Sample ID:

Date Analyzed: 11/30/20 16:32 Lab File ID: GN30I12.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.94	Other	virayd	12/01/20 13:17
t-Butyl alcohol-d10 (IS)	4.20	Other	virayd	12/01/20 13:17
Chloroacetonitrile	9.20	Other	virayd	12/01/20 13:17

Lab Sample ID: IC 410-70996/14 Client Sample ID:

Date Analyzed: 11/30/20 16:54 Lab File ID: GN30I13.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.93	Other	virayd	12/01/20 13:20
Chloroacetonitrile	9.19	Other	virayd	12/01/20 13:20

Lab Sample ID: IC 410-70996/15 Client Sample ID:

Date Analyzed: 11/30/20 17:16 Lab File ID: GN30I14.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.94	Other	virayd	12/01/20 13:21
t-Butyl alcohol-d10 (IS)	4.20	Other	virayd	12/01/20 13:21
Ethyl acetate	6.10	Other	virayd	12/01/20 13:21
Chloroacetonitrile	9.19	Other	virayd	12/01/20 13:21

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: IC 410-70996/16 Client Sample ID:

Date Analyzed: 11/30/20 17:39 Lab File ID: GN30I15.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.92	Other	virayd	12/01/20 13:21
Vinyl acetate	5.23	Other	virayd	12/01/20 13:22
Ethyl acetate	6.11	Other	virayd	12/01/20 13:22
Chloroacetonitrile	9.19	Other	virayd	12/01/20 13:22

Lab Sample ID: IC 410-70996/17 Client Sample ID:

Date Analyzed: 11/30/20 18:01 Lab File ID: GN30I16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.95	Other	virayd	12/01/20 13:22
Ethyl acetate	6.12	Other	virayd	12/01/20 13:23
Methyl acrylate	6.17	Other	virayd	12/01/20 13:23
Chloroacetonitrile	9.20	Other	virayd	12/01/20 13:23

Lab Sample ID: IC 410-70996/18 Client Sample ID:

Date Analyzed: 11/30/20 18:23 Lab File ID: GN30I17.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methoxymethane	2.03	Other	virayd	12/01/20 13:23
Acetonitrile	3.93	Other	virayd	12/01/20 13:23
t-Butyl alcohol-d10 (IS)	4.21	Other	virayd	12/01/20 13:24
Vinyl acetate	5.23	Other	virayd	12/01/20 13:24
Ethyl acetate	6.12	Other	virayd	12/01/20 13:24
Methyl acrylate	6.18	Other	virayd	12/01/20 13:24
1-Chlorobutane	6.94	Other	virayd	12/01/20 13:24
Chloroacetonitrile	9.20	Other	virayd	12/01/20 13:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 70996

Lab Sample ID: ICV 410-70996/19 Client Sample ID:

Date Analyzed: 11/30/20 18:45 Lab File ID: GN30V11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.92	Other	virayd	12/01/20 13:25
Ethyl acetate	6.10	Other	virayd	12/01/20 13:25
Chloroacetonitrile	9.20	Other	virayd	12/01/20 13:25

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 107422

Lab Sample ID: CCVIS 410-107422/3 Client Sample ID:

Date Analyzed: 03/25/21 21:49 Lab File ID: GM25C31.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.26	Incomplete Integration	campbellme	03/25/21 22:14

Lab Sample ID: CCV 410-107422/4 Client Sample ID:

Date Analyzed: 03/25/21 22:11 Lab File ID: GM25C32.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	3.93	Incomplete Integration	campbellme	03/25/21 23:02
Vinyl acetate	5.25	Incomplete Integration	campbellme	03/25/21 23:03
Ethyl acetate	6.12	Incomplete Integration	campbellme	03/25/21 23:03
Chloroacetonitrile	9.20	Incomplete Integration	campbellme	03/25/21 23:03

Lab Sample ID: 410-33023-2 Client Sample ID: PL2-258A-210317

Date Analyzed: 03/26/21 02:59 Lab File ID: GM25S36.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.26	Incomplete Integration	longj	03/26/21 11:56

Lab Sample ID: 410-33023-5 Client Sample ID: PL2-271A-210317

Date Analyzed: 03/26/21 04:04 Lab File ID: GM25S39.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloropropane		Invalid Compound ID	longj	03/26/21 12:51
Acetone		Invalid Compound ID	longj	03/26/21 12:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Analysis Batch Number: 107422

Lab Sample ID: 410-33023-9 Client Sample ID: PL2-213A-210317

Date Analyzed: 03/26/21 05:33 Lab File ID: GM25S43.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.24	Incomplete Integration	longj	03/26/21 12:53

8260D

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33023-1

SDG No.:

Instrument ID: 15648 Analysis Batch Number: 58469

Lab Sample ID: IC 410-58469/3 Client Sample ID:

Date Analyzed: 10/26/20 12:56 Lab File ID: EC26I07.D GC Column: DB-624 20m ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	5.03	Incomplete Integration	spositok	10/26/20 13:23

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MP_1:1HCl_00009	09/13/21	03/13/21	DI Water, Lot DI03132021	20000 mL	MT_HCl_JT_00005	10000 mL	Hydrogen Chloride	188500 ug/mL
.MT_HCl_JT_00005	09/15/24	J.T.Baker, Lot 0000243992			(Purchased Reagent)		Hydrogen Chloride	37.7 %
MP_1:1HNO3_00013	09/02/21	03/02/21	DI Water, Lot DI03022021	10000 mL	MT_HNO3_JT_00006	10000 mL	Nitric acid	697000 ug/mL
.MT_HNO3_JT_00006	02/09/25	J.T.Baker, Lot 0000255830			(Purchased Reagent)		Nitric acid	69.7 %
MSV_27SIM_ISS_00010	11/12/20	09/14/20	Methanol, Lot DX212	50 mL	MSV_624 IS/SS_00020	0.333 mL	1,4-Difluorobenzene (Surr)	9.99 ug/mL
							Chlorobromomethane (IS)	9.99 ug/mL
					MSV_Tld8/CBd5_00008	1 mL	Chlorobenzene-d5 (IS)	9.996 ug/mL
							Toluene-d8 (Surr)	9.9847 ug/mL
.MSV_624 IS/SS_00020	03/14/21	Restek, Lot A0158740			(Purchased Reagent)		1,4-Difluorobenzene (Surr)	1500 ug/mL
							Chlorobromomethane (IS)	1500 ug/mL
.MSV_Tld8/CBd5_00008	01/28/21	07/28/20	Methanol, Lot DX212	10 mL	MSV_MSk_ClBd5_00003	0.49 mL	Chlorobenzene-d5 (IS)	499.8 ug/mL
					MSV_MSk_Told8_00003	0.313 mL	Toluene-d8 (Surr)	499.235 ug/mL
..MSV_MSk_ClBd5_00003	01/28/21	07/28/20	Methanol, Lot DX212	10 mL	MSV_ClBenzd5_00003	0.102 g	Chlorobenzene-d5 (IS)	10200 ug/mL
...MSV_ClBenzd5_00003	10/31/24	Chem Service, Lot 9000400			(Purchased Reagent)		Chlorobenzene-d5 (IS)	1 g/g
..MSV_MSk_Told8_00003	01/28/21	07/28/20	Methanol, Lot DX212	10 mL	MSV_Told8_00003	0.1595 g	Toluene-d8 (Surr)	15950 ug/mL
...MSV_Told8_00003	10/31/22	Chem Service, Lot 10341300			(Purchased Reagent)		Toluene-d8 (Surr)	1 g/g
MSV_27SIM_ISS_00014	05/20/21	02/01/21	Methanol, Lot DZ644	50 mL	MSV_624 IS/SS_00010	0.333 mL	Chlorobromomethane (IS)	9.99 ug/mL
					MSV_Tld8/CBd5_00009	1 mL	Chlorobenzene-d5 (IS)	9.99936 ug/mL
.MSV_624 IS/SS_00010	05/20/21	Restek, Lot A0158740			(Purchased Reagent)		Chlorobromomethane (IS)	1500 ug/mL
.MSV_Tld8/CBd5_00009	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_MSk_ClBd5_00004	0.558 mL	Chlorobenzene-d5 (IS)	499.968 ug/mL
..MSV_MSk_ClBd5_00004	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_ClBenzd5_00004	0.0896 g	Chlorobenzene-d5 (IS)	8960 ug/mL
...MSV_ClBenzd5_00004	10/31/24	Chem Service, Lot 10222400			(Purchased Reagent)		Chlorobenzene-d5 (IS)	1 g/g
MSV_27SIM_ISS_00014	05/20/21	02/01/21	Methanol, Lot DZ644	50 mL	MSV_624 IS/SS_00010	0.333 mL	1,4-Difluorobenzene (Surr)	9.99 ug/mL
					MSV_Tld8/CBd5_00009	1 mL	Toluene-d8 (Surr)	9.99432 ug/mL
.MSV_624 IS/SS_00010	05/20/21	Restek, Lot A0158740			(Purchased Reagent)		1,4-Difluorobenzene (Surr)	1500 ug/mL
.MSV_Tld8/CBd5_00009	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_MSk_Told8_00004	0.661 mL	Toluene-d8 (Surr)	499.716 ug/mL
..MSV_MSk_Told8_00004	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_Told8_00005	0.0756 g	Toluene-d8 (Surr)	7560 ug/mL
...MSV_Told8_00005	09/30/23	Chem Service, Lot 10683900			(Purchased Reagent)		Toluene-d8 (Surr)	1 g/g
MSV_29_826ISO_00004	05/16/21	11/30/20	Methanol, Lot DZ644	10 mL	MSV_Cus826_IS_00151	1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5 (IS)	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							t-Butyl alcohol-d10 (IS)	1250 ug/mL
.MSV_Cus826_IS_00151	05/31/21	Restek, Lot A0138205			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_29_826ISS_00013	05/16/21	11/16/20	Methanol, Lot DZ644	10 mL	MSV_8260_SS_00263	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
					MSV_Cus826_IS_00151	1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5 (IS)	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							t-Butyl alcohol-d10 (IS)	1250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_8260_SS_00263	03/31/22		Restek, Lot A0146938		(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
.MSV_Cus826_IS_00151	05/31/21		Restek, Lot A0138205		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_29_826ISS_00015	05/31/21	02/09/21	Methanol, Lot DZ644	10 mL	MSV_Cus826_IS_00180	1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5 (IS)	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							t-Butyl alcohol-d10 (IS)	1250 ug/mL
.MSV_Cus826_IS_00180	05/31/21		Restek, Lot A0138205		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_29_826ISS_00015	05/31/21	02/09/21	Methanol, Lot DZ644	10 mL	MSV_8260_SS_00294	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MSV_8260_SS_00294	03/31/22		Restek, Lot A0146938		(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
MSV_CDFM_00011	12/05/22		Absolute Standards Inc., Lot 120517		(Purchased Reagent)		Chlorodifluoromethane	1000 ug/mL
MSV_DME_00024	12/30/20		Absolute Standards, Inc, Lot 081920		(Purchased Reagent)		Dimethyl ether	1000 ug/mL
MSV_Q_QVOA1_00057	12/30/20	11/30/20	Methanol, Lot DZ644	25 mL	MSV_Q#1B_00071	1 mL	1,1,1-Trichloroethane	40 mg/L
							1,1,2,2-Tetrachloroethane	40 mg/L
							1,1,2-Trichloroethane	40 mg/L
							1,1-Dichloroethane	40 mg/L
							1,1-Dichloroethene	40 mg/L
							1,2-Dichloroethane	40 mg/L
							1,2-Dichloropropane	40 mg/L
							Benzene	40 mg/L
							Bromodichloromethane	40 mg/L
							Bromoform	40 mg/L
							Carbon tetrachloride	40 mg/L
							Chlorobenzene	40 mg/L
							Chloroform	40 mg/L
							cis-1,2-Dichloroethene	40 mg/L
							cis-1,3-Dichloropropene	40 mg/L
							Dibromochloromethane	40 mg/L
							Ethylbenzene	40 mg/L
							m&p-Xylene	80 mg/L
							Methylene Chloride	40 mg/L
							Naphthalene	40 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o-Xylene	40 mg/L
							Styrene	40 mg/L
							Tetrachloroethene	40 mg/L
							Toluene	40 mg/L
							trans-1,2-Dichloroethene	40 mg/L
							trans-1,3-Dichloropropene	40 mg/L
							Trichloroethene	40 mg/L
					MSV_Q#3B_00063	1 mL	2-Butanone	300 mg/L
							2-Hexanone	200 mg/L
							4-Methyl-2-pentanone	200 mg/L
							Acetone	300 mg/L
					MSV_Q#4C_00066	1 mL	Carbon disulfide	40 mg/L
							Freon 113	40 mg/L
.MSV_Q#1B_00071	04/30/22		Restek, Lot A0148625		(Purchased Reagent)		1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							m&p-Xylene	2000 ug/mL
							Methylene Chloride	1000 ug/mL
							Naphthalene	1000 ug/mL
							o-Xylene	1000 ug/mL
							Styrene	1000 ug/mL
							Tetrachloroethene	1000 ug/mL
							Toluene	1000 ug/mL
							trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_Q#3B_00063	09/30/21		Restek, Lot A0158722		(Purchased Reagent)		2-Butanone	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone	5000 ug/mL
							Acetone	7500 ug/mL
.MSV_Q#4C_00066	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Freon 113	1000 ug/mL
MSV_Q_QVOA1_00073	03/31/21	03/22/21	Methanol, Lot DZ644	25 mL	MSV_Q#1B_00092	1 mL	1,1,1-Trichloroethane	40 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	40 mg/L
							1,1,2-Trichloroethane	40 mg/L
							1,1-Dichloroethane	40 mg/L
							1,1-Dichloroethene	40 mg/L
							1,2-Dichloroethane	40 mg/L
							1,2-Dichloropropane	40 mg/L
							Benzene	40 mg/L
							Bromodichloromethane	40 mg/L
							Bromoform	40 mg/L
							Carbon tetrachloride	40 mg/L
							Chlorobenzene	40 mg/L
							Chloroform	40 mg/L
							cis-1,2-Dichloroethene	40 mg/L
							cis-1,3-Dichloropropene	40 mg/L
							Dibromochloromethane	40 mg/L
							Ethylbenzene	40 mg/L
							m&p-Xylene	80 mg/L
							Methylene Chloride	40 mg/L
							Naphthalene	40 mg/L
							o-Xylene	40 mg/L
							Styrene	40 mg/L
							Tetrachloroethene	40 mg/L
							Toluene	40 mg/L
							trans-1,2-Dichloroethene	40 mg/L
							trans-1,3-Dichloropropene	40 mg/L
							Trichloroethene	40 mg/L
					MSV_Q#3B_00081	1 mL	2-Butanone	300 mg/L
							2-Hexanone	200 mg/L
							4-Methyl-2-pentanone	200 mg/L
							Acetone	300 mg/L
					MSV_Q#4C_00088	1 mL	Carbon disulfide	40 mg/L
							Freon 113	40 mg/L
.MSV_Q#1B_00092	10/31/23		Restek, Lot A0165522		(Purchased Reagent)		1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	1000 ug/mL
							m&p-Xylene	2000 ug/mL
							Methylene Chloride	1000 ug/mL
							Naphthalene	1000 ug/mL
							o-Xylene	1000 ug/mL
							Styrene	1000 ug/mL
							Tetrachloroethene	1000 ug/mL
							Toluene	1000 ug/mL
							trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_Q#3B_00081	09/30/21		Restek, Lot A0158722		(Purchased Reagent)		2-Butanone	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone	5000 ug/mL
							Acetone	7500 ug/mL
.MSV_Q#4C_00088	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Freon 113	1000 ug/mL
MSV_Q_VOA5_00018	12/19/20	11/19/20	Methanol, Lot DZ644	25 mL	MSV_QAcetate_00017	1.25 mL	Vinyl acetate	50 ug/mL
.MSV_QAcetate_00017	05/31/21		Restek, Lot A0155415		(Purchased Reagent)		Vinyl acetate	1000 ug/mL
MSV_Q_VOA5_00024	04/10/21	03/11/21	Methanol, Lot DZ644	25 mL	MSV_QAcetate_00022	1.25 mL	Vinyl acetate	50 ug/mL
.MSV_QAcetate_00022	04/10/21		Restek, Lot A0155415		(Purchased Reagent)		Vinyl acetate	1000 ug/mL
MSV_Q_VTP_SIM_00019	11/02/20	10/26/20	Methanol, Lot DX212	10 mL	MSV_Q_SIM8260_00010	100 uL	Tetrachloroethene	20 ug/mL
.MSV_Q_SIM8260_00010	11/11/20		Restek, Lot A0136275		(Purchased Reagent)		Tetrachloroethene	2000 ug/mL
MSV_Q_VTP_SIM_00027	03/29/21	03/23/21	Methanol, Lot DZ644	10 mL	MSV_Q_SIM8260_00014	100 uL	Tetrachloroethene	20 ug/mL
.MSV_Q_SIM8260_00014	04/22/21		Restek, Lot A0136275		(Purchased Reagent)		Tetrachloroethene	2000 ug/mL
MSV_QGAS_826_00093	12/07/20	11/30/20	Methanol, Lot DZ644	1 mL	MSV_502QGas_00120	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00120	12/07/20		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QGAS_826_00117	03/29/21	03/22/21	Methanol, Lot DZ644	1 mL	MSV_502QGas_00158	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00158	03/29/21		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MSV_RV1_826_00031	12/26/20	11/30/20	Methanol, Lot DZ644	1 mL	MSV_V#1B_00127	10 uL	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-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-Trichlorobenzene	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-Chlorohexane	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Ethylene Dibromide	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m&p-Xylene	100 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	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
					MSV_V#2B_00161	10 uL	1,4-Dioxane	2500 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V#4C_00107	10 uL	1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							Benzyl chloride	50 ug/mL
							Butadiene	50 ug/mL
							Carbon disulfide	50 ug/mL
							Cyclohexane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Freon 113	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isopropyl ether	50 ug/mL
							Methyl methacrylate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							n-Heptane	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					MSV_V_VOA2_00060	150 uL	1,4-Dioxane	2500 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V_VOA3_00057	100 uL	2-Butanone	500 ug/mL
							2-Hexanone	500 ug/mL
							2-Nitropropane	500 ug/mL
							4-Methyl-2-pentanone	500 ug/mL
							Acetone	500 ug/mL
							Acrylonitrile	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Acrolein	2500.07 ug/mL
.MSV_V#1B_00127	12/30/20		Restek, Lot A0158586		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	5000 ug/mL
							1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	5000 ug/mL
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,1-Dichloropropene	5000 ug/mL
							1,2,3-Trichlorobenzene	5000 ug/mL
							1,2,3-Trichloropropane	5000 ug/mL
							1,2,4-Trichlorobenzene	5000 ug/mL
							1,2,4-Trimethylbenzene	5000 ug/mL
							1,2-Dibromo-3-Chloropropane	5000 ug/mL
							1,2-Dichlorobenzene	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							1,3,5-Trichlorobenzene	5000 ug/mL
							1,3,5-Trimethylbenzene	5000 ug/mL
							1,3-Dichlorobenzene	5000 ug/mL
							1,3-Dichloropropane	5000 ug/mL
							1,4-Dichlorobenzene	5000 ug/mL
							1-Chlorohexane	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL
							2-Chlorotoluene	5000 ug/mL
							4-Chlorotoluene	5000 ug/mL
							4-Isopropyltoluene	5000 ug/mL
							Benzene	5000 ug/mL
							Bromobenzene	5000 ug/mL
							Bromodichloromethane	5000 ug/mL
							Bromoform	5000 ug/mL
							Carbon tetrachloride	5000 ug/mL
							Chlorobenzene	5000 ug/mL
							Chloroform	5000 ug/mL
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Dibromomethane	5000 ug/mL
							Ethylbenzene	5000 ug/mL
							Ethylene Dibromide	5000 ug/mL
							Hexachlorobutadiene	5000 ug/mL
							Isopropylbenzene	5000 ug/mL
							m&p-Xylene	10000 ug/mL
							Methylene Chloride	5000 ug/mL
							n-Butylbenzene	5000 ug/mL
							N-Propylbenzene	5000 ug/mL
							Naphthalene	5000 ug/mL
							o-Xylene	5000 ug/mL
							sec-Butylbenzene	5000 ug/mL
							Styrene	5000 ug/mL
							tert-Butylbenzene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
.MSV_V#2B_00161	12/30/20		Restek, Lot A0159694		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
.MSV_V#4C_00107	12/30/20		Restek, Lot A0158660		(Purchased Reagent)		1,2-Dichloro-1,1,2-trifluoroethane	5000 ug/mL
							2-Chloro-1,3-butadiene	5000 ug/mL
							Benzyl chloride	5000 ug/mL
							Butadiene	5000 ug/mL
							Carbon disulfide	5000 ug/mL
							Cyclohexane	5000 ug/mL
							Ethyl methacrylate	5000 ug/mL
							Freon 113	5000 ug/mL
							Hexane	5000 ug/mL
							Iodomethane	5000 ug/mL
							Isopropyl ether	5000 ug/mL
							Methyl methacrylate	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
							n-Heptane	5000 ug/mL
							Tert-amyl methyl ether	5000 ug/mL
							Tert-butyl ethyl ether	5000 ug/mL
.MSV_V_VOA2_00060	12/30/20	11/30/20	Methanol, Lot DZ644	5 mL	MSV_V#2B_00161	1 mL	1,4-Dioxane	12500 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Methacrylonitrile	2500 ug/mL
							n-Butanol	25000 ug/mL
							Propionitrile	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_V#2B_00161	12/30/20		Restek, Lot A0159694		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
.MSV_V_VOA3_00057	12/26/20	11/30/20	Methanol, Lot DZ644	5 mL	MSV_V#3B_00070	1 mL	2-Butanone	5000 ug/mL
							2-Hexanone	5000 ug/mL
							2-Nitropropane	5000 ug/mL
							4-Methyl-2-pentanone	5000 ug/mL
							Acetone	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_VACR_00013	1 mL	Acrolein	25000.7 ug/mL
..MSV_V#3B_00070	12/30/20	Restek, Lot A0158677			(Purchased Reagent)		2-Butanone	25000 ug/mL
							2-Hexanone	25000 ug/mL
							2-Nitropropane	25000 ug/mL
							4-Methyl-2-pentanone	25000 ug/mL
							Acetone	25000 ug/mL
							Acrylonitrile	12500 ug/mL
							Tetrahydrofuran	25000 ug/mL
..MSV_VACR_00013	12/26/20	10/27/20	Methanol, Lot DX212	10 mL	MSV_VACR_STK_00015	9.067 mL	Acrolein	125004 ug/mL
...MSV_VACR_STK_00015	12/26/20	10/27/20	Methanol, Lot DX212	10 mL	MSV_ACROLEIN_00008	1.462 g	Acrolein	137867 ug/mL
....MSV_ACROLEIN_00008	12/31/20	Chem Service, Lot 10410200			(Purchased Reagent)		Acrolein	0.943 g/g
MSV_RV1_826_00041	03/31/21	03/08/21	Methanol, Lot DZ644	1 mL	MSV_V#1B_00146	10 uL	1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							Benzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							m&p-Xylene	100 ug/mL
							Methylene Chloride	50 ug/mL
							Naphthalene	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
					MSV_V#4C_00126	10 uL	Carbon disulfide	50 ug/mL
							Freon 113	50 ug/mL
					MSV_V_VOA3_00072	100 uL	2-Butanone	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone	500 ug/mL
							Acetone	500 ug/mL
.MSV_V#1B_00146	03/31/23	Restek, Lot A0158586			(Purchased Reagent)		1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL
							1,1,2-Trichloroethane	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							Benzene	5000 ug/mL
							Bromodichloromethane	5000 ug/mL
							Bromoform	5000 ug/mL
							Carbon tetrachloride	5000 ug/mL
							Chlorobenzene	5000 ug/mL
							Chloroform	5000 ug/mL
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Ethylbenzene	5000 ug/mL
							m&p-Xylene	10000 ug/mL
							Methylene Chloride	5000 ug/mL
							Naphthalene	5000 ug/mL
							o-Xylene	5000 ug/mL
							Styrene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
.MSV_V#4C_00126	03/31/21	Restek, Lot A0158660			(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Freon 113	5000 ug/mL
.MSV_V_VOA3_00072	04/07/21	03/08/21	Methanol, Lot DZ644	5 mL	MSV_V#3B_00085	1 mL	2-Butanone	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone	5000 ug/mL
							Acetone	5000 ug/mL
..MSV_V#3B_00085	04/07/21	Restek, Lot A0158677			(Purchased Reagent)		2-Butanone	25000 ug/mL
							2-Hexanone	25000 ug/mL
							4-Methyl-2-pentanone	25000 ug/mL
							Acetone	25000 ug/mL
MSV_RV4_826_00035	12/19/20	11/30/20	Methanol, Lot DZ644	1 mL	MSV_V_EE_00004	50 uL	Ethyl ether	50.0108 ug/mL
					MSV_V_VOA6_00063	50 uL	1,2,3-Trimethylbenzene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							Chlorobromomethane	50 ug/mL
							Methyl acetate	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Pentachloroethane	50 ug/mL
.MSV_V_EE_00004	04/21/21	10/21/20	Methanol, Lot DX212	100 mL	MSV_EE_MISCSK_00005	1.434 mL	Ethyl ether	1000.22 ug/mL
..MSV_EE_MISCSK_00005	04/21/21	10/21/20	Methanol, Lot DX212	10 mL	MSV_EE_Neat_00003	0.6975 g	Ethyl ether	69750 ug/mL
...MSV_EE_Neat_00003	11/30/21	Chem Service, Lot 7967000			(Purchased Reagent)		Ethyl ether	1 g/g
.MSV_V_VOA6_00063	12/25/20	11/25/20	Methanol, Lot DZ644	5 mL	MSV_V#6_00046	1 mL	1,2,3-Trimethylbenzene	1000 ug/mL
							3-Chloro-1-propene	1000 ug/mL
							Chlorobromomethane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							Pentachloroethane	1000 ug/mL
..MSV_V#6_00046	12/25/20	Restek, Lot A0158625			(Purchased Reagent)		1,2,3-Trimethylbenzene	5000 ug/mL
							3-Chloro-1-propene	5000 ug/mL
							Chlorobromomethane	5000 ug/mL
							Methyl acetate	5000 ug/mL
							Methylcyclohexane	5000 ug/mL
							Pentachloroethane	5000 ug/mL
MSV_RV4GAS826_00097	12/07/20	11/30/20	Methanol, Lot DZ644	1 mL	MSV_DCFM_00030	25 uL	Dichlorofluoromethane	50 ug/mL
					MSV_V_Gas_00176	25 uL	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
.MSV_DCFM_00030	12/19/20	AccuStandard, Lot 220101035			(Purchased Reagent)		Dichlorofluoromethane	2000 ug/mL
.MSV_V_Gas_00176	12/07/20	Restek, Lot A0159812			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_RV4GAS826_00120	03/29/21	03/22/21	Methanol, Lot DZ644	1 mL	MSV_V_Gas_00225	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_V_Gas_00225	03/29/21	Restek, Lot A0159812			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00003							1,2-Dichloroethene, Total	
							1,3-Dichlorobutene-2(total)	
							1,3-Dichloropropene, Total	
							divinyl benzene	
							Tentatively Identified Compound	
							Total Diethylbenzene	
							Xylenes, Total	
					MSV_VBFB_STK_00004	0.117 mL	BFB	50.0245 ug/mL
.MSV_VBFB_STK_00004	01/22/21	07/22/20	Methanol, Lot DX212	10 mL	MSV_4BFB_NEAT_00002	1.0689 g	BFB	106890 ug/mL
..MSV_4BFB_NEAT_00002	01/31/21	Chem Service, Lot 8601300			(Purchased Reagent)		BFB	1 g/g
MSV_V_BFB_00004							1,2-Dichloroethene, Total	
							1,3-Dichlorobutene-2(total)	
							1,3-Dichloropropene, Total	

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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		
							divinyl benzene	
							Tentatively Identified Compound	
							Total Diethylbenzene	
							Xylenes, Total	
					MSV_VBFB_STK_00005	0.124 mL	BFB	49.8282 ug/mL
.MSV_VBFB_STK_00005	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_4BFB_NEAT_00004	1.0046 g	BFB	100460 ug/mL
..MSV_4BFB_NEAT_00004	02/28/25	Chem Service, Lot 10727100			(Purchased Reagent)		BFB	1 g/g
MSV_V_REV4_25_00016	12/30/20	11/30/20	Methanol, Lot DZ644	10 mL	MSV_REV4_B_00013	1 mL	Methyl acrylate	250 ug/mL
					MSV_REV4A25mL_00006	1 mL	1-Chlorobutane	50 ug/mL
							Chloroacetonitrile	2500 ug/mL
.MSV_REV4_B_00013	09/30/23	Restek, Lot A0164244			(Purchased Reagent)		Methyl acrylate	2500 ug/mL
.MSV_REV4A25mL_00006	03/31/21	Restek, Lot A0158507			(Purchased Reagent)		1-Chlorobutane	500 ug/mL
							Chloroacetonitrile	25000 ug/mL
MSV_V_SMRV4_00015	12/16/20	11/16/20	Methanol, Lot DX212	1 mL	MSV_V_2CEVE_00122	200 uL	2-Chloroethyl vinyl ether	200 ug/mL
					MSV_VLKB_00004	400 uL	cis-1,4-Dichloro-2-butene	399.86 ug/mL
.MSV_V_2CEVE_00122	12/16/20	11/16/20	Methanol, Lot DZ644	5 mL	MSV_V1B_2CEVE_00094	1 mL	2-Chloroethyl vinyl ether	1000 ug/mL
..MSV_V1B_2CEVE_00094	03/31/23	Restek, Lot A0158674			(Purchased Reagent)		2-Chloroethyl vinyl ether	5000 ug/mL
.MSV_VLKB_00004	03/09/21	09/09/20	Methanol, Lot DX212	50 mL	MSV_Vc14d_STK_00003	0.954 mL	cis-1,4-Dichloro-2-butene	999.649 ug/mL
..MSV_Vc14d_STK_00003	03/09/21	09/09/20	Methanol, Lot Dx212	10 mL	MSV_c14dcb_Nt_00003	0.5515 g	cis-1,4-Dichloro-2-butene	52392.5 ug/mL
...MSV_c14dcb_Nt_00003	08/11/25	Aldrich, Lot SHBH4584V			(Purchased Reagent)		cis-1,4-Dichloro-2-butene	0.95 g/g
MSV_V_VOA5_00016	12/09/20	11/09/20	Methanol, Lot DZ644	10 mL	MSV_V_Acetate_00013	1 mL	Ethyl acetate	200 ug/mL
							Vinyl acetate	200 ug/mL
.MSV_V_Acetate_00013	05/31/21	Restek, Lot A0155352			(Purchased Reagent)		Ethyl acetate	2000 ug/mL
							Vinyl acetate	2000 ug/mL
MSV_V_VOA5_00020	04/10/21	03/11/21	Methanol, Lot DZ644	10 mL	MSV_V_Acetate_00018	1 mL	Vinyl acetate	200 ug/mL
.MSV_V_Acetate_00018	04/10/21	Restek, Lot A0155352			(Purchased Reagent)		Vinyl acetate	2000 ug/mL
MSV_V_VTP_SIM_00006	11/02/20	10/26/20	Methanol, Lot DX212	10 mL	MSV_V_Gas_00161	100 uL	Vinyl chloride	20 ug/mL
					MSV_V_SIM_00012	100 uL	1,1-Dichloroethene	20 ug/mL
							cis-1,2-Dichloroethene	20 ug/mL
							Tetrachloroethene	20 ug/mL
							Trichloroethene	20 ug/mL
.MSV_V_Gas_00161	11/02/20	Restek, Lot A0159812			(Purchased Reagent)		Vinyl chloride	2000 ug/mL
.MSV_V_SIM_00012	11/11/20	Restek, Lot A0136282			(Purchased Reagent)		1,1-Dichloroethene	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Trichloroethene	2000 ug/mL
MSV_V_VTP_SIM_00016	03/29/21	03/23/21	Methanol, Lot DZ644	10 mL	MSV_V_SIM_00016	100 uL	Tetrachloroethene	20 ug/mL
.MSV_V_SIM_00016	04/22/21	Restek, Lot A0136282			(Purchased Reagent)		Tetrachloroethene	2000 ug/mL
MSV_VAcet_00006	04/21/21	10/21/20	Methanol, Lot DX212	100 mL	MSV_Acet_MSTK_00005	1.679 mL	Acetonitrile	4999.39 ug/mL
.MSV_Acet_MSTK_00005	04/21/21	10/21/20	Methanol, Lot DX212	10 mL	MSV_Acet_00007	2.9776 g	Acetonitrile	297760 ug/mL
..MSV_Acet_00007	04/30/22	Chem Service, Lot 9195700			(Purchased Reagent)		Acetonitrile	1 g/g
MSV_VCYC_00005	02/19/21	08/19/20	50/50 MeOH/Water, Lot DX212	200 mL	MSV_VCYC_STK_00004	6.093 mL	Cyclohexanone	6249.59 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_VCYC_STK_00004	02/19/21	08/19/20	50/50 MeOH/Water, Lot DX212	10 mL	MSV_CYC_00003	2.0514 g	Cyclohexanone	205140 ug/mL
..MSV_CYC_00003	05/31/23	Chem Service, Lot 10135700			(Purchased Reagent)		Cyclohexanone	1 g/g
MT_LCSSPK_SCP_00005	10/21/21	SCP Science, Lot S201020005			(Purchased Reagent)		Ag	5 mg/L
							Al	101.3 mg/L
							Arsenic	15 mg/L
							B	15 mg/L
							Ba	2.5 mg/L
							Be	2.5 mg/L
							Ca	100.1 mg/L
							Cd	2.5 mg/L
							Co	2.5 mg/L
							Copper	10 mg/L
							Cr	7.5 mg/L
							Fe	100.1 mg/L
							K	1500 mg/L
							Li	25 mg/L
							Mg	50 mg/L
							Mn	5 mg/L
							Mo	5 mg/L
							Na	500 mg/L
							Ni	501 mg/L
							P	50 mg/L
							Pb	7.5 mg/L
							Sb	25 mg/L
							Se	25 mg/L
							Si	250.6 mg/L
							Sn	25 mg/L
							Sr	2.5 mg/L
							Sulfur	250.5 mg/L
							Ti	5 mg/L
							Tl	15 mg/L
							V	5 mg/L
							W	15 mg/L
							Zn	100.9 mg/L
							Zr	25 mg/L
MT_MJ_CCV_00081	04/16/21	03/17/21	J, Lot 1042378	1 L	MT_S_C1001_SC_00001	1.5 mL	Arsenic	0.29835 ug/mL
							Copper	0.3003 ug/mL
.MT_S_C1001_SC_00001	04/30/21	SCP Science, Lot S200325039			(Purchased Reagent)		Arsenic	198.9 ug/mL
							Copper	200.2 ug/mL
MT_MJ_CCV_00083	04/24/21	03/24/21	DI Water, Lot DI20210324	1 L	MT_S_C1001_SC_00001	1.5 mL	Arsenic	0.29835 ug/mL
							Copper	0.3003 ug/mL
.MT_S_C1001_SC_00001	04/30/21	SCP Science, Lot S200325039			(Purchased Reagent)		Arsenic	198.9 ug/mL
							Copper	200.2 ug/mL
MT_MJ_CRI-V_00020	04/14/21	03/19/21	J, Lot 1042378	500 mL	MT_S_MWLLC_SC_00002	0.5 mL	Arsenic	2.01 ug/L
							Copper	0.999 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MT_S_MWLLC_SC_00002	08/31/21	SCP Science, Lot S200803037			(Purchased Reagent)		Arsenic	2.01 ug/mL
							Copper	0.999 ug/mL
MT_MJ_CRI-V_00022	04/14/21	03/24/21	J, Lot 1078027	500 mL	MT_S_MWLLC_SC_00002	0.5 mL	Arsenic	2.01 ug/L
							Copper	0.999 ug/L
.MT_S_MWLLC_SC_00002	08/31/21	SCP Science, Lot S200803037			(Purchased Reagent)		Arsenic	2.01 ug/mL
							Copper	0.999 ug/mL
MT_MJ_ICSA_00030	04/16/21	03/17/21	J, Lot 1042378	500 mL	MT_S_ICS2A_HP_00014	50 mL	Al	100 ug/mL
							Arsenic	0.0004 ug/mL
							Ba	0.0005 ug/mL
							Ca	300 ug/mL
							Cd	0.000291 ug/mL
							Co	0.0025 ug/mL
							Copper	0.0006 ug/mL
							Cr	0.0014 ug/mL
							Fe	250 ug/mL
							K	100 ug/mL
							Mg	100 ug/mL
							Mn	0.002 ug/mL
							Mo	2 ug/mL
							Na	250 ug/mL
							Ni	0.0017 ug/mL
							Pb	0.0003 ug/mL
							Sb	0.0003 ug/mL
							Sr	0.0018 ug/mL
							Ti	2 ug/mL
							V	0.0002 ug/mL
							Zn	0.0022 ug/mL
.MT_S_ICS2A_HP_00014	11/30/21	High-Purity Standards, Lot 2005507			(Purchased Reagent)		Al	1000 ug/mL
							Arsenic	0.004 ug/mL
							Ba	0.005 ug/mL
							Ca	3000 ug/mL
							Cd	0.00291 ug/mL
							Co	0.025 ug/mL
							Copper	0.006 ug/mL
							Cr	0.014 ug/mL
							Fe	2500 ug/mL
							K	1000 ug/mL
							Mg	1000 ug/mL
							Mn	0.02 ug/mL
							Mo	20 ug/mL
							Na	2500 ug/mL
							Ni	0.017 ug/mL
							Pb	0.003 ug/mL
							Sb	0.003 ug/mL
							Sr	0.018 ug/mL
							Ti	20 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							V	0.002 ug/mL
							Zn	0.022 ug/mL
MT_MJ_ICSAB_00024	03/31/21	03/17/21	J, Lot 1042378	500 mL	MT_S_ICS2A_HP_00014	50 mL	Al	100 ug/mL
							Arsenic	0.1004 ug/mL
							Ba	0.0005 ug/mL
							Ca	300 ug/mL
							Cd	0.100291 ug/mL
							Co	0.2025 ug/mL
							Copper	0.2006 ug/mL
							Cr	0.2014 ug/mL
							Fe	250 ug/mL
							K	100 ug/mL
							Mg	100 ug/mL
							Mn	0.202 ug/mL
							Mo	2 ug/mL
							Na	250 ug/mL
							Ni	0.2017 ug/mL
							Pb	0.0003 ug/mL
							Sb	0.0003 ug/mL
							Sr	0.0018 ug/mL
							Ti	2 ug/mL
							V	0.2002 ug/mL
							Zn	0.1022 ug/mL
					MT_S_ICS2B_HP_00004	5 mL	Ag	0.05 ug/mL
							Arsenic	0.1004 ug/mL
							Cd	0.100291 ug/mL
							Co	0.2025 ug/mL
							Copper	0.2006 ug/mL
							Cr	0.2014 ug/mL
							Mn	0.202 ug/mL
							Ni	0.2017 ug/mL
							Se	0.1 ug/mL
							V	0.2002 ug/mL
							Zn	0.1022 ug/mL
.MT_S_ICS2A_HP_00014	11/30/21	High-Purity Standards, Lot 2005507			(Purchased Reagent)		Al	1000 ug/mL
							Arsenic	0.004 ug/mL
							Ba	0.005 ug/mL
							Ca	3000 ug/mL
							Cd	0.00291 ug/mL
							Co	0.025 ug/mL
							Copper	0.006 ug/mL
							Cr	0.014 ug/mL
							Fe	2500 ug/mL
							K	1000 ug/mL
							Mg	1000 ug/mL
							Mn	0.02 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mo	20 ug/mL
							Na	2500 ug/mL
							Ni	0.017 ug/mL
							Pb	0.003 ug/mL
							Sb	0.003 ug/mL
							Sr	0.018 ug/mL
							Ti	20 ug/mL
							V	0.002 ug/mL
							Zn	0.022 ug/mL
.MT_S_ICS2B_HP_00004	03/31/21	High-Purity Standards, Lot 1811324			(Purchased Reagent)		Ag	5 ug/mL
							Arsenic	10 ug/mL
							Cd	10 ug/mL
							Co	20 ug/mL
							Copper	20 ug/mL
							Cr	20 ug/mL
							Mn	20 ug/mL
							Ni	20 ug/mL
							Se	10 ug/mL
							V	20 ug/mL
							Zn	10 ug/mL
MT_MJ_ICV_00032	04/16/21	03/17/21	J, Lot 1042378	500 mL	MT_S_MSCCV_SP_00001	0.75 mL	Arsenic	0.3 ug/mL
							Copper	0.30045 ug/mL
.MT_S_MSCCV_SP_00001	05/26/21	SCP Science, Lot S200507006			(Purchased Reagent)		Arsenic	200 ug/mL
							Copper	200.3 ug/mL
MT_MJ_LRC_00035	04/16/21	03/17/21	J, Lot 1042378	500 mL	MT_S_CCV2_SCP_00002	2.5 mL	Arsenic	0.5025 ug/mL
							Copper	0.5015 ug/mL
.MT_S_CCV2_SCP_00002	08/31/21	SCP Science, Lot S200727003			(Purchased Reagent)		Arsenic	100.5 ug/mL
							Copper	100.3 ug/mL
MT_MJ_S1_00024	04/14/21	03/15/21	J, Lot 1042378	500 mL	MT_S_C1001_SC_00001	2.5 mL	Arsenic	0.9945 ug/mL
							Copper	1.001 ug/mL
.MT_S_C1001_SC_00001	04/30/21	SCP Science, Lot S200325039			(Purchased Reagent)		Arsenic	198.9 ug/mL
							Copper	200.2 ug/mL
WC_AmpCNCCV_00018	03/29/21	03/22/21	NaOH, Lot 770303	100 mL	WC_FL_LLCNQC_00080	2.5 mL	Cyanide, Free	0.025 mg/L
.WC_FL_LLCNQC_00080	03/29/21	03/22/21	NaOH, Lot 770303	100 mL	WC_FL_CNVeriS_00004	0.1 mL	Cyanide, Free	1 mg/L
..WC_FL_CNVeriS_00004	04/30/21	SPEX CertiPrep, Lot 13-98YPX			(Purchased Reagent)		Cyanide, Free	1000 mg/L
WC_FL_FCNLCS_00015	03/29/21	03/22/21	NaOH, Lot 770303	25 mL	WC_FL_LLCNQC_00080	1 mL	Cyanide, Free	0.04 mg/L
.WC_FL_LLCNQC_00080	03/29/21	03/22/21	NaOH, Lot 770303	100 mL	WC_FL_CNVeriS_00004	0.1 mL	Cyanide, Free	1 mg/L
..WC_FL_CNVeriS_00004	04/30/21	SPEX CertiPrep, Lot 13-98YPX			(Purchased Reagent)		Cyanide, Free	1000 mg/L

Sample Container Check Report

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

Sample Container Checks and Verifications

Lab Sample ID: 410-33023-10 — Client Sample ID: PL2-619A-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check	USWF	03/19/2021	>12	>12	N/A	N/A	N/A	N/A	N/A
A	Chlorine Check	USWF	03/19/2021	N	N/A	N/A	N/A	N/A	N/A	N/A
A	Sulfide Check	USWF	03/19/2021	N	N/A	N/A	N/A	N/A	N/A	N/A
B	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Lab Sample ID: 410-33023-2 — Client Sample ID: PL2-258A-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Lab Sample ID: 410-33023-3 — Client Sample ID: PL2-258B-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Lab Sample ID: 410-33023-5 — Client Sample ID: PL2-271A-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Lab Sample ID: 410-33023-6 — Client Sample ID: PL2-214A-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Lab Sample ID: 410-33023-7 — Client Sample ID: PL2-214B-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	USA6	03/22/2021	6	<2	N/A	193785	10/31/2024	<2	N/A

Lab Sample ID: 410-33023-9 — Client Sample ID: PL2-213A-210317

Bottle Code	Check Performed	By Employee	Date	Check Result	Expected Result	Adjusted Date	Reagent Lot #	Reagent Expires	Re-check Result	Re-check Date
A	pH Check, 24hr Adjustment Confirmation Required	CFQ7	03/19/2021	<2	<2	N/A	N/A	N/A	N/A	N/A

Method 8260D Low Level

Volatile Organic Compounds (GC/MS) by Method 8260D Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
Trip Blanks	410-33023-1	102	101	100	96
PL2-258A-210317	410-33023-2	103	104	100	97
PL2-258B-210317	410-33023-3	103	105	99	97
PL2-258C-210317	410-33023-4	103	107	99	96
PL2-271A-210317	410-33023-5	101	102	101	97
PL2-214A-210317	410-33023-6	102	103	101	97
PL2-214B-210317	410-33023-7	102	107	100	97
PL2-214C-210317	410-33023-8	104	110	99	95
PL2-213A-210317	410-33023-9	102	104	100	97
PL2-619A-210317	410-33023-10	102	100	100	96
	MB 410-107422/10	103	100	99	96
	LCS 410-107422/5	102	101	100	97
	LCS 410-107422/7	103	104	100	97
	LCSD 410-107422/6	103	102	101	96
	LCSD 410-107422/8	102	104	99	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GM25L31.D

Lab ID: LCS 410-107422/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	5.00	4.826	97	78-126	
1,1,2,2-Tetrachloroethane	5.00	4.797	96	75-123	
1,1,2-Trichloroethane	5.00	4.949	99	80-120	
1,1-Dichloroethane	5.00	4.605	92	74-120	
1,1-Dichloroethene	5.00	4.782	96	80-131	
1,2-Dichloroethane	5.00	4.722	94	69-122	
1,2-Dichloropropane	5.00	4.668	93	80-120	
2-Butanone	37.5	34.45	92	59-141	
2-Hexanone	25.0	22.11	88	52-140	
4-Methyl-2-pentanone	25.0	21.71	87	55-140	
Acetone	37.5	35.17	94	60-146	
Benzene	5.00	4.675	94	80-120	
Bromodichloromethane	5.00	4.872	97	73-124	
Bromoform	5.00	5.246	105	49-144	
Bromomethane	5.00	4.589	92	60-136	
Carbon disulfide	5.00	4.404	88	67-130	
Carbon tetrachloride	5.00	4.940	99	64-141	
Chlorobenzene	5.00	4.897	98	80-120	
Chloroethane	5.00	4.492	90	63-120	
Chloroform	5.00	4.738	95	80-120	
Chloromethane	5.00	4.329	87	56-124	
cis-1,2-Dichloroethene	5.00	4.795	96	80-122	
cis-1,3-Dichloropropene	5.00	4.436	89	67-121	
Dibromochloromethane	5.00	5.033	101	64-138	
Naphthalene	5.00	4.881	98	64-122	
Ethylbenzene	5.00	4.670	93	80-120	
Freon 113	5.00	4.782	96	75-133	
m&p-Xylene	10.0	9.663	97	80-120	
Methylene Chloride	5.00	4.836	97	80-120	
o-Xylene	5.00	4.827	97	80-120	
Styrene	5.00	4.790	96	80-120	
Tetrachloroethene	5.00	5.194	104	80-120	
Toluene	5.00	4.579	92	80-120	
trans-1,2-Dichloroethene	5.00	4.762	95	80-122	
trans-1,3-Dichloropropene	5.00	4.552	91	61-129	
Trichloroethene	5.00	4.816	96	80-120	
Trichlorofluoromethane	5.00	5.225	104	62-136	
Vinyl chloride	5.00	4.593	92	60-125	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GM25L33.D

Lab ID: LCS 410-107422/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Vinyl acetate	12.5	7.125	57	38-145	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GM25L32.D

Lab ID: LCSD 410-107422/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	5.00	4.624	92	4	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	4.574	91	5	30	75-123	
1,1,2-Trichloroethane	5.00	4.824	96	3	30	80-120	
1,1-Dichloroethane	5.00	4.379	88	5	30	74-120	
1,1-Dichloroethene	5.00	4.532	91	5	30	80-131	
1,2-Dichloroethane	5.00	4.561	91	3	30	69-122	
1,2-Dichloropropane	5.00	4.455	89	5	30	80-120	
2-Butanone	37.5	34.28	91	1	30	59-141	
2-Hexanone	25.0	22.10	88	0	30	52-140	
4-Methyl-2-pentanone	25.0	21.78	87	0	30	55-140	
Acetone	37.5	34.32	92	2	30	60-146	
Benzene	5.00	4.468	89	5	30	80-120	
Bromodichloromethane	5.00	4.557	91	7	30	73-124	
Bromoform	5.00	4.984	100	5	30	49-144	
Bromomethane	5.00	4.535	91	1	30	60-136	
Carbon disulfide	5.00	4.153	83	6	30	67-130	
Carbon tetrachloride	5.00	4.727	95	4	30	64-141	
Chlorobenzene	5.00	4.677	94	5	30	80-120	
Chloroethane	5.00	4.241	85	6	30	63-120	
Chloroform	5.00	4.572	91	4	30	80-120	
Chloromethane	5.00	4.295	86	1	30	56-124	
cis-1,2-Dichloroethene	5.00	4.622	92	4	30	80-122	
cis-1,3-Dichloropropene	5.00	4.280	86	4	30	67-121	
Dibromochloromethane	5.00	4.869	97	3	30	64-138	
Naphthalene	5.00	4.769	95	2	30	64-122	
Ethylbenzene	5.00	4.475	89	4	30	80-120	
Freon 113	5.00	4.597	92	4	30	75-133	
m&p-Xylene	10.0	9.181	92	5	30	80-120	
Methylene Chloride	5.00	4.705	94	3	30	80-120	
o-Xylene	5.00	4.621	92	4	30	80-120	
Styrene	5.00	4.628	93	3	30	80-120	
Tetrachloroethene	5.00	4.867	97	7	30	80-120	
Toluene	5.00	4.465	89	3	30	80-120	
trans-1,2-Dichloroethene	5.00	4.564	91	4	30	80-122	
trans-1,3-Dichloropropene	5.00	4.390	88	4	30	61-129	
Trichloroethene	5.00	4.577	92	5	30	80-120	
Trichlorofluoromethane	5.00	5.040	101	4	30	62-136	
Vinyl chloride	5.00	4.531	91	1	30	60-125	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: GM25L34.D

Lab ID: LCSD 410-107422/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Vinyl acetate	12.5	6.634	53	7	30	38-145	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab File ID: GM25B31.D Lab Sample ID: MB 410-107422/10

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 16334 Date Analyzed: 03/26/2021 00:46

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-107422/5	GM25L31.D	03/25/2021 22:33
	LCSD 410-107422/6	GM25L32.D	03/25/2021 22:55
	LCS 410-107422/7	GM25L33.D	03/25/2021 23:17
	LCSD 410-107422/8	GM25L34.D	03/25/2021 23:40
Trip Blanks	410-33023-1	GM25S32.D	03/26/2021 01:30
PL2-258A-210317	410-33023-2	GM25S36.D	03/26/2021 02:59
PL2-258B-210317	410-33023-3	GM25S37.D	03/26/2021 03:21
PL2-258C-210317	410-33023-4	GM25S38.D	03/26/2021 03:42
PL2-271A-210317	410-33023-5	GM25S39.D	03/26/2021 04:04
PL2-214A-210317	410-33023-6	GM25S40.D	03/26/2021 04:27
PL2-214B-210317	410-33023-7	GM25S41.D	03/26/2021 04:49
PL2-214C-210317	410-33023-8	GM25S42.D	03/26/2021 05:11
PL2-213A-210317	410-33023-9	GM25S43.D	03/26/2021 05:33
PL2-619A-210317	410-33023-10	GM25S44.D	03/26/2021 05:54

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Lab File ID: GN30T01.D BFB Injection Date: 11/30/2020

Instrument ID: 16334 BFB Injection Time: 11:46

Analysis Batch No.: 70996

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.6	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	Greater than 50% of mass 95	79.8	
175	5.0 - 9.0 % of mass 174	6.0	(7.5) 1
176	95.0 - 101.0 % of mass 174	76.1	(95.4) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.8) 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
	IC 410-70996/3	GN30I01.D	11/30/2020	12:50
	ICIS 410-70996/4	GN30I02.D	11/30/2020	13:12
	IC 410-70996/5	GN30I03.D	11/30/2020	13:34
	IC 410-70996/6	GN30I04.D	11/30/2020	13:56
	IC 410-70996/7	GN30I05.D	11/30/2020	14:19
	IC 410-70996/8	GN30I06.D	11/30/2020	14:41
	IC 410-70996/9	GN30I07.D	11/30/2020	15:03
	ICV 410-70996/10	GN30V01.D	11/30/2020	15:26
	IC 410-70996/12	GN30I11.D	11/30/2020	16:10
	IC 410-70996/13	GN30I12.D	11/30/2020	16:32
	IC 410-70996/14	GN30I13.D	11/30/2020	16:54
	IC 410-70996/15	GN30I14.D	11/30/2020	17:16
	IC 410-70996/16	GN30I15.D	11/30/2020	17:39
	IC 410-70996/17	GN30I16.D	11/30/2020	18:01
	IC 410-70996/18	GN30I17.D	11/30/2020	18:23
	ICV 410-70996/19	GN30V11.D	11/30/2020	18:45

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Lab File ID: GM25T31.D BFB Injection Date: 03/25/2021

Instrument ID: 16334 BFB Injection Time: 21:11

Analysis Batch No.: 107422

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	47.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	84.7	
175	5.0 - 9.0 % of mass 174	6.6	(7.8) 1
176	95.0 - 101.0 % of mass 174	80.9	(95.5) 1
177	5.0 - 9.0 % of mass 176	5.5	(6.8) 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 410-107422/3	GM25C31.D	03/25/2021	21:49
	CCV 410-107422/4	GM25C32.D	03/25/2021	22:11
	LCS 410-107422/5	GM25L31.D	03/25/2021	22:33
	LCSD 410-107422/6	GM25L32.D	03/25/2021	22:55
	LCS 410-107422/7	GM25L33.D	03/25/2021	23:17
	LCSD 410-107422/8	GM25L34.D	03/25/2021	23:40
	MB 410-107422/10	GM25B31.D	03/26/2021	0:46
Trip Blanks	410-33023-1	GM25S32.D	03/26/2021	1:30
PL2-258A-210317	410-33023-2	GM25S36.D	03/26/2021	2:59
PL2-258B-210317	410-33023-3	GM25S37.D	03/26/2021	3:21
PL2-258C-210317	410-33023-4	GM25S38.D	03/26/2021	3:42
PL2-271A-210317	410-33023-5	GM25S39.D	03/26/2021	4:04
PL2-214A-210317	410-33023-6	GM25S40.D	03/26/2021	4:27
PL2-214B-210317	410-33023-7	GM25S41.D	03/26/2021	4:49
PL2-214C-210317	410-33023-8	GM25S42.D	03/26/2021	5:11
PL2-213A-210317	410-33023-9	GM25S43.D	03/26/2021	5:33
PL2-619A-210317	410-33023-10	GM25S44.D	03/26/2021	5:54

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: ICIS 410-70996/4 Date Analyzed: 11/30/2020 13:12

Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): GN30I02.D Heated Purge: (Y/N) N

Calibration ID: 16331

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		186094	4.21	2246480	7.67	1636269	11.15
UPPER LIMIT		372188	4.71	4492960	8.17	3272538	11.65
LOWER LIMIT		93047	3.71	1123240	7.17	818135	10.65
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-70996/10		179392	4.21	2211317	7.67	1601223	11.15
CCVIS 410-107422/3		132560	4.20	1591337	7.67	1160601	11.15
CCV 410-107422/4		147438	4.20	1616631	7.67	1171219	11.15

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: ICIS 410-70996/4 Date Analyzed: 11/30/2020 13:12

Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): GN30I02.D Heated Purge: (Y/N) N

Calibration ID: 16331

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		888382	13.03				
UPPER LIMIT		1776764	13.53				
LOWER LIMIT		444191	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-70996/10		862512	13.03				
CCVIS 410-107422/3		649558	13.02				
CCV 410-107422/4		657714	13.02				

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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: CCVIS 410-107422/3 Date Analyzed: 03/25/2021 21:49

Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): GM25C31.D Heated Purge: (Y/N) N

Calibration ID: 16334

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		132560	4.20	1591337	7.67	1160601	11.15
UPPER LIMIT		265120	4.70	3182674	8.17	2321202	11.65
LOWER LIMIT		66280	3.70	795669	7.17	580301	10.65
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 410-107422/4		147438	4.20	1616631	7.67	1171219	11.15
LCS 410-107422/5		144009	4.19	1550172	7.67	1141718	11.15
LCSD 410-107422/6		142384	4.20	1602864	7.67	1175140	11.15
LCS 410-107422/7		139835	4.19	1594006	7.67	1166208	11.15
LCSD 410-107422/8		134860	4.19	1587777	7.67	1173855	11.15
MB 410-107422/10		150487	4.20	1569128	7.67	1163402	11.15
410-33023-1	Trip Blanks	147223	4.19	1576276	7.67	1150950	11.15
410-33023-2	PL2-258A-210317	147207	4.20	1572172	7.67	1153755	11.15
410-33023-3	PL2-258B-210317	161144	4.21	1573674	7.67	1153380	11.15
410-33023-4	PL2-258C-210317	149234	4.18	1558743	7.67	1146618	11.15
410-33023-5	PL2-271A-210317	158216	4.19	1607556	7.67	1163593	11.15
410-33023-6	PL2-214A-210317	143239	4.18	1550505	7.67	1127804	11.15
410-33023-7	PL2-214B-210317	152481	4.19	1569522	7.67	1148830	11.15
410-33023-8	PL2-214C-210317	140272	4.20	1552880	7.67	1147143	11.15
410-33023-9	PL2-213A-210317	154635	4.19	1550260	7.67	1129390	11.15
410-33023-10	PL2-619A-210317	124363	4.20	1554624	7.67	1144636	11.15

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: CCVIS 410-107422/3 Date Analyzed: 03/25/2021 21:49

Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): GM25C31.D Heated Purge: (Y/N) N

Calibration ID: 16334

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		649558	13.02				
UPPER LIMIT		1299116	13.52				
LOWER LIMIT		324779	12.52				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 410-107422/4		657714	13.02				
LCS 410-107422/5		633180	13.02				
LCSD 410-107422/6		657600	13.02				
LCS 410-107422/7		654549	13.02				
LCSD 410-107422/8		656198	13.02				
MB 410-107422/10		644934	13.02				
410-33023-1	Trip Blanks	646114	13.02				
410-33023-2	PL2-258A-210317	643313	13.02				
410-33023-3	PL2-258B-210317	651040	13.02				
410-33023-4	PL2-258C-210317	646683	13.02				
410-33023-5	PL2-271A-210317	654581	13.02				
410-33023-6	PL2-214A-210317	639807	13.02				
410-33023-7	PL2-214B-210317	647709	13.02				
410-33023-8	PL2-214C-210317	650585	13.02				
410-33023-9	PL2-213A-210317	633447	13.02				
410-33023-10	PL2-619A-210317	636910	13.02				

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 8260D

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Trip Blanks Lab Sample ID: 410-33023-1

Matrix: Water Lab File ID: GM25S32.D

Analysis Method: 8260D Date Collected: 03/17/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 01:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Trip Blanks Lab Sample ID: 410-33023-1

Matrix: Water Lab File ID: GM25S32.D

Analysis Method: 8260D Date Collected: 03/17/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 01:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258A-210317 Lab Sample ID: 410-33023-2

Matrix: Water Lab File ID: GM25S36.D

Analysis Method: 8260D Date Collected: 03/17/2021 10:51

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 02:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258A-210317 Lab Sample ID: 410-33023-2

Matrix: Water Lab File ID: GM25S36.D

Analysis Method: 8260D Date Collected: 03/17/2021 10:51

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 02:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.204		0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258B-210317 Lab Sample ID: 410-33023-3

Matrix: Water Lab File ID: GM25S37.D

Analysis Method: 8260D Date Collected: 03/17/2021 11:26

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 03:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	2.26		0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.239		0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258B-210317 Lab Sample ID: 410-33023-3

Matrix: Water Lab File ID: GM25S37.D

Analysis Method: 8260D Date Collected: 03/17/2021 11:26

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 03:21

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258C-210317 Lab Sample ID: 410-33023-4

Matrix: Water Lab File ID: GM25S38.D

Analysis Method: 8260D Date Collected: 03/17/2021 12:06

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 03:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258C-210317 Lab Sample ID: 410-33023-4

Matrix: Water Lab File ID: GM25S38.D

Analysis Method: 8260D Date Collected: 03/17/2021 12:06

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 03:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-271A-210317 Lab Sample ID: 410-33023-5

Matrix: Water Lab File ID: GM25S39.D

Analysis Method: 8260D Date Collected: 03/17/2021 13:11

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-271A-210317 Lab Sample ID: 410-33023-5

Matrix: Water Lab File ID: GM25S39.D

Analysis Method: 8260D Date Collected: 03/17/2021 13:11

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214A-210317 Lab Sample ID: 410-33023-6

Matrix: Water Lab File ID: GM25S40.D

Analysis Method: 8260D Date Collected: 03/17/2021 13:46

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214A-210317 Lab Sample ID: 410-33023-6

Matrix: Water Lab File ID: GM25S40.D

Analysis Method: 8260D Date Collected: 03/17/2021 13:46

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214B-210317 Lab Sample ID: 410-33023-7

Matrix: Water Lab File ID: GM25S41.D

Analysis Method: 8260D Date Collected: 03/17/2021 14:16

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214B-210317 Lab Sample ID: 410-33023-7

Matrix: Water Lab File ID: GM25S41.D

Analysis Method: 8260D Date Collected: 03/17/2021 14:16

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 04:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214C-210317 Lab Sample ID: 410-33023-8

Matrix: Water Lab File ID: GM25S42.D

Analysis Method: 8260D Date Collected: 03/17/2021 14:46

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214C-210317 Lab Sample ID: 410-33023-8

Matrix: Water Lab File ID: GM25S42.D

Analysis Method: 8260D Date Collected: 03/17/2021 14:46

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:11

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-213A-210317 Lab Sample ID: 410-33023-9

Matrix: Water Lab File ID: GM25S43.D

Analysis Method: 8260D Date Collected: 03/17/2021 15:26

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-213A-210317 Lab Sample ID: 410-33023-9

Matrix: Water Lab File ID: GM25S43.D

Analysis Method: 8260D Date Collected: 03/17/2021 15:26

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-619A-210317 Lab Sample ID: 410-33023-10

Matrix: Water Lab File ID: GM25S44.D

Analysis Method: 8260D Date Collected: 03/17/2021 17:00

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.269		0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	1.30		0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-619A-210317 Lab Sample ID: 410-33023-10

Matrix: Water Lab File ID: GM25S44.D

Analysis Method: 8260D Date Collected: 03/17/2021 17:00

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 05:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/9	GN30I07.D
Level 2	IC 410-70996/8	GN30I06.D
Level 3	IC 410-70996/7	GN30I05.D
Level 4	IC 410-70996/6	GN30I04.D
Level 5	IC 410-70996/5	GN30I03.D
Level 6	ICIS 410-70996/4	GN30I02.D
Level 7	IC 410-70996/3	GN30I01.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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2368 0.2560	0.2662 0.2659	0.2678	0.2708	0.2566	Ave		0.2600			0.1000	4.5		20.0			
Chloromethane	0.3865 0.3323	0.3740 0.3289	0.3543	0.3488	0.3310	Ave		0.3508			0.1000	6.4		20.0			
1,3-Butadiene	0.4818 0.3395	0.4668 0.3285	0.4287	0.3894	0.3604	Ave		0.3993				15.3		20.0			
Vinyl chloride	0.3159 0.2911	0.3084 0.2925	0.2956	0.3035	0.2894	Ave		0.2995			0.1000	3.3		20.0			
Bromomethane	0.2376 0.1945	0.2188 0.1939	0.2080	0.2091	0.1990	Ave		0.2087			0.1000	7.5		20.0			
Chloroethane	0.2020 0.1743	0.1888 0.1718	0.1750	0.1835	0.1765	Ave		0.1817			0.1000	5.9		20.0			
Dichlorofluoromethane	0.5017 0.3781	0.4250 0.3736	0.3878	0.4005	0.3845	Ave		0.4073			0.1000	11.1		20.0			
Trichlorofluoromethane	0.3322 0.3378	0.3520 0.3476	0.3344	0.3624	0.3462	Ave		0.3447			0.1000	3.1		20.0			
Ethyl ether	0.2029 0.1968	0.2094 0.1981	0.2105	0.2104	0.1960	Ave		0.2035				3.3		20.0			
Freon 123a	0.3029 0.2615	0.2910 0.2660	0.2966	0.2824	0.2714	Ave		0.2817				5.7		20.0			
Acrolein	1.9448 1.9018	1.8610 1.9961	1.8171	1.8798	1.8832	Ave		1.8977				3.1		20.0			
1,1-Dichloroethene	0.2138 0.1990	0.2180 0.2009	0.2178	0.2053	0.2034	Ave		0.2083			0.1000	3.9		20.0			
Freon 113	0.1453 0.2066	0.1948 0.2157	0.2243	0.2201	0.2189	Ave		0.2037			0.1000	13.5		20.0			
Acetone	3.1858 2.2113	2.5645 2.3024	2.4764	2.2168	2.2161	Ave		2.4533			0.1000	14.3		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl iodide	0.3770 0.3811	0.3974 0.3816	0.4099	0.3934	0.3832	Ave		0.3891				3.0		20.0			
Carbon disulfide	0.7515 0.7551	0.7679 0.7566	0.8070	0.7768	0.7599	Ave		0.7678			0.1000	2.5		20.0			
Methyl acetate	9.1363 6.5621	6.6209 7.7655	7.2886	7.4783	7.1352	Ave		7.4267			0.1000	11.7		20.0			
Allyl chloride	0.4283 0.3873	0.4623 0.3893	0.4373	0.4145	0.3988	Ave		0.4168				6.6		20.0			
Methylene Chloride	0.2382 0.2321	0.2393 0.2332	0.2491	0.2445	0.2344	Ave		0.2387			0.1000	2.6		20.0			
t-Butyl alcohol	0.8497 0.8680	0.9516 0.8650	0.9723	0.8999	0.8866	Ave		0.8990				5.1		20.0			
Acrylonitrile	2.9586 3.1288	3.2748 3.2919	3.2521	3.0729	3.2367	Ave		3.1737				3.9		20.0			
Methyl tertiary butyl ether	0.6635 0.6373	0.6694 0.6386	0.7123	0.6690	0.6442	Ave		0.6620			0.1000	4.0		20.0			
trans-1,2-Dichloroethene	0.2376 0.2326	0.2463 0.2334	0.2519	0.2445	0.2326	Ave		0.2398			0.1000	3.2		20.0			
n-Hexane	0.2867 0.3432	0.3264 0.3700	0.3750	0.3768	0.3699	Ave		0.3497				9.6		20.0			
1,1-Dichloroethane	0.4270 0.4403	0.4431 0.4420	0.4771	0.4497	0.4365	Ave		0.4451			0.2000	3.5		20.0			
di-Isopropyl ether	0.9062 0.8812	0.9128 0.8785	0.9662	0.9125	0.8808	Ave		0.9055				3.4		20.0			
2-Chloro-1,3-butadiene	0.4041 0.3919	0.4061 0.3944	0.4315	0.4085	0.3968	Ave		0.4048				3.3		20.0			
Ethyl t-butyl ether	0.8224 0.8052	0.8413 0.8030	0.8728	0.8231	0.8119	Ave		0.8257				3.0		20.0			
2-Butanone	4.6520 4.4491	4.5519 4.6499	4.6329	4.3702	4.5180	Ave		4.5463			0.1000	2.4		20.0			
cis-1,2-Dichloroethene	0.2564 0.2641	0.2759 0.2643	0.2878	0.2732	0.2633	Ave		0.2693			0.1000	3.9		20.0			
2,2-Dichloropropane	0.3736 0.3604	0.3790 0.3665	0.3915	0.3759	0.3663	Ave		0.3733				2.7		20.0			
Propionitrile	1.0088 1.1203	1.1684 1.1561	1.2108	1.1154	1.1088	Ave		1.1269				5.6		20.0			
Methacrylonitrile	4.4091 4.1503	3.9459 4.3367	4.1583	4.0671	4.1803	Ave		4.1782				3.7		20.0			
Bromochloromethane	0.1217 0.1146	0.1254 0.1158	0.1267	0.1186	0.1174	Ave		0.1200				3.9		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Tetrahydrofuran	1.2005 1.1636	1.1159 1.2081	1.2163	1.1464	1.1769	Ave		1.1754				3.1		20.0			
Chloroform	0.4241 0.4162	0.4361 0.4174	0.4553	0.4333	0.4198	Ave		0.4289			0.2000	3.2		20.0			
1,1,1-Trichloroethane	0.3679 0.3542	0.3769 0.3595	0.3870	0.3679	0.3559	Ave		0.3670			0.1000	3.2		20.0			
Cyclohexane	0.3420 0.4161	0.4199 0.4367	0.4573	0.4449	0.4360	Ave		0.4218			0.1000	9.0		20.0			
Carbon tetrachloride	0.3123 0.3112	0.3148 0.3194	0.3396	0.3190	0.3115	Ave		0.3183			0.1000	3.1		20.0			
1,1-Dichloropropene	0.3441 0.3339	0.3429 0.3430	0.3610	0.3520	0.3373	Ave		0.3449				2.6		20.0			
Isobutyl alcohol	0.0068 0.0052	0.0054 0.0052	0.0061	0.0055	0.0053	Ave		0.0057				10.6		20.0			
Benzene	1.0017 0.9873	1.0172 0.9996	1.0905	1.0301	0.9893	Ave		1.0165			0.5000	3.5		20.0			
1,2-Dichloroethane	0.3204 0.2618	0.2980 0.2685	0.2976	0.2780	0.2656	Ave		0.2843			0.1000	7.6		20.0			
t-Amyl methyl ether	0.7252 0.7069	0.7307 0.7066	0.7818	0.7345	0.7088	Ave		0.7278				3.6		20.0			
n-Heptane	0.3399 0.3914	0.3695 0.4239	0.4108	0.4097	0.4167	Ave		0.3945				7.7		20.0			
n-Butanol	0.3526 0.3142	0.3215 0.3224	0.3129	0.3182	0.3198	Ave		0.3231				4.2		20.0			
Trichloroethene	0.2659 0.2521	0.2619 0.2540	0.2695	0.2633	0.2503	Ave		0.2596			0.2000	2.9		20.0			
Methylcyclohexane	0.3576 0.3955	0.4154 0.4155	0.4132	0.4131	0.4113	Ave		0.4031			0.1000	5.3		20.0			
1,2-Dichloropropane	0.2764 0.2646	0.2751 0.2634	0.2909	0.2701	0.2629	Ave		0.2719			0.1000	3.7		20.0			
Methyl methacrylate	8.4555 8.4558	8.3239 8.9257	8.5022	8.3048	8.6057	Ave		8.5105				2.5		20.0			
1,4-Dioxane	0.0338 0.0625	0.0557 0.0631	0.0575	0.0672	0.0625	Ave		0.0575			0.0050	19.3		20.0			
Dibromomethane	0.1296 0.1226	0.1259 0.1239	0.1333	0.1251	0.1218	Ave		0.1260				3.3		20.0			
Bromodichloromethane	0.3106 0.3144	0.3050 0.3189	0.3322	0.3171	0.3091	Ave		0.3153			0.2000	2.8		20.0			
2-Nitropropane	2.4618 2.4156	2.2909 2.5645	2.4079	2.3139	2.4372	Ave		2.4131				3.8		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
cis-1,3-Dichloropropene	0.3958 0.4012	0.4084 0.4132	0.4313	0.4116	0.4036	Ave		0.4093			0.2000	2.8		20.0			
4-Methyl-2-pentanone	11.696 11.678	11.385 11.961	11.883	11.358	11.750	Ave		11.673			0.1000	2.0		20.0			
Toluene	0.8735 0.8410	0.8787 0.8422	0.9144	0.8681	0.8484	Ave		0.8666			0.4000	3.0		20.0			
trans-1,3-Dichloropropene	0.4485 0.4678	0.4666 0.4735	0.4784	0.4703	0.4700	Ave		0.4679			0.1000	2.0		20.0			
Ethyl methacrylate	0.4267 0.4178	0.4069 0.4096	0.4408	0.4285	0.4128	Ave		0.4204				2.9		20.0			
1,1,2-Trichloroethane	0.2513 0.2433	0.2624 0.2439	0.2703	0.2532	0.2453	Ave		0.2528			0.1000	4.0		20.0			
Tetrachloroethene	0.3630 0.3679	0.3860 0.3728	0.3919	0.3792	0.3711	Ave		0.3760			0.2000	2.7		20.0			
1,3-Dichloropropane	0.4642 0.4402	0.4635 0.4417	0.4827	0.4548	0.4449	Ave		0.4560				3.4		20.0			
2-Hexanone	8.4134 8.4221	8.0551 8.7386	8.3204	8.2560	8.5645	Ave		8.3957			0.1000	2.6		20.0			
Dibromochloromethane	0.2790 0.3043	0.2850 0.3109	0.3146	0.3034	0.3016	Ave		0.2998				4.4		20.0			
1,2-Dibromoethane	0.2472 0.2422	0.2457 0.2444	0.2626	0.2507	0.2443	Ave		0.2482			0.1000	2.8		20.0			
1-Chlorohexane	0.5856 0.4836	0.5459 0.4876	0.5425	0.5056	0.4925	Ave		0.5205				7.4		20.0			
Chlorobenzene	0.9694 0.9420	0.9847 0.9413	1.0084	0.9677	0.9436	Ave		0.9653			0.5000	2.6		20.0			
1,1,1,2-Tetrachloroethane	0.3288 0.3431	0.3338 0.3450	0.3600	0.3479	0.3423	Ave		0.3430				2.9		20.0			
Ethylbenzene	1.7755 1.6522	1.7215 1.6522	1.8045	1.7106	1.6703	Ave		1.7124			0.1000	3.5		20.0			
m&p-Xylene	0.6303 0.6325	0.6463 0.6343	0.6858	0.6521	0.6362	Ave		0.6453			0.1000	3.0		20.0			
o-Xylene	0.6524 0.6249	0.6497 0.6301	0.6620	0.6342	0.6268	Ave		0.6400			0.3000	2.3		20.0			
Styrene	1.0833 1.0667	1.0941 1.0702	1.1441	1.1059	1.0699	Ave		1.0906			0.3000	2.5		20.0			
Bromoform	0.1479 0.1859	0.1627 0.1929	0.1753	0.1784	0.1822	Ave		0.1750			0.1000	8.7		20.0			
Isopropylbenzene	1.6857 1.6374	1.6628 1.6363	1.7542	1.6896	1.6520	Ave		1.6740			0.1000	2.5		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,2,2-Tetrachloroethane	0.5902 0.6232	0.6428 0.6177	0.6602	0.6428	0.6232	Ave		0.6286			0.3000	3.6		20.0			
Bromobenzene	0.7516 0.7370	0.7538 0.7418	0.8074	0.7608	0.7302	Ave		0.7547				3.4		20.0			
trans-1,4-Dichloro-2-butene	3.1378 3.9168	3.2490 4.2032	3.4681	3.5618	3.8283	Ave		3.6236				10.5		20.0			
1,2,3-Trichloropropane	0.1468 0.1564	0.1683 0.1540	0.1787	0.1639	0.1534	Ave		0.1602				6.7		20.0			
N-Propylbenzene	3.8085 3.6437	3.8314 3.6182	3.9342	3.8079	3.6943	Ave		3.7626				3.0		20.0			
2-Chlorotoluene	0.7437 0.7150	0.7306 0.7301	0.7906	0.7486	0.7213	Ave		0.7400				3.4		20.0			
1,3,5-Trimethylbenzene	2.5579 2.6111	2.6772 2.6267	2.7986	2.6831	2.6274	Ave		2.6546				2.9		20.0			
4-Chlorotoluene	0.7484 0.7495	0.8055 0.7555	0.8263	0.7661	0.7496	Ave		0.7716				4.1		20.0			
tert-Butylbenzene	0.5660 0.5518	0.5860 0.5647	0.5833	0.5591	0.5570	Ave		0.5668				2.3		20.0			
Pentachloroethane	0.4568 0.4818	0.4935 0.4984	0.5005	0.4929	0.4867	Ave		0.4872				3.1		20.0			
1,2,4-Trimethylbenzene	2.7790 2.7142	2.7782 2.7275	2.9168	2.7763	2.7094	Ave		2.7716				2.6		20.0			
sec-Butylbenzene	3.4820 3.3763	3.4174 3.4112	3.6235	3.4743	3.3895	Ave		3.4535				2.5		20.0			
1,3-Dichlorobenzene	1.5196 1.4752	1.5457 1.5040	1.5950	1.5325	1.4802	Ave		1.5218			0.6000	2.7		20.0			
p-Isopropyltoluene	2.9520 2.9374	3.0087 2.9748	3.1925	2.9847	2.9468	Ave		2.9995				3.0		20.0			
1,4-Dichlorobenzene	1.5720 1.4942	1.5904 1.5102	1.6124	1.5600	1.5127	Ave		1.5503			0.5000	2.9		20.0			
1,2,3-Trimethylbenzene	1.3165 1.1680	1.2574 1.1806	1.2686	1.2341	1.1796	Ave		1.2293				4.5		20.0			
Benzyl chloride	0.2641 0.2717	0.2595 0.2754	0.2913	0.2698	0.2713	Ave		0.2719				3.7		20.0			
n-Butylbenzene	1.5804 1.5475	1.6196 1.5630	1.6848	1.5860	1.5416	Ave		1.5890				3.1		20.0			
1,2-Dichlorobenzene	1.4023 1.3754	1.4491 1.3831	1.5174	1.4370	1.3753	Ave		1.4199			0.4000	3.7		20.0			
1,2-Dibromo-3-Chloropropane	0.0866 0.0921	0.0907 0.0929	0.1005	0.0897	0.0887	Ave		0.0916			0.0500	4.9		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trichlorobenzene	1.3005 1.2452	1.3075 1.2589	1.3317	1.2404	1.2438	Ave		1.2754				2.9		20.0			
1,2,4-Trichlorobenzene	1.1627 1.1438	1.2549 1.1466	1.2199	1.1628	1.1368	Ave		1.1754			0.2000	3.8		20.0			
Hexachlorobutadiene	0.5964 0.5566	0.6122 0.5730	0.5894	0.5543	0.5576	Ave		0.5771				3.9		20.0			
Naphthalene	2.1901 2.0588	2.1833 2.0314	2.2888	2.1532	2.0650	Ave		2.1387				4.3		20.0			
1,2,3-Trichlorobenzene	1.0554 1.0003	1.1043 0.9938	1.0851	1.0287	0.9943	Ave		1.0374				4.4		20.0			
Dibromofluoromethane (Surr)	0.2387 0.2412	0.2434 0.2414	0.2438	0.2429	0.2428	Ave		0.2420				0.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0510 0.0517	0.0510 0.0520	0.0519	0.0518	0.0511	Ave		0.0515				0.9		20.0			
Toluene-d8 (Surr)	1.3449 1.3317	1.3345 1.3197	1.3349	1.3314	1.3421	Ave		1.3342				0.6		20.0			
4-Bromofluorobenzene (Surr)	0.5151 0.5069	0.5107 0.5026	0.5115	0.5101	0.5089	Ave		0.5094				0.8		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/9	GN30I07.D
Level 2	IC 410-70996/8	GN30I06.D
Level 3	IC 410-70996/7	GN30I05.D
Level 4	IC 410-70996/6	GN30I04.D
Level 5	IC 410-70996/5	GN30I03.D
Level 6	ICIS 410-70996/4	GN30I02.D
Level 7	IC 410-70996/3	GN30I01.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	10440 575013	29137 1495396	59213	119710	285502	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	17041 746607	40943 1849975	78349	154159	368365	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	21243 762788	51097 1847653	94809	172137	400995	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	13930 653889	33758 1645533	65380	134133	322069	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	10477 437020	23952 1090646	46006	92413	221448	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	8907 391559	20672 966420	38699	81099	196409	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	22123 849408	46525 2101552	85751	177022	427842	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	14649 758912	38530 1955497	73951	160183	385200	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	8950 442210	22931 1114451	46571	93021	218165	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 123a	FB	Ave	13355 587407	31854 1496120	65601	124813	302034	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd10	Ave	71856 3539158	182229 8876973	365629	734398	1726399	10.0 500	25.0 1250	50.0	100	250
1,1-Dichloroethene	FB	Ave	9428 447046	23861 1129827	48163	90732	226327	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 113	FB	Ave	6407 464025	21323 1213458	49604	97294	243555	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd10	Ave	23541 823027	50222 2047683	99654	173204	406309	2.00 100	5.00 250	10.0	20.0	50.0
Methyl iodide	FB	Ave	16625	43500	90654	173875	426388	0.200	0.500	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			856231	2146588				10.0	25.0			
Carbon disulfide	FB	Ave	33137 1696280	84062 4255752	178461	343343	845631	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd10	Ave	6751 244232	12966 690648	29330	58429	130819	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	18885 870096	50604 2189679	96698	183197	443750	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	10502 521426	26198 1311628	55096	108056	260868	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd10	Ave	12558 646096	37272 1538645	78250	140629	325105	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd10	Ave	10931 582252	32066 1463905	65434	120047	296709	1.00 50.0	2.50 125	5.00	10.0	25.0
Methyl tertiary butyl ether	FB	Ave	29258 1431718	73272 3592103	157517	295684	716859	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	10478 522420	26963 1312619	55706	108056	258856	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	12643 770889	35728 2081061	82931	166559	411619	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	18828 989205	48509 2486421	105511	198755	485770	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	39957 1979657	99922 4941744	213671	403335	980101	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	17821 880335	44458 2218551	95428	180575	441551	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	36262 1808949	92089 4516790	193019	363795	903460	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone	TBAd10	Ave	34375 1655912	89142 4135516	186432	341451	828352	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,2-Dichloroethene	FB	Ave	11304 593244	30199 1486697	63650	120745	293028	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	16476 809643	41487 2061512	86568	166142	407651	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd10	Ave	14908 833953	45761 2056391	97449	174294	406595	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd10	Ave	32580	77275	167335	317768	766425	2.00	5.00	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1544674	3857032				100	250			
Bromochloromethane	FB	Ave	5366 257416	13722 651451	28011	52433	130627	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd10	Ave	8871 433079	21854 1074451	48944	89573	215770	2.00 100	5.00 250	10.0	20.0	50.0
Chloroform	FB	Ave	18700 935084	47732 2347914	100689	191526	467191	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	16224 795686	41257 2022017	85584	162606	396057	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	15080 934696	45968 2456493	101123	196628	485144	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	13772 699045	34456 1796395	75097	141008	346656	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	15173 750119	37534 1929345	79831	155596	375317	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	FB	Ave	14998 587299	29644 1475056	67984	121267	292232	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	44170 2218035	111347 5622443	241164	455295	1100869	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14128 588167	32618 1510198	65819	122885	295549	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	31976 1588018	79984 3974346	172887	324674	788786	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	14986 879279	40450 2384149	90836	181073	463712	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butanol	TBAd10	Ave	26057 1169293	62965 2867258	125899	248576	586370	20.0 1000	50.0 2500	100	200	500
Trichloroethene	FB	Ave	11723 566426	28664 1428934	59598	116383	278479	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	15769 888517	45474 2337109	91381	182602	457689	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	12189 594461	30117 1481659	64320	119367	292517	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd10	Ave	6248 314713	16301 793834	34214	64887	157779	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd10	Ave	1248 116348	5456 280447	11572	26270	57308	10.0 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	5716	13777	29475	55304	135590	0.200	0.500	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			275323	696745				10.0	25.0			
Bromodichloromethane	FB	Ave	13698 706255	33392 1793553	73464	140150	343988	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd10	Ave	18191 899063	44863 2280829	96897	180791	446843	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	17452 901197	44710 2324073	95377	181945	449091	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone	TBAd10	Ave	86421 4346527	222955 10637772	478190	887415	2154238	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd5	Ave	27572 1376073	69853 3492002	146327	278591	683495	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd5	Ave	14156 765518	37093 1963134	76563	150936	378649	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd5	Ave	13470 683673	32351 1698291	70532	137503	332561	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2-Trichloroethane	CBZd5	Ave	7932 398053	20860 1011153	43259	81260	197601	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd5	Ave	11458 602059	30689 1545623	62720	121696	298979	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd5	Ave	14652 720295	36850 1831199	77242	145956	358460	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd10	Ave	62169 3134600	157747 7771959	334821	645054	1570233	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd5	Ave	8808 497877	22656 1288980	50339	97381	243007	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane	CBZd5	Ave	7804 396354	19536 1013188	42028	80460	196846	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd5	Ave	18485 791218	43401 2021466	86809	162251	396805	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd5	Ave	30598 1541301	78284 3902651	161371	310565	760248	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd5	Ave	10378 561469	26540 1430192	57609	111642	275804	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd5	Ave	56042 2703437	136856 6849934	288772	548965	1345750	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd5	Ave	39788 2069783	102766 5259805	219481	418534	1025168	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd5	Ave	20593 1022577	51651 2612526	105945	203530	504969	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBZd5	Ave	34193 1745400	86978 4437047	183091	354894	861952	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd5	Ave	4668 304248	12931 799958	28046	57245	146803	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd5	Ave	53210 2679183	132190 6784295	280719	542248	1331001	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd4	Ave	10124 553642	27699 1384788	56804	111748	273837	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd4	Ave	12894 654760	32482 1663078	69470	132263	320859	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd10	Ave	23186 1457770	63627 3738276	139562	278293	701899	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd4	Ave	2519 138980	7254 345318	15377	28491	67388	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd4	Ave	65333 3236978	165110 8111815	338497	661944	1623321	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd4	Ave	12758 635163	31485 1636772	68023	130139	316960	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd4	Ave	43880 2319655	115372 5889002	240788	466416	1154535	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd4	Ave	12838 665842	34713 1693778	71097	133168	329404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd4	Ave	9709 490248	25251 1265966	50184	97199	244744	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Pentachloroethane	DCBd4	Ave	7836 427979	21266 1117481	43066	85685	213871	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd4	Ave	47673 2411281	119721 6115025	250956	482620	1190575	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd4	Ave	59733 2999448	147266 7647756	311759	603955	1489422	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd4	Ave	26068 1310582	66610 3371982	137230	266406	650429	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd4	Ave	50640 2609529	129655 6669275	274677	518846	1294886	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd4	Ave	26967 1327411	68535 3385890	138733	271182	664687	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd4	Ave	22584 1037654	54187 2646951	109147	214525	518339	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd4	Ave	4530 241370	11182 617345	25065	46895	119235	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd4	Ave	27112	69796	144959	275706	677396	0.200	0.500	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1374780	3504248				10.0	25.0			
1,2-Dichlorobenzene	DCBd4	Ave	24056 1221855	62448 3100816	130553	249800	604314	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	1486 81816	3908 208192	8650	15596	38959	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd4	Ave	22309 1106187	56346 2822323	114581	215623	546533	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trichlorobenzene	DCBd4	Ave	19946 1016153	54078 2570710	104962	202142	499550	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd4	Ave	10231 494492	26381 1284715	50715	96356	245031	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd4	Ave	37571 1828996	94086 4554237	196928	374308	907383	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd4	Ave	18105 888658	47589 2227961	93358	178820	436916	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	526196 541882	532962 543100	539150	536748	540338	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	112511 116084	111685 117092	114722	114415	113626	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd5	Ave	2122568 2179039	2121912 2188553	2136211	2136446	2162628	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	812877 829357	812090 833577	818561	818494	820021	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend:
Ave = Average ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/9	GN30I07.D
Level 2	IC 410-70996/8	GN30I06.D
Level 3	IC 410-70996/7	GN30I05.D
Level 4	IC 410-70996/6	GN30I04.D
Level 5	IC 410-70996/5	GN30I03.D
Level 6	ICIS 410-70996/4	GN30I02.D
Level 7	IC 410-70996/3	GN30I01.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	-8.9 2.3	2.4	3.0	4.2	-1.3	-1.5	50 30	30	30	30	30	30
Chloromethane	10.2 -6.3	6.6	1.0	-0.6	-5.6	-5.3	50 30	30	30	30	30	30
1,3-Butadiene	20.6 -17.7	16.9	7.4	-2.5	-9.8	-15.0	50 30	30	30	30	30	30
Vinyl chloride	5.5 -2.3	3.0	-1.3	1.3	-3.4	-2.8	50 30	30	30	30	30	30
Bromomethane	13.8 -7.1	4.8	-0.3	0.2	-4.6	-6.8	50 30	30	30	30	30	30
Chloroethane	11.2 -5.4	3.9	-3.7	1.0	-2.9	-4.1	50 30	30	30	30	30	30
Dichlorofluoromethane	23.2 -8.3	4.3	-4.8	-1.7	-5.6	-7.2	50 30	30	30	30	30	30
Trichlorofluoromethane	-3.6 0.9	2.1	-3.0	5.1	0.4	-2.0	50 30	30	30	30	30	30
Ethyl ether	-0.3 -2.6	2.9	3.5	3.4	-3.7	-3.3	50 30	30	30	30	30	30
Freon 123a	7.5 -5.6	3.3	5.3	0.2	-3.6	-7.2	50 30	30	30	30	30	30
Acrolein	2.5 5.2	-1.9	-4.2	-0.9	-0.8	0.2	50 30	30	30	30	30	30
1,1-Dichloroethene	2.6 -3.6	4.6	4.6	-1.5	-2.4	-4.5	50 30	30	30	30	30	30
Freon 113	-28.7 5.9	-4.4	10.1	8.1	7.5	1.4	50 30	30	30	30	30	30
Acetone	29.9 -6.2	4.5	0.9	-9.6	-9.7	-9.9	50 30	30	30	30	30	30
Methyl iodide	-3.1 -1.9	2.1	5.4	1.1	-1.5	-2.0	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Carbon disulfide	-2.1 -1.5	0.0	5.1	1.2	-1.0	-1.7	50 30	30	30	30	30	30
Methyl acetate	23.0 4.6	-10.8	-1.9	0.7	-3.9	-11.6	50 30	30	30	30	30	30
Allyl chloride	2.8 -6.6	10.9	4.9	-0.6	-4.3	-7.1	50 30	30	30	30	30	30
Methylene Chloride	-0.2 -2.3	0.3	4.4	2.4	-1.8	-2.8	50 30	30	30	30	30	30
t-Butyl alcohol	-5.5 -3.8	5.9	8.1	0.1	-1.4	-3.5	50 30	30	30	30	30	30
Acrylonitrile	-6.8 3.7	3.2	2.5	-3.2	2.0	-1.4	50 30	30	30	30	30	30
Methyl tertiary butyl ether	0.2 -3.5	1.1	7.6	1.0	-2.7	-3.7	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	-0.9 -2.7	2.7	5.0	1.9	-3.0	-3.0	50 30	30	30	30	30	30
n-Hexane	-18.0 5.8	-6.7	7.2	7.8	5.8	-1.9	50 30	30	30	30	30	30
1,1-Dichloroethane	-4.1 -0.7	-0.4	7.2	1.0	-1.9	-1.1	50 30	30	30	30	30	30
di-Isopropyl ether	0.1 -3.0	0.8	6.7	0.8	-2.7	-2.7	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	-0.2 -2.6	0.3	6.6	0.9	-2.0	-3.2	50 30	30	30	30	30	30
Ethyl t-butyl ether	-0.4 -2.7	1.9	5.7	-0.3	-1.7	-2.5	50 30	30	30	30	30	30
2-Butanone	2.3 2.3	0.1	1.9	-3.9	-0.6	-2.1	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	-4.8 -1.8	2.5	6.9	1.4	-2.2	-1.9	50 30	30	30	30	30	30
2,2-Dichloropropane	0.1 -1.8	1.5	4.9	0.7	-1.9	-3.5	50 30	30	30	30	30	30
Propionitrile	-10.5 2.6	3.7	7.4	-1.0	-1.6	-0.6	50 30	30	30	30	30	30
Methacrylonitrile	5.5 3.8	-5.6	-0.5	-2.7	0.0	-0.7	50 30	30	30	30	30	30
Bromochloromethane	1.4 -3.5	4.4	5.5	-1.2	-2.2	-4.5	50 30	30	30	30	30	30
Tetrahydrofuran	2.1 2.8	-5.1	3.5	-2.5	0.1	-1.0	50 30	30	30	30	30	30
Chloroform	-1.1 -2.7	1.7	6.2	1.0	-2.1	-2.9	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
1,1,1-Trichloroethane	0.2 -2.1	2.7	5.4	0.2	-3.0	-3.5	50 30	30	30	30	30	30
Cyclohexane	-18.9 3.5	-0.4	8.4	5.5	3.4	-1.4	50 30	30	30	30	30	30
Carbon tetrachloride	-1.9 0.3	-1.1	6.7	0.2	-2.1	-2.2	50 30	30	30	30	30	30
1,1-Dichloropropene	-0.2 -0.5	-0.6	4.7	2.1	-2.2	-3.2	50 30	30	30	30	30	30
Isobutyl alcohol	20.3 -7.2	-4.2	8.7	-3.0	-7.1	-7.5	50 30	30	30	30	30	30
Benzene	-1.5 -1.7	0.1	7.3	1.3	-2.7	-2.9	50 30	30	30	30	30	30
1,2-Dichloroethane	12.7 -5.6	4.8	4.7	-2.2	-6.6	-7.9	50 30	30	30	30	30	30
t-Amyl methyl ether	-0.4 -2.9	0.4	7.4	0.9	-2.6	-2.9	50 30	30	30	30	30	30
n-Heptane	-13.9 7.4	-6.3	4.1	3.8	5.6	-0.8	50 30	30	30	30	30	30
n-Butanol	9.1 -0.2	-0.5	-3.2	-1.5	-1.0	-2.8	50 30	30	30	30	30	30
Trichloroethene	2.4 -2.1	0.9	3.8	1.4	-3.6	-2.9	50 30	30	30	30	30	30
Methylcyclohexane	-11.3 3.1	3.1	2.5	2.5	2.0	-1.9	50 30	30	30	30	30	30
1,2-Dichloropropane	1.7 -3.1	1.2	7.0	-0.7	-3.3	-2.7	50 30	30	30	30	30	30
Methyl methacrylate	-0.6 4.9	-2.2	-0.1	-2.4	1.1	-0.6	50 30	30	30	30	30	30
1,4-Dioxane	-41.2 9.7	-3.1	0.1	17.0	8.8	8.8	50 30	30	30	30	30	30
Dibromomethane	2.9 -1.7	-0.1	5.8	-0.7	-3.3	-2.8	50 30	30	30	30	30	30
Bromodichloromethane	-1.5 1.1	-3.3	5.3	0.6	-2.0	-0.3	50 30	30	30	30	30	30
2-Nitropropane	2.0 6.3	-5.1	-0.2	-4.1	1.0	0.1	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-3.3 0.9	-0.2	5.4	0.6	-1.4	-2.0	50 30	30	30	30	30	30
4-Methyl-2-pentanone	0.2 2.5	-2.5	1.8	-2.7	0.7	0.0	50 30	30	30	30	30	30
Toluene	0.8 -2.8	1.4	5.5	0.2	-2.1	-3.0	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
trans-1,3-Dichloropropene	-4.1 1.2	-0.3	2.3	0.5	0.4	0.0	50 30	30	30	30	30	30
Ethyl methacrylate	1.5 -2.6	-3.2	4.8	1.9	-1.8	-0.6	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-0.6 -3.5	3.8	6.9	0.2	-3.0	-3.8	50 30	30	30	30	30	30
Tetrachloroethene	-3.5 -0.9	2.7	4.2	0.9	-1.3	-2.1	50 30	30	30	30	30	30
1,3-Dichloropropane	1.8 -3.1	1.7	5.9	-0.3	-2.4	-3.5	50 30	30	30	30	30	30
2-Hexanone	0.2 4.1	-4.1	-0.9	-1.7	2.0	0.3	50 30	30	30	30	30	30
Dibromochloromethane	-6.9 3.7	-5.0	4.9	1.2	0.6	1.5	50 30	30	30	30	30	30
1,2-Dibromoethane	-0.4 -1.5	-1.0	5.8	1.0	-1.6	-2.4	50 30	30	30	30	30	30
1-Chlorohexane	12.5 -6.3	4.9	4.2	-2.9	-5.4	-7.1	50 30	30	30	30	30	30
Chlorobenzene	0.4 -2.5	2.0	4.5	0.3	-2.2	-2.4	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-4.1 0.6	-2.7	5.0	1.4	-0.2	0.0	50 30	30	30	30	30	30
Ethylbenzene	3.7 -3.5	0.5	5.4	-0.1	-2.5	-3.5	50 30	30	30	30	30	30
m&p-Xylene	-2.3 -1.7	0.2	6.3	1.0	-1.4	-2.0	50 30	30	30	30	30	30
o-Xylene	1.9 -1.5	1.5	3.4	-0.9	-2.1	-2.4	50 30	30	30	30	30	30
Styrene	-0.7 -1.9	0.3	4.9	1.4	-1.9	-2.2	50 30	30	30	30	30	30
Bromoform	-15.5 10.2	-7.1	0.1	1.9	4.1	6.2	50 30	30	30	30	30	30
Isopropylbenzene	0.7 -2.3	-0.7	4.8	0.9	-1.3	-2.2	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-6.1 -1.7	2.3	5.0	2.3	-0.9	-0.9	50 30	30	30	30	30	30
Bromobenzene	-0.4 -1.7	-0.1	7.0	0.8	-3.2	-2.3	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-13.4 16.0	-10.3	-4.3	-1.7	5.7	8.1	50 30	30	30	30	30	30
1,2,3-Trichloropropane	-8.4 -3.9	5.1	11.5	2.3	-4.3	-2.4	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
N-Propylbenzene	1.2 -3.8	1.8	4.6	1.2	-1.8	-3.2	50 30	30	30	30	30	30
2-Chlorotoluene	0.5 -1.3	-1.3	6.8	1.2	-2.5	-3.4	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-3.6 -1.0	0.9	5.4	1.1	-1.0	-1.6	50 30	30	30	30	30	30
4-Chlorotoluene	-3.0 -2.1	4.4	7.1	-0.7	-2.8	-2.9	50 30	30	30	30	30	30
tert-Butylbenzene	-0.2 -0.4	3.4	2.9	-1.4	-1.7	-2.6	50 30	30	30	30	30	30
Pentachloroethane	-6.2 2.3	1.3	2.7	1.2	-0.1	-1.1	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	0.3 -1.6	0.2	5.2	0.2	-2.2	-2.1	50 30	30	30	30	30	30
sec-Butylbenzene	0.8 -1.2	-1.0	4.9	0.6	-1.9	-2.2	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-0.1 -1.2	1.6	4.8	0.7	-2.7	-3.1	50 30	30	30	30	30	30
p-Isopropyltoluene	-1.6 -0.8	0.3	6.4	-0.5	-1.8	-2.1	50 30	30	30	30	30	30
1,4-Dichlorobenzene	1.4 -2.6	2.6	4.0	0.6	-2.4	-3.6	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	7.1 -4.0	2.3	3.2	0.4	-4.0	-5.0	50 30	30	30	30	30	30
Benzyl chloride	-2.9 1.3	-4.6	7.2	-0.8	-0.2	-0.1	50 30	30	30	30	30	30
n-Butylbenzene	-0.5 -1.6	1.9	6.0	-0.2	-3.0	-2.6	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-1.2 -2.6	2.1	6.9	1.2	-3.1	-3.1	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-5.4 1.4	-1.0	9.8	-2.1	-3.2	0.5	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	2.0 -1.3	2.5	4.4	-2.7	-2.5	-2.4	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-1.1 -2.4	6.8	3.8	-1.1	-3.3	-2.7	50 30	30	30	30	30	30
Hexachlorobutadiene	3.3 -0.7	6.1	2.1	-3.9	-3.4	-3.5	50 30	30	30	30	30	30
Naphthalene	2.4 -5.0	2.1	7.0	0.7	-3.4	-3.7	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	1.7 -4.2	6.5	4.6	-0.8	-4.2	-3.6	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 12:50 Calibration End Date: 11/30/2020 15:03 Calibration ID: 16331

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Dibromofluoromethane (Surr)	-1.4 -0.3	0.6	0.7	0.3	0.3	-0.3	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	-0.9 1.1	-0.9	0.7	0.5	-0.9	0.3	50 30	30	30	30	30	30
Toluene-d8 (Surr)	0.8 -1.1	0.0	0.1	-0.2	0.6	-0.2	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	1.1 -1.3	0.3	0.4	0.1	-0.1	-0.5	50 30	30	30	30	30	30

Calibration / Dichlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

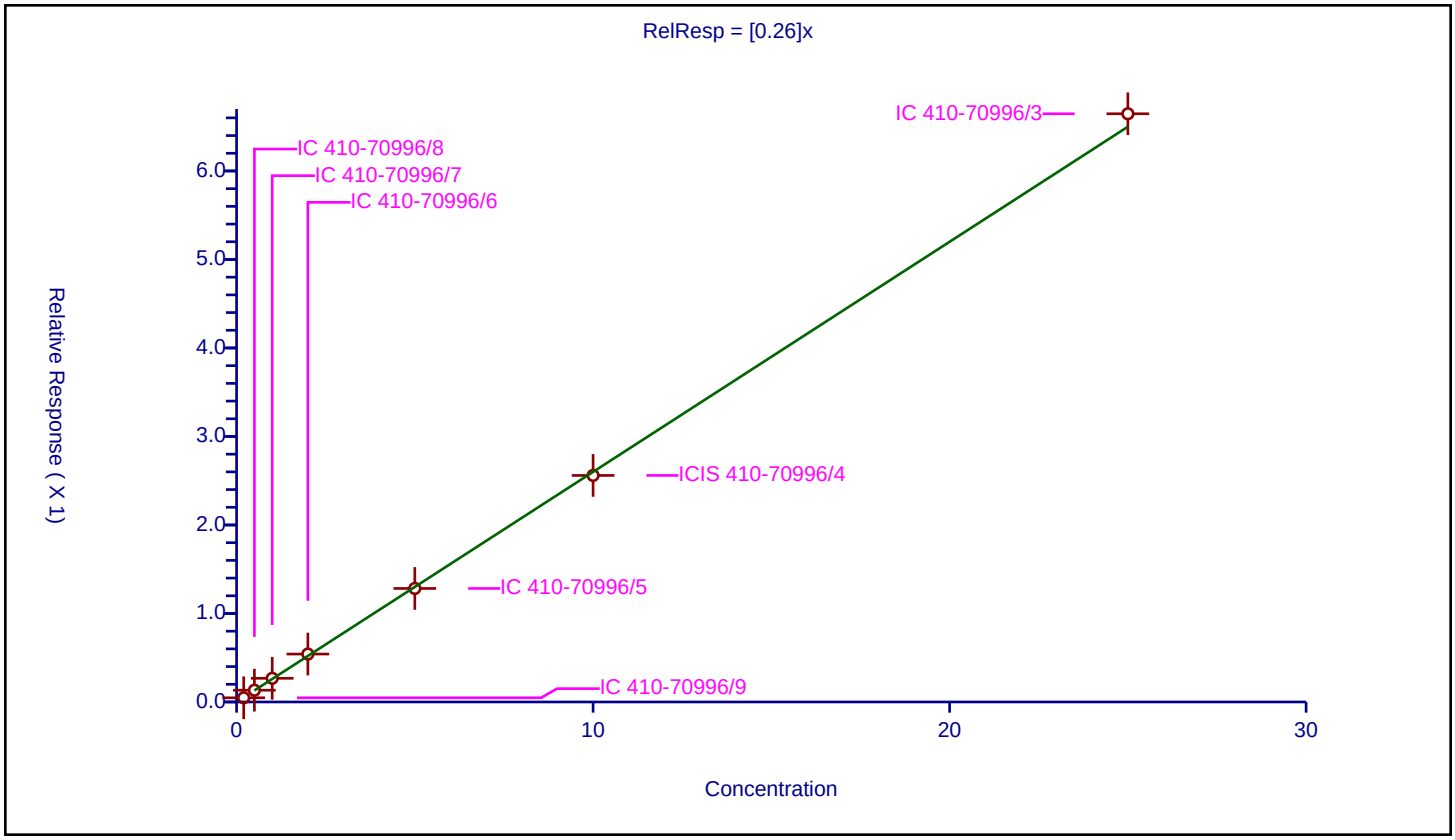
Curve Coefficients

Intercept:	0
Slope:	0.26

Error Coefficients

Standard Error:	667000
Relative Standard Error:	4.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.047352	10.0	2204755.0	0.236761	Y
2	IC 410-70996/8	0.5	0.133089	10.0	2189287.0	0.266178	Y
3	IC 410-70996/7	1.0	0.267761	10.0	2211412.0	0.267761	Y
4	IC 410-70996/6	2.0	0.541666	10.0	2210035.0	0.270833	Y
5	IC 410-70996/5	5.0	1.282832	10.0	2225560.0	0.256566	Y
6	ICIS 410-70996/4	10.0	2.559618	10.0	2246480.0	0.255962	Y
7	IC 410-70996/3	25.0	6.646281	10.0	2249974.0	0.265851	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

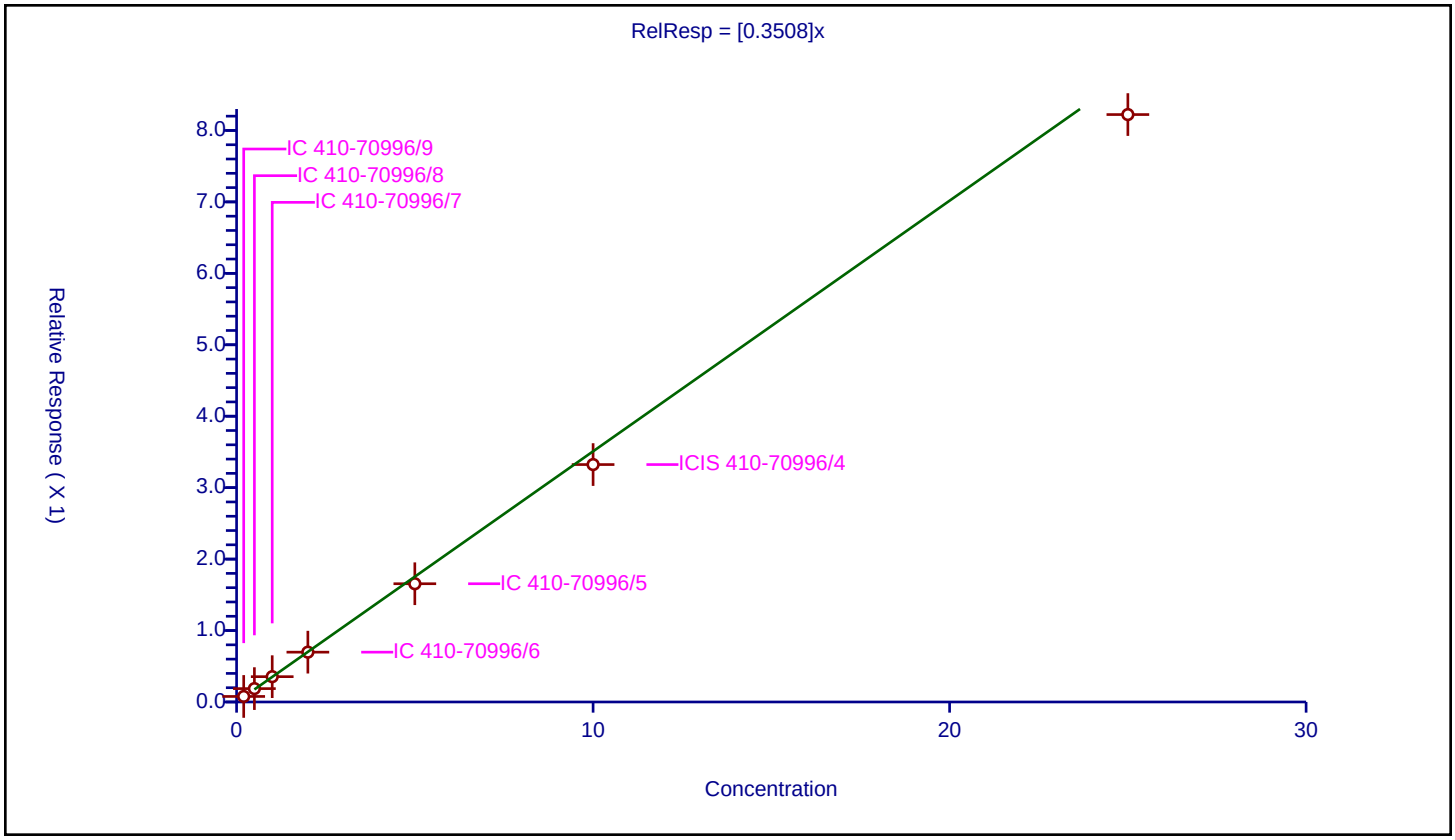
Curve Coefficients

Intercept:	0
Slope:	0.3508

Error Coefficients

Standard Error:	831000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.077292	10.0	2204755.0	0.38646	Y
2	IC 410-70996/8	0.5	0.187015	10.0	2189287.0	0.37403	Y
3	IC 410-70996/7	1.0	0.354294	10.0	2211412.0	0.354294	Y
4	IC 410-70996/6	2.0	0.697541	10.0	2210035.0	0.34877	Y
5	IC 410-70996/5	5.0	1.655156	10.0	2225560.0	0.331031	Y
6	ICIS 410-70996/4	10.0	3.323453	10.0	2246480.0	0.332345	Y
7	IC 410-70996/3	25.0	8.222206	10.0	2249974.0	0.328888	Y



Calibration / Butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

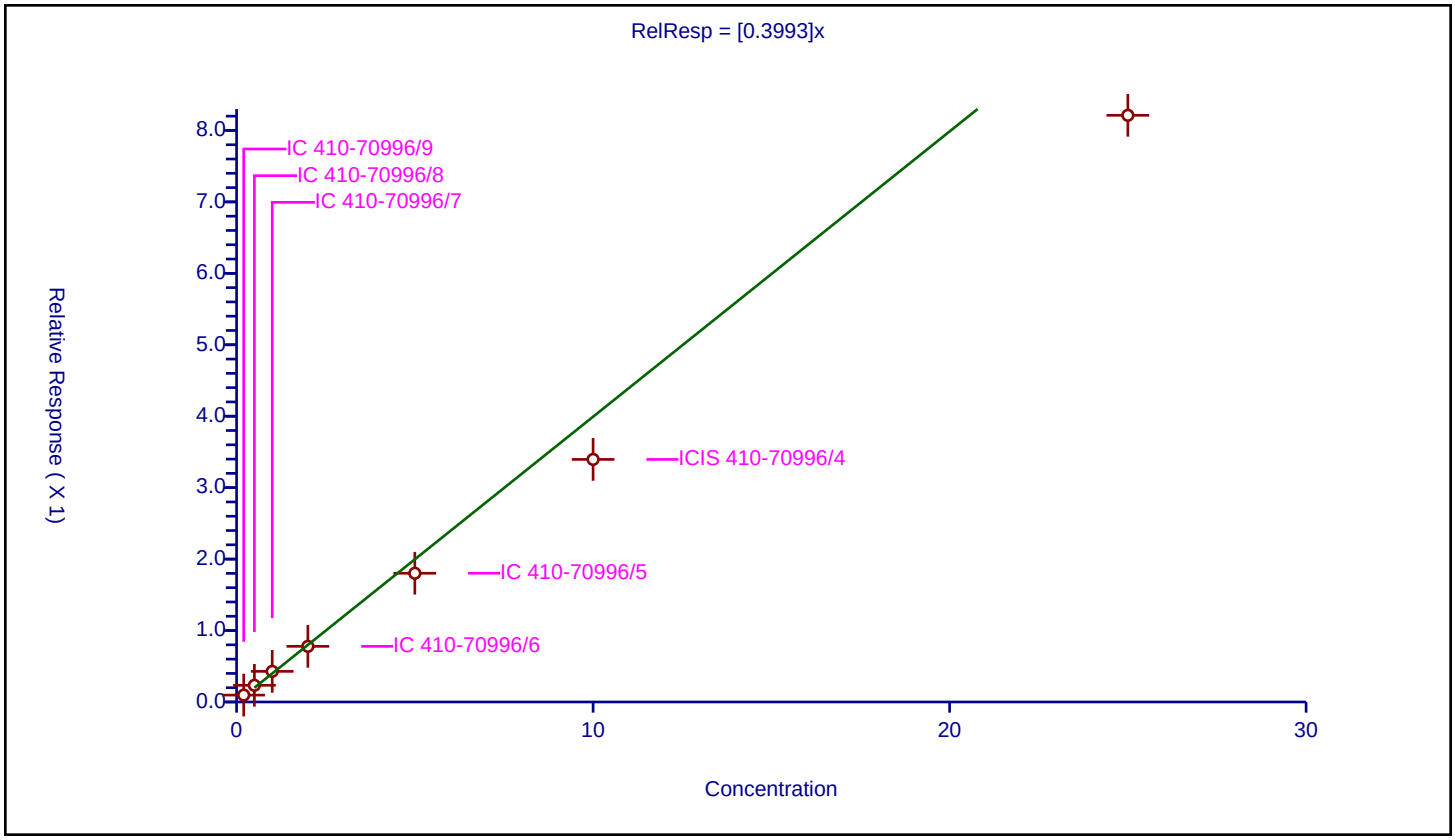
Curve Coefficients

Intercept:	0
Slope:	0.3993

Error Coefficients

Standard Error:	836000
Relative Standard Error:	15.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.096351	10.0	2204755.0	0.481754	Y
2	IC 410-70996/8	0.5	0.233396	10.0	2189287.0	0.466791	Y
3	IC 410-70996/7	1.0	0.428726	10.0	2211412.0	0.428726	Y
4	IC 410-70996/6	2.0	0.778888	10.0	2210035.0	0.389444	Y
5	IC 410-70996/5	5.0	1.801771	10.0	2225560.0	0.360354	Y
6	ICIS 410-70996/4	10.0	3.395481	10.0	2246480.0	0.339548	Y
7	IC 410-70996/3	25.0	8.211886	10.0	2249974.0	0.328475	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

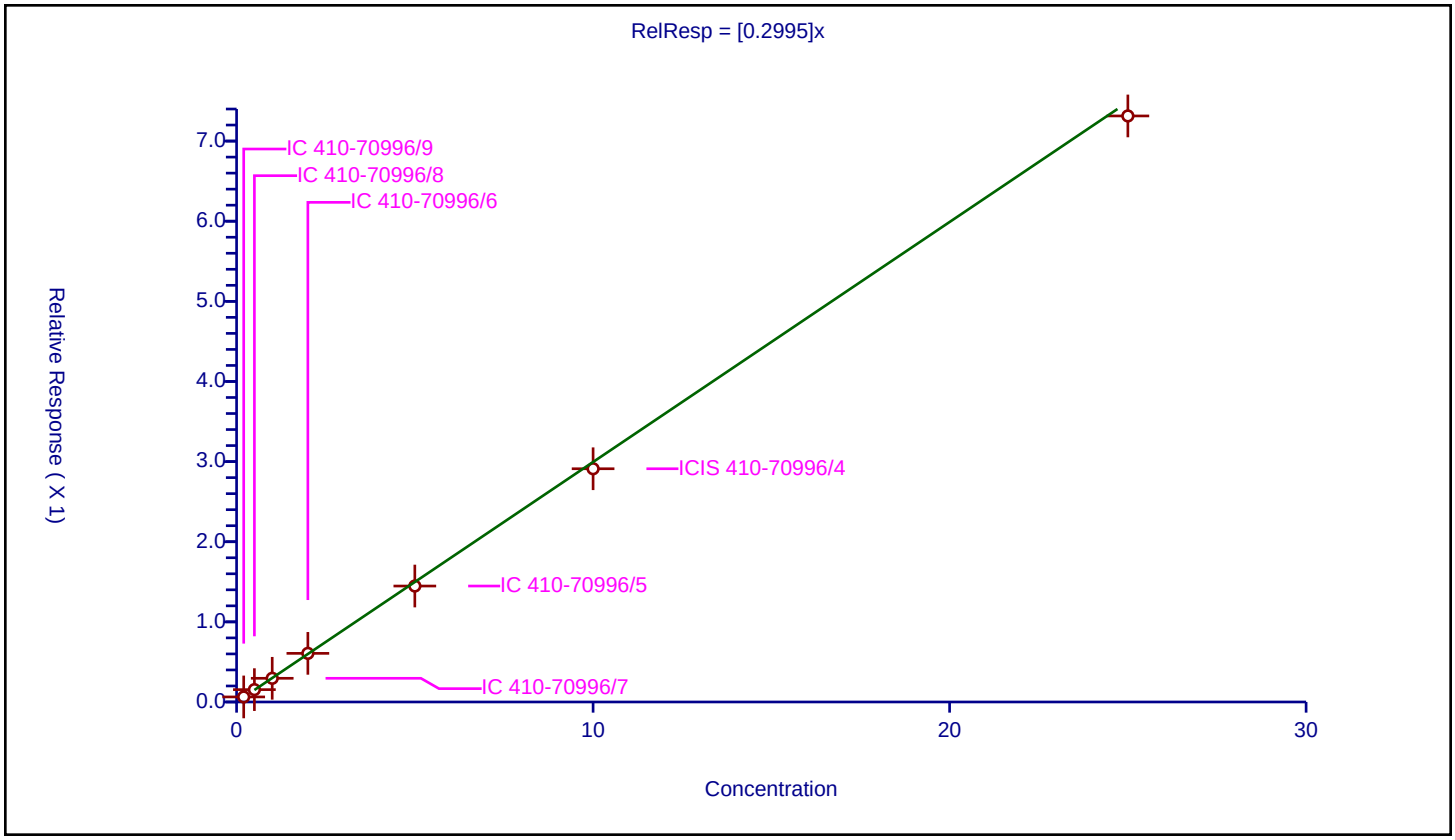
Curve Coefficients

Intercept:	0
Slope:	0.2995

Error Coefficients

Standard Error:	737000
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	IC 410-70996/9	0.2	0.063182	10.0	2204755.0	0.315908	Y
2	IC 410-70996/8	0.5	0.154196	10.0	2189287.0	0.308393	Y
3	IC 410-70996/7	1.0	0.295648	10.0	2211412.0	0.295648	Y
4	IC 410-70996/6	2.0	0.606927	10.0	2210035.0	0.303464	Y
5	IC 410-70996/5	5.0	1.447137	10.0	2225560.0	0.289427	Y
6	ICIS 410-70996/4	10.0	2.910727	10.0	2246480.0	0.291073	Y
7	IC 410-70996/3	25.0	7.313565	10.0	2249974.0	0.292543	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

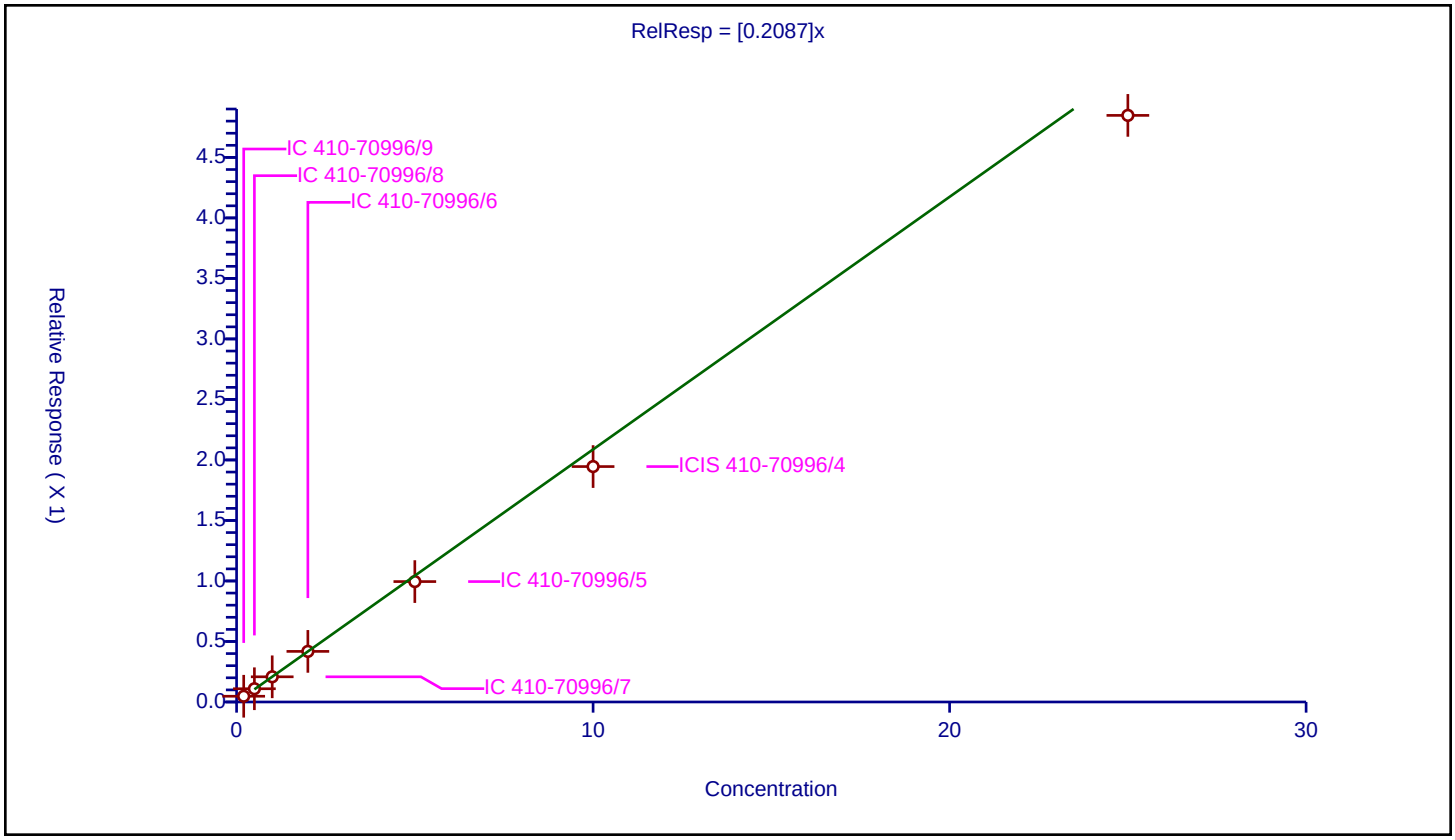
Curve Coefficients

Intercept:	0
Slope:	0.2087

Error Coefficients

Standard Error:	490000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.04752	10.0	2204755.0	0.2376	Y
2	IC 410-70996/8	0.5	0.109405	10.0	2189287.0	0.218811	Y
3	IC 410-70996/7	1.0	0.208039	10.0	2211412.0	0.208039	Y
4	IC 410-70996/6	2.0	0.418152	10.0	2210035.0	0.209076	Y
5	IC 410-70996/5	5.0	0.995021	10.0	2225560.0	0.199004	Y
6	ICIS 410-70996/4	10.0	1.945355	10.0	2246480.0	0.194535	Y
7	IC 410-70996/3	25.0	4.847372	10.0	2249974.0	0.193895	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

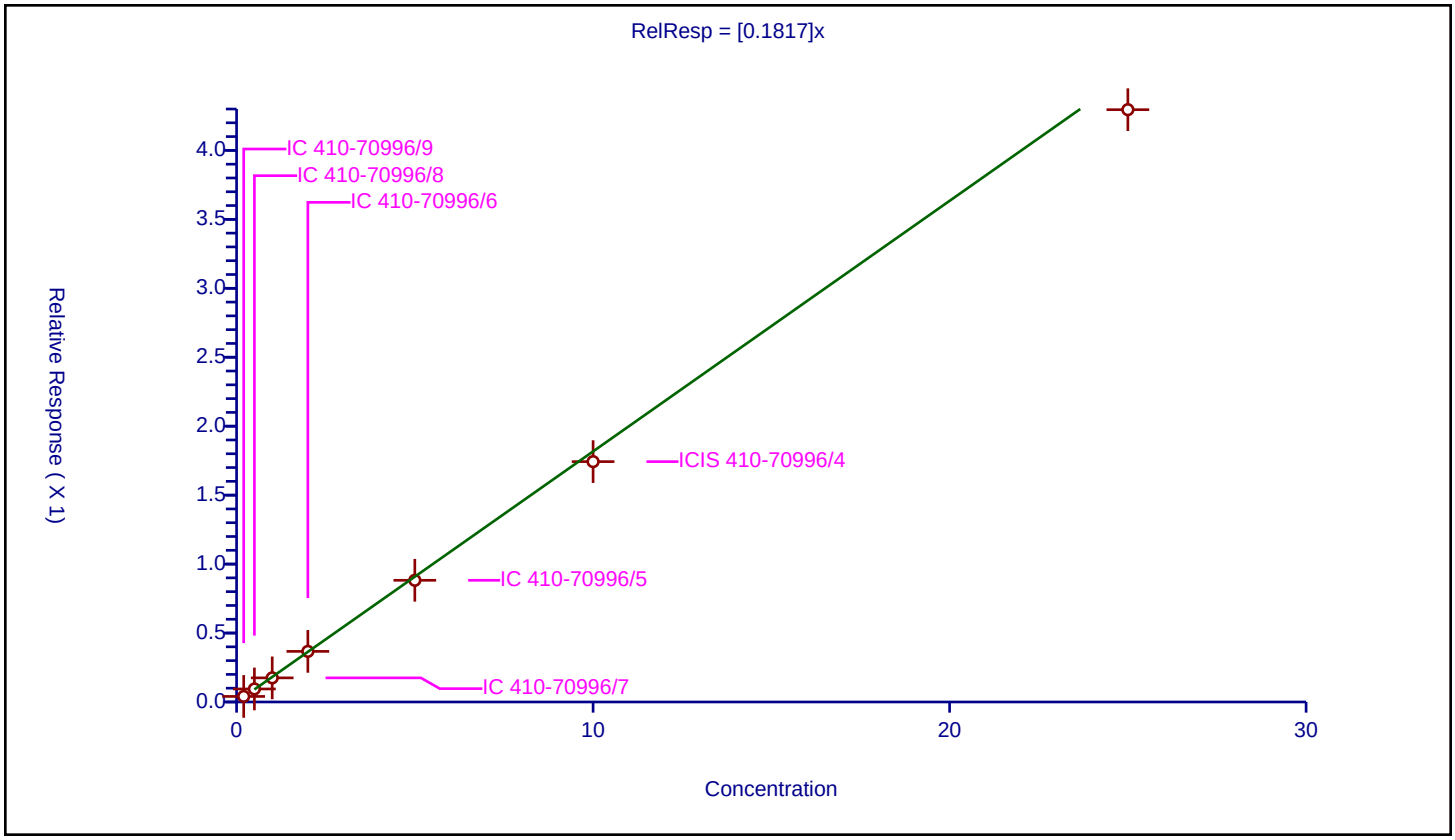
Curve Coefficients

Intercept:	0
Slope:	0.1817

Error Coefficients

Standard Error:	435000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.040399	10.0	2204755.0	0.201995	Y
2	IC 410-70996/8	0.5	0.094423	10.0	2189287.0	0.188847	Y
3	IC 410-70996/7	1.0	0.174997	10.0	2211412.0	0.174997	Y
4	IC 410-70996/6	2.0	0.366958	10.0	2210035.0	0.183479	Y
5	IC 410-70996/5	5.0	0.882515	10.0	2225560.0	0.176503	Y
6	ICIS 410-70996/4	10.0	1.742989	10.0	2246480.0	0.174299	Y
7	IC 410-70996/3	25.0	4.29525	10.0	2249974.0	0.17181	Y



Calibration / Dichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

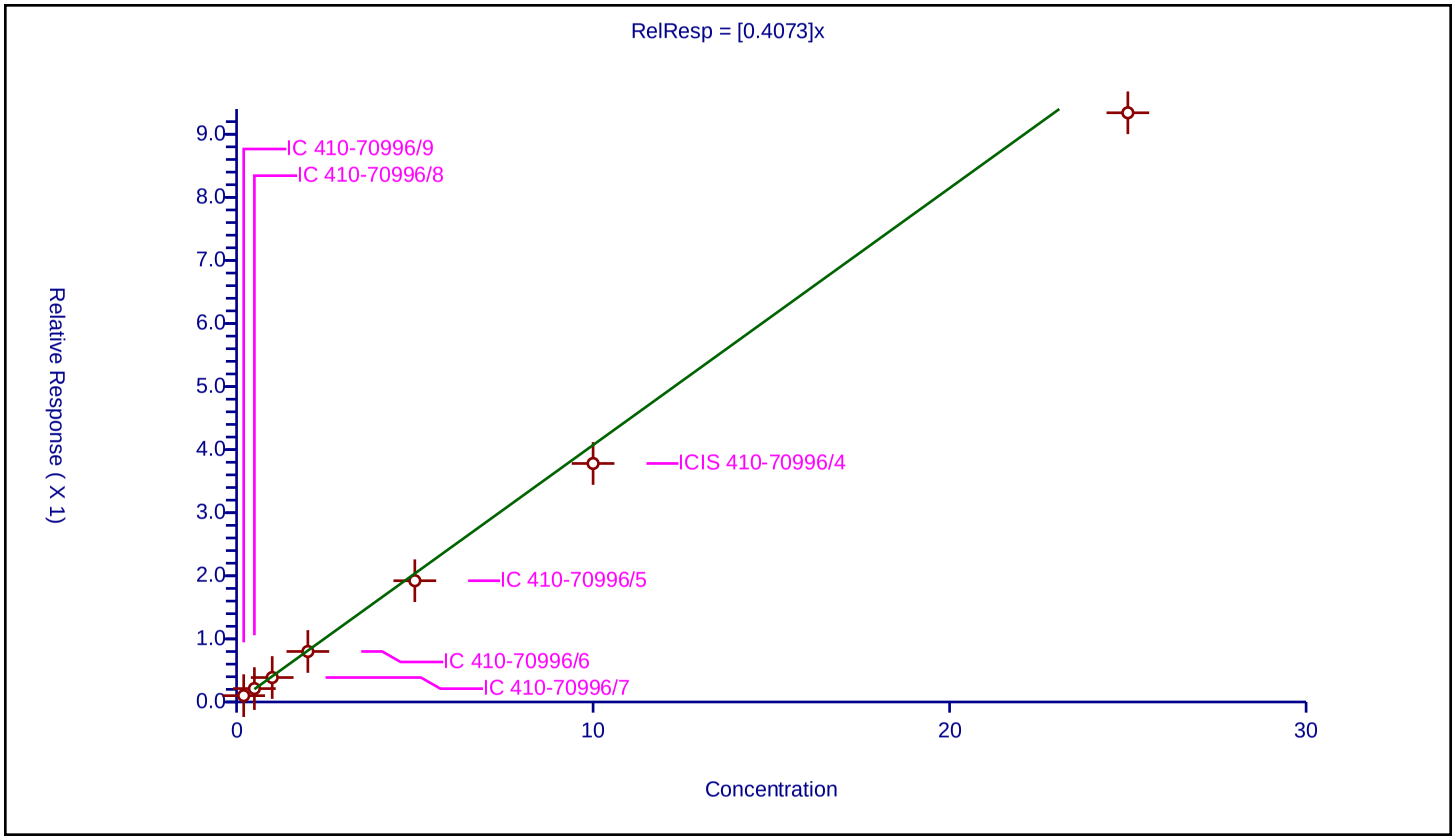
Curve Coefficients

Intercept:	0
Slope:	0.4073

Error Coefficients

Standard Error:	945000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.100342	10.0	2204755.0	0.501711	Y
2	IC 410-70996/8	0.5	0.212512	10.0	2189287.0	0.425024	Y
3	IC 410-70996/7	1.0	0.387766	10.0	2211412.0	0.387766	Y
4	IC 410-70996/6	2.0	0.800992	10.0	2210035.0	0.400496	Y
5	IC 410-70996/5	5.0	1.922402	10.0	2225560.0	0.38448	Y
6	ICIS 410-70996/4	10.0	3.781062	10.0	2246480.0	0.378106	Y
7	IC 410-70996/3	25.0	9.340339	10.0	2249974.0	0.373614	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

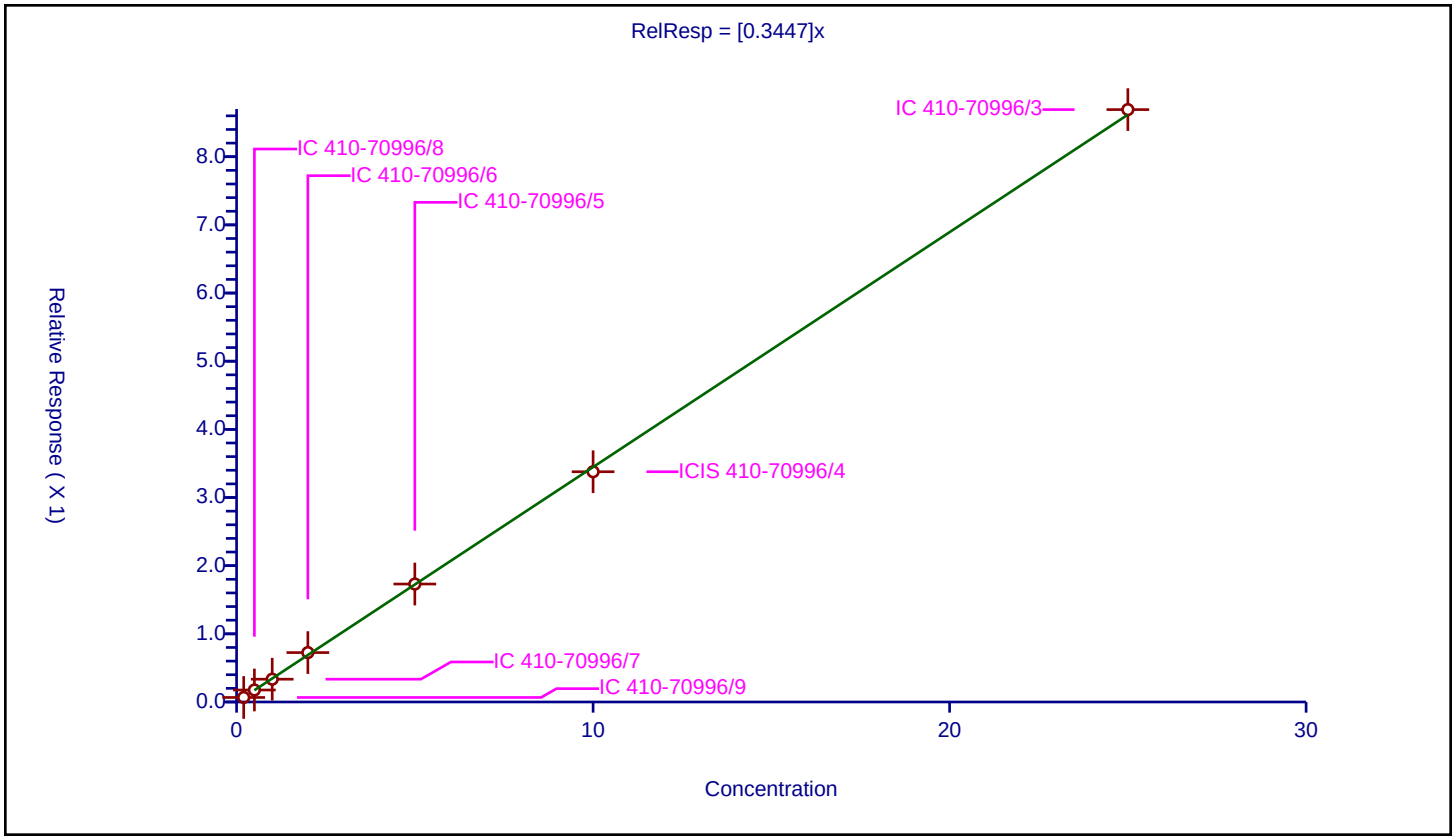
Curve Coefficients

Intercept:	0
Slope:	0.3447

Error Coefficients

Standard Error:	874000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.066443	10.0	2204755.0	0.332214	Y
2	IC 410-70996/8	0.5	0.175993	10.0	2189287.0	0.351987	Y
3	IC 410-70996/7	1.0	0.334406	10.0	2211412.0	0.334406	Y
4	IC 410-70996/6	2.0	0.724798	10.0	2210035.0	0.362399	Y
5	IC 410-70996/5	5.0	1.7308	10.0	2225560.0	0.34616	Y
6	ICIS 410-70996/4	10.0	3.378227	10.0	2246480.0	0.337823	Y
7	IC 410-70996/3	25.0	8.691198	10.0	2249974.0	0.347648	Y



Calibration / Ethyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

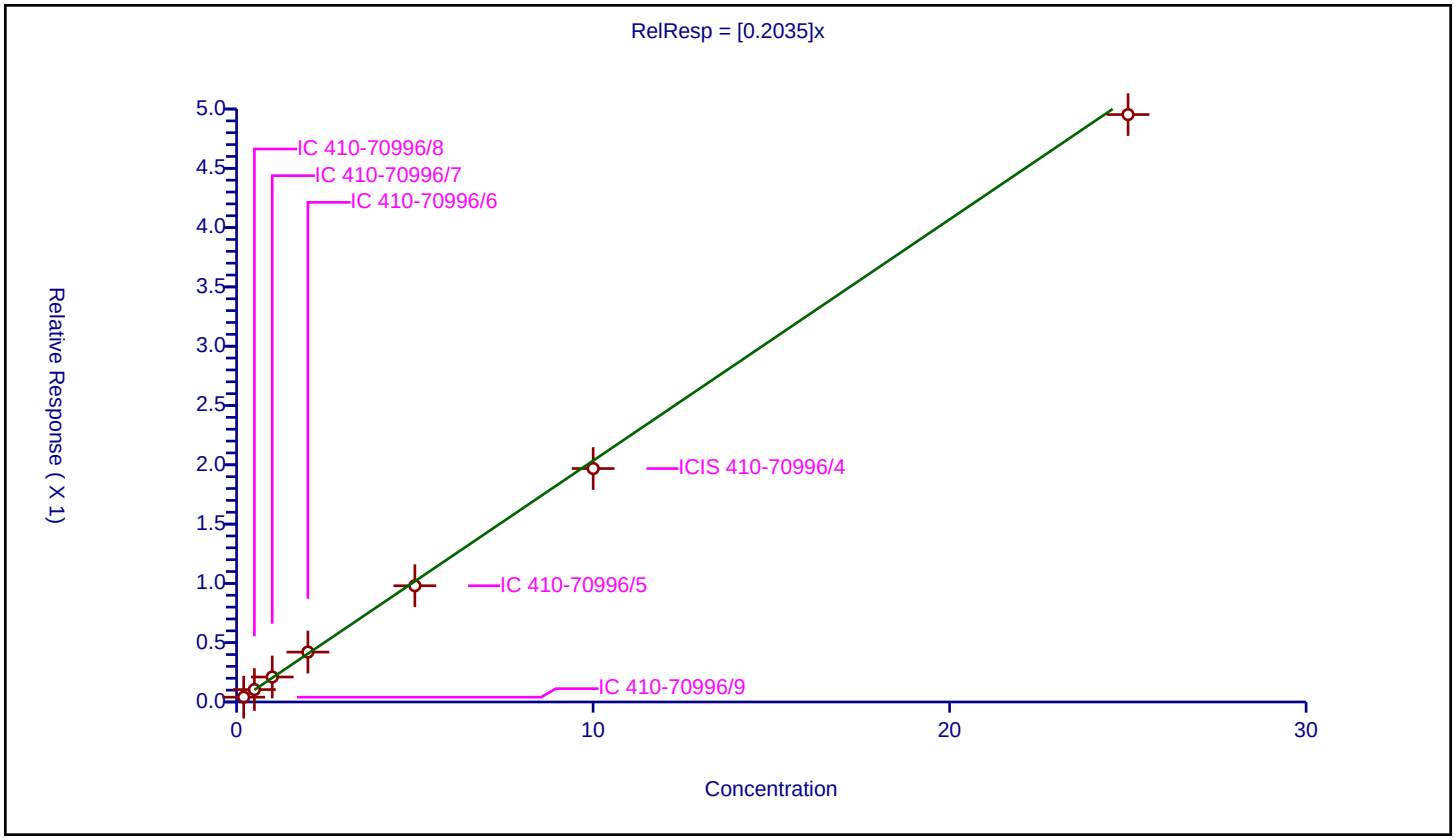
Curve Coefficients

Intercept:	0
Slope:	0.2035

Error Coefficients

Standard Error:	499000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.200043	0.040594	10.0	2204755.0	0.202927	Y
2	IC 410-70996/8	0.500108	0.104742	10.0	2189287.0	0.209439	Y
3	IC 410-70996/7	1.000215	0.210594	10.0	2211412.0	0.210549	Y
4	IC 410-70996/6	2.00043	0.420903	10.0	2210035.0	0.210406	Y
5	IC 410-70996/5	5.001075	0.98027	10.0	2225560.0	0.196012	Y
6	ICIS 410-70996/4	10.00215	1.968457	10.0	2246480.0	0.196803	Y
7	IC 410-70996/3	25.005375	4.953173	10.0	2249974.0	0.198084	Y



Calibration / 1,2-Dichloro-1,1,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

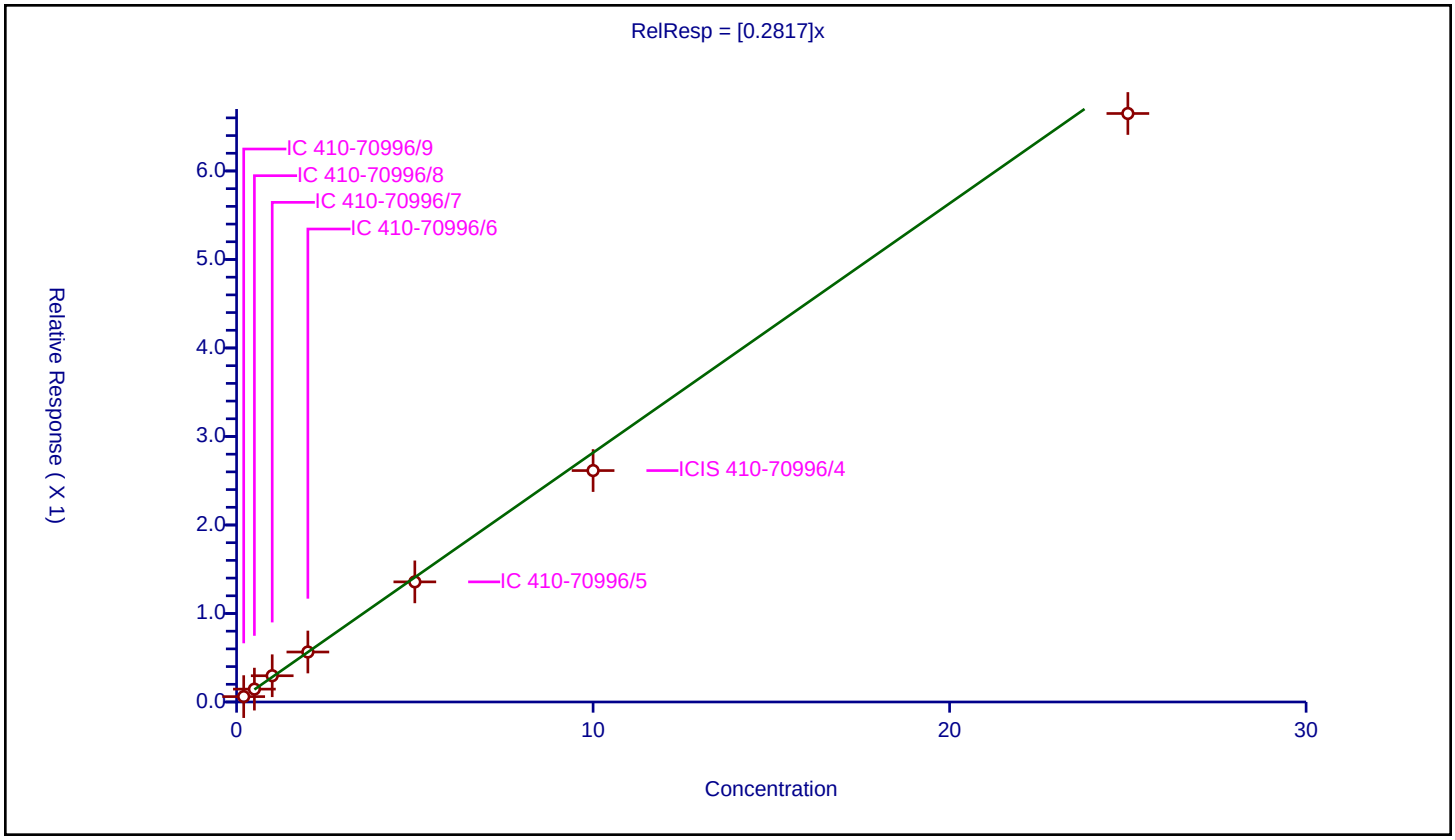
Curve Coefficients

Intercept:	0
Slope:	0.2817

Error Coefficients

Standard Error:	670000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.060574	10.0	2204755.0	0.302868	Y
2	IC 410-70996/8	0.5	0.145499	10.0	2189287.0	0.290999	Y
3	IC 410-70996/7	1.0	0.296648	10.0	2211412.0	0.296648	Y
4	IC 410-70996/6	2.0	0.564756	10.0	2210035.0	0.282378	Y
5	IC 410-70996/5	5.0	1.357115	10.0	2225560.0	0.271423	Y
6	ICIS 410-70996/4	10.0	2.614788	10.0	2246480.0	0.261479	Y
7	IC 410-70996/3	25.0	6.649499	10.0	2249974.0	0.26598	Y



Calibration / Acrolein

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

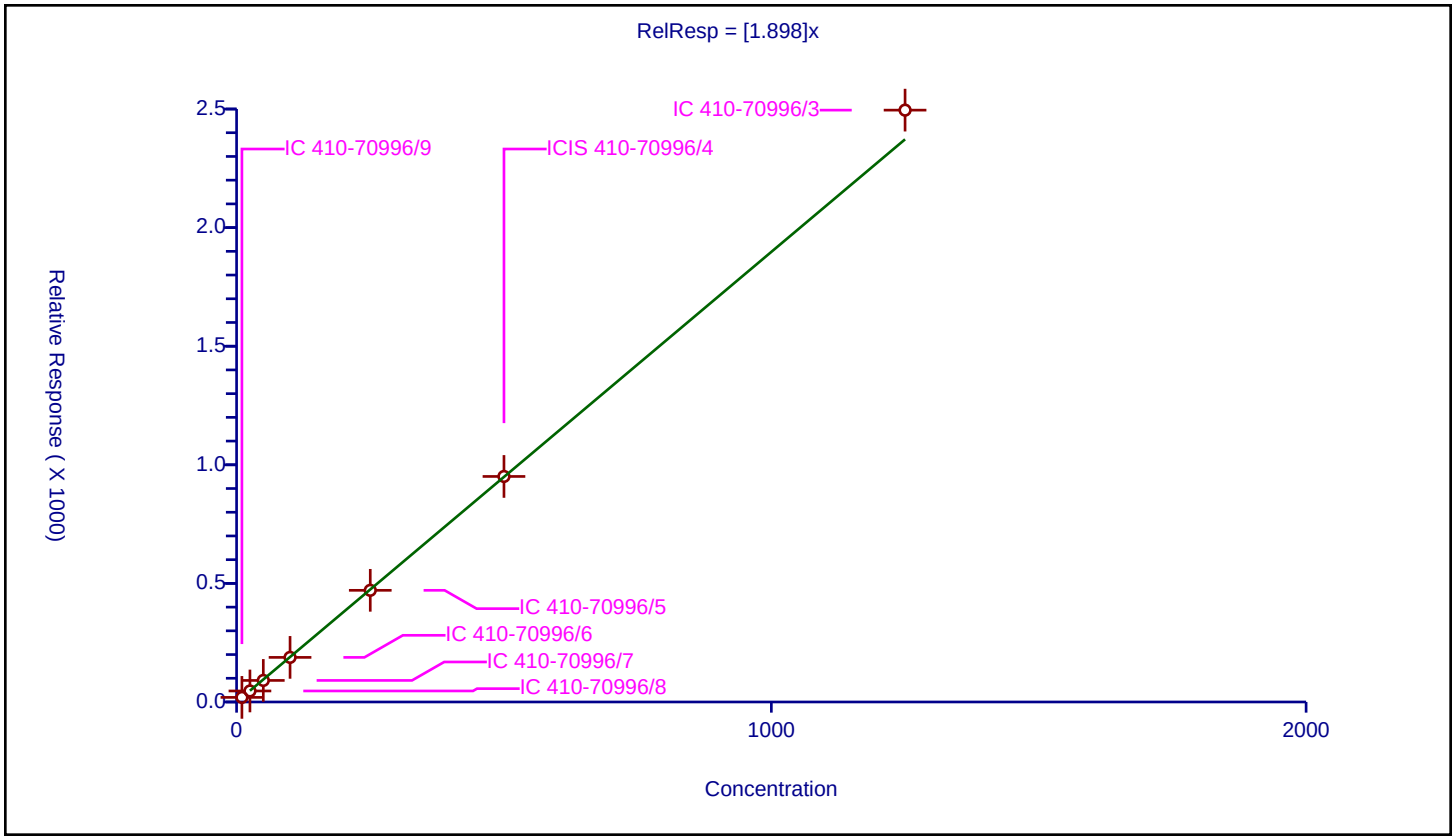
Curve Coefficients

Intercept:	0
Slope:	1.898

Error Coefficients

Standard Error:	3980000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	10.000292	19.44882	50.0	184731.0	1.944825	Y
2	IC 410-70996/8	25.000729	46.526395	50.0	195834.0	1.861002	Y
3	IC 410-70996/7	50.001458	90.859368	50.0	201206.0	1.817134	Y
4	IC 410-70996/6	100.002917	187.990007	50.0	195329.0	1.879845	Y
5	IC 410-70996/5	250.007292	470.811266	50.0	183343.0	1.88319	Y
6	ICIS 410-70996/4	500.014585	950.905994	50.0	186094.0	1.901757	Y
7	IC 410-70996/3	1250.036462	2495.255991	50.0	177877.0	1.996147	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

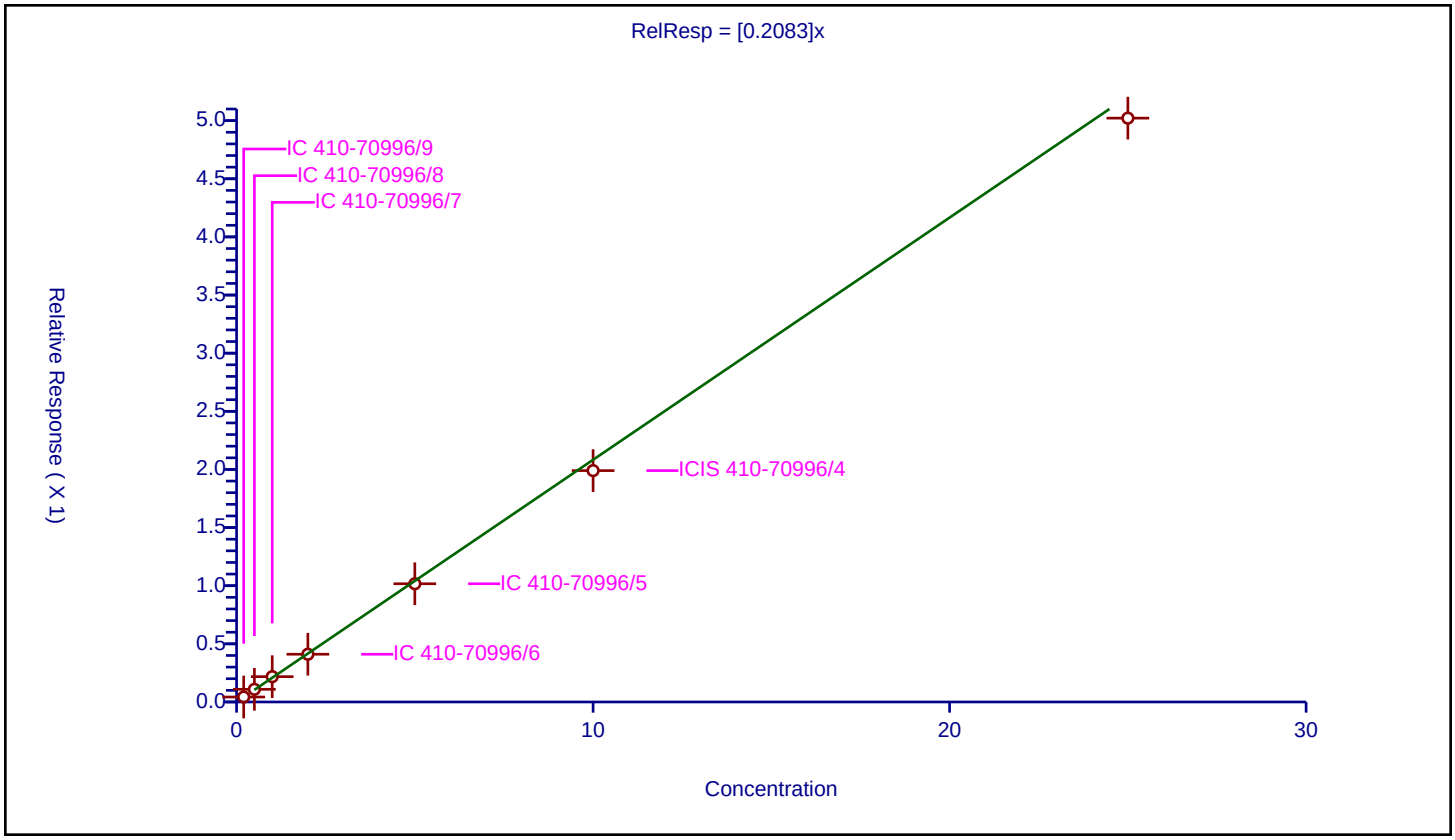
Curve Coefficients

Intercept:	0
Slope:	0.2083

Error Coefficients

Standard Error:	506000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.042762	10.0	2204755.0	0.213811	Y
2	IC 410-70996/8	0.5	0.10899	10.0	2189287.0	0.21798	Y
3	IC 410-70996/7	1.0	0.217793	10.0	2211412.0	0.217793	Y
4	IC 410-70996/6	2.0	0.410546	10.0	2210035.0	0.205273	Y
5	IC 410-70996/5	5.0	1.016944	10.0	2225560.0	0.203389	Y
6	ICIS 410-70996/4	10.0	1.989984	10.0	2246480.0	0.198998	Y
7	IC 410-70996/3	25.0	5.021511	10.0	2249974.0	0.20086	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

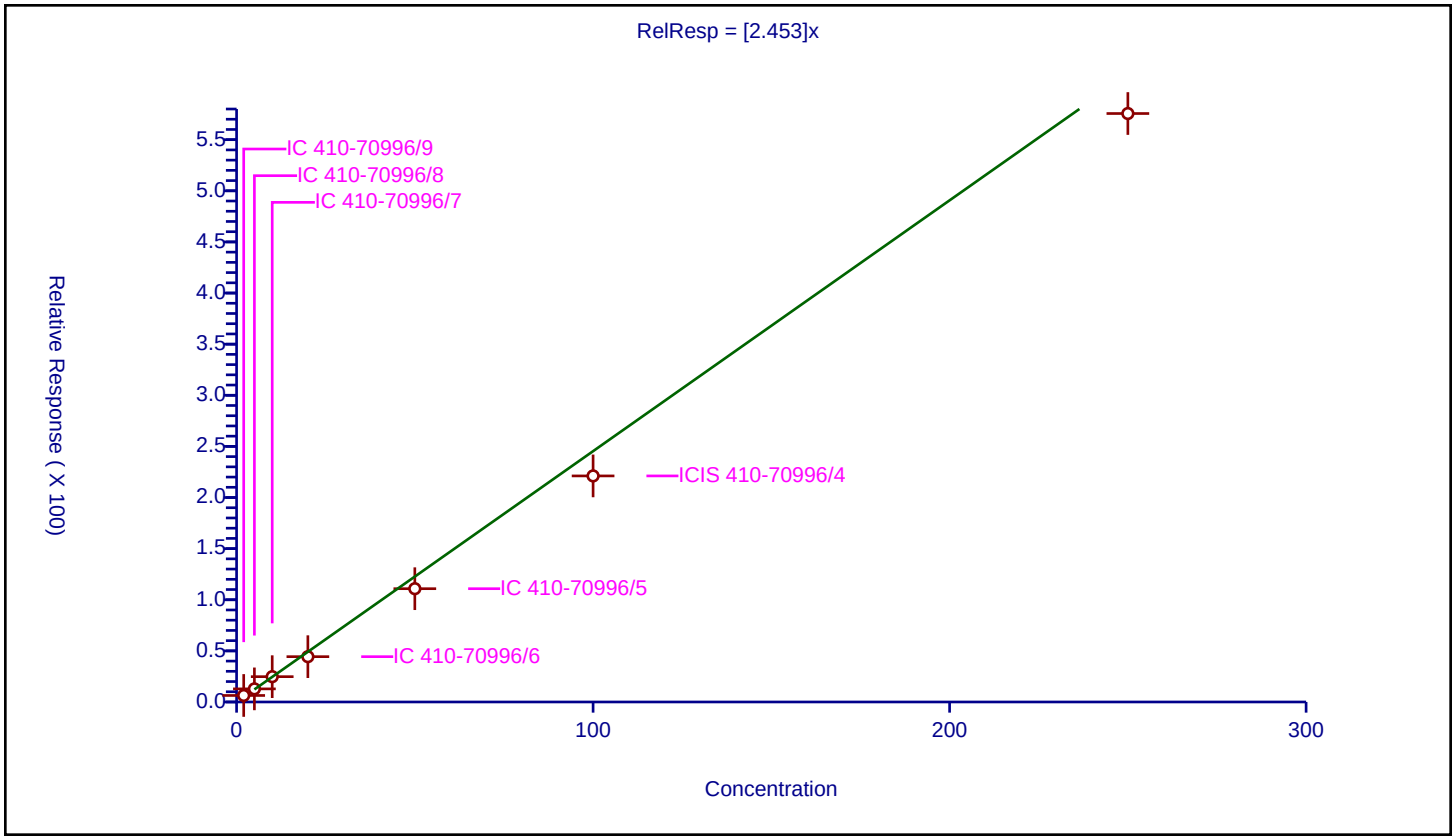
Curve Coefficients

Intercept:	0
Slope:	2.453

Error Coefficients

Standard Error:	920000
Relative Standard Error:	14.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.966

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	2.0	6.371697	50.0	184731.0	3.185849	Y
2	IC 410-70996/8	5.0	12.822595	50.0	195834.0	2.564519	Y
3	IC 410-70996/7	10.0	24.764172	50.0	201206.0	2.476417	Y
4	IC 410-70996/6	20.0	44.336478	50.0	195329.0	2.216824	Y
5	IC 410-70996/5	50.0	110.805703	50.0	183343.0	2.216114	Y
6	ICIS 410-70996/4	100.0	221.132062	50.0	186094.0	2.211321	Y
7	IC 410-70996/3	250.0	575.589593	50.0	177877.0	2.302358	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

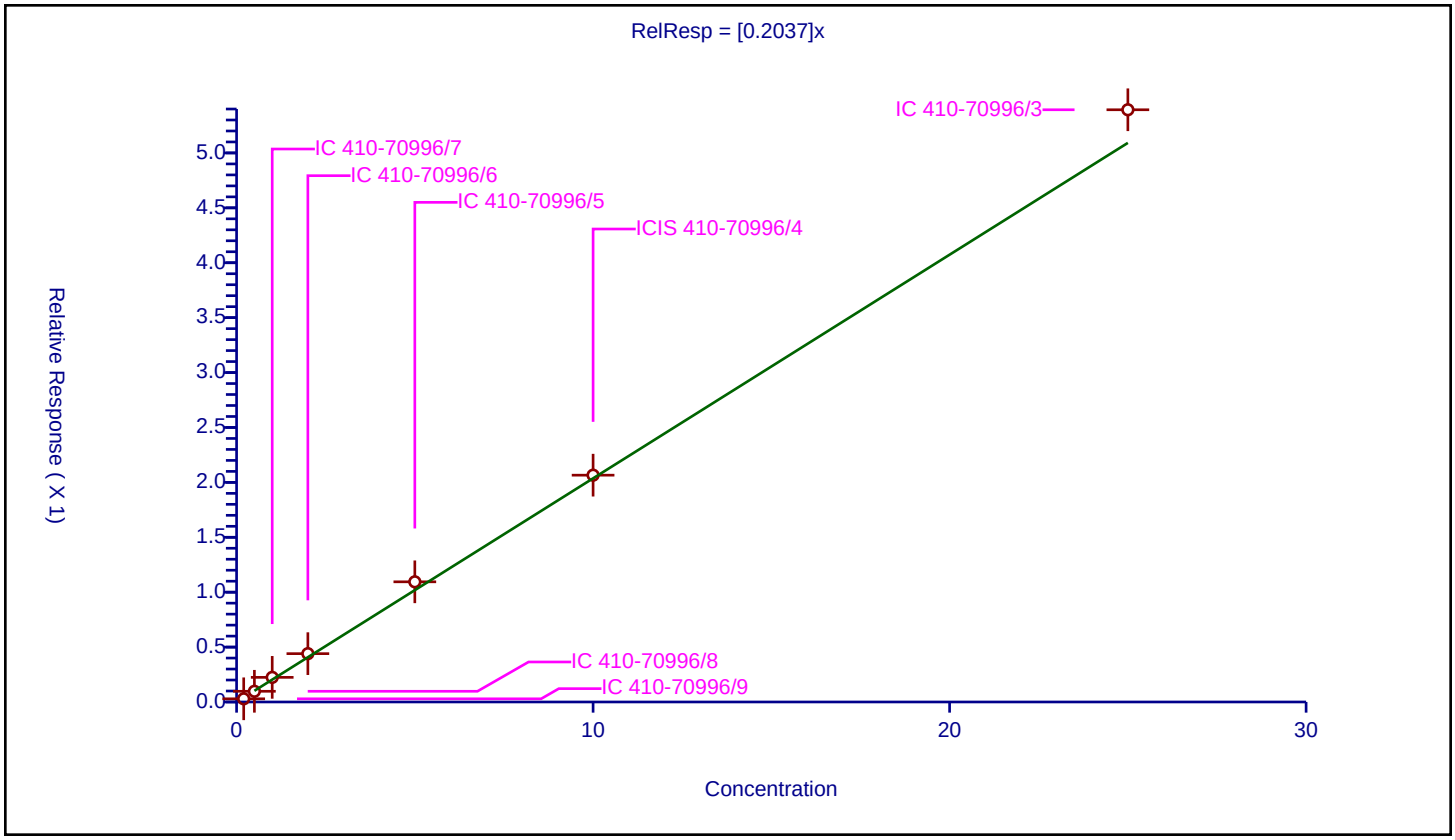
Curve Coefficients

Intercept:	0
Slope:	0.2037

Error Coefficients

Standard Error:	542000
Relative Standard Error:	13.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.02906	10.0	2204755.0	0.1453	Y
2	IC 410-70996/8	0.5	0.097397	10.0	2189287.0	0.194794	Y
3	IC 410-70996/7	1.0	0.224309	10.0	2211412.0	0.224309	Y
4	IC 410-70996/6	2.0	0.440237	10.0	2210035.0	0.220119	Y
5	IC 410-70996/5	5.0	1.094354	10.0	2225560.0	0.218871	Y
6	ICIS 410-70996/4	10.0	2.065565	10.0	2246480.0	0.206556	Y
7	IC 410-70996/3	25.0	5.393209	10.0	2249974.0	0.215728	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

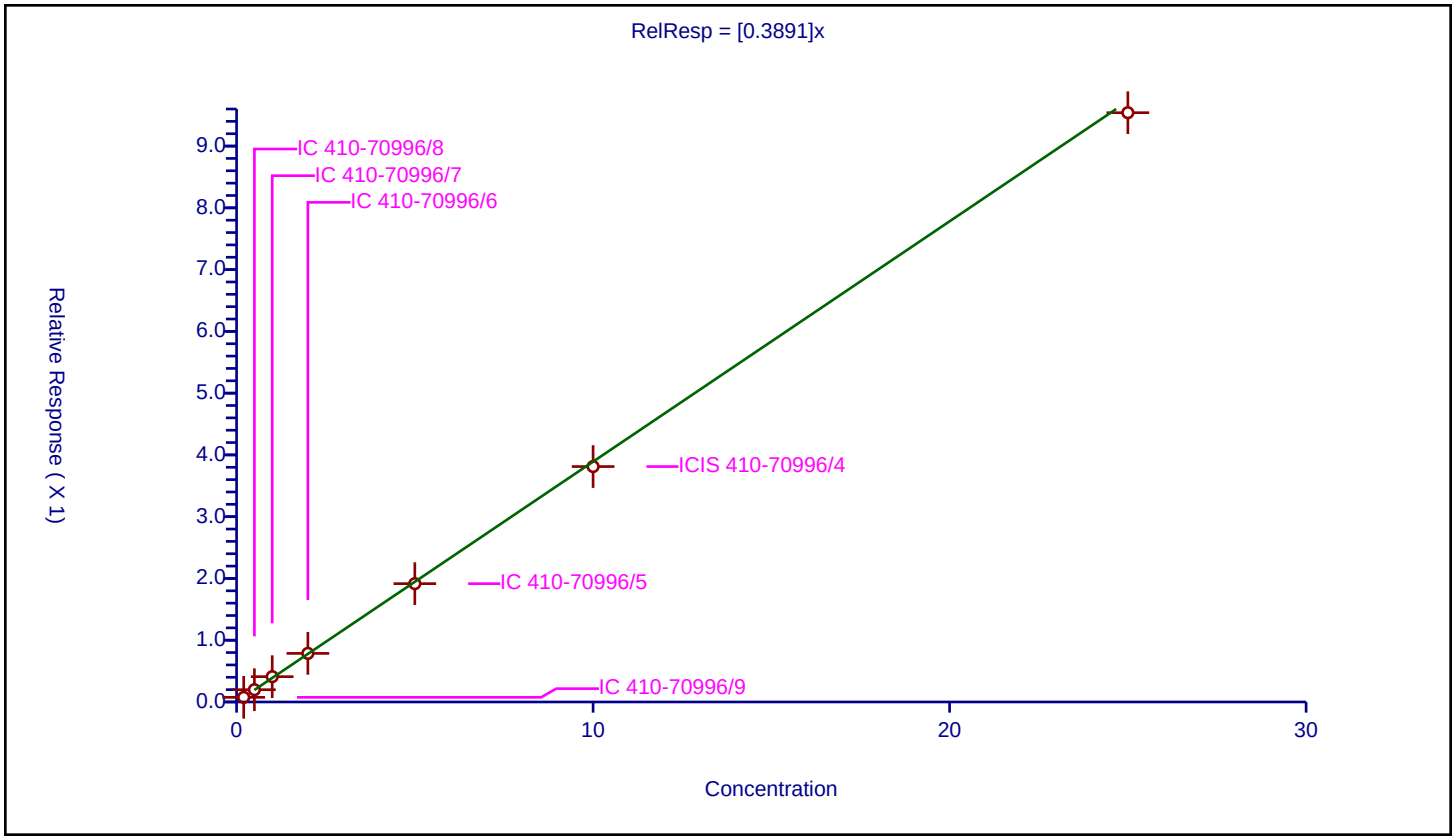
Curve Coefficients

Intercept:	0
Slope:	0.3891

Error Coefficients

Standard Error:	963000
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	IC 410-70996/9	0.2	0.075405	10.0	2204755.0	0.377026	Y
2	IC 410-70996/8	0.5	0.198695	10.0	2189287.0	0.39739	Y
3	IC 410-70996/7	1.0	0.409937	10.0	2211412.0	0.409937	Y
4	IC 410-70996/6	2.0	0.786752	10.0	2210035.0	0.393376	Y
5	IC 410-70996/5	5.0	1.915868	10.0	2225560.0	0.383174	Y
6	ICIS 410-70996/4	10.0	3.811434	10.0	2246480.0	0.381143	Y
7	IC 410-70996/3	25.0	9.540501	10.0	2249974.0	0.38162	Y



Calibration / Carbon disulfide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

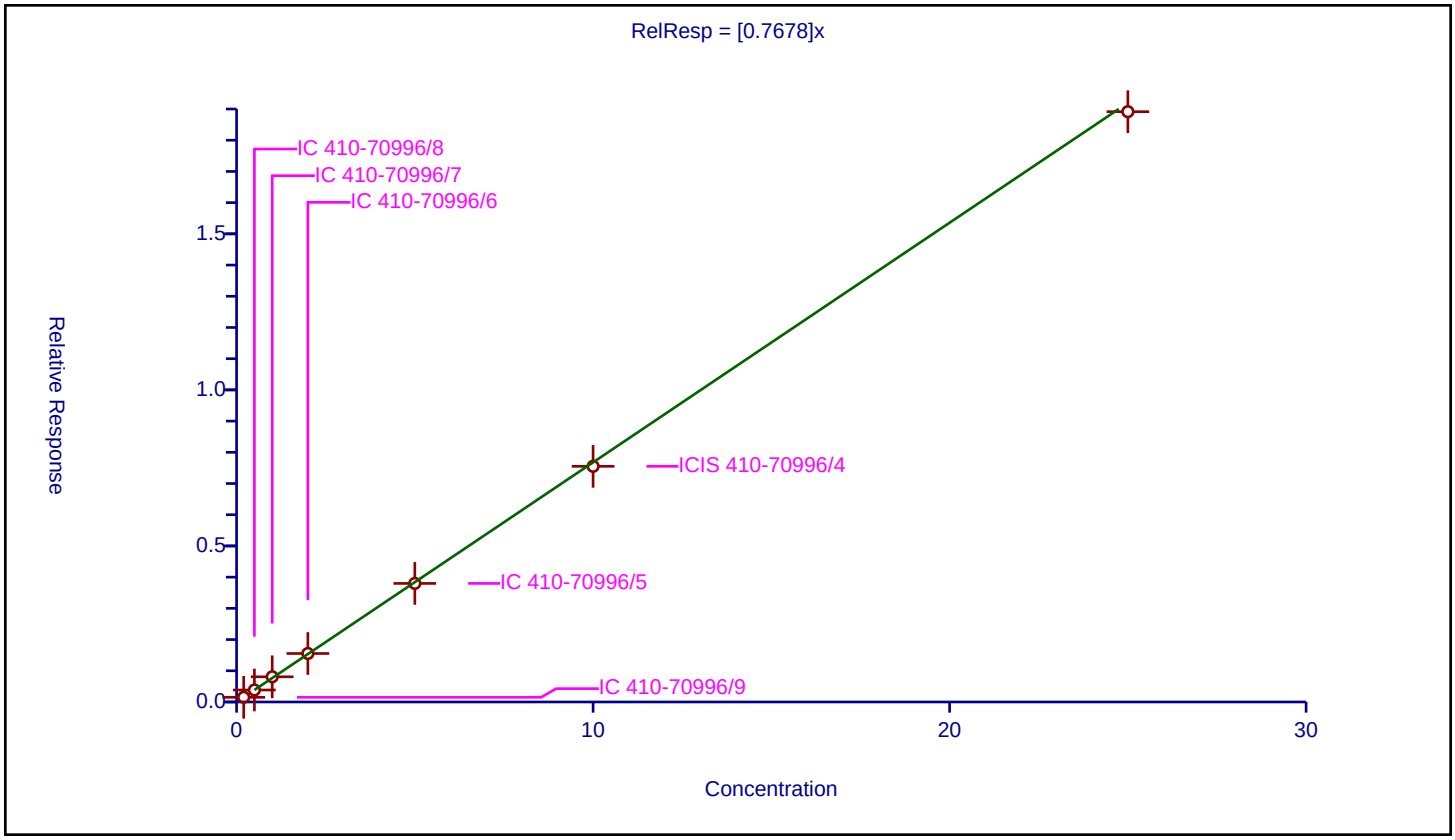
Curve Coefficients

Intercept:	0
Slope:	0.7678

Error Coefficients

Standard Error:	1910000
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	IC 410-70996/9	0.2	0.150298	10.0	2204755.0	0.751489	Y
2	IC 410-70996/8	0.5	0.38397	10.0	2189287.0	0.76794	Y
3	IC 410-70996/7	1.0	0.807	10.0	2211412.0	0.807	Y
4	IC 410-70996/6	2.0	1.553564	10.0	2210035.0	0.776782	Y
5	IC 410-70996/5	5.0	3.799632	10.0	2225560.0	0.759926	Y
6	ICIS 410-70996/4	10.0	7.550835	10.0	2246480.0	0.755084	Y
7	IC 410-70996/3	25.0	18.914672	10.0	2249974.0	0.756587	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

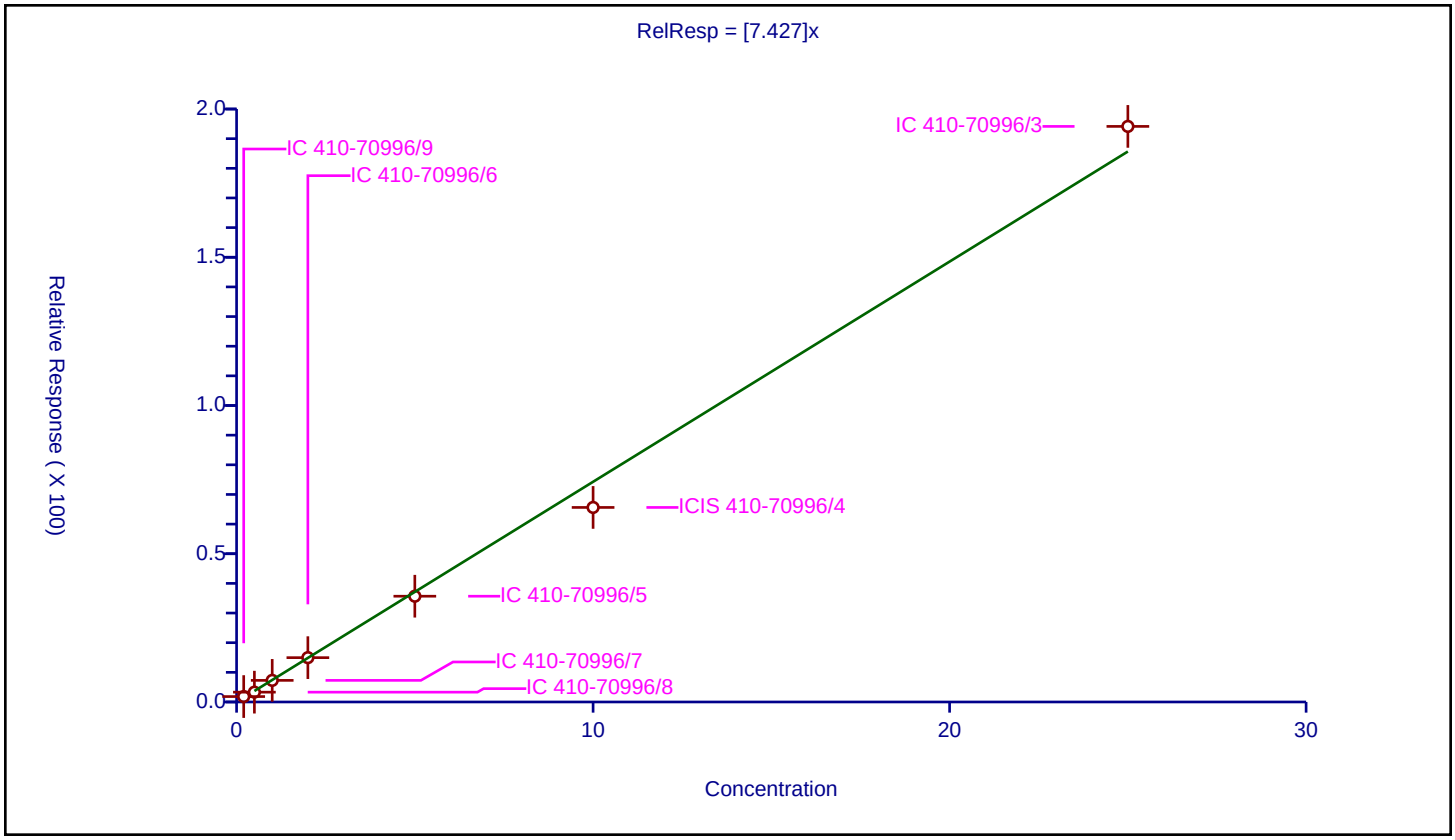
Curve Coefficients

Intercept:	0
Slope:	7.427

Error Coefficients

Standard Error:	305000
Relative Standard Error:	11.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	1.827252	50.0	184731.0	9.136258	Y
2	IC 410-70996/8	0.5	3.310457	50.0	195834.0	6.620914	Y
3	IC 410-70996/7	1.0	7.28855	50.0	201206.0	7.28855	Y
4	IC 410-70996/6	2.0	14.95656	50.0	195329.0	7.47828	Y
5	IC 410-70996/5	5.0	35.676028	50.0	183343.0	7.135206	Y
6	ICIS 410-70996/4	10.0	65.6206	50.0	186094.0	6.56206	Y
7	IC 410-70996/3	25.0	194.136398	50.0	177877.0	7.765456	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

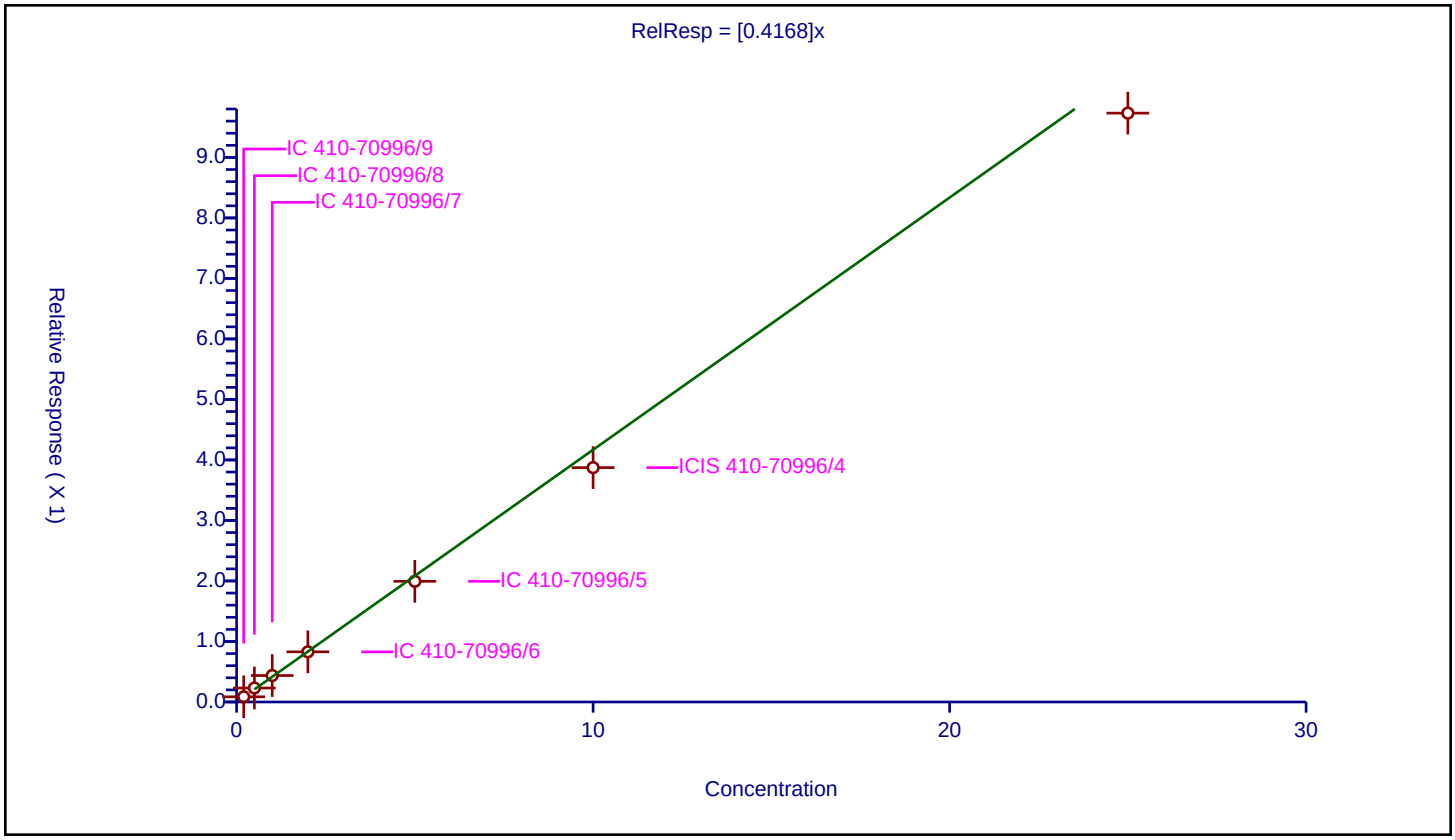
Curve Coefficients

Intercept:	0
Slope:	0.4168

Error Coefficients

Standard Error:	983000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.085656	10.0	2204755.0	0.428279	Y
2	IC 410-70996/8	0.5	0.231144	10.0	2189287.0	0.462287	Y
3	IC 410-70996/7	1.0	0.437268	10.0	2211412.0	0.437268	Y
4	IC 410-70996/6	2.0	0.828933	10.0	2210035.0	0.414466	Y
5	IC 410-70996/5	5.0	1.99388	10.0	2225560.0	0.398776	Y
6	ICIS 410-70996/4	10.0	3.873153	10.0	2246480.0	0.387315	Y
7	IC 410-70996/3	25.0	9.732019	10.0	2249974.0	0.389281	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

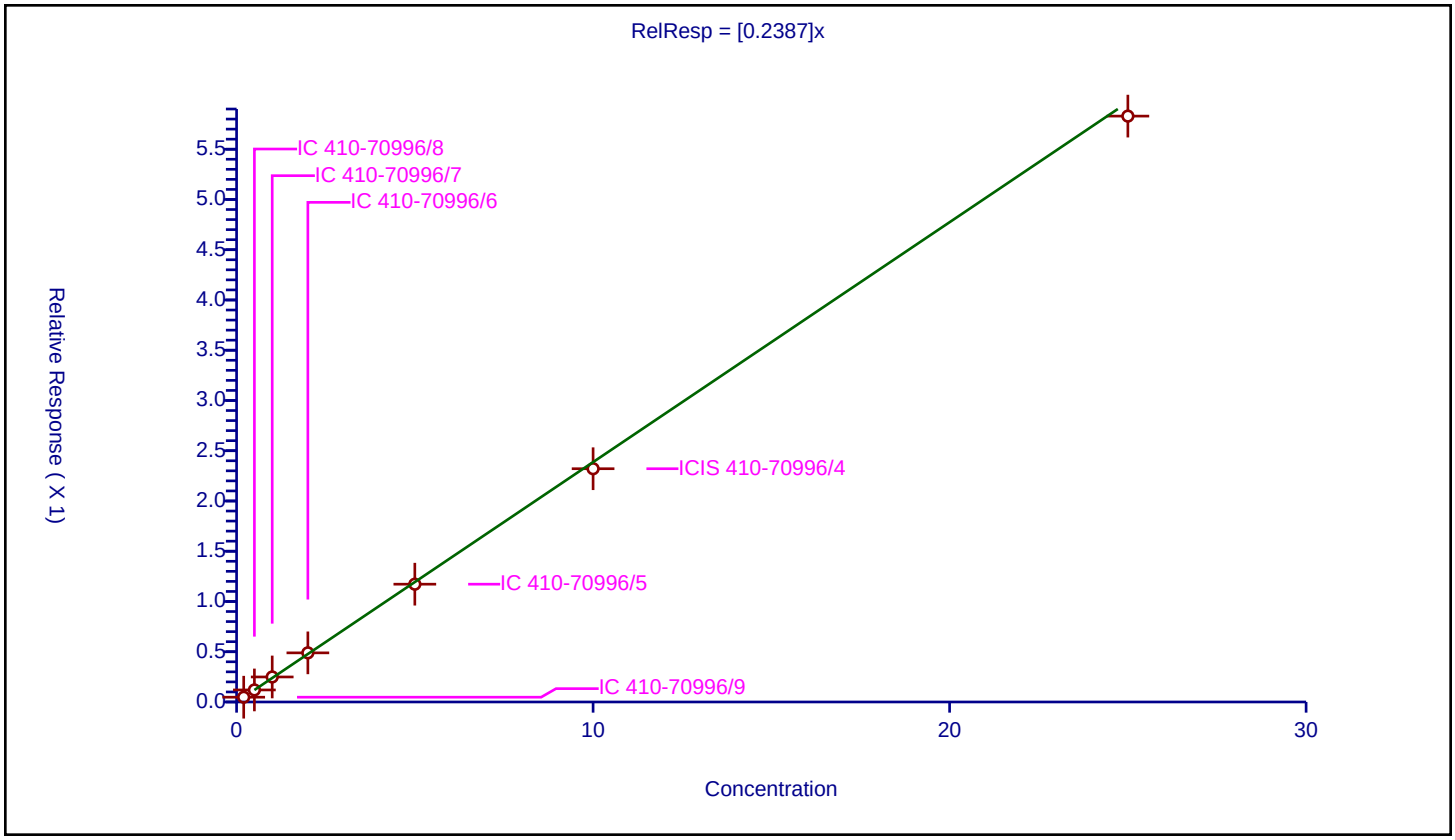
Curve Coefficients

Intercept:	0
Slope:	0.2387

Error Coefficients

Standard Error:	588000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.047633	10.0	2204755.0	0.238167	Y
2	IC 410-70996/8	0.5	0.119665	10.0	2189287.0	0.239329	Y
3	IC 410-70996/7	1.0	0.249144	10.0	2211412.0	0.249144	Y
4	IC 410-70996/6	2.0	0.488933	10.0	2210035.0	0.244467	Y
5	IC 410-70996/5	5.0	1.172145	10.0	2225560.0	0.234429	Y
6	ICIS 410-70996/4	10.0	2.32108	10.0	2246480.0	0.232108	Y
7	IC 410-70996/3	25.0	5.829525	10.0	2249974.0	0.233181	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

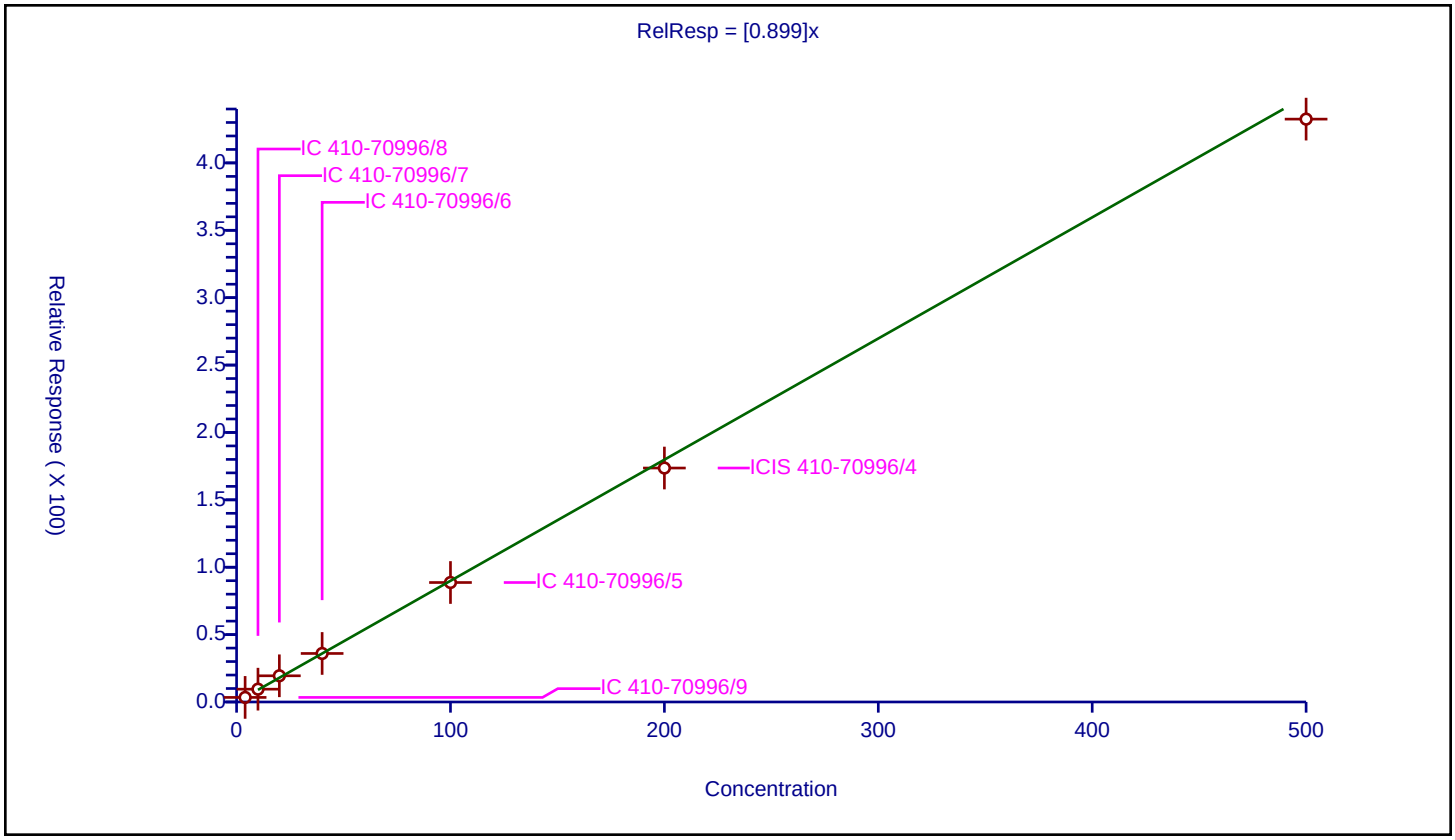
Curve Coefficients

Intercept:	0
Slope:	0.899

Error Coefficients

Standard Error:	697000
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	IC 410-70996/9	4.0	3.398996	50.0	184731.0	0.849749	Y
2	IC 410-70996/8	10.0	9.516223	50.0	195834.0	0.951622	Y
3	IC 410-70996/7	20.0	19.445245	50.0	201206.0	0.972262	Y
4	IC 410-70996/6	40.0	35.997983	50.0	195329.0	0.89995	Y
5	IC 410-70996/5	100.0	88.660325	50.0	183343.0	0.886603	Y
6	ICIS 410-70996/4	200.0	173.59399	50.0	186094.0	0.86797	Y
7	IC 410-70996/3	500.0	432.502516	50.0	177877.0	0.865005	Y



Calibration / Acrylonitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

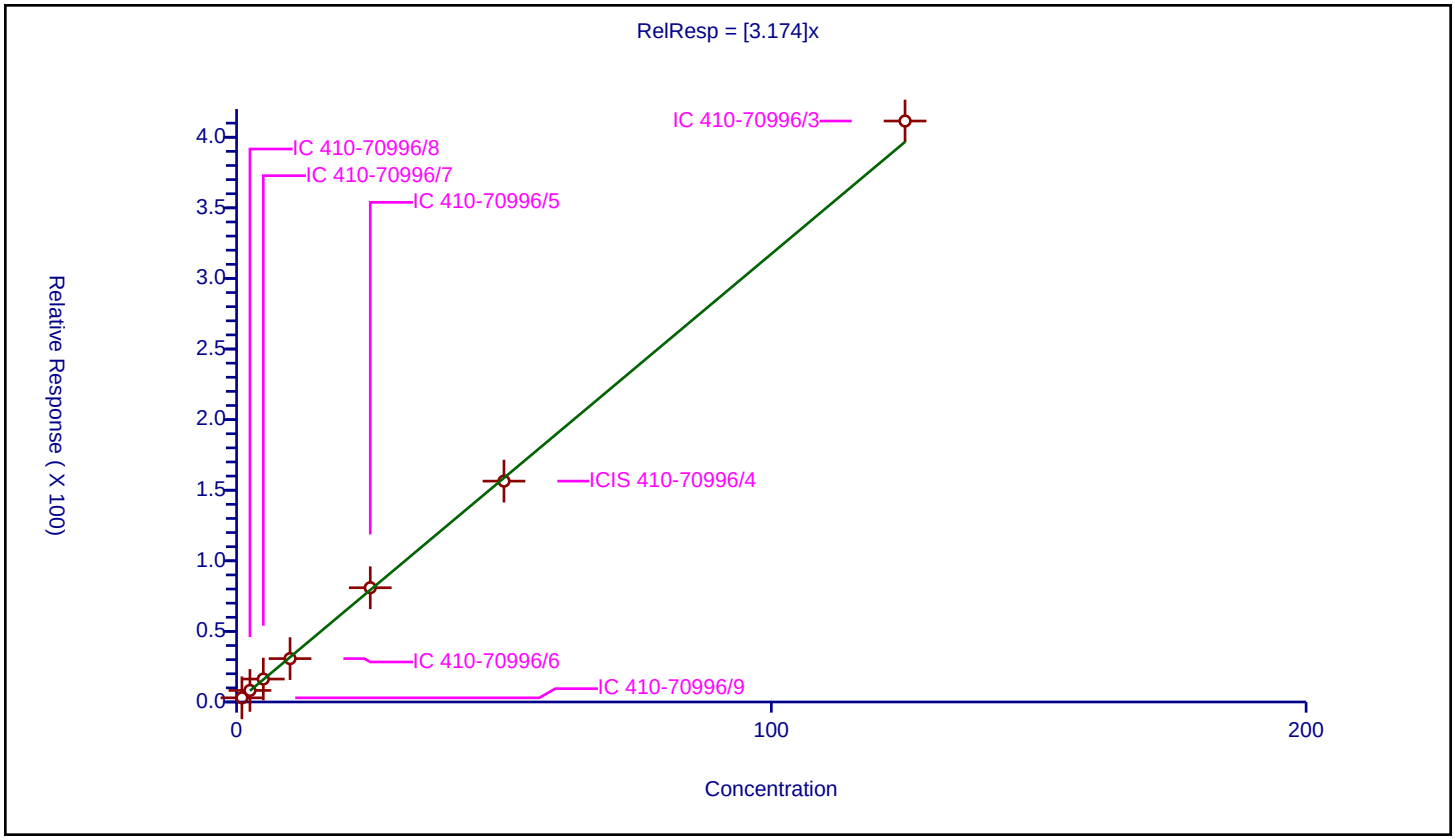
Curve Coefficients

Intercept:	0
Slope:	3.174

Error Coefficients

Standard Error:	657000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	1.0	2.958626	50.0	184731.0	2.958626	Y
2	IC 410-70996/8	2.5	8.187036	50.0	195834.0	3.274814	Y
3	IC 410-70996/7	5.0	16.260449	50.0	201206.0	3.25209	Y
4	IC 410-70996/6	10.0	30.729436	50.0	195329.0	3.072944	Y
5	IC 410-70996/5	25.0	80.91637	50.0	183343.0	3.236655	Y
6	ICIS 410-70996/4	50.0	156.440294	50.0	186094.0	3.128806	Y
7	IC 410-70996/3	125.0	411.493616	50.0	177877.0	3.291949	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

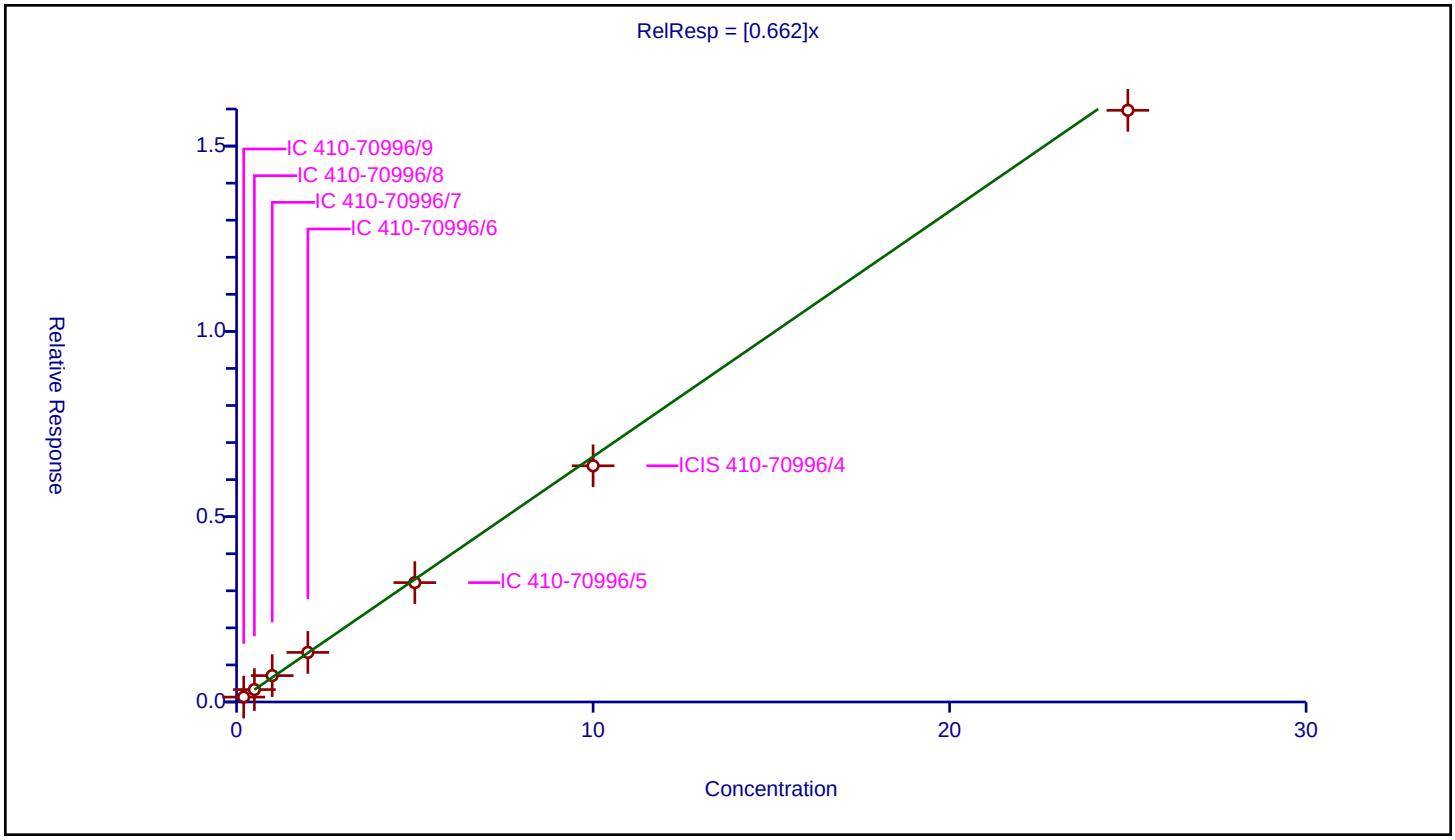
Curve Coefficients

Intercept:	0
Slope:	0.662

Error Coefficients

Standard Error:	1610000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.132704	10.0	2204755.0	0.66352	Y
2	IC 410-70996/8	0.5	0.334684	10.0	2189287.0	0.669369	Y
3	IC 410-70996/7	1.0	0.712292	10.0	2211412.0	0.712292	Y
4	IC 410-70996/6	2.0	1.337915	10.0	2210035.0	0.668958	Y
5	IC 410-70996/5	5.0	3.221028	10.0	2225560.0	0.644206	Y
6	ICIS 410-70996/4	10.0	6.373162	10.0	2246480.0	0.637316	Y
7	IC 410-70996/3	25.0	15.965087	10.0	2249974.0	0.638603	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

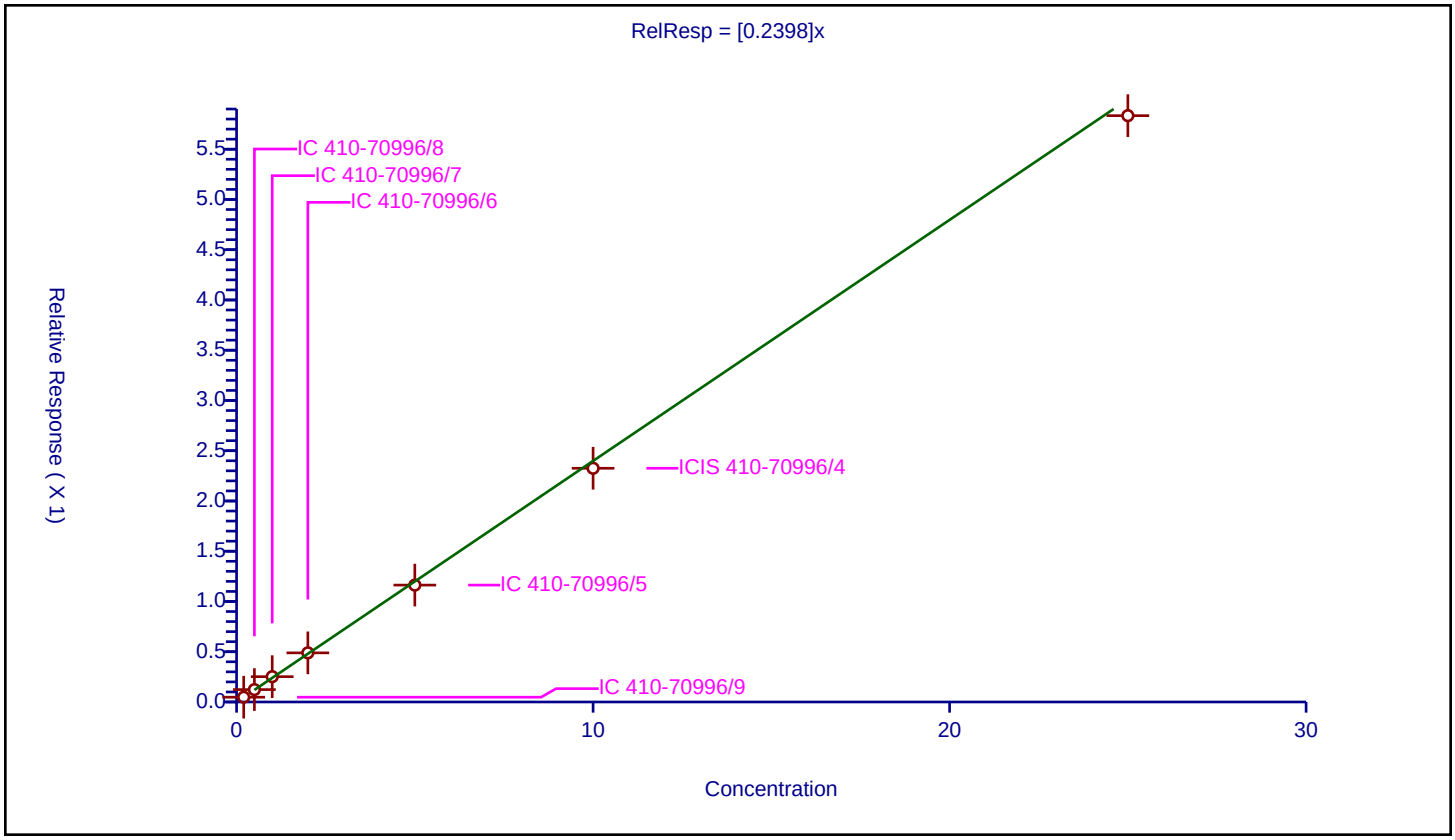
Curve Coefficients

Intercept:	0
Slope:	0.2398

Error Coefficients

Standard Error:	589000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.047525	10.0	2204755.0	0.237623	Y
2	IC 410-70996/8	0.5	0.123159	10.0	2189287.0	0.246318	Y
3	IC 410-70996/7	1.0	0.251902	10.0	2211412.0	0.251902	Y
4	IC 410-70996/6	2.0	0.488933	10.0	2210035.0	0.244467	Y
5	IC 410-70996/5	5.0	1.163105	10.0	2225560.0	0.232621	Y
6	ICIS 410-70996/4	10.0	2.325505	10.0	2246480.0	0.23255	Y
7	IC 410-70996/3	25.0	5.83393	10.0	2249974.0	0.233357	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

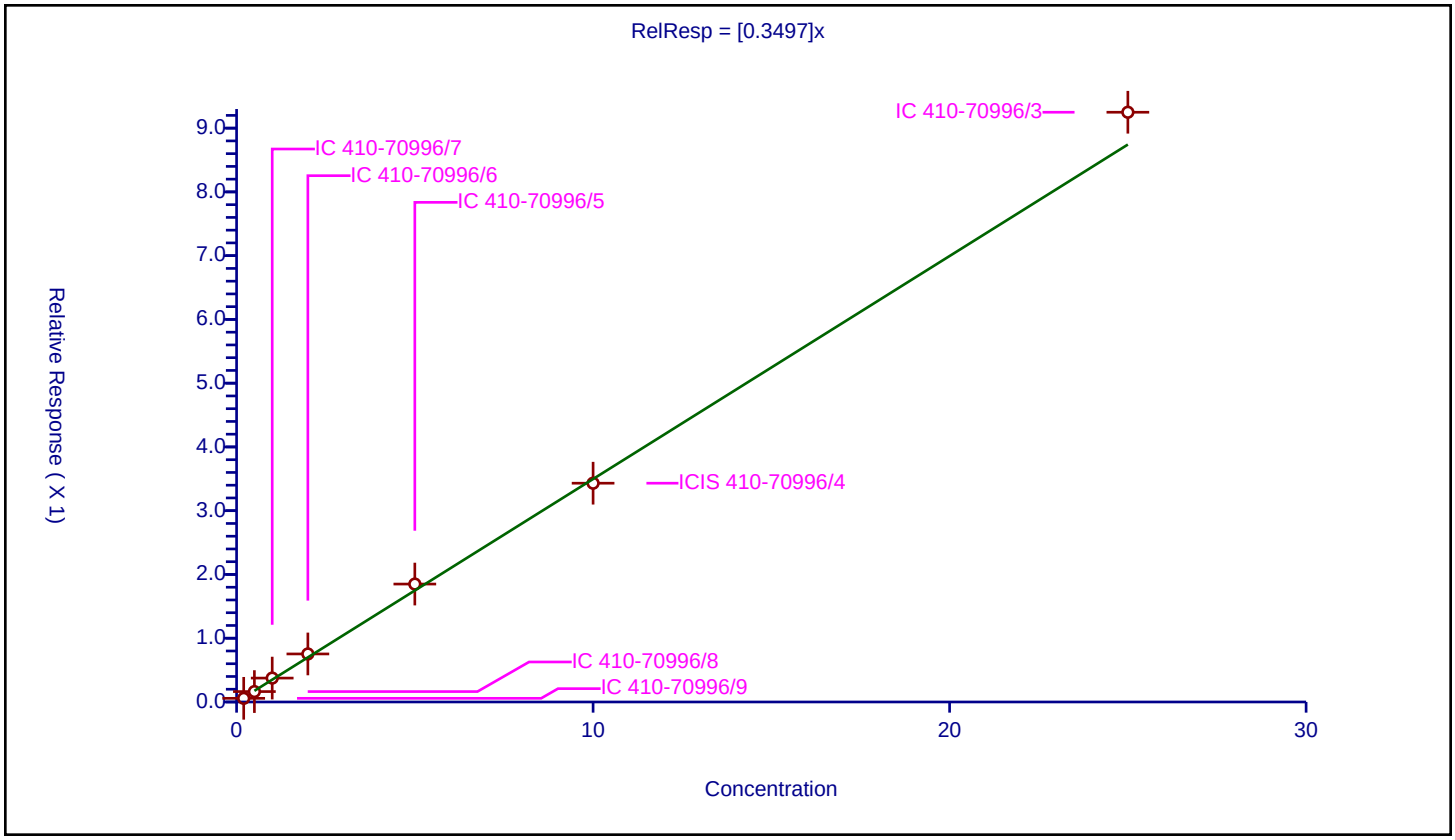
Curve Coefficients

Intercept:	0
Slope:	0.3497

Error Coefficients

Standard Error:	925000
Relative Standard Error:	9.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.057344	10.0	2204755.0	0.286721	Y
2	IC 410-70996/8	0.5	0.163195	10.0	2189287.0	0.326389	Y
3	IC 410-70996/7	1.0	0.375014	10.0	2211412.0	0.375014	Y
4	IC 410-70996/6	2.0	0.753649	10.0	2210035.0	0.376824	Y
5	IC 410-70996/5	5.0	1.849508	10.0	2225560.0	0.369902	Y
6	ICIS 410-70996/4	10.0	3.431542	10.0	2246480.0	0.343154	Y
7	IC 410-70996/3	25.0	9.249267	10.0	2249974.0	0.369971	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

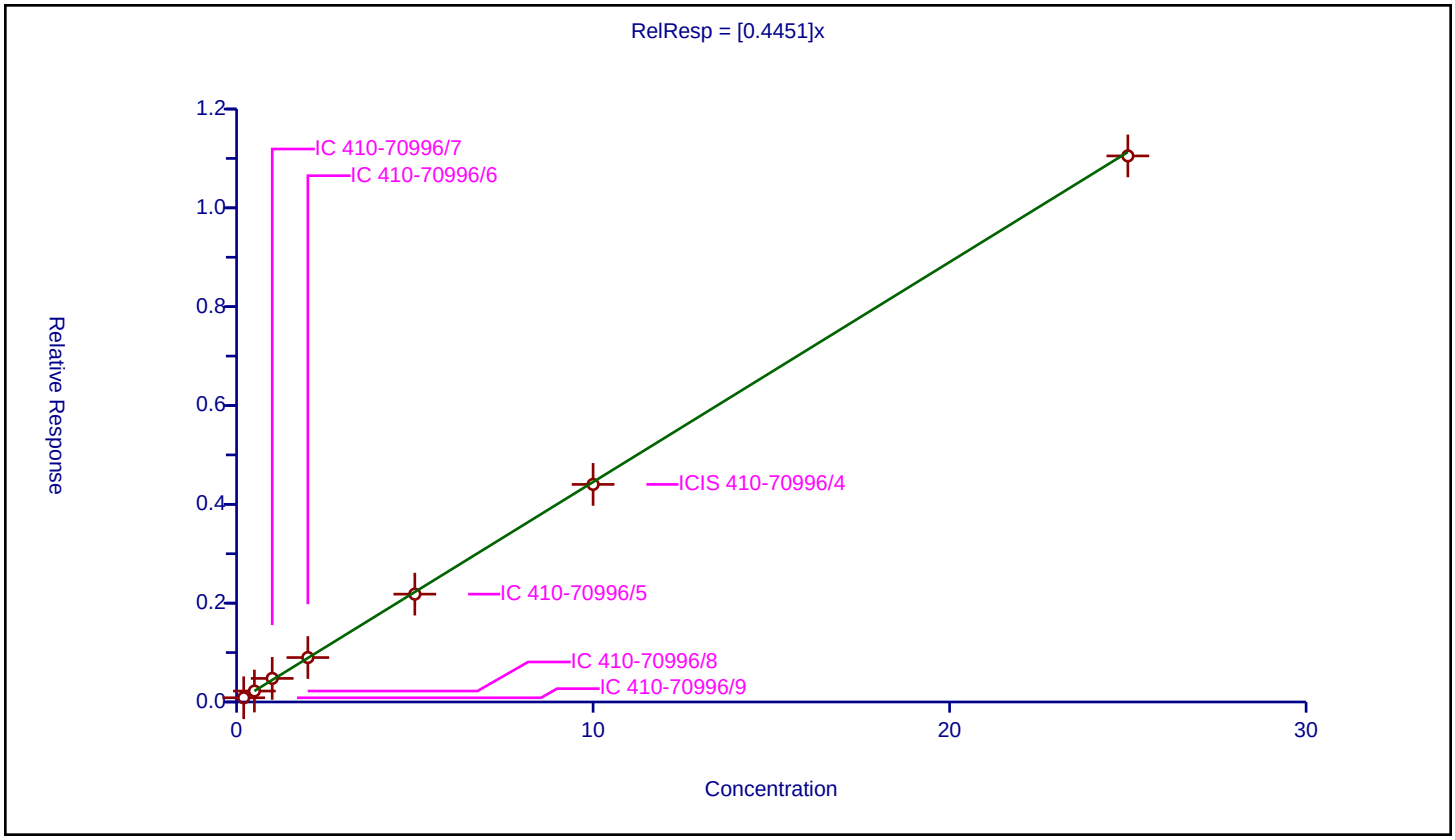
Curve Coefficients

Intercept:	0
Slope:	0.4451

Error Coefficients

Standard Error:	1110000
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	IC 410-70996/9	0.2	0.085397	10.0	2204755.0	0.426986	Y
2	IC 410-70996/8	0.5	0.221574	10.0	2189287.0	0.443149	Y
3	IC 410-70996/7	1.0	0.477121	10.0	2211412.0	0.477121	Y
4	IC 410-70996/6	2.0	0.89933	10.0	2210035.0	0.449665	Y
5	IC 410-70996/5	5.0	2.182687	10.0	2225560.0	0.436537	Y
6	ICIS 410-70996/4	10.0	4.403355	10.0	2246480.0	0.440336	Y
7	IC 410-70996/3	25.0	11.050888	10.0	2249974.0	0.442036	Y



Calibration / Isopropyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

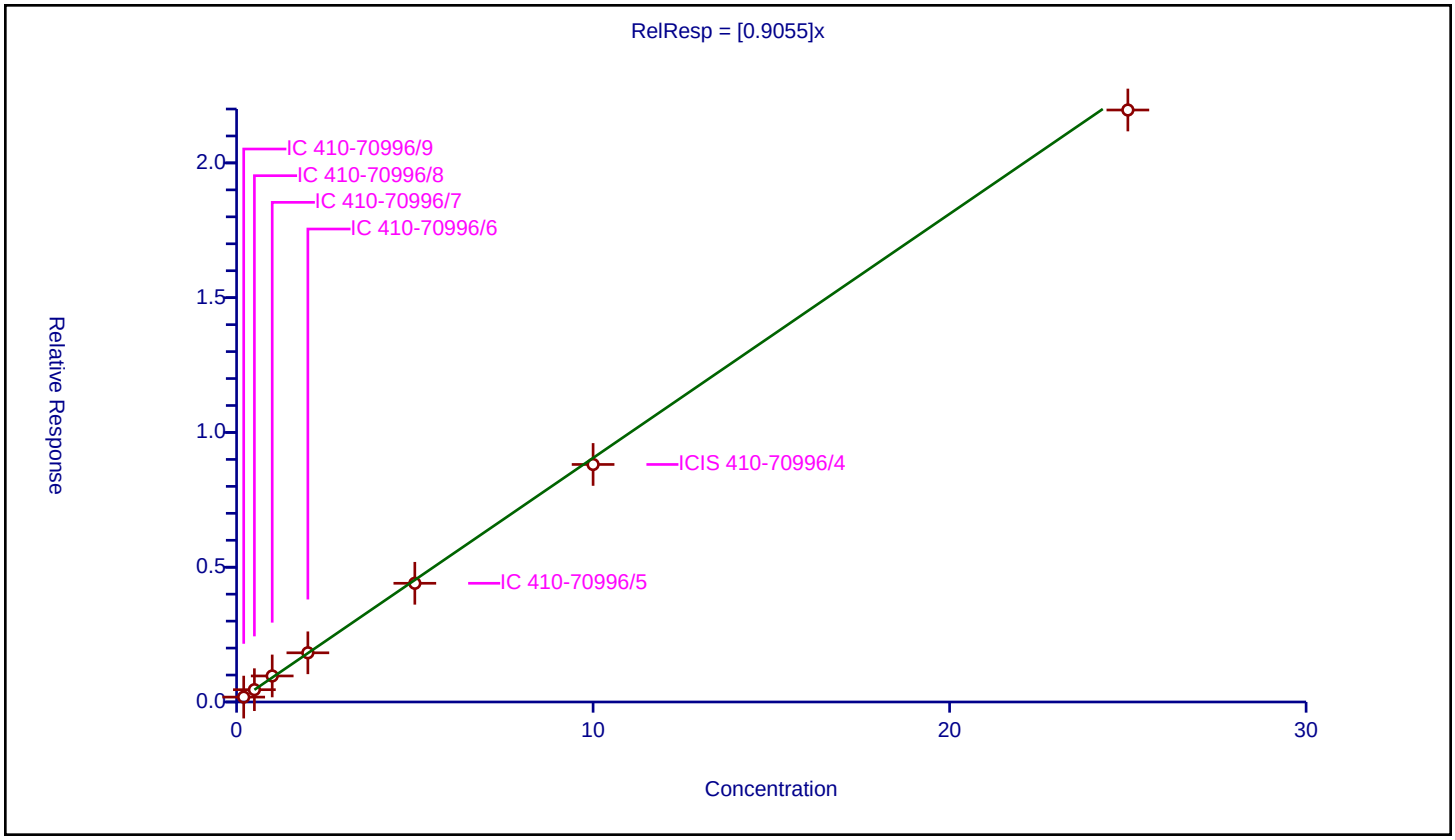
Curve Coefficients

Intercept:	0
Slope:	0.9055

Error Coefficients

Standard Error:	2220000
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	IC 410-70996/9	0.2	0.181231	10.0	2204755.0	0.906155	Y
2	IC 410-70996/8	0.5	0.456413	10.0	2189287.0	0.912827	Y
3	IC 410-70996/7	1.0	0.96622	10.0	2211412.0	0.96622	Y
4	IC 410-70996/6	2.0	1.825016	10.0	2210035.0	0.912508	Y
5	IC 410-70996/5	5.0	4.40384	10.0	2225560.0	0.880768	Y
6	ICIS 410-70996/4	10.0	8.812262	10.0	2246480.0	0.881226	Y
7	IC 410-70996/3	25.0	21.96356	10.0	2249974.0	0.878542	Y



Calibration / 2-Chloro-1,3-butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

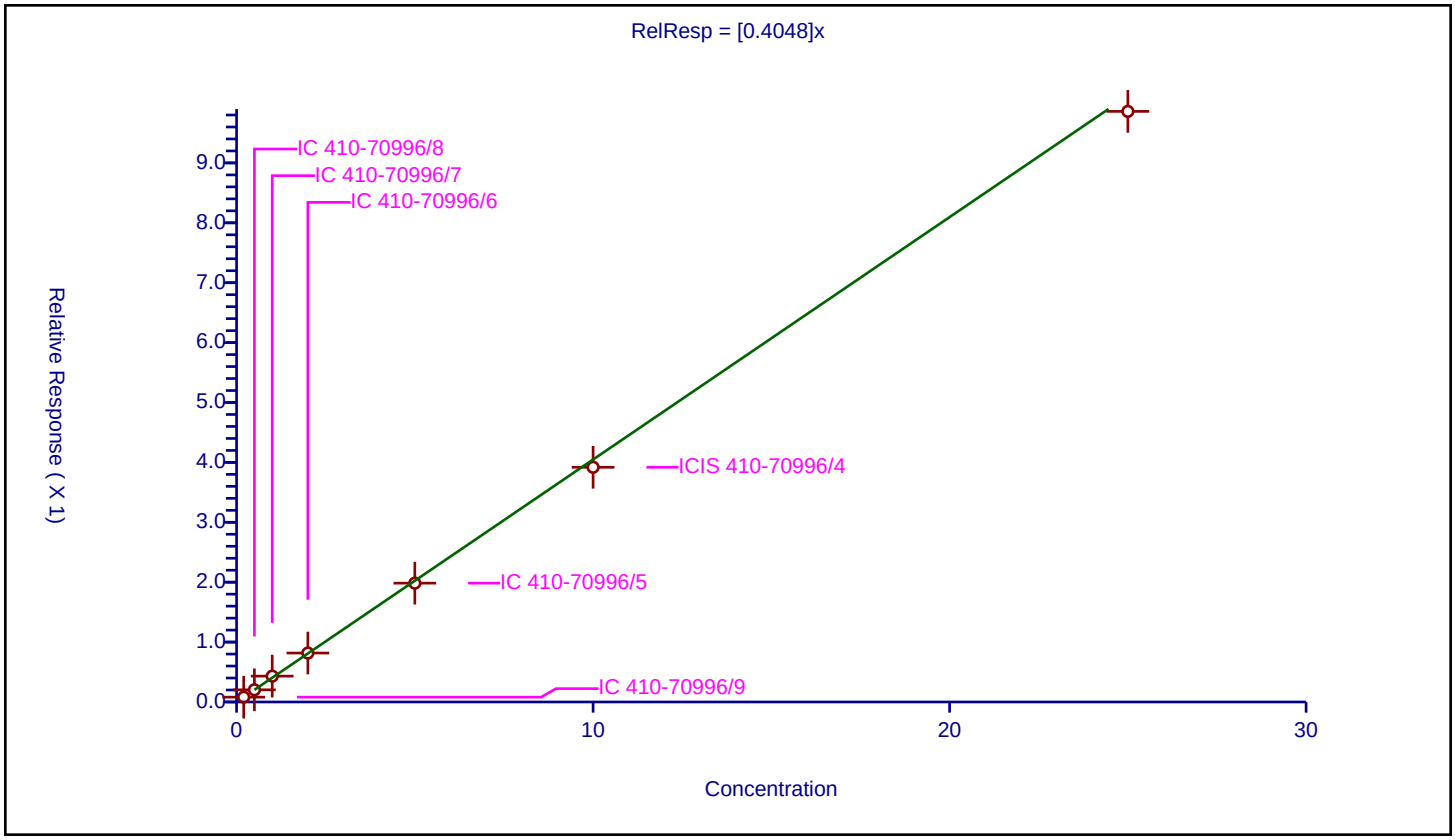
Curve Coefficients

Intercept:	0
Slope:	0.4048

Error Coefficients

Standard Error:	995000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.08083	10.0	2204755.0	0.404149	Y
2	IC 410-70996/8	0.5	0.203071	10.0	2189287.0	0.406141	Y
3	IC 410-70996/7	1.0	0.431525	10.0	2211412.0	0.431525	Y
4	IC 410-70996/6	2.0	0.817069	10.0	2210035.0	0.408534	Y
5	IC 410-70996/5	5.0	1.984	10.0	2225560.0	0.3968	Y
6	ICIS 410-70996/4	10.0	3.918731	10.0	2246480.0	0.391873	Y
7	IC 410-70996/3	25.0	9.860341	10.0	2249974.0	0.394414	Y



Calibration / Tert-butyl ethyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

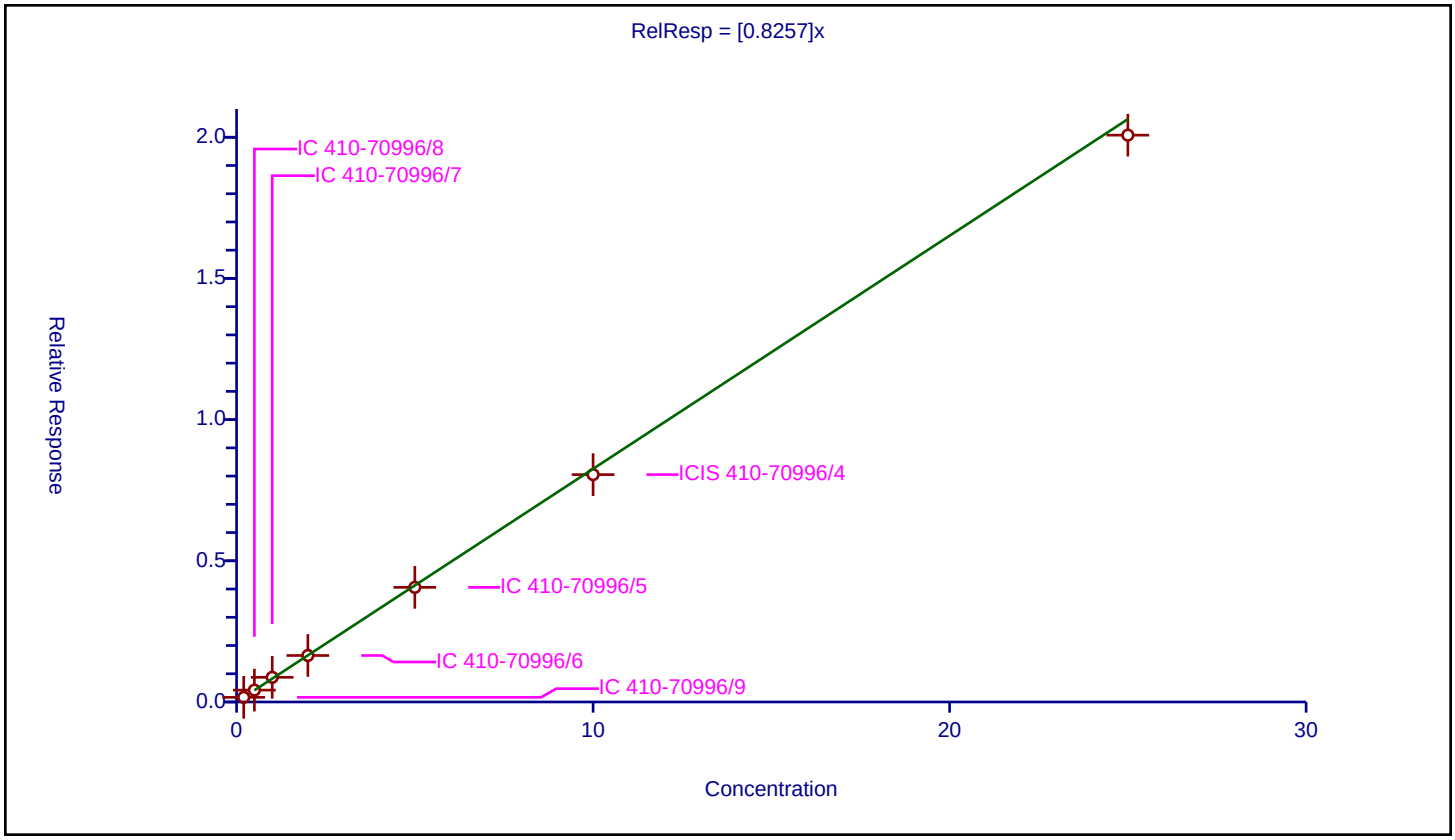
Curve Coefficients

Intercept:	0
Slope:	0.8257

Error Coefficients

Standard Error:	2030000
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	IC 410-70996/9	0.2	0.164472	10.0	2204755.0	0.822359	Y
2	IC 410-70996/8	0.5	0.420635	10.0	2189287.0	0.841269	Y
3	IC 410-70996/7	1.0	0.872831	10.0	2211412.0	0.872831	Y
4	IC 410-70996/6	2.0	1.646105	10.0	2210035.0	0.823053	Y
5	IC 410-70996/5	5.0	4.059473	10.0	2225560.0	0.811895	Y
6	ICIS 410-70996/4	10.0	8.052371	10.0	2246480.0	0.805237	Y
7	IC 410-70996/3	25.0	20.074854	10.0	2249974.0	0.802994	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

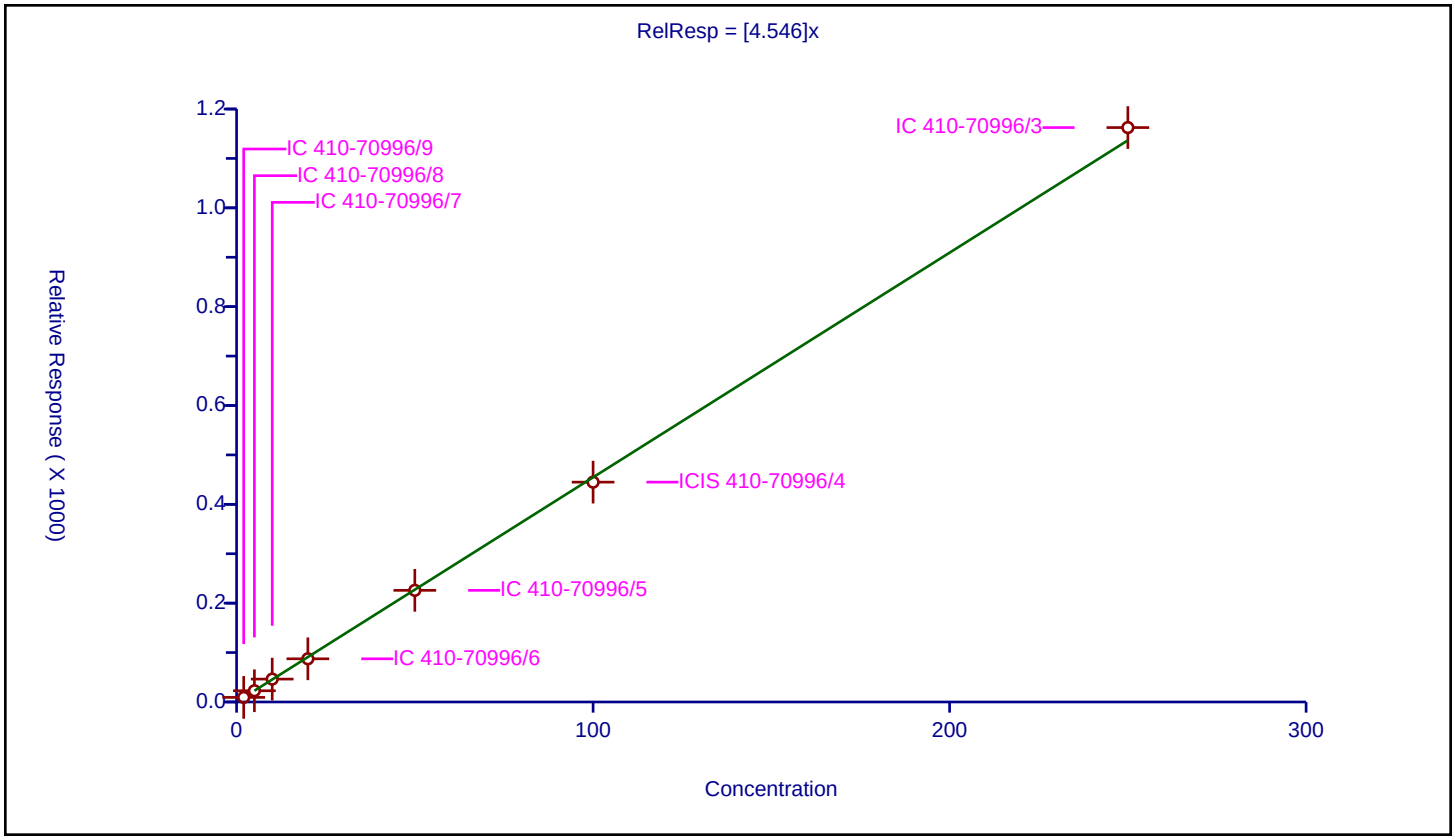
Curve Coefficients

Intercept:	0
Slope:	4.546

Error Coefficients

Standard Error:	1860000
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	IC 410-70996/9	2.0	9.304069	50.0	184731.0	4.652035	Y
2	IC 410-70996/8	5.0	22.759582	50.0	195834.0	4.551916	Y
3	IC 410-70996/7	10.0	46.328638	50.0	201206.0	4.632864	Y
4	IC 410-70996/6	20.0	87.404072	50.0	195329.0	4.370204	Y
5	IC 410-70996/5	50.0	225.902271	50.0	183343.0	4.518045	Y
6	ICIS 410-70996/4	100.0	444.912786	50.0	186094.0	4.449128	Y
7	IC 410-70996/3	250.0	1162.465074	50.0	177877.0	4.64986	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

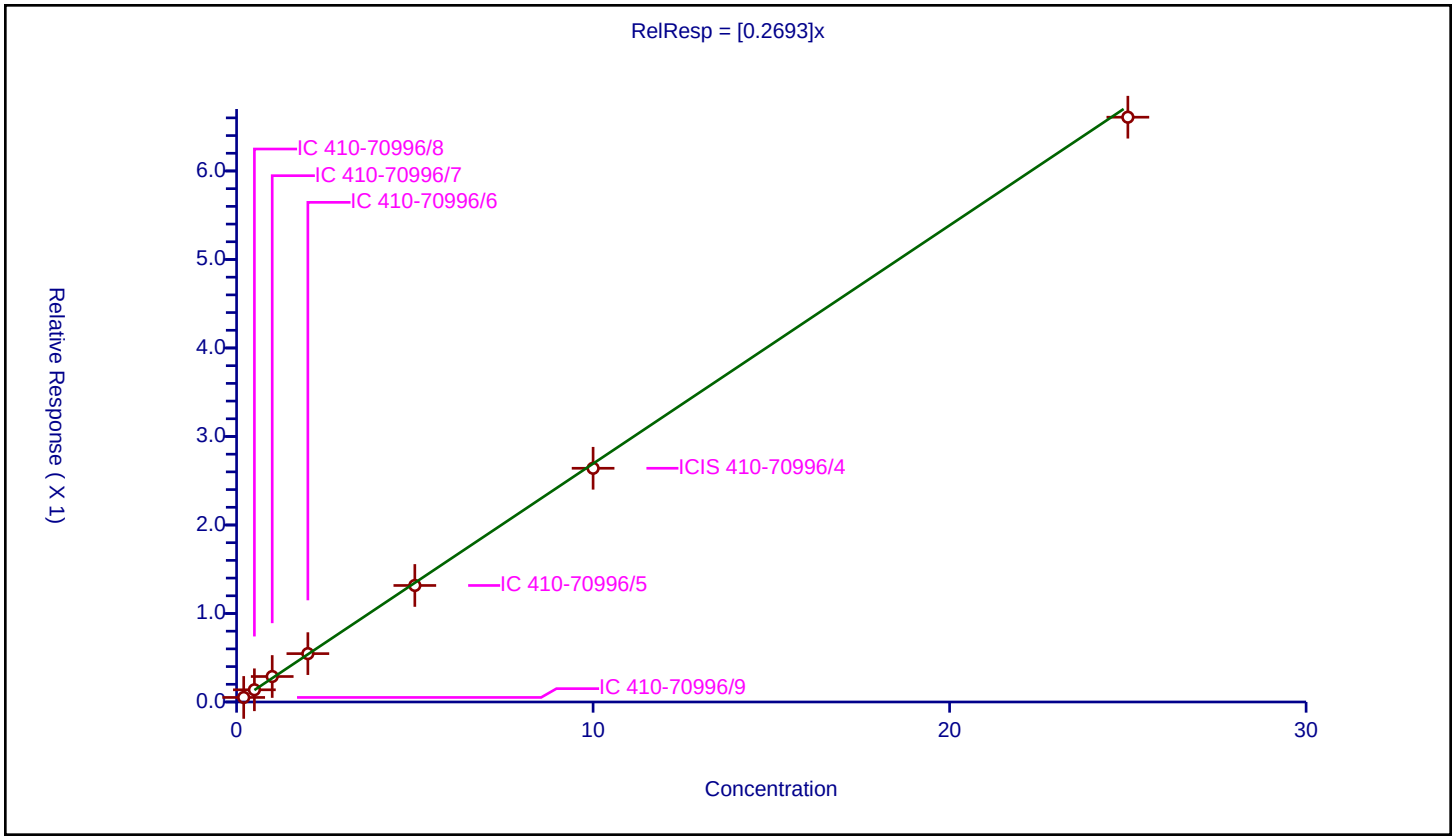
Curve Coefficients

Intercept:	0
Slope:	0.2693

Error Coefficients

Standard Error:	667000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.051271	10.0	2204755.0	0.256355	Y
2	IC 410-70996/8	0.5	0.13794	10.0	2189287.0	0.27588	Y
3	IC 410-70996/7	1.0	0.287825	10.0	2211412.0	0.287825	Y
4	IC 410-70996/6	2.0	0.546349	10.0	2210035.0	0.273174	Y
5	IC 410-70996/5	5.0	1.316648	10.0	2225560.0	0.26333	Y
6	ICIS 410-70996/4	10.0	2.640771	10.0	2246480.0	0.264077	Y
7	IC 410-70996/3	25.0	6.607619	10.0	2249974.0	0.264305	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

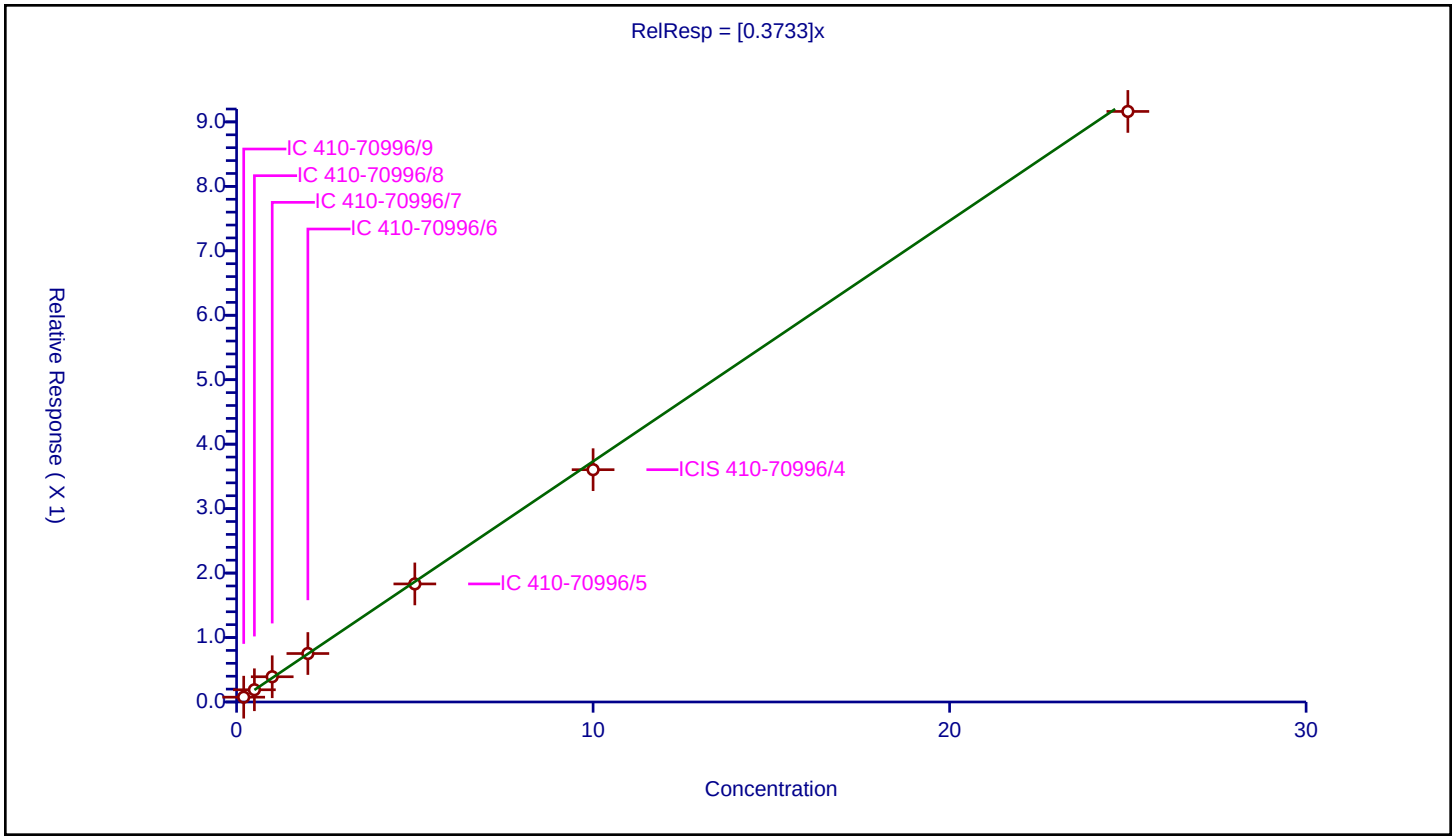
Curve Coefficients

Intercept:	0
Slope:	0.3733

Error Coefficients

Standard Error:	923000
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	IC 410-70996/9	0.2	0.074729	10.0	2204755.0	0.373647	Y
2	IC 410-70996/8	0.5	0.1895	10.0	2189287.0	0.379	Y
3	IC 410-70996/7	1.0	0.39146	10.0	2211412.0	0.39146	Y
4	IC 410-70996/6	2.0	0.751762	10.0	2210035.0	0.375881	Y
5	IC 410-70996/5	5.0	1.831678	10.0	2225560.0	0.366336	Y
6	ICIS 410-70996/4	10.0	3.604052	10.0	2246480.0	0.360405	Y
7	IC 410-70996/3	25.0	9.162381	10.0	2249974.0	0.366495	Y



Calibration / Propionitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

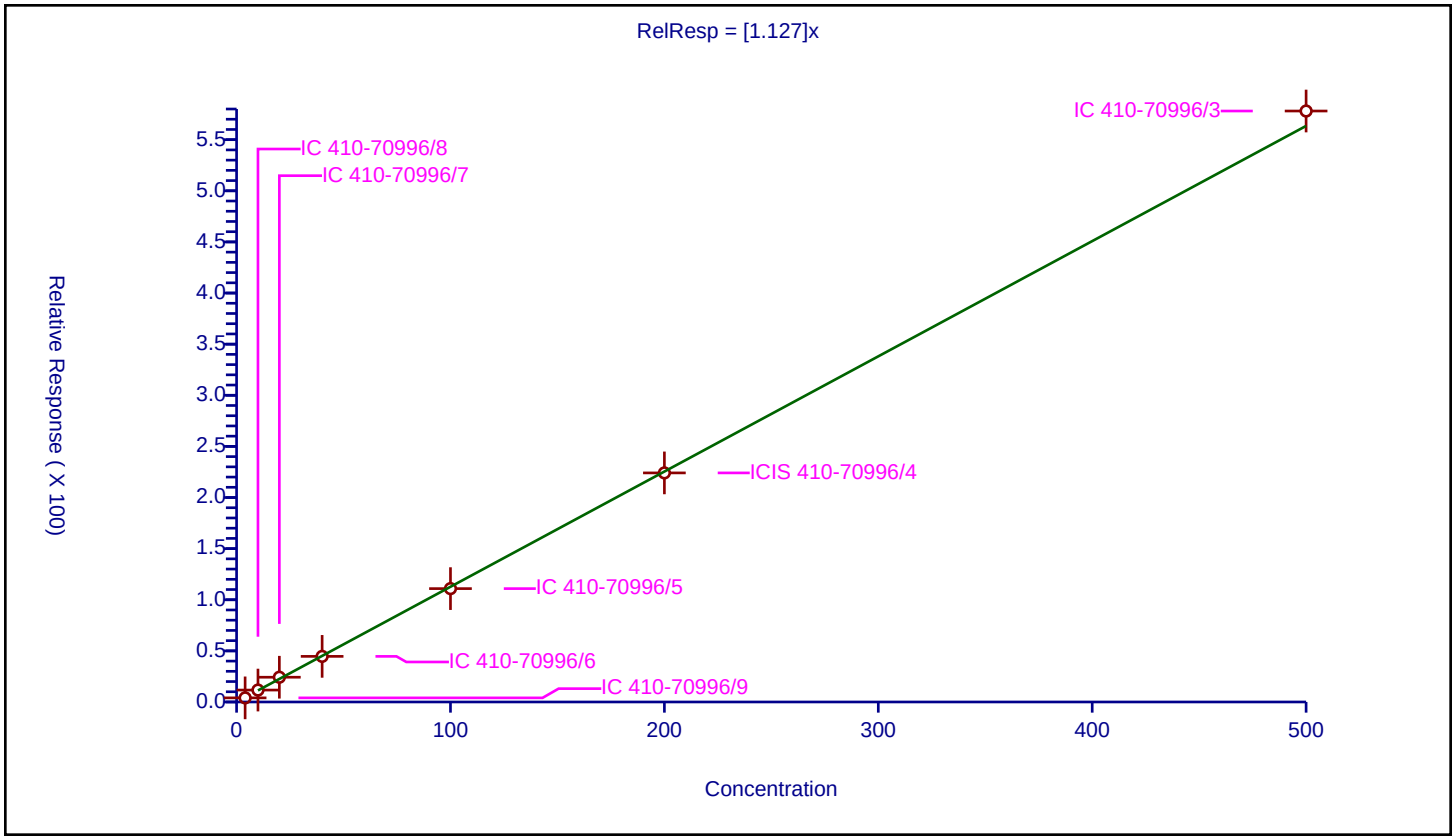
Curve Coefficients

Intercept:	0
Slope:	1.127

Error Coefficients

Standard Error:	925000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	4.0	4.035056	50.0	184731.0	1.008764	Y
2	IC 410-70996/8	10.0	11.68362	50.0	195834.0	1.168362	Y
3	IC 410-70996/7	20.0	24.216226	50.0	201206.0	1.210811	Y
4	IC 410-70996/6	40.0	44.615495	50.0	195329.0	1.115387	Y
5	IC 410-70996/5	100.0	110.883699	50.0	183343.0	1.108837	Y
6	ICIS 410-70996/4	200.0	224.067675	50.0	186094.0	1.120338	Y
7	IC 410-70996/3	500.0	578.037352	50.0	177877.0	1.156075	Y



Calibration / Methacrylonitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

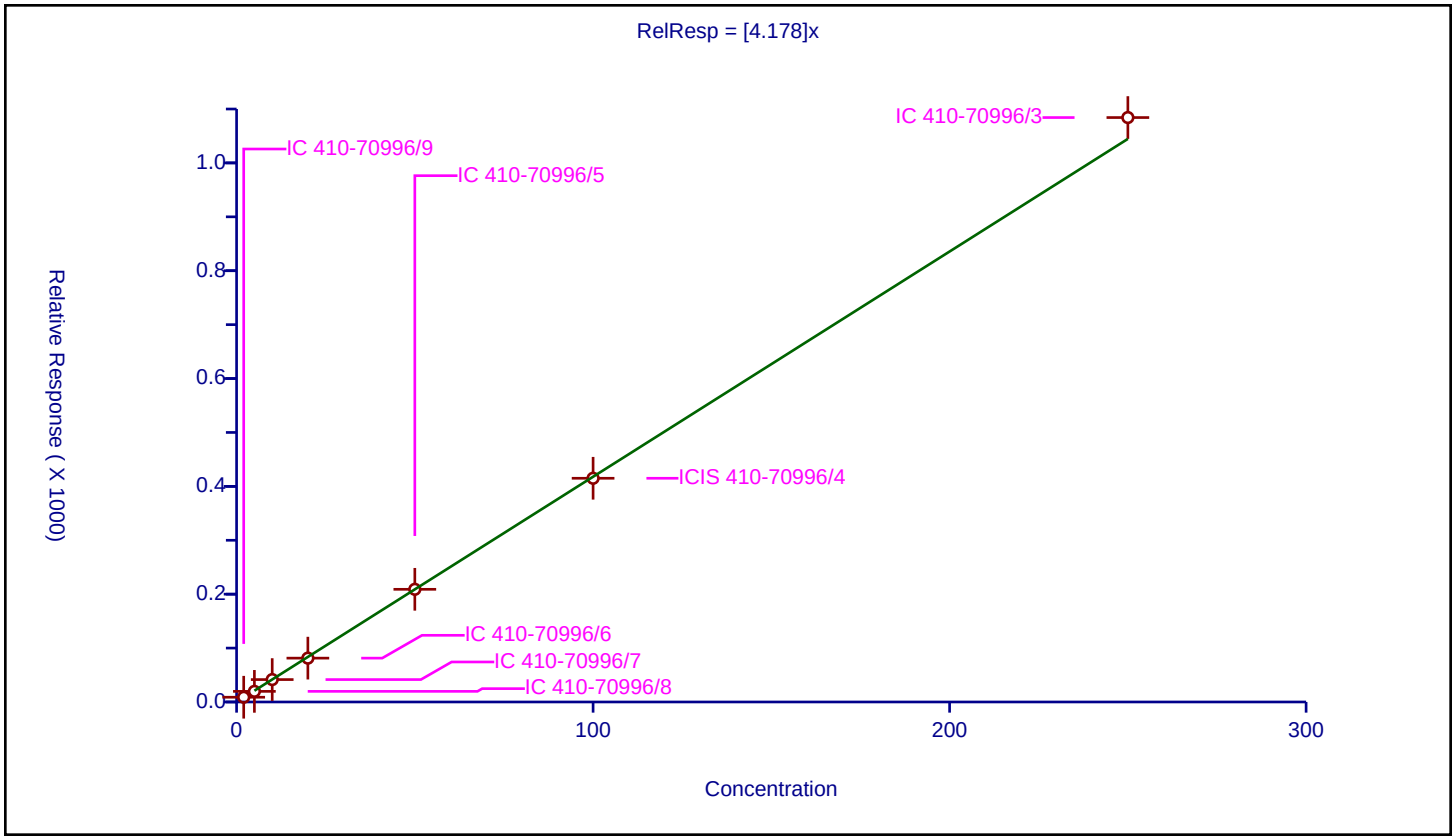
Curve Coefficients

Intercept:	0
Slope:	4.178

Error Coefficients

Standard Error:	1730000
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	IC 410-70996/9	2.0	8.818228	50.0	184731.0	4.409114	Y
2	IC 410-70996/8	5.0	19.72972	50.0	195834.0	3.945944	Y
3	IC 410-70996/7	10.0	41.583004	50.0	201206.0	4.1583	Y
4	IC 410-70996/6	20.0	81.341736	50.0	195329.0	4.067087	Y
5	IC 410-70996/5	50.0	209.013979	50.0	183343.0	4.18028	Y
6	ICIS 410-70996/4	100.0	415.025202	50.0	186094.0	4.150252	Y
7	IC 410-70996/3	250.0	1084.185139	50.0	177877.0	4.336741	Y



Calibration / Chlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

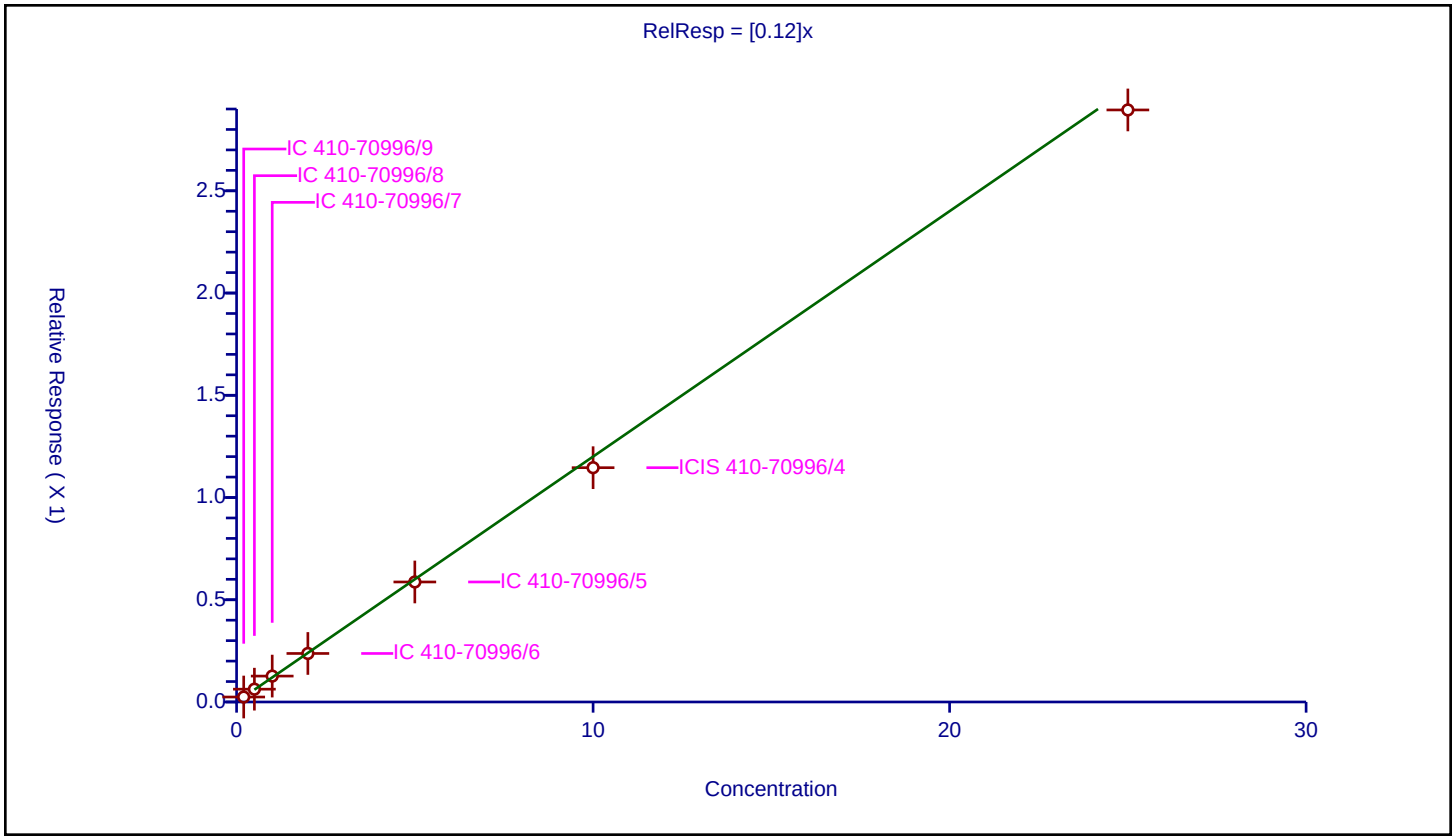
Curve Coefficients

Intercept:	0
Slope:	0.12

Error Coefficients

Standard Error:	292000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.024338	10.0	2204755.0	0.121692	Y
2	IC 410-70996/8	0.5	0.062678	10.0	2189287.0	0.125356	Y
3	IC 410-70996/7	1.0	0.126666	10.0	2211412.0	0.126666	Y
4	IC 410-70996/6	2.0	0.23725	10.0	2210035.0	0.118625	Y
5	IC 410-70996/5	5.0	0.58694	10.0	2225560.0	0.117388	Y
6	ICIS 410-70996/4	10.0	1.145864	10.0	2246480.0	0.114586	Y
7	IC 410-70996/3	25.0	2.895371	10.0	2249974.0	0.115815	Y



Calibration / Tetrahydrofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

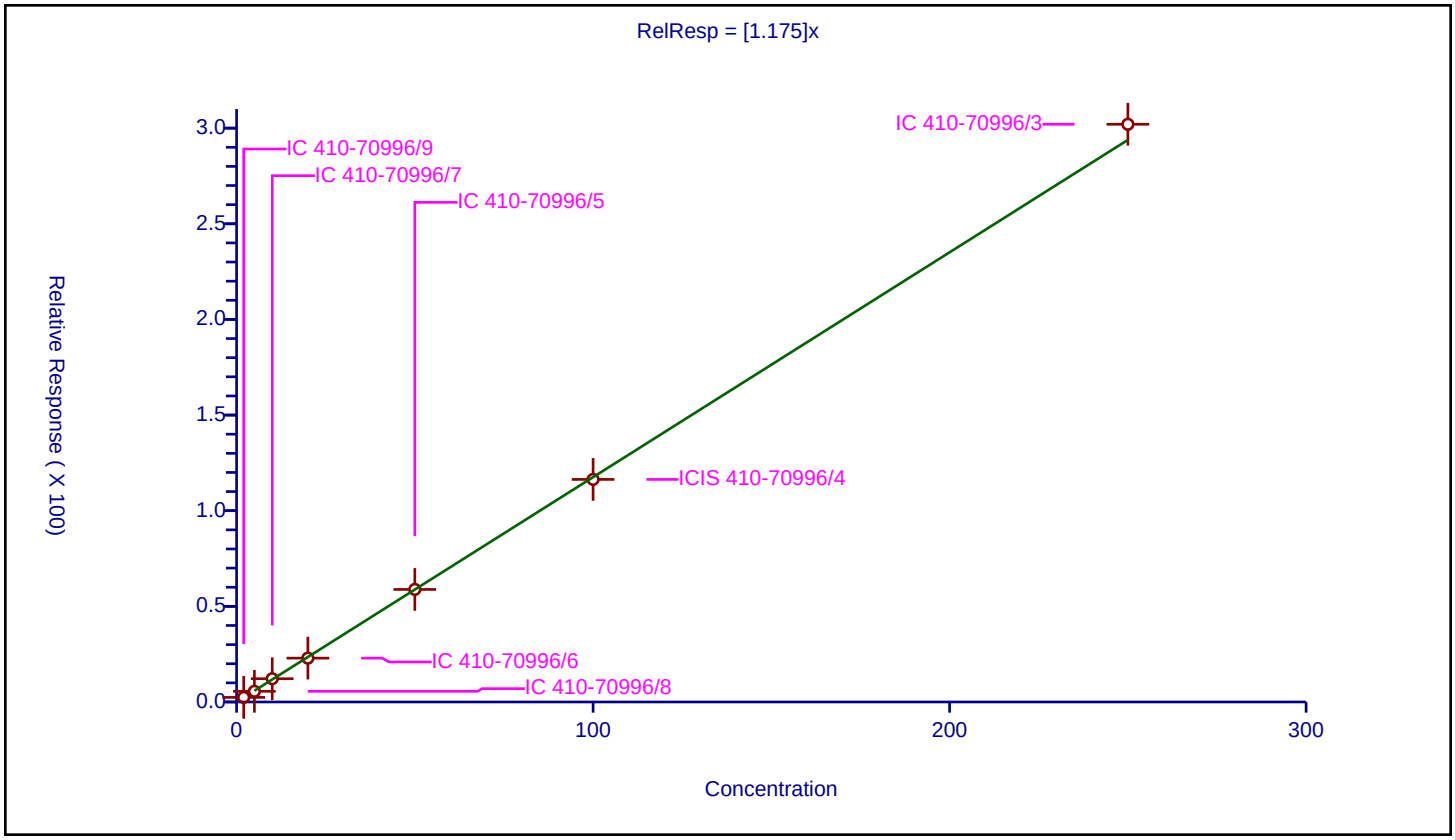
Curve Coefficients

Intercept:	0
Slope:	1.175

Error Coefficients

Standard Error:	483000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	2.0	2.401059	50.0	184731.0	1.200529	Y
2	IC 410-70996/8	5.0	5.579726	50.0	195834.0	1.115945	Y
3	IC 410-70996/7	10.0	12.162659	50.0	201206.0	1.216266	Y
4	IC 410-70996/6	20.0	22.928751	50.0	195329.0	1.146438	Y
5	IC 410-70996/5	50.0	58.843261	50.0	183343.0	1.176865	Y
6	ICIS 410-70996/4	100.0	116.36028	50.0	186094.0	1.163603	Y
7	IC 410-70996/3	250.0	302.020778	50.0	177877.0	1.208083	Y



Calibration / Chloroform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

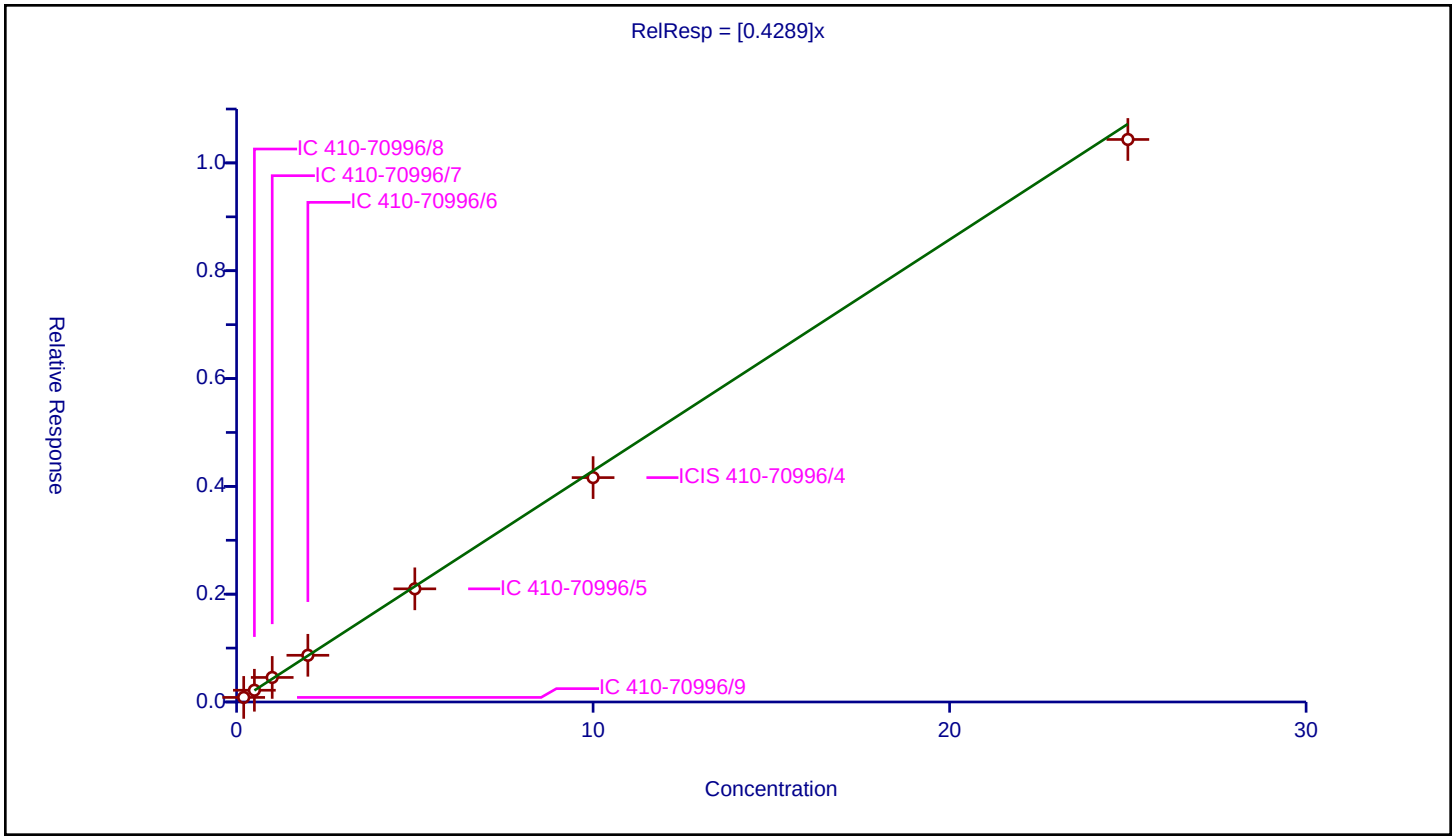
Curve Coefficients

Intercept:	0
Slope:	0.4289

Error Coefficients

Standard Error:	1050000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.084817	10.0	2204755.0	0.424083	Y
2	IC 410-70996/8	0.5	0.218025	10.0	2189287.0	0.436051	Y
3	IC 410-70996/7	1.0	0.455315	10.0	2211412.0	0.455315	Y
4	IC 410-70996/6	2.0	0.86662	10.0	2210035.0	0.43331	Y
5	IC 410-70996/5	5.0	2.099206	10.0	2225560.0	0.419841	Y
6	ICIS 410-70996/4	10.0	4.162441	10.0	2246480.0	0.416244	Y
7	IC 410-70996/3	25.0	10.435294	10.0	2249974.0	0.417412	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

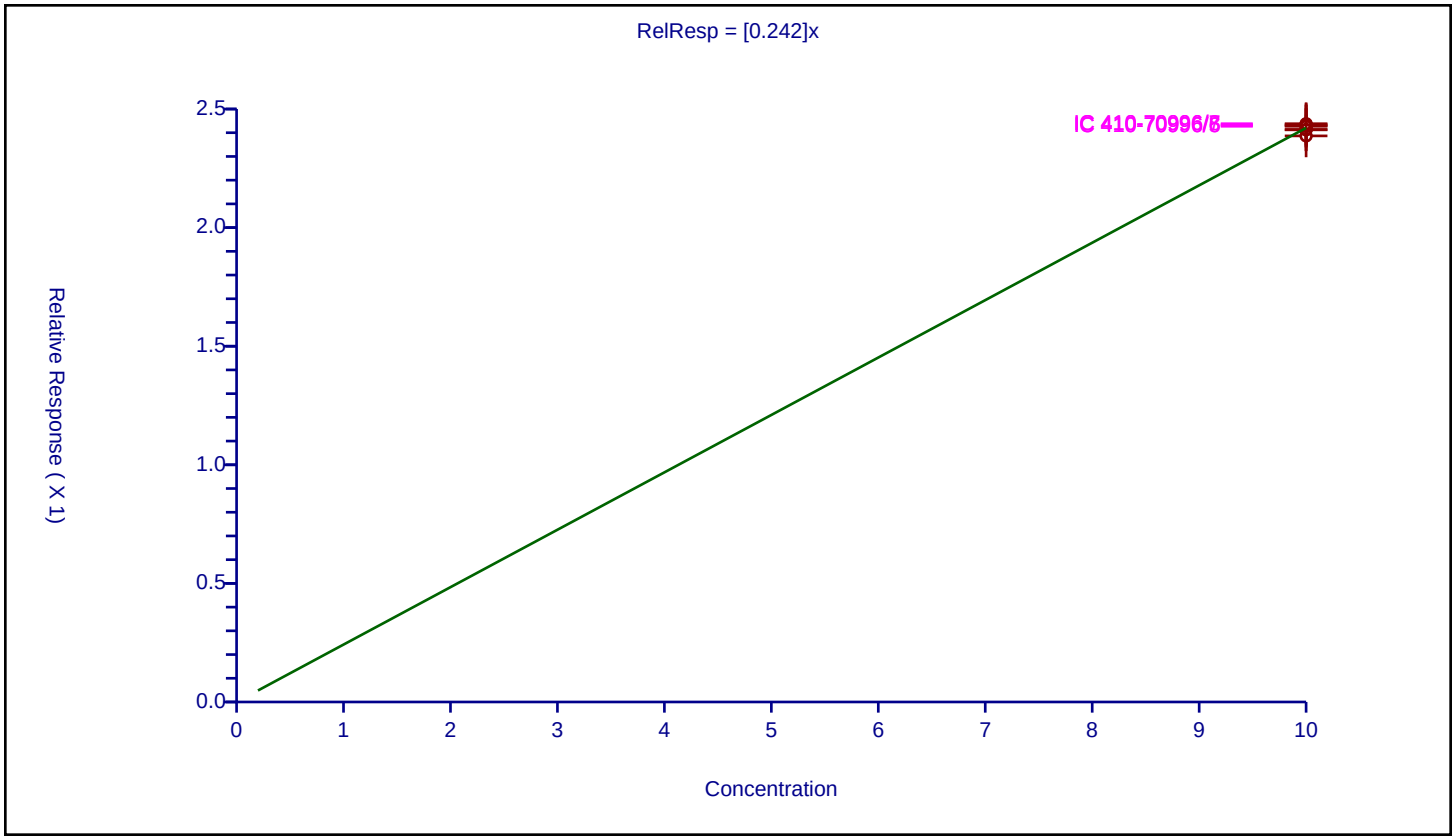
Curve Coefficients

Intercept:	0
Slope:	0.242

Error Coefficients

Standard Error:	580000
Relative Standard Error:	0.7
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/3	10.0	2.413806	10.0	2249974.0	0.241381	Y
2	ICIS 410-70996/4	10.0	2.412138	10.0	2246480.0	0.241214	Y
3	IC 410-70996/5	10.0	2.427874	10.0	2225560.0	0.242787	Y
4	IC 410-70996/6	10.0	2.428686	10.0	2210035.0	0.242869	Y
5	IC 410-70996/7	10.0	2.438035	10.0	2211412.0	0.243804	Y
6	IC 410-70996/8	10.0	2.434409	10.0	2189287.0	0.243441	Y
7	IC 410-70996/9	10.0	2.386642	10.0	2204755.0	0.238664	Y



Calibration / 1,1,1-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

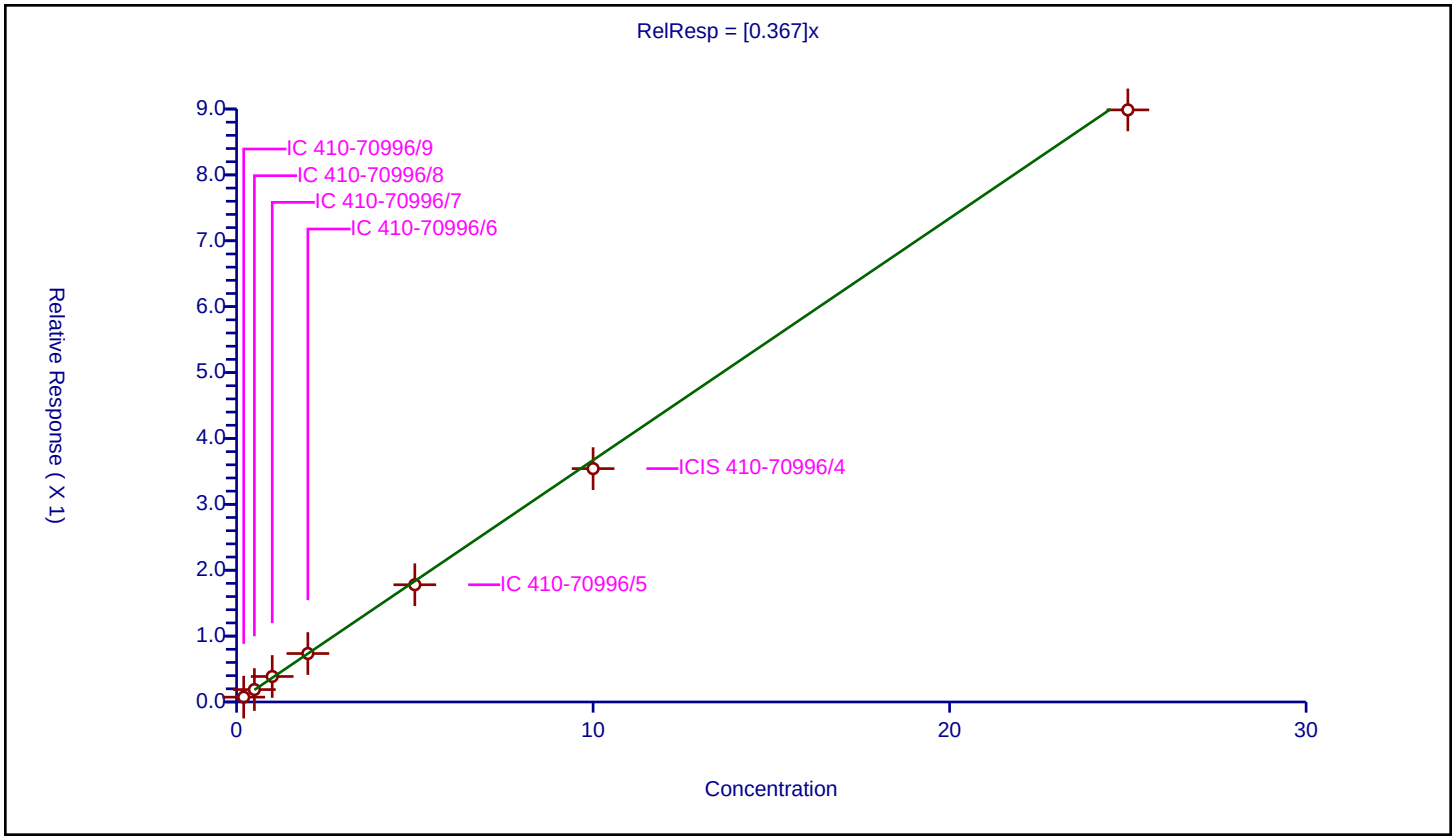
Curve Coefficients

Intercept:	0
Slope:	0.367

Error Coefficients

Standard Error:	905000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.073586	10.0	2204755.0	0.367932	Y
2	IC 410-70996/8	0.5	0.188449	10.0	2189287.0	0.376899	Y
3	IC 410-70996/7	1.0	0.387011	10.0	2211412.0	0.387011	Y
4	IC 410-70996/6	2.0	0.735762	10.0	2210035.0	0.367881	Y
5	IC 410-70996/5	5.0	1.779584	10.0	2225560.0	0.355917	Y
6	ICIS 410-70996/4	10.0	3.541923	10.0	2246480.0	0.354192	Y
7	IC 410-70996/3	25.0	8.986846	10.0	2249974.0	0.359474	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

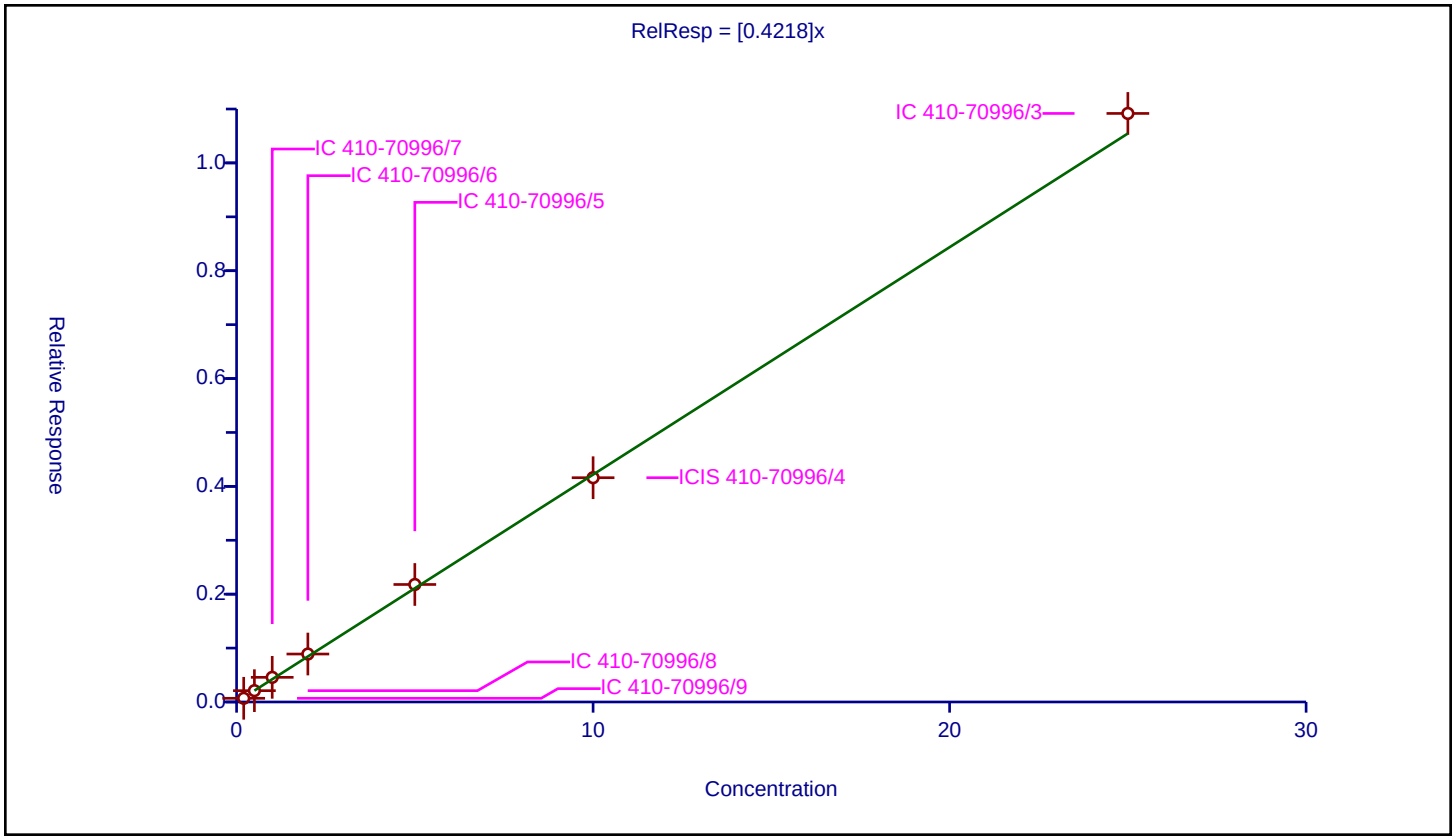
Curve Coefficients

Intercept:	0
Slope:	0.4218

Error Coefficients

Standard Error:	1100000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.068398	10.0	2204755.0	0.341988	Y
2	IC 410-70996/8	0.5	0.209968	10.0	2189287.0	0.419936	Y
3	IC 410-70996/7	1.0	0.457278	10.0	2211412.0	0.457278	Y
4	IC 410-70996/6	2.0	0.889705	10.0	2210035.0	0.444853	Y
5	IC 410-70996/5	5.0	2.179874	10.0	2225560.0	0.435975	Y
6	ICIS 410-70996/4	10.0	4.160714	10.0	2246480.0	0.416071	Y
7	IC 410-70996/3	25.0	10.917873	10.0	2249974.0	0.436715	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

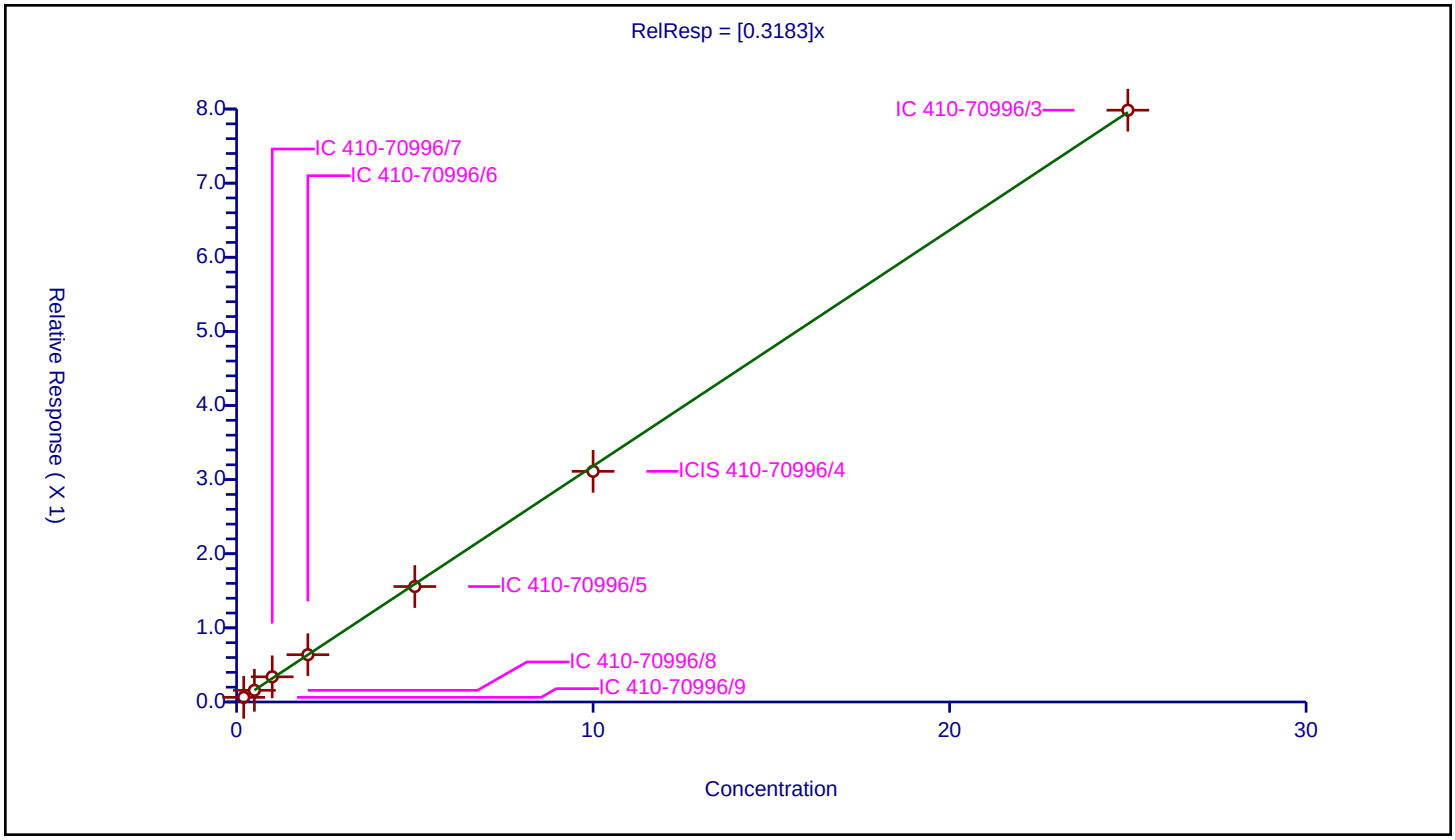
Curve Coefficients

Intercept:	0
Slope:	0.3183

Error Coefficients

Standard Error:	802000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.062465	10.0	2204755.0	0.312325	Y
2	IC 410-70996/8	0.5	0.157385	10.0	2189287.0	0.314769	Y
3	IC 410-70996/7	1.0	0.339588	10.0	2211412.0	0.339588	Y
4	IC 410-70996/6	2.0	0.638035	10.0	2210035.0	0.319018	Y
5	IC 410-70996/5	5.0	1.557612	10.0	2225560.0	0.311522	Y
6	ICIS 410-70996/4	10.0	3.111735	10.0	2246480.0	0.311173	Y
7	IC 410-70996/3	25.0	7.98407	10.0	2249974.0	0.319363	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

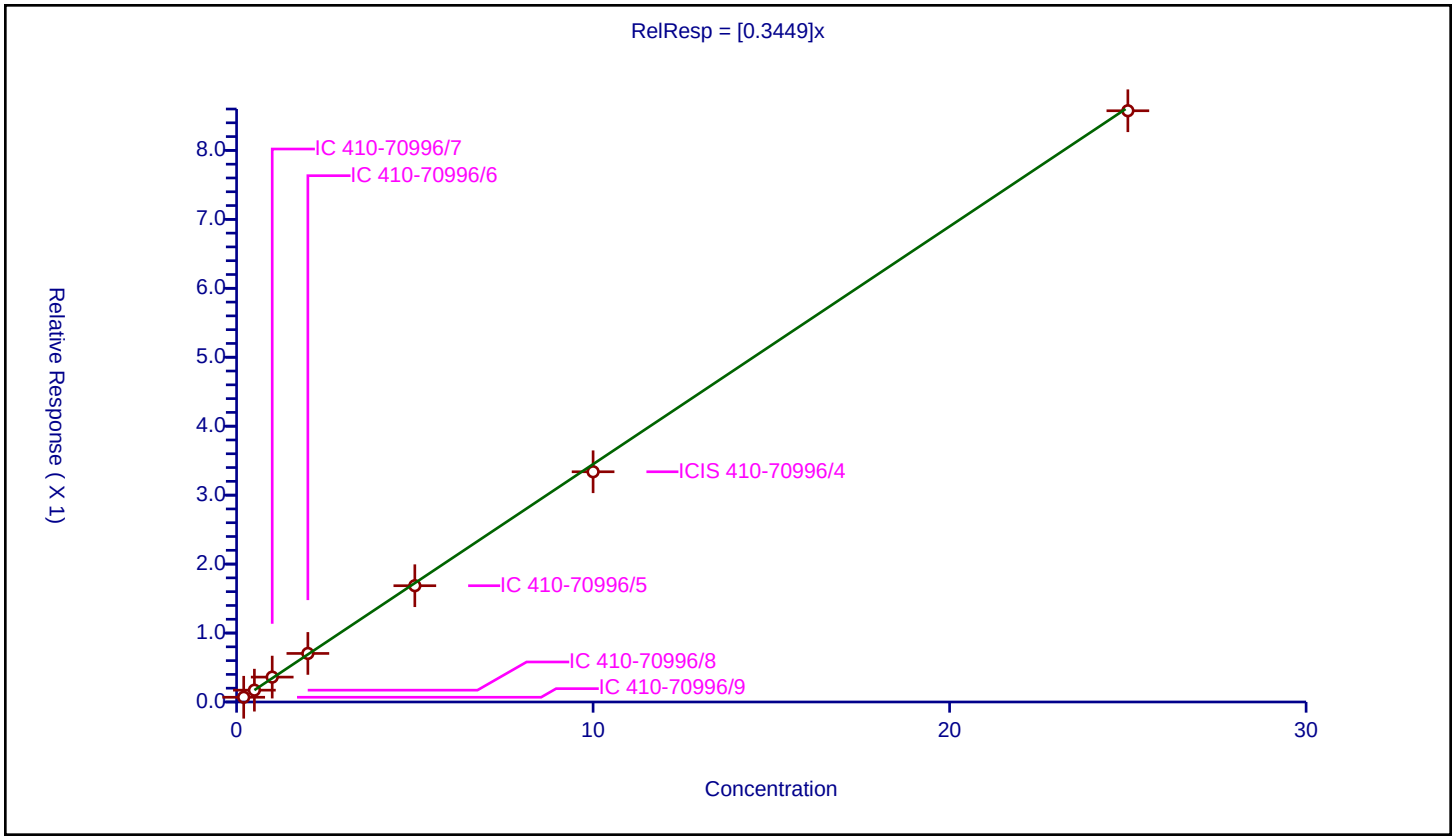
Curve Coefficients

Intercept:	0
Slope:	0.3449

Error Coefficients

Standard Error:	862000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.068819	10.0	2204755.0	0.344097	Y
2	IC 410-70996/8	0.5	0.171444	10.0	2189287.0	0.342888	Y
3	IC 410-70996/7	1.0	0.360996	10.0	2211412.0	0.360996	Y
4	IC 410-70996/6	2.0	0.704043	10.0	2210035.0	0.352022	Y
5	IC 410-70996/5	5.0	1.686394	10.0	2225560.0	0.337279	Y
6	ICIS 410-70996/4	10.0	3.339086	10.0	2246480.0	0.333909	Y
7	IC 410-70996/3	25.0	8.574966	10.0	2249974.0	0.342999	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

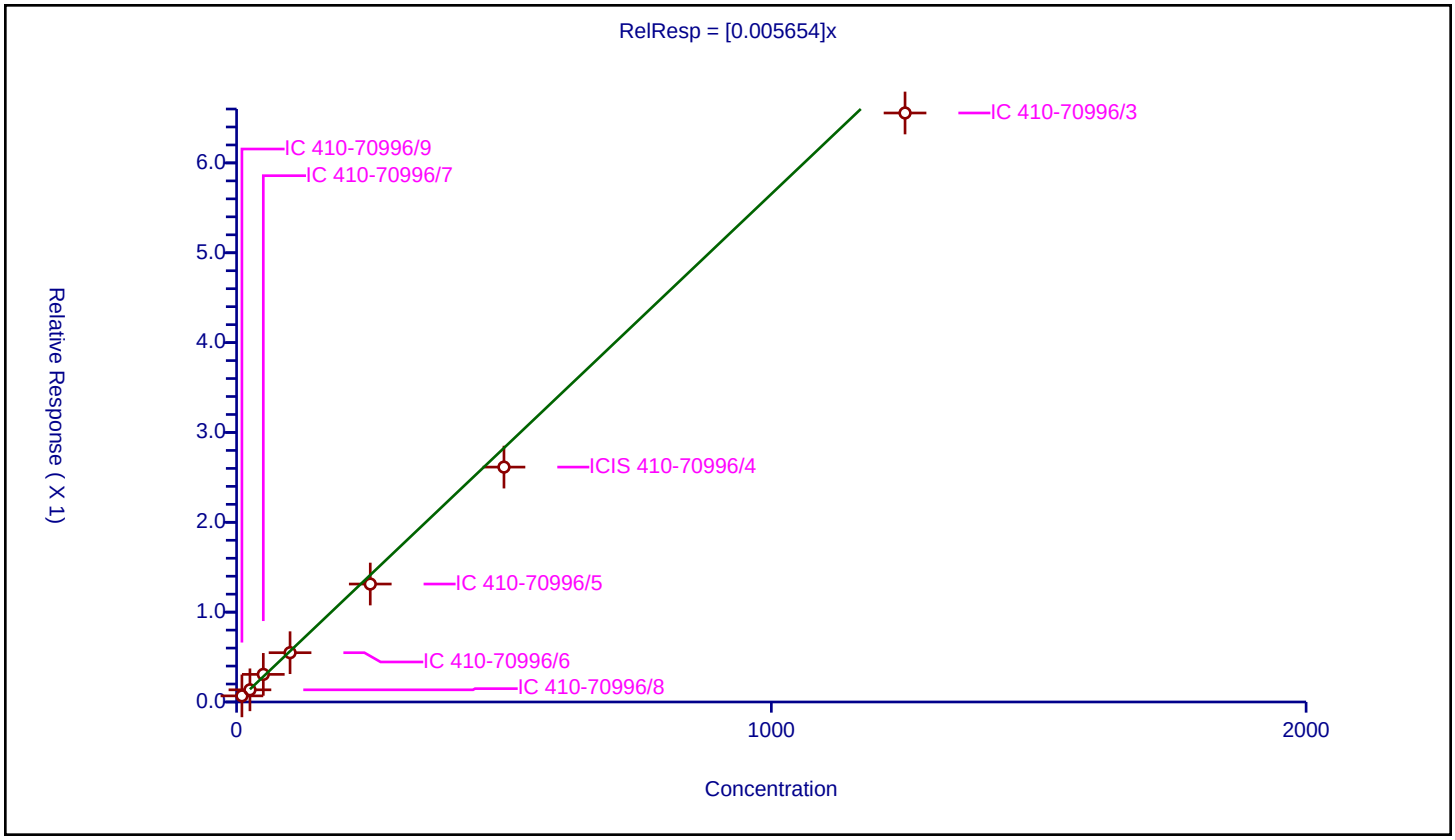
Curve Coefficients

Intercept:	0
Slope:	0.005654

Error Coefficients

Standard Error:	662000
Relative Standard Error:	10.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	10.0	0.068026	10.0	2204755.0	0.006803	Y
2	IC 410-70996/8	25.0	0.135405	10.0	2189287.0	0.005416	Y
3	IC 410-70996/7	50.0	0.307423	10.0	2211412.0	0.006148	Y
4	IC 410-70996/6	100.0	0.548711	10.0	2210035.0	0.005487	Y
5	IC 410-70996/5	250.0	1.313072	10.0	2225560.0	0.005252	Y
6	ICIS 410-70996/4	500.0	2.614308	10.0	2246480.0	0.005229	Y
7	IC 410-70996/3	1250.0	6.55588	10.0	2249974.0	0.005245	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

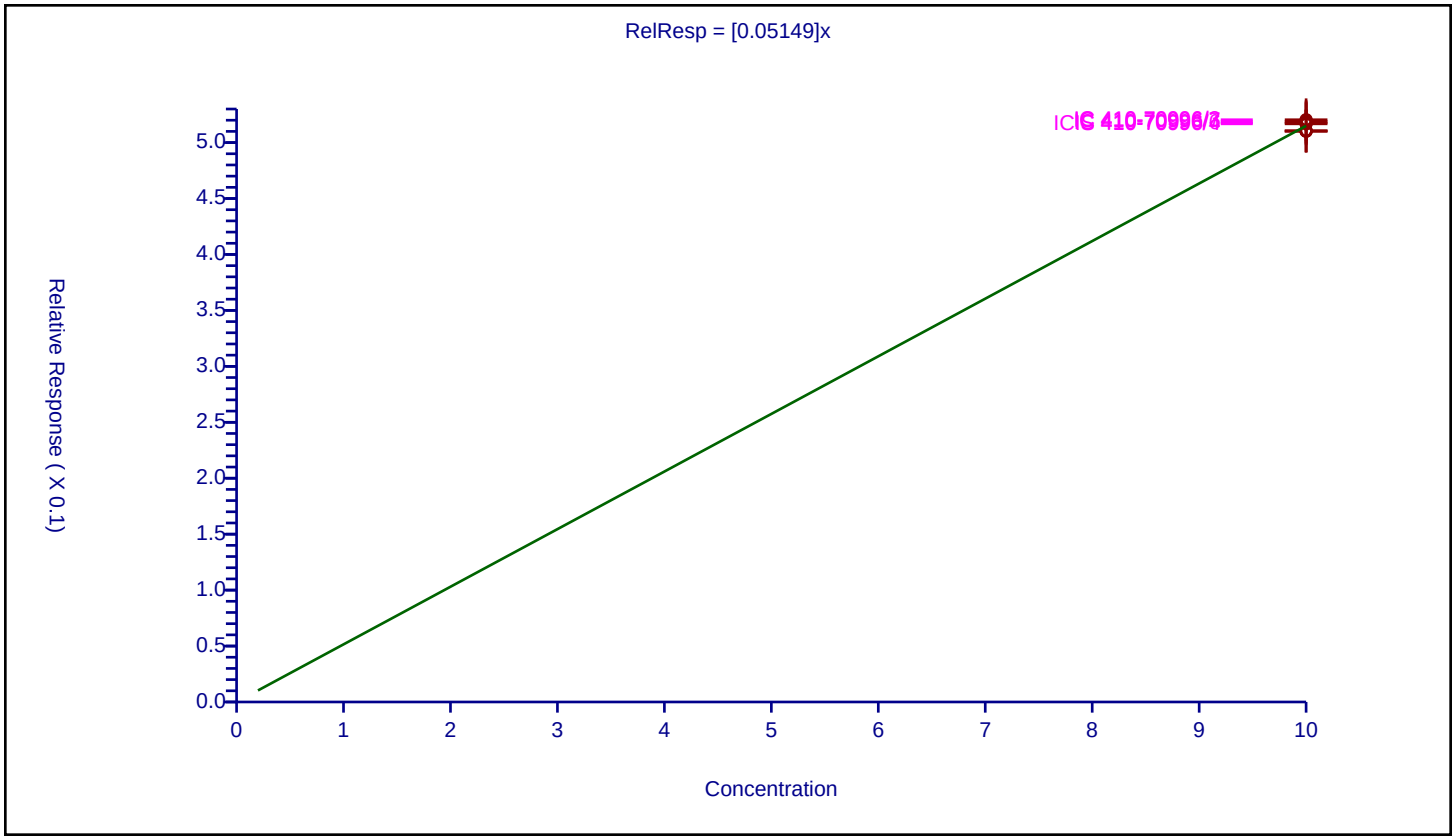
Curve Coefficients

Intercept:	0
Slope:	0.05149

Error Coefficients

Standard Error:	123000
Relative Standard Error:	0.9
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/3	10.0	0.520415	10.0	2249974.0	0.052041	Y
2	ICIS 410-70996/4	10.0	0.516737	10.0	2246480.0	0.051674	Y
3	IC 410-70996/5	10.0	0.51055	10.0	2225560.0	0.051055	Y
4	IC 410-70996/6	10.0	0.517707	10.0	2210035.0	0.051771	Y
5	IC 410-70996/7	10.0	0.518773	10.0	2211412.0	0.051877	Y
6	IC 410-70996/8	10.0	0.510143	10.0	2189287.0	0.051014	Y
7	IC 410-70996/9	10.0	0.510311	10.0	2204755.0	0.051031	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

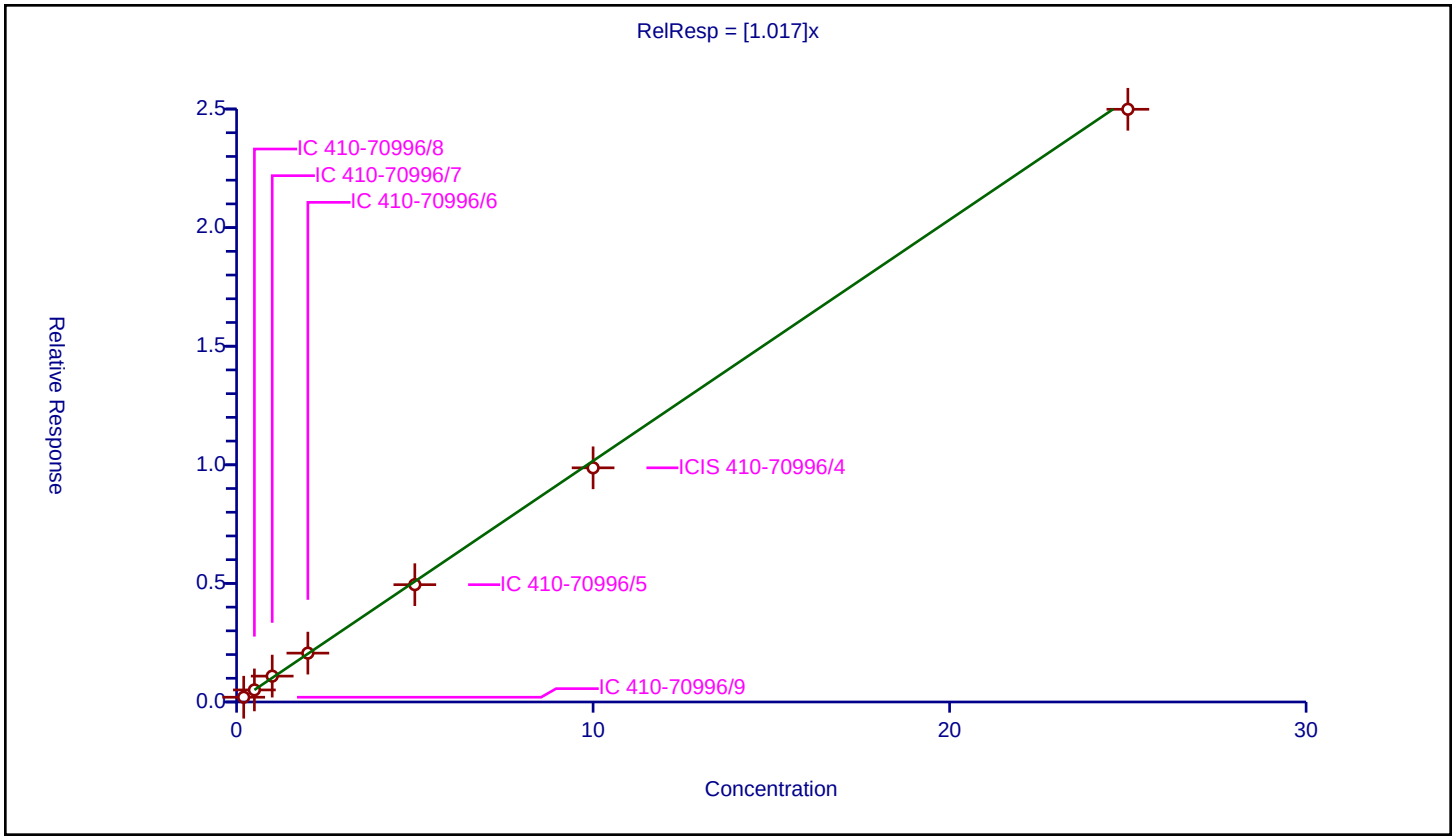
Curve Coefficients

Intercept:	0
Slope:	1.017

Error Coefficients

Standard Error:	2520000
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	IC 410-70996/9	0.2	0.20034	10.0	2204755.0	1.001699	Y
2	IC 410-70996/8	0.5	0.508599	10.0	2189287.0	1.017199	Y
3	IC 410-70996/7	1.0	1.090543	10.0	2211412.0	1.090543	Y
4	IC 410-70996/6	2.0	2.060126	10.0	2210035.0	1.030063	Y
5	IC 410-70996/5	5.0	4.946481	10.0	2225560.0	0.989296	Y
6	ICIS 410-70996/4	10.0	9.87338	10.0	2246480.0	0.987338	Y
7	IC 410-70996/3	25.0	24.988924	10.0	2249974.0	0.999557	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

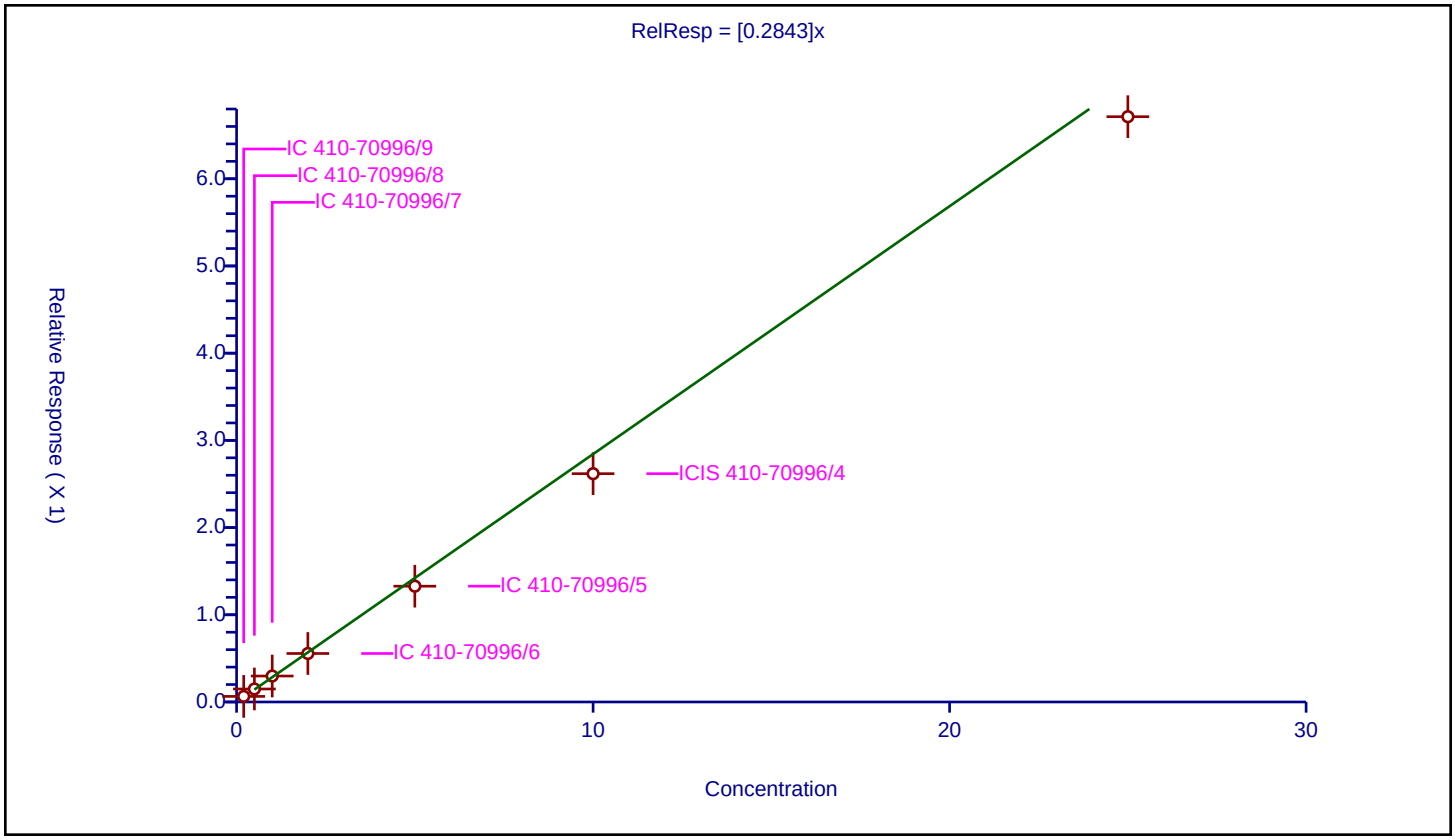
Curve Coefficients

Intercept:	0
Slope:	0.2843

Error Coefficients

Standard Error:	675000
Relative Standard Error:	7.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.06408	10.0	2204755.0	0.320398	Y
2	IC 410-70996/8	0.5	0.148989	10.0	2189287.0	0.297978	Y
3	IC 410-70996/7	1.0	0.297633	10.0	2211412.0	0.297633	Y
4	IC 410-70996/6	2.0	0.556032	10.0	2210035.0	0.278016	Y
5	IC 410-70996/5	5.0	1.327976	10.0	2225560.0	0.265595	Y
6	ICIS 410-70996/4	10.0	2.618172	10.0	2246480.0	0.261817	Y
7	IC 410-70996/3	25.0	6.712069	10.0	2249974.0	0.268483	Y



Calibration / Tert-amyl methyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

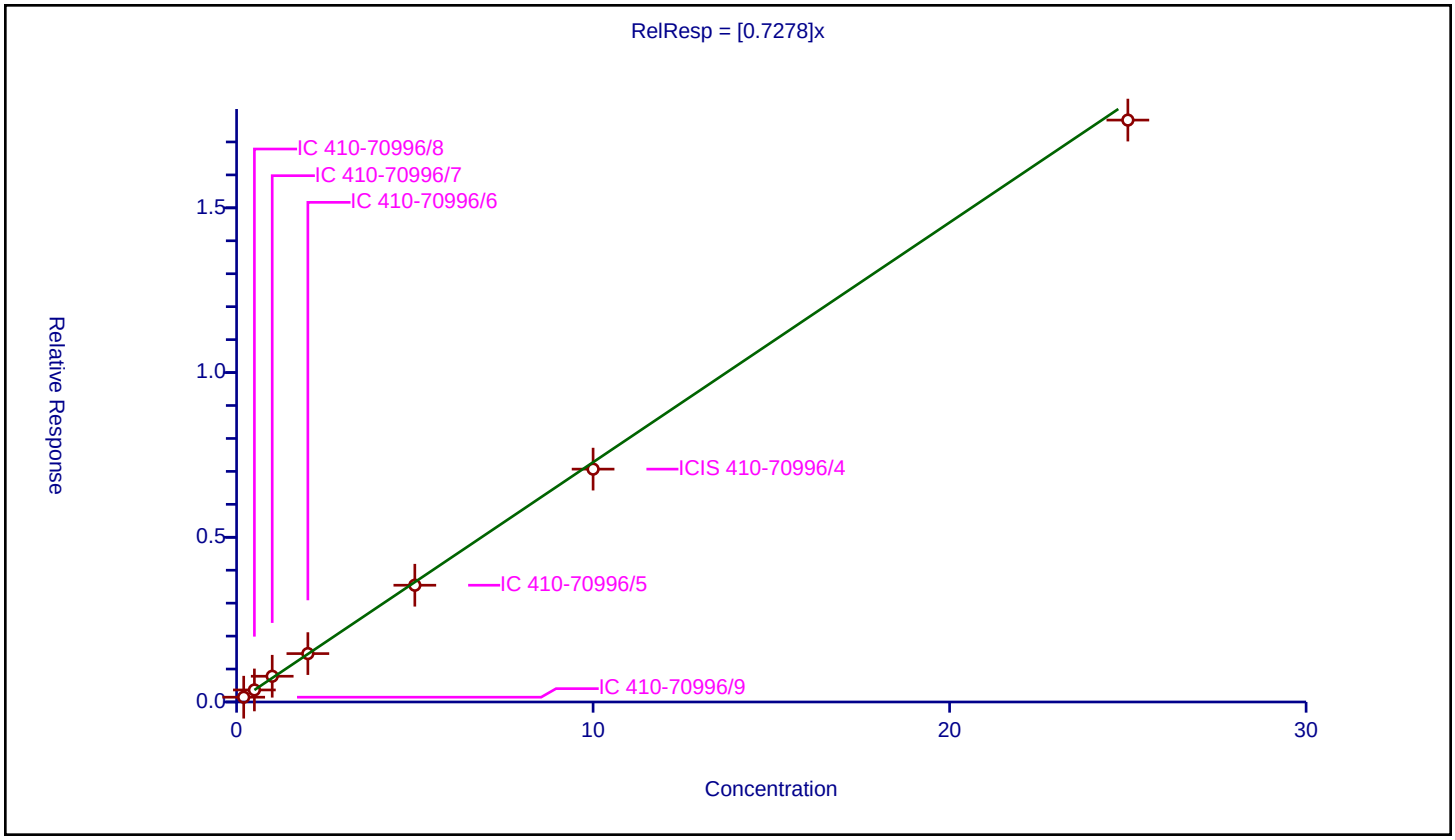
Curve Coefficients

Intercept:	0
Slope:	0.7278

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.145032	10.0	2204755.0	0.72516	Y
2	IC 410-70996/8	0.5	0.365343	10.0	2189287.0	0.730685	Y
3	IC 410-70996/7	1.0	0.781795	10.0	2211412.0	0.781795	Y
4	IC 410-70996/6	2.0	1.46909	10.0	2210035.0	0.734545	Y
5	IC 410-70996/5	5.0	3.544214	10.0	2225560.0	0.708843	Y
6	ICIS 410-70996/4	10.0	7.068917	10.0	2246480.0	0.706892	Y
7	IC 410-70996/3	25.0	17.663964	10.0	2249974.0	0.706559	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

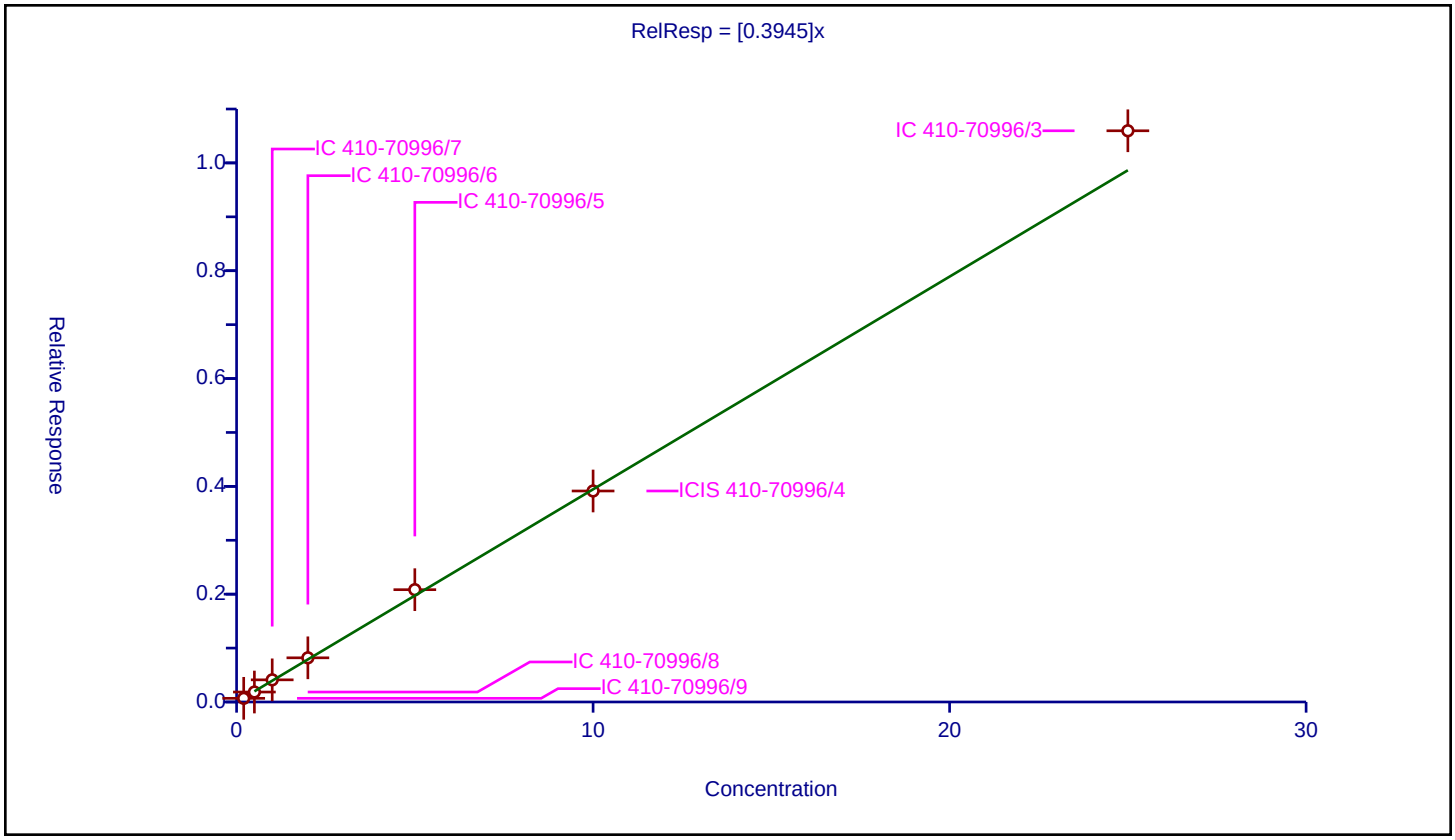
Curve Coefficients

Intercept:	0
Slope:	0.3945

Error Coefficients

Standard Error:	1060000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.067971	10.0	2204755.0	0.339856	Y
2	IC 410-70996/8	0.5	0.184763	10.0	2189287.0	0.369527	Y
3	IC 410-70996/7	1.0	0.41076	10.0	2211412.0	0.41076	Y
4	IC 410-70996/6	2.0	0.819322	10.0	2210035.0	0.409661	Y
5	IC 410-70996/5	5.0	2.083574	10.0	2225560.0	0.416715	Y
6	ICIS 410-70996/4	10.0	3.91403	10.0	2246480.0	0.391403	Y
7	IC 410-70996/3	25.0	10.59634	10.0	2249974.0	0.423854	Y



Calibration / n-Butanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

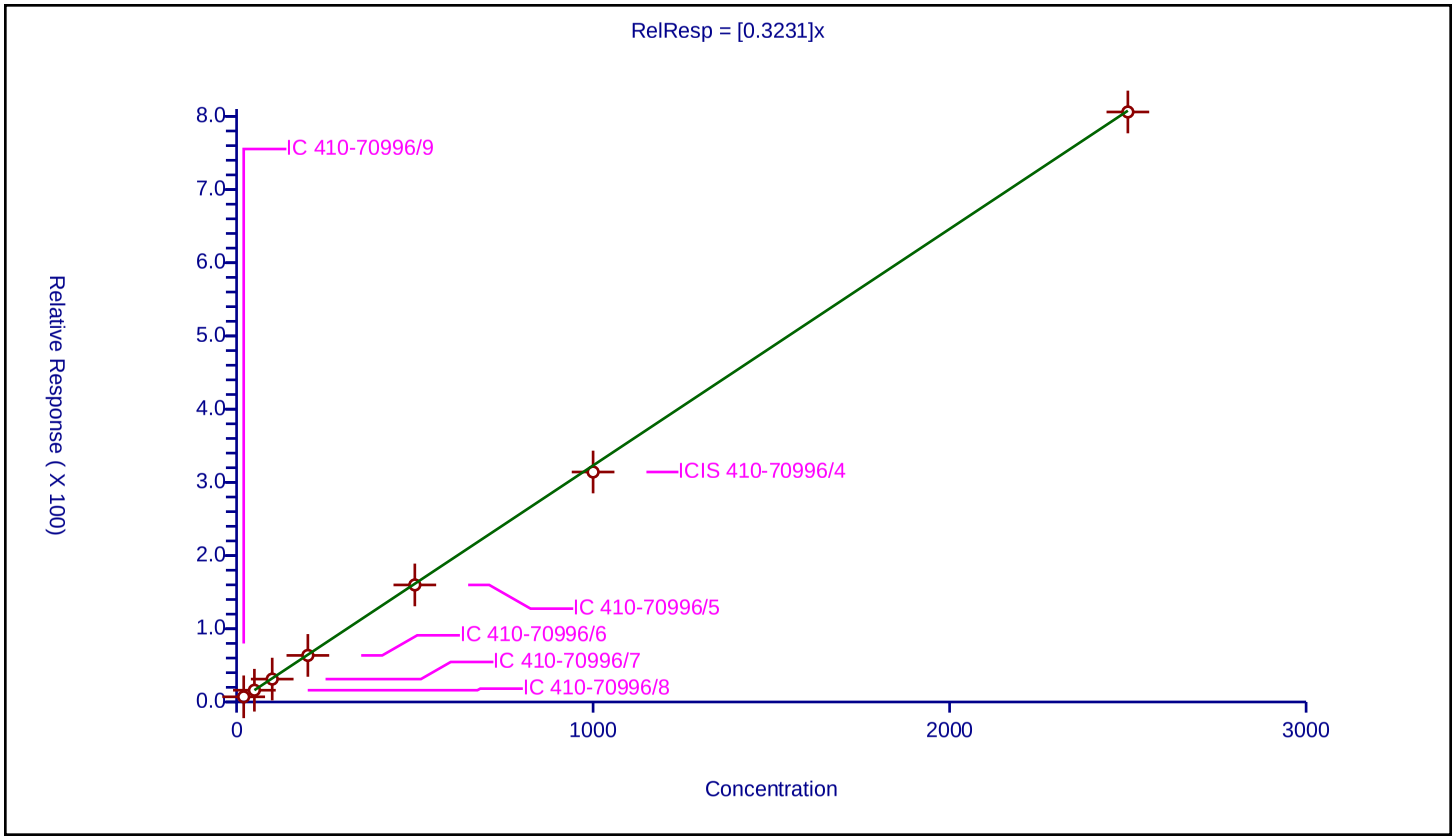
Curve Coefficients

Intercept:	0
Slope:	0.3231

Error Coefficients

Standard Error:	1290000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	20.0	7.052687	50.0	184731.0	0.352634	Y
2	IC 410-70996/8	50.0	16.076115	50.0	195834.0	0.321522	Y
3	IC 410-70996/7	100.0	31.286095	50.0	201206.0	0.312861	Y
4	IC 410-70996/6	200.0	63.630081	50.0	195329.0	0.31815	Y
5	IC 410-70996/5	500.0	159.910659	50.0	183343.0	0.319821	Y
6	ICIS 410-70996/4	1000.0	314.167303	50.0	186094.0	0.314167	Y
7	IC 410-70996/3	2500.0	805.966482	50.0	177877.0	0.322387	Y



Calibration / Trichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

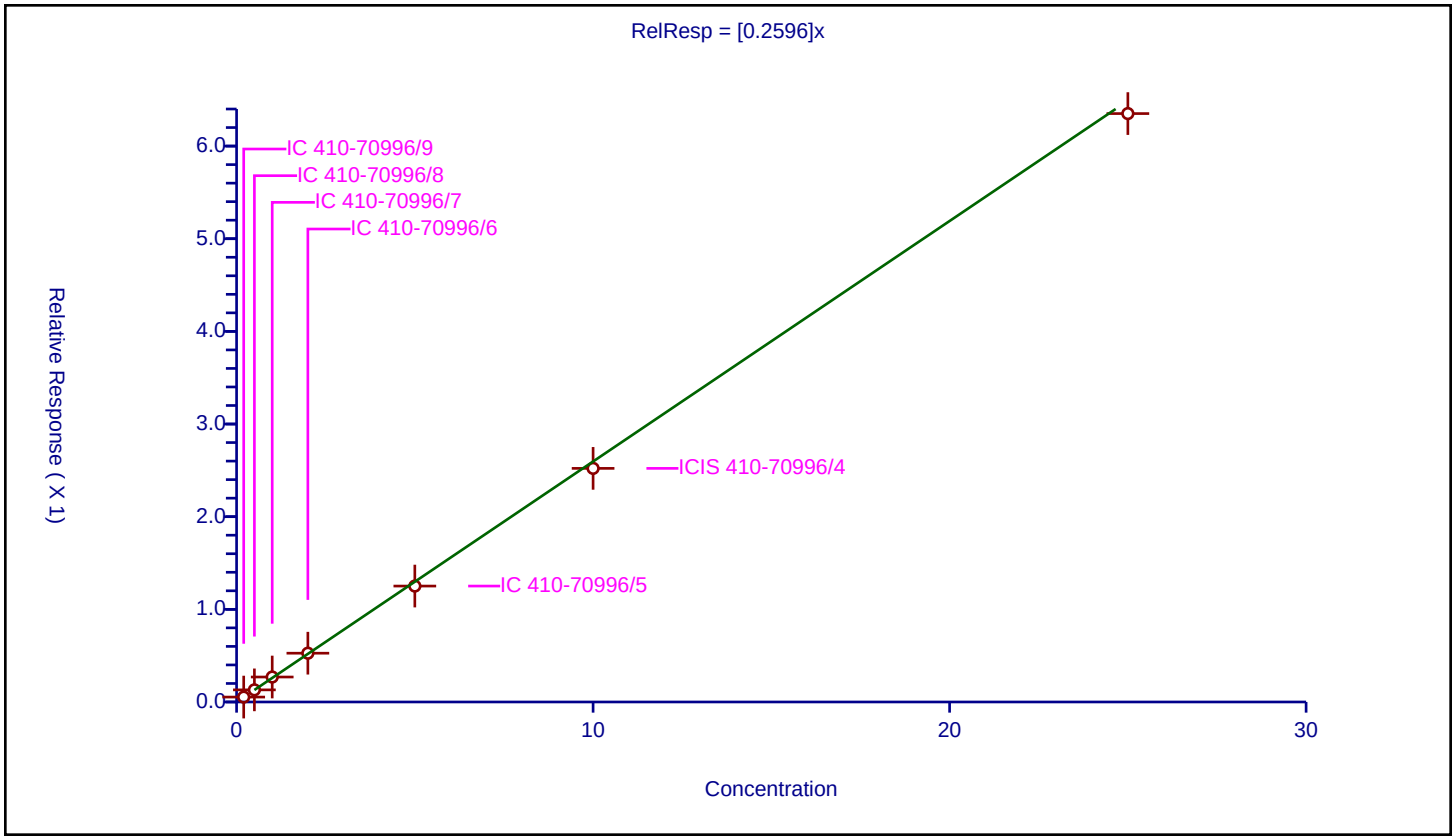
Curve Coefficients

Intercept:	0
Slope:	0.2596

Error Coefficients

Standard Error:	640000
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	IC 410-70996/9	0.2	0.053171	10.0	2204755.0	0.265857	Y
2	IC 410-70996/8	0.5	0.130928	10.0	2189287.0	0.261857	Y
3	IC 410-70996/7	1.0	0.269502	10.0	2211412.0	0.269502	Y
4	IC 410-70996/6	2.0	0.526612	10.0	2210035.0	0.263306	Y
5	IC 410-70996/5	5.0	1.251276	10.0	2225560.0	0.250255	Y
6	ICIS 410-70996/4	10.0	2.521393	10.0	2246480.0	0.252139	Y
7	IC 410-70996/3	25.0	6.350891	10.0	2249974.0	0.254036	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

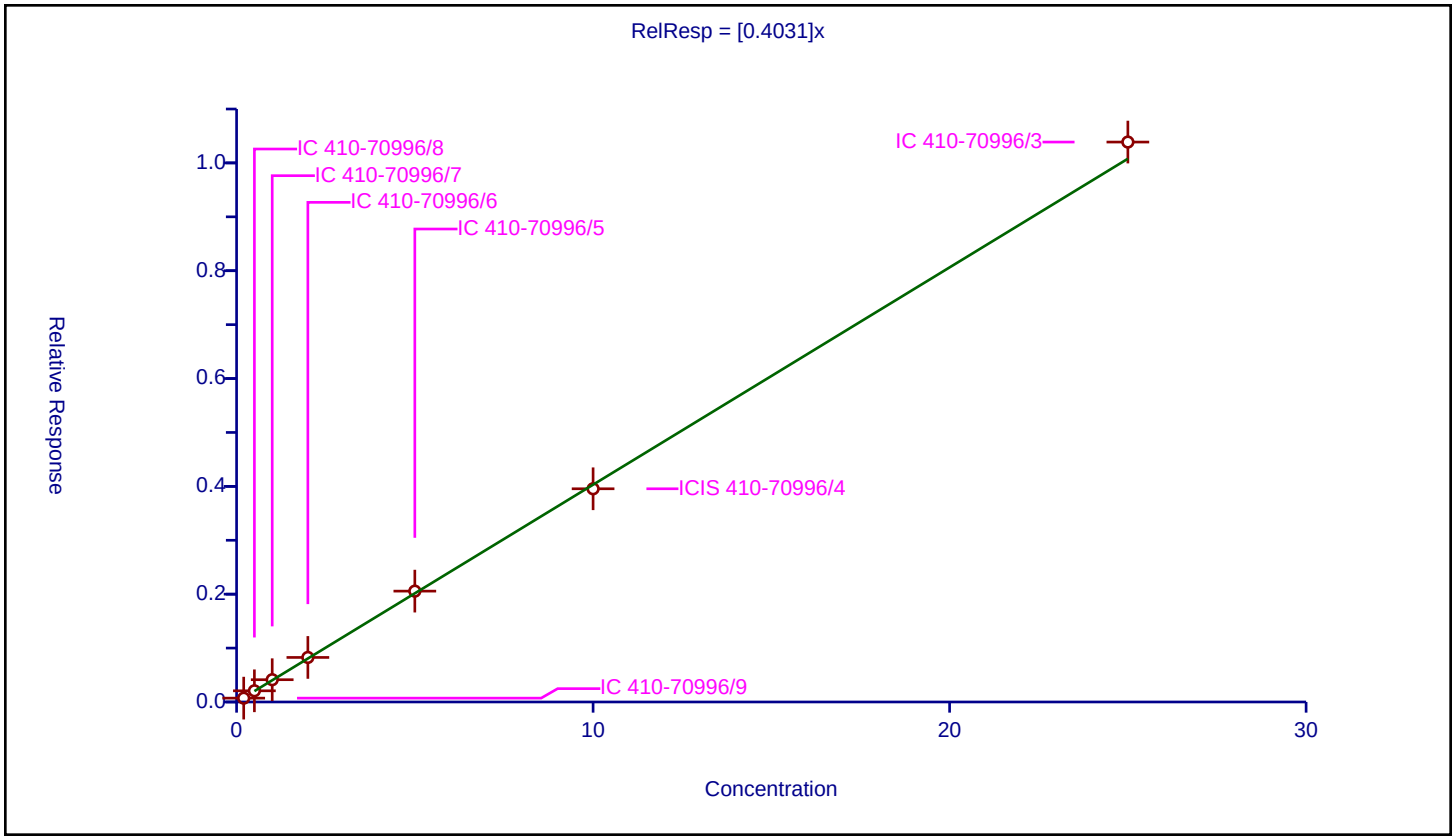
Curve Coefficients

Intercept:	0
Slope:	0.4031

Error Coefficients

Standard Error:	1040000
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	IC 410-70996/9	0.2	0.071523	10.0	2204755.0	0.357613	Y
2	IC 410-70996/8	0.5	0.207711	10.0	2189287.0	0.415423	Y
3	IC 410-70996/7	1.0	0.413225	10.0	2211412.0	0.413225	Y
4	IC 410-70996/6	2.0	0.82624	10.0	2210035.0	0.41312	Y
5	IC 410-70996/5	5.0	2.056512	10.0	2225560.0	0.411302	Y
6	ICIS 410-70996/4	10.0	3.955152	10.0	2246480.0	0.395515	Y
7	IC 410-70996/3	25.0	10.387271	10.0	2249974.0	0.415491	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

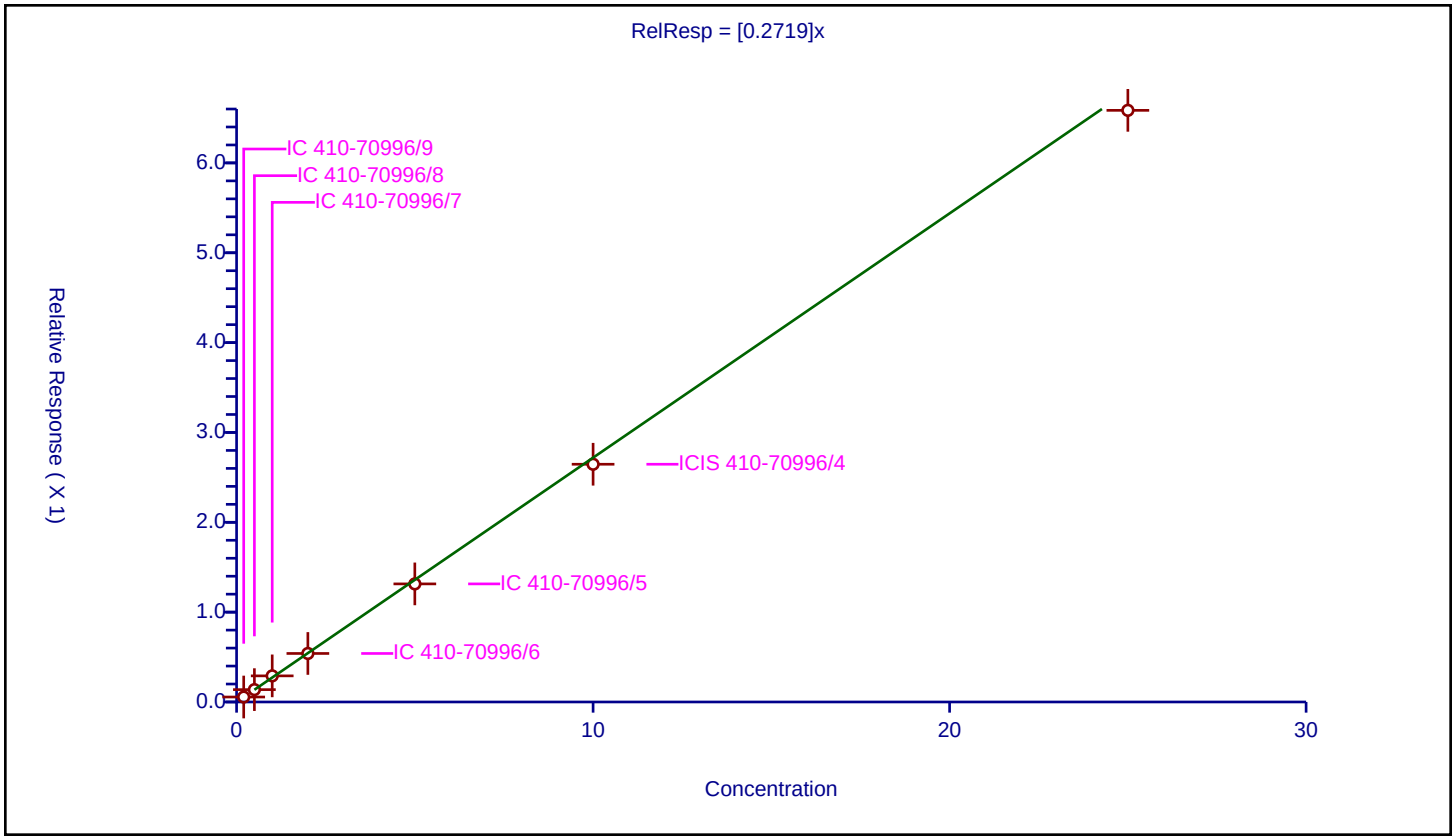
Curve Coefficients

Intercept:	0
Slope:	0.2719

Error Coefficients

Standard Error:	665000
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	IC 410-70996/9	0.2	0.055285	10.0	2204755.0	0.276425	Y
2	IC 410-70996/8	0.5	0.137565	10.0	2189287.0	0.275131	Y
3	IC 410-70996/7	1.0	0.290855	10.0	2211412.0	0.290855	Y
4	IC 410-70996/6	2.0	0.540114	10.0	2210035.0	0.270057	Y
5	IC 410-70996/5	5.0	1.314352	10.0	2225560.0	0.26287	Y
6	ICIS 410-70996/4	10.0	2.646189	10.0	2246480.0	0.264619	Y
7	IC 410-70996/3	25.0	6.585227	10.0	2249974.0	0.263409	Y



Calibration / 1,4-Dioxane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

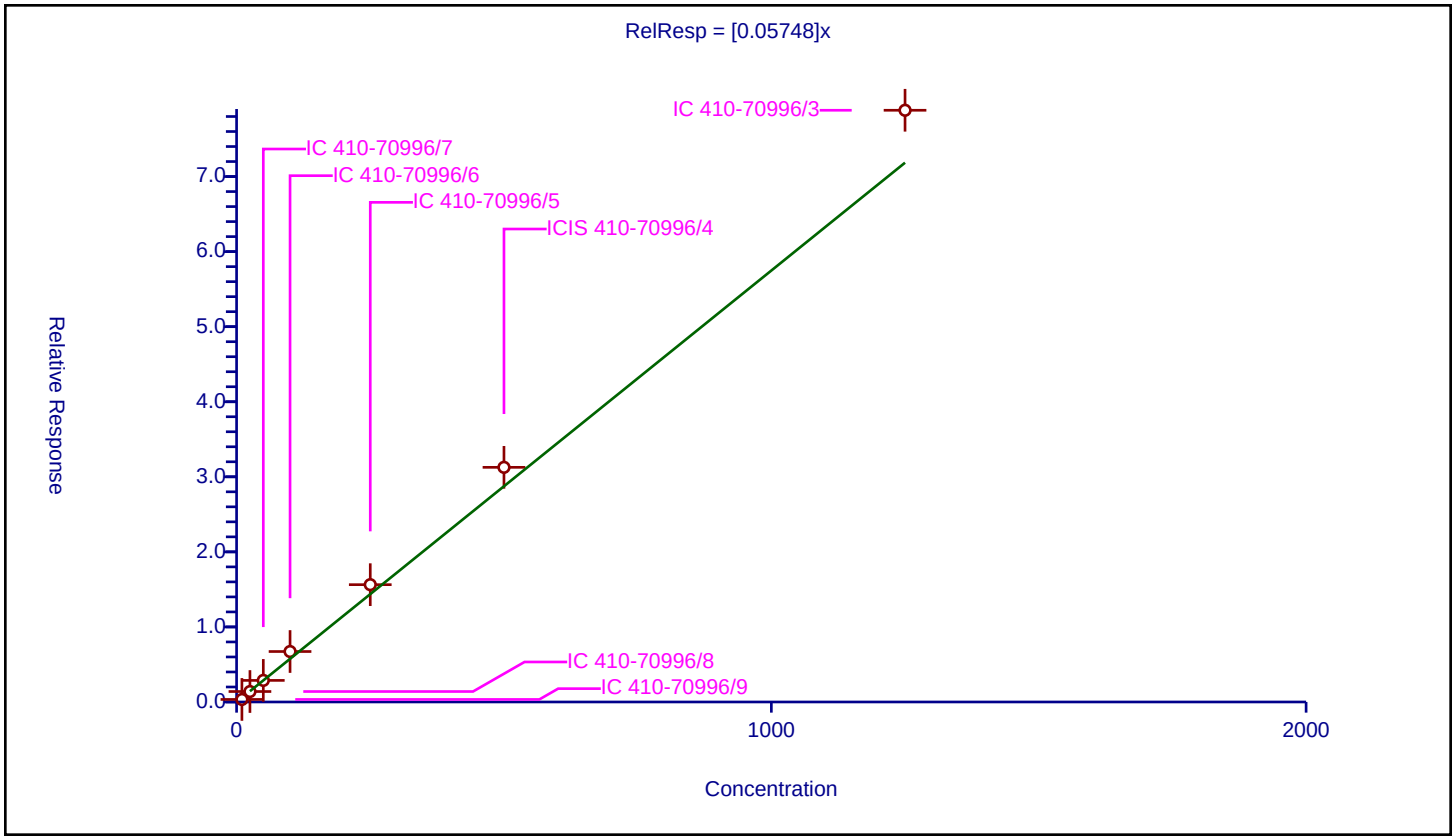
Curve Coefficients

Intercept:	0
Slope:	0.05748

Error Coefficients

Standard Error:	127000
Relative Standard Error:	19.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.960

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	10.0	0.337788	50.0	184731.0	0.033779	Y
2	IC 410-70996/8	25.0	1.393017	50.0	195834.0	0.055721	Y
3	IC 410-70996/7	50.0	2.87566	50.0	201206.0	0.057513	Y
4	IC 410-70996/6	100.0	6.724552	50.0	195329.0	0.067246	Y
5	IC 410-70996/5	250.0	15.62863	50.0	183343.0	0.062515	Y
6	ICIS 410-70996/4	500.0	31.260546	50.0	186094.0	0.062521	Y
7	IC 410-70996/3	1250.0	78.831721	50.0	177877.0	0.063065	Y



Calibration / Methyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

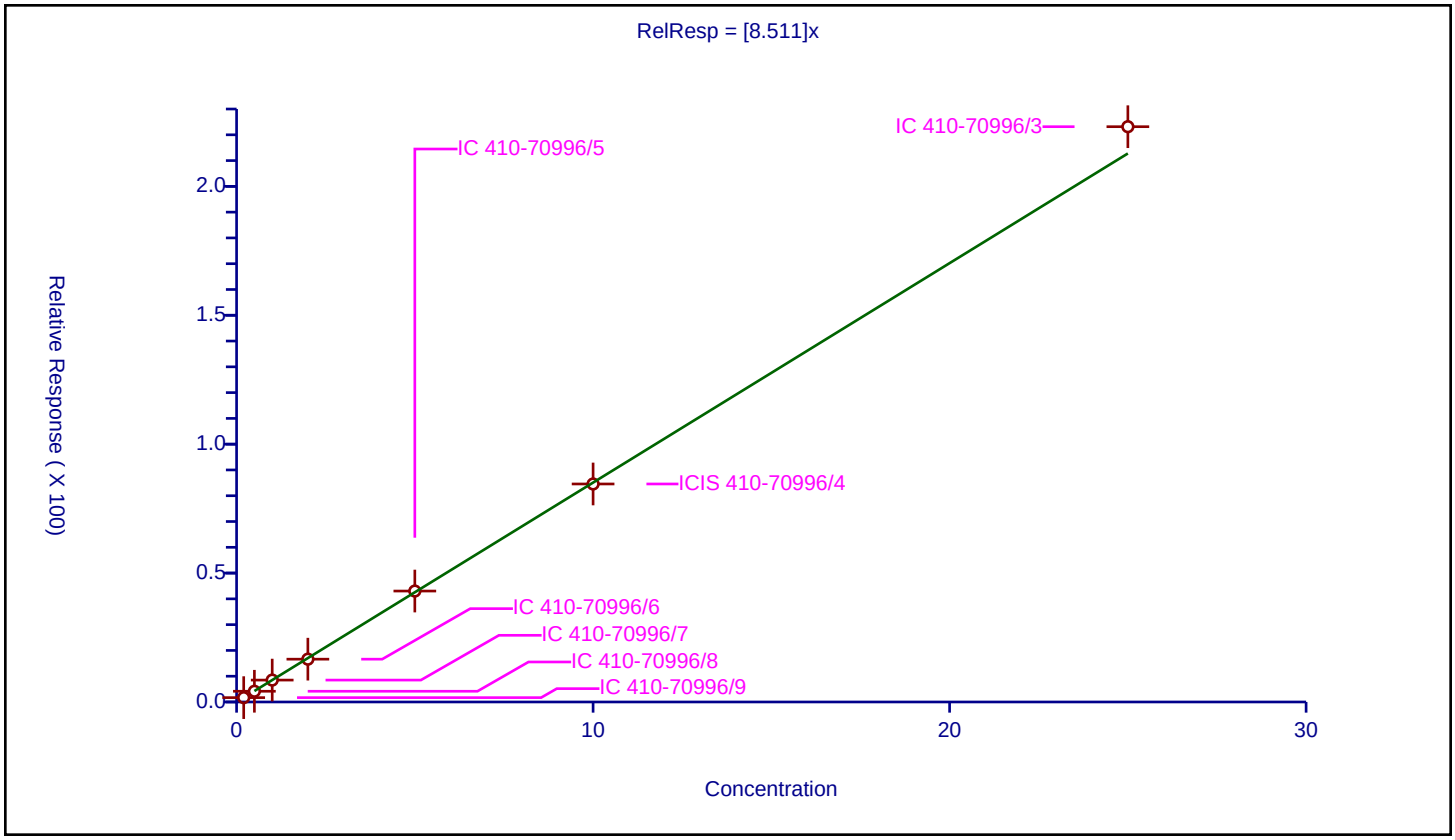
Curve Coefficients

Intercept:	0
Slope:	8.511

Error Coefficients

Standard Error:	356000
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	IC 410-70996/9	0.2	1.691108	50.0	184731.0	8.455538	Y
2	IC 410-70996/8	0.5	4.161943	50.0	195834.0	8.323887	Y
3	IC 410-70996/7	1.0	8.502232	50.0	201206.0	8.502232	Y
4	IC 410-70996/6	2.0	16.609669	50.0	195329.0	8.304834	Y
5	IC 410-70996/5	5.0	43.028368	50.0	183343.0	8.605674	Y
6	ICIS 410-70996/4	10.0	84.557535	50.0	186094.0	8.455754	Y
7	IC 410-70996/3	25.0	223.141272	50.0	177877.0	8.925651	Y



Calibration / Dibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

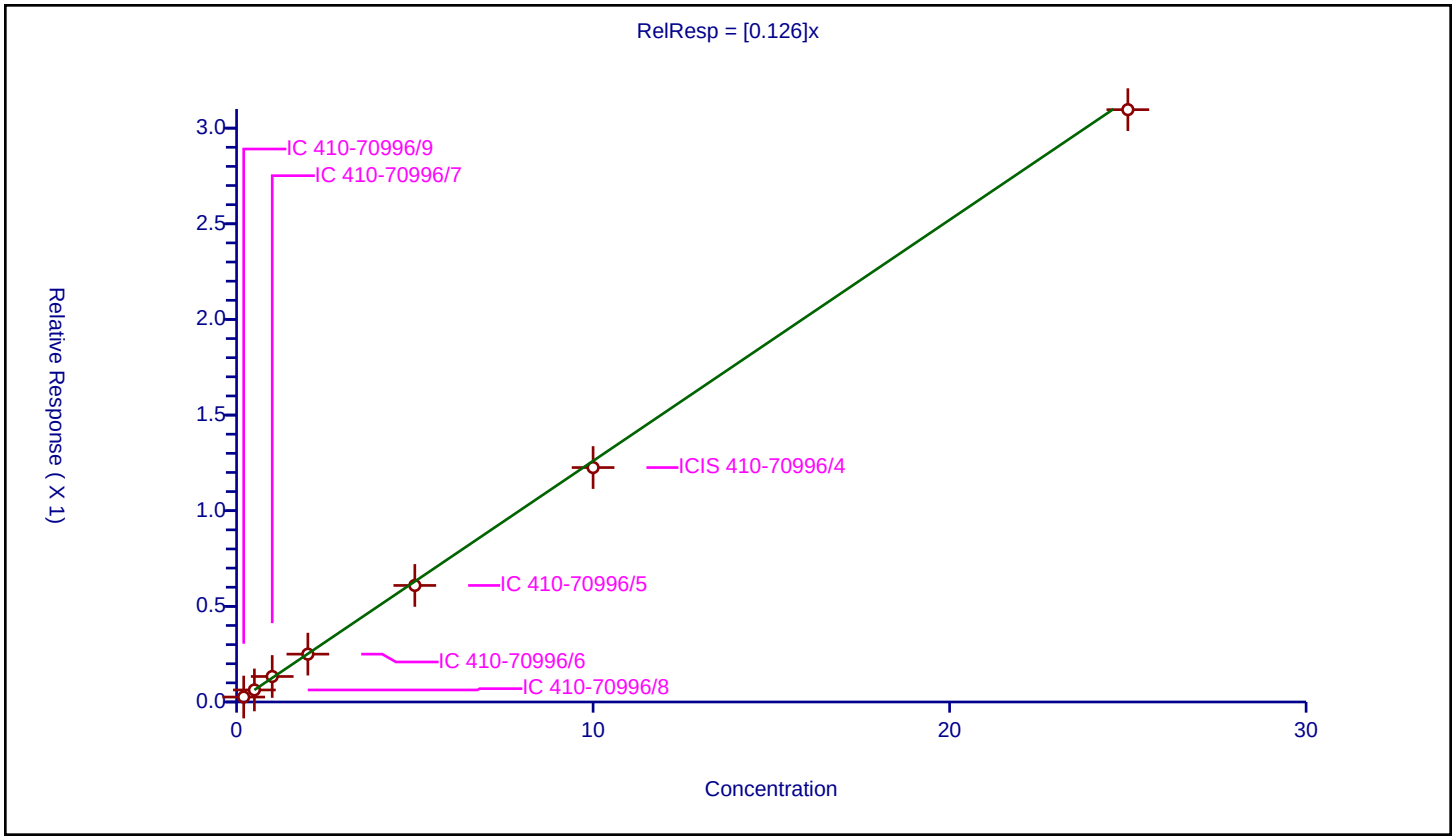
Curve Coefficients

Intercept:	0
Slope:	0.126

Error Coefficients

Standard Error:	312000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.025926	10.0	2204755.0	0.129629	Y
2	IC 410-70996/8	0.5	0.062929	10.0	2189287.0	0.125858	Y
3	IC 410-70996/7	1.0	0.133286	10.0	2211412.0	0.133286	Y
4	IC 410-70996/6	2.0	0.25024	10.0	2210035.0	0.12512	Y
5	IC 410-70996/5	5.0	0.60924	10.0	2225560.0	0.121848	Y
6	ICIS 410-70996/4	10.0	1.225575	10.0	2246480.0	0.122558	Y
7	IC 410-70996/3	25.0	3.09668	10.0	2249974.0	0.123867	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

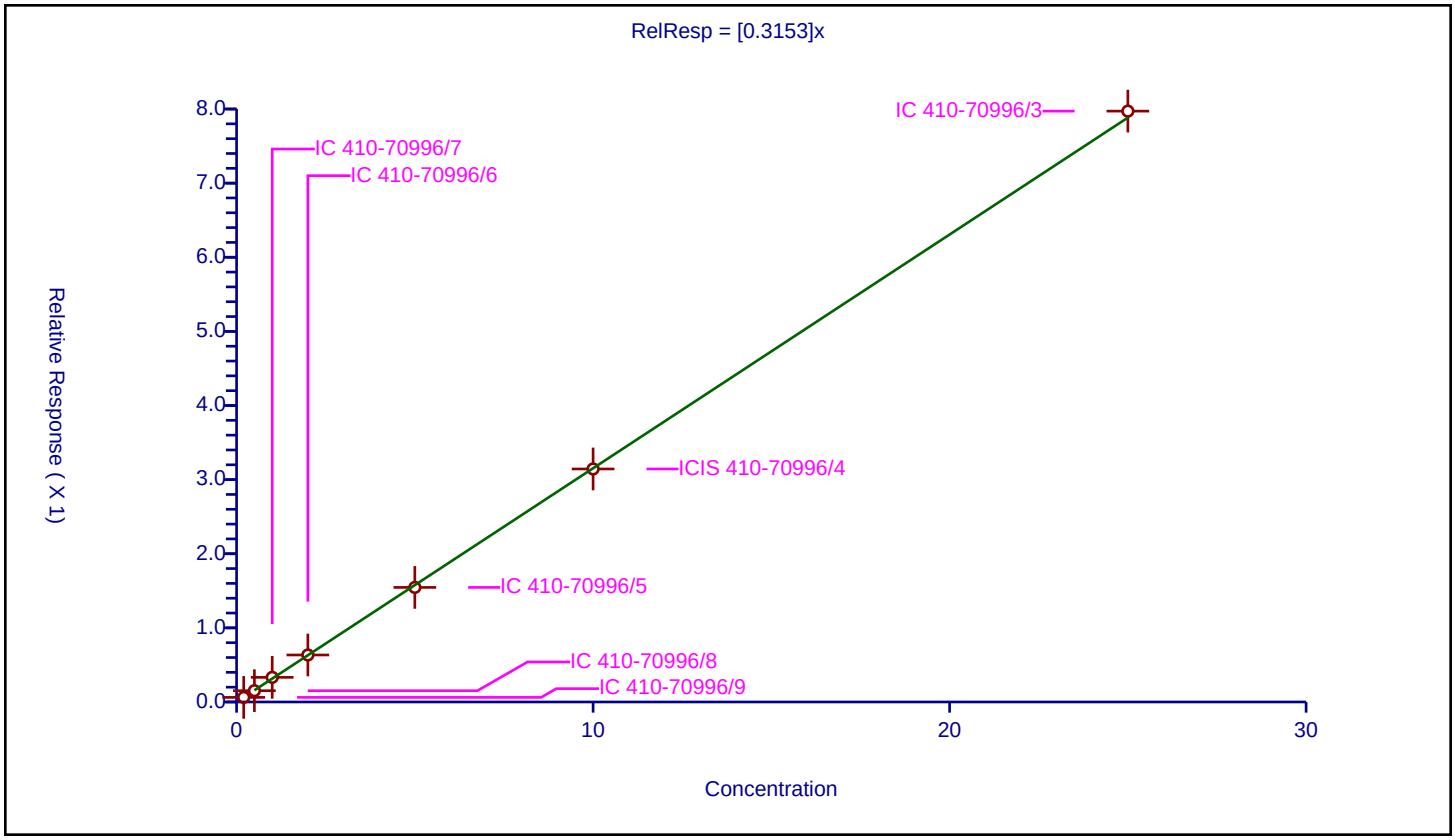
Curve Coefficients

Intercept:	0
Slope:	0.3153

Error Coefficients

Standard Error:	802000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.062129	10.0	2204755.0	0.310647	Y
2	IC 410-70996/8	0.5	0.152525	10.0	2189287.0	0.305049	Y
3	IC 410-70996/7	1.0	0.332204	10.0	2211412.0	0.332204	Y
4	IC 410-70996/6	2.0	0.634153	10.0	2210035.0	0.317076	Y
5	IC 410-70996/5	5.0	1.545624	10.0	2225560.0	0.309125	Y
6	ICIS 410-70996/4	10.0	3.143829	10.0	2246480.0	0.314383	Y
7	IC 410-70996/3	25.0	7.971439	10.0	2249974.0	0.318858	Y



Calibration / 2-Nitropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

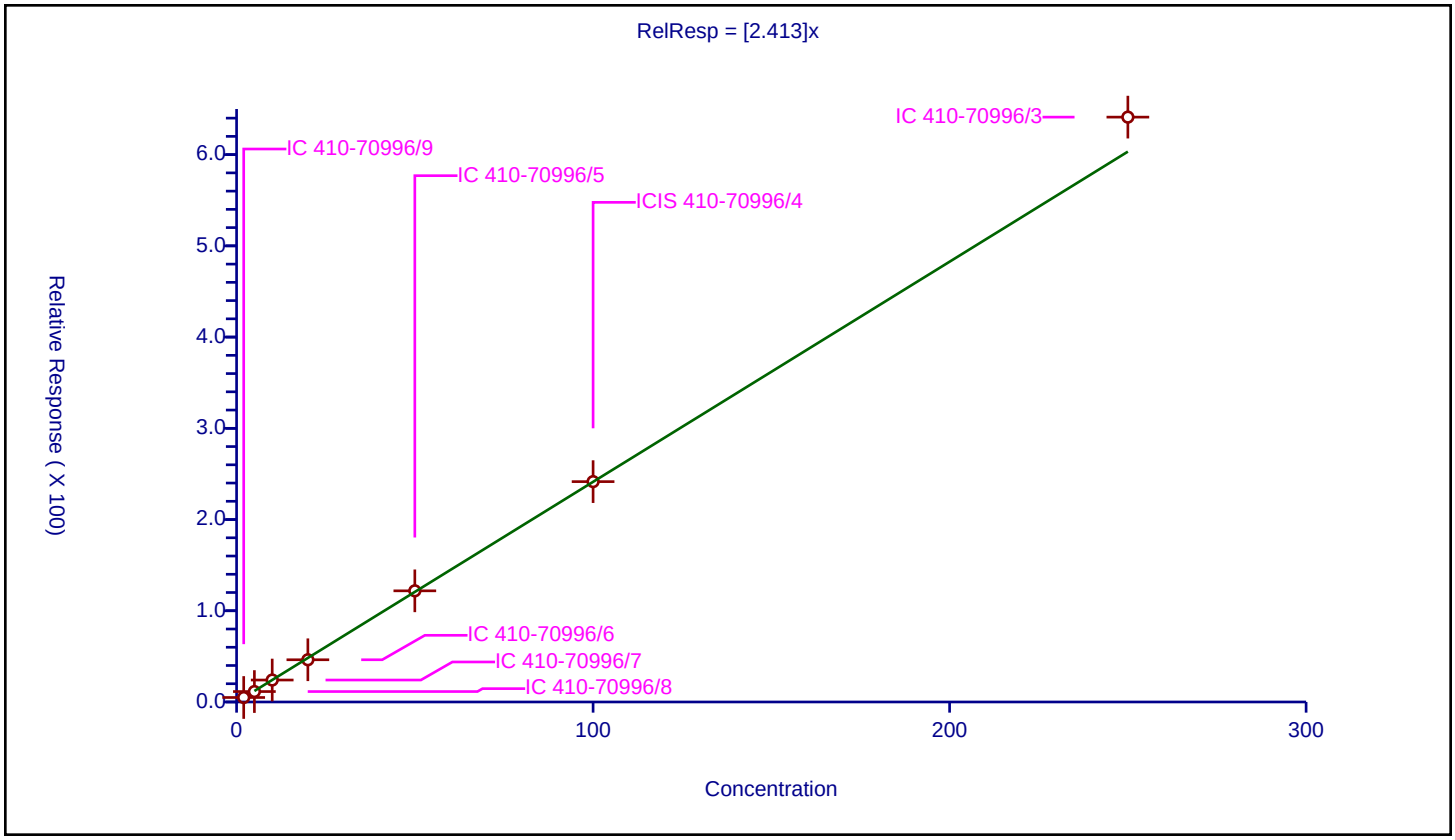
Curve Coefficients

Intercept:	0
Slope:	2.413

Error Coefficients

Standard Error:	1020000
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	IC 410-70996/9	2.0	4.923646	50.0	184731.0	2.461823	Y
2	IC 410-70996/8	5.0	11.454344	50.0	195834.0	2.290869	Y
3	IC 410-70996/7	10.0	24.079053	50.0	201206.0	2.407905	Y
4	IC 410-70996/6	20.0	46.278586	50.0	195329.0	2.313929	Y
5	IC 410-70996/5	50.0	121.859847	50.0	183343.0	2.437197	Y
6	ICIS 410-70996/4	100.0	241.561523	50.0	186094.0	2.415615	Y
7	IC 410-70996/3	250.0	641.125328	50.0	177877.0	2.564501	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

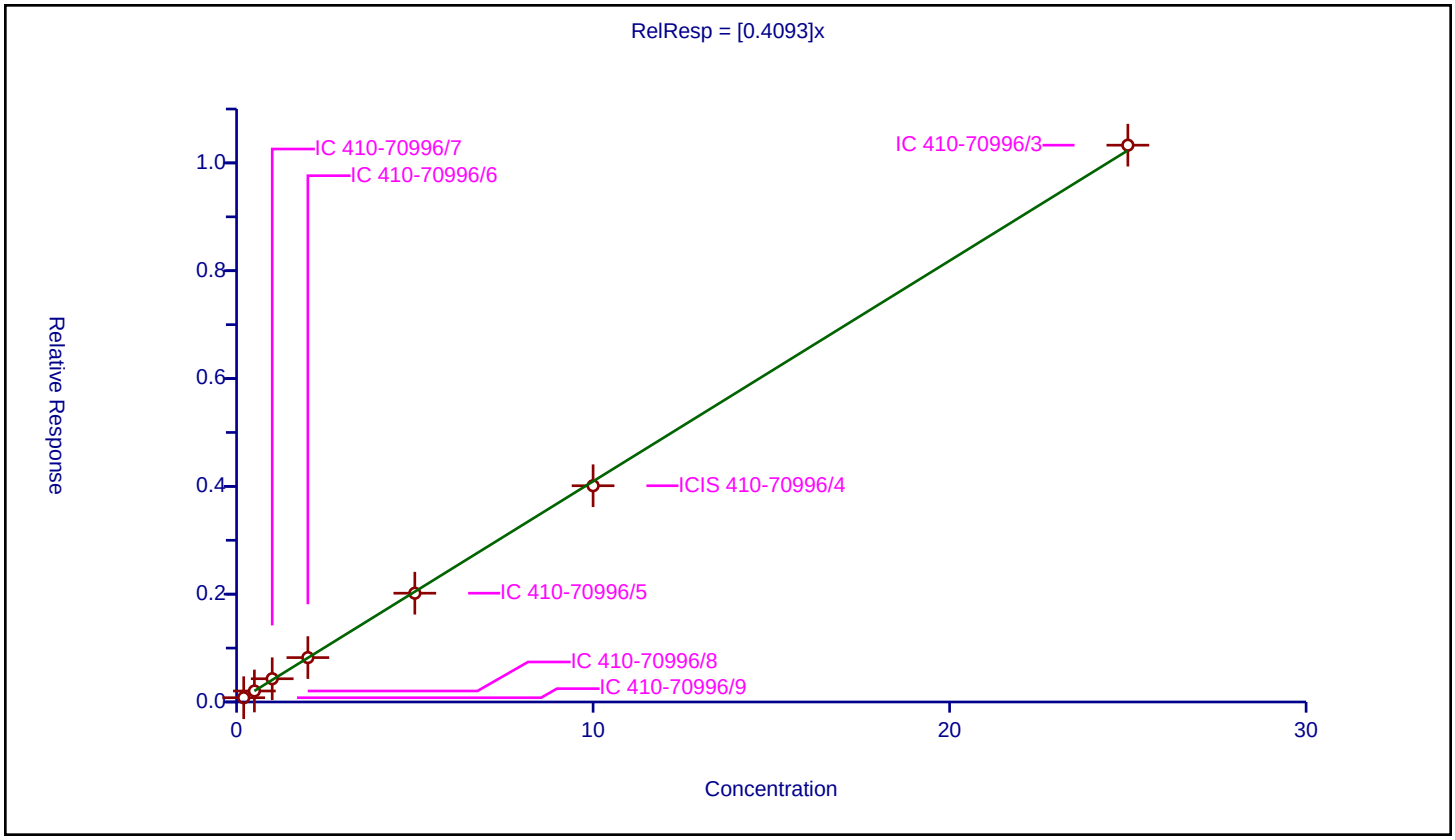
Curve Coefficients

Intercept:	0
Slope:	0.4093

Error Coefficients

Standard Error:	1040000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.079156	10.0	2204755.0	0.395781	Y
2	IC 410-70996/8	0.5	0.204222	10.0	2189287.0	0.408443	Y
3	IC 410-70996/7	1.0	0.431295	10.0	2211412.0	0.431295	Y
4	IC 410-70996/6	2.0	0.823268	10.0	2210035.0	0.411634	Y
5	IC 410-70996/5	5.0	2.017879	10.0	2225560.0	0.403576	Y
6	ICIS 410-70996/4	10.0	4.011596	10.0	2246480.0	0.40116	Y
7	IC 410-70996/3	25.0	10.329333	10.0	2249974.0	0.413173	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

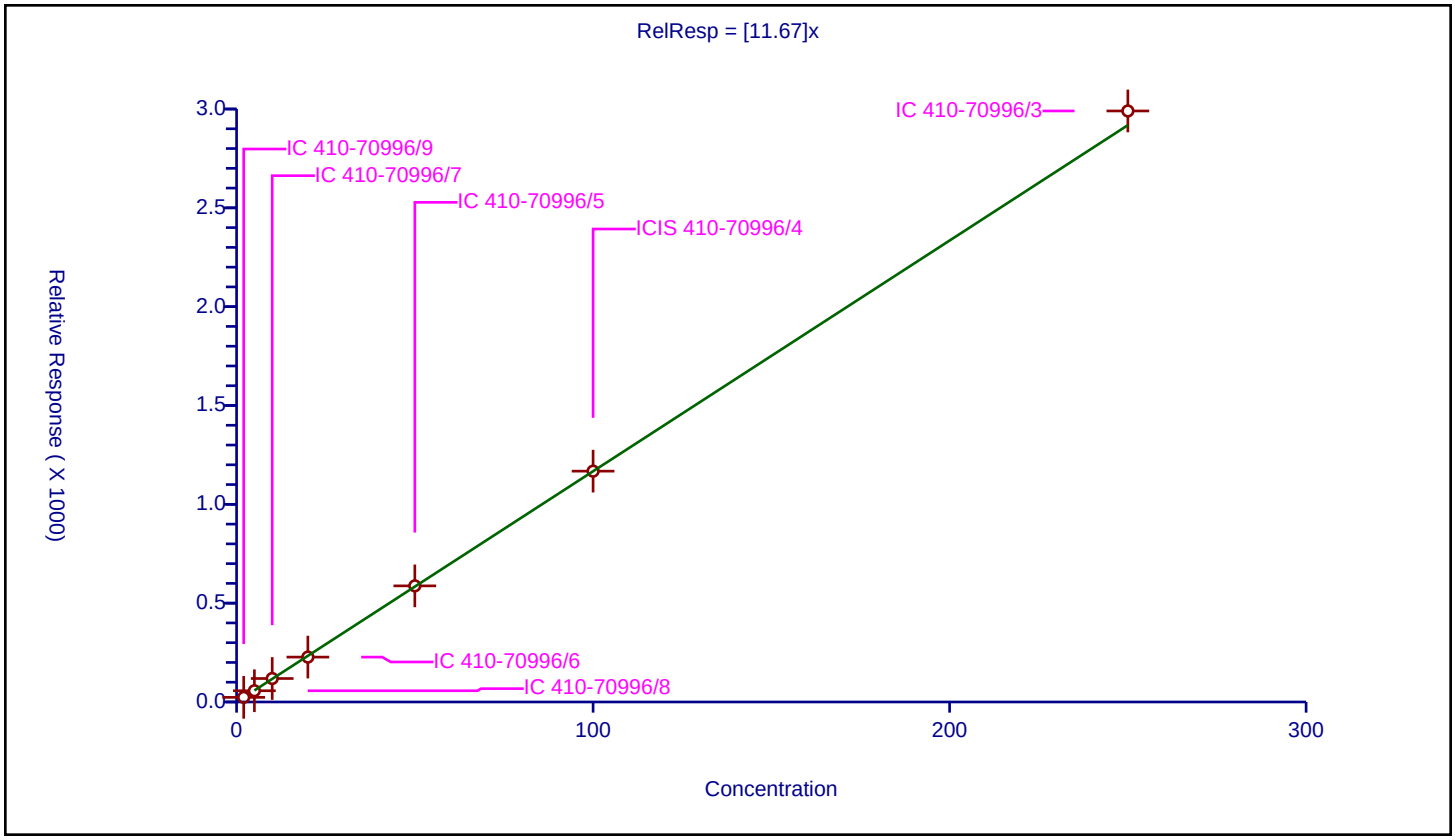
Curve Coefficients

Intercept:	0
Slope:	11.67

Error Coefficients

Standard Error:	4790000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	2.0	23.391039	50.0	184731.0	11.695519	Y
2	IC 410-70996/8	5.0	56.924487	50.0	195834.0	11.384897	Y
3	IC 410-70996/7	10.0	118.830949	50.0	201206.0	11.883095	Y
4	IC 410-70996/6	20.0	227.15905	50.0	195329.0	11.357952	Y
5	IC 410-70996/5	50.0	587.488478	50.0	183343.0	11.74977	Y
6	ICIS 410-70996/4	100.0	1167.831042	50.0	186094.0	11.67831	Y
7	IC 410-70996/3	250.0	2990.204467	50.0	177877.0	11.960818	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

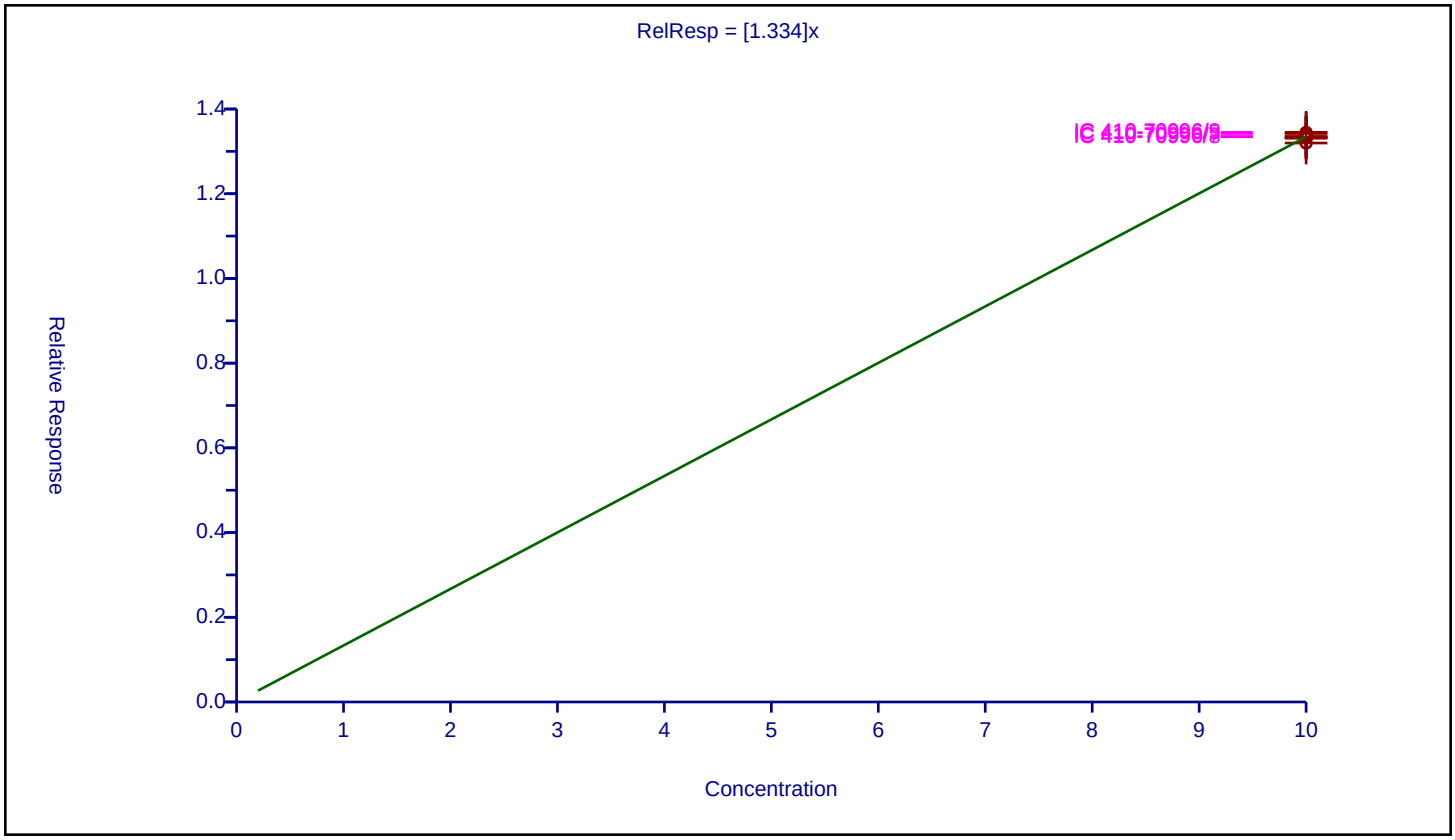
Curve Coefficients

Intercept:	0
Slope:	1.334

Error Coefficients

Standard Error:	2320000
Relative Standard Error:	0.6
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/3	10.0	13.196575	10.0	1658425.0	1.319658	Y
2	ICIS 410-70996/4	10.0	13.31712	10.0	1636269.0	1.331712	Y
3	IC 410-70996/5	10.0	13.421252	10.0	1611346.0	1.342125	Y
4	IC 410-70996/6	10.0	13.314342	10.0	1604620.0	1.331434	Y
5	IC 410-70996/7	10.0	13.349116	10.0	1600264.0	1.334912	Y
6	IC 410-70996/8	10.0	13.345384	10.0	1589997.0	1.334538	Y
7	IC 410-70996/9	10.0	13.44899	10.0	1578236.0	1.344899	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

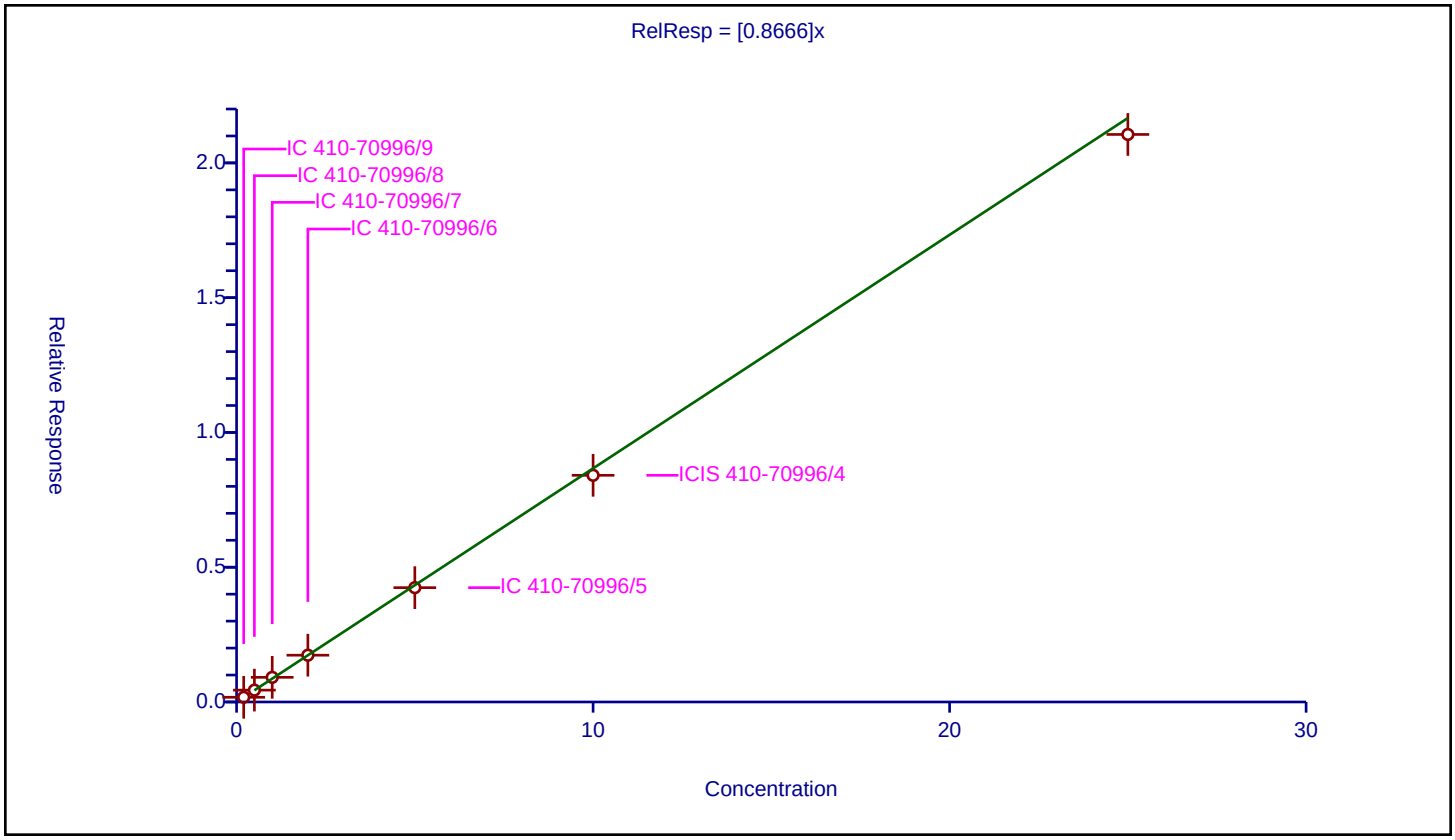
Curve Coefficients

Intercept:	0
Slope:	0.8666

Error Coefficients

Standard Error:	1560000
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	IC 410-70996/9	0.2	0.174701	10.0	1578236.0	0.873507	Y
2	IC 410-70996/8	0.5	0.439328	10.0	1589997.0	0.878656	Y
3	IC 410-70996/7	1.0	0.914393	10.0	1600264.0	0.914393	Y
4	IC 410-70996/6	2.0	1.736181	10.0	1604620.0	0.86809	Y
5	IC 410-70996/5	5.0	4.241764	10.0	1611346.0	0.848353	Y
6	ICIS 410-70996/4	10.0	8.409821	10.0	1636269.0	0.840982	Y
7	IC 410-70996/3	25.0	21.056135	10.0	1658425.0	0.842245	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

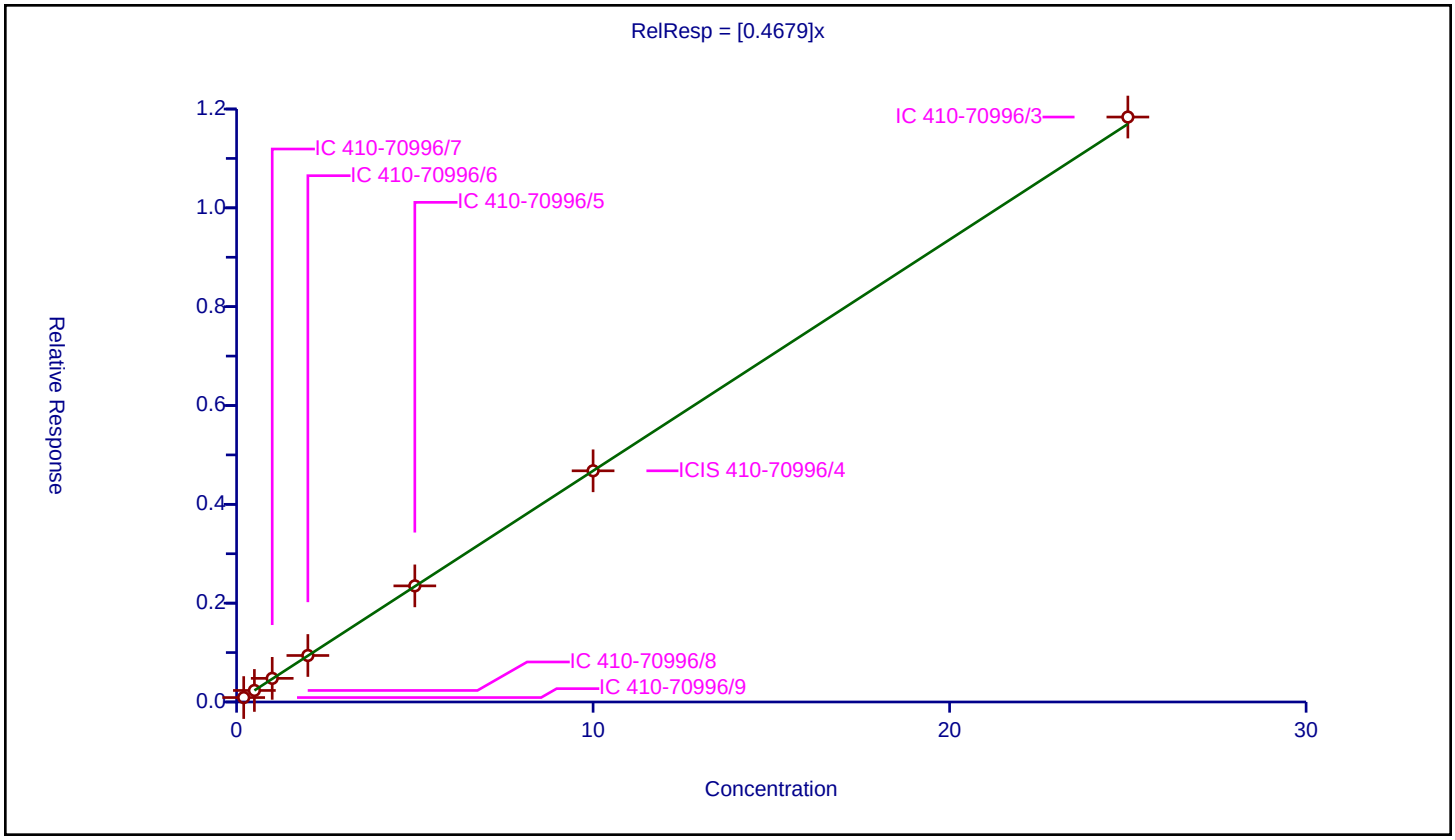
Curve Coefficients

Intercept:	0
Slope:	0.4679

Error Coefficients

Standard Error:	877000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.089695	10.0	1578236.0	0.448475	Y
2	IC 410-70996/8	0.5	0.23329	10.0	1589997.0	0.466579	Y
3	IC 410-70996/7	1.0	0.47844	10.0	1600264.0	0.47844	Y
4	IC 410-70996/6	2.0	0.940634	10.0	1604620.0	0.470317	Y
5	IC 410-70996/5	5.0	2.349893	10.0	1611346.0	0.469979	Y
6	ICIS 410-70996/4	10.0	4.678436	10.0	1636269.0	0.467844	Y
7	IC 410-70996/3	25.0	11.83734	10.0	1658425.0	0.473494	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

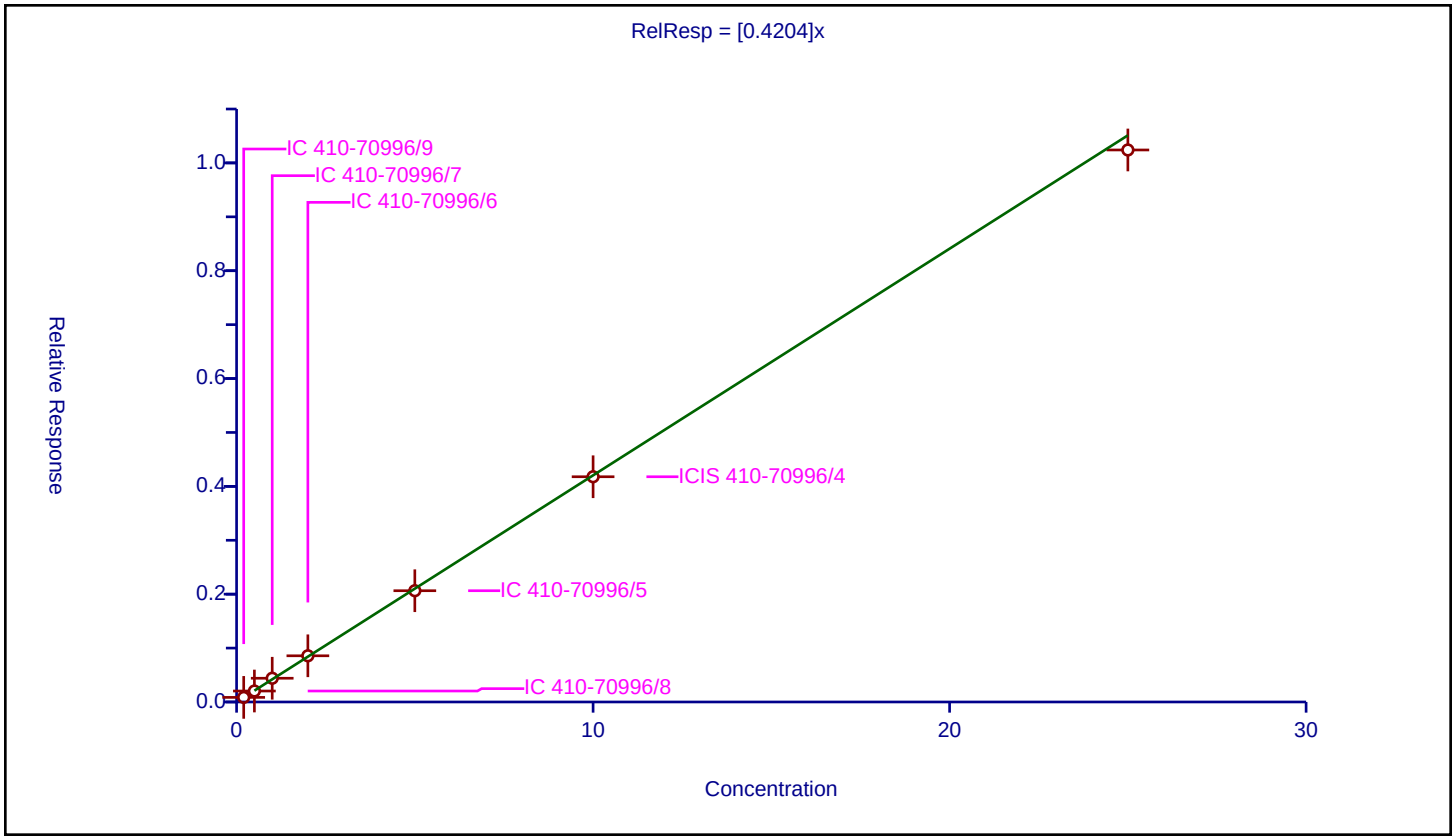
Curve Coefficients

Intercept:	0
Slope:	0.4204

Error Coefficients

Standard Error:	762000
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	IC 410-70996/9	0.2	0.085348	10.0	1578236.0	0.426742	Y
2	IC 410-70996/8	0.5	0.203466	10.0	1589997.0	0.406932	Y
3	IC 410-70996/7	1.0	0.440752	10.0	1600264.0	0.440752	Y
4	IC 410-70996/6	2.0	0.856919	10.0	1604620.0	0.42846	Y
5	IC 410-70996/5	5.0	2.063871	10.0	1611346.0	0.412774	Y
6	ICIS 410-70996/4	10.0	4.178243	10.0	1636269.0	0.417824	Y
7	IC 410-70996/3	25.0	10.240385	10.0	1658425.0	0.409615	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

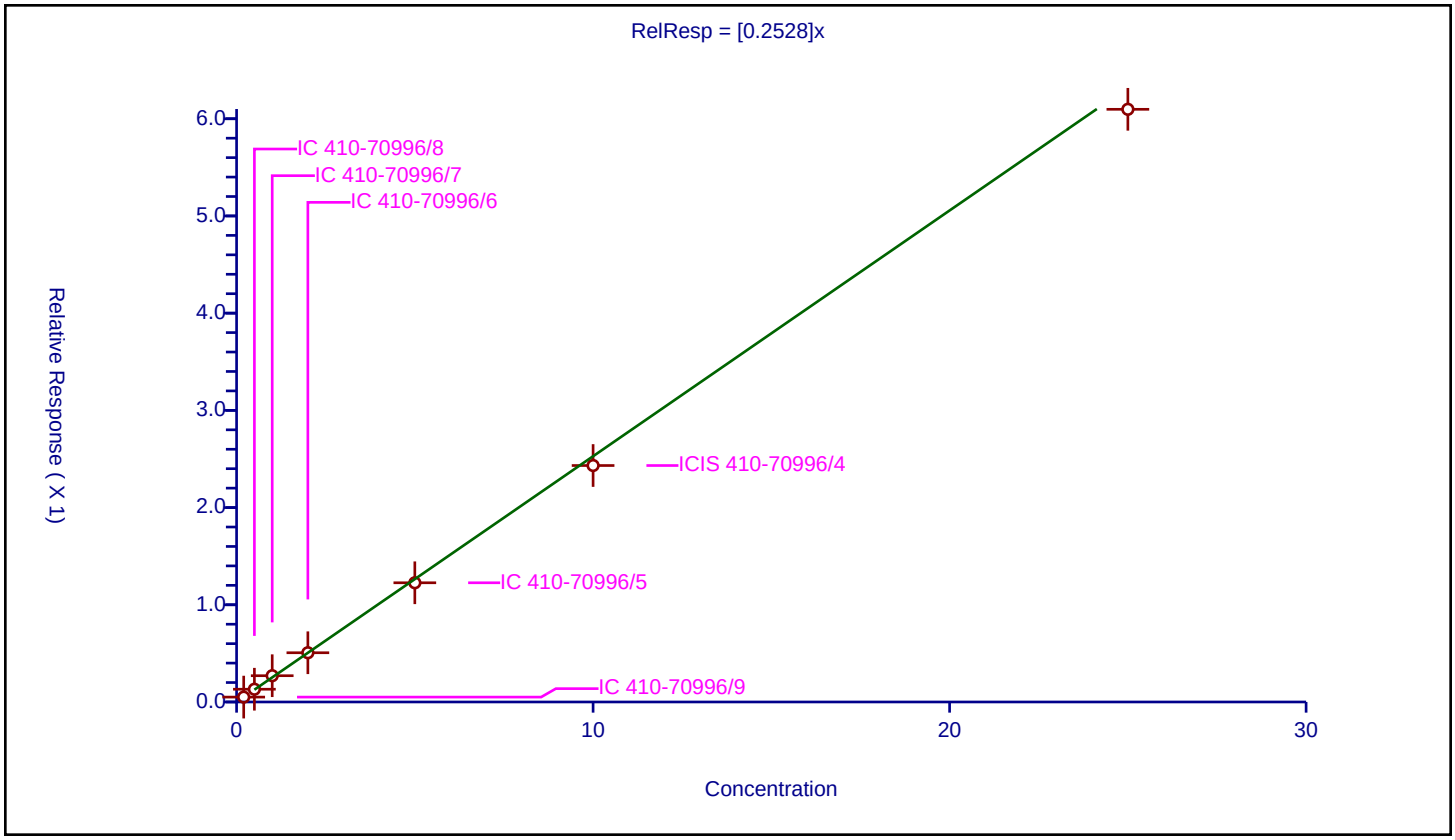
Curve Coefficients

Intercept:	0
Slope:	0.2528

Error Coefficients

Standard Error:	453000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.050259	10.0	1578236.0	0.251293	Y
2	IC 410-70996/8	0.5	0.131195	10.0	1589997.0	0.26239	Y
3	IC 410-70996/7	1.0	0.270324	10.0	1600264.0	0.270324	Y
4	IC 410-70996/6	2.0	0.506413	10.0	1604620.0	0.253206	Y
5	IC 410-70996/5	5.0	1.22631	10.0	1611346.0	0.245262	Y
6	ICIS 410-70996/4	10.0	2.432687	10.0	1636269.0	0.243269	Y
7	IC 410-70996/3	25.0	6.097068	10.0	1658425.0	0.243883	Y



Calibration / Tetrachloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

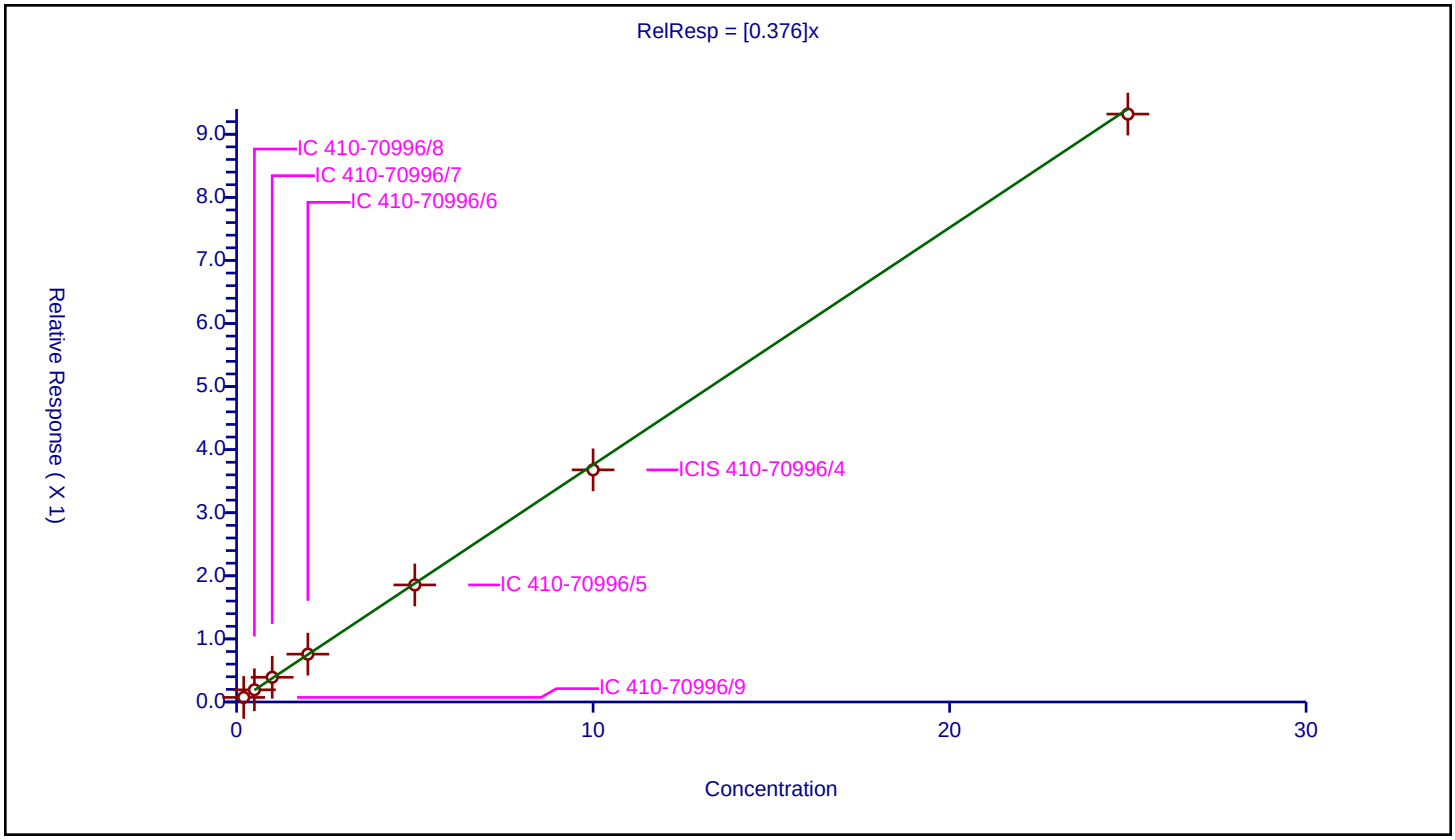
Curve Coefficients

Intercept:	0
Slope:	0.376

Error Coefficients

Standard Error:	690000
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	IC 410-70996/9	0.2	0.0726	10.0	1578236.0	0.363	Y
2	IC 410-70996/8	0.5	0.193013	10.0	1589997.0	0.386026	Y
3	IC 410-70996/7	1.0	0.391935	10.0	1600264.0	0.391935	Y
4	IC 410-70996/6	2.0	0.75841	10.0	1604620.0	0.379205	Y
5	IC 410-70996/5	5.0	1.855461	10.0	1611346.0	0.371092	Y
6	ICIS 410-70996/4	10.0	3.679462	10.0	1636269.0	0.367946	Y
7	IC 410-70996/3	25.0	9.319825	10.0	1658425.0	0.372793	Y



Calibration / 1,3-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

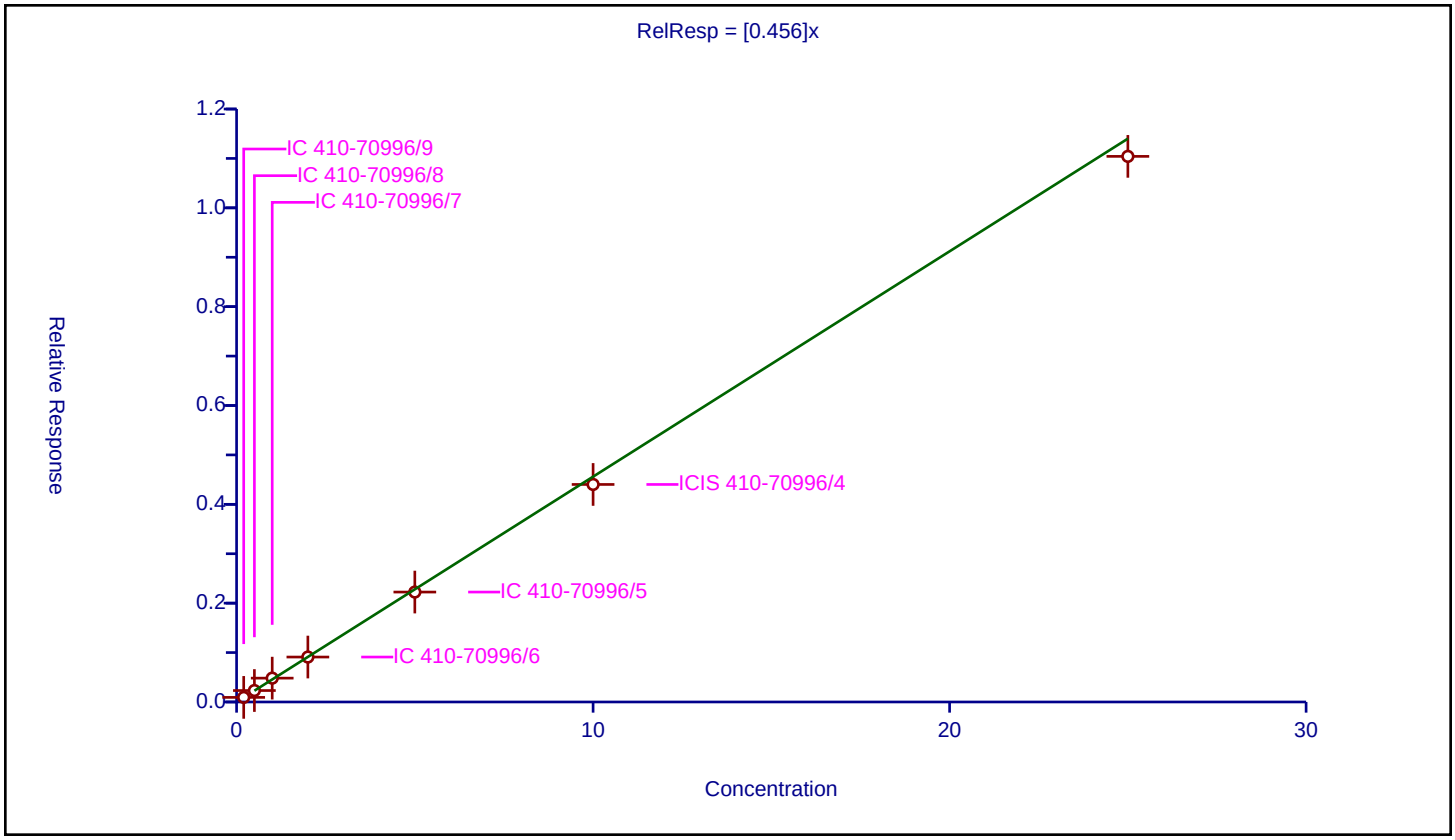
Curve Coefficients

Intercept:	0
Slope:	0.456

Error Coefficients

Standard Error:	819000
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	IC 410-70996/9	0.2	0.092838	10.0	1578236.0	0.464189	Y
2	IC 410-70996/8	0.5	0.231761	10.0	1589997.0	0.463523	Y
3	IC 410-70996/7	1.0	0.482683	10.0	1600264.0	0.482683	Y
4	IC 410-70996/6	2.0	0.909599	10.0	1604620.0	0.454799	Y
5	IC 410-70996/5	5.0	2.2246	10.0	1611346.0	0.44492	Y
6	ICIS 410-70996/4	10.0	4.402057	10.0	1636269.0	0.440206	Y
7	IC 410-70996/3	25.0	11.041796	10.0	1658425.0	0.441672	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

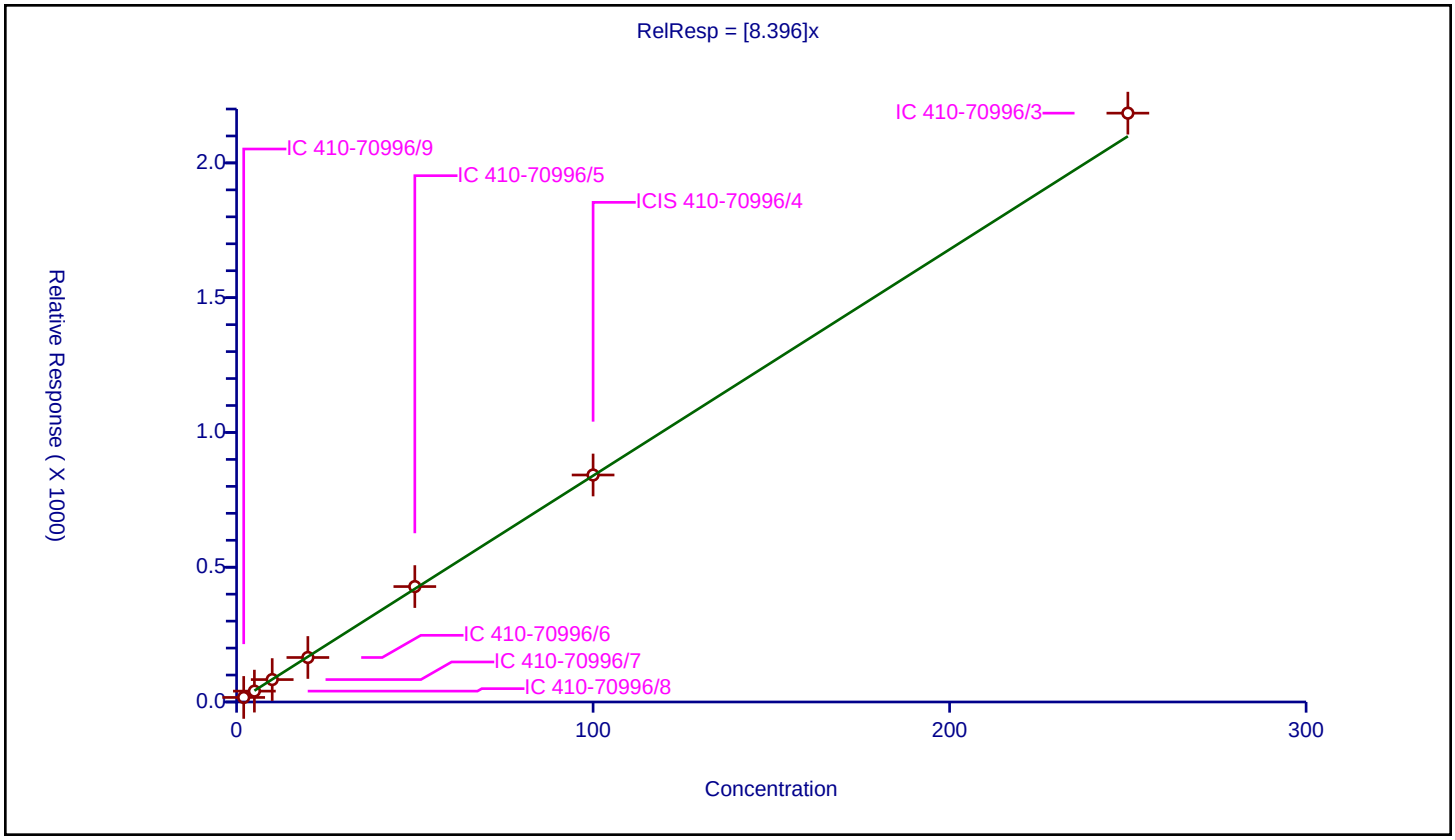
Curve Coefficients

Intercept:	0
Slope:	8.396

Error Coefficients

Standard Error:	3490000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	2.0	16.8269	50.0	184731.0	8.41345	Y
2	IC 410-70996/8	5.0	40.275693	50.0	195834.0	8.055139	Y
3	IC 410-70996/7	10.0	83.203533	50.0	201206.0	8.320353	Y
4	IC 410-70996/6	20.0	165.119875	50.0	195329.0	8.255994	Y
5	IC 410-70996/5	50.0	428.222785	50.0	183343.0	8.564456	Y
6	ICIS 410-70996/4	100.0	842.208776	50.0	186094.0	8.422088	Y
7	IC 410-70996/3	250.0	2184.644164	50.0	177877.0	8.738577	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

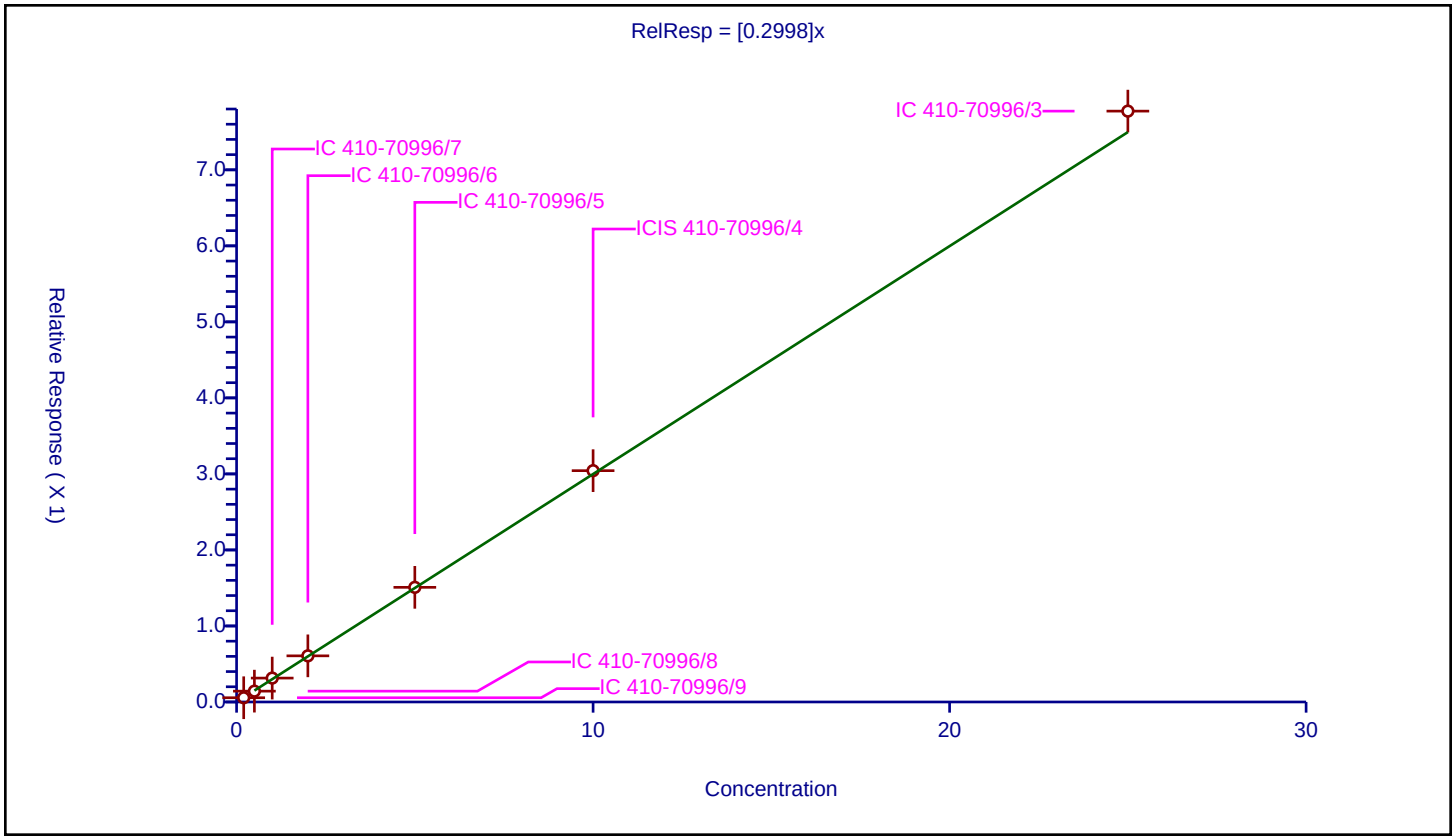
Curve Coefficients

Intercept:	0
Slope:	0.2998

Error Coefficients

Standard Error:	575000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.055809	10.0	1578236.0	0.279046	Y
2	IC 410-70996/8	0.5	0.142491	10.0	1589997.0	0.284982	Y
3	IC 410-70996/7	1.0	0.314567	10.0	1600264.0	0.314567	Y
4	IC 410-70996/6	2.0	0.606879	10.0	1604620.0	0.303439	Y
5	IC 410-70996/5	5.0	1.508099	10.0	1611346.0	0.30162	Y
6	ICIS 410-70996/4	10.0	3.042758	10.0	1636269.0	0.304276	Y
7	IC 410-70996/3	25.0	7.772314	10.0	1658425.0	0.310893	Y



Calibration / Ethylene Dibromide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

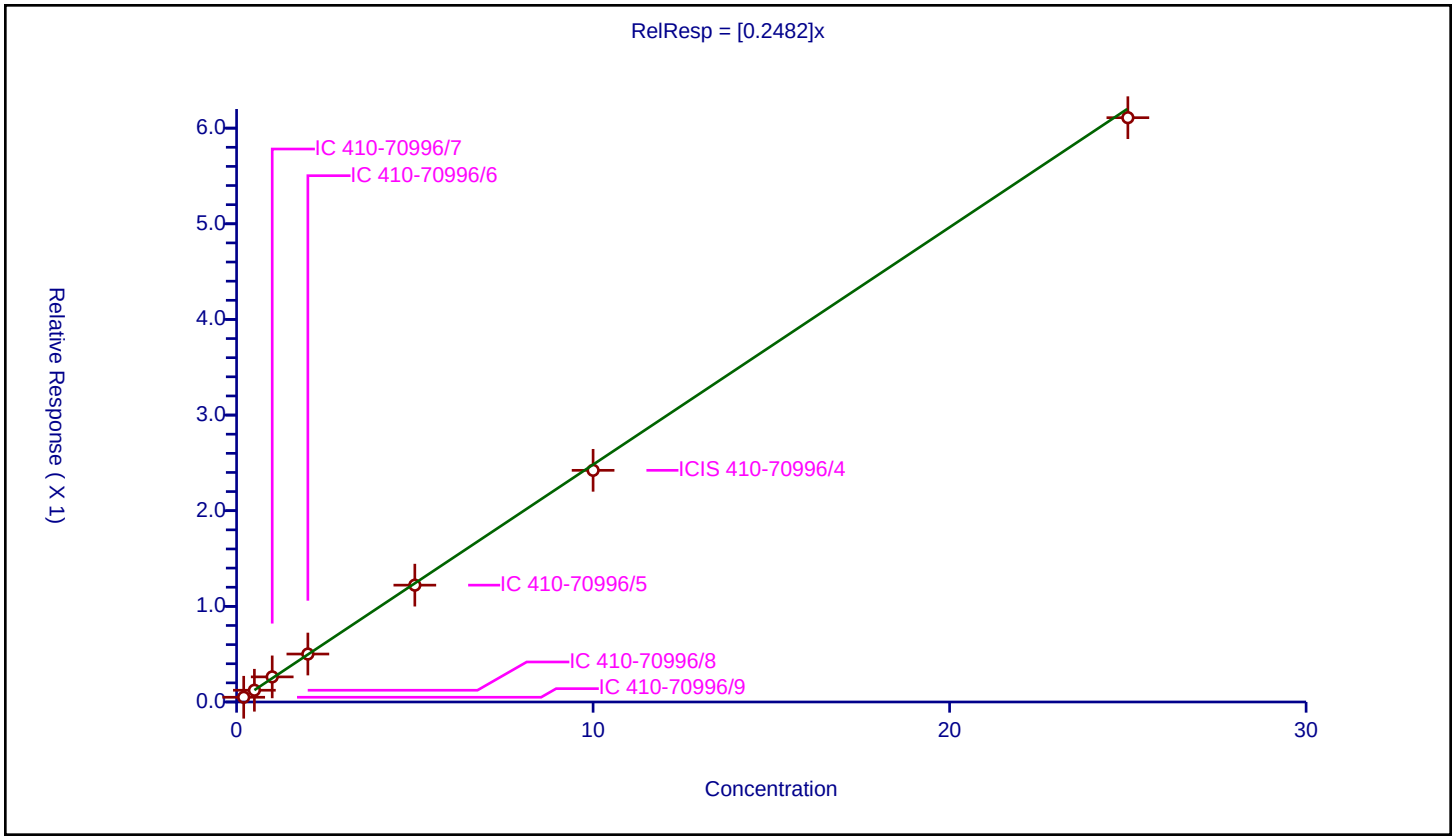
Curve Coefficients

Intercept:	0
Slope:	0.2482

Error Coefficients

Standard Error:	453000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.049448	10.0	1578236.0	0.247238	Y
2	IC 410-70996/8	0.5	0.122868	10.0	1589997.0	0.245736	Y
3	IC 410-70996/7	1.0	0.262632	10.0	1600264.0	0.262632	Y
4	IC 410-70996/6	2.0	0.501427	10.0	1604620.0	0.250714	Y
5	IC 410-70996/5	5.0	1.221625	10.0	1611346.0	0.244325	Y
6	ICIS 410-70996/4	10.0	2.422303	10.0	1636269.0	0.24223	Y
7	IC 410-70996/3	25.0	6.109339	10.0	1658425.0	0.244374	Y



Calibration / 1-Chlorohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

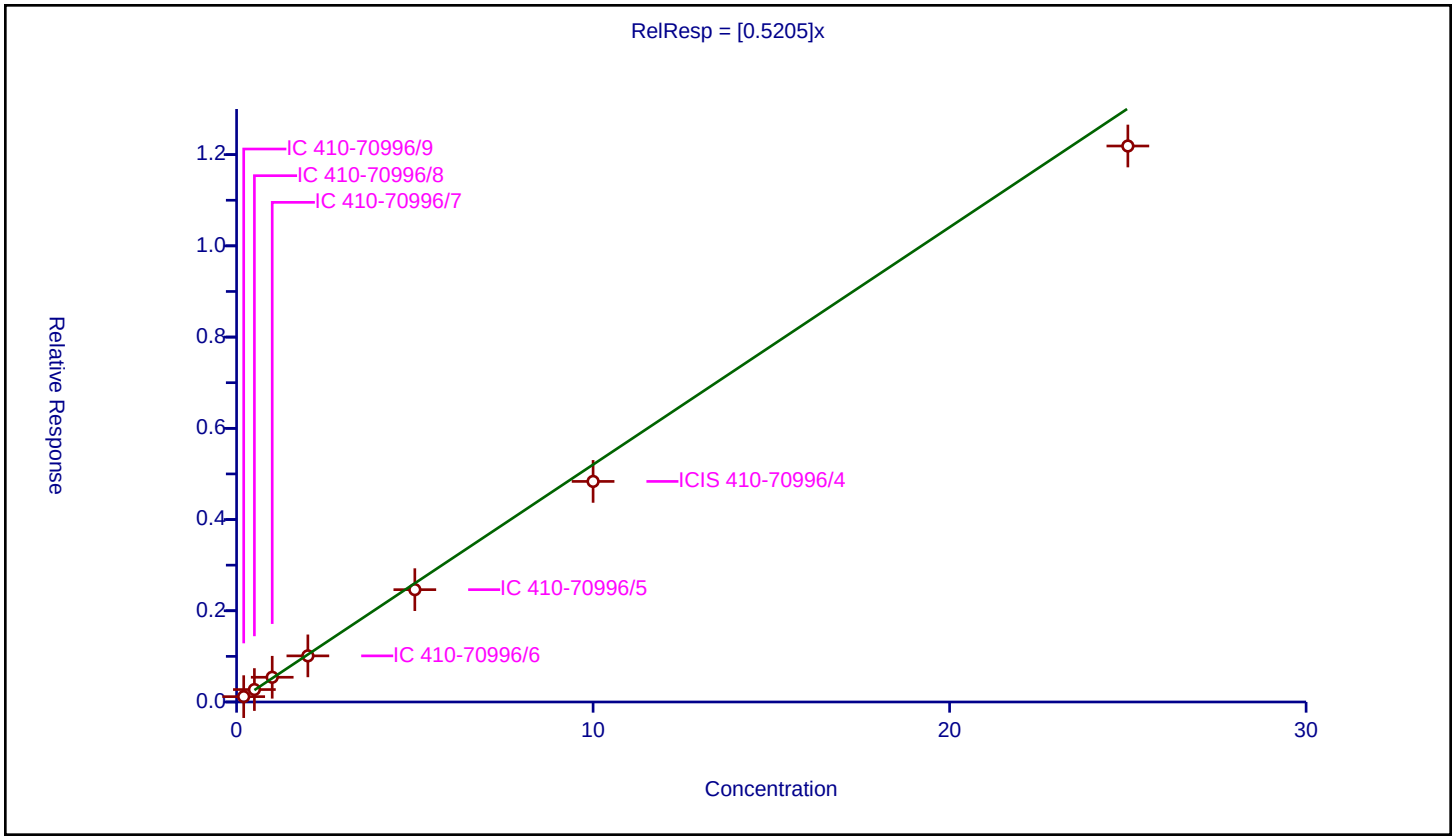
Curve Coefficients

Intercept:	0
Slope:	0.5205

Error Coefficients

Standard Error:	904000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.117124	10.0	1578236.0	0.585622	Y
2	IC 410-70996/8	0.5	0.272963	10.0	1589997.0	0.545926	Y
3	IC 410-70996/7	1.0	0.542467	10.0	1600264.0	0.542467	Y
4	IC 410-70996/6	2.0	1.011149	10.0	1604620.0	0.505575	Y
5	IC 410-70996/5	5.0	2.462569	10.0	1611346.0	0.492514	Y
6	ICIS 410-70996/4	10.0	4.835501	10.0	1636269.0	0.48355	Y
7	IC 410-70996/3	25.0	12.189071	10.0	1658425.0	0.487563	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

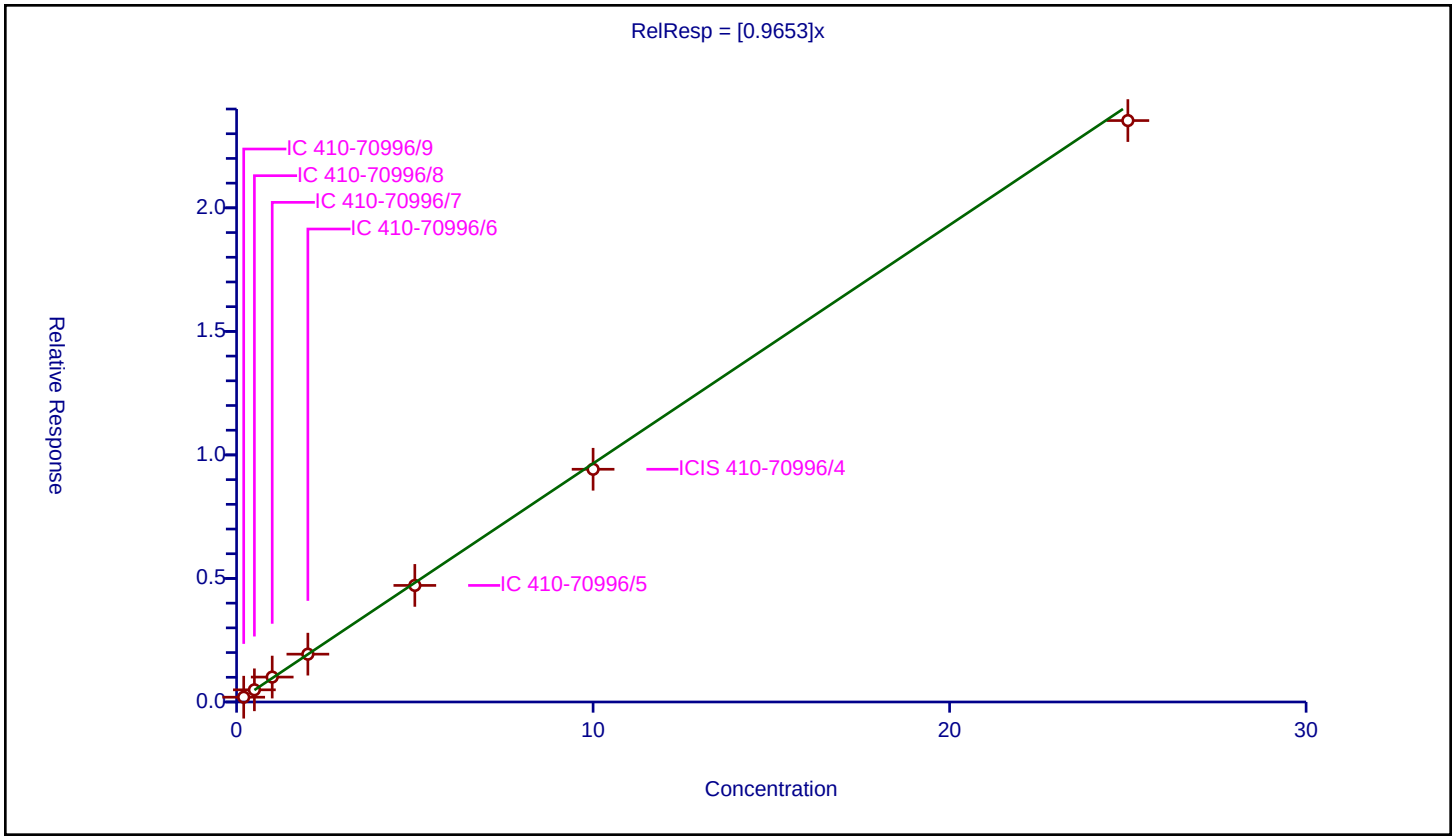
Curve Coefficients

Intercept:	0
Slope:	0.9653

Error Coefficients

Standard Error:	1750000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.193875	10.0	1578236.0	0.969373	Y
2	IC 410-70996/8	0.5	0.492353	10.0	1589997.0	0.984706	Y
3	IC 410-70996/7	1.0	1.008402	10.0	1600264.0	1.008402	Y
4	IC 410-70996/6	2.0	1.935443	10.0	1604620.0	0.967721	Y
5	IC 410-70996/5	5.0	4.718093	10.0	1611346.0	0.943619	Y
6	ICIS 410-70996/4	10.0	9.419606	10.0	1636269.0	0.941961	Y
7	IC 410-70996/3	25.0	23.532273	10.0	1658425.0	0.941291	Y



Calibration / 1,1,1,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

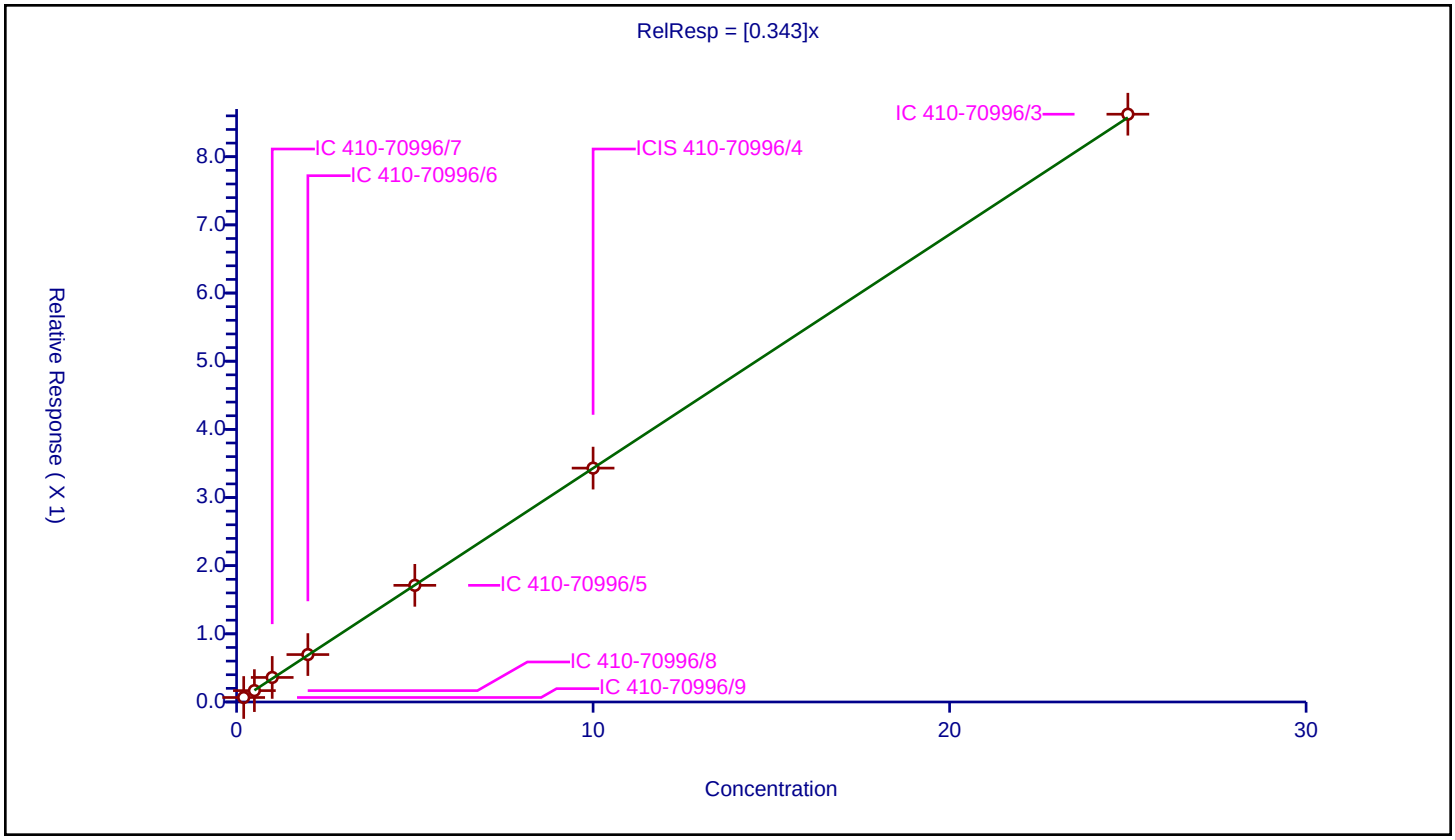
Curve Coefficients

Intercept:	0
Slope:	0.343

Error Coefficients

Standard Error:	639000
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	IC 410-70996/9	0.2	0.065757	10.0	1578236.0	0.328785	Y
2	IC 410-70996/8	0.5	0.166919	10.0	1589997.0	0.333837	Y
3	IC 410-70996/7	1.0	0.359997	10.0	1600264.0	0.359997	Y
4	IC 410-70996/6	2.0	0.695754	10.0	1604620.0	0.347877	Y
5	IC 410-70996/5	5.0	1.711637	10.0	1611346.0	0.342327	Y
6	ICIS 410-70996/4	10.0	3.431398	10.0	1636269.0	0.34314	Y
7	IC 410-70996/3	25.0	8.623797	10.0	1658425.0	0.344952	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

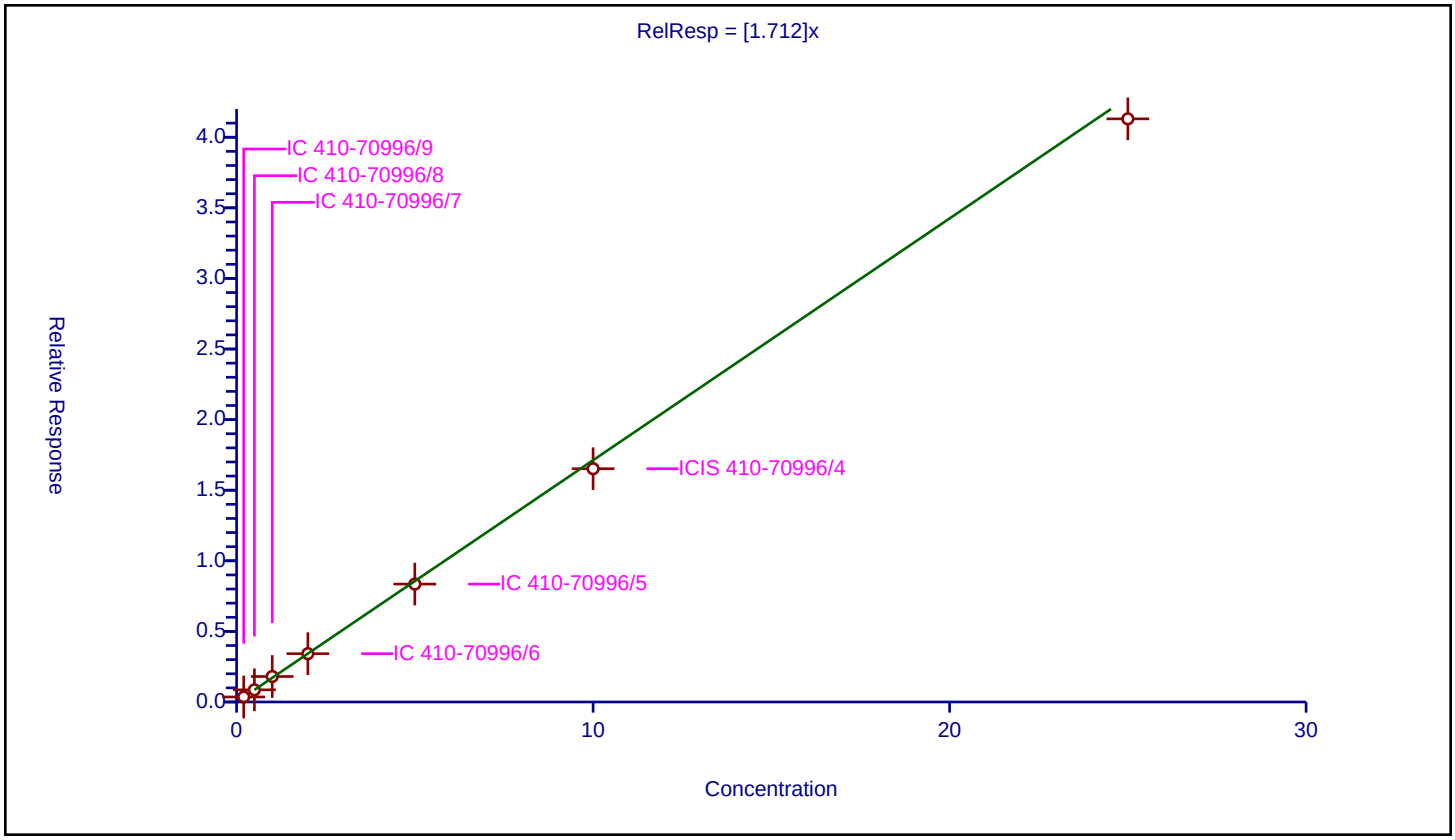
Curve Coefficients

Intercept:	0
Slope:	1.712

Error Coefficients

Standard Error:	3070000
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	IC 410-70996/9	0.2	0.355093	10.0	1578236.0	1.775463	Y
2	IC 410-70996/8	0.5	0.860731	10.0	1589997.0	1.721462	Y
3	IC 410-70996/7	1.0	1.804527	10.0	1600264.0	1.804527	Y
4	IC 410-70996/6	2.0	3.421153	10.0	1604620.0	1.710576	Y
5	IC 410-70996/5	5.0	8.351713	10.0	1611346.0	1.670343	Y
6	ICIS 410-70996/4	10.0	16.521959	10.0	1636269.0	1.652196	Y
7	IC 410-70996/3	25.0	41.303852	10.0	1658425.0	1.652154	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

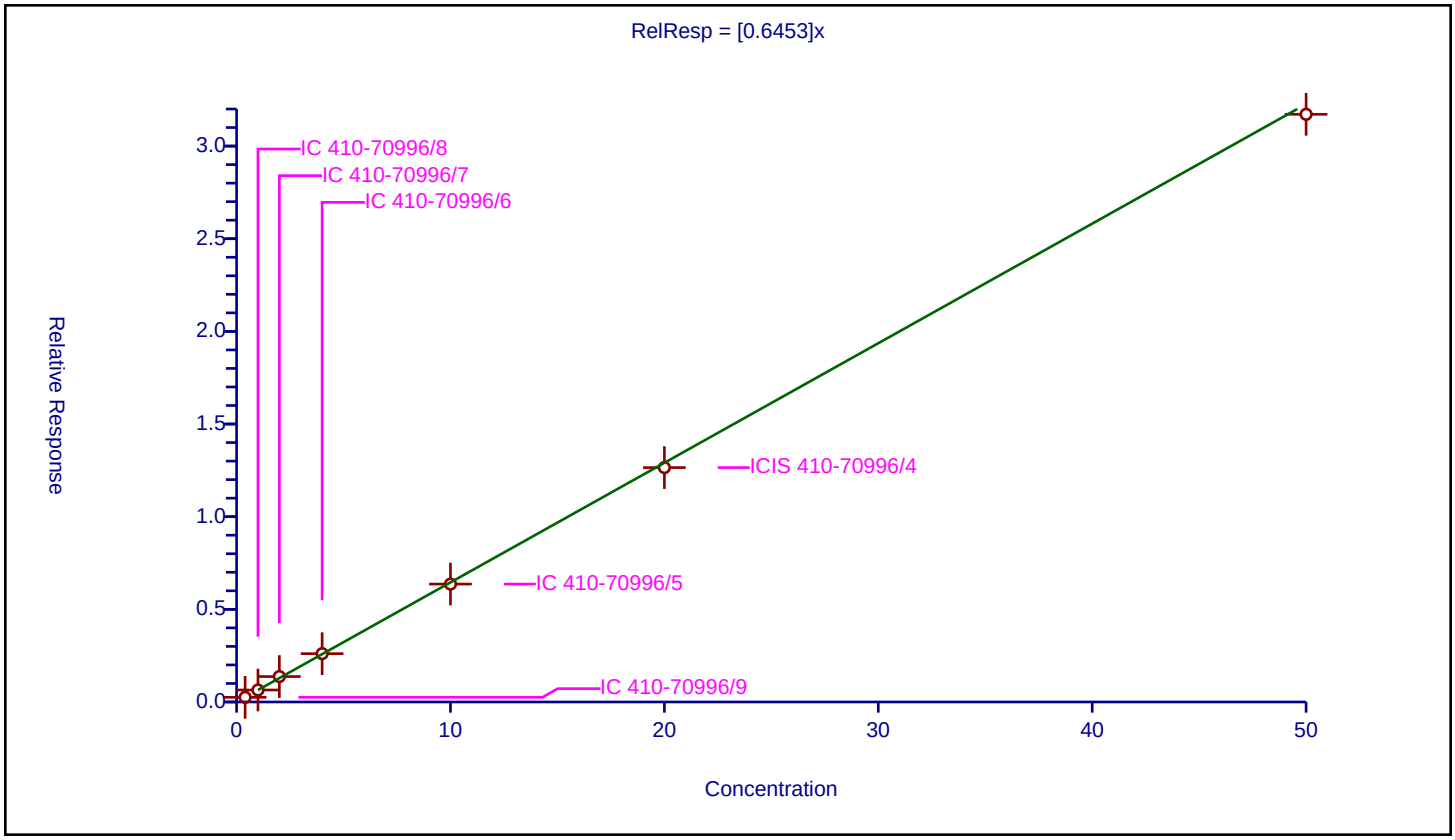
Curve Coefficients

Intercept:	0
Slope:	0.6453

Error Coefficients

Standard Error:	2350000
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	IC 410-70996/9	0.4	0.252104	10.0	1578236.0	0.630261	Y
2	IC 410-70996/8	1.0	0.646328	10.0	1589997.0	0.646328	Y
3	IC 410-70996/7	2.0	1.37153	10.0	1600264.0	0.685765	Y
4	IC 410-70996/6	4.0	2.608306	10.0	1604620.0	0.652077	Y
5	IC 410-70996/5	10.0	6.362184	10.0	1611346.0	0.636218	Y
6	ICIS 410-70996/4	20.0	12.649405	10.0	1636269.0	0.63247	Y
7	IC 410-70996/3	50.0	31.715664	10.0	1658425.0	0.634313	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

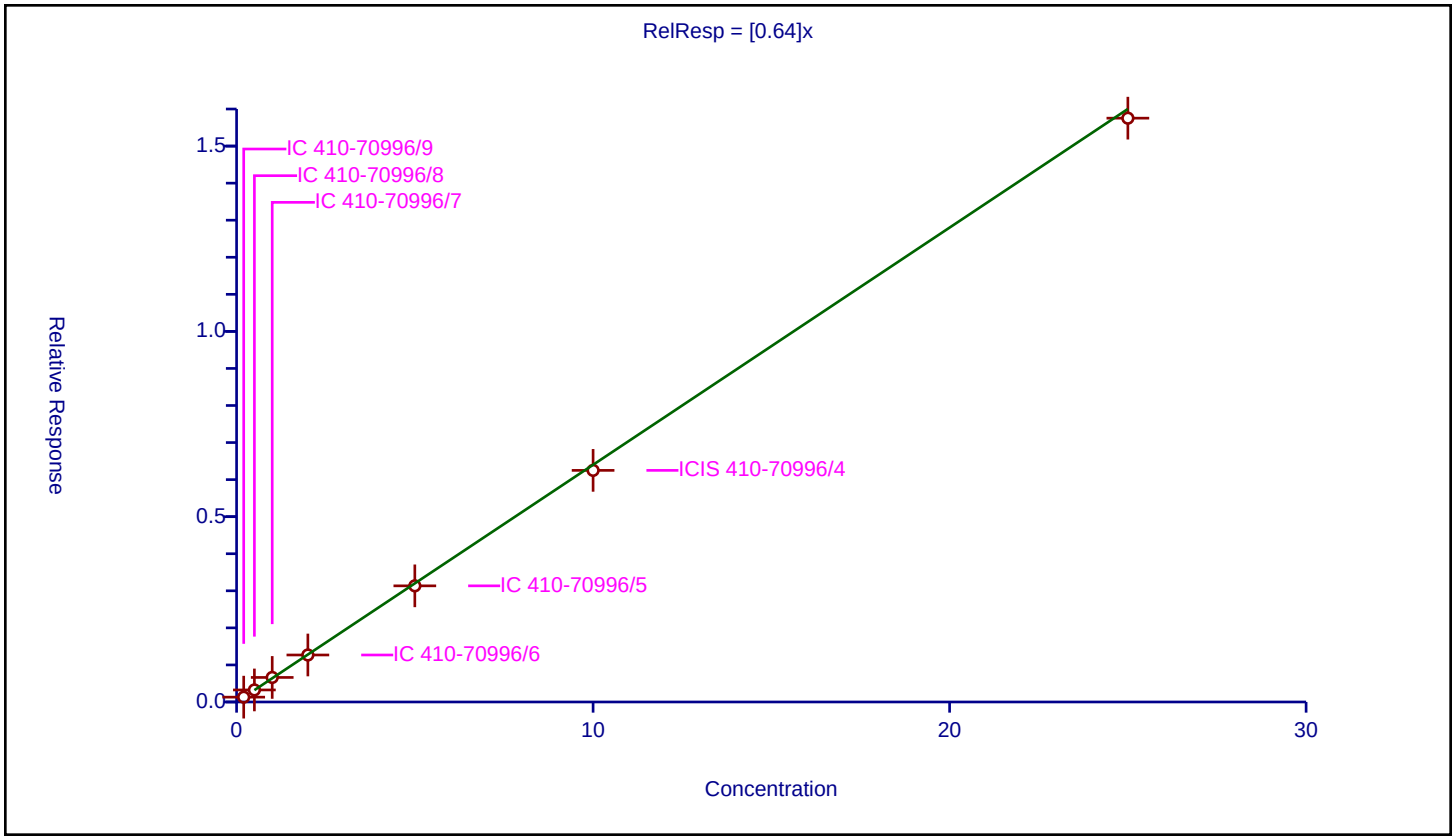
Curve Coefficients

Intercept:	0
Slope:	0.64

Error Coefficients

Standard Error:	1170000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.130481	10.0	1578236.0	0.652406	Y
2	IC 410-70996/8	0.5	0.32485	10.0	1589997.0	0.649699	Y
3	IC 410-70996/7	1.0	0.662047	10.0	1600264.0	0.662047	Y
4	IC 410-70996/6	2.0	1.2684	10.0	1604620.0	0.6342	Y
5	IC 410-70996/5	5.0	3.133833	10.0	1611346.0	0.626767	Y
6	ICIS 410-70996/4	10.0	6.249443	10.0	1636269.0	0.624944	Y
7	IC 410-70996/3	25.0	15.753055	10.0	1658425.0	0.630122	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

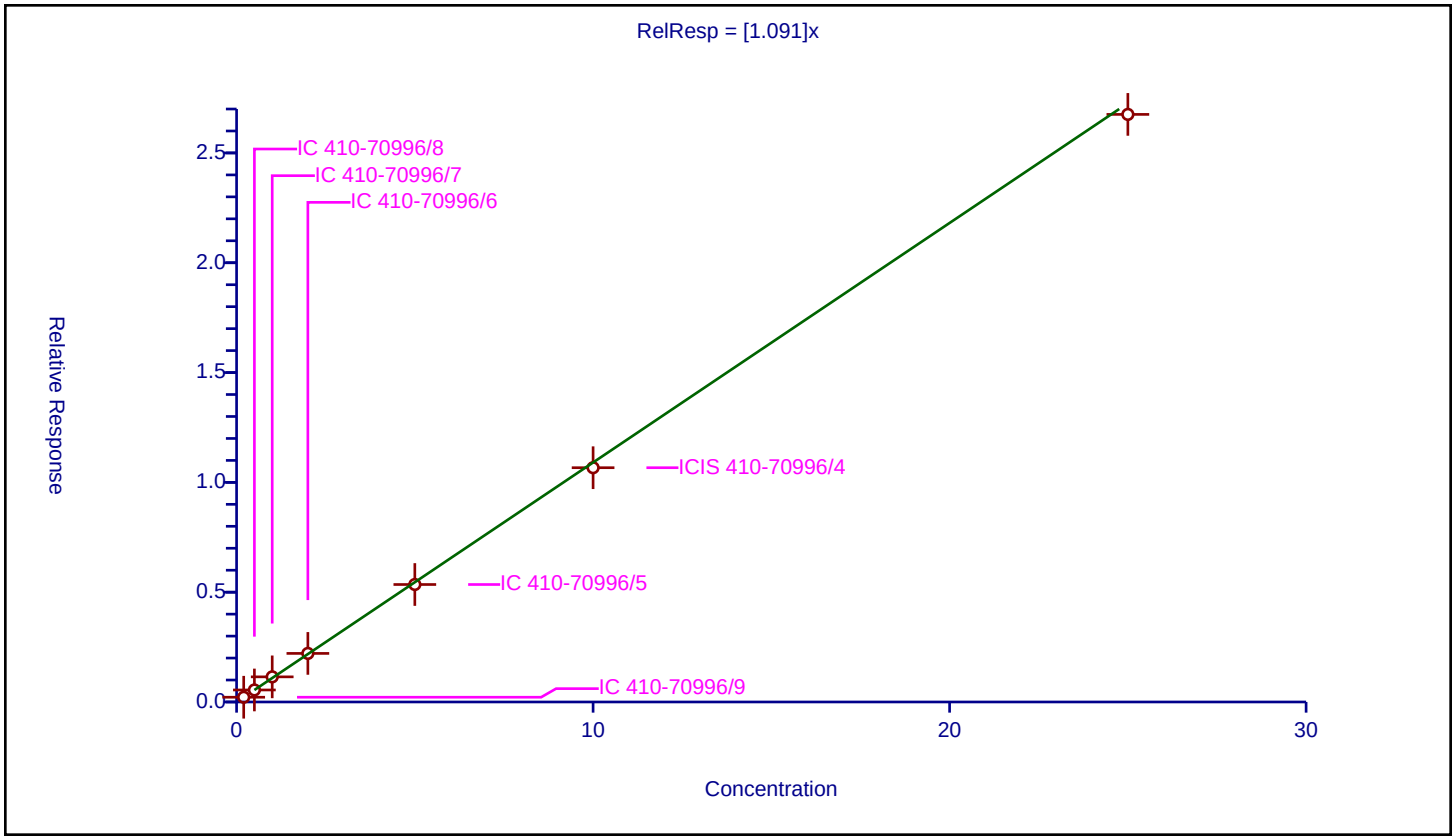
Curve Coefficients

Intercept:	0
Slope:	1.091

Error Coefficients

Standard Error:	1990000
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	IC 410-70996/9	0.2	0.216653	10.0	1578236.0	1.083266	Y
2	IC 410-70996/8	0.5	0.547032	10.0	1589997.0	1.094065	Y
3	IC 410-70996/7	1.0	1.14413	10.0	1600264.0	1.14413	Y
4	IC 410-70996/6	2.0	2.211701	10.0	1604620.0	1.105851	Y
5	IC 410-70996/5	5.0	5.349267	10.0	1611346.0	1.069853	Y
6	ICIS 410-70996/4	10.0	10.66695	10.0	1636269.0	1.066695	Y
7	IC 410-70996/3	25.0	26.754583	10.0	1658425.0	1.070183	Y



Calibration / Bromoform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

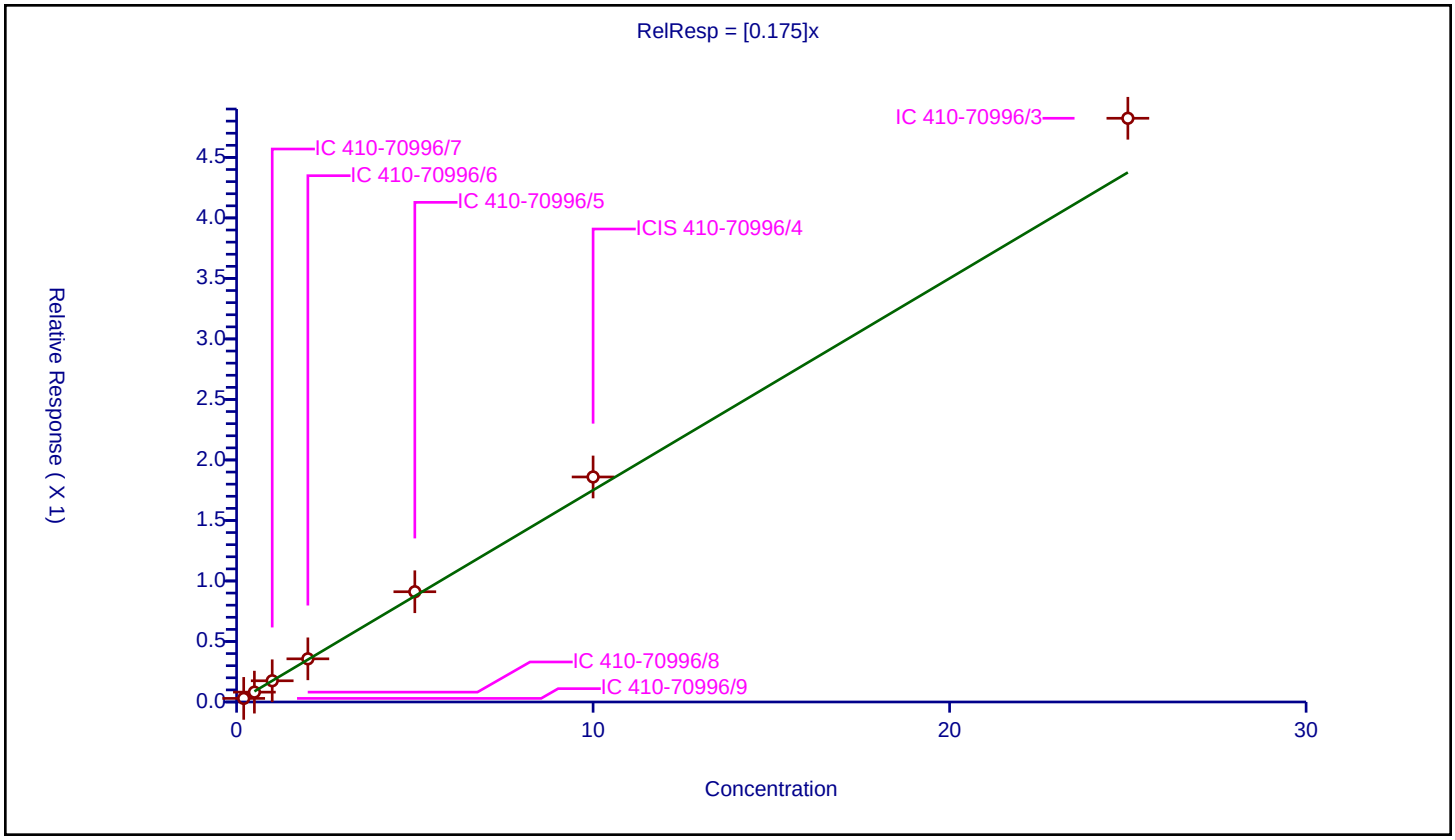
Curve Coefficients

Intercept:	0
Slope:	0.175

Error Coefficients

Standard Error:	356000
Relative Standard Error:	8.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.029577	10.0	1578236.0	0.147887	Y
2	IC 410-70996/8	0.5	0.081327	10.0	1589997.0	0.162654	Y
3	IC 410-70996/7	1.0	0.175259	10.0	1600264.0	0.175259	Y
4	IC 410-70996/6	2.0	0.356751	10.0	1604620.0	0.178376	Y
5	IC 410-70996/5	5.0	0.911058	10.0	1611346.0	0.182212	Y
6	ICIS 410-70996/4	10.0	1.859401	10.0	1636269.0	0.18594	Y
7	IC 410-70996/3	25.0	4.823601	10.0	1658425.0	0.192944	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

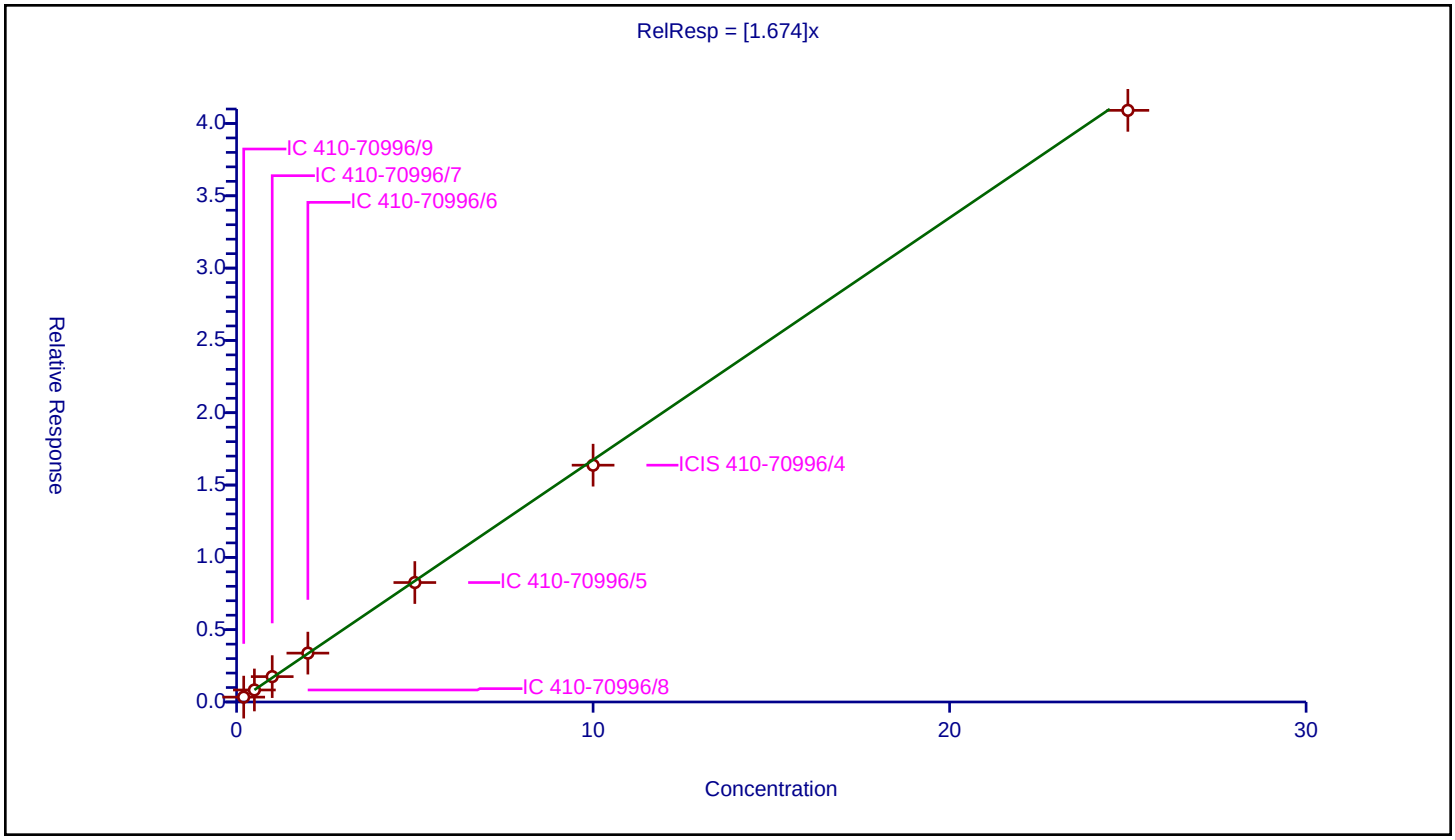
Curve Coefficients

Intercept:	0
Slope:	1.674

Error Coefficients

Standard Error:	3040000
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	IC 410-70996/9	0.2	0.337149	10.0	1578236.0	1.685743	Y
2	IC 410-70996/8	0.5	0.831385	10.0	1589997.0	1.66277	Y
3	IC 410-70996/7	1.0	1.754204	10.0	1600264.0	1.754204	Y
4	IC 410-70996/6	2.0	3.379292	10.0	1604620.0	1.689646	Y
5	IC 410-70996/5	5.0	8.260181	10.0	1611346.0	1.652036	Y
6	ICIS 410-70996/4	10.0	16.373732	10.0	1636269.0	1.637373	Y
7	IC 410-70996/3	25.0	40.90806	10.0	1658425.0	1.636322	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

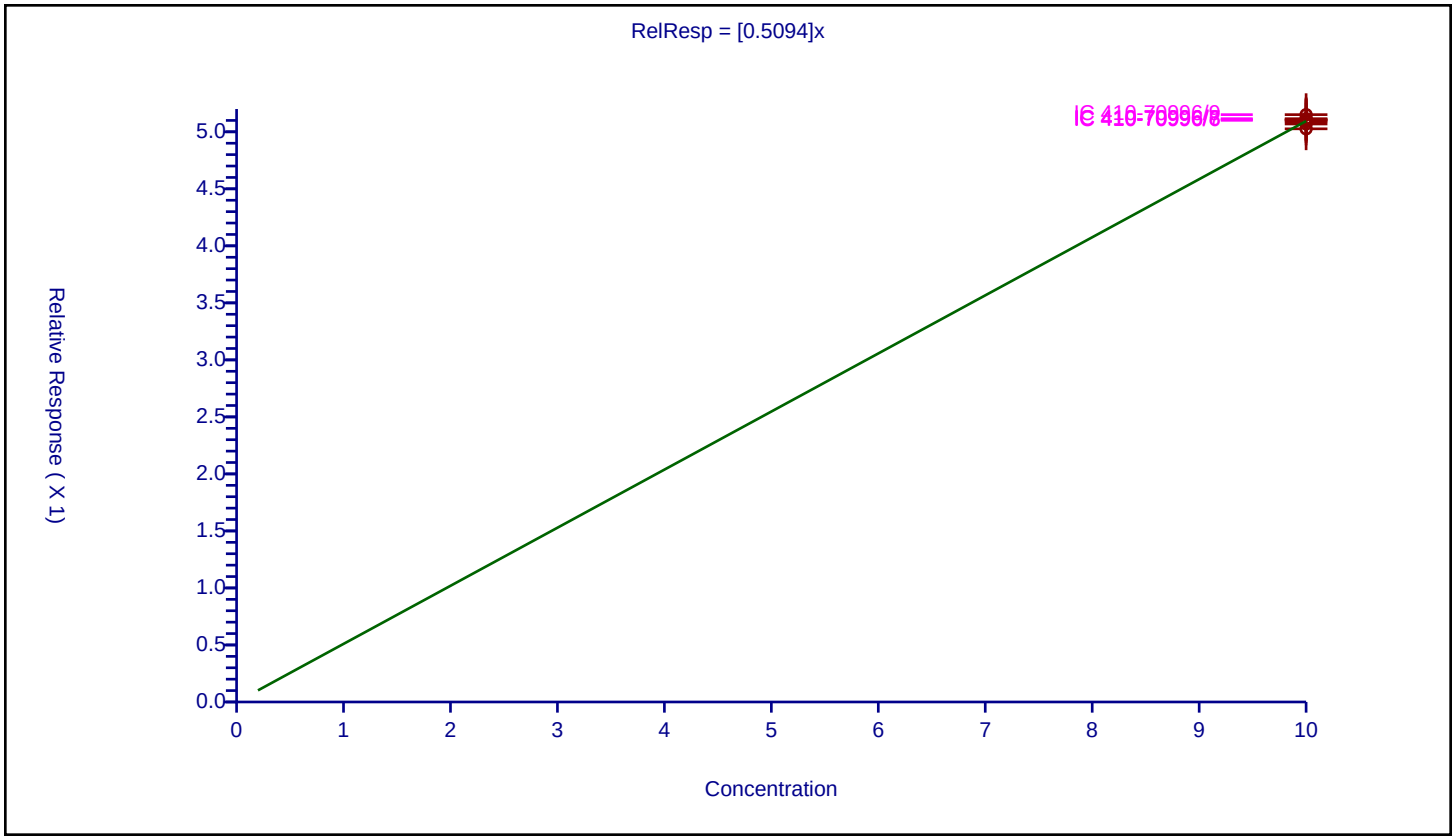
Curve Coefficients

Intercept:	0
Slope:	0.5094

Error Coefficients

Standard Error:	886000
Relative Standard Error:	0.8
Correlation Coefficient:	0
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/3	10.0	5.026317	10.0	1658425.0	0.502632	Y
2	ICIS 410-70996/4	10.0	5.068586	10.0	1636269.0	0.506859	Y
3	IC 410-70996/5	10.0	5.089044	10.0	1611346.0	0.508904	Y
4	IC 410-70996/6	10.0	5.100859	10.0	1604620.0	0.510086	Y
5	IC 410-70996/7	10.0	5.115162	10.0	1600264.0	0.511516	Y
6	IC 410-70996/8	10.0	5.107494	10.0	1589997.0	0.510749	Y
7	IC 410-70996/9	10.0	5.150541	10.0	1578236.0	0.515054	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

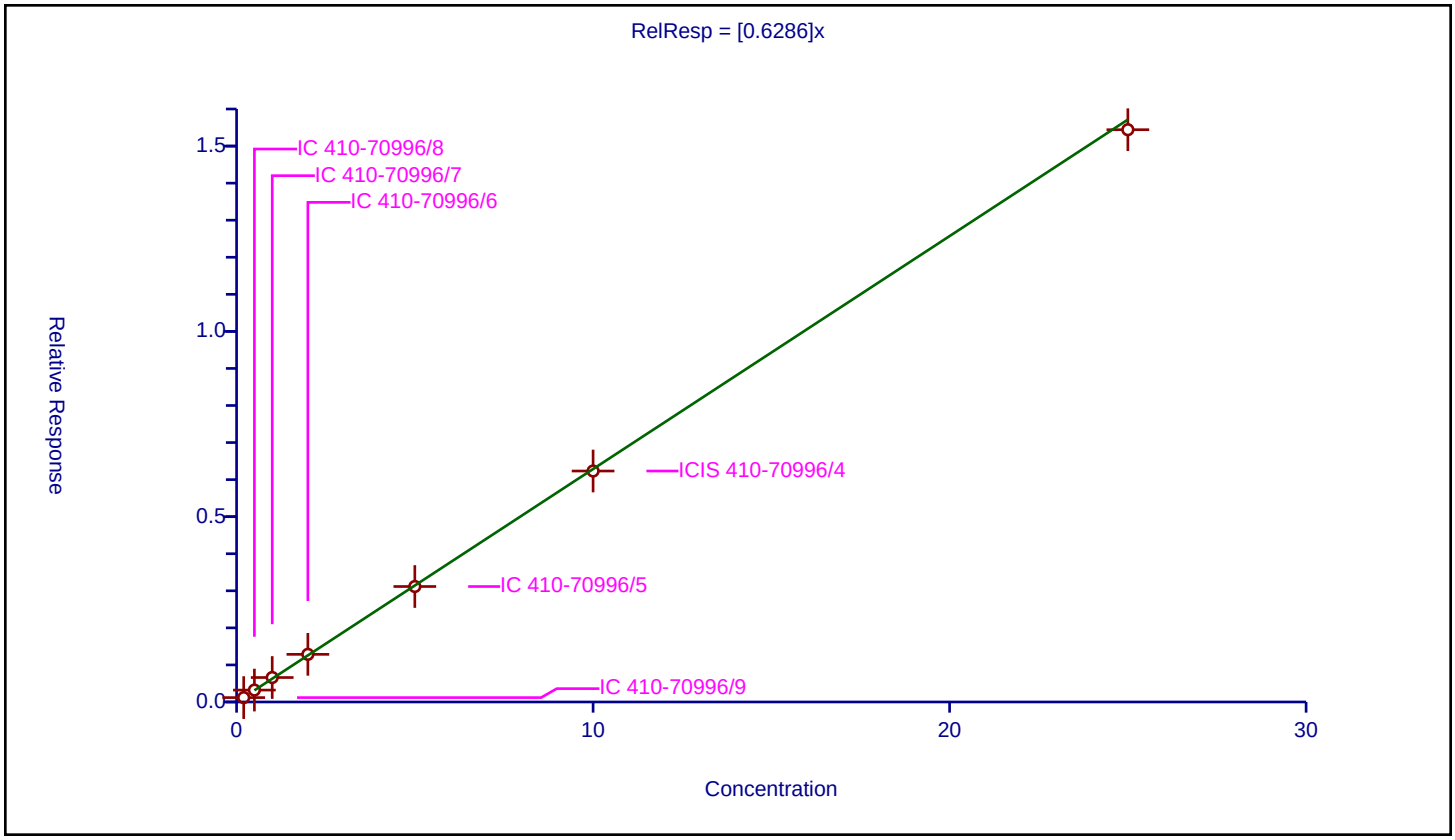
Curve Coefficients

Intercept:	0
Slope:	0.6286

Error Coefficients

Standard Error:	621000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.118032	10.0	857732.0	0.590161	Y
2	IC 410-70996/8	0.5	0.321383	10.0	861870.0	0.642765	Y
3	IC 410-70996/7	1.0	0.660211	10.0	860391.0	0.660211	Y
4	IC 410-70996/6	2.0	1.28567	10.0	869181.0	0.642835	Y
5	IC 410-70996/5	5.0	3.115913	10.0	878834.0	0.623183	Y
6	ICIS 410-70996/4	10.0	6.232026	10.0	888382.0	0.623203	Y
7	IC 410-70996/3	25.0	15.441781	10.0	896780.0	0.617671	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

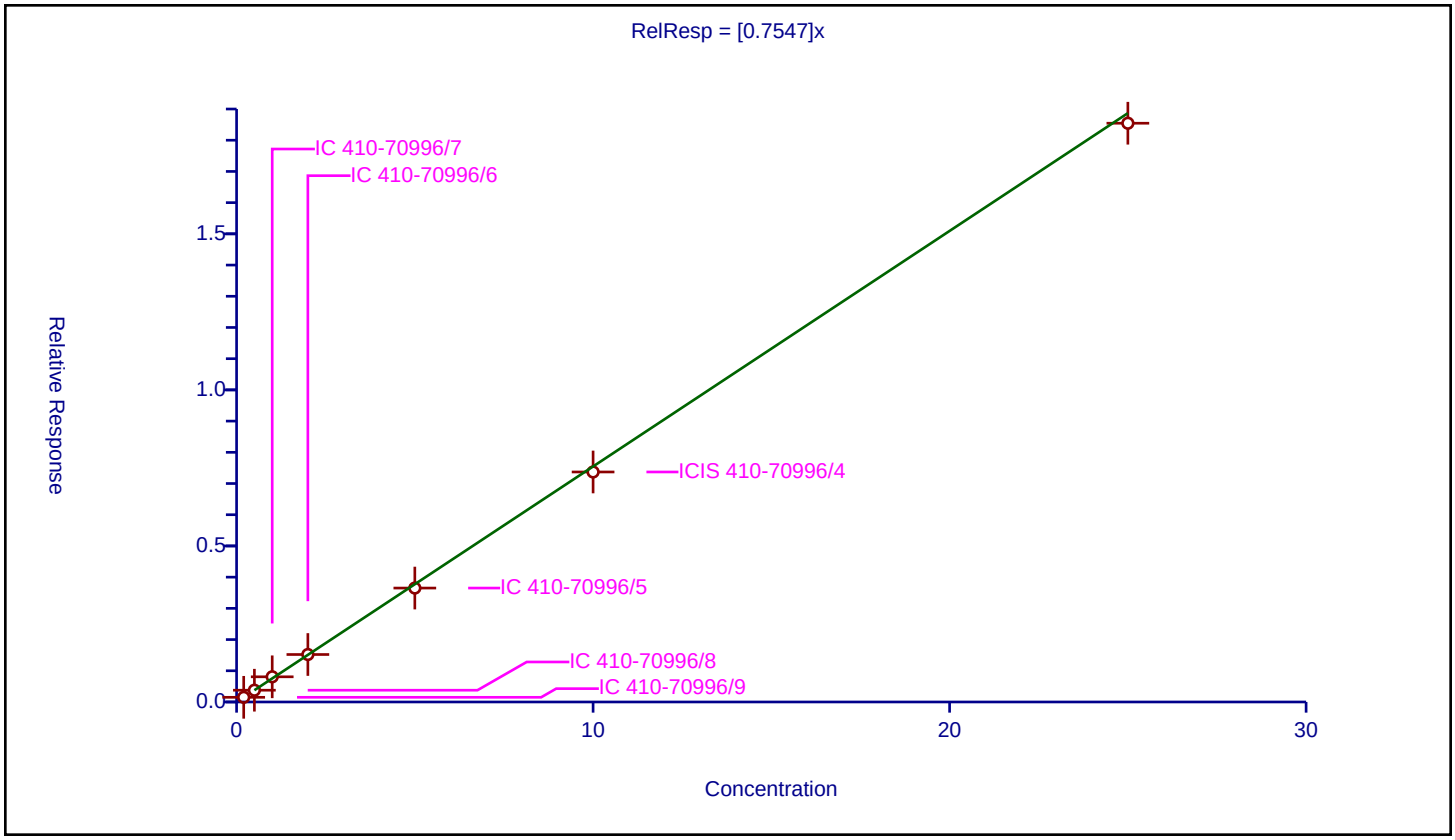
Curve Coefficients

Intercept:	0
Slope:	0.7547

Error Coefficients

Standard Error:	744000
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	IC 410-70996/9	0.2	0.150327	10.0	857732.0	0.751633	Y
2	IC 410-70996/8	0.5	0.376878	10.0	861870.0	0.753756	Y
3	IC 410-70996/7	1.0	0.807424	10.0	860391.0	0.807424	Y
4	IC 410-70996/6	2.0	1.521697	10.0	869181.0	0.760848	Y
5	IC 410-70996/5	5.0	3.650963	10.0	878834.0	0.730193	Y
6	ICIS 410-70996/4	10.0	7.370253	10.0	888382.0	0.737025	Y
7	IC 410-70996/3	25.0	18.544994	10.0	896780.0	0.7418	Y



Calibration / trans-1,4-Dichloro-2-butene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

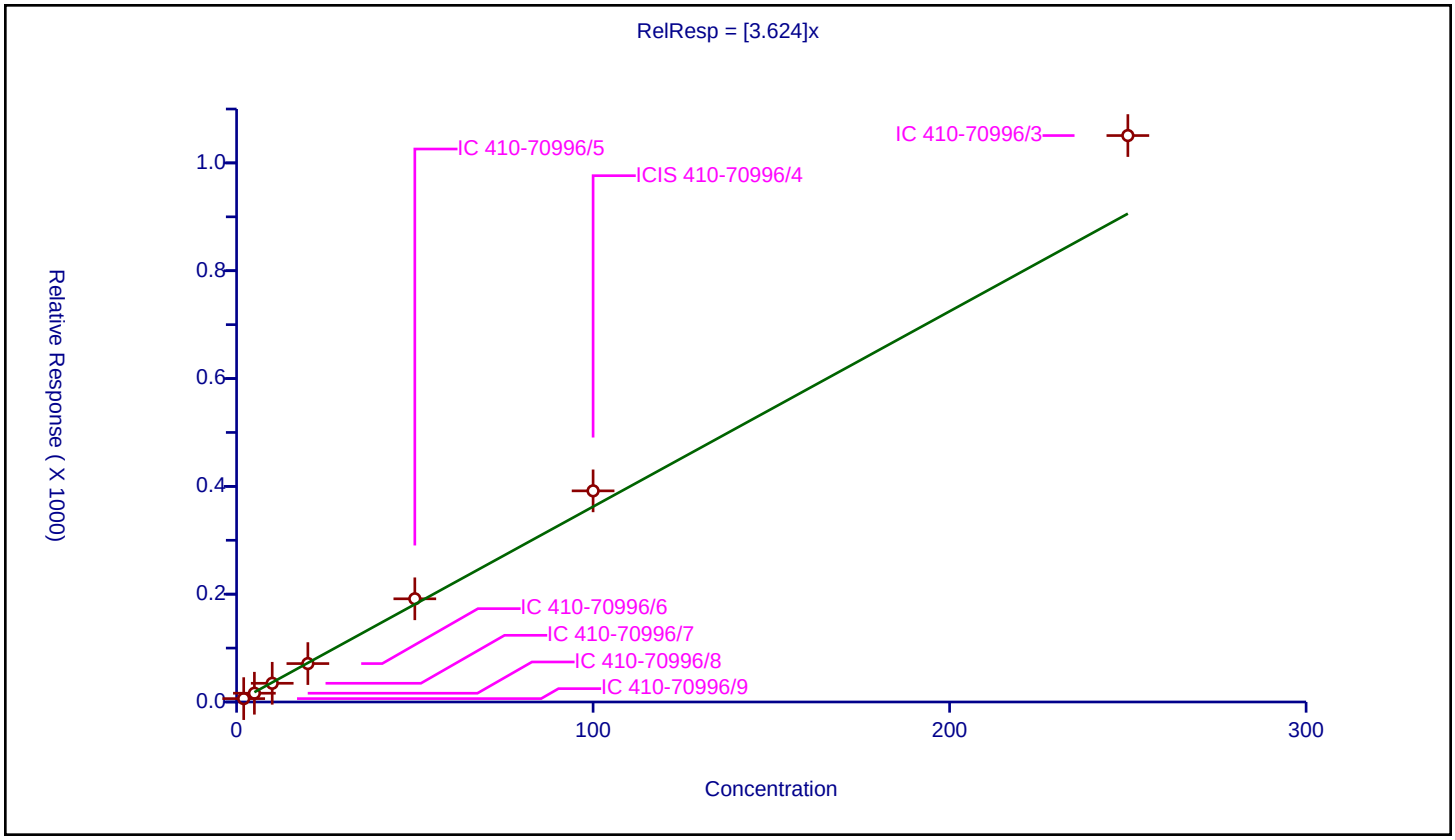
Curve Coefficients

Intercept:	0
Slope:	3.624

Error Coefficients

Standard Error:	1670000
Relative Standard Error:	10.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	2.0	6.275612	50.0	184731.0	3.137806	Y
2	IC 410-70996/8	5.0	16.245136	50.0	195834.0	3.249027	Y
3	IC 410-70996/7	10.0	34.681371	50.0	201206.0	3.468137	Y
4	IC 410-70996/6	20.0	71.23699	50.0	195329.0	3.561849	Y
5	IC 410-70996/5	50.0	191.416907	50.0	183343.0	3.828338	Y
6	ICIS 410-70996/4	100.0	391.675712	50.0	186094.0	3.916757	Y
7	IC 410-70996/3	250.0	1050.803645	50.0	177877.0	4.203215	Y



Calibration / 1,2,3-Trichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

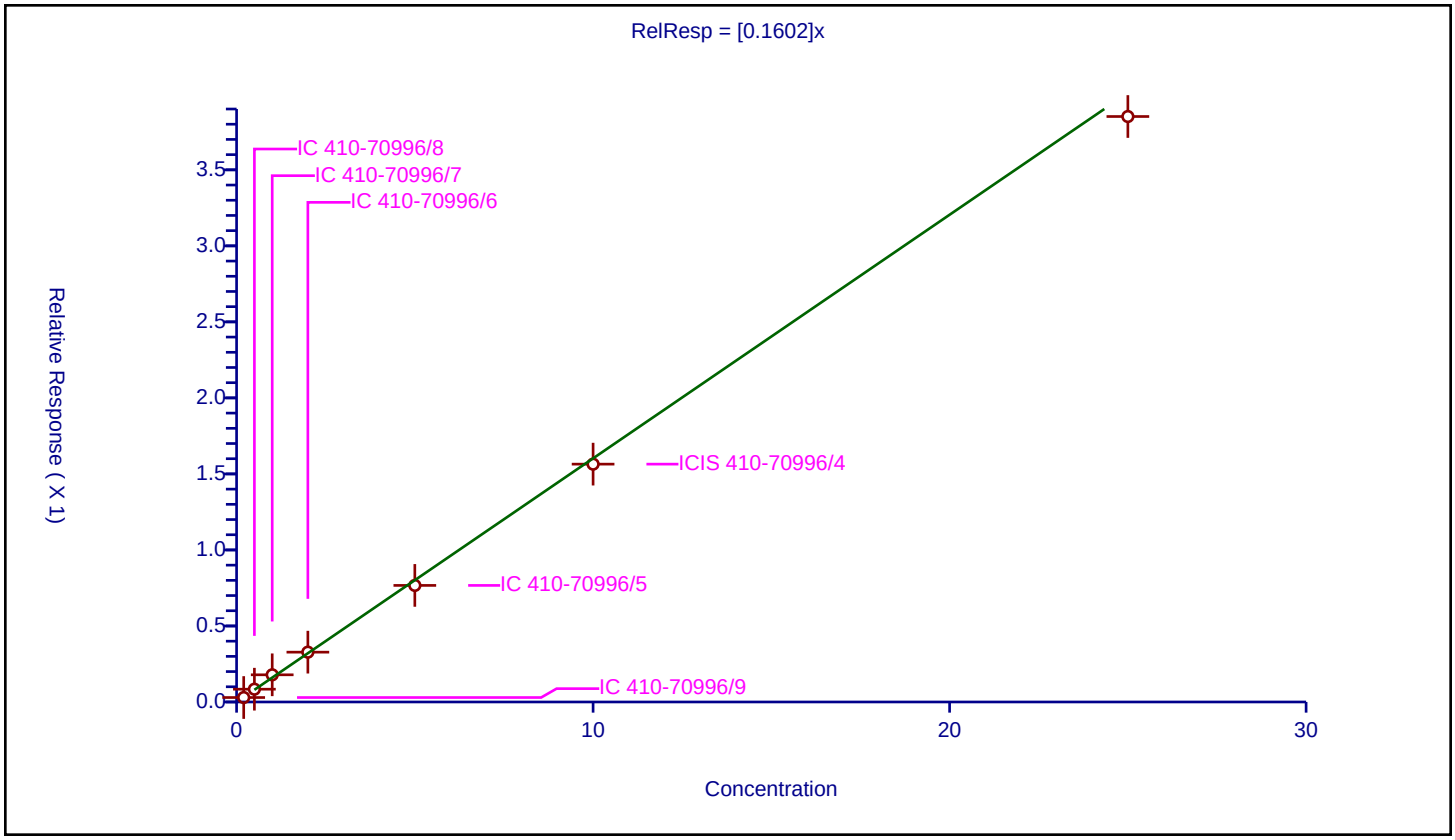
Curve Coefficients

Intercept:	0
Slope:	0.1602

Error Coefficients

Standard Error:	155000
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.029368	10.0	857732.0	0.146841	Y
2	IC 410-70996/8	0.5	0.084166	10.0	861870.0	0.168332	Y
3	IC 410-70996/7	1.0	0.178721	10.0	860391.0	0.178721	Y
4	IC 410-70996/6	2.0	0.327791	10.0	869181.0	0.163896	Y
5	IC 410-70996/5	5.0	0.766789	10.0	878834.0	0.153358	Y
6	ICIS 410-70996/4	10.0	1.564417	10.0	888382.0	0.156442	Y
7	IC 410-70996/3	25.0	3.850643	10.0	896780.0	0.154026	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

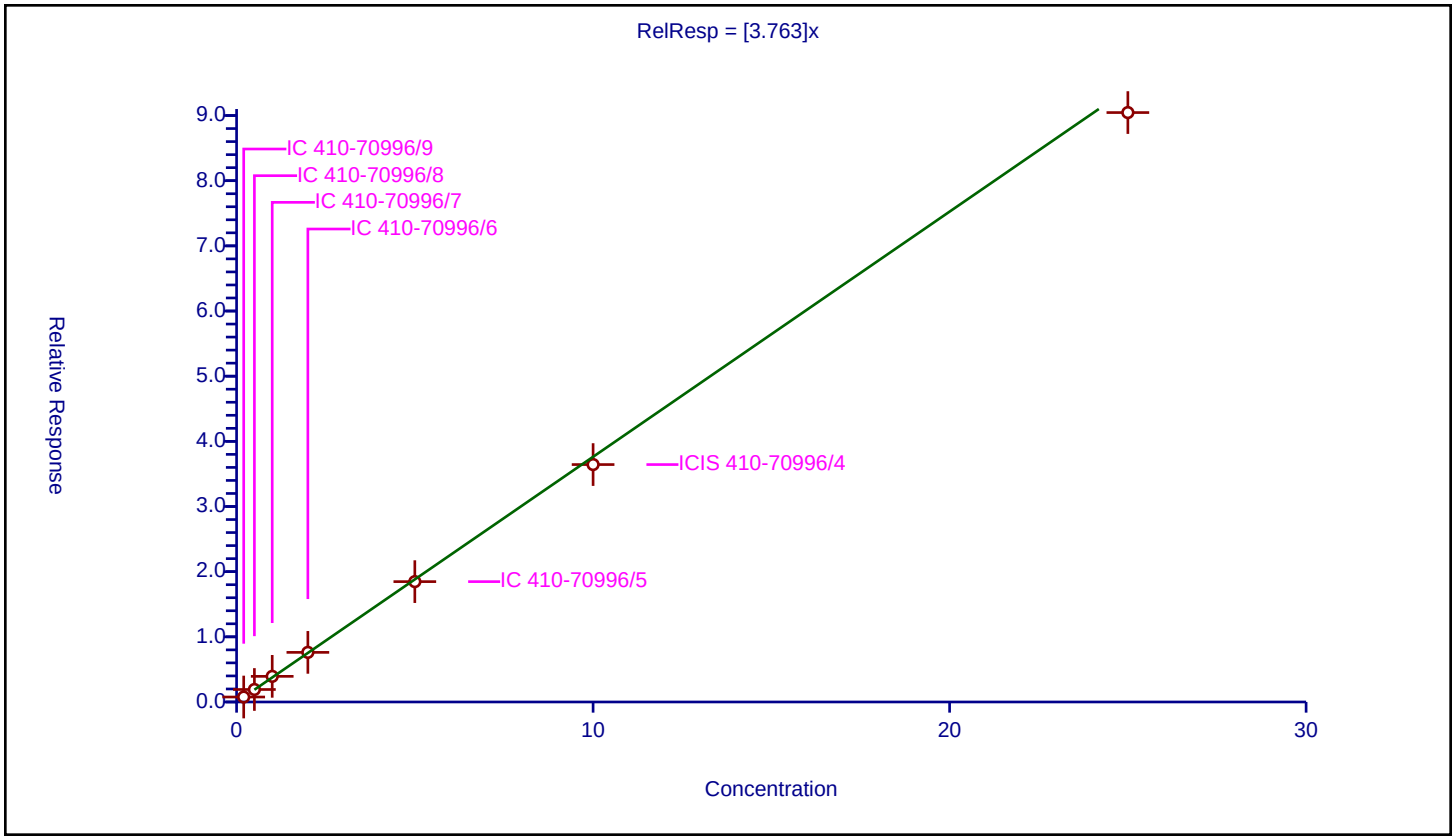
Curve Coefficients

Intercept:	0
Slope:	3.763

Error Coefficients

Standard Error:	3640000
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	IC 410-70996/9	0.2	0.761695	10.0	857732.0	3.808474	Y
2	IC 410-70996/8	0.5	1.915718	10.0	861870.0	3.831436	Y
3	IC 410-70996/7	1.0	3.934223	10.0	860391.0	3.934223	Y
4	IC 410-70996/6	2.0	7.615721	10.0	869181.0	3.807861	Y
5	IC 410-70996/5	5.0	18.471304	10.0	878834.0	3.694261	Y
6	ICIS 410-70996/4	10.0	36.436781	10.0	888382.0	3.643678	Y
7	IC 410-70996/3	25.0	90.454905	10.0	896780.0	3.618196	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

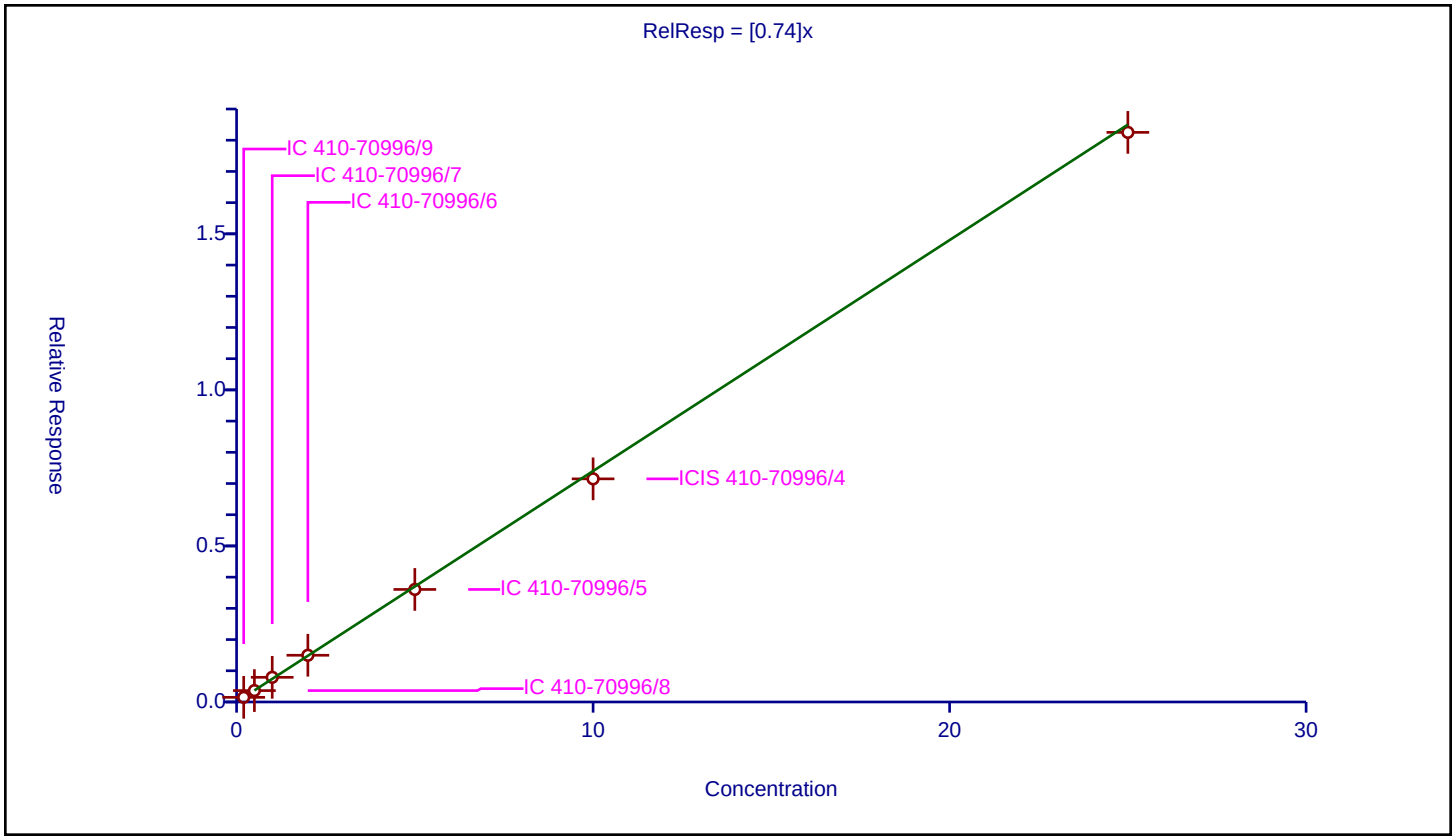
Curve Coefficients

Intercept:	0
Slope:	0.74

Error Coefficients

Standard Error:	731000
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	IC 410-70996/9	0.2	0.148741	10.0	857732.0	0.743705	Y
2	IC 410-70996/8	0.5	0.36531	10.0	861870.0	0.730621	Y
3	IC 410-70996/7	1.0	0.790606	10.0	860391.0	0.790606	Y
4	IC 410-70996/6	2.0	1.49726	10.0	869181.0	0.74863	Y
5	IC 410-70996/5	5.0	3.606597	10.0	878834.0	0.721319	Y
6	ICIS 410-70996/4	10.0	7.149661	10.0	888382.0	0.714966	Y
7	IC 410-70996/3	25.0	18.251656	10.0	896780.0	0.730066	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

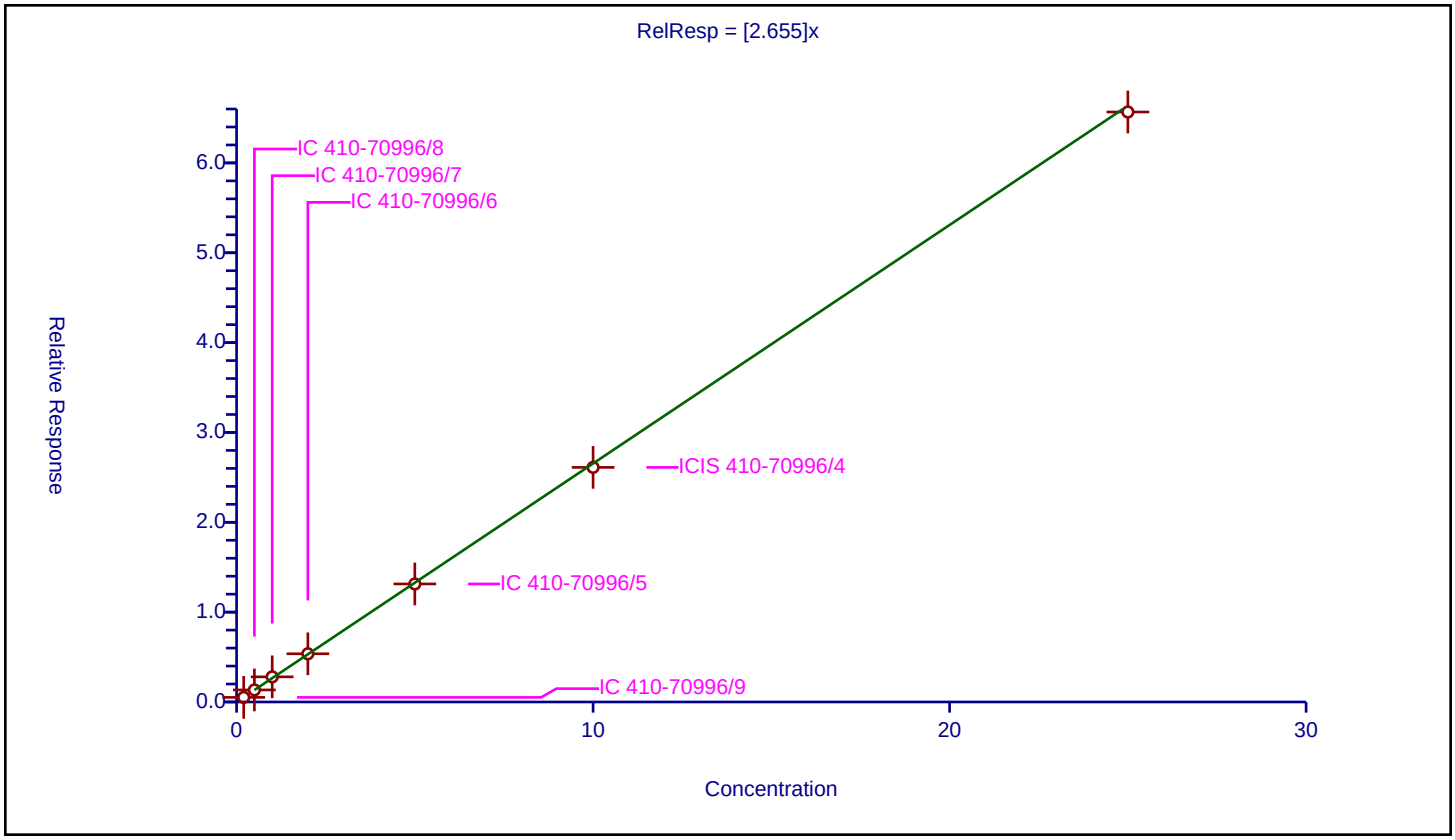
Curve Coefficients

Intercept:	0
Slope:	2.655

Error Coefficients

Standard Error:	2640000
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	IC 410-70996/9	0.2	0.511582	10.0	857732.0	2.557909	Y
2	IC 410-70996/8	0.5	1.338624	10.0	861870.0	2.677248	Y
3	IC 410-70996/7	1.0	2.798588	10.0	860391.0	2.798588	Y
4	IC 410-70996/6	2.0	5.366155	10.0	869181.0	2.683078	Y
5	IC 410-70996/5	5.0	13.137123	10.0	878834.0	2.627425	Y
6	ICIS 410-70996/4	10.0	26.111009	10.0	888382.0	2.611101	Y
7	IC 410-70996/3	25.0	65.668302	10.0	896780.0	2.626732	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

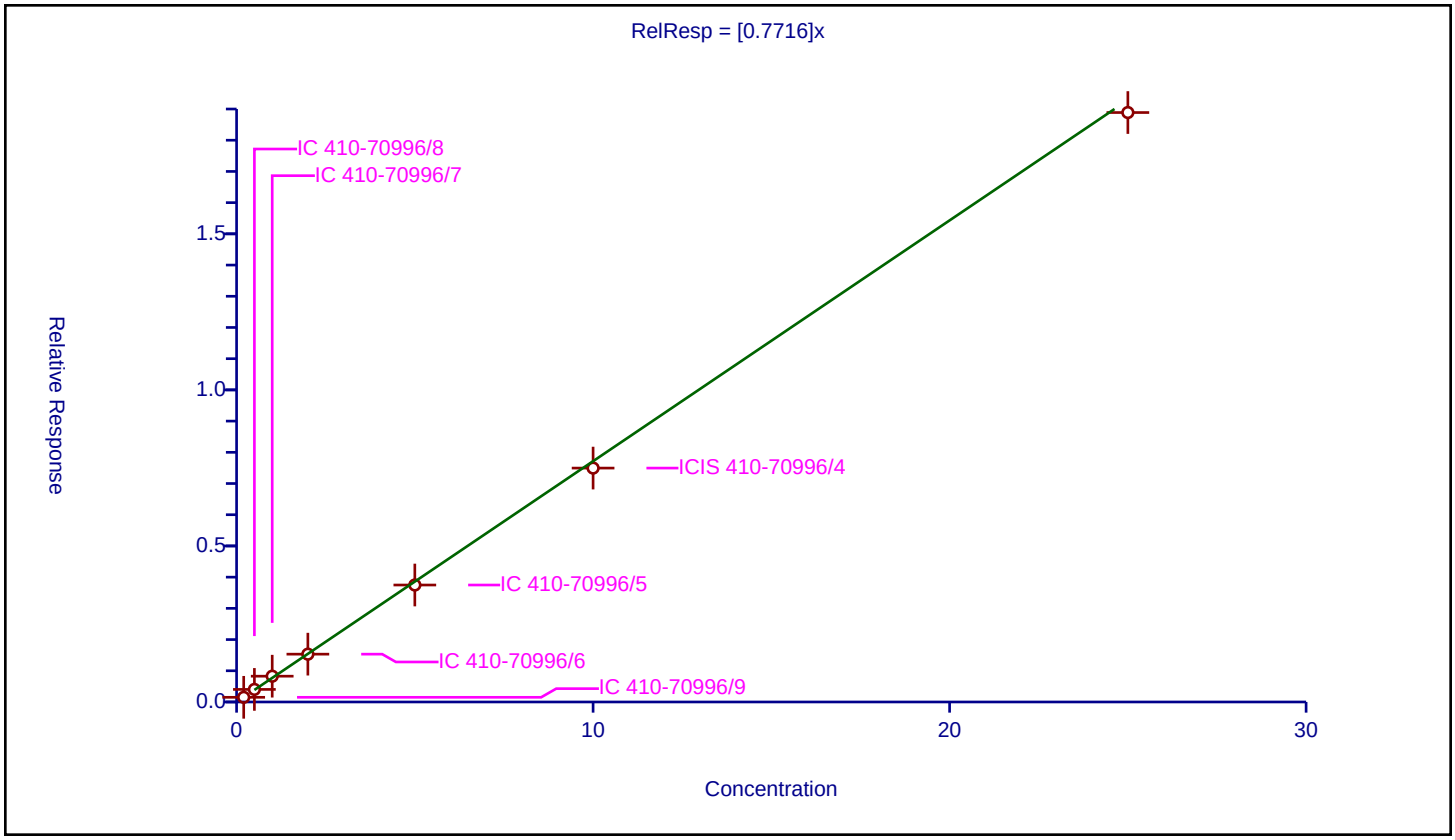
Curve Coefficients

Intercept:	0
Slope:	0.7716

Error Coefficients

Standard Error:	758000
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	IC 410-70996/9	0.2	0.149674	10.0	857732.0	0.748369	Y
2	IC 410-70996/8	0.5	0.402764	10.0	861870.0	0.805528	Y
3	IC 410-70996/7	1.0	0.826334	10.0	860391.0	0.826334	Y
4	IC 410-70996/6	2.0	1.532109	10.0	869181.0	0.766054	Y
5	IC 410-70996/5	5.0	3.748194	10.0	878834.0	0.749639	Y
6	ICIS 410-70996/4	10.0	7.494997	10.0	888382.0	0.7495	Y
7	IC 410-70996/3	25.0	18.88733	10.0	896780.0	0.755493	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

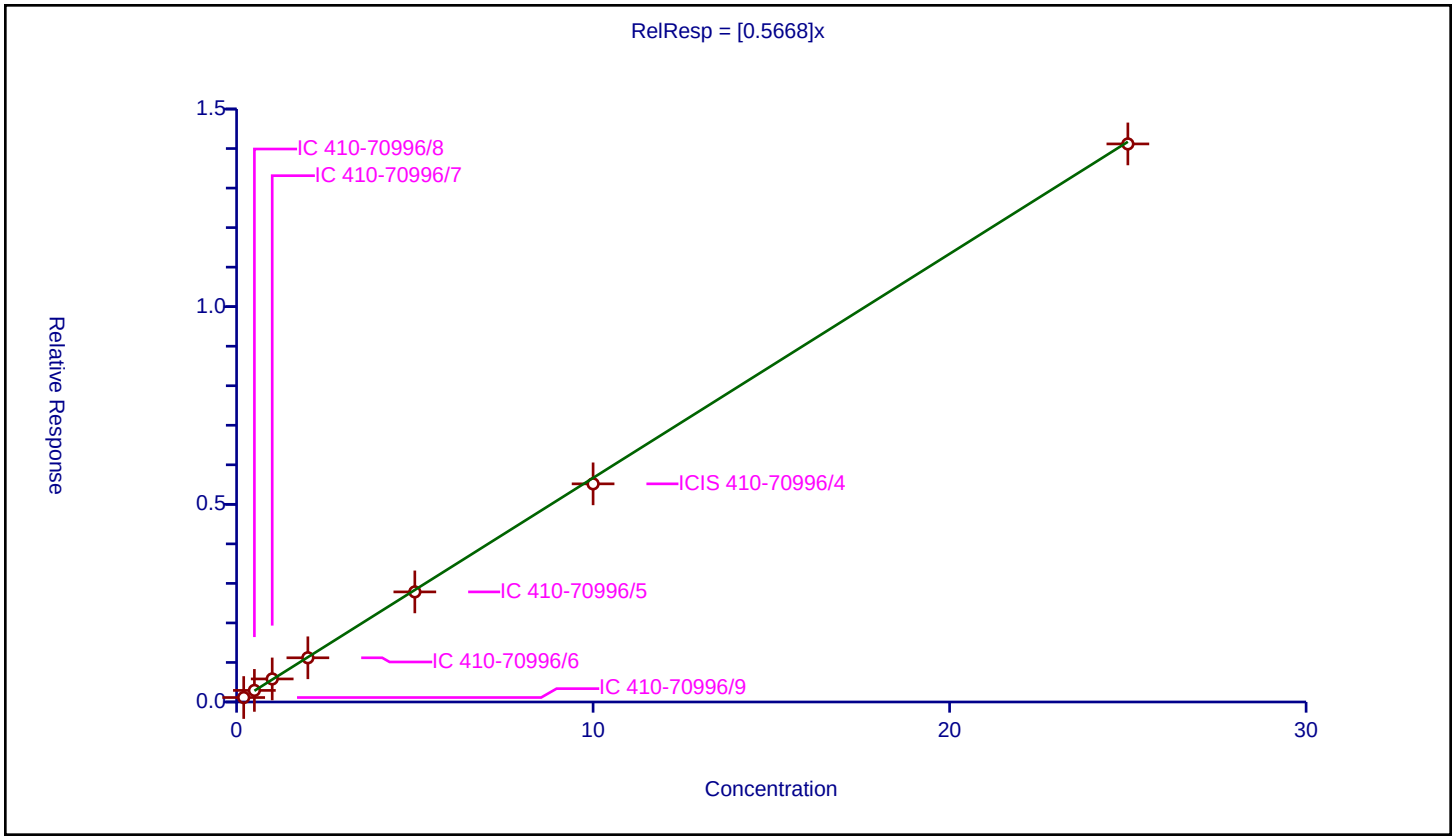
Curve Coefficients

Intercept:	0
Slope:	0.5668

Error Coefficients

Standard Error:	565000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.113194	10.0	857732.0	0.565969	Y
2	IC 410-70996/8	0.5	0.292979	10.0	861870.0	0.585958	Y
3	IC 410-70996/7	1.0	0.58327	10.0	860391.0	0.58327	Y
4	IC 410-70996/6	2.0	1.118283	10.0	869181.0	0.559141	Y
5	IC 410-70996/5	5.0	2.784872	10.0	878834.0	0.556974	Y
6	ICIS 410-70996/4	10.0	5.518437	10.0	888382.0	0.551844	Y
7	IC 410-70996/3	25.0	14.116796	10.0	896780.0	0.564672	Y



Calibration / Pentachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

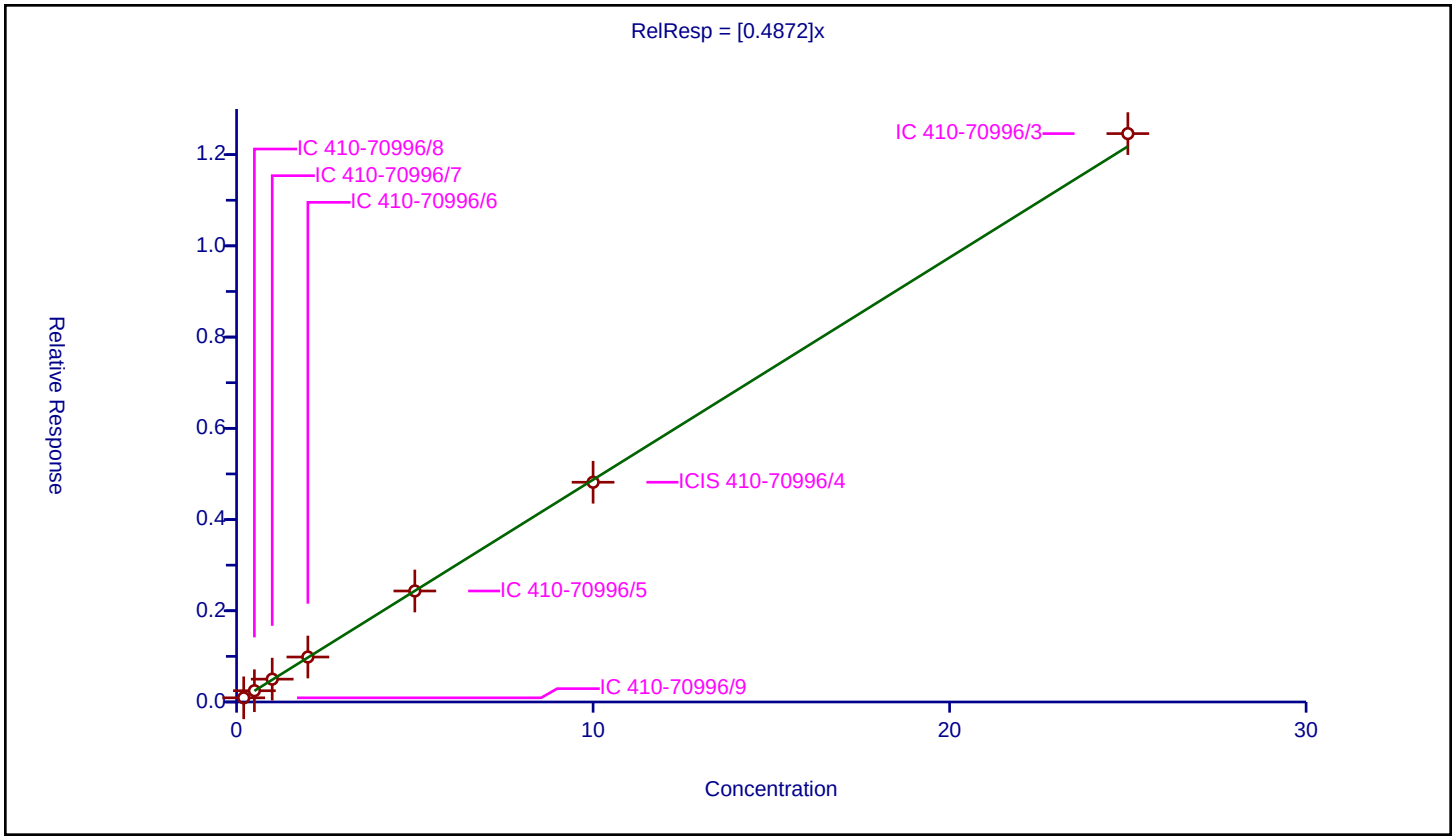
Curve Coefficients

Intercept:	0
Slope:	0.4872

Error Coefficients

Standard Error:	498000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.091357	10.0	857732.0	0.456786	Y
2	IC 410-70996/8	0.5	0.246743	10.0	861870.0	0.493485	Y
3	IC 410-70996/7	1.0	0.50054	10.0	860391.0	0.50054	Y
4	IC 410-70996/6	2.0	0.985813	10.0	869181.0	0.492907	Y
5	IC 410-70996/5	5.0	2.433577	10.0	878834.0	0.486715	Y
6	ICIS 410-70996/4	10.0	4.817511	10.0	888382.0	0.481751	Y
7	IC 410-70996/3	25.0	12.461038	10.0	896780.0	0.498442	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

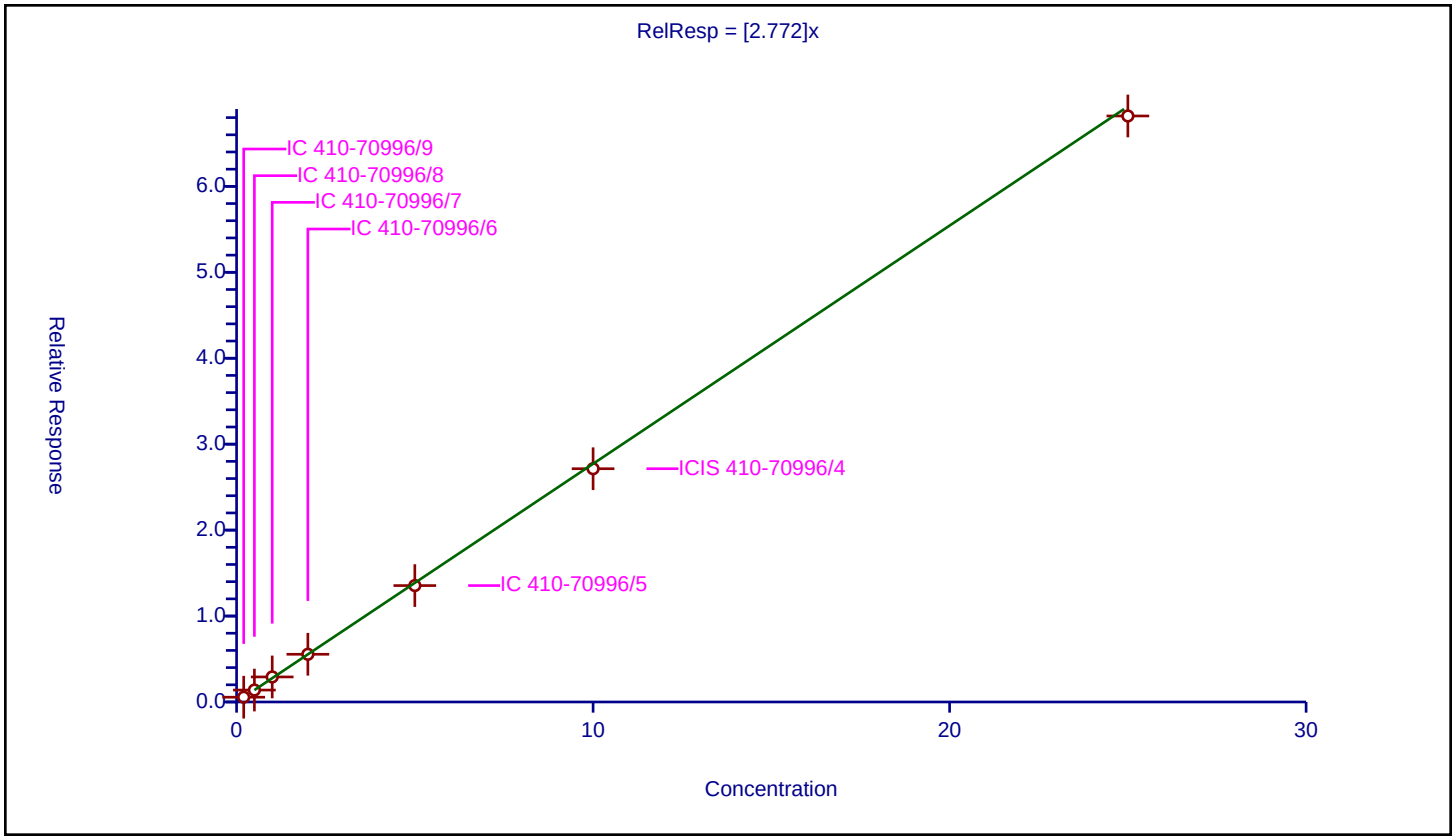
Curve Coefficients

Intercept:	0
Slope:	2.772

Error Coefficients

Standard Error:	2740000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.555803	10.0	857732.0	2.779015	Y
2	IC 410-70996/8	0.5	1.389084	10.0	861870.0	2.778168	Y
3	IC 410-70996/7	1.0	2.916767	10.0	860391.0	2.916767	Y
4	IC 410-70996/6	2.0	5.552583	10.0	869181.0	2.776292	Y
5	IC 410-70996/5	5.0	13.547211	10.0	878834.0	2.709442	Y
6	ICIS 410-70996/4	10.0	27.142389	10.0	888382.0	2.714239	Y
7	IC 410-70996/3	25.0	68.188686	10.0	896780.0	2.727547	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

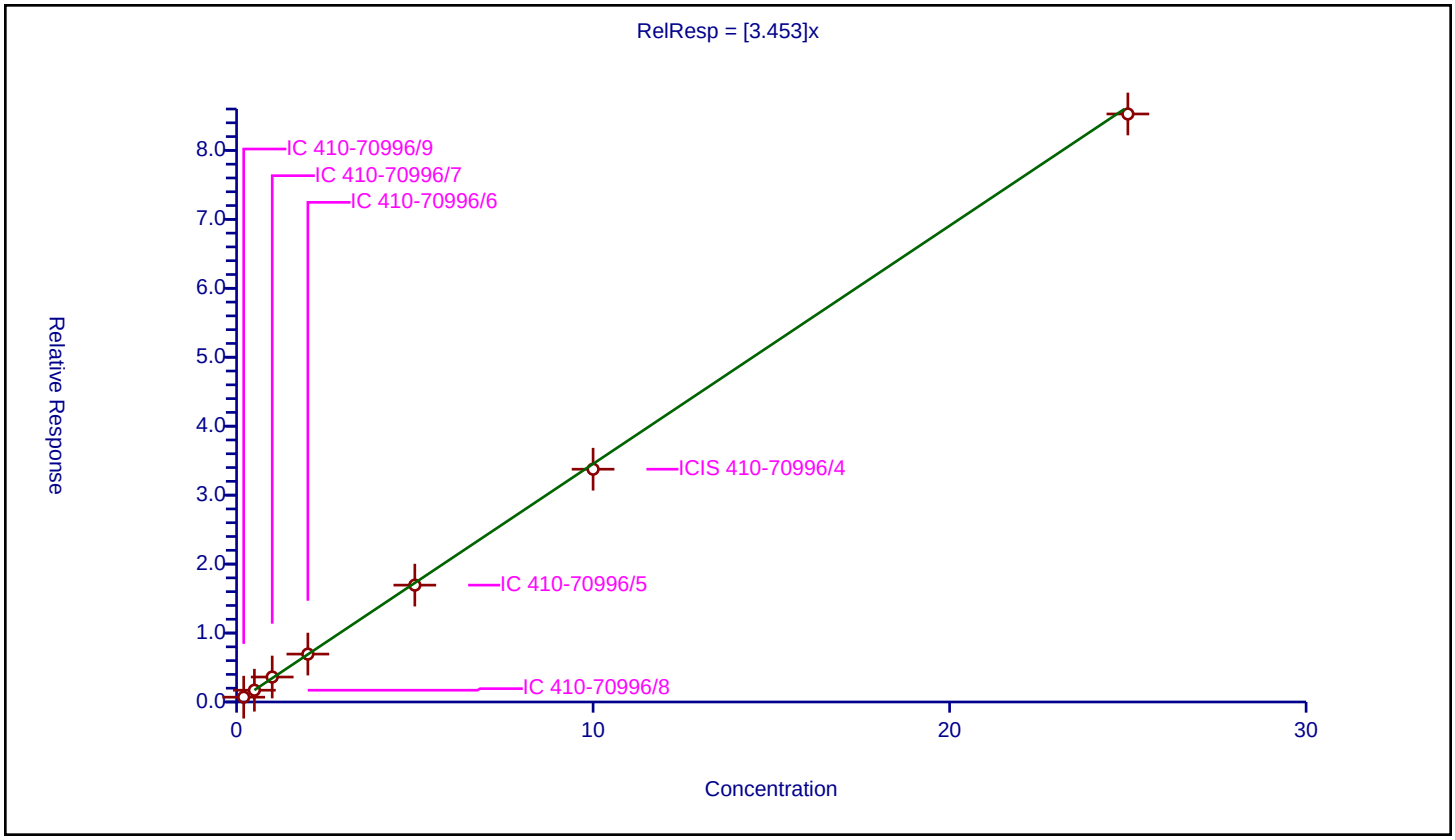
Curve Coefficients

Intercept:	0
Slope:	3.453

Error Coefficients

Standard Error:	3420000
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	IC 410-70996/9	0.2	0.696406	10.0	857732.0	3.482032	Y
2	IC 410-70996/8	0.5	1.70868	10.0	861870.0	3.41736	Y
3	IC 410-70996/7	1.0	3.623457	10.0	860391.0	3.623457	Y
4	IC 410-70996/6	2.0	6.948553	10.0	869181.0	3.474276	Y
5	IC 410-70996/5	5.0	16.947706	10.0	878834.0	3.389541	Y
6	ICIS 410-70996/4	10.0	33.763043	10.0	888382.0	3.376304	Y
7	IC 410-70996/3	25.0	85.28018	10.0	896780.0	3.411207	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

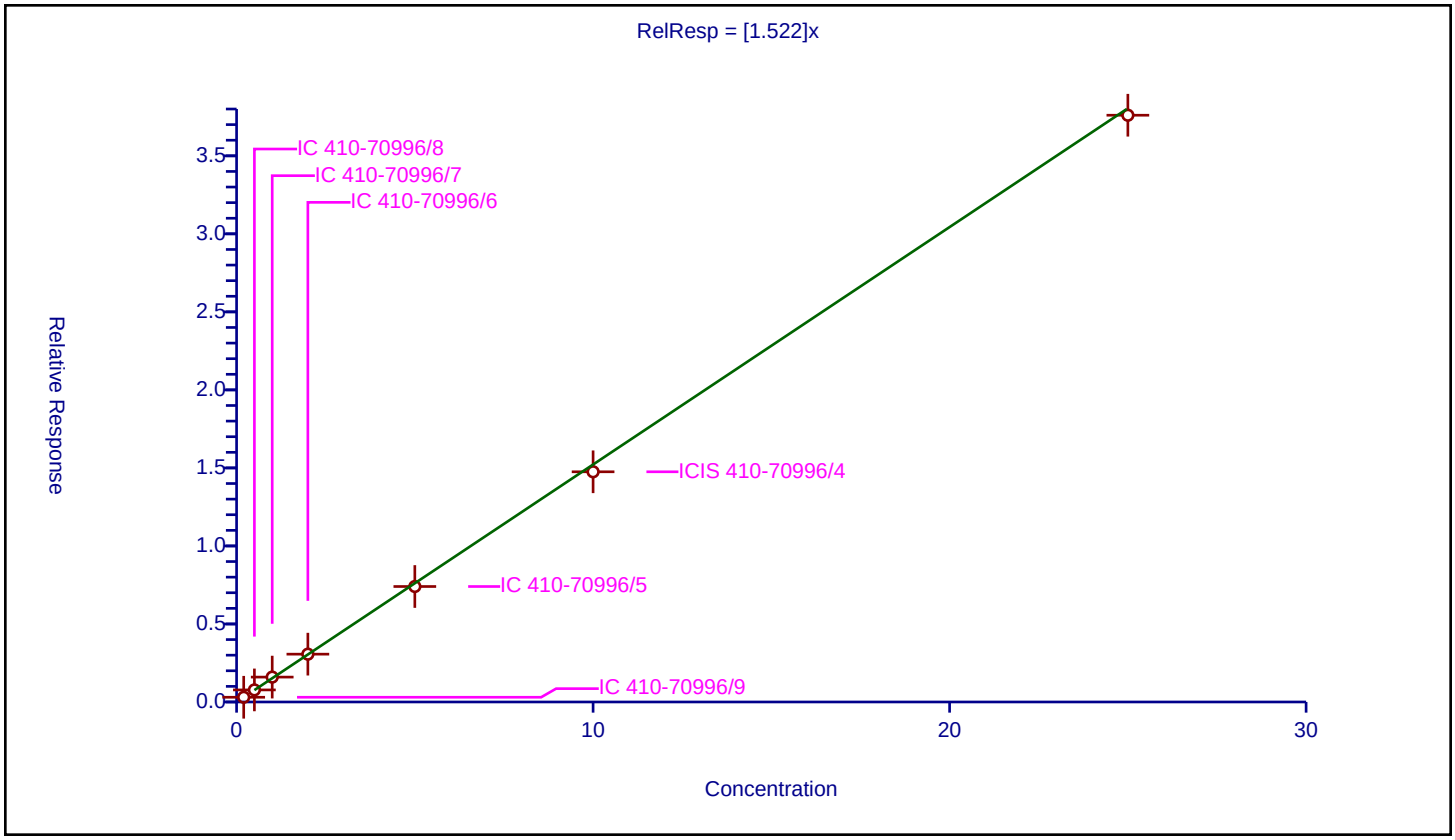
Curve Coefficients

Intercept:	0
Slope:	1.522

Error Coefficients

Standard Error:	1510000
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	IC 410-70996/9	0.2	0.303918	10.0	857732.0	1.519589	Y
2	IC 410-70996/8	0.5	0.772854	10.0	861870.0	1.545709	Y
3	IC 410-70996/7	1.0	1.594973	10.0	860391.0	1.594973	Y
4	IC 410-70996/6	2.0	3.065023	10.0	869181.0	1.532512	Y
5	IC 410-70996/5	5.0	7.401045	10.0	878834.0	1.480209	Y
6	ICIS 410-70996/4	10.0	14.75246	10.0	888382.0	1.475246	Y
7	IC 410-70996/3	25.0	37.600995	10.0	896780.0	1.50404	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

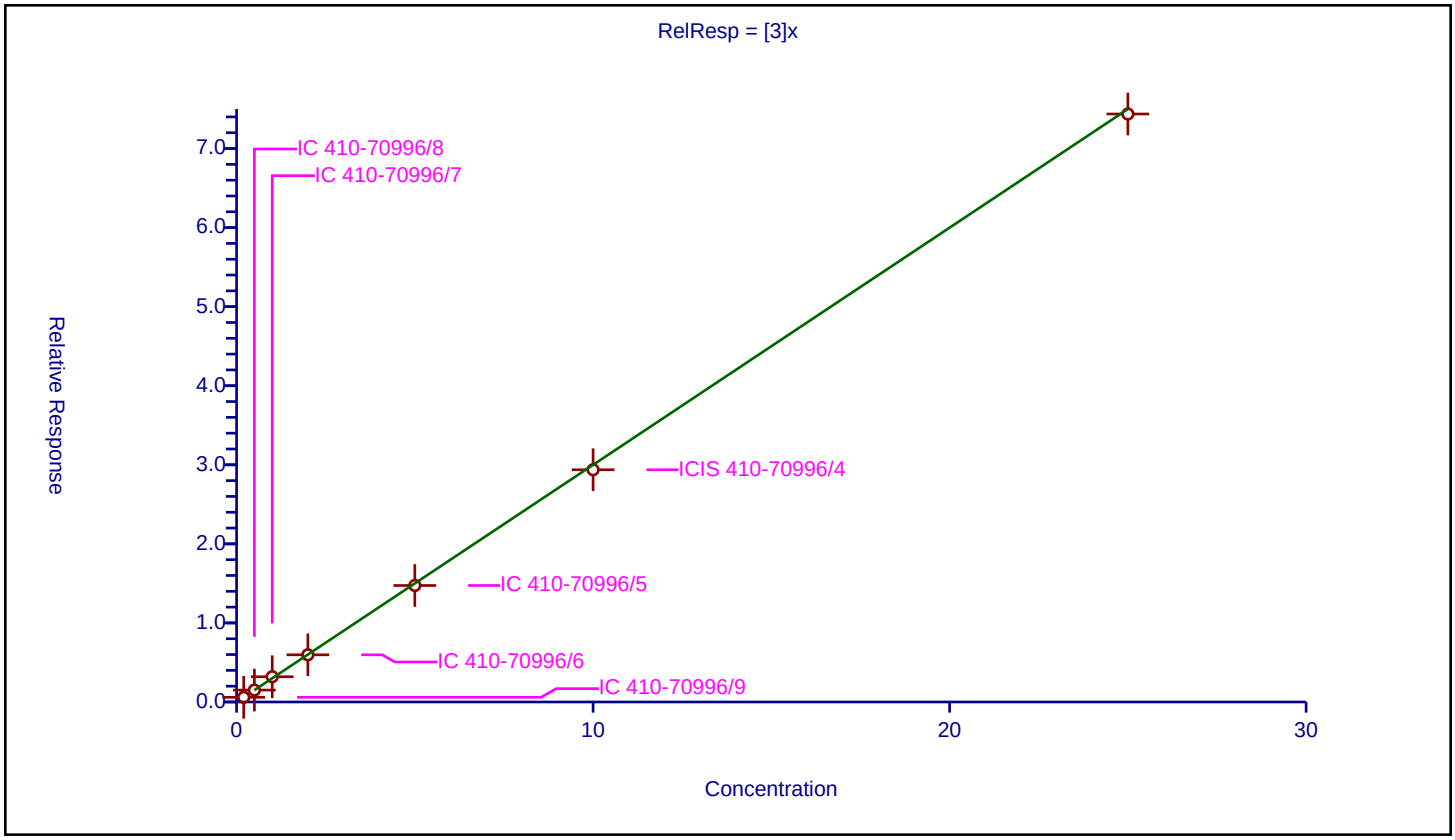
Curve Coefficients

Intercept:	0
Slope:	3

Error Coefficients

Standard Error:	2980000
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	IC 410-70996/9	0.2	0.590394	10.0	857732.0	2.951971	Y
2	IC 410-70996/8	0.5	1.504345	10.0	861870.0	3.00869	Y
3	IC 410-70996/7	1.0	3.192467	10.0	860391.0	3.192467	Y
4	IC 410-70996/6	2.0	5.969367	10.0	869181.0	2.984683	Y
5	IC 410-70996/5	5.0	14.734136	10.0	878834.0	2.946827	Y
6	ICIS 410-70996/4	10.0	29.373952	10.0	888382.0	2.937395	Y
7	IC 410-70996/3	25.0	74.369132	10.0	896780.0	2.974765	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

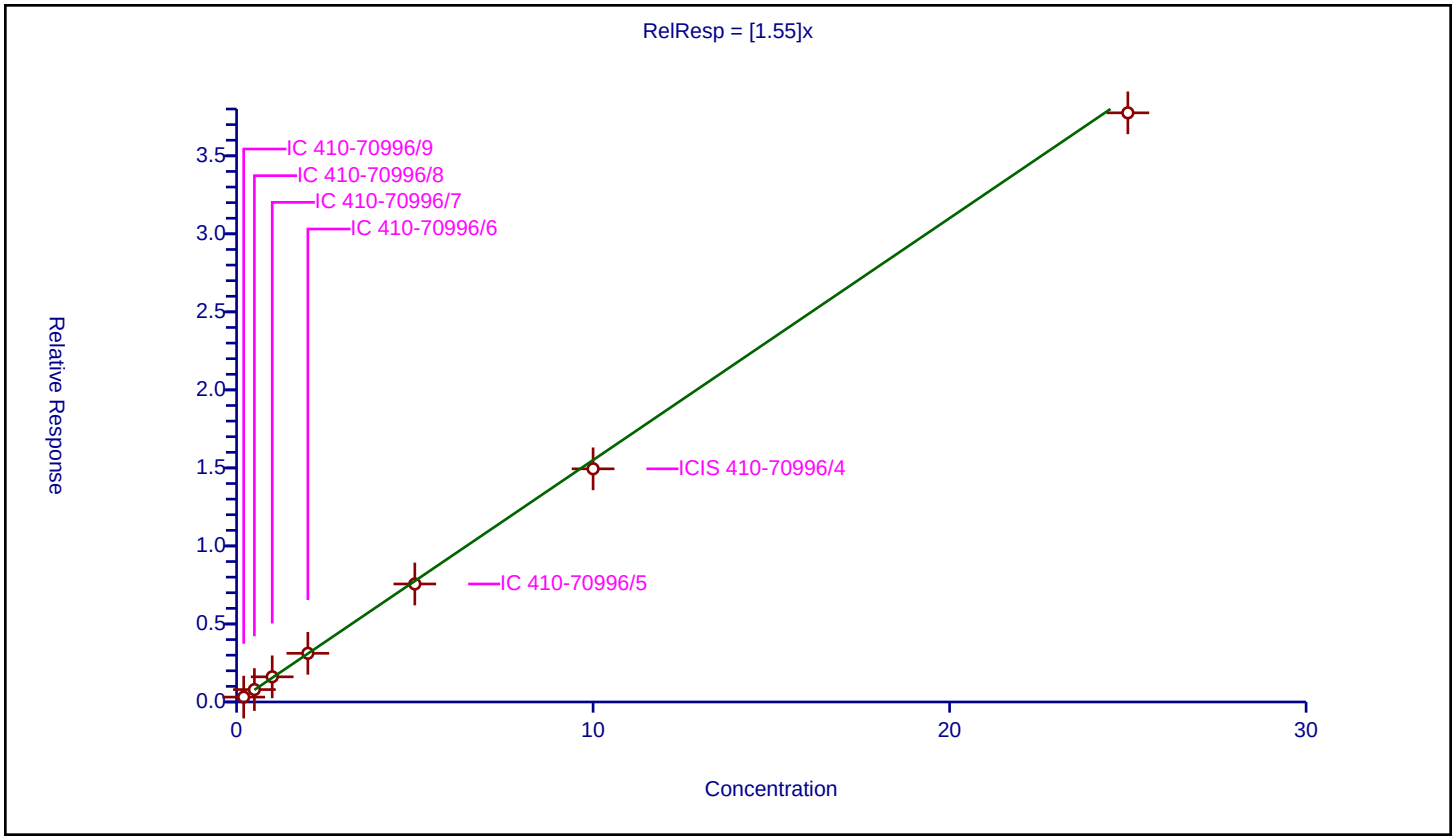
Curve Coefficients

Intercept:	0
Slope:	1.55

Error Coefficients

Standard Error:	1510000
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	IC 410-70996/9	0.2	0.314399	10.0	857732.0	1.571995	Y
2	IC 410-70996/8	0.5	0.79519	10.0	861870.0	1.590379	Y
3	IC 410-70996/7	1.0	1.612441	10.0	860391.0	1.612441	Y
4	IC 410-70996/6	2.0	3.119972	10.0	869181.0	1.559986	Y
5	IC 410-70996/5	5.0	7.563283	10.0	878834.0	1.512657	Y
6	ICIS 410-70996/4	10.0	14.941894	10.0	888382.0	1.494189	Y
7	IC 410-70996/3	25.0	37.756083	10.0	896780.0	1.510243	Y



Calibration / 1,2,3-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

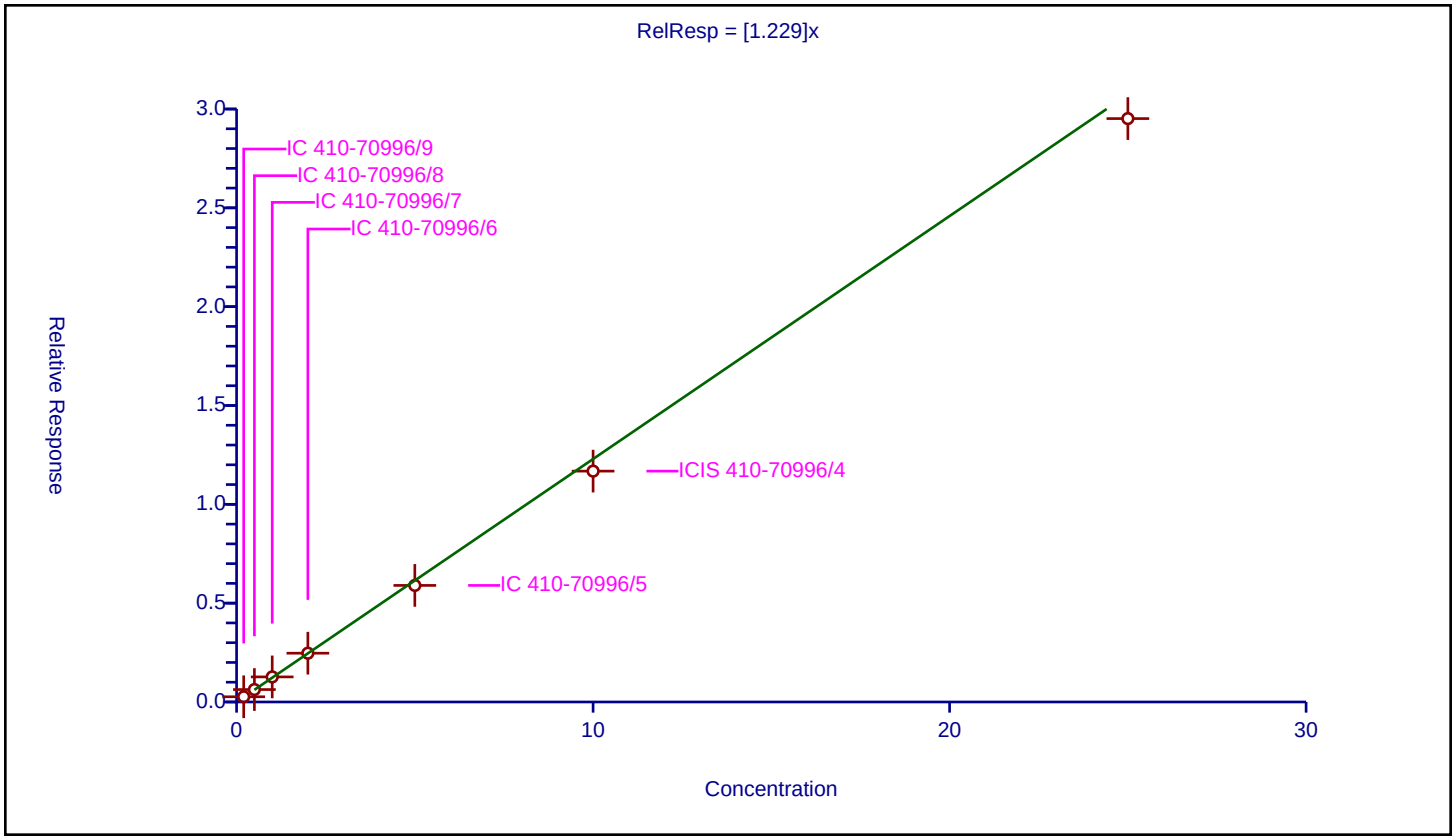
Curve Coefficients

Intercept:	0
Slope:	1.229

Error Coefficients

Standard Error:	1180000
Relative Standard Error:	4.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.263299	10.0	857732.0	1.316495	Y
2	IC 410-70996/8	0.5	0.628714	10.0	861870.0	1.257429	Y
3	IC 410-70996/7	1.0	1.268574	10.0	860391.0	1.268574	Y
4	IC 410-70996/6	2.0	2.468128	10.0	869181.0	1.234064	Y
5	IC 410-70996/5	5.0	5.898031	10.0	878834.0	1.179606	Y
6	ICIS 410-70996/4	10.0	11.680268	10.0	888382.0	1.168027	Y
7	IC 410-70996/3	25.0	29.516169	10.0	896780.0	1.180647	Y



Calibration / Benzyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

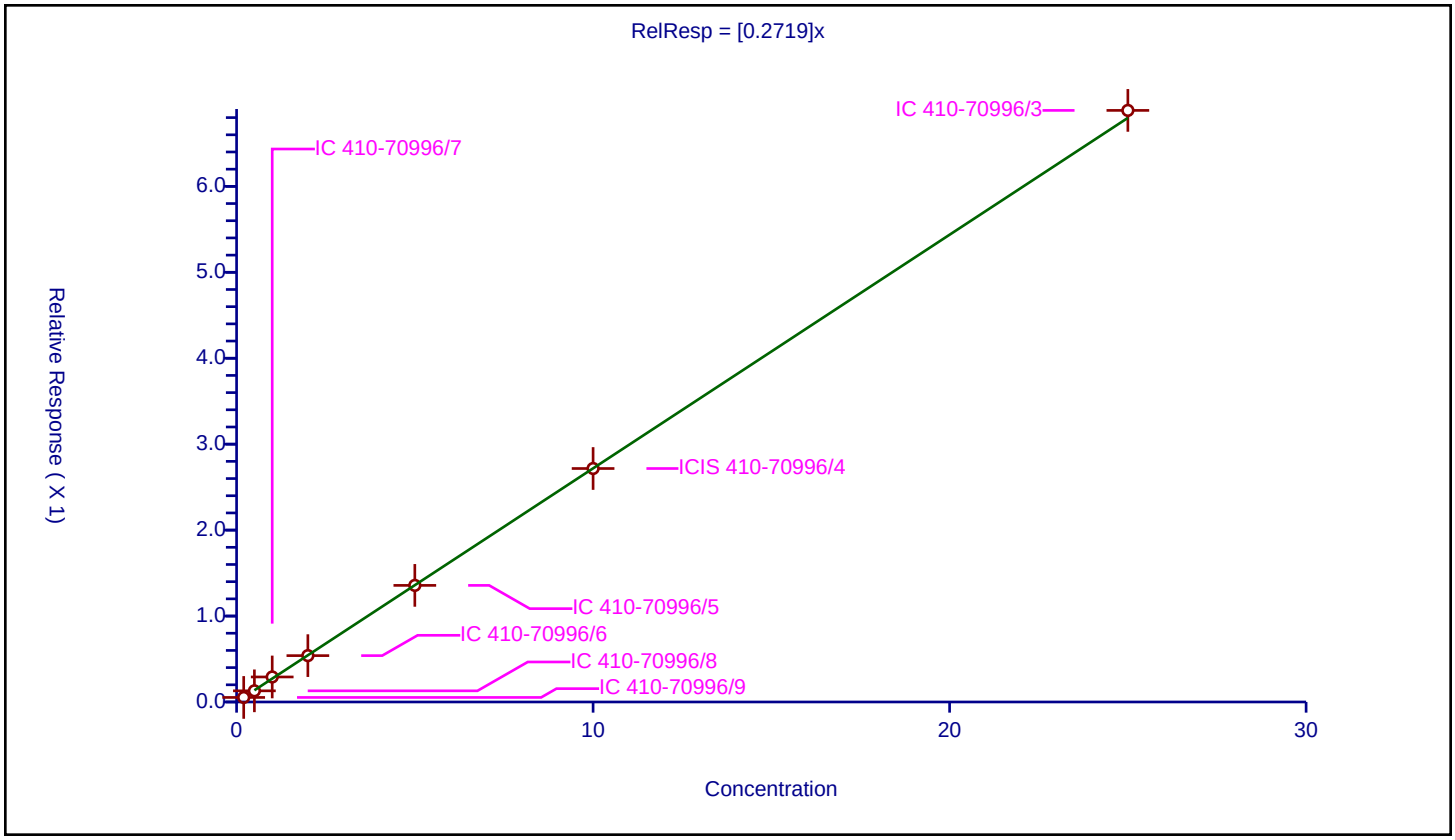
Curve Coefficients

Intercept:	0
Slope:	0.2719

Error Coefficients

Standard Error:	276000
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	IC 410-70996/9	0.2	0.052814	10.0	857732.0	0.264068	Y
2	IC 410-70996/8	0.5	0.129741	10.0	861870.0	0.259482	Y
3	IC 410-70996/7	1.0	0.291321	10.0	860391.0	0.291321	Y
4	IC 410-70996/6	2.0	0.539531	10.0	869181.0	0.269765	Y
5	IC 410-70996/5	5.0	1.356741	10.0	878834.0	0.271348	Y
6	ICIS 410-70996/4	10.0	2.716962	10.0	888382.0	0.271696	Y
7	IC 410-70996/3	25.0	6.884018	10.0	896780.0	0.275361	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

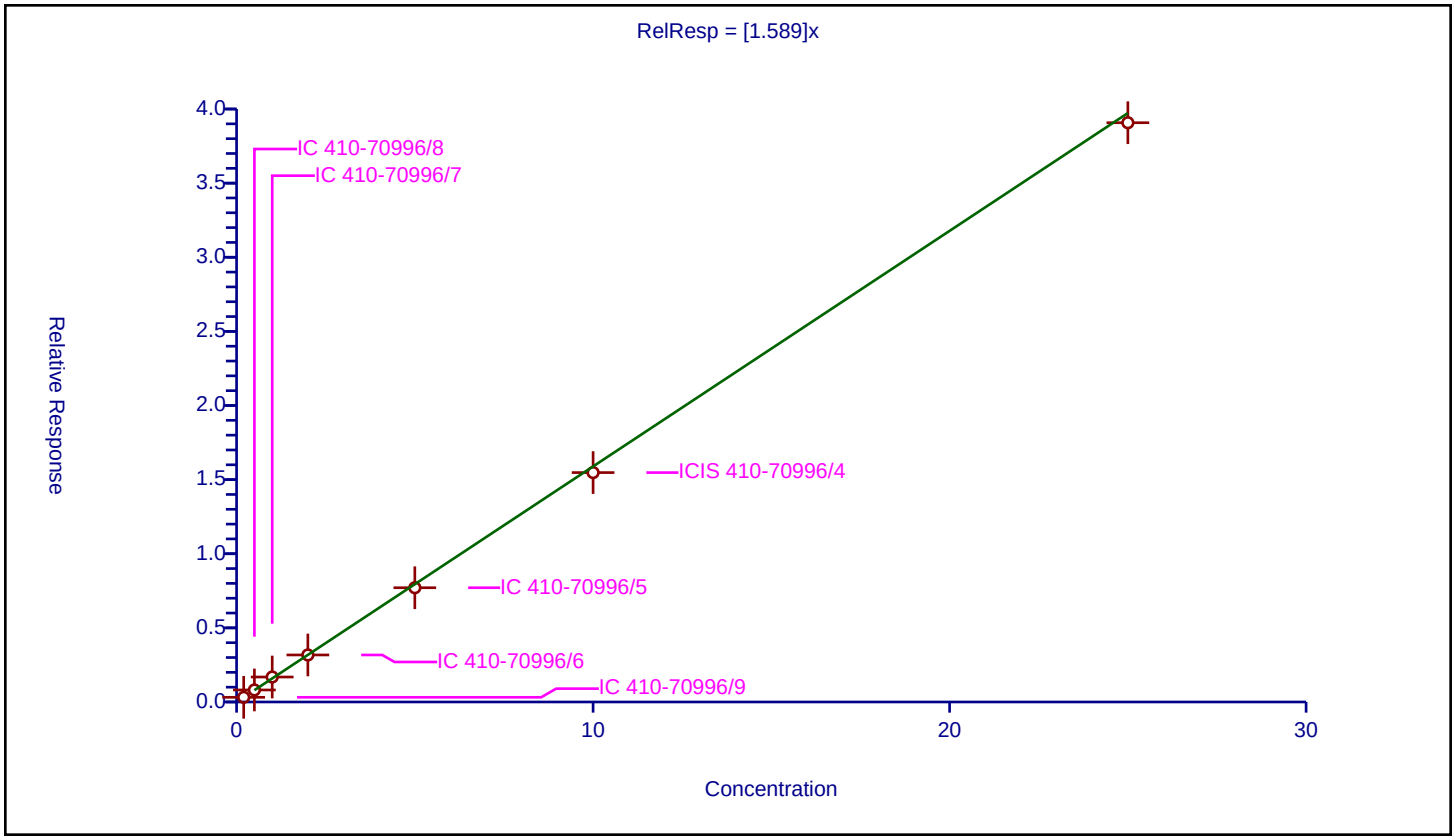
Curve Coefficients

Intercept:	0
Slope:	1.589

Error Coefficients

Standard Error:	1570000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.316089	10.0	857732.0	1.580447	Y
2	IC 410-70996/8	0.5	0.809821	10.0	861870.0	1.619641	Y
3	IC 410-70996/7	1.0	1.684804	10.0	860391.0	1.684804	Y
4	IC 410-70996/6	2.0	3.172021	10.0	869181.0	1.58601	Y
5	IC 410-70996/5	5.0	7.707895	10.0	878834.0	1.541579	Y
6	ICIS 410-70996/4	10.0	15.4751	10.0	888382.0	1.54751	Y
7	IC 410-70996/3	25.0	39.075894	10.0	896780.0	1.563036	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

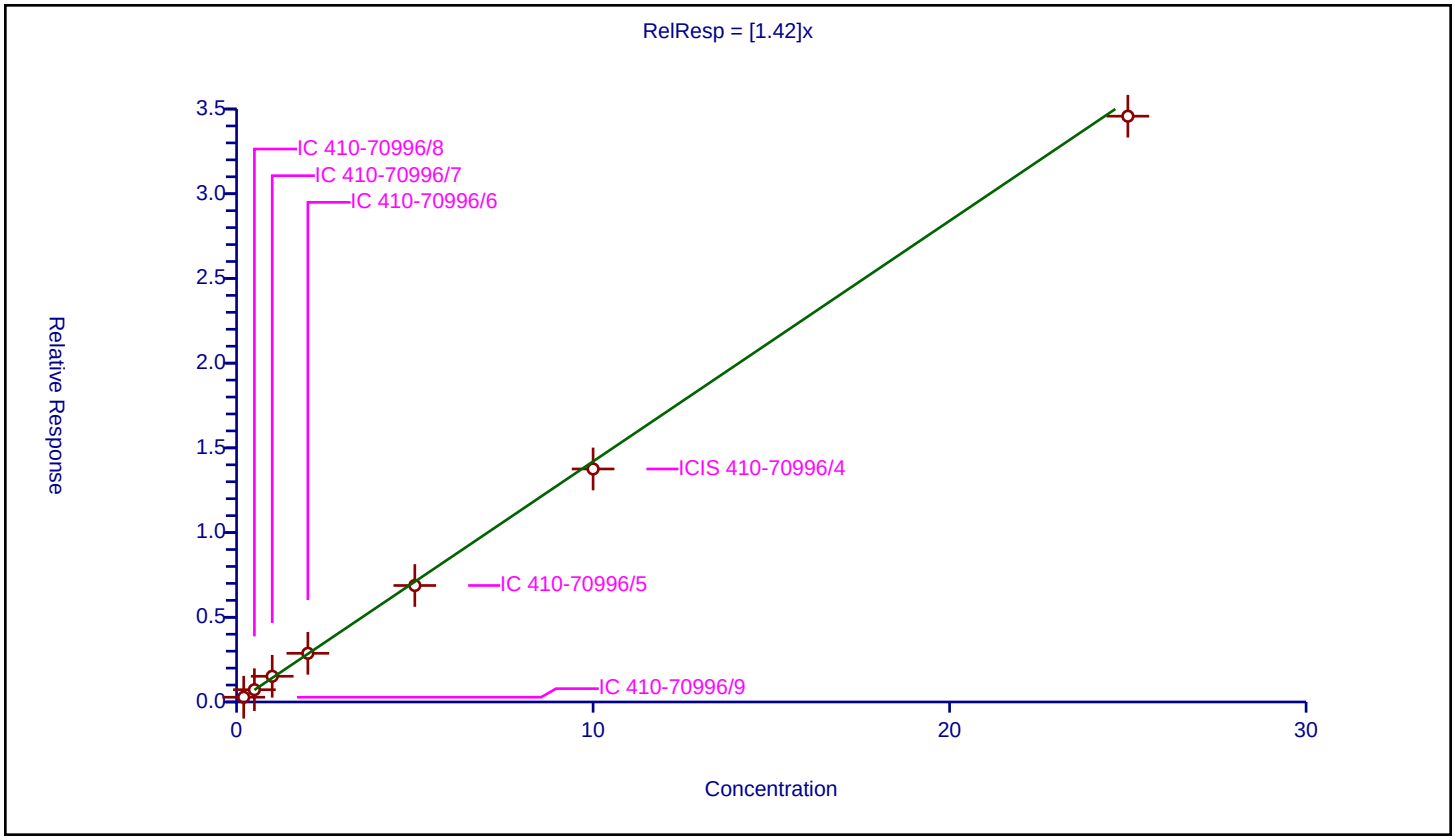
Curve Coefficients

Intercept:	0
Slope:	1.42

Error Coefficients

Standard Error:	1390000
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	IC 410-70996/9	0.2	0.280461	10.0	857732.0	1.402303	Y
2	IC 410-70996/8	0.5	0.724564	10.0	861870.0	1.449128	Y
3	IC 410-70996/7	1.0	1.517368	10.0	860391.0	1.517368	Y
4	IC 410-70996/6	2.0	2.87397	10.0	869181.0	1.436985	Y
5	IC 410-70996/5	5.0	6.876316	10.0	878834.0	1.375263	Y
6	ICIS 410-70996/4	10.0	13.753712	10.0	888382.0	1.375371	Y
7	IC 410-70996/3	25.0	34.577221	10.0	896780.0	1.383089	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

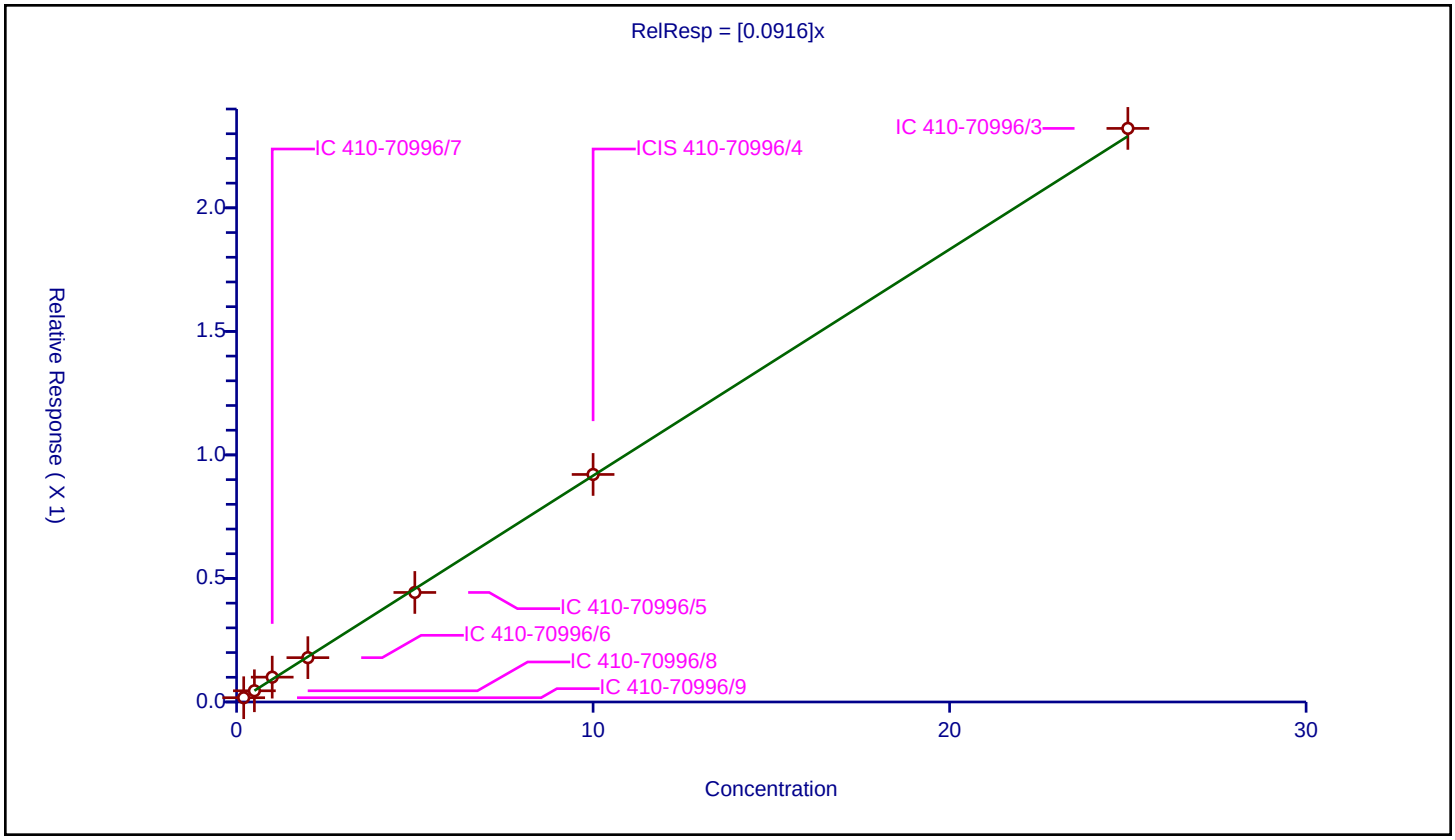
Curve Coefficients

Intercept:	0
Slope:	0.0916

Error Coefficients

Standard Error:	93000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.017325	10.0	857732.0	0.086624	Y
2	IC 410-70996/8	0.5	0.045343	10.0	861870.0	0.090687	Y
3	IC 410-70996/7	1.0	0.100536	10.0	860391.0	0.100536	Y
4	IC 410-70996/6	2.0	0.179433	10.0	869181.0	0.089717	Y
5	IC 410-70996/5	5.0	0.443303	10.0	878834.0	0.088661	Y
6	ICIS 410-70996/4	10.0	0.920955	10.0	888382.0	0.092096	Y
7	IC 410-70996/3	25.0	2.32155	10.0	896780.0	0.092862	Y



Calibration / 1,3,5-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

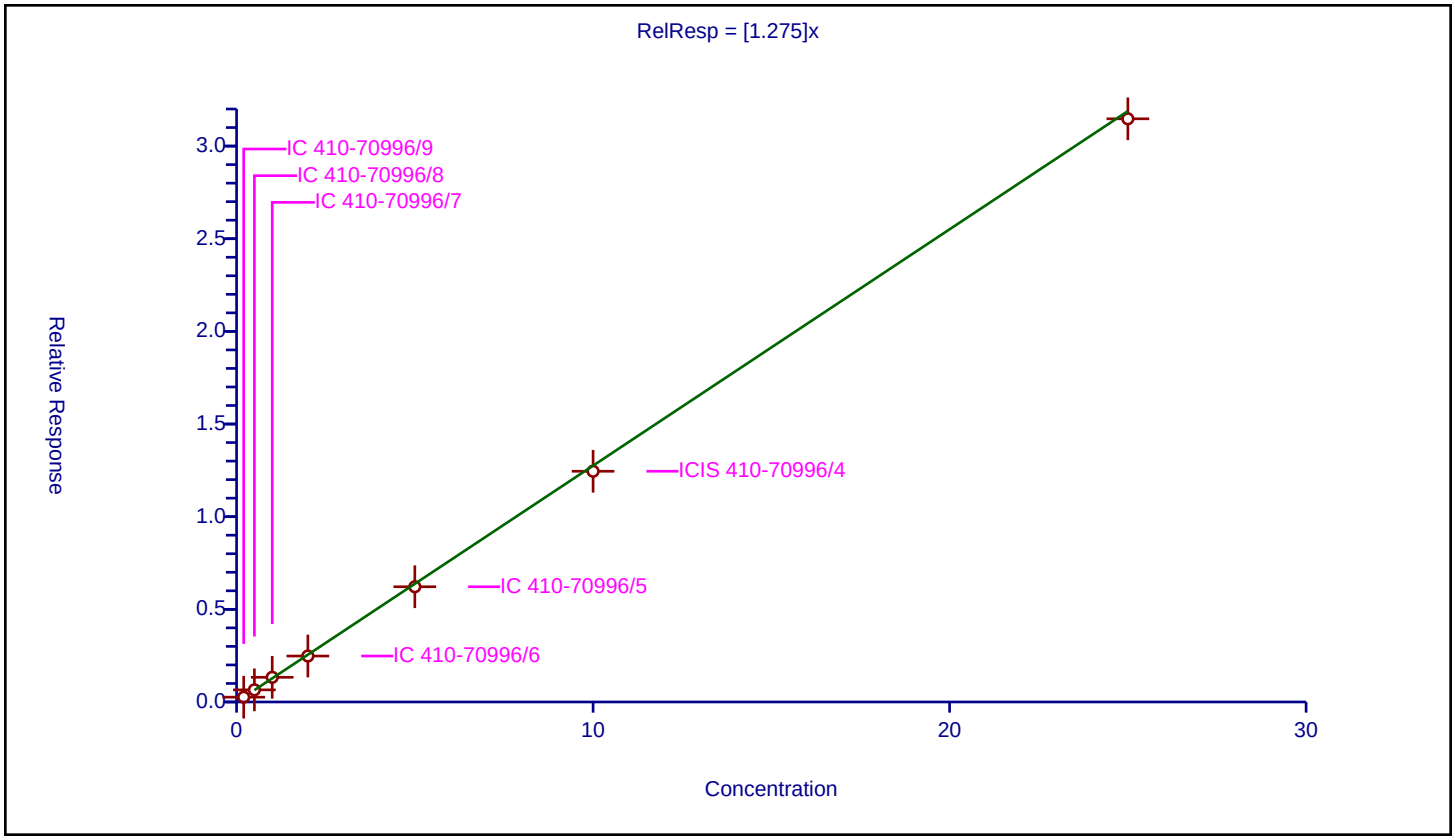
Curve Coefficients

Intercept:	0
Slope:	1.275

Error Coefficients

Standard Error:	1260000
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	IC 410-70996/9	0.2	0.260093	10.0	857732.0	1.300464	Y
2	IC 410-70996/8	0.5	0.653764	10.0	861870.0	1.307529	Y
3	IC 410-70996/7	1.0	1.331732	10.0	860391.0	1.331732	Y
4	IC 410-70996/6	2.0	2.480761	10.0	869181.0	1.24038	Y
5	IC 410-70996/5	5.0	6.218842	10.0	878834.0	1.243768	Y
6	ICIS 410-70996/4	10.0	12.451704	10.0	888382.0	1.24517	Y
7	IC 410-70996/3	25.0	31.471743	10.0	896780.0	1.25887	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

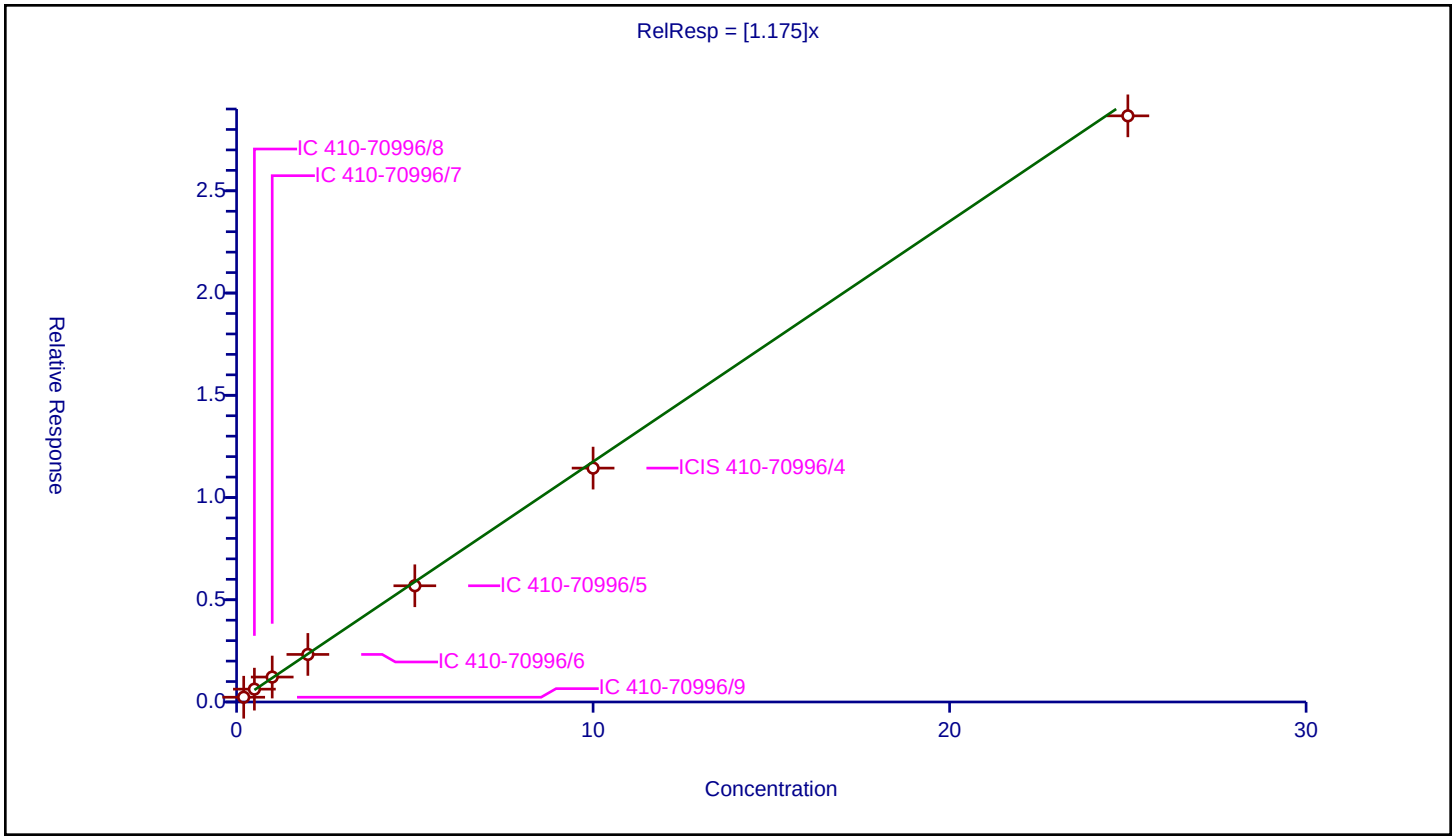
Curve Coefficients

Intercept:	0
Slope:	1.175

Error Coefficients

Standard Error:	1150000
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	IC 410-70996/9	0.2	0.232543	10.0	857732.0	1.162717	Y
2	IC 410-70996/8	0.5	0.62745	10.0	861870.0	1.254899	Y
3	IC 410-70996/7	1.0	1.219934	10.0	860391.0	1.219934	Y
4	IC 410-70996/6	2.0	2.325661	10.0	869181.0	1.16283	Y
5	IC 410-70996/5	5.0	5.684236	10.0	878834.0	1.136847	Y
6	ICIS 410-70996/4	10.0	11.438244	10.0	888382.0	1.143824	Y
7	IC 410-70996/3	25.0	28.666005	10.0	896780.0	1.14664	Y



Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

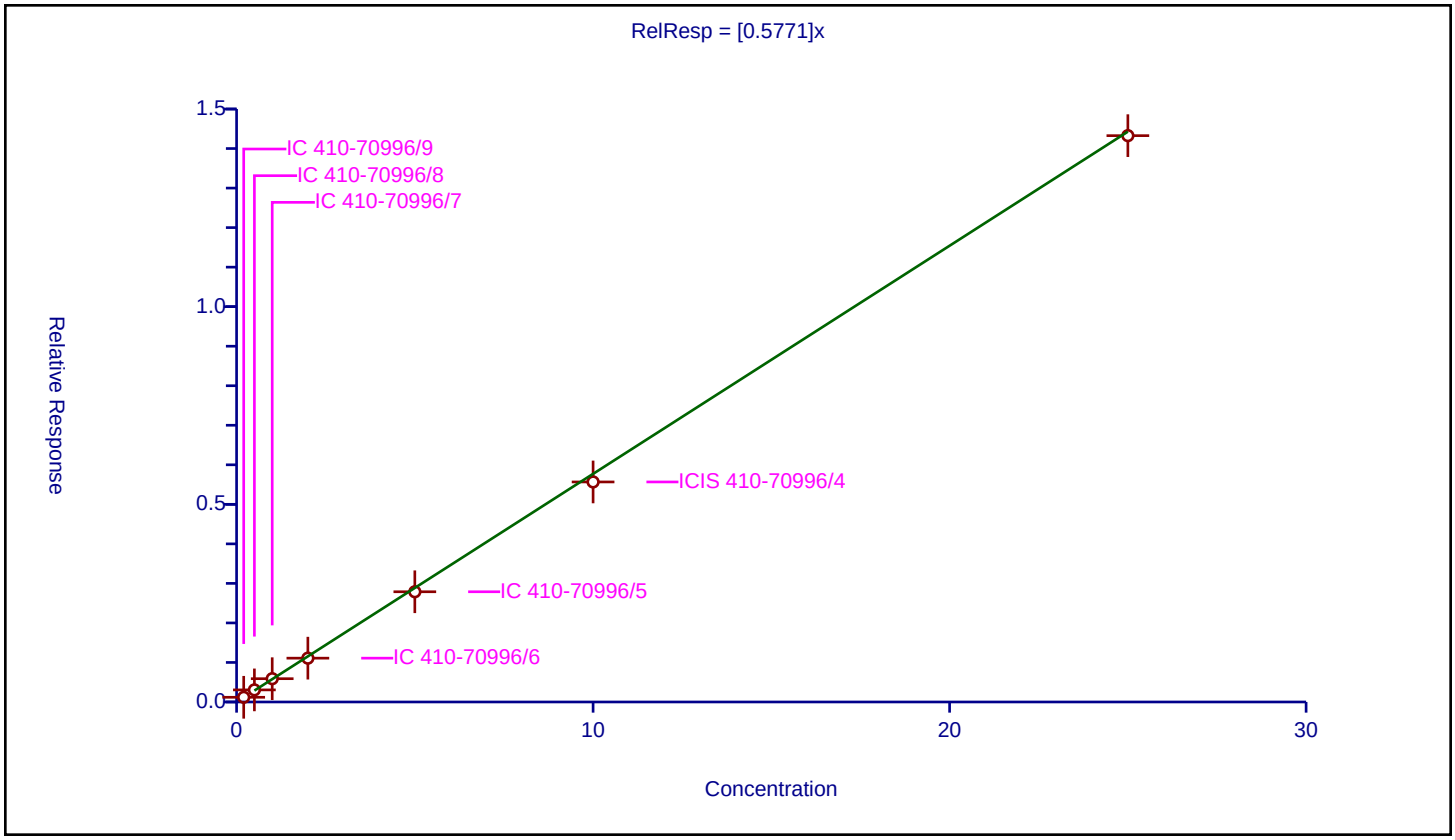
Curve Coefficients

Intercept:	0
Slope:	0.5771

Error Coefficients

Standard Error:	573000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.11928	10.0	857732.0	0.596398	Y
2	IC 410-70996/8	0.5	0.30609	10.0	861870.0	0.61218	Y
3	IC 410-70996/7	1.0	0.589441	10.0	860391.0	0.589441	Y
4	IC 410-70996/6	2.0	1.108584	10.0	869181.0	0.554292	Y
5	IC 410-70996/5	5.0	2.788137	10.0	878834.0	0.557627	Y
6	ICIS 410-70996/4	10.0	5.566209	10.0	888382.0	0.556621	Y
7	IC 410-70996/3	25.0	14.325866	10.0	896780.0	0.573035	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

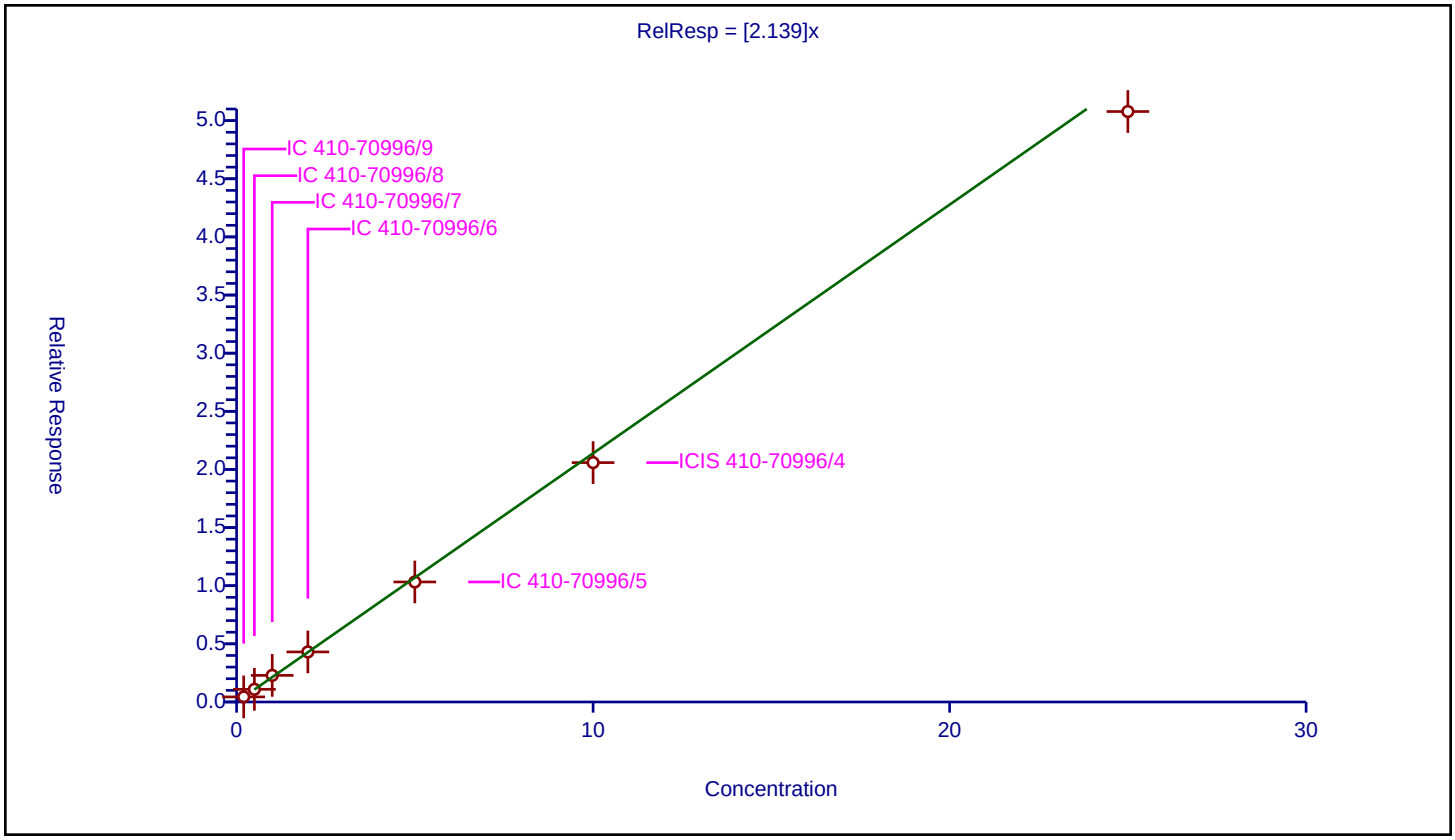
Curve Coefficients

Intercept:	0
Slope:	2.139

Error Coefficients

Standard Error:	2050000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/9	0.2	0.438027	10.0	857732.0	2.190136	Y
2	IC 410-70996/8	0.5	1.09165	10.0	861870.0	2.183299	Y
3	IC 410-70996/7	1.0	2.28882	10.0	860391.0	2.28882	Y
4	IC 410-70996/6	2.0	4.306445	10.0	869181.0	2.153222	Y
5	IC 410-70996/5	5.0	10.324851	10.0	878834.0	2.06497	Y
6	ICIS 410-70996/4	10.0	20.587945	10.0	888382.0	2.058795	Y
7	IC 410-70996/3	25.0	50.784328	10.0	896780.0	2.031373	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

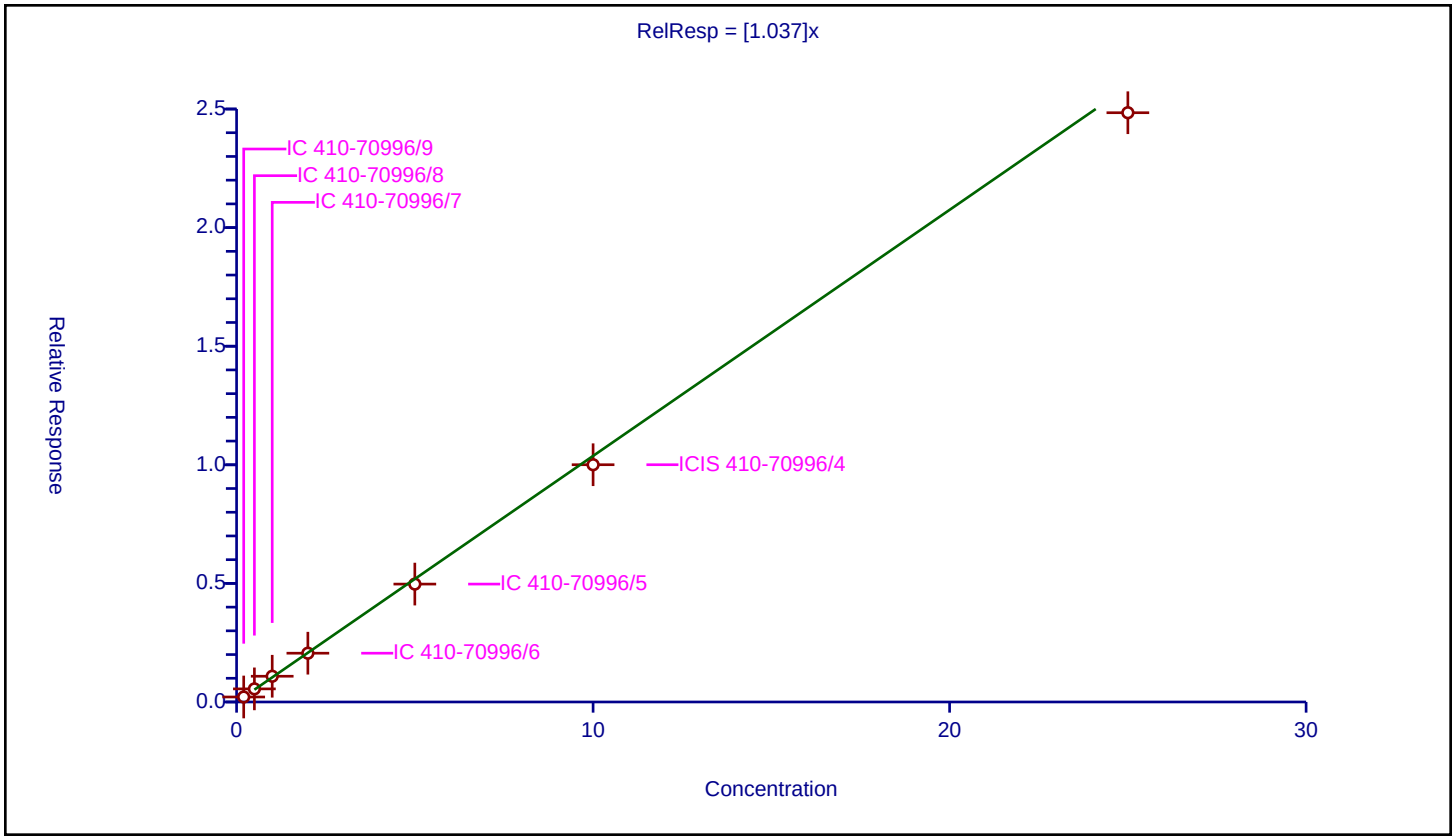
Curve Coefficients

Intercept:	0
Slope:	1.037

Error Coefficients

Standard Error:	999000
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	IC 410-70996/9	0.2	0.21108	10.0	857732.0	1.0554	Y
2	IC 410-70996/8	0.5	0.55216	10.0	861870.0	1.10432	Y
3	IC 410-70996/7	1.0	1.085065	10.0	860391.0	1.085065	Y
4	IC 410-70996/6	2.0	2.057339	10.0	869181.0	1.02867	Y
5	IC 410-70996/5	5.0	4.971542	10.0	878834.0	0.994308	Y
6	ICIS 410-70996/4	10.0	10.003107	10.0	888382.0	1.000311	Y
7	IC 410-70996/3	25.0	24.844009	10.0	896780.0	0.99376	Y



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 16:10 Calibration End Date: 11/30/2020 18:23 Calibration ID: 16334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/18	GN30I17.D
Level 2	IC 410-70996/17	GN30I16.D
Level 3	IC 410-70996/16	GN30I15.D
Level 4	IC 410-70996/15	GN30I14.D
Level 5	IC 410-70996/14	GN30I13.D
Level 6	IC 410-70996/13	GN30I12.D
Level 7	IC 410-70996/12	GN30I11.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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodifluoromethane	0.3118 0.2246	0.2427 0.2201	0.2189	0.2155	0.2267	Ave		0.2372				14.4		20.0			
Methoxymethane	0.4212 0.3094	0.3456 0.2906	0.3151	0.3080	0.3128	Ave		0.3290				13.3		20.0			
Acetonitrile	1.2413 0.9478	1.1689 0.9671	1.0429	0.9621	0.9853	Ave		1.0451				11.0		20.0			
Vinyl acetate	0.4302 0.4182	0.4088 0.4136	0.4332	0.4049	0.4048	Ave		0.4163				2.8		20.0			
Ethyl acetate	0.3001 0.2069	0.2437 0.2020	0.2368	0.2155	0.1994	Ave		0.2292				15.5		20.0			
Methyl acrylate	0.1545 0.1572	0.1545 0.1542	0.1532	0.1543	0.1575	Ave		0.1551				1.1		20.0			
1-Chlorobutane	0.4490 0.4422	0.4500 0.4300	0.4493	0.4476	0.4512	Ave		0.4456				1.7		20.0			
Chloroacetonitrile	0.0074 0.0080	0.0075 0.0076	0.0077	0.0079	0.0076	Ave		0.0077				2.7		20.0			
2-Chloroethyl vinyl ether	0.1399 0.1256	0.1313 0.1289	0.1416	0.1282	0.1295	Ave		0.1321				4.6		20.0			
cis-1,4-Dichloro-2-butene	2.7438 3.6245	2.8988 4.2379	3.3221	3.1710	3.7998	Ave		3.3997				15.4		20.0			
Cyclohexanone	0.3984 0.4004	0.3580 0.3060	0.3846	0.3718	0.3908	Ave		0.3729				8.9		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 16:10 Calibration End Date: 11/30/2020 18:23 Calibration ID: 16334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/18	GN30I17.D
Level 2	IC 410-70996/17	GN30I16.D
Level 3	IC 410-70996/16	GN30I15.D
Level 4	IC 410-70996/15	GN30I14.D
Level 5	IC 410-70996/14	GN30I13.D
Level 6	IC 410-70996/13	GN30I12.D
Level 7	IC 410-70996/12	GN30I11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorodifluoromethane	FB	Ave	13376 493014	26247 1197705	47579	93537	243544	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methoxymethane	FB	Ave	18070 679095	37375 1581555	68491	133719	336061	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetonitrile	TBAd10	Ave	37576 1517249	92617 3595858	156144	311942	722085	8.00 400	20.0 1000	40.0	80.0	200
Vinyl acetate	FB	Ave	18456 917998	44216 2251115	94158	175799	434954	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl acetate	FB	Ave	12872 454276	26360 1099220	51462	93569	214269	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acrylate	FB	Ave	33131 1724997	83577 4196040	166502	334921	846307	1.00 50.0	2.50 125	5.00	10.0	25.0
1-Chlorobutane	FB	Ave	19262 970655	48669 2340340	97657	194323	484804	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroacetonitrile	FB	Ave	15959 877033	40302 2078386	83932	171354	409042	10.0 500	25.0 1250	50.0	100	250
2-Chloroethyl vinyl ether	FB	Ave	6000 275701	14199 701431	30788	55672	139170	0.200 10.0	0.500 25.0	1.00	2.00	5.00
cis-1,4-Dichloro-2-butene	TBAd10	Ave	4152 290038	11482 787682	24864	51397	139200	0.400 20.0	1.000 50.0	2.00	4.00	10.00
Cyclohexanone	TBAd10	Ave	15077 801193	35458 1422396	71982	150709	358019	10.00 500	25.0 1250	50.0	100.0	250

Curve Type Legend:
Ave = Average ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 70996

SDG No.:

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/30/2020 16:10 Calibration End Date: 11/30/2020 18:23 Calibration ID: 16334

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-70996/18	GN30I17.D
Level 2	IC 410-70996/17	GN30I16.D
Level 3	IC 410-70996/16	GN30I15.D
Level 4	IC 410-70996/15	GN30I14.D
Level 5	IC 410-70996/14	GN30I13.D
Level 6	IC 410-70996/13	GN30I12.D
Level 7	IC 410-70996/12	GN30I11.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Chlorodifluoromethane	31.5 -7.2	2.3	-7.7	-9.2	-4.4	-5.3	50 30	30	30	30	30	30
Methoxymethane	28.1 -11.7	5.0	-4.2	-6.4	-4.9	-6.0	50 30	30	30	30	30	30
Acetonitrile	18.8 -7.5	11.8	-0.2	-7.9	-5.7	-9.3	50 30	30	30	30	30	30
Vinyl acetate	3.4 -0.6	-1.8	4.1	-2.7	-2.7	0.5	50 30	30	30	30	30	30
Ethyl acetate	30.9 -11.9	6.3	3.3	-6.0	-13.0	-9.7	50 30	30	30	30	30	30
Methyl acrylate	-0.4 -0.6	-0.3	-1.2	-0.5	1.6	1.4	50 30	30	30	30	30	30
1-Chlorobutane	0.8 -3.5	1.0	0.8	0.4	1.3	-0.8	50 30	30	30	30	30	30
Chloroacetonitrile	-3.1 -0.5	-2.9	0.6	2.8	-0.8	4.1	50 30	30	30	30	30	30
2-Chloroethyl vinyl ether	5.8 -2.5	-0.7	7.2	-3.0	-2.0	-5.0	50 30	30	30	30	30	30
cis-1,4-Dichloro-2-butene	-19.3 24.7	-14.7	-2.3	-6.7	11.8	6.6	50 30	30	30	30	30	30
Cyclohexanone	6.9 -17.9	-4.0	3.1	-0.3	4.8	7.4	50 30	30	30	30	30	30

Calibration / Chlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

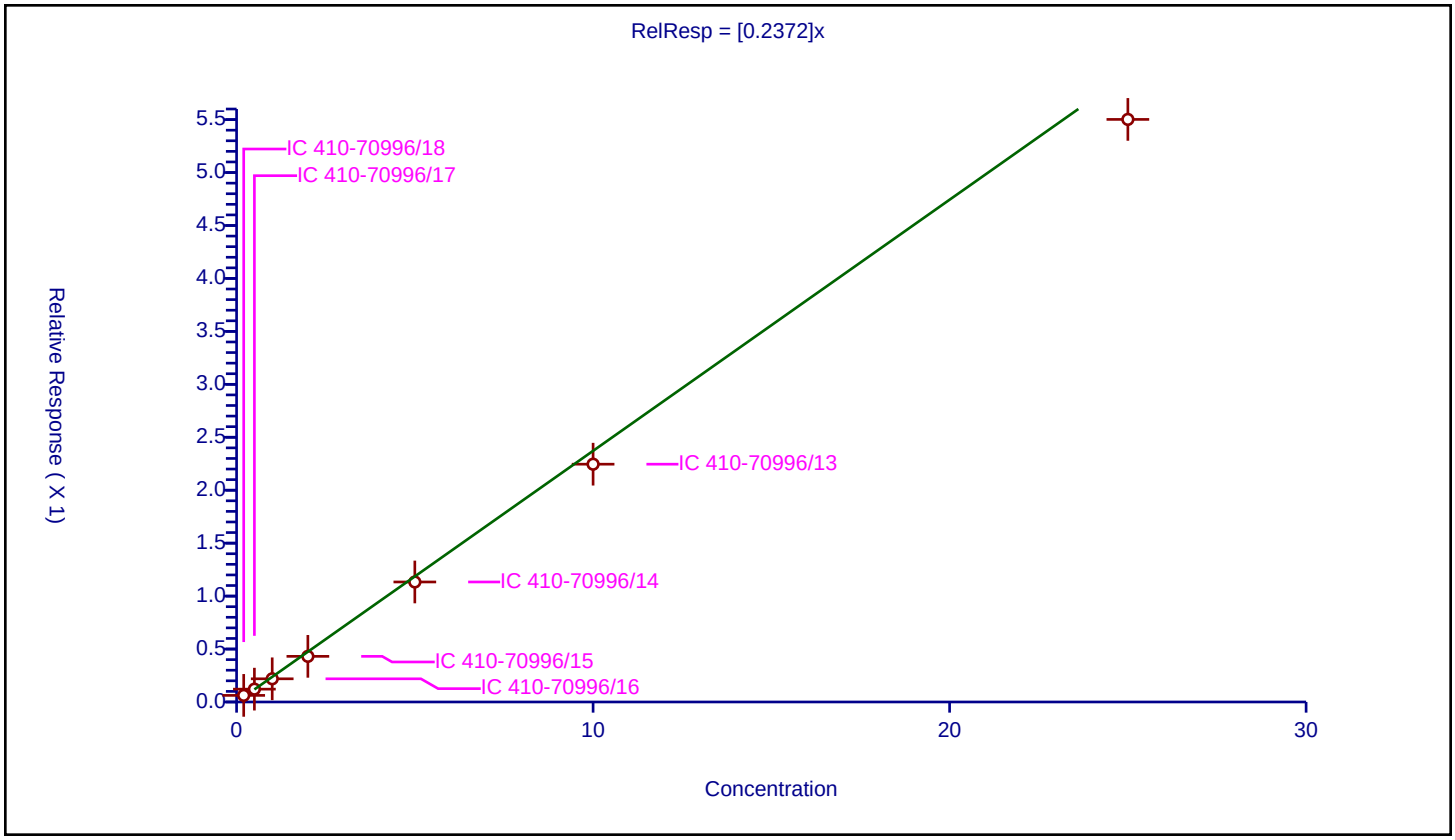
Curve Coefficients

Intercept:	0
Slope:	0.2372

Error Coefficients

Standard Error:	540000
Relative Standard Error:	14.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.966

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.062364	10.0	2144812.0	0.311822	Y
2	IC 410-70996/17	0.5	0.121338	10.0	2163128.0	0.242676	Y
3	IC 410-70996/16	1.0	0.218886	10.0	2173684.0	0.218886	Y
4	IC 410-70996/15	2.0	0.430916	10.0	2170657.0	0.215458	Y
5	IC 410-70996/14	5.0	1.133406	10.0	2148780.0	0.226681	Y
6	IC 410-70996/13	10.0	2.245844	10.0	2195228.0	0.224584	Y
7	IC 410-70996/12	25.0	5.501876	10.0	2176903.0	0.220075	Y



Calibration / Dimethyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

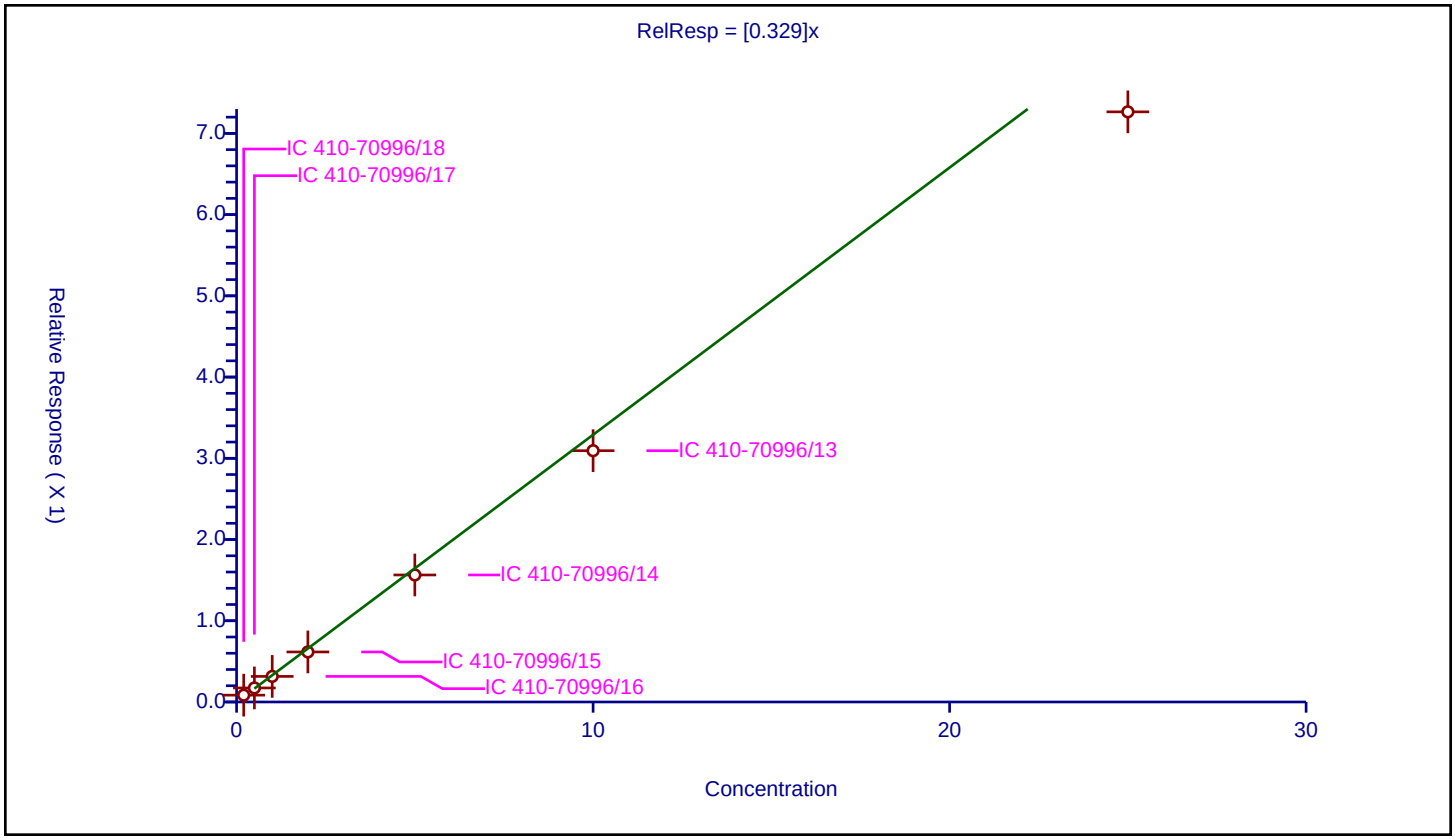
Curve Coefficients

Intercept:	0
Slope:	0.329

Error Coefficients

Standard Error:	719000
Relative Standard Error:	13.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.971

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.08425	10.0	2144812.0	0.421249	Y
2	IC 410-70996/17	0.5	0.172782	10.0	2163128.0	0.345564	Y
3	IC 410-70996/16	1.0	0.315092	10.0	2173684.0	0.315092	Y
4	IC 410-70996/15	2.0	0.61603	10.0	2170657.0	0.308015	Y
5	IC 410-70996/14	5.0	1.563962	10.0	2148780.0	0.312792	Y
6	IC 410-70996/13	10.0	3.093506	10.0	2195228.0	0.309351	Y
7	IC 410-70996/12	25.0	7.265161	10.0	2176903.0	0.290606	Y



Calibration / Acetonitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

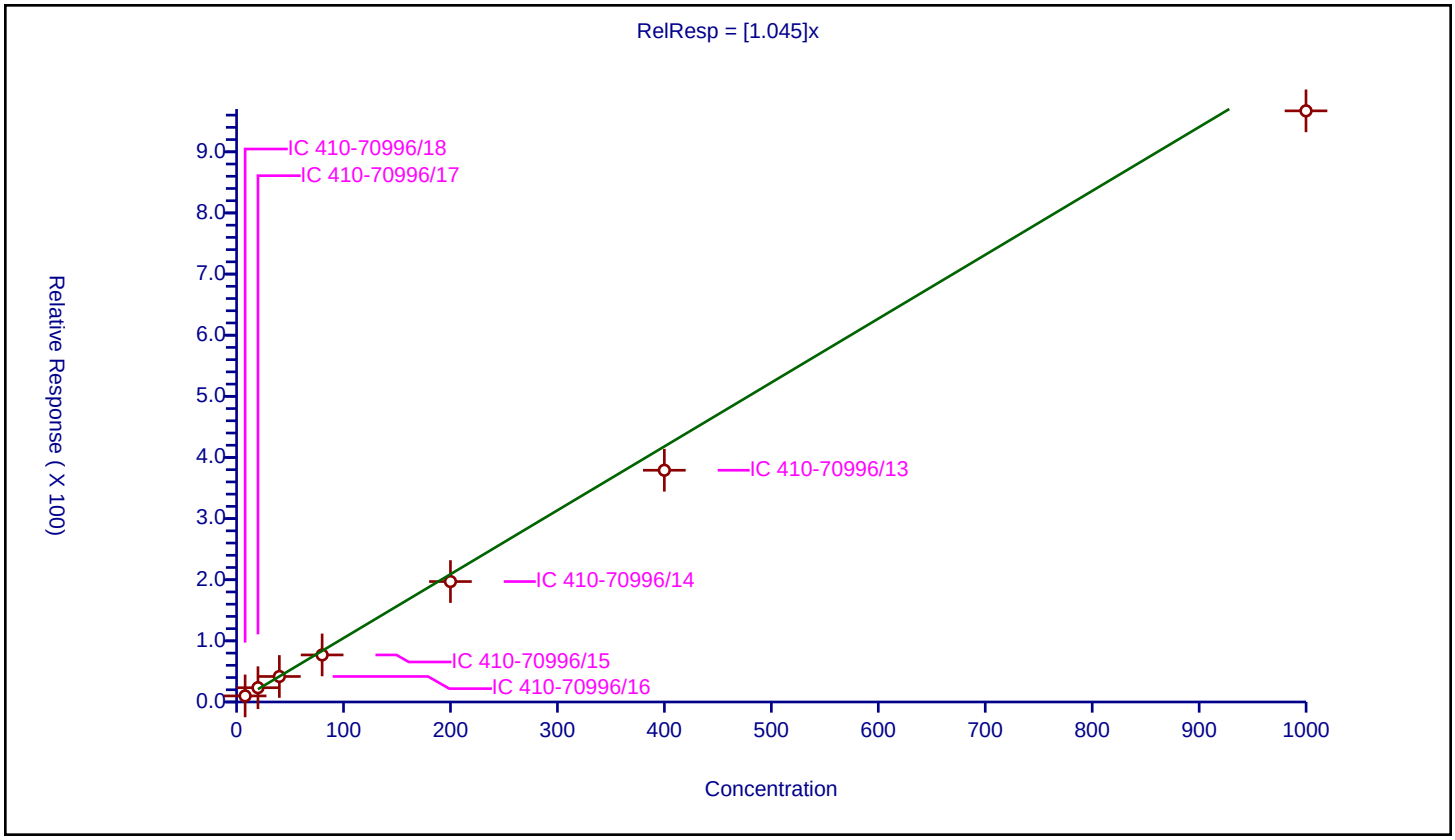
Curve Coefficients

Intercept:	0
Slope:	1.045

Error Coefficients

Standard Error:	1630000
Relative Standard Error:	11.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	7.999025	9.929235	50.0	189219.0	1.241306	Y
2	IC 410-70996/17	19.997562	23.374201	50.0	198118.0	1.168853	Y
3	IC 410-70996/16	39.995123	41.710921	50.0	187174.0	1.0429	Y
4	IC 410-70996/15	79.990246	76.955072	50.0	202678.0	0.962056	Y
5	IC 410-70996/14	199.975616	197.040107	50.0	183233.0	0.985321	Y
6	IC 410-70996/13	399.951232	379.081011	50.0	200122.0	0.947818	Y
7	IC 410-70996/12	999.87808	966.982015	50.0	185932.0	0.9671	Y



Calibration / Vinyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

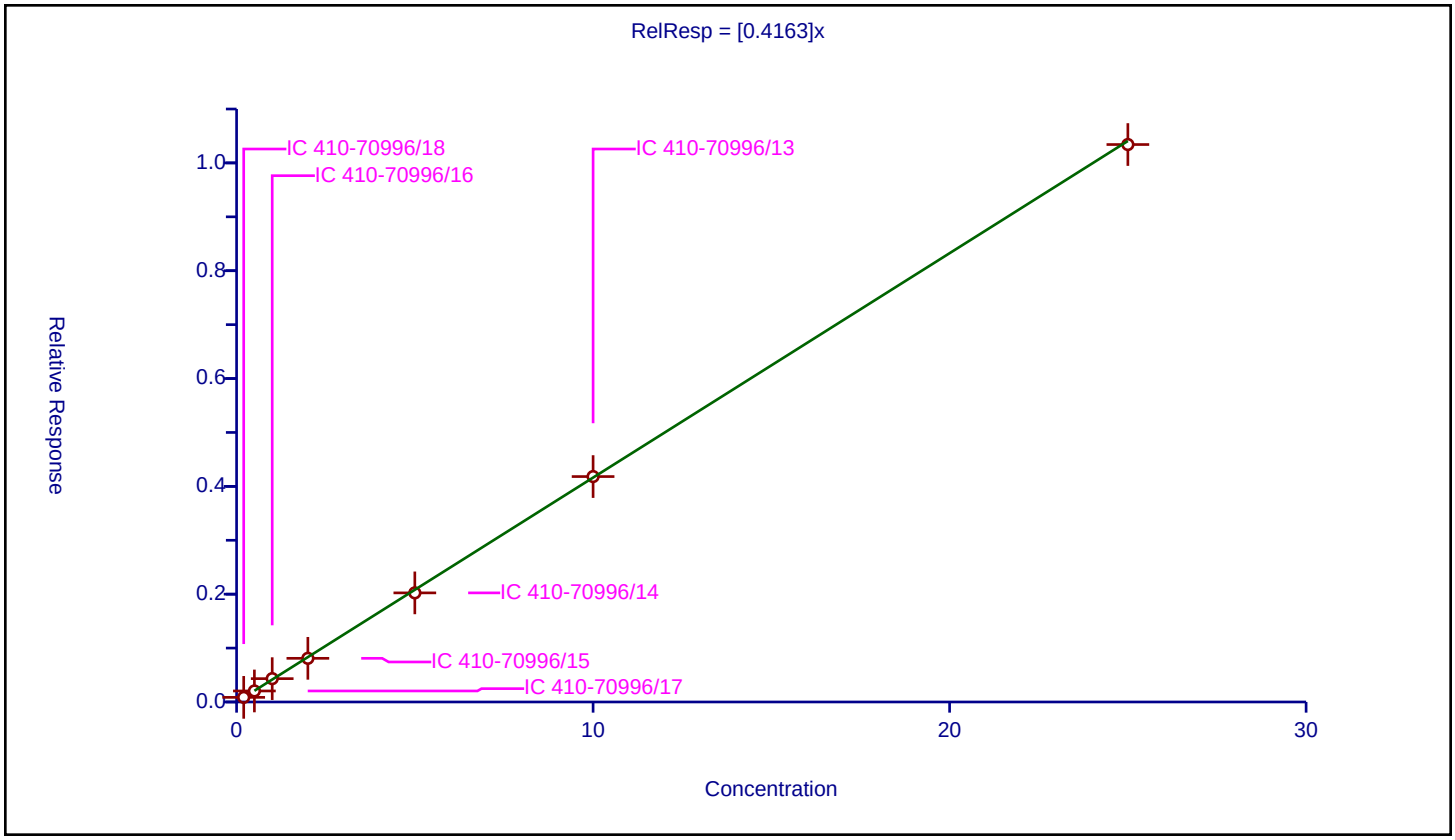
Curve Coefficients

Intercept:	0
Slope:	0.4163

Error Coefficients

Standard Error:	1010000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.086049	10.0	2144812.0	0.430247	Y
2	IC 410-70996/17	0.5	0.204408	10.0	2163128.0	0.408815	Y
3	IC 410-70996/16	1.0	0.433172	10.0	2173684.0	0.433172	Y
4	IC 410-70996/15	2.0	0.809888	10.0	2170657.0	0.404944	Y
5	IC 410-70996/14	5.0	2.02419	10.0	2148780.0	0.404838	Y
6	IC 410-70996/13	10.0	4.181789	10.0	2195228.0	0.418179	Y
7	IC 410-70996/12	25.0	10.340906	10.0	2176903.0	0.413636	Y



Calibration / Ethyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

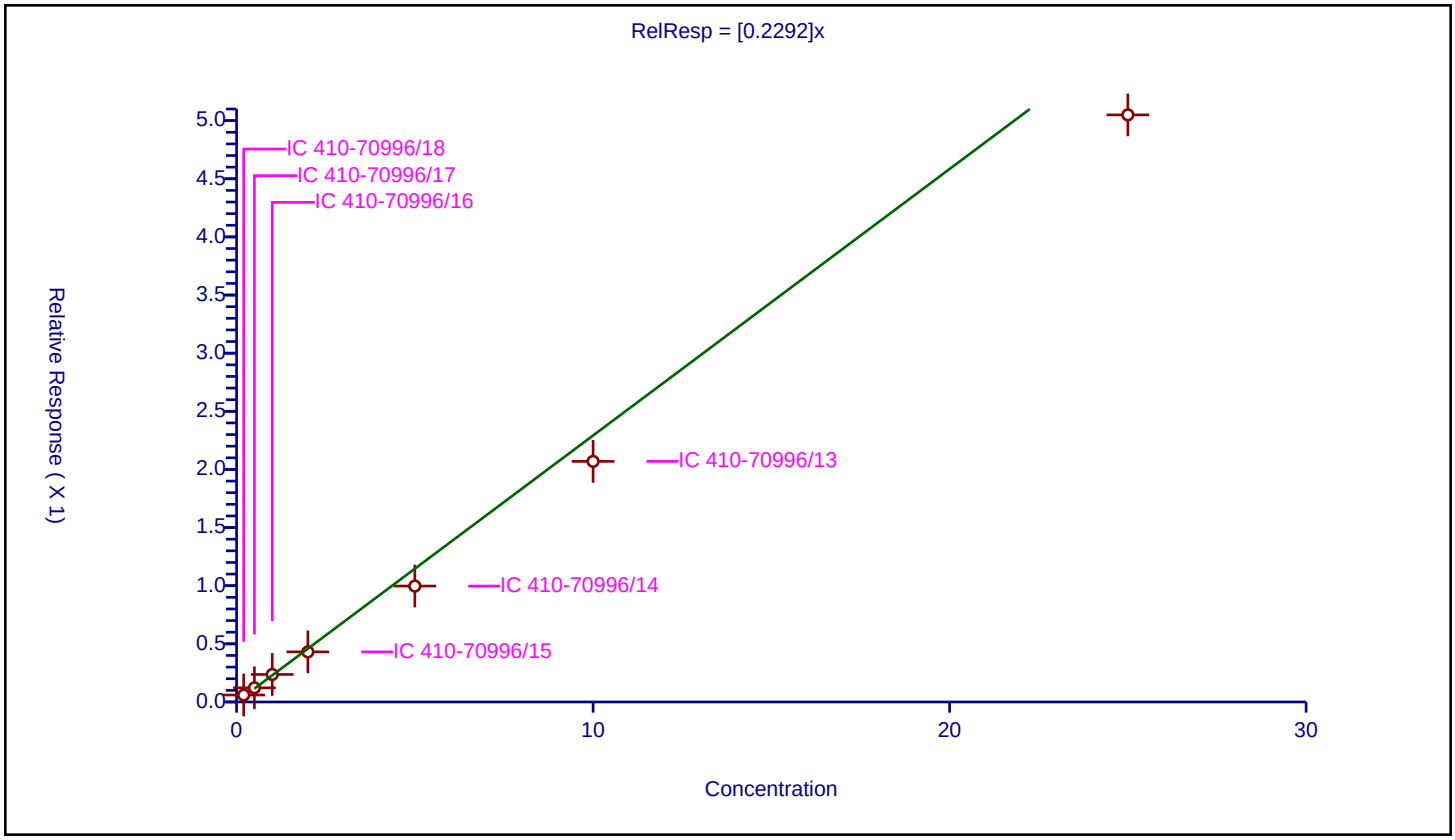
Curve Coefficients

Intercept:	0
Slope:	0.2292

Error Coefficients

Standard Error:	495000
Relative Standard Error:	15.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.959

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.060015	10.0	2144812.0	0.300073	Y
2	IC 410-70996/17	0.5	0.121861	10.0	2163128.0	0.243721	Y
3	IC 410-70996/16	1.0	0.23675	10.0	2173684.0	0.23675	Y
4	IC 410-70996/15	2.0	0.431063	10.0	2170657.0	0.215532	Y
5	IC 410-70996/14	5.0	0.997166	10.0	2148780.0	0.199433	Y
6	IC 410-70996/13	10.0	2.06938	10.0	2195228.0	0.206938	Y
7	IC 410-70996/12	25.0	5.049467	10.0	2176903.0	0.201979	Y



Calibration / Methyl acrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

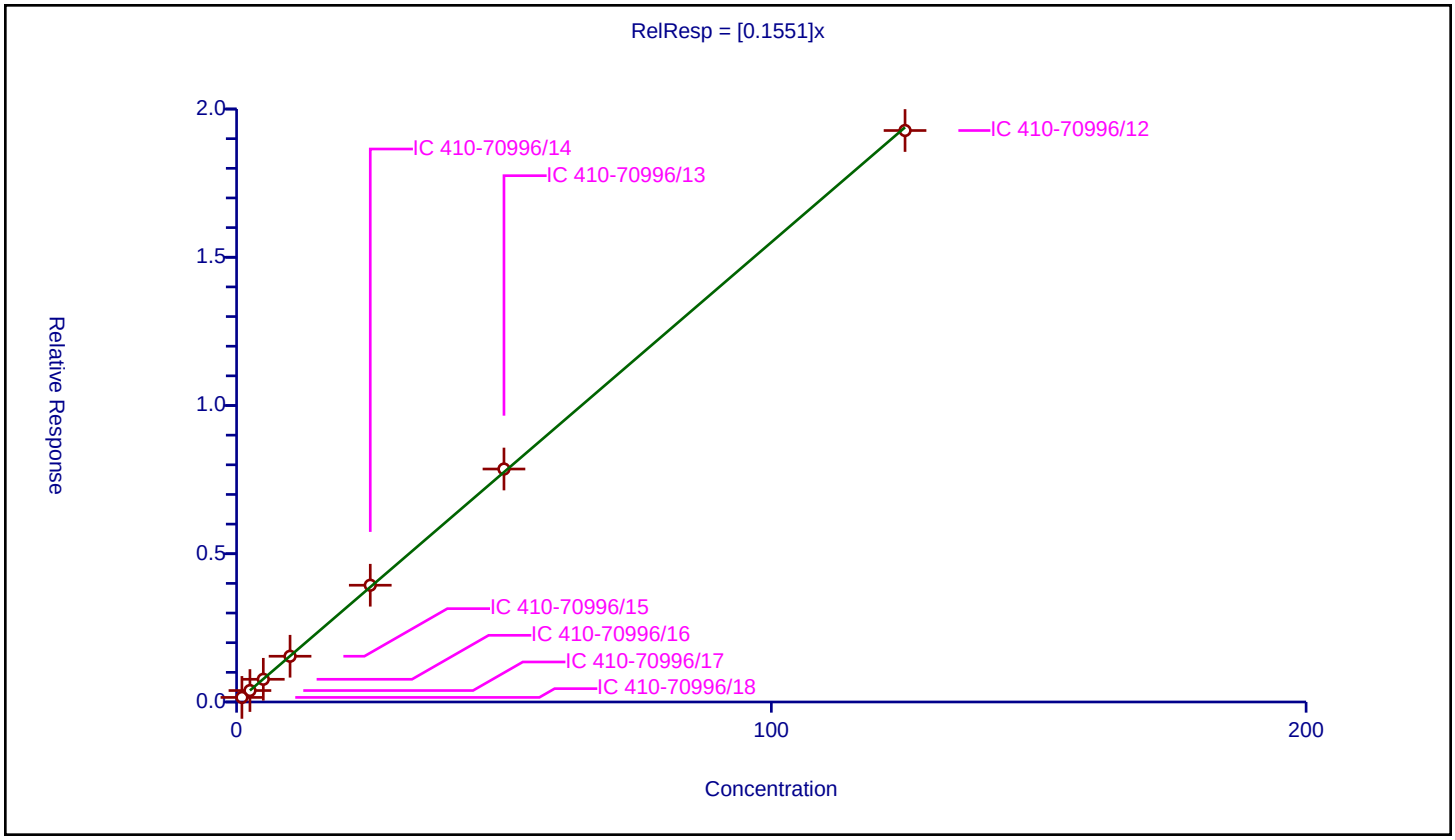
Curve Coefficients

Intercept:	0
Slope:	0.1551

Error Coefficients

Standard Error:	1890000
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	IC 410-70996/18	1.0	0.15447	10.0	2144812.0	0.15447	Y
2	IC 410-70996/17	2.5	0.386371	10.0	2163128.0	0.154548	Y
3	IC 410-70996/16	5.0	0.76599	10.0	2173684.0	0.153198	Y
4	IC 410-70996/15	10.0	1.542948	10.0	2170657.0	0.154295	Y
5	IC 410-70996/14	25.0	3.938547	10.0	2148780.0	0.157542	Y
6	IC 410-70996/13	50.0	7.85794	10.0	2195228.0	0.157159	Y
7	IC 410-70996/12	125.0	19.275273	10.0	2176903.0	0.154202	Y



Calibration / 1-Chlorobutane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

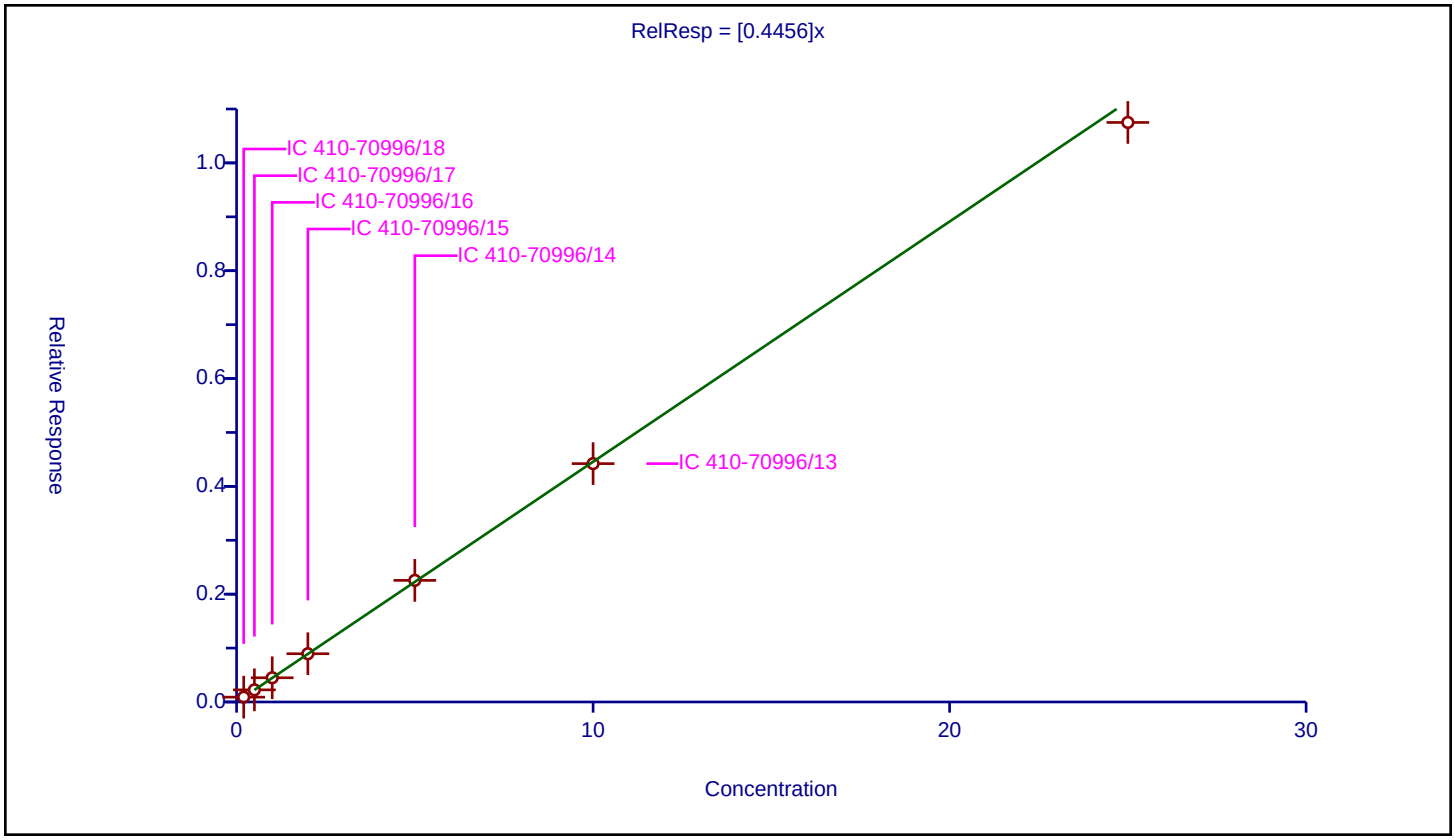
Curve Coefficients

Intercept:	0
Slope:	0.4456

Error Coefficients

Standard Error:	1060000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.089807	10.0	2144812.0	0.449037	Y
2	IC 410-70996/17	0.5	0.224994	10.0	2163128.0	0.449987	Y
3	IC 410-70996/16	1.0	0.44927	10.0	2173684.0	0.44927	Y
4	IC 410-70996/15	2.0	0.895227	10.0	2170657.0	0.447613	Y
5	IC 410-70996/14	5.0	2.256183	10.0	2148780.0	0.451237	Y
6	IC 410-70996/13	10.0	4.421659	10.0	2195228.0	0.442166	Y
7	IC 410-70996/12	25.0	10.750778	10.0	2176903.0	0.430031	Y



Calibration / Chloroacetonitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

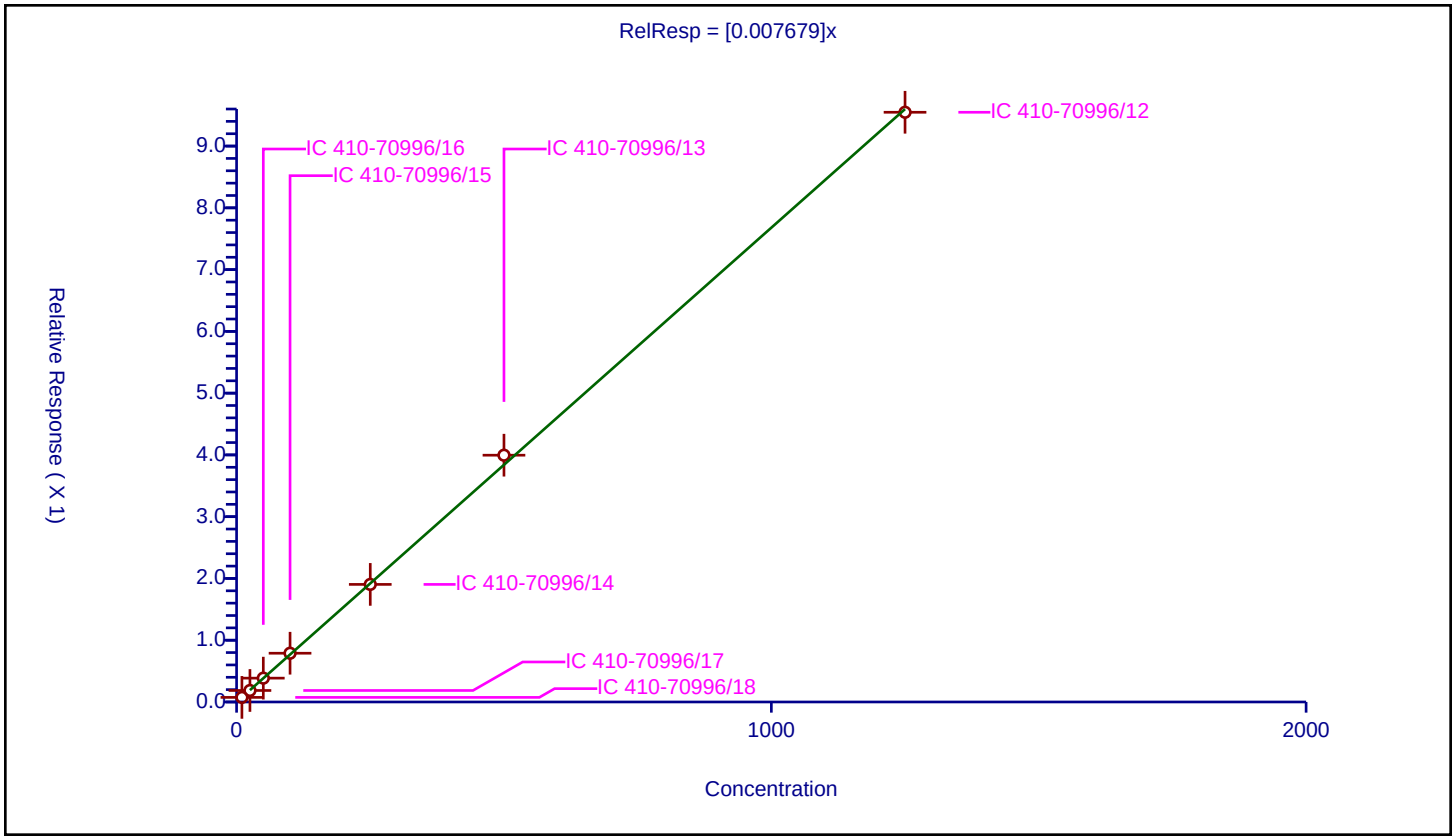
Curve Coefficients

Intercept:	0
Slope:	0.007679

Error Coefficients

Standard Error:	939000
Relative Standard Error:	2.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	10.0	0.074407	10.0	2144812.0	0.007441	Y
2	IC 410-70996/17	25.0	0.186314	10.0	2163128.0	0.007453	Y
3	IC 410-70996/16	50.0	0.386128	10.0	2173684.0	0.007723	Y
4	IC 410-70996/15	100.0	0.789411	10.0	2170657.0	0.007894	Y
5	IC 410-70996/14	250.0	1.903601	10.0	2148780.0	0.007614	Y
6	IC 410-70996/13	500.0	3.99518	10.0	2195228.0	0.00799	Y
7	IC 410-70996/12	1250.0	9.547444	10.0	2176903.0	0.007638	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

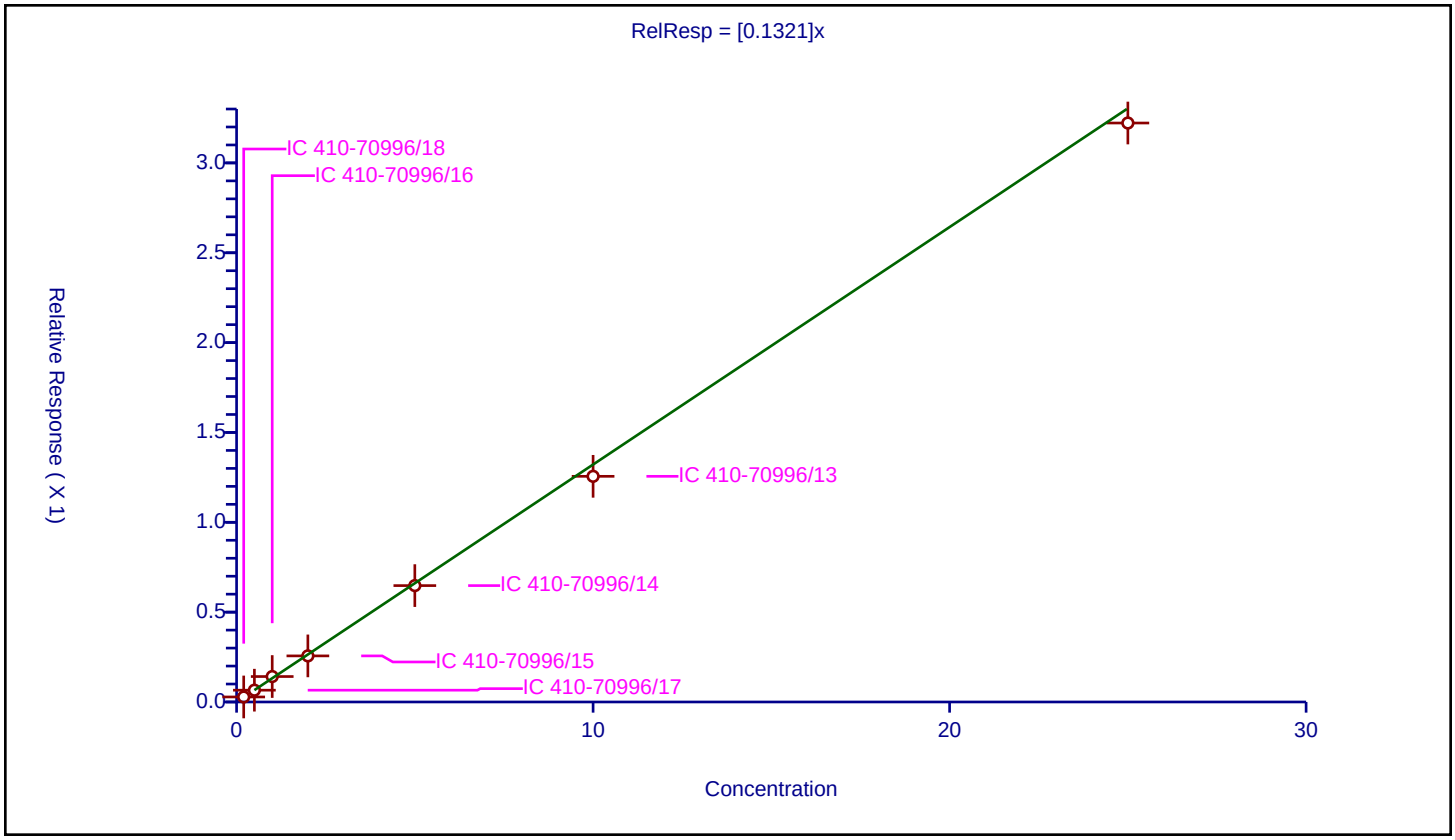
Curve Coefficients

Intercept:	0
Slope:	0.1321

Error Coefficients

Standard Error:	314000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.2	0.027974	10.0	2144812.0	0.139872	Y
2	IC 410-70996/17	0.5	0.065641	10.0	2163128.0	0.131282	Y
3	IC 410-70996/16	1.0	0.14164	10.0	2173684.0	0.14164	Y
4	IC 410-70996/15	2.0	0.256475	10.0	2170657.0	0.128238	Y
5	IC 410-70996/14	5.0	0.64767	10.0	2148780.0	0.129534	Y
6	IC 410-70996/13	10.0	1.255911	10.0	2195228.0	0.125591	Y
7	IC 410-70996/12	25.0	3.222151	10.0	2176903.0	0.128886	Y



Calibration / cis-1,4-Dichloro-2-butene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

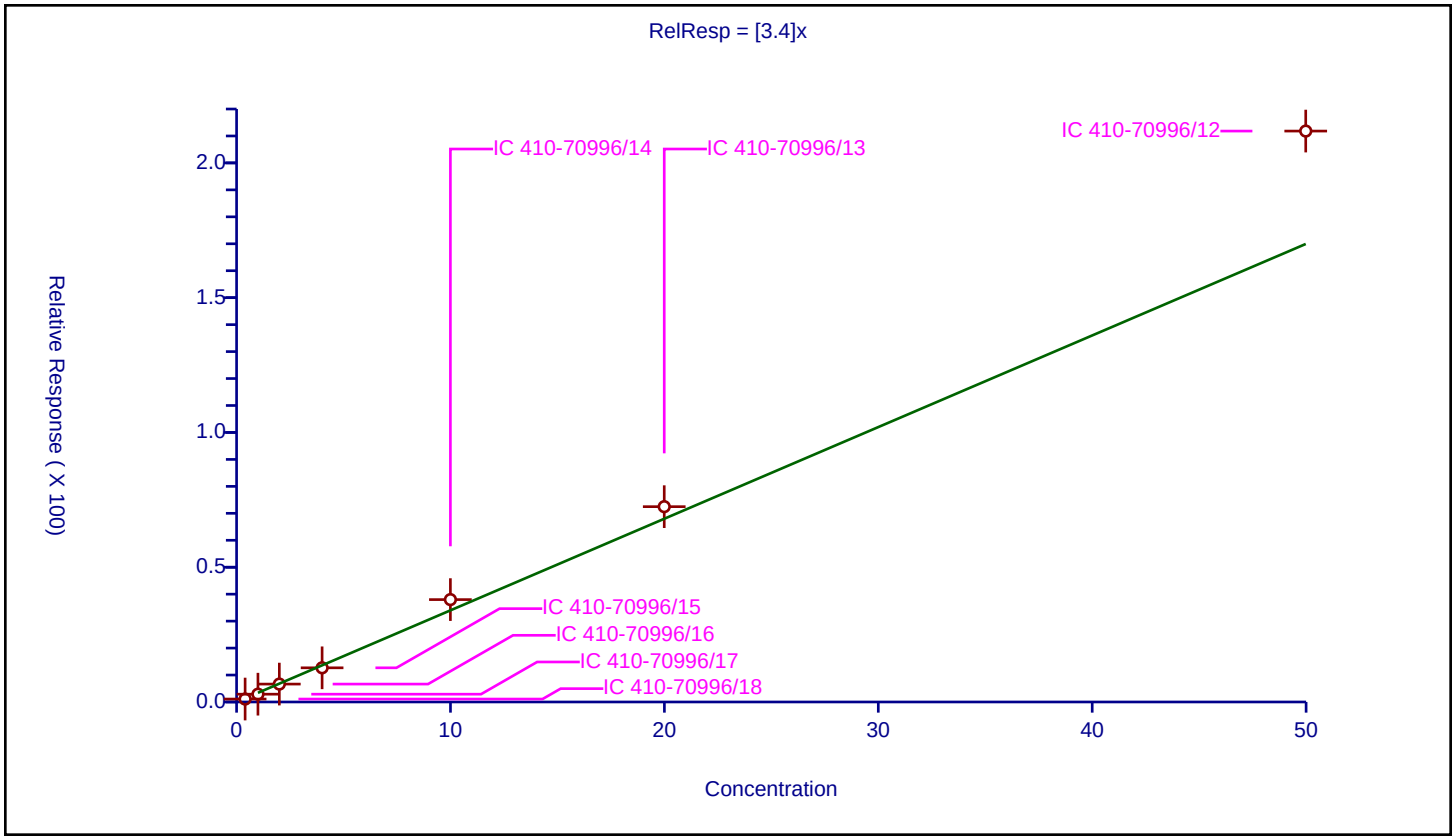
Curve Coefficients

Intercept:	0
Slope:	3.4

Error Coefficients

Standard Error:	348000
Relative Standard Error:	15.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	0.39986	1.097141	50.0	189219.0	2.743817	Y
2	IC 410-70996/17	0.999649	2.897768	50.0	198118.0	2.898786	Y
3	IC 410-70996/16	1.999298	6.641948	50.0	187174.0	3.32214	Y
4	IC 410-70996/15	3.998596	12.679472	50.0	202678.0	3.170981	Y
5	IC 410-70996/14	9.996489	37.984424	50.0	183233.0	3.799777	Y
6	IC 410-70996/13	19.992978	72.465296	50.0	200122.0	3.624537	Y
7	IC 410-70996/12	49.982445	211.819913	50.0	185932.0	4.237886	Y



Calibration / Cyclohexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

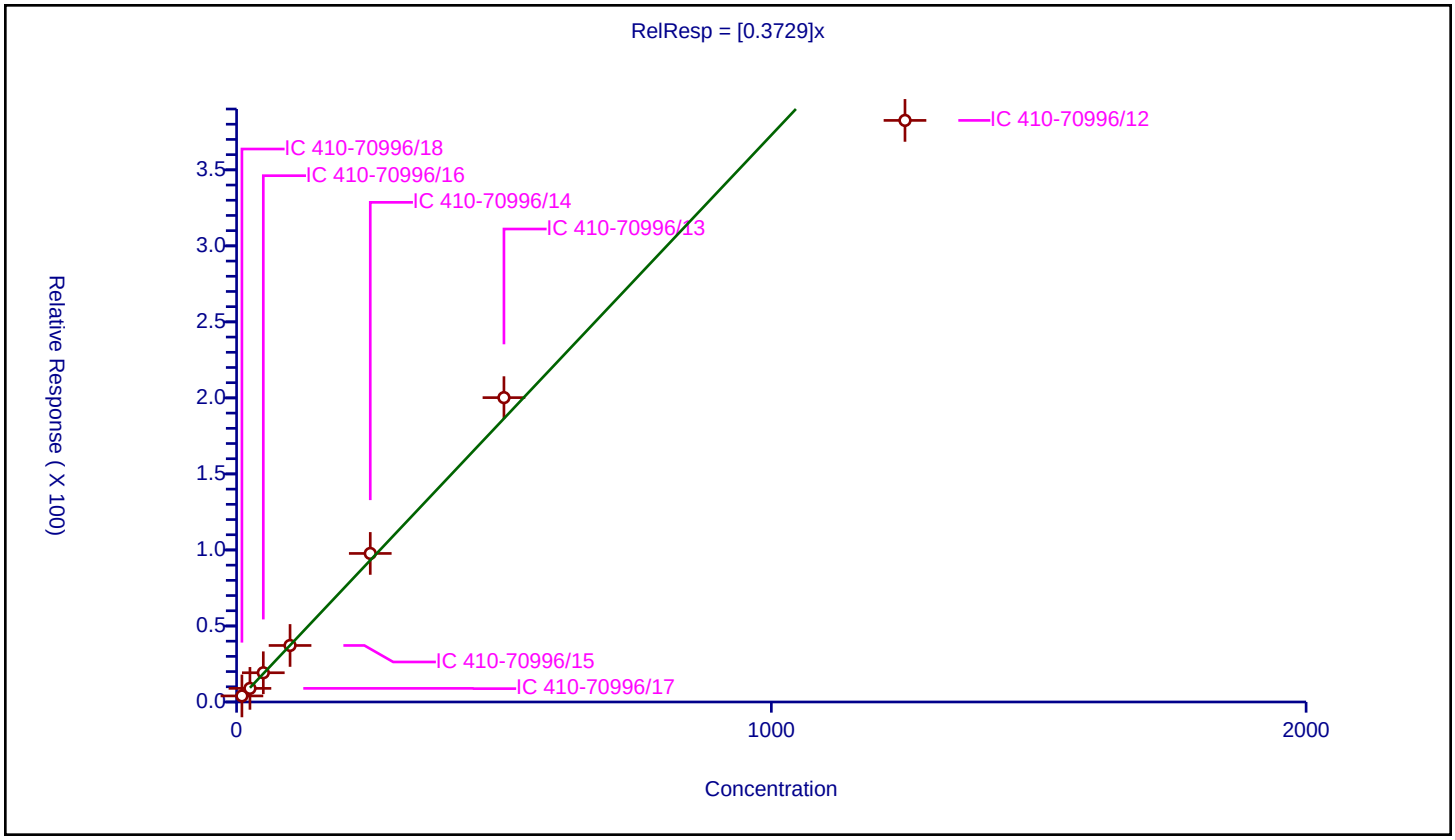
Curve Coefficients

Intercept:	0
Slope:	0.3729

Error Coefficients

Standard Error:	686000
Relative Standard Error:	8.9
Correlation Coefficient:	0.975
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-70996/18	9.999344	3.984008	50.0	189219.0	0.398427	Y
2	IC 410-70996/17	24.99836	8.948707	50.0	198118.0	0.357972	Y
3	IC 410-70996/16	49.996721	19.228632	50.0	187174.0	0.384598	Y
4	IC 410-70996/15	99.993442	37.179418	50.0	202678.0	0.371819	Y
5	IC 410-70996/14	249.983604	97.695011	50.0	183233.0	0.390806	Y
6	IC 410-70996/13	499.967208	200.176143	50.0	200122.0	0.400379	Y
7	IC 410-70996/12	1249.91802	382.504356	50.0	185932.0	0.306024	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICV 410-70996/10 Calibration Date: 11/30/2020 15:26

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GN30V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2600	0.2416	0.1000	4.65	5.00	-7.1	30.0
Chloromethane	Ave	0.3508	0.3213	0.1000	4.58	5.00	-8.4	30.0
1,3-Butadiene	Ave	0.3993	0.3126		3.91	5.00	-21.7	30.0
Vinyl chloride	Ave	0.2995	0.2990	0.1000	4.99	5.00	-0.2	30.0
Bromomethane	Ave	0.2087	0.1997	0.1000	4.79	5.00	-4.3	30.0
Chloroethane	Ave	0.1817	0.1723	0.1000	4.74	5.00	-5.2	30.0
Dichlorofluoromethane	Ave	0.4073	0.3764		4.62	5.00	-7.6	30.0
Trichlorofluoromethane	Ave	0.3447	0.3362	0.1000	4.88	5.00	-2.5	30.0
Ethyl ether	Ave	0.2035	0.2224		5.47	5.00	9.3	30.0
Freon 123a	Ave	0.2817	0.2596		4.61	5.00	-7.8	30.0
Acrolein	Ave	1.898	1.828		36.1	37.5	-3.7	30.0
1,1-Dichloroethene	Ave	0.2083	0.1948	0.1000	4.68	5.00	-6.5	30.0
Freon 113	Ave	0.2037	0.1872	0.1000	4.60	5.00	-8.1	30.0
Acetone	Ave	2.453	2.210	0.1000	33.8	37.5	-9.9	30.0
Methyl iodide	Ave	0.3891	0.3490		4.49	5.00	-10.3	30.0
Ethyl bromide	Ave	0.1814	0.1740		4.80	5.01	-4.1	30.0
Carbon disulfide	Ave	0.7678	0.7064	0.1000	4.60	5.00	-8.0	30.0
Methyl acetate	Ave	7.427	6.901	0.1000	4.65	5.00	-7.1	30.0
Allyl chloride	Ave	0.4168	0.3882		4.66	5.00	-6.9	30.0
Methylene Chloride	Ave	0.2387	0.2297	0.1000	4.81	5.00	-3.8	30.0
t-Butyl alcohol	Ave	0.8990	0.8686		48.3	50.0	-3.4	30.0
Acrylonitrile	Ave	3.174	3.312		26.1	25.0	4.4	30.0
Methyl tertiary butyl ether	Ave	0.6620	0.5965	0.1000	4.51	5.00	-9.9	30.0
trans-1,2-Dichloroethene	Ave	0.2398	0.2273	0.1000	4.74	5.00	-5.2	30.0
n-Hexane	Ave	0.3497	0.3110		4.45	5.00	-11.1	30.0
1,1-Dichloroethane	Ave	0.4451	0.4261	0.2000	4.79	5.00	-4.3	30.0
di-Isopropyl ether	Ave	0.9055	0.8389		4.63	5.00	-7.3	30.0
2-Chloro-1,3-butadiene	Ave	0.4048	0.3703		4.57	5.00	-8.5	30.0
Ethyl t-butyl ether	Ave	0.8257	0.7643		4.63	5.00	-7.4	30.0
2-Butanone	Ave	4.546	4.606	0.1000	38.0	37.5	1.3	30.0
cis-1,2-Dichloroethene	Ave	0.2693	0.2694	0.1000	5.00	5.00	0.0	30.0
2,2-Dichloropropane	Ave	0.3733	0.3517		4.71	5.00	-5.8	30.0
Propionitrile	Ave	1.127	1.044		34.7	37.5	-7.4	30.0
Methacrylonitrile	Ave	4.178	4.142		37.2	37.5	-0.9	30.0
Bromochloromethane	Ave	0.1200	0.1113		4.64	5.00	-7.3	30.0
Tetrahydrofuran	Ave	1.175	1.236		26.3	25.0	5.2	30.0
Chloroform	Ave	0.4289	0.4042	0.2000	4.71	5.00	-5.8	30.0
1,1,1-Trichloroethane	Ave	0.3670	0.3406	0.1000	4.64	5.00	-7.2	30.0
Cyclohexane	Ave	0.4218	0.3924	0.1000	4.65	5.00	-7.0	30.0
Carbon tetrachloride	Ave	0.3183	0.2983	0.1000	4.69	5.00	-6.3	30.0
1,1-Dichloropropene	Ave	0.3449	0.3203		4.64	5.00	-7.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICV 410-70996/10 Calibration Date: 11/30/2020 15:26

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GN30V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.0057	0.0050		111	125	-11.4	30.0
Benzene	Ave	1.017	0.9504	0.5000	4.68	5.00	-6.5	30.0
1,2-Dichloroethane	Ave	0.2843	0.2627	0.1000	4.62	5.00	-7.6	30.0
t-Amyl methyl ether	Ave	0.7278	0.6845		4.70	5.00	-5.9	30.0
n-Heptane	Ave	0.3945	0.3606		4.57	5.00	-8.6	30.0
n-Butanol	Ave	0.3231	0.2927		227	250	-9.4	30.0
Trichloroethene	Ave	0.2596	0.2419	0.2000	4.66	5.00	-6.8	30.0
Methylcyclohexane	Ave	0.4031	0.3800	0.1000	4.71	5.00	-5.7	30.0
1,2-Dichloropropane	Ave	0.2719	0.2560	0.1000	4.71	5.00	-5.8	30.0
1,4-Dioxane	Ave	0.0575	0.0668	0.0050	145	125	16.3	30.0
Methyl methacrylate	Ave	8.511	8.550		5.02	5.00	0.5	30.0
Dibromomethane	Ave	0.1260	0.1182		4.69	5.00	-6.2	30.0
Bromodichloromethane	Ave	0.3153	0.3029	0.2000	4.80	5.00	-3.9	30.0
2-Nitropropane	Ave	2.413	2.399		5.00	5.00	-0.6	30.0
1-Bromo-2-chloroethane	Ave	0.2915	0.2778		4.77	5.00	-4.7	30.0
cis-1,3-Dichloropropene	Ave	0.4093	0.3852	0.2000	4.71	5.00	-5.9	30.0
4-Methyl-2-pentanone	Ave	11.67	11.75	0.1000	25.2	25.0	0.7	30.0
Toluene	Ave	0.8666	0.7991	0.4000	4.61	5.00	-7.8	30.0
trans-1,3-Dichloropropene	Ave	0.4679	0.4437	0.1000	4.74	5.00	-5.2	30.0
Ethyl methacrylate	Ave	0.4204	0.3987		4.74	5.00	-5.2	30.0
1,1,2-Trichloroethane	Ave	0.2528	0.2457	0.1000	4.86	5.00	-2.8	30.0
Tetrachloroethene	Ave	0.3760	0.3549	0.2000	4.72	5.00	-5.6	30.0
1,3-Dichloropropane	Ave	0.4560	0.4249		4.66	5.00	-6.8	30.0
2-Hexanone	Ave	8.396	8.581	0.1000	25.6	25.0	2.2	30.0
Dibromochloromethane	Ave	0.2998	0.2903		4.84	5.00	-3.2	30.0
1,2-Dibromoethane	Ave	0.2482	0.2342	0.1000	4.72	5.00	-5.6	30.0
1-Chlorohexane	Ave	0.5205	0.4525		4.35	5.00	-13.1	30.0
Chlorobenzene	Ave	0.9653	0.9074	0.5000	4.70	5.00	-6.0	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3430	0.3270		4.77	5.00	-4.7	30.0
Ethylbenzene	Ave	1.712	1.599	0.1000	4.67	5.00	-6.6	30.0
m&p-Xylene	Ave	0.6453	0.6073	0.1000	9.41	10.0	-5.9	30.0
o-Xylene	Ave	0.6400	0.6049	0.3000	4.73	5.00	-5.5	30.0
Styrene	Ave	1.091	1.027	0.3000	4.71	5.00	-5.8	30.0
Bromoform	Ave	0.1750	0.1659	0.1000	4.74	5.00	-5.2	30.0
Isopropylbenzene	Ave	1.674	1.575	0.1000	4.71	5.00	-5.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6286	0.5991	0.3000	4.77	5.00	-4.7	30.0
Bromobenzene	Ave	0.7547	0.7134		4.73	5.00	-5.5	30.0
trans-1,4-Dichloro-2-butene	Ave	3.624	3.634		25.1	25.0	0.3	30.0
1,2,3-Trichloropropane	Ave	0.1602	0.1550		4.84	5.00	-3.3	30.0
N-Propylbenzene	Ave	3.763	3.595		4.78	5.00	-4.5	30.0
2-Chlorotoluene	Ave	0.7400	0.7011		4.74	5.00	-5.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICV 410-70996/10 Calibration Date: 11/30/2020 15:26

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GN30V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.655	2.531		4.77	5.00	-4.6	30.0
4-Chlorotoluene	Ave	0.7716	0.7340		4.76	5.00	-4.9	30.0
tert-Butylbenzene	Ave	0.5668	0.5305		4.68	5.00	-6.4	30.0
Pentachloroethane	Ave	0.4872	0.4720		4.84	5.00	-3.1	30.0
1,2,4-Trimethylbenzene	Ave	2.772	2.598		4.69	5.00	-6.3	30.0
sec-Butylbenzene	Ave	3.453	3.272		4.74	5.00	-5.2	30.0
1,3-Dichlorobenzene	Ave	1.522	1.436	0.6000	4.72	5.00	-5.7	30.0
p-Isopropyltoluene	Ave	3.000	2.846		4.74	5.00	-5.1	30.0
1,4-Dichlorobenzene	Ave	1.550	1.456	0.5000	4.70	5.00	-6.1	30.0
1,2,3-Trimethylbenzene	Ave	1.229	1.217		4.95	5.00	-1.0	30.0
Benzyl chloride	Ave	0.2719	0.2597		4.78	5.00	-4.5	30.0
n-Butylbenzene	Ave	1.589	1.470		4.63	5.00	-7.5	30.0
1,2-Dichlorobenzene	Ave	1.420	1.344	0.4000	4.73	5.00	-5.3	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0916	0.0871	0.0500	4.75	5.00	-4.9	30.0
1,3,5-Trichlorobenzene	Ave	1.275	1.183		4.64	5.00	-7.2	30.0
1,2,4-Trichlorobenzene	Ave	1.175	1.105	0.2000	4.70	5.00	-6.0	30.0
Hexachlorobutadiene	Ave	0.5771	0.5485		4.75	5.00	-5.0	30.0
Naphthalene	Ave	2.139	1.949		4.56	5.00	-8.9	30.0
1,2,3-Trichlorobenzene	Ave	1.037	0.9616		4.64	5.00	-7.3	30.0
Dibromofluoromethane (Surr)	Ave	0.2420	0.2421		10.0	10.0	0.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0515	0.0508		9.86	10.0	-1.4	30.0
Toluene-d8 (Surr)	Ave	1.334	1.336		10.0	10.0	0.2	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5094	0.5081		9.97	10.0	-0.3	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICV 410-70996/19 Calibration Date: 11/30/2020 18:45

Instrument ID: 16334 Calib Start Date: 11/30/2020 16:10

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 18:23

Lab File ID: GN30V11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.2372	0.2441		5.15	5.00	2.9	30.0
Methoxymethane	Ave	0.3290	0.2839		4.32	5.00	-13.7	30.0
Acetonitrile	Ave	1.045	1.224		43.9	37.5	17.2	30.0
Vinyl acetate	Ave	0.4163	0.3407		10.2	12.5	-18.2	30.0
Ethyl acetate	Ave	0.2292	0.2322		2.53	2.50	1.3	30.0
Methyl acrylate	Ave	0.1551	0.1657		26.7	25.0	6.8	30.0
1-Chlorobutane	Ave	0.4456	0.4725		5.30	5.00	6.0	30.0
2-Chloroethyl vinyl ether	Ave	0.1321	0.1296		4.90	5.00	-2.0	30.0
Chloroacetonitrile	Ave	0.0077	0.0073		238	250	-4.6	30.0
cis-1,4-Dichloro-2-butene	Ave	3.400	4.003		25.0	12.5	17.8	30.0
Cyclohexanone	Ave	0.3729	0.3636		122	125	-2.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCVIS 410-107422/3 Calibration Date: 03/25/2021 21:49

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GM25C31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2600	0.2205	0.1000	10.6	12.5	-15.2	20.0
Chloromethane	Ave	0.3508	0.2501	0.1000	8.91	12.5	-28.7*	20.0
1,3-Butadiene	Ave	0.3993	0.5316		16.6	12.5	33.1*	20.0
Vinyl chloride	Ave	0.2995	0.2451	0.1000	10.2	12.5	-18.2	20.0
Bromomethane	Ave	0.2087	0.1772	0.1000	10.6	12.5	-15.1	20.0
Chloroethane	Ave	0.1817	0.1530	0.1000	10.5	12.5	-15.8	20.0
Dichlorofluoromethane	Ave	0.4073	0.2430		7.46	12.5	-40.3*	20.0
Trichlorofluoromethane	Ave	0.3447	0.3381	0.1000	12.3	12.5	-1.9	20.0
Ethyl ether	Ave	0.2035	0.1906		11.7	12.5	-6.3	20.0
Freon 123a	Ave	0.2817	0.2527		11.2	12.5	-10.3	20.0
Acrolein	Ave	1.898	1.703		561	625	-10.3	20.0
1,1-Dichloroethene	Ave	0.2083	0.1932	0.1000	11.6	12.5	-7.2	20.0
Acetone	Ave	2.453	2.442	0.1000	124	125	-0.5	20.0
Freon 113	Ave	0.2037	0.2168	0.1000	13.3	12.5	6.4	20.0
Methyl iodide	Ave	0.3891	0.3795		12.2	12.5	-2.5	20.0
Ethyl bromide	Ave	0.1814	0.1778		12.3	12.5	-2.0	20.0
Carbon disulfide	Ave	0.7678	0.6876	0.1000	11.2	12.5	-10.4	20.0
Methyl acetate	Ave	7.427	6.745	0.1000	11.4	12.5	-9.2	20.0
Allyl chloride	Ave	0.4168	0.3341		10.0	12.5	-19.8	20.0
Methylene Chloride	Ave	0.2387	0.2248	0.1000	11.8	12.5	-5.8	20.0
t-Butyl alcohol	Ave	0.8990	0.9703		270	250	7.9	20.0
Acrylonitrile	Ave	3.174	3.364		66.2	62.5	6.0	20.0
Methyl tertiary butyl ether	Ave	0.6620	0.6150	0.1000	11.6	12.5	-7.1	20.0
trans-1,2-Dichloroethene	Ave	0.2398	0.2259	0.1000	11.8	12.5	-5.8	20.0
n-Hexane	Ave	0.3497	0.3446		12.3	12.5	-1.5	20.0
1,1-Dichloroethane	Ave	0.4451	0.4144	0.2000	11.6	12.5	-6.9	20.0
di-Isopropyl ether	Ave	0.9055	0.7732		10.7	12.5	-14.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4048	0.3563		11.0	12.5	-12.0	20.0
Ethyl t-butyl ether	Ave	0.8257	0.7282		11.0	12.5	-11.8	20.0
2-Butanone	Ave	4.546	4.485	0.1000	123	125	-1.3	20.0
cis-1,2-Dichloroethene	Ave	0.2693	0.2591	0.1000	12.0	12.5	-3.8	20.0
2,2-Dichloropropane	Ave	0.3733	0.3362		11.3	12.5	-9.9	20.0
Propionitrile	Ave	1.127	1.180		262	250	4.7	20.0
Methacrylonitrile	Ave	4.178	4.263		128	125	2.0	20.0
Bromochloromethane	Ave	0.1200	0.1249		13.0	12.5	4.1	20.0
Tetrahydrofuran	Ave	1.175	1.254		133	125	6.7	20.0
Chloroform	Ave	0.4289	0.4067	0.2000	11.9	12.5	-5.2	20.0
1,1,1-Trichloroethane	Ave	0.3670	0.3460	0.1000	11.8	12.5	-5.7	20.0
Cyclohexane	Ave	0.4218	0.3951	0.1000	11.7	12.5	-6.3	20.0
1,1-Dichloropropene	Ave	0.3449	0.3282		11.9	12.5	-4.8	20.0
Carbon tetrachloride	Ave	0.3183	0.3109	0.1000	12.2	12.5	-2.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCVIS 410-107422/3 Calibration Date: 03/25/2021 21:49

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GM25C31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.0057	0.0053		590	625	-5.7	20.0
Benzene	Ave	1.017	0.9452	0.5000	11.6	12.5	-7.0	20.0
1,2-Dichloroethane	Ave	0.2843	0.2641	0.1000	11.6	12.5	-7.1	20.0
t-Amyl methyl ether	Ave	0.7278	0.6683		11.5	12.5	-8.2	20.0
n-Heptane	Ave	0.3945	0.3686		11.7	12.5	-6.6	20.0
n-Butanol	Ave	0.3231	0.3150		1219	1250	-2.5	20.0
Trichloroethene	Ave	0.2596	0.2507	0.2000	12.1	12.5	-3.4	20.0
Methylcyclohexane	Ave	0.4031	0.4307	0.1000	13.4	12.5	6.9	20.0
1,2-Dichloropropane	Ave	0.2719	0.2549	0.1000	11.7	12.5	-6.2	20.0
Methyl methacrylate	Ave	8.511	8.293		12.2	12.5	-2.6	20.0
1,4-Dioxane	Ave	0.0575	0.0637	0.0050	693	625	10.8	20.0
Dibromomethane	Ave	0.1260	0.1264		12.5	12.5	0.3	20.0
Bromodichloromethane	Ave	0.3153	0.3019	0.2000	12.0	12.5	-4.3	20.0
2-Nitropropane	Ave	2.413	2.262		117	125	-6.3	20.0
1-Bromo-2-chloroethane	Ave	0.2915	0.2587		11.1	12.5	-11.2	20.0
cis-1,3-Dichloropropene	Ave	0.4093	0.3728	0.2000	11.4	12.5	-8.9	20.0
4-Methyl-2-pentanone	Ave	11.67	11.25	0.1000	120	125	-3.6	20.0
Toluene	Ave	0.8666	0.8146	0.4000	11.8	12.5	-6.0	20.0
trans-1,3-Dichloropropene	Ave	0.4679	0.4281	0.1000	11.4	12.5	-8.5	20.0
Ethyl methacrylate	Ave	0.4204	0.3920		11.7	12.5	-6.8	20.0
1,1,2-Trichloroethane	Ave	0.2528	0.2467	0.1000	12.2	12.5	-2.4	20.0
Tetrachloroethene	Ave	0.3760	0.3809	0.2000	12.7	12.5	1.3	20.0
1,3-Dichloropropane	Ave	0.4560	0.4397		12.1	12.5	-3.6	20.0
2-Hexanone	Ave	8.396	7.914	0.1000	118	125	-5.7	20.0
Dibromochloromethane	Ave	0.2998	0.3029		12.6	12.5	1.0	20.0
1,2-Dibromoethane	Ave	0.2482	0.2472	0.1000	12.5	12.5	-0.4	20.0
1-Chlorohexane	Ave	0.5205	0.4679		11.2	12.5	-10.1	20.0
Chlorobenzene	Ave	0.9653	0.9470	0.5000	12.3	12.5	-1.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3430	0.3457		12.6	12.5	0.8	20.0
Ethylbenzene	Ave	1.712	1.607	0.1000	11.7	12.5	-6.2	20.0
m&p-Xylene	Ave	0.6453	0.6327	0.1000	24.5	25.0	-2.0	20.0
o-Xylene	Ave	0.6400	0.6248	0.3000	12.2	12.5	-2.4	20.0
Styrene	Ave	1.091	1.059	0.3000	12.1	12.5	-2.9	20.0
Bromoform	Ave	0.1750	0.1875	0.1000	13.4	12.5	7.1	20.0
Isopropylbenzene	Ave	1.674	1.621	0.1000	12.1	12.5	-3.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6286	0.5859	0.3000	11.7	12.5	-6.8	20.0
Bromobenzene	Ave	0.7547	0.7458		12.4	12.5	-1.2	20.0
trans-1,4-Dichloro-2-butene	Ave	3.624	2.307		79.6	125	-36.3*	20.0
1,2,3-Trichloropropane	Ave	0.1602	0.1609		12.6	12.5	0.4	20.0
N-Propylbenzene	Ave	3.763	3.402		11.3	12.5	-9.6	20.0
2-Chlorotoluene	Ave	0.7400	0.7070		11.9	12.5	-4.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCVIS 410-107422/3 Calibration Date: 03/25/2021 21:49

Instrument ID: 16334 Calib Start Date: 11/30/2020 12:50

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 15:03

Lab File ID: GM25C31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.655	2.511		11.8	12.5	-5.4	20.0
4-Chlorotoluene	Ave	0.7716	0.7326		11.9	12.5	-5.0	20.0
tert-Butylbenzene	Ave	0.5668	0.5373		11.9	12.5	-5.2	20.0
Pentachloroethane	Ave	0.4872	0.4773		12.2	12.5	-2.0	20.0
1,2,4-Trimethylbenzene	Ave	2.772	2.615		11.8	12.5	-5.6	20.0
sec-Butylbenzene	Ave	3.453	3.271		11.8	12.5	-5.3	20.0
1,3-Dichlorobenzene	Ave	1.522	1.492	0.6000	12.3	12.5	-2.0	20.0
p-Isopropyltoluene	Ave	3.000	2.846		11.9	12.5	-5.1	20.0
1,4-Dichlorobenzene	Ave	1.550	1.489	0.5000	12.0	12.5	-4.0	20.0
1,2,3-Trimethylbenzene	Ave	1.229	1.157		11.8	12.5	-5.9	20.0
Benzyl chloride	Ave	0.2719	0.2569		11.8	12.5	-5.5	20.0
n-Butylbenzene	Ave	1.589	1.455		11.4	12.5	-8.5	20.0
1,2-Dichlorobenzene	Ave	1.420	1.385	0.4000	12.2	12.5	-2.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0916	0.0920	0.0500	12.6	12.5	0.5	20.0
1,3,5-Trichlorobenzene	Ave	1.275	1.266		12.4	12.5	-0.8	20.0
1,2,4-Trichlorobenzene	Ave	1.175	1.161	0.2000	12.3	12.5	-1.2	20.0
Hexachlorobutadiene	Ave	0.5771	0.5961		12.9	12.5	3.3	20.0
Naphthalene	Ave	2.139	2.093		12.2	12.5	-2.1	20.0
1,2,3-Trichlorobenzene	Ave	1.037	1.021		12.3	12.5	-1.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2420	0.2464		10.2	10.0	1.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0515	0.0534		10.4	10.0	3.8	20.0
Toluene-d8 (Surr)	Ave	1.334	1.347		10.1	10.0	1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5094	0.4971		9.76	10.0	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCV 410-107422/4 Calibration Date: 03/25/2021 22:11

Instrument ID: 16334 Calib Start Date: 11/30/2020 16:10

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/30/2020 18:23

Lab File ID: GM25C32.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetonitrile	Ave	1.045	0.8860		339	400	-15.2	20.0
Vinyl acetate	Ave	0.4163	0.3292		7.91	10.0	-20.9*	20.0
Ethyl acetate	Ave	0.2292	0.1836		8.01	10.0	-19.9	20.0
Methyl acrylate	Ave	0.1551	0.1468		47.3	50.0	-5.3	20.0
1-Chlorobutane	Ave	0.4456	0.3964		8.90	10.0	-11.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1321	0.1227		9.28	10.0	-7.2	20.0
Chloroacetonitrile	Ave	0.0077	0.0081		530	500	6.1	20.0
cis-1,4-Dichloro-2-butene	Ave	3.400	1.636		25.0	20.0	-51.9*	20.0
Cyclohexanone	Ave	0.3729	0.2990		401	500	-19.8	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-107422/10

Matrix: Water Lab File ID: GM25B31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 00:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.500	U	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	0.200	U	0.200	
79-00-5	1,1,2-Trichloroethane	0.200	U	0.200	
75-34-3	1,1-Dichloroethane	0.500	U	0.500	
75-35-4	1,1-Dichloroethene	0.200	U	0.200	
107-06-2	1,2-Dichloroethane	0.200	U	0.200	
78-87-5	1,2-Dichloropropane	0.500	U	0.500	
78-93-3	2-Butanone	5.00	U	5.00	
591-78-6	2-Hexanone	5.00	U	5.00	
108-10-1	4-Methyl-2-pentanone	5.00	U	5.00	
67-64-1	Acetone	5.00	U	5.00	
71-43-2	Benzene	0.200	U	0.200	
75-27-4	Bromodichloromethane	0.500	U	0.500	
75-25-2	Bromoform	1.00	U	1.00	
74-83-9	Bromomethane	0.500	U	0.500	
75-15-0	Carbon disulfide	0.500	U	0.500	
56-23-5	Carbon tetrachloride	0.200	U	0.200	
108-90-7	Chlorobenzene	0.500	U	0.500	
75-00-3	Chloroethane	0.500	U	0.500	
67-66-3	Chloroform	0.200	U	0.200	
74-87-3	Chloromethane	0.500	U	0.500	
156-59-2	cis-1,2-Dichloroethene	0.200	U	0.200	
10061-01-5	cis-1,3-Dichloropropene	0.200	U	0.200	
124-48-1	Dibromochloromethane	0.500	U	0.500	
91-20-3	Naphthalene	0.500	U	0.500	
100-41-4	Ethylbenzene	0.500	U	0.500	
76-13-1	Freon 113	0.500	U	0.500	
179601-23-1	m&p-Xylene	0.500	U	0.500	
75-09-2	Methylene Chloride	0.500	U	0.500	
95-47-6	o-Xylene	0.500	U	0.500	
100-42-5	Styrene	0.500	U	0.500	
127-18-4	Tetrachloroethene	0.200	U	0.200	
108-88-3	Toluene	0.200	U	0.200	
156-60-5	trans-1,2-Dichloroethene	0.200	U	0.200	
10061-02-6	trans-1,3-Dichloropropene	0.200	U	0.200	
79-01-6	Trichloroethene	0.200	U	0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-107422/10

Matrix: Water Lab File ID: GM25B31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/26/2021 00:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	0.500	U	0.500	
108-05-4	Vinyl acetate	0.500	U	0.500	
75-01-4	Vinyl chloride	0.200	U	0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-107422/5

Matrix: Water Lab File ID: GM25L31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 22:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	4.826		0.500	
79-34-5	1,1,2,2-Tetrachloroethane	4.797		0.200	
79-00-5	1,1,2-Trichloroethane	4.949		0.200	
75-34-3	1,1-Dichloroethane	4.605		0.500	
75-35-4	1,1-Dichloroethene	4.782		0.200	
107-06-2	1,2-Dichloroethane	4.722		0.200	
78-87-5	1,2-Dichloropropane	4.668		0.500	
78-93-3	2-Butanone	34.45		5.00	
591-78-6	2-Hexanone	22.11		5.00	
108-10-1	4-Methyl-2-pentanone	21.71		5.00	
67-64-1	Acetone	35.17		5.00	
71-43-2	Benzene	4.675		0.200	
75-27-4	Bromodichloromethane	4.872		0.500	
75-25-2	Bromoform	5.246		1.00	
74-83-9	Bromomethane	4.589		0.500	
75-15-0	Carbon disulfide	4.404		0.500	
56-23-5	Carbon tetrachloride	4.940		0.200	
108-90-7	Chlorobenzene	4.897		0.500	
75-00-3	Chloroethane	4.492		0.500	
67-66-3	Chloroform	4.738		0.200	
74-87-3	Chloromethane	4.329		0.500	
156-59-2	cis-1,2-Dichloroethene	4.795		0.200	
10061-01-5	cis-1,3-Dichloropropene	4.436		0.200	
124-48-1	Dibromochloromethane	5.033		0.500	
91-20-3	Naphthalene	4.881		0.500	
100-41-4	Ethylbenzene	4.670		0.500	
76-13-1	Freon 113	4.782		0.500	
179601-23-1	m&p-Xylene	9.663		0.500	
75-09-2	Methylene Chloride	4.836		0.500	
95-47-6	o-Xylene	4.827		0.500	
100-42-5	Styrene	4.790		0.500	
127-18-4	Tetrachloroethene	5.194		0.200	
108-88-3	Toluene	4.579		0.200	
156-60-5	trans-1,2-Dichloroethene	4.762		0.200	
10061-02-6	trans-1,3-Dichloropropene	4.552		0.200	
79-01-6	Trichloroethene	4.816		0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-107422/5

Matrix: Water Lab File ID: GM25L31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 22:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	5.225		0.500	
75-01-4	Vinyl chloride	4.593		0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-107422/7

Matrix: Water Lab File ID: GM25L33.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 23:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-05-4	Vinyl acetate	7.125		0.500	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-107422/6

Matrix: Water Lab File ID: GM25L32.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 22:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	4.624		0.500	
79-34-5	1,1,2,2-Tetrachloroethane	4.574		0.200	
79-00-5	1,1,2-Trichloroethane	4.824		0.200	
75-34-3	1,1-Dichloroethane	4.379		0.500	
75-35-4	1,1-Dichloroethene	4.532		0.200	
107-06-2	1,2-Dichloroethane	4.561		0.200	
78-87-5	1,2-Dichloropropane	4.455		0.500	
78-93-3	2-Butanone	34.28		5.00	
591-78-6	2-Hexanone	22.10		5.00	
108-10-1	4-Methyl-2-pentanone	21.78		5.00	
67-64-1	Acetone	34.32		5.00	
71-43-2	Benzene	4.468		0.200	
75-27-4	Bromodichloromethane	4.557		0.500	
75-25-2	Bromoform	4.984		1.00	
74-83-9	Bromomethane	4.535		0.500	
75-15-0	Carbon disulfide	4.153		0.500	
56-23-5	Carbon tetrachloride	4.727		0.200	
108-90-7	Chlorobenzene	4.677		0.500	
75-00-3	Chloroethane	4.241		0.500	
67-66-3	Chloroform	4.572		0.200	
74-87-3	Chloromethane	4.295		0.500	
156-59-2	cis-1,2-Dichloroethene	4.622		0.200	
10061-01-5	cis-1,3-Dichloropropene	4.280		0.200	
124-48-1	Dibromochloromethane	4.869		0.500	
91-20-3	Naphthalene	4.769		0.500	
100-41-4	Ethylbenzene	4.475		0.500	
76-13-1	Freon 113	4.597		0.500	
179601-23-1	m&p-Xylene	9.181		0.500	
75-09-2	Methylene Chloride	4.705		0.500	
95-47-6	o-Xylene	4.621		0.500	
100-42-5	Styrene	4.628		0.500	
127-18-4	Tetrachloroethene	4.867		0.200	
108-88-3	Toluene	4.465		0.200	
156-60-5	trans-1,2-Dichloroethene	4.564		0.200	
10061-02-6	trans-1,3-Dichloropropene	4.390		0.200	
79-01-6	Trichloroethene	4.577		0.200	

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-107422/6

Matrix: Water Lab File ID: GM25L32.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 22:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	5.040		0.500	
75-01-4	Vinyl chloride	4.531		0.200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-107422/8

Matrix: Water Lab File ID: GM25L34.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/25/2021 23:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 107422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
108-05-4	Vinyl acetate	6.634		0.500	

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Start Date: 11/30/2020 11:46

Analysis Batch Number: 70996 End Date: 11/30/2020 18:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-70996/1		11/30/2020 11:46	1	GN30T01.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/3		11/30/2020 12:50	1	GN30I01.D	R-624SilMS 30m 0.25(mm)
ICIS 410-70996/4		11/30/2020 13:12	1	GN30I02.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/5		11/30/2020 13:34	1	GN30I03.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/6		11/30/2020 13:56	1	GN30I04.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/7		11/30/2020 14:19	1	GN30I05.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/8		11/30/2020 14:41	1	GN30I06.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/9		11/30/2020 15:03	1	GN30I07.D	R-624SilMS 30m 0.25(mm)
ICV 410-70996/10		11/30/2020 15:26	1	GN30V01.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/12		11/30/2020 16:10	1	GN30I11.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/13		11/30/2020 16:32	1	GN30I12.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/14		11/30/2020 16:54	1	GN30I13.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/15		11/30/2020 17:16	1	GN30I14.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/16		11/30/2020 17:39	1	GN30I15.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/17		11/30/2020 18:01	1	GN30I16.D	R-624SilMS 30m 0.25(mm)
IC 410-70996/18		11/30/2020 18:23	1	GN30I17.D	R-624SilMS 30m 0.25(mm)
ICV 410-70996/19		11/30/2020 18:45	1	GN30V11.D	R-624SilMS 30m 0.25(mm)

8260D

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 16334 Start Date: 03/25/2021 21:11

Analysis Batch Number: 107422 End Date: 03/26/2021 08:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-107422/1		03/25/2021 21:11	1	GM25T31.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-107422/3		03/25/2021 21:49	1	GM25C31.D	R-624SilMS 30m 0.25(mm)
CCV 410-107422/4		03/25/2021 22:11	1	GM25C32.D	R-624SilMS 30m 0.25(mm)
LCS 410-107422/5		03/25/2021 22:33	1	GM25L31.D	R-624SilMS 30m 0.25(mm)
LCSD 410-107422/6		03/25/2021 22:55	1	GM25L32.D	R-624SilMS 30m 0.25(mm)
LCS 410-107422/7		03/25/2021 23:17	1	GM25L33.D	R-624SilMS 30m 0.25(mm)
LCSD 410-107422/8		03/25/2021 23:40	1	GM25L34.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 00:02	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 00:24	1		R-624SilMS 30m 0.25(mm)
MB 410-107422/10		03/26/2021 00:46	1	GM25B31.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 01:08	1		R-624SilMS 30m 0.25(mm)
410-33023-1	Trip Blanks	03/26/2021 01:30	1	GM25S32.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 01:52	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 02:14	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 02:37	1		R-624SilMS 30m 0.25(mm)
410-33023-2	PL2-258A-210317	03/26/2021 02:59	1	GM25S36.D	R-624SilMS 30m 0.25(mm)
410-33023-3	PL2-258B-210317	03/26/2021 03:21	1	GM25S37.D	R-624SilMS 30m 0.25(mm)
410-33023-4	PL2-258C-210317	03/26/2021 03:42	1	GM25S38.D	R-624SilMS 30m 0.25(mm)
410-33023-5	PL2-271A-210317	03/26/2021 04:04	1	GM25S39.D	R-624SilMS 30m 0.25(mm)
410-33023-6	PL2-214A-210317	03/26/2021 04:27	1	GM25S40.D	R-624SilMS 30m 0.25(mm)
410-33023-7	PL2-214B-210317	03/26/2021 04:49	1	GM25S41.D	R-624SilMS 30m 0.25(mm)
410-33023-8	PL2-214C-210317	03/26/2021 05:11	1	GM25S42.D	R-624SilMS 30m 0.25(mm)
410-33023-9	PL2-213A-210317	03/26/2021 05:33	1	GM25S43.D	R-624SilMS 30m 0.25(mm)
410-33023-10	PL2-619A-210317	03/26/2021 05:54	1	GM25S44.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 06:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 06:38	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 07:00	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 07:23	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 07:45	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 08:07	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 08:29	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/26/2021 08:51	10		R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 70996 Batch Start Date: 11/30/20 11:46 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_29_826ISO 00004	MSV_29_826ISS 00013	MSV_CDFM 00011	MSV_DME 00024
BFB 410-70996/1		8260D		1 uL	1 uL				
IC 410-70996/3		8260D		25 mL	25 mL		1 uL		
ICIS 410-70996/4		8260D		25 mL	25 mL		1 uL		
IC 410-70996/5		8260D		25 mL	25 mL		1 uL		
IC 410-70996/6		8260D		25 mL	25 mL		1 uL		
IC 410-70996/7		8260D		25 mL	25 mL		1 uL		
IC 410-70996/8		8260D		25 mL	25 mL		1 uL		
IC 410-70996/9		8260D		25 mL	25 mL		1 uL		
ICV 410-70996/10		8260D		25 mL	25 mL		1 uL		
IC 410-70996/12		8260D		25 mL	25 mL	1 uL		2.5 uL	2.5 uL
IC 410-70996/13		8260D		25 mL	25 mL	1 uL		1 uL	1 uL
IC 410-70996/14		8260D		25 mL	25 mL	1 uL		1 uL	1 uL
IC 410-70996/15		8260D		25 mL	25 mL	1 uL		1 uL	1 uL
IC 410-70996/16		8260D		25 mL	25 mL	1 uL		1 uL	1 uL
IC 410-70996/17		8260D		25 mL	25 mL	1 uL		0.5 uL	0.5 uL
IC 410-70996/18		8260D		25 mL	25 mL	1 uL		0.2 uL	0.2 uL
ICV 410-70996/19		8260D		25 mL	25 mL		1 uL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_CDFM_25 00008	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00056	MSV_Q_QDME 00010	MSV_Q_QVOA1 00057
BFB 410-70996/1		8260D							
IC 410-70996/3		8260D							
ICIS 410-70996/4		8260D							
IC 410-70996/5		8260D							
IC 410-70996/6		8260D							
IC 410-70996/7		8260D							
IC 410-70996/8		8260D							
IC 410-70996/9		8260D							

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 70996 Batch Start Date: 11/30/20 11:46 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_CDFM_25 00008	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00056	MSV_Q_QDME 00010	MSV_Q_QVOA1 00057
ICV 410-70996/10		8260D			12.5 uL	12.5 uL	12.5 uL		12.5 uL
IC 410-70996/12		8260D							
IC 410-70996/13		8260D							
IC 410-70996/14		8260D							
IC 410-70996/15		8260D							
IC 410-70996/16		8260D							
IC 410-70996/17		8260D							
IC 410-70996/18		8260D							
ICV 410-70996/19		8260D		5 uL			12.5 uL	5 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QVOA6 00054	MSV_Q_VOA5 00018	MSV_QAcet 00012	MSV_QCYC 00004	MSV_QGAS_826 00093	MSV_QLKB 00003
BFB 410-70996/1		8260D							
IC 410-70996/3		8260D							
ICIS 410-70996/4		8260D							
IC 410-70996/5		8260D							
IC 410-70996/6		8260D							
IC 410-70996/7		8260D							
IC 410-70996/8		8260D							
IC 410-70996/9		8260D							
ICV 410-70996/10		8260D		12.5 uL				12.5 uL	
IC 410-70996/12		8260D							
IC 410-70996/13		8260D							
IC 410-70996/14		8260D							
IC 410-70996/15		8260D							
IC 410-70996/16		8260D							
IC 410-70996/17		8260D							
IC 410-70996/18		8260D							

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 70996 Batch Start Date: 11/30/20 11:46 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QVOA6 00054	MSV_Q_VOA5 00018	MSV_QAcet 00012	MSV_QCYC 00004	MSV_QGAS_826 00093	MSV_QLKB 00003
ICV 410-70996/19		8260D			25 uL	7.5 uL	12.5 uL		25 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QREV4_25 00013	MSV_RV1_826 00031	MSV_RV4_826 00035	MSV_RV4GAS826 00097	MSV_V_BFB 00003	MSV_V_REV4_25 00016
BFB 410-70996/1		8260D						1 uL	
IC 410-70996/3		8260D			25 uL	25 uL	25 uL		
ICIS 410-70996/4		8260D			10 uL	10 uL	10 uL		
IC 410-70996/5		8260D			5 uL	5 uL	5 uL		
IC 410-70996/6		8260D			2 uL	2 uL	2 uL		
IC 410-70996/7		8260D			2 uL	2 uL	2 uL		
IC 410-70996/8		8260D			2 uL	2 uL	2 uL		
IC 410-70996/9		8260D			2 uL	2 uL	2 uL		
ICV 410-70996/10		8260D							
IC 410-70996/12		8260D							50 uL
IC 410-70996/13		8260D							20 uL
IC 410-70996/14		8260D							20 uL
IC 410-70996/15		8260D							20 uL
IC 410-70996/16		8260D							20 uL
IC 410-70996/17		8260D							10 uL
IC 410-70996/18		8260D							4 uL
ICV 410-70996/19		8260D		12.5 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_SMRV4 00015	MSV_V_VOA5 00016	MSV_VAcet 00006	MSV_VCYC 00005		
BFB 410-70996/1		8260D							
IC 410-70996/3		8260D							
ICIS 410-70996/4		8260D							
IC 410-70996/5		8260D							

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 70996 Batch Start Date: 11/30/20 11:46 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_SMRV4 00015	MSV_V_VOA5 00016	MSV_VAcet 00006	MSV_VCYC 00005		
IC 410-70996/6		8260D							
IC 410-70996/7		8260D							
IC 410-70996/8		8260D							
IC 410-70996/9		8260D							
ICV 410-70996/10		8260D							
IC 410-70996/12		8260D		12.5 uL	12.5 uL	20 uL	20 uL		
IC 410-70996/13		8260D		5 uL	5 uL	8 uL	8 uL		
IC 410-70996/14		8260D		5 uL	5 uL	8 uL	8 uL		
IC 410-70996/15		8260D		5 uL	5 uL	8 uL	8 uL		
IC 410-70996/16		8260D		5 uL	5 uL	8 uL	8 uL		
IC 410-70996/17		8260D		2.5 uL	2.5 uL	4 uL	4 uL		
IC 410-70996/18		8260D		1 uL	1 uL	1.6 uL	1.6 uL		
ICV 410-70996/19		8260D							

Batch Notes	

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107422 Batch Start Date: 03/25/21 21:11 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-107422/1		8260D		1 uL	1 uL				
CCVIS 410-107422/3		8260D		25 mL	25 mL				0126201F
CCV 410-107422/4		8260D		25 mL	25 mL				0126201F
LCS 410-107422/5		8260D		25 mL	25 mL				0126201F
LCSD 410-107422/6		8260D		25 mL	25 mL				0126201F
LCS 410-107422/7		8260D		25 mL	25 mL				0126201F
LCSD 410-107422/8		8260D		25 mL	25 mL				0126201F
MB 410-107422/10		8260D		25 mL	25 mL				0126201F
410-33023-B-1	Trip Blanks	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-C-2	PL2-258A-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-C-3	PL2-258B-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-A-4	PL2-258C-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-B-5	PL2-271A-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-B-6	PL2-214A-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-B-7	PL2-214B-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-A-8	PL2-214C-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-B-9	PL2-213A-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33023-C-10	PL2-619A-210317	8260D	T	25 mL	25 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_29_826ISS 00015	MSV_Q_EE 00003	MSV_Q_ETBR 00006	MSV_Q_QARC 00073	MSV_Q_QVOA1 00073	MSV_Q_QVOA6 00071
BFB 410-107422/1		8260D							
CCVIS 410-107422/3		8260D		1 uL					
CCV 410-107422/4		8260D		1 uL					
LCS 410-107422/5		8260D		1 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107422 Batch Start Date: 03/25/21 21:11 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_29_826ISS 00015	MSV_Q_EE 00003	MSV_Q_ETBR 00006	MSV_Q_QARC 00073	MSV_Q_QVOA1 00073	MSV_Q_QVOA6 00071
LCSD 410-107422/6		8260D		1 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
LCS 410-107422/7		8260D		1 uL			12.5 uL		
LCSD 410-107422/8		8260D		1 uL			12.5 uL		
MB 410-107422/10		8260D		1 uL					
410-33023-B-1	Trip Blanks	8260D	T	1 uL					
410-33023-C-2	PL2-258A-210317	8260D	T	1 uL					
410-33023-C-3	PL2-258B-210317	8260D	T	1 uL					
410-33023-A-4	PL2-258C-210317	8260D	T	1 uL					
410-33023-B-5	PL2-271A-210317	8260D	T	1 uL					
410-33023-B-6	PL2-214A-210317	8260D	T	1 uL					
410-33023-B-7	PL2-214B-210317	8260D	T	1 uL					
410-33023-A-8	PL2-214C-210317	8260D	T	1 uL					
410-33023-B-9	PL2-213A-210317	8260D	T	1 uL					
410-33023-C-10	PL2-619A-210317	8260D	T	1 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_VOA5 00024	MSV_QAcet 00012	MSV_QCYC 00005	MSV_QGAS_826 00117	MSV_QLKB 00004	MSV_QREV4_25 00016
BFB 410-107422/1		8260D							
CCVIS 410-107422/3		8260D							
CCV 410-107422/4		8260D							
LCS 410-107422/5		8260D					12.5 uL		
LCSD 410-107422/6		8260D					12.5 uL		
LCS 410-107422/7		8260D		25 uL	7.5 uL	12.5 uL		25 uL	12.5 uL
LCSD 410-107422/8		8260D		25 uL	7.5 uL	12.5 uL		25 uL	12.5 uL
MB 410-107422/10		8260D							

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107422 Batch Start Date: 03/25/21 21:11 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_VOA5 00024	MSV_QAcet 00012	MSV_QCYC 00005	MSV_QGAS_826 00117	MSV_QLKB 00004	MSV_QREV4_25 00016
410-33023-B-1	Trip Blanks	8260D	T						
410-33023-C-2	PL2-258A-210317	8260D	T						
410-33023-C-3	PL2-258B-210317	8260D	T						
410-33023-A-4	PL2-258C-210317	8260D	T						
410-33023-B-5	PL2-271A-210317	8260D	T						
410-33023-B-6	PL2-214A-210317	8260D	T						
410-33023-B-7	PL2-214B-210317	8260D	T						
410-33023-A-8	PL2-214C-210317	8260D	T						
410-33023-B-9	PL2-213A-210317	8260D	T						
410-33023-C-10	PL2-619A-210317	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1_826 00041	MSV_RV4_826 00048	MSV_RV4GAS826 00120	MSV_V_BFB 00004	MSV_V_REV4_25 00019	MSV_V_SMRV4 00019
BFB 410-107422/1		8260D					1 uL		
CCVIS 410-107422/3		8260D		12.5 uL	12.5 uL	12.5 uL			
CCV 410-107422/4		8260D						20 uL	5 uL
LCS 410-107422/5		8260D							
LCSD 410-107422/6		8260D							
LCS 410-107422/7		8260D							
LCSD 410-107422/8		8260D							
MB 410-107422/10		8260D							
410-33023-B-1	Trip Blanks	8260D	T						
410-33023-C-2	PL2-258A-210317	8260D	T						
410-33023-C-3	PL2-258B-210317	8260D	T						
410-33023-A-4	PL2-258C-210317	8260D	T						
410-33023-B-5	PL2-271A-210317	8260D	T						
410-33023-B-6	PL2-214A-210317	8260D	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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107422 Batch Start Date: 03/25/21 21:11 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1_826 00041	MSV_RV4_826 00048	MSV_RV4GAS826 00120	MSV_V_BFB 00004	MSV_V_REV4_25 00019	MSV_V_SMRV4 00019
410-33023-B-7	PL2-214B-210317	8260D	T						
410-33023-A-8	PL2-214C-210317	8260D	T						
410-33023-B-9	PL2-213A-210317	8260D	T						
410-33023-C-10	PL2-619A-210317	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA5 00020	MSV_VAcet 00006	MSV_VCYC 00006			
BFB 410-107422/1		8260D							
CCVIS 410-107422/3		8260D							
CCV 410-107422/4		8260D		5 uL	8 uL	8 uL			
LCS 410-107422/5		8260D							
LCSD 410-107422/6		8260D							
LCS 410-107422/7		8260D							
LCSD 410-107422/8		8260D							
MB 410-107422/10		8260D							
410-33023-B-1	Trip Blanks	8260D	T						
410-33023-C-2	PL2-258A-210317	8260D	T						
410-33023-C-3	PL2-258B-210317	8260D	T						
410-33023-A-4	PL2-258C-210317	8260D	T						
410-33023-B-5	PL2-271A-210317	8260D	T						
410-33023-B-6	PL2-214A-210317	8260D	T						
410-33023-B-7	PL2-214B-210317	8260D	T						
410-33023-A-8	PL2-214C-210317	8260D	T						
410-33023-B-9	PL2-213A-210317	8260D	T						
410-33023-C-10	PL2-619A-210317	8260D	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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107422 Batch Start Date: 03/25/21 21:11 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Batch Notes	

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.

Method 8260D SIM

Volatile Organic Compounds (GC/MS SIM) by Method 8260D

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 20m ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DFBZ #	TOL #
Trip Blanks	410-33023-1	103	99
PL2-258A-210317	410-33023-2	102	98
PL2-258B-210317	410-33023-3	101	98
PL2-258C-210317	410-33023-4	103	97
PL2-271A-210317	410-33023-5	106	98
PL2-214A-210317	410-33023-6	105	97
PL2-214B-210317	410-33023-7	103	96
PL2-214C-210317	410-33023-8	103	96
PL2-213A-210317	410-33023-9	104	96
PL2-619A-210317	410-33023-10	105	96
	MB 410-106103/7	102	99
	MB 410-108294/7	105	97
	LCS 410-106103/4	103	100
	LCS 410-108294/4	105	98
	LCSD 410-106103/5	103	100
	LCSD 410-108294/5	105	98

	QC LIMITS
DFBZ = 1,4-Difluorobenzene (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260D SIM

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: EM23X03.D

Lab ID: LCS 410-106103/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Tetrachloroethene	2.00	2.360	118	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D SIM

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: EM29X03.D

Lab ID: LCS 410-108294/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Tetrachloroethene	2.00	2.332	117	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D SIM

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: EM23X04.D

Lab ID: LCSD 410-106103/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Tetrachloroethene	2.00	2.300	115	3	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D SIM

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Matrix: Water Level: Low Lab File ID: EM29X04.D

Lab ID: LCSD 410-108294/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Tetrachloroethene	2.00	2.350	118	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D SIM

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab File ID: EM23X06.D Lab Sample ID: MB 410-106103/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 15648 Date Analyzed: 03/23/2021 13:25

GC Column: DB-624 20m ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-106103/4	EM23X03.D	03/23/2021 12:23
	LCSD 410-106103/5	EM23X04.D	03/23/2021 12:44
Trip Blanks	410-33023-1	EM23X08.D	03/23/2021 14:27
PL2-258A-210317	410-33023-2	EM23X26.D	03/23/2021 20:34
PL2-258B-210317	410-33023-3	EM23X27.D	03/23/2021 20:55

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab File ID: EM29X06.D Lab Sample ID: MB 410-108294/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 15648 Date Analyzed: 03/29/2021 12:23

GC Column: DB-624 20m ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-108294/4	EM29X03.D	03/29/2021 11:22
	LCSD 410-108294/5	EM29X04.D	03/29/2021 11:42
PL2-258C-210317	410-33023-4	EM29X07.D	03/29/2021 12:43
PL2-271A-210317	410-33023-5	EM29X08.D	03/29/2021 13:04
PL2-214A-210317	410-33023-6	EM29X09.D	03/29/2021 13:24
PL2-214B-210317	410-33023-7	EM29X10.D	03/29/2021 13:45
PL2-214C-210317	410-33023-8	EM29X11.D	03/29/2021 14:05
PL2-213A-210317	410-33023-9	EM29X12.D	03/29/2021 14:25
PL2-619A-210317	410-33023-10	EM29X13.D	03/29/2021 14:46

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Lab File ID: EC26T01.D BFB Injection Date: 10/26/2020

Instrument ID: 15648 BFB Injection Time: 09:59

Analysis Batch No.: 58469

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	50 - 200% of m/z 174	144.5
96	5 - 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.6
174	50 - 200% of m/z 95	69.2
175	5 - 9% of m/z 174	7.3
176	95 -105% of m/z 174	97.7
177	5 - 10% of m/z 176	6.3

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
	IC 410-58469/4	EC26I02.D	10/26/2020	10:53
	IC 410-58469/5	EC26I03.D	10/26/2020	11:14
	IC 410-58469/6	EC26I04.D	10/26/2020	11:34
	ICIS 410-58469/7	EC26I05.D	10/26/2020	11:54
	IC 410-58469/8	EC26I06.D	10/26/2020	12:15
	IC 410-58469/3	EC26I07.D	10/26/2020	12:56
	ICV 410-58469/10	EC26V01.D	10/26/2020	13:16

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Lab File ID: EM23T01.D BFB Injection Date: 03/23/2021

Instrument ID: 15648 BFB Injection Time: 11:10

Analysis Batch No.: 106103

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	50 - 200% of m/z 174	127.7
96	5 - 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.7
174	50 - 200% of m/z 95	78.3
175	5 - 9% of m/z 174	7.2
176	95 -105% of m/z 174	96.9
177	5 - 10% of m/z 176	6.7

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 410-106103/3	EM23X02.D	03/23/2021	12:03
	LCS 410-106103/4	EM23X03.D	03/23/2021	12:23
	LCSD 410-106103/5	EM23X04.D	03/23/2021	12:44
	MB 410-106103/7	EM23X06.D	03/23/2021	13:25
Trip Blanks	410-33023-1	EM23X08.D	03/23/2021	14:27
PL2-258A-210317	410-33023-2	EM23X26.D	03/23/2021	20:34
PL2-258B-210317	410-33023-3	EM23X27.D	03/23/2021	20:55

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Lab File ID: EM29T02.D BFB Injection Date: 03/29/2021

Instrument ID: 15648 BFB Injection Time: 10:21

Analysis Batch No.: 108294

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	50 - 200% of m/z 174	124.5
96	5 - 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.6
174	50 - 200% of m/z 95	80.3
175	5 - 9% of m/z 174	7.1
176	95 -105% of m/z 174	96.1
177	5 - 10% of m/z 176	6.3

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 410-108294/3	EM29X02.D	03/29/2021	11:01
	LCS 410-108294/4	EM29X03.D	03/29/2021	11:22
	LCSD 410-108294/5	EM29X04.D	03/29/2021	11:42
	MB 410-108294/7	EM29X06.D	03/29/2021	12:23
PL2-258C-210317	410-33023-4	EM29X07.D	03/29/2021	12:43
PL2-271A-210317	410-33023-5	EM29X08.D	03/29/2021	13:04
PL2-214A-210317	410-33023-6	EM29X09.D	03/29/2021	13:24
PL2-214B-210317	410-33023-7	EM29X10.D	03/29/2021	13:45
PL2-214C-210317	410-33023-8	EM29X11.D	03/29/2021	14:05
PL2-213A-210317	410-33023-9	EM29X12.D	03/29/2021	14:25
PL2-619A-210317	410-33023-10	EM29X13.D	03/29/2021	14:46

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: ICIS 410-58469/7 Date Analyzed: 10/26/2020 11:54

Instrument ID: 15648 GC Column: DB-624 20m ID: 0.18(mm)

Lab File ID (Standard): EC26I05.D Heated Purge: (Y/N) N

Calibration ID: 14010

		CBM		CBZd5			
		AREA #	RT #	AREA #	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		305109	3.78	1604620	7.81		
UPPER LIMIT		610218	4.28	3209240	8.31		
LOWER LIMIT		152555	3.28	802310	7.31		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-58469/10		297401	3.77	1597620	7.81		
CCVIS 410-106103/3		284071	3.77	1496872	7.80		
CCVIS 410-108294/3		245977	3.77	1355696	7.80		

CBM = Chlorobromomethane (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D SIM

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: CCVIS 410-106103/3 Date Analyzed: 03/23/2021 12:03

Instrument ID: 15648 GC Column: DB-624 20m ID: 0.18(mm)

Lab File ID (Standard): EM23X02.D Heated Purge: (Y/N) N

Calibration ID: 14010

		CBM		CBZd5			
		AREA #	RT #	AREA #	RT #	#	RT #
12/24 HOUR STD		284071	3.77	1496872	7.80		
UPPER LIMIT		568142	4.27	2993744	8.30		
LOWER LIMIT		142036	3.27	748436	7.30		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-106103/4		277009	3.77	1459738	7.80		
LCSD 410-106103/5		281786	3.77	1487611	7.80		
MB 410-106103/7		285888	3.77	1510269	7.80		
410-33023-1	Trip Blanks	275925	3.77	1464958	7.80		
410-33023-2	PL2-258A-210317	265742	3.77	1421947	7.80		
410-33023-3	PL2-258B-210317	275686	3.77	1459535	7.80		

CBM = Chlorobromomethane (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D SIM

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Sample No.: CCVIS 410-108294/3 Date Analyzed: 03/29/2021 11:01

Instrument ID: 15648 GC Column: DB-624 20m ID: 0.18(mm)

Lab File ID (Standard): EM29X02.D Heated Purge: (Y/N) N

Calibration ID: 14010

		CBM		CBZd5			
		AREA #	RT #	AREA #	RT #	#	RT #
12/24 HOUR STD		245977	3.77	1355696	7.80		
UPPER LIMIT		491954	4.27	2711392	8.30		
LOWER LIMIT		122989	3.27	677848	7.30		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-108294/4		245985	3.77	1364952	7.80		
LCSD 410-108294/5		246246	3.77	1362175	7.80		
MB 410-108294/7		242371	3.77	1343314	7.80		
410-33023-4	PL2-258C-210317	252502	3.76	1390881	7.80		
410-33023-5	PL2-271A-210317	246265	3.76	1376225	7.80		
410-33023-6	PL2-214A-210317	243763	3.77	1355200	7.80		
410-33023-7	PL2-214B-210317	274502	3.76	1506078	7.80		
410-33023-8	PL2-214C-210317	254884	3.77	1400880	7.80		
410-33023-9	PL2-213A-210317	240759	3.76	1329036	7.80		
410-33023-10	PL2-619A-210317	237315	3.76	1331146	7.80		

CBM = Chlorobromomethane (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D SIM

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Trip Blanks Lab Sample ID: 410-33023-1

Matrix: Water Lab File ID: EM23X08.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 00:00

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 14:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258A-210317 Lab Sample ID: 410-33023-2

Matrix: Water Lab File ID: EM23X26.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 10:51

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 20:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		80-120
540-36-3	1,4-Difluorobenzene (Surr)	102		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258B-210317 Lab Sample ID: 410-33023-3

Matrix: Water Lab File ID: EM23X27.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 11:26

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 20:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		80-120
540-36-3	1,4-Difluorobenzene (Surr)	101		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-258C-210317 Lab Sample ID: 410-33023-4

Matrix: Water Lab File ID: EM29X07.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 12:06

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 12:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-271A-210317 Lab Sample ID: 410-33023-5

Matrix: Water Lab File ID: EM29X08.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 13:11

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 13:04

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		80-120
540-36-3	1,4-Difluorobenzene (Surr)	106		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214A-210317 Lab Sample ID: 410-33023-6

Matrix: Water Lab File ID: EM29X09.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 13:46

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 13:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		80-120
540-36-3	1,4-Difluorobenzene (Surr)	105		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214B-210317 Lab Sample ID: 410-33023-7

Matrix: Water Lab File ID: EM29X10.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 14:16

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 13:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-214C-210317 Lab Sample ID: 410-33023-8

Matrix: Water Lab File ID: EM29X11.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 14:46

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 14:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-213A-210317 Lab Sample ID: 410-33023-9

Matrix: Water Lab File ID: EM29X12.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 15:26

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 14:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		80-120
540-36-3	1,4-Difluorobenzene (Surr)	104		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: PL2-619A-210317 Lab Sample ID: 410-33023-10

Matrix: Water Lab File ID: EM29X13.D

Analysis Method: 8260D SIM Date Collected: 03/17/2021 17:00

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 14:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	96		80-120
540-36-3	1,4-Difluorobenzene (Surr)	105		80-120

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 58469

SDG No.:

Instrument ID: 15648 GC Column: DB-624 20m ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/26/2020 10:53 Calibration End Date: 10/26/2020 12:56 Calibration ID: 14010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-58469/3	EC26I07.D
Level 2	IC 410-58469/4	EC26I02.D
Level 3	IC 410-58469/5	EC26I03.D
Level 4	IC 410-58469/6	EC26I04.D
Level 5	ICIS 410-58469/7	EC26I05.D
Level 6	IC 410-58469/8	EC26I06.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								
Vinyl chloride	3.0226 2.5527	2.3043	2.8134	2.6822	2.6126	Ave		2.6646				9.1		20.0			
1,1-Dichloroethene	1.7670 1.9355	1.7161	2.0013	1.9515	1.9318	Ave		1.8839				6.1		20.0			
cis-1,2-Dichloroethene	3.1028 2.4382	2.4288	2.5946	2.4985	2.4654	Ave		2.5881				10.0		20.0			
Trichloroethene	2.4998 2.0968	2.0638	2.2671	2.1598	2.1331	Ave		2.2034				7.3		20.0			
Tetrachloroethene	0.3586 0.3181	0.2914	0.3338	0.3229	0.3218	Ave		0.3244				6.7		20.0			
1,4-Difluorobenzene (Surr)	5.4463 5.3469	5.3842	5.4358	5.4135	5.3703	Ave		5.3995				0.7		20.0			
Toluene-d8 (Surr)	1.2880 1.2881	1.2878	1.2920	1.2880	1.2916	Ave		1.2893				0.2		20.0			

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 Lancaster Laboratories Env Job No.: 410-33023-1 Analy Batch No.: 58469

SDG No.:

Instrument ID: 15648 GC Column: DB-624 20m ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/26/2020 10:53 Calibration End Date: 10/26/2020 12:56 Calibration ID: 14010

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-58469/3	EC26I07.D
Level 2	IC 410-58469/4	EC26I02.D
Level 3	IC 410-58469/5	EC26I03.D
Level 4	IC 410-58469/6	EC26I04.D
Level 5	ICIS 410-58469/7	EC26I05.D
Level 6	IC 410-58469/8	EC26I06.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
Vinyl chloride	CBM	Ave	1885 2008012	7310	41886	162024	797931	0.0200 25.0	0.100	0.500	2.00	10.0
1,1-Dichloroethene	CBM	Ave	1102 1522535	5444	29795	117886	590004	0.0200 25.0	0.100	0.500	2.00	10.0
cis-1,2-Dichloroethene	CBM	Ave	1935 1917970	7705	38628	150926	752975	0.0200 25.0	0.100	0.500	2.00	10.0
Trichloroethene	CBM	Ave	1559 1649389	6547	33752	130465	651484	0.0200 25.0	0.100	0.500	2.00	10.0
Tetrachloroethene	CBZd5	Ave	1197 1312290	4886	26527	103720	516588	0.0200 25.0	0.100	0.500	2.00	10.0
1,4-Difluorobenzene (Surr)	CBM	Ave	1696553 1680707	1706308	1616928	1633440	1638534	9.99 9.99	9.99	9.99	9.99	9.99
Toluene-d8 (Surr)	CBZd5	Ave	2146483 2122236	2156178	2050431	2065745	2070262	9.98 9.98	9.98	9.98	9.98	9.98

Curve Type Legend:
Ave = Average ISTD

Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

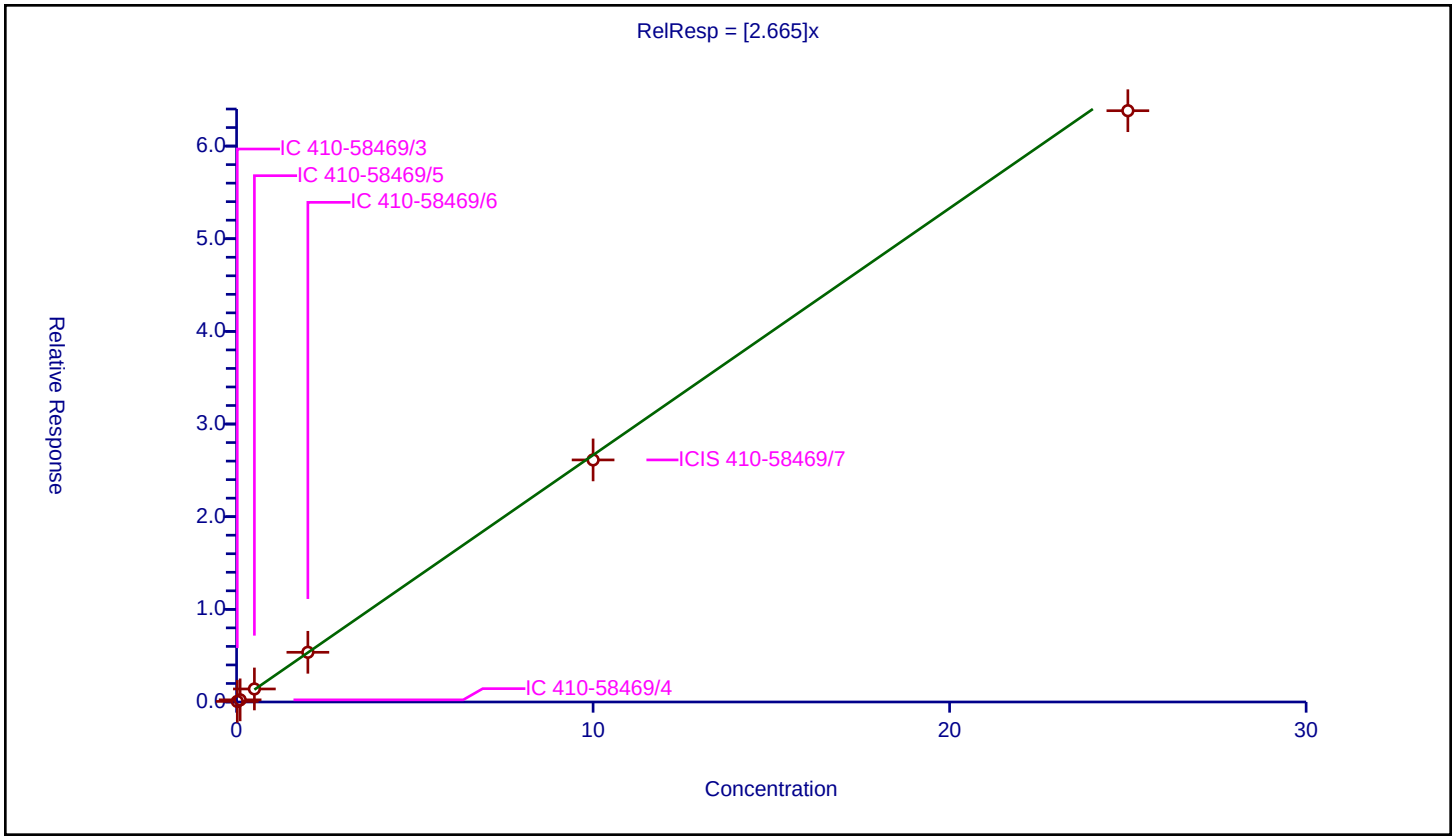
Curve Coefficients

Intercept:	0
Slope:	2.665

Error Coefficients

Standard Error:	969000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	0.02	0.060452	9.99	311508.0	3.022579	Y
2	IC 410-58469/4	0.1	0.230432	9.99	316913.0	2.30432	Y
3	IC 410-58469/5	0.5	1.406714	9.99	297460.0	2.813428	Y
4	IC 410-58469/6	2.0	5.364393	9.99	301734.0	2.682197	Y
5	ICIS 410-58469/7	10.0	26.126174	9.99	305109.0	2.612617	Y
6	IC 410-58469/8	25.0	63.817392	9.99	314335.0	2.552696	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

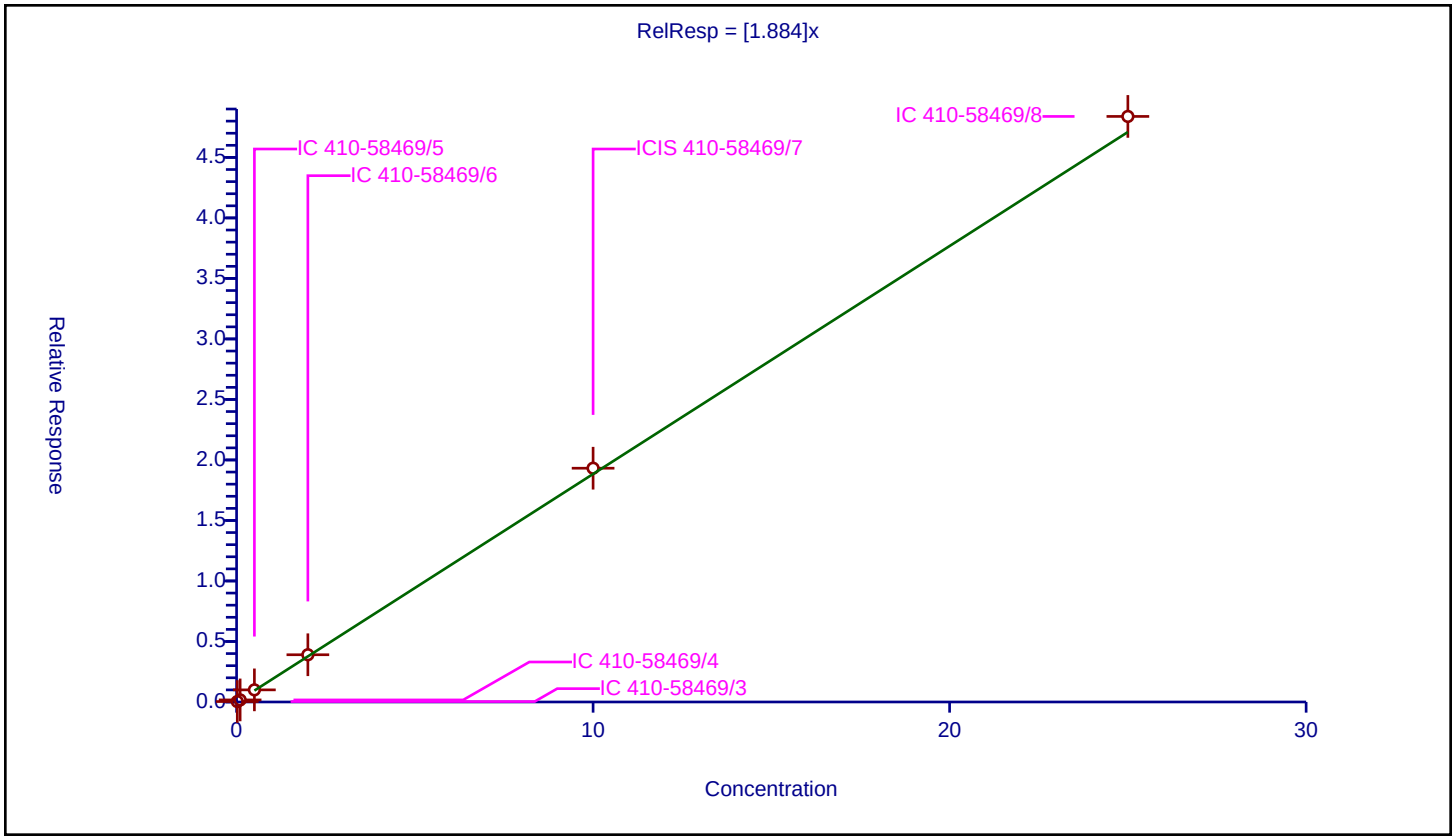
Curve Coefficients

Intercept:	0
Slope:	1.884

Error Coefficients

Standard Error:	732000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	0.02	0.035341	9.99	311508.0	1.767046	Y
2	IC 410-58469/4	0.1	0.17161	9.99	316913.0	1.716104	Y
3	IC 410-58469/5	0.5	1.000646	9.99	297460.0	2.001291	Y
4	IC 410-58469/6	2.0	3.903044	9.99	301734.0	1.951522	Y
5	ICIS 410-58469/7	10.0	19.318145	9.99	305109.0	1.931815	Y
6	IC 410-58469/8	25.0	48.388263	9.99	314335.0	1.935531	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

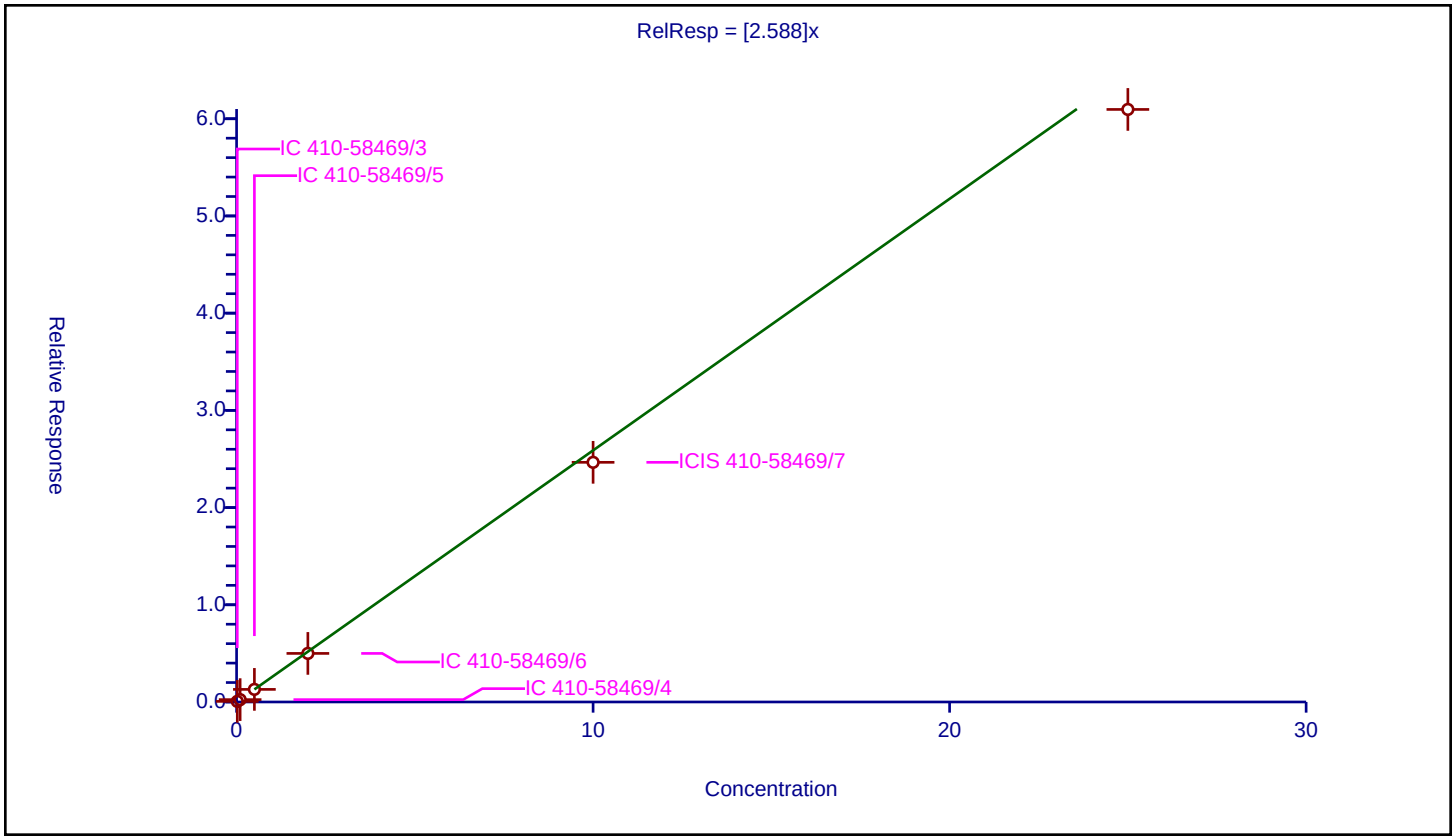
Curve Coefficients

Intercept:	0
Slope:	2.588

Error Coefficients

Standard Error:	924000
Relative Standard Error:	10.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	0.02	0.062055	9.99	311508.0	3.102753	Y
2	IC 410-58469/4	0.1	0.242884	9.99	316913.0	2.428835	Y
3	IC 410-58469/5	0.5	1.297296	9.99	297460.0	2.594592	Y
4	IC 410-58469/6	2.0	4.996953	9.99	301734.0	2.498477	Y
5	ICIS 410-58469/7	10.0	24.654206	9.99	305109.0	2.465421	Y
6	IC 410-58469/8	25.0	60.955733	9.99	314335.0	2.438229	Y



Calibration / 1,4-Difluorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

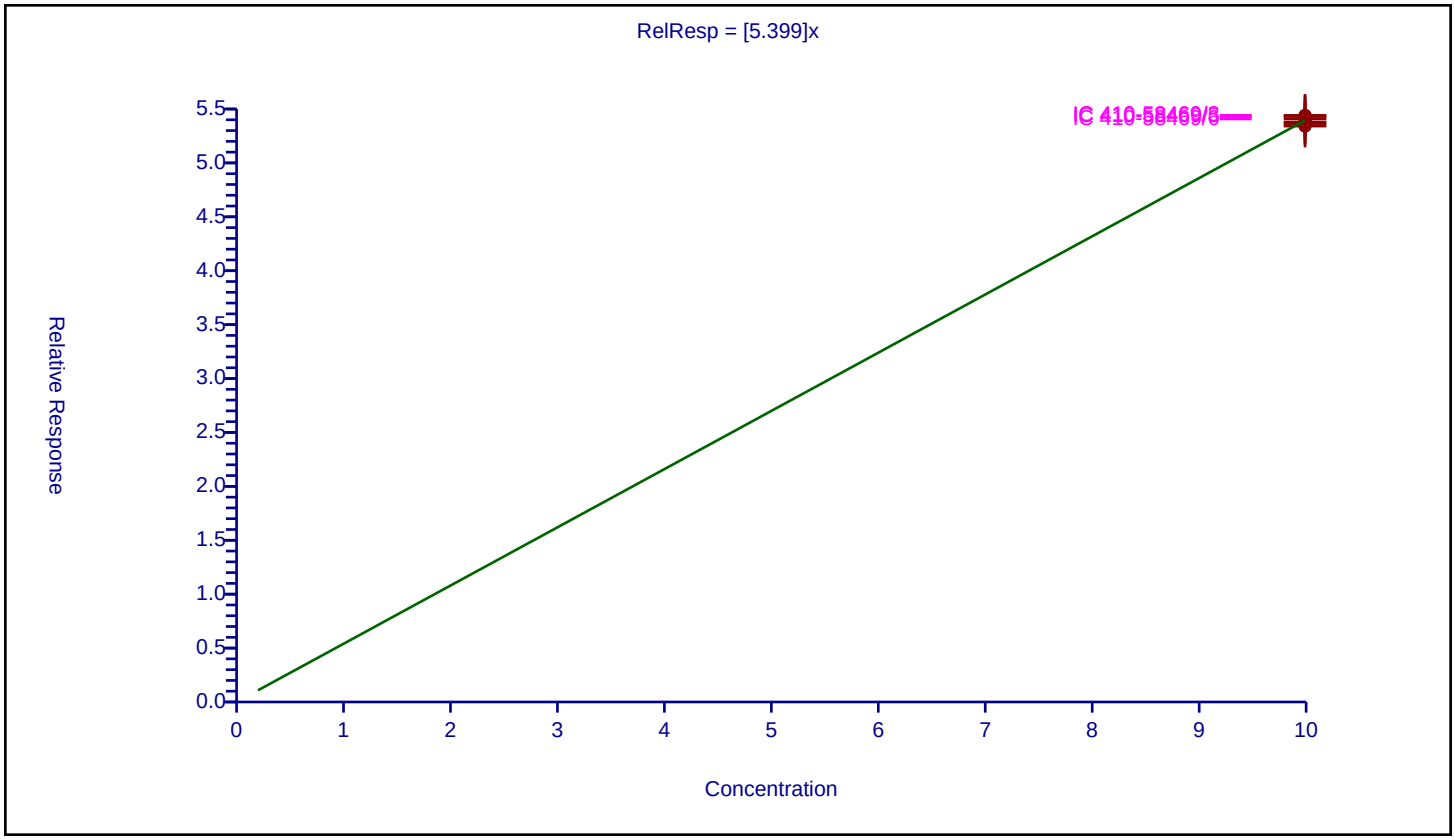
Curve Coefficients

Intercept:	0
Slope:	5.399

Error Coefficients

Standard Error:	1820000
Relative Standard Error:	0.7
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	9.99	54.408119	9.99	311508.0	5.446258	Y
2	IC 410-58469/4	9.99	53.787686	9.99	316913.0	5.384153	Y
3	IC 410-58469/5	9.99	54.303472	9.99	297460.0	5.435783	Y
4	IC 410-58469/6	9.99	54.080964	9.99	301734.0	5.41351	Y
5	ICIS 410-58469/7	9.99	53.649531	9.99	305109.0	5.370323	Y
6	IC 410-58469/8	9.99	53.415187	9.99	314335.0	5.346866	Y



Calibration / Trichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

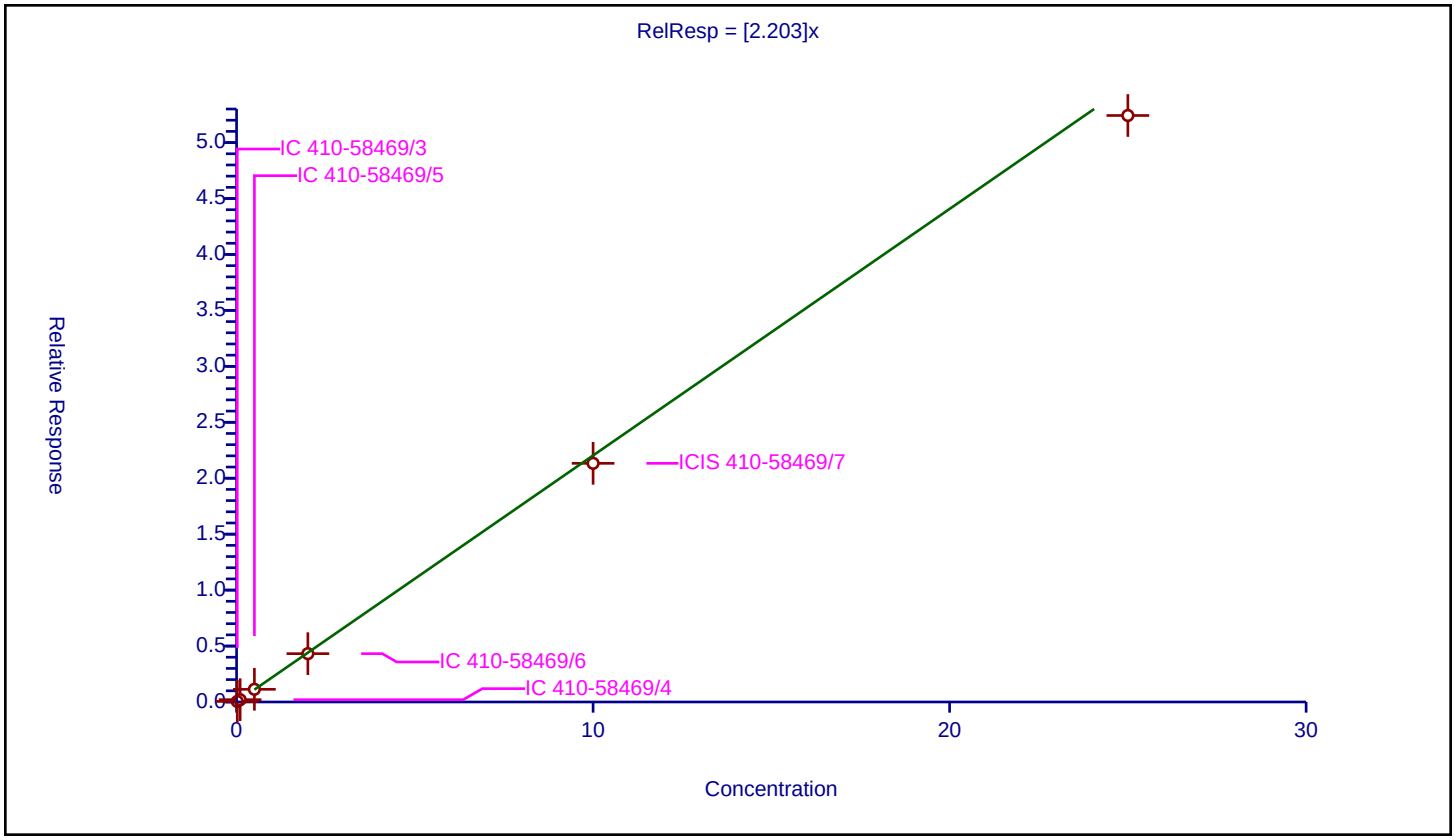
Curve Coefficients

Intercept:	0
Slope:	2.203

Error Coefficients

Standard Error:	795000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	0.02	0.049997	9.99	311508.0	2.499841	Y
2	IC 410-58469/4	0.1	0.20638	9.99	316913.0	2.063801	Y
3	IC 410-58469/5	0.5	1.133539	9.99	297460.0	2.267078	Y
4	IC 410-58469/6	2.0	4.319518	9.99	301734.0	2.159759	Y
5	ICIS 410-58469/7	10.0	21.331148	9.99	305109.0	2.133115	Y
6	IC 410-58469/8	25.0	52.419858	9.99	314335.0	2.096794	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

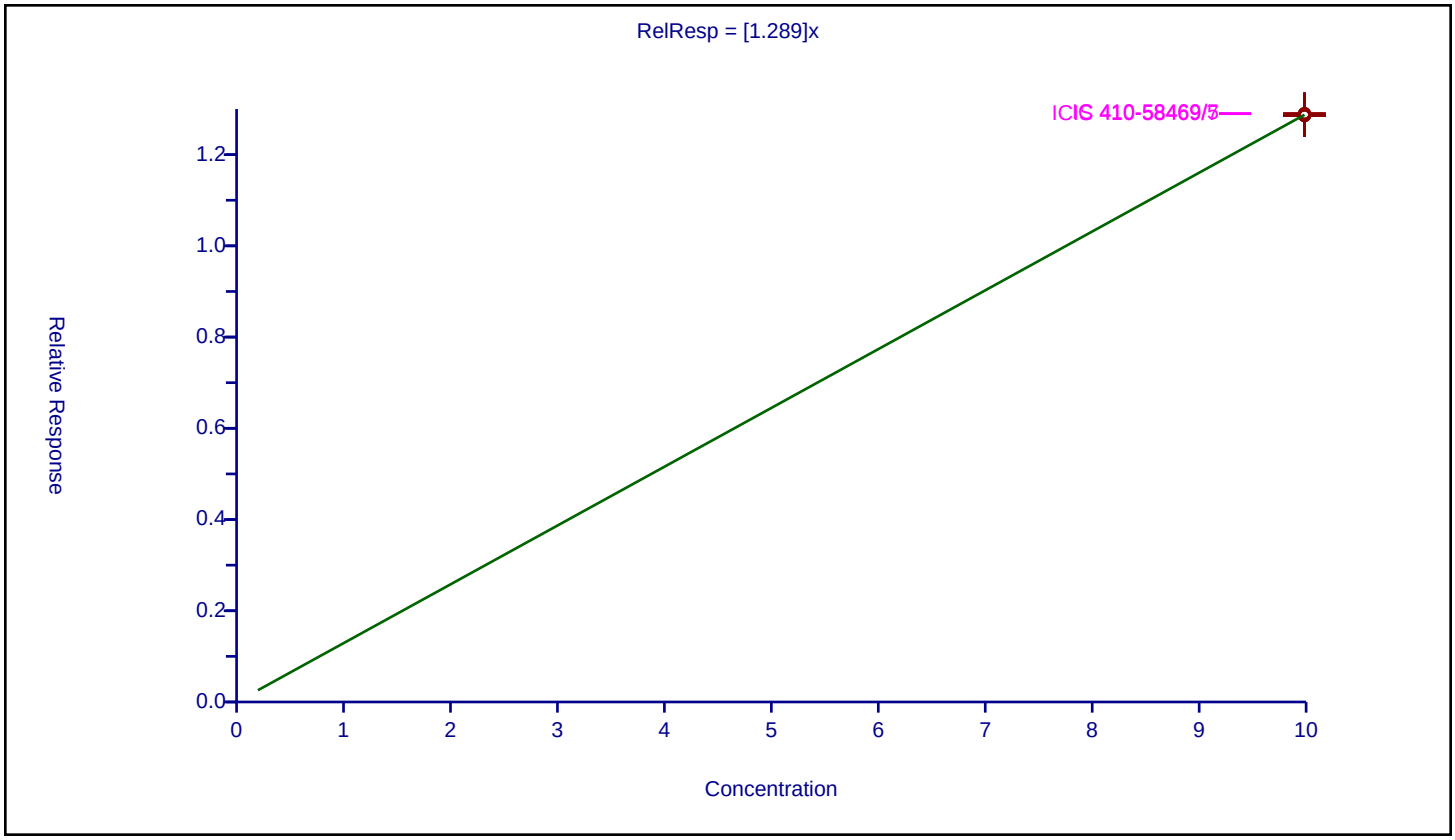
Curve Coefficients

Intercept:	0
Slope:	1.289

Error Coefficients

Standard Error:	2300000
Relative Standard Error:	0.2
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	9.9847	12.860202	9.996	1668422.0	1.287991	Y
2	IC 410-58469/4	9.9847	12.85829	9.996	1676207.0	1.287799	Y
3	IC 410-58469/5	9.9847	12.900492	9.996	1588785.0	1.292026	Y
4	IC 410-58469/6	9.9847	12.860681	9.996	1605606.0	1.288039	Y
5	ICIS 410-58469/7	9.9847	12.896723	9.996	1604620.0	1.291648	Y
6	IC 410-58469/8	9.9847	12.861678	9.996	1649386.0	1.288139	Y



Calibration / Tetrachloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

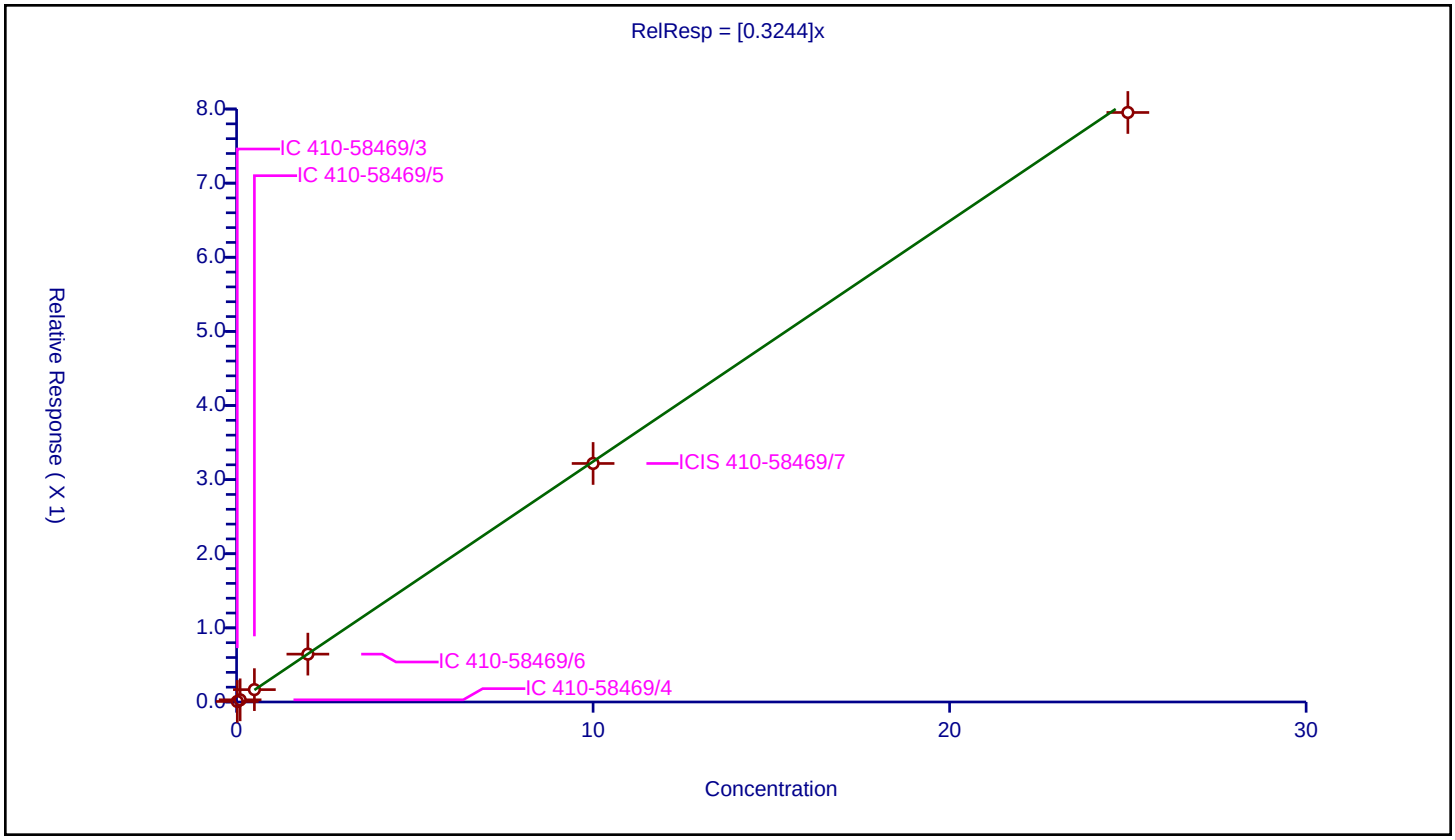
Curve Coefficients

Intercept:	0
Slope:	0.3244

Error Coefficients

Standard Error:	633000
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-58469/3	0.02	0.007172	9.996	1668422.0	0.358579	Y
2	IC 410-58469/4	0.1	0.029137	9.996	1676207.0	0.291375	Y
3	IC 410-58469/5	0.5	0.166897	9.996	1588785.0	0.333795	Y
4	IC 410-58469/6	2.0	0.645728	9.996	1605606.0	0.322864	Y
5	ICIS 410-58469/7	10.0	3.218091	9.996	1604620.0	0.321809	Y
6	IC 410-58469/8	25.0	7.953051	9.996	1649386.0	0.318122	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICV 410-58469/10 Calibration Date: 10/26/2020 13:16

Instrument ID: 15648 Calib Start Date: 10/26/2020 10:53

GC Column: DB-624 20m ID: 0.18(mm) Calib End Date: 10/26/2020 12:56

Lab File ID: EC26V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Vinyl chloride	Ave	2.665	3.002		2.25	2.00	12.7	20.0
1,1-Dichloroethene	Ave	1.884	1.976		2.10	2.00	4.9	20.0
cis-1,2-Dichloroethene	Ave	2.588	2.488		1.92	2.00	-3.9	20.0
Trichloroethene	Ave	2.203	2.187		1.99	2.00	-0.7	20.0
Tetrachloroethene	Ave	0.3244	0.3274		2.02	2.00	0.9	20.0
1,4-Difluorobenzene (Surr)	Ave	5.399	5.440		10.1	9.99	0.7	20.0
Toluene-d8 (Surr)	Ave	1.289	1.287		9.97	9.98	-0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCVIS 410-106103/3 Calibration Date: 03/23/2021 12:03

Instrument ID: 15648 Calib Start Date: 10/26/2020 10:53

GC Column: DB-624 20m ID: 0.18(mm) Calib End Date: 10/26/2020 12:56

Lab File ID: EM23X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Vinyl chloride	Ave	2.665	2.724		10.2	10.0	2.2	20.0
1,1-Dichloroethene	Ave	1.884	2.247		11.9	10.0	19.3	20.0
cis-1,2-Dichloroethene	Ave	2.588	2.656		10.3	10.0	2.6	20.0
Trichloroethene	Ave	2.203	2.355		10.7	10.0	6.9	20.0
Tetrachloroethene	Ave	0.3244	0.3612		11.1	10.0	11.3	20.0
1,4-Difluorobenzene (Surr)	Ave	5.399	5.566		10.3	9.99	3.1	20.0
Toluene-d8 (Surr)	Ave	1.289	1.287		9.98	9.99	-0.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Lab Sample ID: CCVIS 410-108294/3 Calibration Date: 03/29/2021 11:01

Instrument ID: 15648 Calib Start Date: 10/26/2020 10:53

GC Column: DB-624 20m ID: 0.18(mm) Calib End Date: 10/26/2020 12:56

Lab File ID: EM29X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Vinyl chloride	Ave	2.665	2.903		10.9	10.0	8.9	20.0
1,1-Dichloroethene	Ave	1.884	2.422		12.9	10.0	28.5*	20.0
cis-1,2-Dichloroethene	Ave	2.588	2.787		10.8	10.0	7.7	20.0
Trichloroethene	Ave	2.203	2.502		11.4	10.0	13.5	20.0
Tetrachloroethene	Ave	0.3244	0.3701		11.4	10.0	14.1	20.0
1,4-Difluorobenzene (Surr)	Ave	5.399	5.671		10.5	9.99	5.0	20.0
Toluene-d8 (Surr)	Ave	1.289	1.263		9.79	9.99	-2.1	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-106103/7

Matrix: Water Lab File ID: EM23X06.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 13:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		80-120
540-36-3	1,4-Difluorobenzene (Surr)	102		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-108294/7

Matrix: Water Lab File ID: EM29X06.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 12:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	0.0200	U	0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	97		80-120
540-36-3	1,4-Difluorobenzene (Surr)	105		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-106103/4

Matrix: Water Lab File ID: EM23X03.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 12:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	2.360		0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-108294/4

Matrix: Water Lab File ID: EM29X03.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 11:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	2.332		0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		80-120
540-36-3	1,4-Difluorobenzene (Surr)	105		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-106103/5

Matrix: Water Lab File ID: EM23X04.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/23/2021 12:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 106103 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	2.300		0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		80-120
540-36-3	1,4-Difluorobenzene (Surr)	103		80-120

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-108294/5

Matrix: Water Lab File ID: EM29X04.D

Analysis Method: 8260D SIM Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 03/29/2021 11:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 20m ID: 0.18(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108294 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
127-18-4	Tetrachloroethene	2.350		0.0200	

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	98		80-120
540-36-3	1,4-Difluorobenzene (Surr)	105		80-120

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 15648 Start Date: 10/26/2020 09:59

Analysis Batch Number: 58469 End Date: 10/26/2020 13:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-58469/1		10/26/2020 09:59	1	EC26T01.D	DB-624 20m 0.18(mm)
IC 410-58469/4		10/26/2020 10:53	1	EC26I02.D	DB-624 20m 0.18(mm)
IC 410-58469/5		10/26/2020 11:14	1	EC26I03.D	DB-624 20m 0.18(mm)
IC 410-58469/6		10/26/2020 11:34	1	EC26I04.D	DB-624 20m 0.18(mm)
ICIS 410-58469/7		10/26/2020 11:54	1	EC26I05.D	DB-624 20m 0.18(mm)
IC 410-58469/8		10/26/2020 12:15	1	EC26I06.D	DB-624 20m 0.18(mm)
IC 410-58469/3		10/26/2020 12:56	1	EC26I07.D	DB-624 20m 0.18(mm)
ZZZZZ		10/26/2020 12:56	1		DB-624 20m 0.18(mm)
ICV 410-58469/10		10/26/2020 13:16	1	EC26V01.D	DB-624 20m 0.18(mm)

8260D SIM

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 15648 Start Date: 03/23/2021 11:10

Analysis Batch Number: 106103 End Date: 03/23/2021 20:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-106103/1		03/23/2021 11:10	1	EM23T01.D	DB-624 20m 0.18(mm)
CCVIS 410-106103/3		03/23/2021 12:03	1	EM23X02.D	DB-624 20m 0.18(mm)
LCS 410-106103/4		03/23/2021 12:23	1	EM23X03.D	DB-624 20m 0.18(mm)
LCSD 410-106103/5		03/23/2021 12:44	1	EM23X04.D	DB-624 20m 0.18(mm)
MB 410-106103/7		03/23/2021 13:25	1	EM23X06.D	DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 14:06	1		DB-624 20m 0.18(mm)
410-33023-1	Trip Blanks	03/23/2021 14:27	1	EM23X08.D	DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 14:47	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 15:08	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 15:28	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 16:09	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 16:29	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 16:50	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 17:10	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 17:30	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 17:51	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 18:11	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 18:32	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 18:52	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 19:13	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 19:33	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 19:53	1		DB-624 20m 0.18(mm)
ZZZZZ		03/23/2021 20:14	1		DB-624 20m 0.18(mm)
410-33023-2	PL2-258A-210317	03/23/2021 20:34	1	EM23X26.D	DB-624 20m 0.18(mm)
410-33023-3	PL2-258B-210317	03/23/2021 20:55	1	EM23X27.D	DB-624 20m 0.18(mm)

8260D SIM

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 15648 Start Date: 03/29/2021 10:21

Analysis Batch Number: 108294 End Date: 03/29/2021 14:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-108294/1		03/29/2021 10:21	1	EM29T02.D	DB-624 20m 0.18(mm)
CCVIS 410-108294/3		03/29/2021 11:01	1	EM29X02.D	DB-624 20m 0.18(mm)
LCS 410-108294/4		03/29/2021 11:22	1	EM29X03.D	DB-624 20m 0.18(mm)
LCSD 410-108294/5		03/29/2021 11:42	1	EM29X04.D	DB-624 20m 0.18(mm)
MB 410-108294/7		03/29/2021 12:23	1	EM29X06.D	DB-624 20m 0.18(mm)
410-33023-4	PL2-258C-210317	03/29/2021 12:43	1	EM29X07.D	DB-624 20m 0.18(mm)
410-33023-5	PL2-271A-210317	03/29/2021 13:04	1	EM29X08.D	DB-624 20m 0.18(mm)
410-33023-6	PL2-214A-210317	03/29/2021 13:24	1	EM29X09.D	DB-624 20m 0.18(mm)
410-33023-7	PL2-214B-210317	03/29/2021 13:45	1	EM29X10.D	DB-624 20m 0.18(mm)
410-33023-8	PL2-214C-210317	03/29/2021 14:05	1	EM29X11.D	DB-624 20m 0.18(mm)
410-33023-9	PL2-213A-210317	03/29/2021 14:25	1	EM29X12.D	DB-624 20m 0.18(mm)
410-33023-10	PL2-619A-210317	03/29/2021 14:46	1	EM29X13.D	DB-624 20m 0.18(mm)

8260D SIM

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 58469 Batch Start Date: 10/26/20 09:59 Batch Analyst: Sposito, Kevin A

Batch Method: 8260D SIM Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_27SIM_ISS 00010	MSV_Q_VTP_SIM 00019	MSV_V_BFB 00003	MSV_V_VTP_SIM 00006
BFB 410-58469/1		8260D SIM		1 uL	1 uL			1 uL	
IC 410-58469/3		8260D SIM		5 mL	5 mL	5 uL			1 uL
IC 410-58469/4		8260D SIM		5 mL	5 mL	5 uL			1 uL
IC 410-58469/5		8260D SIM		5 mL	5 mL	5 uL			5 uL
IC 410-58469/6		8260D SIM		5 mL	5 mL	5 uL			10 uL
ICIS 410-58469/7		8260D SIM		5 mL	5 mL	5 uL			50 uL
IC 410-58469/8		8260D SIM		5 mL	5 mL	5 uL			125 uL
ICV 410-58469/10		8260D SIM		5 mL	5 mL	5 uL	10 uL		

Batch Notes	

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 106103 Batch Start Date: 03/23/21 11:10 Batch Analyst: Johnson, Sara E

Batch Method: 8260D SIM Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-106103/1		8260D SIM		5 mL	5 mL				
CCVIS 410-106103/3		8260D SIM		5 mL	5 mL				0126201F
LCS 410-106103/4		8260D SIM		5 mL	5 mL				0126201F
LCSD 410-106103/5		8260D SIM		5 mL	5 mL				0126201F
MB 410-106103/7		8260D SIM		5 mL	5 mL				0126201F
410-33023-A-1	Trip Blanks	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-B-2	PL2-258A-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-B-3	PL2-258B-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_27SIM_ISS 00014	MSV_Q_VTP_SIM 00027	MSV_V_BFB 00004	MSV_V_VTP_SIM 00016		
BFB 410-106103/1		8260D SIM				10 uL			
CCVIS 410-106103/3		8260D SIM		5 uL			50 uL		
LCS 410-106103/4		8260D SIM		5 uL	10 uL				
LCSD 410-106103/5		8260D SIM		5 uL	10 uL				
MB 410-106103/7		8260D SIM		5 uL					
410-33023-A-1	Trip Blanks	8260D SIM	T	5 uL					
410-33023-B-2	PL2-258A-210317	8260D SIM	T	5 uL					
410-33023-B-3	PL2-258B-210317	8260D SIM	T	5 uL					

Batch Notes	

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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 108294 Batch Start Date: 03/29/21 10:21 Batch Analyst: Long, Jason M

Batch Method: 8260D SIM Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-108294/1		8260D SIM		5 mL	5 mL				
CCVIS 410-108294/3		8260D SIM		5 mL	5 mL				0126201F
LCS 410-108294/4		8260D SIM		5 mL	5 mL				0126201F
LCSD 410-108294/5		8260D SIM		5 mL	5 mL				0126201F
MB 410-108294/7		8260D SIM		5 mL	5 mL				0126201F
410-33023-C-4	PL2-258C-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-C-5	PL2-271A-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-C-6	PL2-214A-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-C-7	PL2-214B-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-C-8	PL2-214C-210317	8260D SIM	T	5 mL	5 mL	3 SU	N	N	
410-33023-C-9	PL2-213A-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	
410-33023-D-10	PL2-619A-210317	8260D SIM	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_27SIM_ISS 00014	MSV_Q_VTP_SIM 00027	MSV_V_BFB 00004	MSV_V_VTP_SIM 00016		
BFB 410-108294/1		8260D SIM				10 uL			
CCVIS 410-108294/3		8260D SIM		5 uL			50 uL		
LCS 410-108294/4		8260D SIM		5 uL	10 uL				
LCSD 410-108294/5		8260D SIM		5 uL	10 uL				
MB 410-108294/7		8260D SIM		5 uL					
410-33023-C-4	PL2-258C-210317	8260D SIM	T	5 uL					
410-33023-C-5	PL2-271A-210317	8260D SIM	T	5 uL					
410-33023-C-6	PL2-214A-210317	8260D SIM	T	5 uL					
410-33023-C-7	PL2-214B-210317	8260D SIM	T	5 uL					
410-33023-C-8	PL2-214C-210317	8260D SIM	T	5 uL					
410-33023-C-9	PL2-213A-210317	8260D SIM	T	5 uL					
410-33023-D-10	PL2-619A-210317	8260D SIM	T	5 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 Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 108294 Batch Start Date: 03/29/21 10:21 Batch Analyst: Long, Jason M

Batch Method: 8260D SIM Batch End Date:

Batch Notes	

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.

METALS

COVER PAGE
METALS

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG No.:

Project: Plant 2 Semi Annual GW Sampling

Client Sample ID	Lab Sample ID
PL2-258A-210317	410-33023-2
PL2-258B-210317	410-33023-3
PL2-271A-210317	410-33023-5
PL2-214A-210317	410-33023-6
PL2-214B-210317	410-33023-7
PL2-213A-210317	410-33023-9
PL2-619A-210317	410-33023-10

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 10:51

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	2.38	0.680		ug/L			1	200.8 Rev 5.4
7440-50-8	Copper	0.362	0.362		ug/L	U		1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 11:26

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.680	0.680		ug/L	U		1	200.8 Rev 5.4
7440-50-8	Copper	3.61	0.362		ug/L			1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 13:11

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	12.1	0.680		ug/L			1	200.8 Rev 5.4
7440-50-8	Copper	0.362	0.362		ug/L	U		1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 13:46

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.680	0.680		ug/L	U		1	200.8 Rev 5.4
7440-50-8	Copper	0.362	0.362		ug/L	U		1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 14:16

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.680	0.680		ug/L	U		1	200.8 Rev 5.4
7440-50-8	Copper	0.362	0.362		ug/L	U		1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Lab Name: Eurofins Lancaster Laboratories Env

Job No.: 410-33023-1

SDG ID.:

Matrix: Water

Date Sampled: 03/17/2021 15:26

Reporting Basis: WET

Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	1.27	0.680		ug/L			1	200.8 Rev 5.4
7440-50-8	Copper	0.709	0.362		ug/L		B	1	200.8 Rev 5.4

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TOTAL RECOVERABLE

Client Sample ID: PL2-619A-210317
Lab Sample ID: 410-33023-10
Lab Name: Eurofins Lancaster Laboratories Env
Job No.: 410-33023-1
SDG ID.:
Matrix: Water
Date Sampled: 03/17/2021 17:00
Reporting Basis: WET
Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
7440-38-2	Arsenic	0.680	0.680		ug/L	U		1	200.8 Rev 5.4
7440-50-8	Copper	1.50	0.362		ug/L			1	200.8 Rev 5.4

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	ICV 410-106828/4 03/24/2021 14:30				CCV 410-106828/12 03/24/2021 14:46				CCV 410-106828/14 03/24/2021 16:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	299.5		300	100	298.0		298	100	304.9		298	102
Copper	302.6		300	101	298.9		300	100	302.3		300	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	CCV 410-106828/19 03/24/2021 16:46				CCV 410-106828/31 03/24/2021 17:09				CCV 410-106828/37 03/24/2021 17:22			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	302.2		298	101	305.9		298	103	304.2		298	102
Copper	302.7		300	101	303.5		300	101	297.7		300	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	ICV 410-106836/4 03/24/2021 14:30				CCV 410-106836/12 03/24/2021 14:46				CCV 410-106836/14 03/24/2021 15:07			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	299.5		300	100	298.0		298	100	301.3		298	101
Copper	302.6		300	101	298.9		300	100	301.4		300	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	CCV 410-106836/26 03/24/2021 15:31											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	304.7		298	102								
Copper	304.4		300	101								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00083

Analyte	ICV 410-107449/4 03/25/2021 16:36				CCV 410-107449/10 03/25/2021 19:53				CCV 410-107449/19 03/25/2021 20:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	302.8		300	101	297.7		298	100	309.2		298	104
Copper	304.9		300	101	300.9		300	100	306.4		300	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00083

Analyte	CCV 410-107449/29 03/25/2021 20:30											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	304.7		298	102								
Copper	306.8		300	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00083

Analyte	ICV 410-107450/4 03/25/2021 16:36				CCV 410-107450/10 03/25/2021 20:30				CCV 410-107450/19 03/25/2021 20:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	302.8		300	101	304.7		298	102	308.6		298	103
Copper	304.9		300	101	306.8		300	102	307.2		300	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00083

Analyte	CCV 410-107450/29 03/25/2021 21:07				CCV 410-107450/31 03/25/2021 21:50				CCV 410-107450/34 03/25/2021 22:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	302.1		298	101	305.4		298	102	304.4		298	102
Copper	304.2		300	101	305.7		300	102	300.5		300	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00083

Analyte	ICV 410-107984/4 03/27/2021 13:41				CCV 410-107984/10 03/27/2021 13:56				CCV 410-107984/17 03/27/2021 14:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Copper	294.9		300	98	290.5		300	97	284.9		300	95
Arsenic	295.2		300	98	297.4		298	100	299.9		298	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	ICV 410-107371/4 03/25/2021 08:51				CCV 410-107371/12 03/25/2021 09:07				CCV 410-107371/14 03/25/2021 17:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	299.1		300	100	302.5		298	101	304.9		298	102
Copper	301.2		300	100	304.7		300	101	302.4		300	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

ICV Source: MT_MJ_ICV_00032 Concentration Units: ug/L

CCV Source: MT_MJ_CCV_00081

Analyte	CCV 410-107371/19 03/25/2021 17:19				CCV 410-107371/28 03/25/2021 17:37							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	301.0		298	101	302.8		298	101				
Copper	297.4		300	99	300.9		300	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Method: 200.8 Rev 5.4 Instrument ID: E08 - 30647

Lab Sample ID: CRI 410-106828/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	1.786		89	50-150
Copper	0.999	0.9980		100	50-150

Lab Sample ID: CRI 410-106836/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	1.786		89	50-150
Copper	0.999	0.9980		100	50-150

Lab Sample ID: CRI 410-107449/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00022

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	2.076		103	50-150
Copper	0.999	0.9790		98	50-150

Lab Sample ID: CRI 410-107450/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00022

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	2.076		103	50-150
Copper	0.999	0.9790		98	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Method: 200.8 Rev 5.4 Instrument ID: E08 - 30647

Lab Sample ID: CRI 410-107984/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00022

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	2.025		101	50-150
Copper	0.999	1.003		100	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Method: 200.8 Rev 5.4 Instrument ID: E09 - 30921

Lab Sample ID: CRI 410-107371/6 Concentration Units: ug/L

CRQL Check Standard Source: MT_MJ_CRI-V_00022

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	2.01	2.159		107	50-150
Copper	0.999	1.155		116	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-106828/5 03/24/2021 14:32		CCB 410-106828/13 03/24/2021 14:48		CCB 410-106828/15 03/24/2021 16:38		CCB 410-106828/20 03/24/2021 16:48	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U	0.680	U	0.680	U
Copper	0.362	0.362	U	0.362	U	0.362	U	0.362	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 410-106828/32 03/24/2021 17:11		CCB 410-106828/38 03/24/2021 17:24					
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U				
Copper	0.362			0.5420					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-106836/5 03/24/2021 14:32		CCB 410-106836/13 03/24/2021 14:48		CCB 410-106836/15 03/24/2021 15:09		CCB 410-106836/27 03/24/2021 15:33	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U	0.680	U	0.680	U
Copper	0.362	0.362	U	0.362	U	0.362	U	0.362	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-107449/5 03/25/2021 16:38		CCB 410-107449/11 03/25/2021 19:55		CCB 410-107449/20 03/25/2021 20:12		CCB 410-107449/30 03/25/2021 20:32	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U	0.680	U	0.680	U
Copper	0.362	0.362	U	0.362	U	0.362	U	0.362	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-107450/5 03/25/2021 16:38		CCB 410-107450/11 03/25/2021 20:32		CCB 410-107450/20 03/25/2021 20:49		CCB 410-107450/30 03/25/2021 21:09	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U	0.680	U	0.680	U
Copper	0.362	0.362	U	0.362	U	0.362	U	0.362	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 410-107450/32 03/25/2021 21:52		CCB 410-107450/35 03/25/2021 22:14					
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U				
Copper	0.362	0.362	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-107984/5 03/27/2021 13:43		CCB 410-107984/11 03/27/2021 13:58		CCB 410-107984/18 03/27/2021 14:12			
		Found	C	Found	C	Found	C	Found	C
Copper	0.362	0.362	U	0.362	U	0.362	U		
Arsenic	0.680	0.680	U	0.680	U	0.680	U		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 410-107371/5 03/25/2021 08:53		CCB 410-107371/13 03/25/2021 09:09		CCB 410-107371/15 03/25/2021 17:11		CCB 410-107371/20 03/25/2021 17:21	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U	0.680	U	0.680	U	0.680	U
Copper	0.362	0.362	U	0.362	U	0.362	U	0.362	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 410-107371/29 03/25/2021 17:43							
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.680	0.680	U						
Copper	0.362	0.362	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 410-106174/1-A

Instrument Code: E08 - 30647 Batch No.: 106828

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.680	U		200.8
7440-50-8	Copper	0.362	U		200.8

FORM III-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 410-106181/1-A

Instrument Code: E08 - 30647 Batch No.: 106836

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.680	U		200.8
7440-50-8	Copper	0.362	U		200.8

FORM III-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 410-106174/1-A

Instrument Code: E09 - 30921 Batch No.: 107371

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.680	U		200.8
7440-50-8	Copper	0.4210			200.8

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 410-106168/1-A

Instrument Code: E08 - 30647 Batch No.: 107449

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.680	U		200.8
7440-50-8	Copper	0.362	U		200.8

FORM III-IN

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 410-106157/1-A

Instrument Code: E08 - 30647 Batch No.: 107450

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	0.680	U		200.8
7440-50-8	Copper	0.362	U		200.8

FORM III-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-106828/7 Instrument ID: E08 - 30647

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic	**0.400**	**0.648**	
Copper	**0.600**	**0.832**	
Aluminum	*100000*	*99643*	*100*
Antimony	*0.300*	*0.352*	
Barium	*0.500*	*0.690*	
Beryllium		*0.0080*	
Cadmium	*0.291*	*0.190*	
Calcium	*300000*	*284923*	*95*
Chromium	*1.40*	*1.66*	
Cobalt	*2.50*	*2.10*	
Iron	*250000*	*244127*	*98*
Lead	*0.300*	*0.430*	
Magnesium	*100000*	*96154*	*96*
Manganese	*2.00*	*2.23*	
Molybdenum	*2000*	*2197*	*110*
Nickel	*1.70*	*2.48*	
Potassium	*100000*	*101870*	*102*
Selenium		*0.0290*	
Silver		*0.0700*	
Sodium	*250000*	*235345*	*94*
Strontium	*1.80*	*2.57*	
Thallium		*0.0130*	
Tin		*0.450*	
Titanium	*2000*	*2067*	*103*
Uranium		*0.0460*	
Vanadium	*0.200*	*0.0270*	
Zinc	*2.20*	*2.43*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-106836/7 Instrument ID: E08 - 30647

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic	**0.400**	**0.648**	
Copper	**0.600**	**0.832**	
Aluminum	*100000*	*99643*	*100*
Antimony	*0.300*	*0.352*	
Barium	*0.500*	*0.690*	
Beryllium		*0.0080*	
Cadmium	*0.291*	*0.190*	
Calcium	*300000*	*284923*	*95*
Chromium	*1.40*	*1.66*	
Cobalt	*2.50*	*2.10*	
Iron	*250000*	*244127*	*98*
Lead	*0.300*	*0.430*	
Magnesium	*100000*	*96154*	*96*
Manganese	*2.00*	*2.23*	
Molybdenum	*2000*	*2197*	*110*
Nickel	*1.70*	*2.48*	
Potassium	*100000*	*101870*	*102*
Selenium		*0.0290*	
Silver		*0.0700*	
Sodium	*250000*	*235345*	*94*
Strontium	*1.80*	*2.57*	
Thallium		*0.0130*	
Tin		*0.450*	
Titanium	*2000*	*2067*	*103*
Uranium		*0.0460*	
Vanadium	*0.200*	*0.0270*	
Zinc	*2.20*	*2.43*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-106828/8 Instrument ID: E08 - 30647

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**96.7**	**96**
Copper	**201**	**180**	**90**
Aluminum	*100000*	*96313*	*96*
Antimony	*0.300*	*0.328*	
Barium	*0.500*	*0.664*	
Beryllium		*0.0050*	
Cadmium	*100*	*102*	*102*
Calcium	*300000*	*277757*	*93*
Chromium	*201*	*196*	*97*
Cobalt	*203*	*181*	*89*
Iron	*250000*	*241486*	*97*
Lead	*0.300*	*0.456*	
Magnesium	*100000*	*94338*	*94*
Manganese	*202*	*198*	*98*
Molybdenum	*2000*	*2199*	*110*
Nickel	*202*	*184*	*91*
Potassium	*100000*	*99212*	*99*
Selenium	*100*	*106*	*106*
Silver	*50.0*	*49.7*	*99*
Sodium	*250000*	*228361*	*91*
Strontium	*1.80*	*2.18*	
Thallium		*0.0100*	
Tin		*0.234*	
Titanium	*2000*	*2042*	*102*
Uranium		*0.0480*	
Vanadium	*200*	*197*	*98*
Zinc	*102*	*92.7*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-106836/8 Instrument ID: E08 - 30647

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**96.7**	**96**
Copper	**201**	**180**	**90**
Aluminum	*100000*	*96313*	*96*
Antimony	*0.300*	*0.328*	
Barium	*0.500*	*0.664*	
Beryllium		*0.0050*	
Cadmium	*100*	*102*	*102*
Calcium	*300000*	*277757*	*93*
Chromium	*201*	*196*	*97*
Cobalt	*203*	*181*	*89*
Iron	*250000*	*241486*	*97*
Lead	*0.300*	*0.456*	
Magnesium	*100000*	*94338*	*94*
Manganese	*202*	*198*	*98*
Molybdenum	*2000*	*2199*	*110*
Nickel	*202*	*184*	*91*
Potassium	*100000*	*99212*	*99*
Selenium	*100*	*106*	*106*
Silver	*50.0*	*49.7*	*99*
Sodium	*250000*	*228361*	*91*
Strontium	*1.80*	*2.18*	
Thallium		*0.0100*	
Tin		*0.234*	
Titanium	*2000*	*2042*	*102*
Uranium		*0.0480*	
Vanadium	*200*	*197*	*98*
Zinc	*102*	*92.7*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-107449/7 Instrument ID: E08 - 30647

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic	**0.400**	**0.682**	
Copper	**0.600**	**0.826**	
Aluminum	*100000*	*100971*	*101*
Antimony	*0.300*	*0.373*	
Barium	*0.500*	*0.732*	
Beryllium		*0.0090*	
Cadmium	*0.291*	*0.192*	
Calcium	*300000*	*286005*	*95*
Chromium	*1.40*	*1.13*	
Cobalt	*2.50*	*2.14*	
Iron	*250000*	*247875*	*99*
Lead	*0.300*	*0.409*	
Magnesium	*100000*	*98234*	*98*
Manganese	*2.00*	*2.20*	
Molybdenum	*2000*	*2228*	*111*
Nickel	*1.70*	*2.17*	
Potassium	*100000*	*102220*	*102*
Selenium		*0.0600*	
Silver		*0.0620*	
Sodium	*250000*	*239241*	*96*
Strontium	*1.80*	*2.70*	
Thallium		*0.0170*	
Tin		*0.454*	
Titanium	*2000*	*2035*	*102*
Uranium		*0.0500*	
Vanadium	*0.200*	*-0.0410*	
Zinc	*2.20*	*2.88*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-107450/7 Instrument ID: E08 - 30647

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic	**0.400**	**0.682**	
Copper	**0.600**	**0.826**	
Aluminum	*100000*	*100971*	*101*
Antimony	*0.300*	*0.373*	
Barium	*0.500*	*0.732*	
Beryllium		*0.0090*	
Cadmium	*0.291*	*0.192*	
Calcium	*300000*	*286005*	*95*
Chromium	*1.40*	*1.13*	
Cobalt	*2.50*	*2.14*	
Iron	*250000*	*247875*	*99*
Lead	*0.300*	*0.409*	
Magnesium	*100000*	*98234*	*98*
Manganese	*2.00*	*2.20*	
Molybdenum	*2000*	*2228*	*111*
Nickel	*1.70*	*2.17*	
Potassium	*100000*	*102220*	*102*
Selenium		*0.0600*	
Silver		*0.0620*	
Sodium	*250000*	*239241*	*96*
Strontium	*1.80*	*2.70*	
Thallium		*0.0170*	
Tin		*0.454*	
Titanium	*2000*	*2035*	*102*
Uranium		*0.0500*	
Vanadium	*0.200*	*-0.0410*	
Zinc	*2.20*	*2.88*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-107449/8 Instrument ID: E08 - 30647

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**98.6**	**98**
Copper	**201**	**187**	**93**
Aluminum	*100000*	*101483*	*101*
Antimony	*0.300*	*0.398*	
Barium	*0.500*	*0.956*	
Beryllium		*0.0030*	
Cadmium	*100*	*105*	*105*
Calcium	*300000*	*288498*	*96*
Chromium	*201*	*202*	*100*
Cobalt	*203*	*180*	*89*
Iron	*250000*	*249974*	*100*
Lead	*0.300*	*0.424*	
Magnesium	*100000*	*98439*	*98*
Manganese	*202*	*204*	*101*
Molybdenum	*2000*	*2275*	*114*
Nickel	*202*	*186*	*92*
Potassium	*100000*	*103052*	*103*
Selenium	*100*	*109*	*109*
Silver	*50.0*	*50.6*	*101*
Sodium	*250000*	*241922*	*97*
Strontium	*1.80*	*3.13*	
Thallium		*0.0140*	
Tin		*0.396*	
Titanium	*2000*	*2005*	*100*
Uranium		*0.0590*	
Vanadium	*200*	*200*	*100*
Zinc	*102*	*97.8*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-107450/8 Instrument ID: E08 - 30647

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**98.6**	**98**
Copper	**201**	**187**	**93**
Aluminum	*100000*	*101483*	*101*
Antimony	*0.300*	*0.398*	
Barium	*0.500*	*0.956*	
Beryllium		*0.0030*	
Cadmium	*100*	*105*	*105*
Calcium	*300000*	*288498*	*96*
Chromium	*201*	*202*	*100*
Cobalt	*203*	*180*	*89*
Iron	*250000*	*249974*	*100*
Lead	*0.300*	*0.424*	
Magnesium	*100000*	*98439*	*98*
Manganese	*202*	*204*	*101*
Molybdenum	*2000*	*2275*	*114*
Nickel	*202*	*186*	*92*
Potassium	*100000*	*103052*	*103*
Selenium	*100*	*109*	*109*
Silver	*50.0*	*50.6*	*101*
Sodium	*250000*	*241922*	*97*
Strontium	*1.80*	*3.13*	
Thallium		*0.0140*	
Tin		*0.396*	
Titanium	*2000*	*2005*	*100*
Uranium		*0.0590*	
Vanadium	*200*	*200*	*100*
Zinc	*102*	*97.8*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-107984/7 Instrument ID: E08 - 30647

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Copper	**0.600**	**0.837**	
Aluminum	*100000*	*100724*	*101*
Antimony	*0.300*	*0.302*	
Arsenic	*0.400*	*0.461*	
Barium	*0.500*	*0.667*	
Beryllium		*0.0030*	
Cadmium	*0.291*	*0.213*	
Calcium	*300000*	*262718*	*88*
Chromium	*1.40*	*0.898*	
Cobalt	*2.50*	*2.09*	
Iron	*250000*	*222883*	*89*
Lead	*0.300*	*0.411*	
Magnesium	*100000*	*96425*	*96*
Manganese	*2.00*	*2.11*	
Molybdenum	*2000*	*2078*	*104*
Nickel	*1.70*	*1.91*	
Potassium	*100000*	*99424*	*99*
Selenium		*0.0450*	
Silver		*0.0510*	
Sodium	*250000*	*234127*	*94*
Strontium	*1.80*	*2.34*	
Thallium		*0.0090*	
Tin		*0.502*	
Titanium	*2000*	*1836*	*92*
Uranium		*0.0510*	
Vanadium	*0.200*	*-0.316*	
Zinc	*2.20*	*2.57*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-107984/8 Instrument ID: E08 - 30647

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Copper	**201**	**174**	**87**
Aluminum	*100000*	*101231*	*101*
Antimony	*0.300*	*0.296*	
Arsenic	*100*	*95.7*	*95*
Barium	*0.500*	*0.737*	
Beryllium		*0.0010*	
Cadmium	*100*	*98.7*	*98*
Calcium	*300000*	*262804*	*88*
Chromium	*201*	*185*	*92*
Cobalt	*203*	*179*	*88*
Iron	*250000*	*223749*	*89*
Lead	*0.300*	*0.434*	
Magnesium	*100000*	*96254*	*96*
Manganese	*202*	*188*	*93*
Molybdenum	*2000*	*2101*	*105*
Nickel	*202*	*180*	*89*
Potassium	*100000*	*99449*	*99*
Selenium	*100*	*107*	*107*
Silver	*50.0*	*48.0*	*96*
Sodium	*250000*	*233413*	*93*
Strontium	*1.80*	*2.27*	
Thallium		*0.0030*	
Tin		*0.416*	
Titanium	*2000*	*1861*	*93*
Uranium		*0.0480*	
Vanadium	*200*	*186*	*93*
Zinc	*102*	*92.8*	*91*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSA 410-107371/7 Instrument ID: E09 - 30921

Lab File ID: 012ICSA.d ICS Source: MT_MJ_ICSA_00030

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic	**0.400**	**0.395**	
Copper	**0.600**	**0.941**	
Aluminum	*100000*	*99792*	*100*
Antimony	*0.300*	*0.321*	
Barium	*0.500*	*0.757*	
Beryllium		*0.0180*	
Cadmium	*0.291*	*0.330*	
Calcium	*300000*	*292321*	*97*
Chromium	*1.40*	*1.26*	
Cobalt	*2.50*	*2.20*	
Iron	*250000*	*218825*	*88*
Lead	*0.300*	*0.418*	
Magnesium	*100000*	*96851*	*97*
Manganese	*2.00*	*2.22*	
Molybdenum	*2000*	*2057*	*103*
Nickel	*1.70*	*1.93*	
Potassium	*100000*	*98988*	*99*
Selenium		*0.0640*	
Silver		*0.0620*	
Sodium	*250000*	*233452*	*93*
Strontium	*1.80*	*2.50*	
Thallium		*0.0270*	
Tin		*0.346*	
Titanium	*2000*	*1983*	*99*
Uranium		*0.0570*	
Vanadium	*0.200*	*-0.336*	
Zinc	*2.20*	*2.41*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Lab Sample ID: ICSAB 410-107371/8 Instrument ID: E09 - 30921

Lab File ID: 013ICSB.d ICS Source: MT_MJ_ICSAB_00024

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**100**	**95.2**	**95**
Copper	**201**	**179**	**89**
Aluminum	*100000*	*97572*	*98*
Antimony	*0.300*	*0.355*	
Barium	*0.500*	*0.781*	
Beryllium		*0.0120*	
Cadmium	*100*	*101*	*100*
Calcium	*300000*	*286588*	*96*
Chromium	*201*	*189*	*94*
Cobalt	*203*	*179*	*88*
Iron	*250000*	*220442*	*88*
Lead	*0.300*	*0.413*	
Magnesium	*100000*	*95218*	*95*
Manganese	*202*	*187*	*93*
Molybdenum	*2000*	*2066*	*103*
Nickel	*202*	*181*	*90*
Potassium	*100000*	*98076*	*98*
Selenium	*100*	*106*	*106*
Silver	*50.0*	*48.0*	*96*
Sodium	*250000*	*229437*	*92*
Strontium	*1.80*	*2.52*	
Thallium		*0.0230*	
Tin		*0.372*	
Titanium	*2000*	*1942*	*97*
Uranium		*0.0630*	
Vanadium	*200*	*195*	*97*
Zinc	*102*	*94.0*	*92*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-106828/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	483.3		96				200.8 Rev 5.4
Copper	502	462.8		92				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 410-106174/2-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	60.0	57.19		95	85	115		200.8 Rev 5.4
Copper	40.0	38.77		97	85	115		200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - TOTAL RECOVERABLE

Lab ID: LCSD 410-106174/3-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	57.66		60.0	96	85-115	1	20		200.8 Rev 5.4
Copper	39.26		40.0	98	85-115	1	20		200.8 Rev 5.4

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-106836/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	483.3		96				200.8 Rev 5.4
Copper	502	462.8		92				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 410-106181/2-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	60.0	56.75		95	85	115		200.8 Rev 5.4
Copper	40.0	38.69		97	85	115		200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - TOTAL RECOVERABLE

Lab ID: LCSD 410-106181/3-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	57.25		60.0	95	85-115	1	20		200.8 Rev 5.4
Copper	38.91		40.0	97	85-115	1	20		200.8 Rev 5.4

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-107371/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	485.1		96				200.8 Rev 5.4
Copper	502	469.5		94				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 410-106174/2-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	60.0	56.98		95	85	115		200.8 Rev 5.4
Copper	40.0	38.45		96	85	115		200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS - TOTAL RECOVERABLE

Lab ID: LCSD 410-106174/3-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	57.65		60.0	96	85-115	1	20		200.8 Rev 5.4
Copper	38.25		40.0	96	85-115	1	20		200.8 Rev 5.4

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-107449/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	508.8		101				200.8 Rev 5.4
Copper	502	495.2		99				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 410-106168/2-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	60.0	57.98		97	85	115		200.8 Rev 5.4
Copper	40.0	38.97		97	85	115		200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-107450/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	508.8		101				200.8 Rev 5.4
Copper	502	495.2		99				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 410-106157/2-A

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: Water LCS Source: MT_LCSSPK_SCP_00005

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	60.0	59.80		100	85	115		200.8 Rev 5.4
Copper	40.0	39.63		99	85	115		200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LINEAR RANGE CHECK STANDARD
METALS

Lab ID: LRC 410-107984/9

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

Sample Matrix: LCS Source: MT_MJ_LRC_00035

Analyte	(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	503	499.2		99				200.8 Rev 5.4
Copper	502	468.6		93				200.8 Rev 5.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: E08 - 30647

Method: 200.8 Rev 5.4 MDL Date: 04/28/2020 11:39

Prep Method: 200.8 Rev 5.4

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Arsenic	75	2	0.68
Copper	63	1	0.362

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: E08 - 30647

Method: 200.8 Rev 5.4 XMDL Date: 04/28/2020 11:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Arsenic	75	2	0.68
Copper	63	1	0.362

FORM IX - IN

9-IN
DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: E09 - 30921

Method: 200.8 Rev 5.4 MDL Date: 04/28/2020 11:39

Prep Method: 200.8 Rev 5.4

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Copper	63	1	0.362

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TOTAL RECOVERABLE

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: E09 - 30921

Method: 200.8 Rev 5.4 XMDL Date: 04/28/2020 11:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Copper	63	1	0.362

FORM IX - IN

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Lancaster Laboratorie Job No: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Date: 12/29/2020 14:09

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Arsenic		10000	200.8 Rev 5.4
Copper		10000	200.8 Rev 5.4

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Lancaster Laboratorie Job No: 410-33023-1

SDG No.:

Instrument ID: E09 - 30921 Date: 12/29/2020 14:10

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Copper		10000	200.8 Rev 5.4

FORM XI - IN

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Prep Method: 200.8 Rev 5.4

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 410-106157/1-A	03/23/2021 12:53	106157		50	50
LCS 410-106157/2-A	03/23/2021 12:53	106157		50	50
410-33023-2	03/23/2021 12:53	106157		50	50
410-33023-3	03/23/2021 12:53	106157		50	50

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Prep Method: 200.8 Rev 5.4

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 410-106168/1-A	03/23/2021 13:08	106168		50	50
LCS 410-106168/2-A	03/23/2021 13:08	106168		50	50
410-33023-10	03/23/2021 13:08	106168		50	50
410-33023-6	03/23/2021 13:08	106168		50	50

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Prep Method: 200.8 Rev 5.4

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 410-106174/1-A	03/23/2021 13:16	106174		50	50
LCS 410-106174/2-A	03/23/2021 13:16	106174		50	50
LCSD 410-106174/3-A	03/23/2021 13:16	106174		50	50
410-33023-7	03/23/2021 13:16	106174		50	50
410-33023-9	03/23/2021 13:16	106174		50	50

FORM XII-IN

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Prep Method: 200.8 Rev 5.4

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 410-106181/1-A	03/23/2021 13:29	106181		50	50
LCS 410-106181/2-A	03/23/2021 13:29	106181		50	50
LCSD 410-106181/3-A	03/23/2021 13:29	106181		50	50
410-33023-5	03/23/2021 13:29	106181		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Analysis Method: 200.8 Rev 5.4

Start Date: 03/23/2021 19:24 End Date: 03/24/2021 17:24

Lab Sample Id	D/F	Type	Time	Analytes																							
				As	Cu																						
ITUNE 410-106828/1	1		19:24																								
ICIS 410-106828/2			14:26	X	X																						
STD1 410-106828/3 IC	1		14:28	X	X																						
ICV 410-106828/4	1		14:30	X	X																						
ICB 410-106828/5	1		14:32	X	X																						
CRI 410-106828/6	1		14:34	X	X																						
ICSA 410-106828/7	1		14:36	X	X																						
ICSAB 410-106828/8	1		14:38	X	X																						
LRC 410-106828/9	1		14:40	X	X																						
RINSE 410-106828/10			14:42																								
RINSE 410-106828/11			14:44																								
CCV 410-106828/12	1		14:46	X	X																						
CCB 410-106828/13	1		14:48	X	X																						
CCV 410-106828/14	1		16:36	X	X																						
CCB 410-106828/15	1		16:38	X	X																						
MB 410-106174/1-A	1	R	16:40	X	X																						
LCS 410-106174/2-A	1	R	16:42	X	X																						
LCSD 410-106174/3-A	1	R	16:44	X	X																						
CCV 410-106828/19	1		16:46	X	X																						
CCB 410-106828/20	1		16:48	X	X																						
ZZZZZZ			16:50																								
ZZZZZZ			16:52																								
ZZZZZZ			16:54																								
ZZZZZZ			16:56																								
410-33023-7	1	R	16:58	X																							
ZZZZZZ			17:00																								
ZZZZZZ			17:02																								
ZZZZZZ			17:04																								
410-33023-9	1	R	17:06	X																							
ZZZZZZ			17:08																								
CCV 410-106828/31	1		17:09	X	X																						
CCB 410-106828/32	1		17:11	X																							
ZZZZZZ			17:13																								
ZZZZZZ			17:16																								
ZZZZZZ			17:18																								
ZZZZZZ			17:20																								
CCV 410-106828/37	1		17:22	X	X																						
CCB 410-106828/38	1		17:24	X	X																						

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Analysis Method: 200.8 Rev 5.4

Start Date: 03/23/2021 19:24 End Date: 03/24/2021 15:46

Lab Sample Id	D/F	Type	Time	Analytes																							
				As	Cu																						
ITUNE 410-106836/1	1		19:24																								
ICIS 410-106836/2			14:26	X	X																						
STD1 410-106836/3 IC	1		14:28	X	X																						
ICV 410-106836/4	1		14:30	X	X																						
ICB 410-106836/5	1		14:32	X	X																						
CRI 410-106836/6	1		14:34	X	X																						
ICSA 410-106836/7	1		14:36	X	X																						
ICSAB 410-106836/8	1		14:38	X	X																						
LRC 410-106836/9	1		14:40	X	X																						
RINSE 410-106836/10			14:42																								
RINSE 410-106836/11			14:44																								
CCV 410-106836/12	1		14:46	X	X																						
CCB 410-106836/13	1		14:48	X	X																						
CCV 410-106836/14	1		15:07	X	X																						
CCB 410-106836/15	1		15:09	X	X																						
MB 410-106181/1-A	1	R	15:11	X	X																						
LCS 410-106181/2-A	1	R	15:13	X	X																						
LCSD 410-106181/3-A	1	R	15:15	X	X																						
ZZZZZZ			15:17																								
ZZZZZZ			15:19																								
ZZZZZZ			15:21																								
ZZZZZZ			15:23																								
ZZZZZZ			15:25																								
ZZZZZZ			15:27																								
410-33023-5	1	R	15:29	X	X																						
CCV 410-106836/26	1		15:31	X	X																						
CCB 410-106836/27	1		15:33	X	X																						
ZZZZZZ			15:35																								
ZZZZZZ			15:36																								
ZZZZZZ			15:38																								
ZZZZZZ			15:40																								
ZZZZZZ			15:42																								
CCV 410-106836/33			15:44																								
CCB 410-106836/34			15:46																								

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Analysis Method: 200.8 Rev 5.4

Start Date: 03/25/2021 09:05 End Date: 03/25/2021 22:14

Lab Sample Id	D/F	Type	Time	Analytes																							
				As	Cu																						
ITUNE 410-107449/1	1		09:05																								
ICIS 410-107449/2			16:32	X	X																						
STD1 410-107449/3 IC	1		16:34	X	X																						
ICV 410-107449/4	1		16:36	X	X																						
ICB 410-107449/5	1		16:38	X	X																						
CRI 410-107449/6	1		16:40	X	X																						
ICSA 410-107449/7	1		16:42	X	X																						
ICSAB 410-107449/8	1		16:44	X	X																						
LRC 410-107449/9	1		16:46	X	X																						
CCV 410-107449/10	1		19:53	X	X																						
CCB 410-107449/11	1		19:55	X	X																						
MB 410-106168/1-A	1	R	19:57	X	X																						
LCS 410-106168/2-A	1	R	19:59	X	X																						
ZZZZZZ			20:01																								
ZZZZZZ			20:03																								
ZZZZZZ			20:05																								
ZZZZZZ			20:06																								
ZZZZZZ			20:08																								
CCV 410-107449/19	1		20:10	X	X																						
CCB 410-107449/20	1		20:12	X	X																						
410-33023-10	1	R	20:14	X	X																						
ZZZZZZ			20:16																								
ZZZZZZ			20:18																								
410-33023-6	1	R	20:20	X	X																						
ZZZZZZ			20:22																								
ZZZZZZ			20:24																								
ZZZZZZ			20:26																								
ZZZZZZ			20:28																								
CCV 410-107449/29	1		20:30	X	X																						
CCB 410-107449/30	1		20:32	X	X																						
CCV 410-107449/31			21:50																								
CCB 410-107449/32			21:52																								
ZZZZZZ			22:04																								
CCV 410-107449/34			22:12																								
CCB 410-107449/35			22:14																								

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Analysis Method: 200.8 Rev 5.4

Start Date: 03/25/2021 09:05 End Date: 03/25/2021 22:14

Lab Sample Id	D/F	Type	Time	Analytes																							
				As	Cu																						
ITUNE 410-107450/1	1		09:05																								
ICIS 410-107450/2			16:32	X	X																						
STD1 410-107450/3 IC	1		16:34	X	X																						
ICV 410-107450/4	1		16:36	X	X																						
ICB 410-107450/5	1		16:38	X	X																						
CRI 410-107450/6	1		16:40	X	X																						
ICSA 410-107450/7	1		16:42	X	X																						
ICSAB 410-107450/8	1		16:44	X	X																						
LRC 410-107450/9	1		16:46	X	X																						
CCV 410-107450/10	1		20:30	X	X																						
CCB 410-107450/11	1		20:32	X	X																						
MB 410-106157/1-A	1	R	20:34	X	X																						
LCS 410-106157/2-A	1	R	20:36	X	X																						
ZZZZZZ			20:38																								
ZZZZZZ			20:40																								
ZZZZZZ			20:42																								
ZZZZZZ			20:44																								
ZZZZZZ			20:46																								
CCV 410-107450/19	1		20:48	X	X																						
CCB 410-107450/20	1		20:49	X	X																						
ZZZZZZ			20:51																								
ZZZZZZ			20:53																								
ZZZZZZ			20:55																								
410-33023-2	1	R	20:57	X	X																						
ZZZZZZ			20:59																								
ZZZZZZ			21:01																								
ZZZZZZ			21:03																								
ZZZZZZ			21:05																								
CCV 410-107450/29	1		21:07	X	X																						
CCB 410-107450/30	1		21:09	X	X																						
CCV 410-107450/31	1		21:50	X	X																						
CCB 410-107450/32	1		21:52	X	X																						
410-33023-3	1	R	22:06	X																							
CCV 410-107450/34	1		22:12	X	X																						
CCB 410-107450/35	1		22:14	X																							

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E08 - 30647 Analysis Method: 200.8 Rev 5.4

Start Date: 03/26/2021 18:03 End Date: 03/27/2021 14:12

Lab Sample Id	D/F	Type	Time	Analytes																							
				Cu																							
ITUNE 410-107984/1	1		18:03																								
ICIS 410-107984/2			13:37	X																							
STD1 410-107984/3 IC	1		13:39	X																							
ICV 410-107984/4	1		13:41	X																							
ICB 410-107984/5	1		13:43	X																							
CRI 410-107984/6	1		13:45	X																							
ICSA 410-107984/7	1		13:47	X																							
ICSAB 410-107984/8	1		13:49	X																							
LRC 410-107984/9	1		13:50	X																							
CCV 410-107984/10	1		13:56	X																							
CCB 410-107984/11	1		13:58	X																							
ZZZZZZ			14:00																								
ZZZZZZ			14:02																								
410-33023-3	1	R	14:04	X																							
ZZZZZZ			14:06																								
ZZZZZZ			14:08																								
CCV 410-107984/17	1		14:10	X																							
CCB 410-107984/18	1		14:12	X																							

Prep Types:
R = Total Recoverable

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: E09 - 30921 Analysis Method: 200.8 Rev 5.4

Start Date: 03/24/2021 20:40 End Date: 03/25/2021 17:51

Lab Sample Id	D/F	Type	Time	Analytes																							
				As	Cu																						
ITUNE 410-107371/1	1		20:40																								
ICIS 410-107371/2			08:47	X	X																						
STD1 410-107371/3 IC	1		08:49	X	X																						
ICV 410-107371/4	1		08:51	X	X																						
ICB 410-107371/5	1		08:53	X	X																						
CRI 410-107371/6	1		08:55	X	X																						
ICSA 410-107371/7	1		08:57	X	X																						
ICSAB 410-107371/8	1		08:59	X	X																						
LRC 410-107371/9	1		09:01	X	X																						
RINSE 410-107371/10			09:03																								
RINSE 410-107371/11			09:05																								
CCV 410-107371/12	1		09:07	X	X																						
CCB 410-107371/13	1		09:09	X	X																						
CCV 410-107371/14	1		17:09	X	X																						
CCB 410-107371/15	1		17:11	X	X																						
MB 410-106174/1-A	1	R	17:13	X	X																						
LCS 410-106174/2-A	1	R	17:15	X	X																						
LCSD 410-106174/3-A	1	R	17:17	X	X																						
CCV 410-107371/19	1		17:19	X	X																						
CCB 410-107371/20	1		17:21	X	X																						
410-33023-7	1	R	17:23		X																						
410-33023-9	1	R	17:25		X																						
ZZZZZZ			17:27																								
ZZZZZZ			17:29																								
RINSE 410-107371/25			17:31																								
RINSE 410-107371/26			17:33																								
RINSE 410-107371/27			17:35																								
CCV 410-107371/28	1		17:37	X	X																						
CCB 410-107371/29	1		17:43	X	X																						
ZZZZZZ			17:45																								
ZZZZZZ			17:47																								
CCV 410-107371/32			17:49																								
CCB 410-107371/33			17:51																								

Prep Types:
R = Total Recoverable

FORM XIII-IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E08 - 30647 Analysis Date: 03/23/21

Lab ID: ITUNE 410-106828/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7574	1.053	
Mg-24	24	0.7898	0.96	
Co-59	59	0.7589	0.586	
In-115	115	0.7265	1.214	
Pb-208	208	0.7085	1.534	

FORM XIV - IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E08 - 30647 Analysis Date: 03/23/21

Lab ID: ITUNE 410-106836/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7574	1.053	
Mg-24	24	0.7898	0.96	
Co-59	59	0.7589	0.586	
In-115	115	0.7265	1.214	
Pb-208	208	0.7085	1.534	

FORM XIV - IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E08 - 30647 Analysis Date: 03/25/21

Lab ID: ITUNE 410-107449/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7481	0.757	
Mg-24	24	0.7237	0.759	
Co-59	59	0.7207	0.525	
In-115	115	0.6868	0.732	
Pb-208	208	0.7166	1	

FORM XIV - IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E08 - 30647 Analysis Date: 03/25/21

Lab ID: ITUNE 410-107450/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7481	0.757	
Mg-24	24	0.7237	0.759	
Co-59	59	0.7207	0.525	
In-115	115	0.6868	0.732	
Pb-208	208	0.7166	1	

FORM XIV - IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E08 - 30647 Analysis Date: 03/26/21

Lab ID: ITUNE 410-107984/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7272	1.89	
Mg-24	24	0.7713	1.222	
Co-59	59	0.7803	0.593	
In-115	115	0.7269	0.925	
Pb-208	208	0.7434	1.298	

FORM XIV - IN

14-IN
ICP-MS TUNE
METALS

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

ICP-MS Instrument ID: E09 - 30921 Analysis Date: 03/24/21

Lab ID: ITUNE 410-107371/1

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at Peak Height (amu)	% RSD	Q
Be-9	9	0.7573	0.712	
Mg-24	24	0.7655	0.364	
Co-59	59	0.7560	0.633	
In-115	115	0.7238	0.662	
Pb-208	208	0.7250	1.123	

FORM XIV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106828

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-106828/3 IC	14:28	102		100		100		95		97	
ICV 410-106828/4	14:30	100		101		101		94		97	
ICB 410-106828/5	14:32	100		99		99		99		102	
CRI 410-106828/6	14:34	100		101		99		101		103	
ICSA 410-106828/7	14:36	97		99		98		99		103	
ICSAB 410-106828/8	14:38	100		100		101		99		104	
LRC 410-106828/9	14:40	100		104		104		97		103	
CCV 410-106828/12	14:46	101		102		101		95		98	
CCB 410-106828/13	14:48	101		102		105		100		103	
CCV 410-106828/14	16:36	102		105		103		95		99	
CCB 410-106828/15	16:38	101		103		100		99		102	
MB 410-106174/1-A	16:40	104		106		103		100		106	
LCS 410-106174/2-A	16:42	104		108		105		102		110	
LCSD 410-106174/3-A	16:44	104		106		103		103		111	
CCV 410-106828/19	16:46	102		102		102		94		98	
CCB 410-106828/20	16:48	100		103		103		100		103	
410-33023-7	16:58	96		104		98		89		101	
410-33023-9	17:06	106		110		105		104		111	
CCV 410-106828/31	17:09	101		108		104		93		101	
CCB 410-106828/32	17:11	101		104		106		99		105	
CCV 410-106828/37	17:22	103		107		107		95		102	
CCB 410-106828/38	17:24	102		107		108		101		107	

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106828

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121		X			
Barium	137		X			
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120		X			
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106828

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-106828/3 IC	14:28	95		102		101		100		98	
ICV 410-106828/4	14:30	97		101		101		99		100	
ICB 410-106828/5	14:32	101		102		100		100		99	
CRI 410-106828/6	14:34	102		103		100		100		99	
ICSA 410-106828/7	14:36	103		99		98		99		92	
ICSAB 410-106828/8	14:38	104		100		99		99		92	
LRC 410-106828/9	14:40	103		110		109		101		97	
CCV 410-106828/12	14:46	99		105		103		102		99	
CCB 410-106828/13	14:48	105		105		104		102		101	
CCV 410-106828/14	16:36	98		105		104		102		100	
CCB 410-106828/15	16:38	104		104		104		100		100	
MB 410-106174/1-A	16:40	104		106		103		103		103	
LCS 410-106174/2-A	16:42	107		110		107		103		104	
LCSD 410-106174/3-A	16:44	108		109		108		102		102	
CCV 410-106828/19	16:46	98		105		104		101		99	
CCB 410-106828/20	16:48	103		103		101		101		100	
410-33023-7	16:58	101		95		96		94		84	
410-33023-9	17:06	111		109		110		105		104	
CCV 410-106828/31	17:09	100		107		106		102		100	
CCB 410-106828/32	17:11	107		105		103		102		100	
CCV 410-106828/37	17:22	103		108		106		104		102	
CCB 410-106828/38	17:24	107		106		106		102		102	

FORM XV - IN

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106828

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44		X			
Chromium	52		X			
Cobalt	59					X
Iron	57		X			
Lead	208					
Magnesium	24		X			
Manganese	55		X			
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47		X			
Uranium	238					
Vanadium	51		X			
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106836

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-106836/3 IC	14:28	102		100		100		95		97	
ICV 410-106836/4	14:30	100		101		101		94		97	
ICB 410-106836/5	14:32	100		99		99		99		102	
CRI 410-106836/6	14:34	100		101		99		101		103	
ICSA 410-106836/7	14:36	97		99		98		99		103	
ICSAB 410-106836/8	14:38	100		100		101		99		104	
LRC 410-106836/9	14:40	100		104		104		97		103	
CCV 410-106836/12	14:46	101		102		101		95		98	
CCB 410-106836/13	14:48	101		102		105		100		103	
CCV 410-106836/14	15:07	101		104		101		95		98	
CCB 410-106836/15	15:09	101		103		102		100		103	
MB 410-106181/1-A	15:11	104		106		105		99		107	
LCS 410-106181/2-A	15:13	104		107		106		103		110	
LCSD 410-106181/3-A	15:15	103		108		107		104		110	
410-33023-5	15:29	103		107		104		102		110	
CCV 410-106836/26	15:31	100		105		102		94		98	
CCB 410-106836/27	15:33	100		104		104		98		104	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106836

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121		X			
Barium	137		X			
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120		X			
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106836

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-106836/3 IC	14:28	95		102		101		100		98	
ICV 410-106836/4	14:30	97		101		101		99		100	
ICB 410-106836/5	14:32	101		102		100		100		99	
CRI 410-106836/6	14:34	102		103		100		100		99	
ICSA 410-106836/7	14:36	103		99		98		99		92	
ICSAB 410-106836/8	14:38	104		100		99		99		92	
LRC 410-106836/9	14:40	103		110		109		101		97	
CCV 410-106836/12	14:46	99		105		103		102		99	
CCB 410-106836/13	14:48	105		105		104		102		101	
CCV 410-106836/14	15:07	98		105		102		102		99	
CCB 410-106836/15	15:09	104		104		103		103		101	
MB 410-106181/1-A	15:11	106		107		106		103		103	
LCS 410-106181/2-A	15:13	109		109		107		104		102	
LCSD 410-106181/3-A	15:15	109		111		108		103		102	
410-33023-5	15:29	108		107		106		105		101	
CCV 410-106836/26	15:31	98		105		105		102		101	
CCB 410-106836/27	15:33	103		105		105		102		101	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 106836

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/24/2021 End Date: 03/24/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44		X			
Chromium	52		X			
Cobalt	59					X
Iron	57		X			
Lead	208					
Magnesium	24		X			
Manganese	55		X			
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47		X			
Uranium	238					
Vanadium	51		X			
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107449

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-107449/3 IC	16:34	101		102		100		96		96	
ICV 410-107449/4	16:36	100		99		99		94		95	
ICB 410-107449/5	16:38	99		99		100		99		100	
CRI 410-107449/6	16:40	98		99		96		98		99	
ICSA 410-107449/7	16:42	96		97		98		98		97	
ICSAB 410-107449/8	16:44	97		99		98		98		99	
LRC 410-107449/9	16:46	100		100		100		95		97	
CCV 410-107449/10	19:53	105		109		110		97		104	
CCB 410-107449/11	19:55	103		106		105		102		106	
MB 410-106168/1-A	19:57	104		109		107		103		107	
LCS 410-106168/2-A	19:59	106		110		111		105		112	
CCV 410-107449/19	20:10	101		105		102		95		99	
CCB 410-107449/20	20:12	101		103		105		99		105	
410-33023-10	20:14	105		106		107		104		108	
410-33023-6	20:20	104		107		107		102		108	
CCV 410-107449/29	20:30	98		103		99		91		94	
CCB 410-107449/30	20:32	98		101		101		97		100	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107449

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121		X			
Barium	137		X			
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120		X			
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107449

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-107449/3 IC	16:34	95		104		101		100		98	
ICV 410-107449/4	16:36	96		100		100		99		101	
ICB 410-107449/5	16:38	100		101		99		99		99	
CRI 410-107449/6	16:40	99		100		99		99		100	
ICSA 410-107449/7	16:42	99		95		96		96		92	
ICSAB 410-107449/8	16:44	98		96		96		98		93	
LRC 410-107449/9	16:46	96		106		104		100		97	
CCV 410-107449/10	19:53	104		112		110		107		107	
CCB 410-107449/11	19:55	108		109		110		107		107	
MB 410-106168/1-A	19:57	108		111		110		106		108	
LCS 410-106168/2-A	19:59	112		114		111		108		109	
CCV 410-107449/19	20:10	98		108		105		105		104	
CCB 410-107449/20	20:12	104		107		107		105		105	
410-33023-10	20:14	109		110		107		106		103	
410-33023-6	20:20	109		109		109		106		106	
CCV 410-107449/29	20:30	95		103		103		102		102	
CCB 410-107449/30	20:32	102		104		103		102		103	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107449

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44		X			
Chromium	52		X			
Cobalt	59					X
Iron	57		X			
Lead	208					
Magnesium	24		X			
Manganese	55		X			
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47		X			
Uranium	238					
Vanadium	51		X			
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107450

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-107450/3 IC	16:34	101		102		100		96		96	
ICV 410-107450/4	16:36	100		99		99		94		95	
ICB 410-107450/5	16:38	99		99		100		99		100	
CRI 410-107450/6	16:40	98		99		96		98		99	
ICSA 410-107450/7	16:42	96		97		98		98		97	
ICSAB 410-107450/8	16:44	97		99		98		98		99	
LRC 410-107450/9	16:46	100		100		100		95		97	
CCV 410-107450/10	20:30	98		103		99		91		94	
CCB 410-107450/11	20:32	98		101		101		97		100	
MB 410-106157/1-A	20:34	101		105		106		99		104	
LCS 410-106157/2-A	20:36	102		106		106		101		107	
CCV 410-107450/19	20:48	99		101		102		93		94	
CCB 410-107450/20	20:49	99		106		102		97		102	
410-33023-2	20:57	101		104		104		100		105	
CCV 410-107450/29	21:07	97		99		100		91		93	
CCB 410-107450/30	21:09	98		100		98		98		99	
CCV 410-107450/31	21:50	98		100		101		90		94	
CCB 410-107450/32	21:52	98		99		99		97		98	
410-33023-3	22:06	102		114		108		95		107	
CCV 410-107450/34	22:12	107		108		105		98		101	
CCB 410-107450/35	22:14	104		107		107		102		106	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107450

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121		X			
Barium	137		X			
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120		X			
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107450

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-107450/3 IC	16:34	95		104		101		100		98	
ICV 410-107450/4	16:36	96		100		100		99		101	
ICB 410-107450/5	16:38	100		101		99		99		99	
CRI 410-107450/6	16:40	99		100		99		99		100	
ICSA 410-107450/7	16:42	99		95		96		96		92	
ICSAB 410-107450/8	16:44	98		96		96		98		93	
LRC 410-107450/9	16:46	96		106		104		100		97	
CCV 410-107450/10	20:30	95		103		103		102		102	
CCB 410-107450/11	20:32	102		104		103		102		103	
MB 410-106157/1-A	20:34	104		109		107		104		105	
LCS 410-106157/2-A	20:36	107		110		109		105		106	
CCV 410-107450/19	20:48	96		105		103		102		102	
CCB 410-107450/20	20:49	101		107		104		102		105	
410-33023-2	20:57	107		107		106		104		105	
CCV 410-107450/29	21:07	95		103		103		102		102	
CCB 410-107450/30	21:09	100		103		103		101		102	
CCV 410-107450/31	21:50	95		104		102		101		103	
CCB 410-107450/32	21:52	100		103		101		102		103	
410-33023-3	22:06	109		105		106		103		93	
CCV 410-107450/34	22:12	103		113		111		110		109	
CCB 410-107450/35	22:14	109		112		113		110		110	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107450

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44		X			
Chromium	52		X			
Cobalt	59					X
Iron	57		X			
Lead	208					
Magnesium	24		X			
Manganese	55		X			
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47		X			
Uranium	238					
Vanadium	51		X			
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107984

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/27/2021 End Date: 03/27/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-107984/3 IC	13:39	100		99		102		97		95	
ICV 410-107984/4	13:41	100		101		101		96		95	
ICB 410-107984/5	13:43	99		100		103		100		101	
CRI 410-107984/6	13:45	99		100		101		99		100	
ICSA 410-107984/7	13:47	97		101		101		98		100	
ICSAB 410-107984/8	13:49	98		100		103		99		101	
LRC 410-107984/9	13:50	101		100		106		97		100	
CCV 410-107984/10	13:56	101		102		105		96		99	
CCB 410-107984/11	13:58	101		101		103		101		102	
410-33023-3	14:04	97		112		109		89		109	
410-33023-3	14:06	109		116		113		101		118	
410-33023-3	14:08	111		115		114		102		113	
CCV 410-107984/17	14:10	109		113		113		100		109	
CCB 410-107984/18	14:12	107		112		111		104		115	

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ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107984

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/27/2021 End Date: 03/27/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121			X		
Barium	137			X		
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120			X		
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107984

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/27/2021 End Date: 03/27/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-107984/3 IC	13:39	95		100		100		103		101	
ICV 410-107984/4	13:41	97		102		103		103		102	
ICB 410-107984/5	13:43	101		101		100		103		100	
CRI 410-107984/6	13:45	101		101		100		101		100	
ICSA 410-107984/7	13:47	102		95		100		104		98	
ICSAB 410-107984/8	13:49	104		97		101		102		97	
LRC 410-107984/9	13:50	104		106		109		105		100	
CCV 410-107984/10	13:56	100		102		102		105		103	
CCB 410-107984/11	13:58	105		102		103		104		102	
410-33023-3	14:04	108		95		102		99		87	
410-33023-3	14:06	114		105		113		108		102	
410-33023-3	14:08	113		108		113		111		110	
CCV 410-107984/17	14:10	108		107		114		111		110	
CCB 410-107984/18	14:12	114		107		111		112		109	

FORM XV - IN

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107984

ICP-MS Instrument ID: E08 - 30647 Start Date: 03/27/2021 End Date: 03/27/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44					X
Chromium	52					X
Cobalt	59					X
Iron	57					X
Lead	208					
Magnesium	24		X			
Manganese	55					X
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47					X
Uranium	238					
Vanadium	51					X
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107371

ICP-MS Instrument ID: E09 - 30921 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Sc-45/1	Q	Element Sc-45/2	Q	Element Sc-45/3	Q	Element Ge/1	Q	Element Ge/2	Q
STD1 410-107371/3 IC	08:49	102		100		101		96		97	
ICV 410-107371/4	08:51	101		100		100		97		96	
ICB 410-107371/5	08:53	101		100		101		100		101	
CRI 410-107371/6	08:55	102		100		101		101		100	
ICSA 410-107371/7	08:57	98		100		99		100		102	
ICSAB 410-107371/8	08:59	100		102		102		101		103	
LRC 410-107371/9	09:01	103		103		105		99		102	
CCV 410-107371/12	09:07	103		102		102		96		96	
CCB 410-107371/13	09:09	101		101		103		101		101	
CCV 410-107371/14	17:09	99		102		102		95		98	
CCB 410-107371/15	17:11	97		101		101		99		103	
MB 410-106174/1-A	17:13	99		103		104		100		104	
LCS 410-106174/2-A	17:15	100		103		105		104		108	
LCSD 410-106174/3-A	17:17	99		103		104		102		108	
CCV 410-107371/19	17:19	97		100		102		95		96	
CCB 410-107371/20	17:21	97		99		101		99		101	
410-33023-7	17:23	91		103		102		90		101	
410-33023-9	17:25	104		108		107		106		115	
CCV 410-107371/28	17:37	98		101		103		95		97	
CCB 410-107371/29	17:43	97		98		99		99		100	

FORM XV - IN

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107371

ICP-MS Instrument ID: E09 - 30921 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element In-115/2 115	Element In-115/3 115	Element Tb-159 159	Element Bi-209 209	Element Sc-45/1 45
Arsenic	75					
Copper	63					
Aluminum	27					
Antimony	121		X			
Barium	137		X			
Beryllium	9					X
Cadmium	111		X			
Calcium	44					
Chromium	52					
Cobalt	59					
Iron	57					
Lead	208				X	
Magnesium	24					
Manganese	55					
Molybdenum	98		X			
Nickel	60					
Potassium	39					
Selenium	78	X				
Silver	107		X			
Sodium	23					
Strontium	88		X			
Thallium	205				X	
Tin	120		X			
Titanium	47					
Uranium	238				X	
Vanadium	51					
Zinc	66					
Internal Standard Name on Instrument		In-115 (IS)	In-115 (IS)	Tb-159 (IS)	Bi-209 (IS)	Sc-45 (IS)

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107371

ICP-MS Instrument ID: E09 - 30921 Start Date: 03/25/2021 End Date: 03/25/2021

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ge/3	Q	Element In-115/2	Q	Element In-115/3	Q	Element Tb-159	Q	Element Bi-209	Q
STD1 410-107371/3 IC	08:49	96		102		100		102		101	
ICV 410-107371/4	08:51	96		102		101		101		102	
ICB 410-107371/5	08:53	101		100		99		101		102	
CRI 410-107371/6	08:55	101		101		99		101		101	
ICSA 410-107371/7	08:57	102		96		97		101		95	
ICSAB 410-107371/8	08:59	103		97		97		101		95	
LRC 410-107371/9	09:01	102		107		107		102		99	
CCV 410-107371/12	09:07	98		101		101		102		101	
CCB 410-107371/13	09:09	103		101		101		102		100	
CCV 410-107371/14	17:09	96		102		102		102		102	
CCB 410-107371/15	17:11	102		101		102		101		102	
MB 410-106174/1-A	17:13	103		104		106		103		104	
LCS 410-106174/2-A	17:15	107		106		106		104		105	
LCSD 410-106174/3-A	17:17	107		106		107		103		105	
CCV 410-107371/19	17:19	98		101		102		102		102	
CCB 410-107371/20	17:21	101		100		101		101		102	
410-33023-7	17:23	99		91		97		96		88	
410-33023-9	17:25	110		107		108		107		108	
CCV 410-107371/28	17:37	97		102		102		104		104	
CCB 410-107371/29	17:43	100		99		101		101		103	

FORM XV - IN

15A-IN
ICP-MS INTERNAL STANDARDS RELATIONS
METALS

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33023-1

SDG No.: Analysis Batch No.: 107371

ICP-MS Instrument ID: E09 - 30921 Start Date: 03/25/2021 End Date: 03/25/2021

Analyte	Mass	Internal Standard Used:				
		Element Sc-45/2 45	Element Sc-45/3 45	Element Ge/1 72	Element Ge/2 72	Element Ge/3 72
Arsenic	75					X
Copper	63					X
Aluminum	27		X			
Antimony	121					
Barium	137					
Beryllium	9					
Cadmium	111					
Calcium	44		X			
Chromium	52		X			
Cobalt	59					X
Iron	57					X
Lead	208					
Magnesium	24		X			
Manganese	55					X
Molybdenum	98					
Nickel	60					X
Potassium	39		X			
Selenium	78					
Silver	107					
Sodium	23		X			
Strontium	88					
Thallium	205					
Tin	120					
Titanium	47		X			
Uranium	238					
Vanadium	51		X			
Zinc	66					X
Internal Standard Name on Instrument		Sc-45 (IS)	Sc-45 (IS)	Ge Internal Standard	Ge Internal Standard	Ge Internal Standard

FORM XV - IN

METALS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 106157 Batch Start Date: 03/23/21 12:53 Batch Analyst: Mertz, James L

Batch Method: 200.8 Rev 5.4 Batch End Date: 03/24/21 06:13

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MP_1:1HCl 00009	MP_1:1HNO3 00013	MT_LCSSPK_SCP 00005	
MB 410-106157/1		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL		
LCS 410-106157/2		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
410-33023-G-2	PL2-258A-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		
410-33023-G-3	PL2-258B-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		

Batch Notes	
First End time	0613
Hot Block ID	12
Pipette ID	P049
Analyst ID - Spike Witness Analyst	1184
First Start time	0200
Digestion Tube/Cup ID	2010025

Basis	Basis Description
R	Total Recoverable

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 106168 Batch Start Date: 03/23/21 13:08 Batch Analyst: Mertz, James L

Batch Method: 200.8 Rev 5.4 Batch End Date: 03/24/21 06:18

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MP_1:1HCl 00009	MP_1:1HNO3 00013	MT_LCSSPK_SCP 00005	
MB 410-106168/1		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL		
LCS 410-106168/2		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
410-33023-H-10	PL2-619A-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		
410-33023-G-6	PL2-214A-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		

Batch Notes	
First End time	0618
Hot Block ID	12
Pipette ID	P049
Analyst ID - Spike Witness Analyst	1184
First Start time	0200
Digestion Tube/Cup ID	2010025

Basis	Basis Description
R	Total Recoverable

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 106174 Batch Start Date: 03/23/21 13:16 Batch Analyst: Mertz, James L

Batch Method: 200.8 Rev 5.4 Batch End Date: 03/24/21 06:11

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MP_1:1HCl 00009	MP_1:1HNO3 00013	MT_LCSSPK_SCP 00005	
MB 410-106174/1		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL		
LCS 410-106174/2		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
LCSD 410-106174/3		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
410-33023-G-7	PL2-214B-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		
410-33023-G-9	PL2-213A-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		

Batch Notes	
First End time	0611
Hot Block ID	12
Analyst ID - Spike Witness Analyst	1184
First Start time	0200
Digestion Tube/Cup ID	2010025

Basis	Basis Description
R	Total Recoverable

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 106181 Batch Start Date: 03/23/21 13:29 Batch Analyst: Mertz, James L

Batch Method: 200.8 Rev 5.4 Batch End Date: 03/24/21 06:11

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MP_1:1HCl 00009	MP_1:1HNO3 00013	MT_LCSSPK_SCP 00005	
MB 410-106181/1		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL		
LCS 410-106181/2		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
LCSD 410-106181/3		200.8 Rev 5.4, 200.8 Rev 5.4		50 mL	50 mL	0.5 mL	1 mL	0.2 mL	
410-33023-G-5	PL2-271A-210317	200.8 Rev 5.4, 200.8 Rev 5.4	R	50 mL	50 mL	0.5 mL	1 mL		

Batch Notes	
First End time	0611
Hot Block ID	12
Pipette ID	P049
Analyst ID - Spike Witness Analyst	1184
First Start time	0200
Digestion Tube/Cup ID	2010025

Basis	Basis Description
R	Total Recoverable

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.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG No.:

Project: Plant 2 Semi Annual GW Sampling

Client Sample ID	Lab Sample ID
PL2-619A-210317	410-33023-10

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PL2-619A-210317
Lab Sample ID: 410-33023-10
Lab Name: Eurofins Lancaster Laboratories Env
Job No.: 410-33023-1
SDG ID.:
Matrix: Water
Date Sampled: 03/17/2021 17:00
Reporting Basis: WET
Date Received: 03/19/2021 11:21

CAS No.	Analyte	Result	RL		Units	C	Q	DIL	Method
	Cyanide, Free	0.00200	0.00200		mg/L	U		1	OIA-1677

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

Analyst: UJE2 Batch Start Date: 03/25/2021

Reporting Units: mg/L Analytical Batch No.: 107299

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICV	12:53	Cyanide, Free	0.02494	0.0250	100	85.6-118.4		WC_AmpCNCCV_00018
15	ICB	12:55	Cyanide, Free	0.00200				U	
26	CCV	13:17	Cyanide, Free	0.02465	0.0250	99	85.6-118.4		WC_AmpCNCCV_00018
27	CCB	13:19	Cyanide, Free	0.00200				U	
38	CCV	13:41	Cyanide, Free	0.02199	0.0250	88	85.6-118.4		WC_AmpCNCCV_00018
39	CCB	13:43	Cyanide, Free	0.00200				U	
45	CCV	13:55	Cyanide, Free	0.02761	0.0250	110	85.6-118.4		WC_AmpCNCCV_00018
46	CCB	13:57	Cyanide, Free	0.00200				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33023-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 107299 Date: 03/25/2021 13:31							
OIA-1677	MB 410-107299/33	Cyanide, Free	0.00200	U	mg/L	0.00200	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories En Job No.: 410-33023-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 107299	Date: 03/25/2021 13:29										
						LCS Source: WC_FL_FCNLCS_00015					
OIA-1677	LCS 410-107299/32	Cyanide, Free	0.04039		mg/L	0.0400	101	86-132			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: 19369

Method: OIA-1677 MDL Date: 11/26/2018 08:17

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Cyanide, Free		0.006	0.002

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Job Number: 410-33023-1

SDG Number:

Matrix: Water Instrument ID: 19369

Method: OIA-1677 XMDL Date: 11/26/2018 08:19

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Cyanide, Free		0.006	0.002

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 19369 Analysis Method: OIA-1677

Start Date: 03/25/2021 12:27 End Date: 03/25/2021 13:57

Lab Sample Id	D/F	Type	Time	Analytes																							
				CNFree																							
ZZZZZZ			12:27																								
RINSE 410-107299/2			12:29																								
RINSE 410-107299/3			12:31																								
ZZZZZZ			12:33																								
IC 410-107299/5			12:35	X																							
IC 410-107299/6			12:37	X																							
IC 410-107299/7			12:39	X																							
IC 410-107299/8			12:41	X																							
IC 410-107299/9			12:43	X																							
IC 410-107299/10			12:45	X																							
IC 410-107299/11			12:47	X																							
ZZZZZZ			12:49																								
ZZZZZZ			12:51																								
ICV 410-107299/14	1		12:53	X																							
ICB 410-107299/15	1		12:55	X																							
ZZZZZZ			12:57																								
ZZZZZZ			12:59																								
ZZZZZZ			13:01																								
ZZZZZZ			13:03																								
ZZZZZZ			13:05																								
ZZZZZZ			13:07																								
ZZZZZZ			13:09																								
ZZZZZZ			13:11																								
ZZZZZZ			13:13																								
ZZZZZZ			13:15																								
CCV2 410-107299/26	1		13:17	X																							
CCB 410-107299/27	1		13:19	X																							
ZZZZZZ			13:21																								
ZZZZZZ			13:23																								
ZZZZZZ			13:25																								
ZZZZZZ			13:27																								
LCS 410-107299/32	1	T	13:29	X																							
MB 410-107299/33	1	T	13:31	X																							
ZZZZZZ			13:33																								
ZZZZZZ			13:35																								
ZZZZZZ			13:37																								
ZZZZZZ			13:39																								
CCV2 410-107299/38	1		13:41	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33023-1

SDG No.:

Instrument ID: 19369 Analysis Method: OIA-1677

Start Date: 03/25/2021 12:27 End Date: 03/25/2021 13:57

Lab Sample Id	D/F	Type	Time	Analytes																							
				CNFree																							
CCB 410-107299/39	1		13:43	X																							
ZZZZZZ			13:45																								
ZZZZZZ			13:47																								
410-33023-10	1	T	13:49	X																							
ZZZZZZ			13:51																								
ZZZZZZ			13:53																								
CCV2 410-107299/45	1		13:55	X																							
CCB 410-107299/46	1		13:57	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33023-1

SDG No.:

Batch Number: 107299 Batch Start Date: 03/25/21 12:27 Batch Analyst: McKenzie, Joseph E

Batch Method: OIA-1677 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	WC_AmpCNCCV 00018	WC_FL_FCNLCS 00015				
ICV 410-107299/14		OIA-1677		# mL					
CCV2 410-107299/26		OIA-1677		# mL					
LCS 410-107299/32		OIA-1677			# mL				
CCV2 410-107299/38		OIA-1677		# mL					
CCV2 410-107299/45		OIA-1677		# mL					

Batch Notes	

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.

Shipping and Receiving Documents

Boeing Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ 410-33023 Chain of Custody

ntal use only _____
nd.

1 Client Information

Site Location: Boeing Plant 2, Seattle, WA
Site Project: Plant 2 Semi Annual GW Sampling
Site Program/#: 0025217.099.089
Boeing PM: Jennifer Parsons
Consultant Contact: Chris Kimmel
Report To: Jennifer Parsons & Chris Kimmel
Invoice To: ☒ Boeing EHS ☐ Other (specify): _____
Sampler: JAN # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

Page 1 of 1

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs-34 (8260B)+Naphthalene	VOC (8260B-SIM) PCE only	Total Arsenic + Copper (200.8/200.7)	Free Cyanide (OIA-1677-09)	Remarks/Comments
Trip Blanks	—	—	AQ	4	X	X			
PL2-258A-210317	3/17/21	1051	AQ	6	X	X	X		
PL2-258B-210317	↓	1126	AQ	6	X	X	X		
PL2-258C-210317	↓	1206	AQ	5	X	X			
PL2-271A-210317	↓	1311	AQ	6	X	X	X		
PL2-214A-210317	↓	1346	AQ	6	X	X	X		
PL2-214B-210317	↓	1416	AQ	6	X	X	X		
PL2-214C-210317	↓	1446	AQ	5	X	X			
PL2-213A-210317	↓	1526	AQ	6	X	X	X		
PL2-619A-210317	↓	1700	AQ	7	X	X	X	X	

6 Turnaround Time Requested (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

Date needed: _____

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/18/21 10:00	[signature]	
		[signature] 3/19/21	1121

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: -0.2 °C

Custody Seals Intact?: Yes No

7

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be given to the SeaTac Courier. The pink copy should be retained by the client.

Login Sample Receipt Checklist

Client: The Boeing Company

Job Number: 410-33023-1

Login Number: 33023
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-33023-1
Client Project/Site: Plant 2 Semi Annual GW Sampling

For:
The Boeing Company
Support Services
PO BOX 34083
Seattle, Washington 98124

Attn: Jennifer A Parsons

Authorized for release by:
3/30/2021 7:33:54 AM

Vanessa Badman, Project Manager
(717)556-9762
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LINKS

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

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

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

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Vanessa Badman
Project Manager
3/30/2021 7:33:54 AM

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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 ID: 410-33023-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-33023-1

Receipt
The samples were received on 3/19/2021 11:21 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 time was -0.2°C

GC/MS VOA
Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-107422 recovered outside acceptance criteria, low biased, for Chloromethane and Vinyl acetate. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D_SIM: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: PL2-214C-210317 (410-33023-8).

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

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

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

Detection Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks — Lab Sample ID: 410-33023-1

No Detections.

Client Sample ID: PL2-258A-210317 — Lab Sample ID: 410-33023-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.204		0.200		ug/L	1		8260D	Total/NA
Arsenic	2.38		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-258B-210317 — Lab Sample ID: 410-33023-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.26		0.200		ug/L	1		8260D	Total/NA
Trichloroethene	0.239		0.200		ug/L	1		8260D	Total/NA
Copper	3.61		0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-258C-210317 — Lab Sample ID: 410-33023-4

No Detections.

Client Sample ID: PL2-271A-210317 — Lab Sample ID: 410-33023-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	12.1		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-214A-210317 — Lab Sample ID: 410-33023-6

No Detections.

Client Sample ID: PL2-214B-210317 — Lab Sample ID: 410-33023-7

No Detections.

Client Sample ID: PL2-214C-210317 — Lab Sample ID: 410-33023-8

No Detections.

Client Sample ID: PL2-213A-210317 — Lab Sample ID: 410-33023-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.27		0.680		ug/L	1		200.8 Rev 5.4	Total Recoverable
Copper	0.709	B	0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

Client Sample ID: PL2-619A-210317 — Lab Sample ID: 410-33023-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.269		0.200		ug/L	1		8260D	Total/NA
Trichloroethene	1.30		0.200		ug/L	1		8260D	Total/NA
Copper	1.50		0.362		ug/L	1		200.8 Rev 5.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks

Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 14:27*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/23/21 14:27*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 01:30	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 01:30	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 01:30	1
Acetone	5.00	U	5.00		ug/L			03/26/21 01:30	1
Benzene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 01:30	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 01:30	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 01:30	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 01:30	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 01:30	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 01:30	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Styrene	0.500	U	0.500		ug/L			03/26/21 01:30	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Toluene	0.200	U	0.200		ug/L			03/26/21 01:30	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 01:30	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 01:30	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 01:30	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*03/26/21 01:30*	*1*

Client Sample ID: Trip Blanks

Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00
Date Received: 03/19/21 11:21

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 01:30*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 01:30*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 01:30*	*1*

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51
Date Received: 03/19/21 11:21

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:34*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 20:34*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 02:59	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Acetone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Benzene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 02:59	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 02:59	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 02:59	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Styrene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl chloride	**0.204**		0.200		ug/L			03/26/21 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 02:59*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 02:59*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 02:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 02:59*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.38**		0.680		ug/L		03/23/21 12:53	03/25/21 20:57	1
Copper	0.362	U	0.362		ug/L		03/23/21 12:53	03/25/21 20:57	1

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:55*	*1*
1,4-Difluorobenzene (Surr)	*101*		*80 - 120*		*03/23/21 20:55*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:21	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:21	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
cis-1,2-Dichloroethene	**2.26**		0.200		ug/L			03/26/21 03:21	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:21	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:21	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Trichloroethene	**0.239**		0.200		ug/L			03/26/21 03:21	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/26/21 03:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 03:21*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:21*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 12:53	03/25/21 22:06	1
Copper	**3.61**		0.362		ug/L		03/23/21 12:53	03/27/21 14:04	1

Client Sample ID: PL2-258C-210317

Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 12:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 12:43*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1

Client Sample ID: PL2-258C-210317

Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:42	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:42	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:42	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:42	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 03:42*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 03:42*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:42*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:42*	*1*

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:04	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-271A-210317

Date Collected: 03/17/21 13:11
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-5

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/29/21 13:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*80 - 120*		*03/29/21 13:04*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:04	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:04	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:04	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:04	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/26/21 04:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:04*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.1**		0.680		ug/L		03/23/21 13:29	03/24/21 15:29	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:29	03/24/21 15:29	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 13:24*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 13:24*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:27	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:27	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:27	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:27	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:27	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/26/21 04:27*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:27*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:27*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:20	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:08	03/25/21 20:20	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 13:45*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 13:45*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:49	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:49	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:49	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:49	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 04:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:49*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 04:49*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 16:58	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:16	03/25/21 17:23	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:05*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 14:05*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:11	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:11	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:11	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:11	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*80 - 120*		*03/26/21 05:11*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/26/21 05:11*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*03/26/21 05:11*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 05:11*	*1*

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:25	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Date Collected: 03/17/21 15:26
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-9

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*80 - 120*		*03/29/21 14:25*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:33	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:33	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:33	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:33	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 05:33*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 05:33*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:33*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.27**		0.680		ug/L		03/23/21 13:16	03/24/21 17:06	1
Copper	**0.709**	**B**	0.362		ug/L		03/23/21 13:16	03/25/21 17:25	1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:46*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 14:46*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:54	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:54	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
cis-1,2-Dichloroethene	**0.269**		0.200		ug/L			03/26/21 05:54	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:54	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:54	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:54	1

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Trichloroethene	**1.30**		0.200		ug/L			03/26/21 05:54	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 05:54*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:14	1
Copper	**1.50**		0.362		ug/L		03/23/21 13:08	03/25/21 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/25/21 13:49	1

Surrogate Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Method: 8260D - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-33023-1	Trip Blanks	101	96	102	100
410-33023-2	PL2-258A-210317	104	97	103	100
410-33023-3	PL2-258B-210317	105	97	103	99
410-33023-4	PL2-258C-210317	107	96	103	99
410-33023-5	PL2-271A-210317	102	97	101	101
410-33023-6	PL2-214A-210317	103	97	102	101
410-33023-7	PL2-214B-210317	107	97	102	100
410-33023-8	PL2-214C-210317	110	95	104	99
410-33023-9	PL2-213A-210317	104	97	102	100
410-33023-10	PL2-619A-210317	100	96	102	100
LCS 410-107422/5	Lab Control Sample	101	97	102	100
LCS 410-107422/7	Lab Control Sample	104	97	103	100
LCSD 410-107422/6	Lab Control Sample Dup	102	96	103	101
LCSD 410-107422/8	Lab Control Sample Dup	104	98	102	99
MB 410-107422/10	Method Blank	100	96	103	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		TOL	DFBZ
Lab Sample ID	Client Sample ID	(80-120)	(80-120)
410-33023-1	Trip Blanks	99	103
410-33023-2	PL2-258A-210317	98	102
410-33023-3	PL2-258B-210317	98	101
410-33023-4	PL2-258C-210317	97	103
410-33023-5	PL2-271A-210317	98	106
410-33023-6	PL2-214A-210317	97	105
410-33023-7	PL2-214B-210317	96	103
410-33023-8	PL2-214C-210317	96	103
410-33023-9	PL2-213A-210317	96	104
410-33023-10	PL2-619A-210317	96	105
LCS 410-106103/4	Lab Control Sample	100	103
LCS 410-108294/4	Lab Control Sample	98	105
LCSD 410-106103/5	Lab Control Sample Dup	100	103
LCSD 410-108294/5	Lab Control Sample Dup	98	105
MB 410-106103/7	Method Blank	99	102
MB 410-108294/7	Method Blank	97	105

Surrogate Legend

TOL = Toluene-d8 (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-107422/10
Matrix: Water
Analysis Batch: 107422

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 00:46	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 00:46	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 00:46	1
Acetone	5.00	U	5.00		ug/L			03/26/21 00:46	1
Benzene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 00:46	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 00:46	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 00:46	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 00:46	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 00:46	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 00:46	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Styrene	0.500	U	0.500		ug/L			03/26/21 00:46	1
Tetrachloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Toluene	0.200	U	0.200		ug/L			03/26/21 00:46	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 00:46	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 00:46	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 00:46	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 00:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*03/26/21 00:46*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 00:46*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 00:46*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 00:46*	*1*

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

Lab Sample ID: LCS 410-107422/5
Matrix: Water
Analysis Batch: 107422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.00	4.826		ug/L		97	78 - 126
1,1,2,2-Tetrachloroethane	5.00	4.797		ug/L		96	75 - 123
1,1,2-Trichloroethane	5.00	4.949		ug/L		99	80 - 120
1,1-Dichloroethane	5.00	4.605		ug/L		92	74 - 120
1,1-Dichloroethene	5.00	4.782		ug/L		96	80 - 131
1,2-Dichloroethane	5.00	4.722		ug/L		94	69 - 122
1,2-Dichloropropane	5.00	4.668		ug/L		93	80 - 120
2-Butanone	37.5	34.45		ug/L		92	59 - 141
2-Hexanone	25.0	22.11		ug/L		88	52 - 140
4-Methyl-2-pentanone	25.0	21.71		ug/L		87	55 - 140
Acetone	37.5	35.17		ug/L		94	60 - 146
Benzene	5.00	4.675		ug/L		94	80 - 120
Bromodichloromethane	5.00	4.872		ug/L		97	73 - 124
Bromoform	5.00	5.246		ug/L		105	49 - 144
Bromomethane	5.00	4.589		ug/L		92	60 - 136
Carbon disulfide	5.00	4.404		ug/L		88	67 - 130
Carbon tetrachloride	5.00	4.940		ug/L		99	64 - 141
Chlorobenzene	5.00	4.897		ug/L		98	80 - 120
Chloroethane	5.00	4.492		ug/L		90	63 - 120
Chloroform	5.00	4.738		ug/L		95	80 - 120
Chloromethane	5.00	4.329		ug/L		87	56 - 124
cis-1,2-Dichloroethene	5.00	4.795		ug/L		96	80 - 122
cis-1,3-Dichloropropene	5.00	4.436		ug/L		89	67 - 121
Dibromochloromethane	5.00	5.033		ug/L		101	64 - 138
Naphthalene	5.00	4.881		ug/L		98	64 - 122
Ethylbenzene	5.00	4.670		ug/L		93	80 - 120
Freon 113	5.00	4.782		ug/L		96	75 - 133
m&p-Xylene	10.0	9.663		ug/L		97	80 - 120
Methylene Chloride	5.00	4.836		ug/L		97	80 - 120
o-Xylene	5.00	4.827		ug/L		97	80 - 120
Styrene	5.00	4.790		ug/L		96	80 - 120
Tetrachloroethene	5.00	5.194		ug/L		104	80 - 120
Toluene	5.00	4.579		ug/L		92	80 - 120
trans-1,2-Dichloroethene	5.00	4.762		ug/L		95	80 - 122
trans-1,3-Dichloropropene	5.00	4.552		ug/L		91	61 - 129
Trichloroethene	5.00	4.816		ug/L		96	80 - 120
Trichlorofluoromethane	5.00	5.225		ug/L		104	62 - 136
Vinyl chloride	5.00	4.593		ug/L		92	60 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: LCS 410-107422/7
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Vinyl acetate			12.5	7.125		ug/L		57	38 - 145		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-107422/6
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			5.00	4.624		ug/L		92	78 - 126	4	30
1,1,2,2-Tetrachloroethane			5.00	4.574		ug/L		91	75 - 123	5	30
1,1,2-Trichloroethane			5.00	4.824		ug/L		96	80 - 120	3	30
1,1-Dichloroethane			5.00	4.379		ug/L		88	74 - 120	5	30
1,1-Dichloroethene			5.00	4.532		ug/L		91	80 - 131	5	30
1,2-Dichloroethane			5.00	4.561		ug/L		91	69 - 122	3	30
1,2-Dichloropropane			5.00	4.455		ug/L		89	80 - 120	5	30
2-Butanone			37.5	34.28		ug/L		91	59 - 141	1	30
2-Hexanone			25.0	22.10		ug/L		88	52 - 140	0	30
4-Methyl-2-pentanone			25.0	21.78		ug/L		87	55 - 140	0	30
Acetone			37.5	34.32		ug/L		92	60 - 146	2	30
Benzene			5.00	4.468		ug/L		89	80 - 120	5	30
Bromodichloromethane			5.00	4.557		ug/L		91	73 - 124	7	30
Bromoform			5.00	4.984		ug/L		100	49 - 144	5	30
Bromomethane			5.00	4.535		ug/L		91	60 - 136	1	30
Carbon disulfide			5.00	4.153		ug/L		83	67 - 130	6	30
Carbon tetrachloride			5.00	4.727		ug/L		95	64 - 141	4	30
Chlorobenzene			5.00	4.677		ug/L		94	80 - 120	5	30
Chloroethane			5.00	4.241		ug/L		85	63 - 120	6	30
Chloroform			5.00	4.572		ug/L		91	80 - 120	4	30
Chloromethane			5.00	4.295		ug/L		86	56 - 124	1	30
cis-1,2-Dichloroethene			5.00	4.622		ug/L		92	80 - 122	4	30
cis-1,3-Dichloropropene			5.00	4.280		ug/L		86	67 - 121	4	30
Dibromochloromethane			5.00	4.869		ug/L		97	64 - 138	3	30
Naphthalene			5.00	4.769		ug/L		95	64 - 122	2	30
Ethylbenzene			5.00	4.475		ug/L		89	80 - 120	4	30
Freon 113			5.00	4.597		ug/L		92	75 - 133	4	30
m&p-Xylene			10.0	9.181		ug/L		92	80 - 120	5	30
Methylene Chloride			5.00	4.705		ug/L		94	80 - 120	3	30
o-Xylene			5.00	4.621		ug/L		92	80 - 120	4	30
Styrene			5.00	4.628		ug/L		93	80 - 120	3	30
Tetrachloroethene			5.00	4.867		ug/L		97	80 - 120	7	30
Toluene			5.00	4.465		ug/L		89	80 - 120	3	30
trans-1,2-Dichloroethene			5.00	4.564		ug/L		91	80 - 122	4	30
trans-1,3-Dichloropropene			5.00	4.390		ug/L		88	61 - 129	4	30

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

Lab Sample ID: LCSD 410-107422/6
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene			5.00	4.577		ug/L		92	80 - 120	5	30
Trichlorofluoromethane			5.00	5.040		ug/L		101	62 - 136	4	30
Vinyl chloride			5.00	4.531		ug/L		91	60 - 125	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-107422/8
Matrix: Water
Analysis Batch: 107422

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl acetate			12.5	6.634		ug/L		53	38 - 145	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

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

Lab Sample ID: MB 410-106103/7
Matrix: Water
Analysis Batch: 106103

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 13:25*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 13:25*	*1*

Lab Sample ID: LCS 410-106103/4
Matrix: Water
Analysis Batch: 106103

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Tetrachloroethene			2.00	2.360		ug/L		118	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*

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

Lab Sample ID: LCSD 410-106103/5
Matrix: Water
Analysis Batch: 106103

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			2.00	2.300		ug/L		115	80 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 410-108294/7
Matrix: Water
Analysis Batch: 108294

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 12:23*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 12:23*	*1*

Lab Sample ID: LCS 410-108294/4
Matrix: Water
Analysis Batch: 108294

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Tetrachloroethene			2.00	2.332		ug/L		117	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 120*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*

Lab Sample ID: LCSD 410-108294/5
Matrix: Water
Analysis Batch: 108294

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			2.00	2.350		ug/L		118	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 120*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: MB 410-106157/1-A
Matrix: Water
Analysis Batch: 107450

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 12:53	03/25/21 20:34	1
Copper	0.362	U	0.362		ug/L		03/23/21 12:53	03/25/21 20:34	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: LCS 410-106157/2-A
Matrix: Water
Analysis Batch: 107450

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	59.80		ug/L		100	85 - 115
Copper	40.0	39.63		ug/L		99	85 - 115

Lab Sample ID: MB 410-106168/1-A
Matrix: Water
Analysis Batch: 107449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 19:57	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:08	03/25/21 19:57	1

Lab Sample ID: LCS 410-106168/2-A
Matrix: Water
Analysis Batch: 107449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	57.98		ug/L		97	85 - 115
Copper	40.0	38.97		ug/L		97	85 - 115

Lab Sample ID: MB 410-106174/1-A
Matrix: Water
Analysis Batch: 106828

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 16:40	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:16	03/24/21 16:40	1

Lab Sample ID: MB 410-106174/1-A
Matrix: Water
Analysis Batch: 107371

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/25/21 17:13	1
Copper	0.4210		0.362		ug/L		03/23/21 13:16	03/25/21 17:13	1

Lab Sample ID: LCS 410-106174/2-A
Matrix: Water
Analysis Batch: 106828

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	57.19		ug/L		95	85 - 115
Copper	40.0	38.77		ug/L		97	85 - 115

Lab Sample ID: LCS 410-106174/2-A
Matrix: Water
Analysis Batch: 107371

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 106174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	56.98		ug/L		95	85 - 115
Copper	40.0	38.45		ug/L		96	85 - 115

Method: 200.8 Rev 5.4 - Metals (ICP/MS)

Lab Sample ID: LCSD 410-106174/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106828 — **Prep Batch: 106174**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.66		ug/L		96	85 - 115	1	20
Copper	40.0	39.26		ug/L		98	85 - 115	1	20

Lab Sample ID: LCSD 410-106174/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 107371 — **Prep Batch: 106174**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.65		ug/L		96	85 - 115	1	20
Copper	40.0	38.25		ug/L		96	85 - 115	1	20

Lab Sample ID: MB 410-106181/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:29	03/24/21 15:11	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:29	03/24/21 15:11	1

Lab Sample ID: LCS 410-106181/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	60.0	56.75		ug/L		95	85 - 115
Copper	40.0	38.69		ug/L		97	85 - 115

Lab Sample ID: LCSD 410-106181/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 106836 — **Prep Batch: 106181**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	60.0	57.25		ug/L		95	85 - 115	1	20
Copper	40.0	38.91		ug/L		97	85 - 115	1	20

Method: OIA-1677 - Cyanide, Free (Flow Injection)

Lab Sample ID: MB 410-107299/33 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 107299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/25/21 13:31	1

Lab Sample ID: LCS 410-107299/32 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 107299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	0.0400	0.04039		mg/L		101	86 - 132

QC Association Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

GC/MS VOA

Analysis Batch: 106103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-1	Trip Blanks	Total/NA	Water	8260D SIM	
410-33023-2	PL2-258A-210317	Total/NA	Water	8260D SIM	
410-33023-3	PL2-258B-210317	Total/NA	Water	8260D SIM	
MB 410-106103/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 410-106103/4	Lab Control Sample	Total/NA	Water	8260D SIM	
LCSD 410-106103/5	Lab Control Sample Dup	Total/NA	Water	8260D SIM	

Analysis Batch: 107422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-1	Trip Blanks	Total/NA	Water	8260D	
410-33023-2	PL2-258A-210317	Total/NA	Water	8260D	
410-33023-3	PL2-258B-210317	Total/NA	Water	8260D	
410-33023-4	PL2-258C-210317	Total/NA	Water	8260D	
410-33023-5	PL2-271A-210317	Total/NA	Water	8260D	
410-33023-6	PL2-214A-210317	Total/NA	Water	8260D	
410-33023-7	PL2-214B-210317	Total/NA	Water	8260D	
410-33023-8	PL2-214C-210317	Total/NA	Water	8260D	
410-33023-9	PL2-213A-210317	Total/NA	Water	8260D	
410-33023-10	PL2-619A-210317	Total/NA	Water	8260D	
MB 410-107422/10	Method Blank	Total/NA	Water	8260D	
LCS 410-107422/5	Lab Control Sample	Total/NA	Water	8260D	
LCS 410-107422/7	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-107422/6	Lab Control Sample Dup	Total/NA	Water	8260D	
LCSD 410-107422/8	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 108294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-4	PL2-258C-210317	Total/NA	Water	8260D SIM	
410-33023-5	PL2-271A-210317	Total/NA	Water	8260D SIM	
410-33023-6	PL2-214A-210317	Total/NA	Water	8260D SIM	
410-33023-7	PL2-214B-210317	Total/NA	Water	8260D SIM	
410-33023-8	PL2-214C-210317	Total/NA	Water	8260D SIM	
410-33023-9	PL2-213A-210317	Total/NA	Water	8260D SIM	
410-33023-10	PL2-619A-210317	Total/NA	Water	8260D SIM	
MB 410-108294/7	Method Blank	Total/NA	Water	8260D SIM	
LCS 410-108294/4	Lab Control Sample	Total/NA	Water	8260D SIM	
LCSD 410-108294/5	Lab Control Sample Dup	Total/NA	Water	8260D SIM	

Metals

Prep Batch: 106157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-2	PL2-258A-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106157/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106157/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-6	PL2-214A-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-10	PL2-619A-210317	Total Recoverable	Water	200.8 Rev 5.4	

Metals (Continued)

Prep Batch: 106168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-106168/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106168/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	

Prep Batch: 106181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-5	PL2-271A-210317	Total Recoverable	Water	200.8 Rev 5.4	
MB 410-106181/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	
LCS 410-106181/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	
LCSD 410-106181/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	

Analysis Batch: 106828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106174
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106174
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106174

Analysis Batch: 106836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-5	PL2-271A-210317	Total Recoverable	Water	200.8 Rev 5.4	106181
MB 410-106181/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106181
LCS 410-106181/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106181
LCSD 410-106181/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106181

Analysis Batch: 107371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-7	PL2-214B-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
410-33023-9	PL2-213A-210317	Total Recoverable	Water	200.8 Rev 5.4	106174
MB 410-106174/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106174
LCS 410-106174/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106174
LCSD 410-106174/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8 Rev 5.4	106174

Analysis Batch: 107449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-6	PL2-214A-210317	Total Recoverable	Water	200.8 Rev 5.4	106168
410-33023-10	PL2-619A-210317	Total Recoverable	Water	200.8 Rev 5.4	106168
MB 410-106168/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106168
LCS 410-106168/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106168

Analysis Batch: 107450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-2	PL2-258A-210317	Total Recoverable	Water	200.8 Rev 5.4	106157

Metals (Continued)

Analysis Batch: 107450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	106157
MB 410-106157/1-A	Method Blank	Total Recoverable	Water	200.8 Rev 5.4	106157
LCS 410-106157/2-A	Lab Control Sample	Total Recoverable	Water	200.8 Rev 5.4	106157

Analysis Batch: 107984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-3	PL2-258B-210317	Total Recoverable	Water	200.8 Rev 5.4	106157

General Chemistry

Analysis Batch: 107299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33023-10	PL2-619A-210317	Total/NA	Water	OIA-1677	
MB 410-107299/33	Method Blank	Total/NA	Water	OIA-1677	
LCS 410-107299/32	Lab Control Sample	Total/NA	Water	OIA-1677	

Lab Chronicle

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks — Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 01:30	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 14:27	USEJ	ELLE

Client Sample ID: PL2-258A-210317 — Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 02:59	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 20:34	USEJ	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107450	03/25/21 20:57	S4PD	ELLE

Client Sample ID: PL2-258B-210317 — Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 03:21	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	106103	03/23/21 20:55	USEJ	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107450	03/25/21 22:06	S4PD	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106157	03/23/21 12:53	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107984	03/27/21 14:04	S8DY	ELLE

Client Sample ID: PL2-258C-210317 — Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 03:42	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 12:43	UJML	ELLE

Client Sample ID: PL2-271A-210317 — Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:04	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:04	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106181	03/23/21 13:29	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106836	03/24/21 15:29	MG7H	ELLE

Lab Chronicle

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-214A-210317 — Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:27	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:24	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106168	03/23/21 13:08	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107449	03/25/21 20:20	S4PD	ELLE

Client Sample ID: PL2-214B-210317 — Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 04:49	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 13:45	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106828	03/24/21 16:58	MG7H	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107371	03/25/21 17:23	MG7H	ELLE

Client Sample ID: PL2-214C-210317 — Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:11	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:05	UJML	ELLE

Client Sample ID: PL2-213A-210317 — Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:33	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:25	UJML	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	106828	03/24/21 17:06	MG7H	ELLE
Total Recoverable	Prep	200.8 Rev 5.4			106174	03/23/21 13:16	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107371	03/25/21 17:25	MG7H	ELLE

Client Sample ID: PL2-619A-210317 — Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00 — **Matrix: Water**
Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	107422	03/26/21 05:54	UJML	ELLE
Total/NA	Analysis	8260D SIM		1	108294	03/29/21 14:46	UJML	ELLE

Lab Chronicle

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00

Matrix: Water

Date Received: 03/19/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8 Rev 5.4			106168	03/23/21 13:08	UJL8	ELLE
Total Recoverable	Analysis	200.8 Rev 5.4		1	107449	03/25/21 20:14	S4PD	ELLE
Total/NA	Analysis	OIA-1677		1	107299	03/25/21 13:49	UJE2	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: The Boeing Company
Job ID: 410-33023-1
Project/Site: Plant 2 Semi Annual GW Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C457	04-11-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260D SIM		Water	Tetrachloroethene

Method Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	ELLE
200.8 Rev 5.4	Metals (ICP/MS)	EPA	ELLE
OIA-1677	Cyanide, Free (Flow Injection)	OI CORP	ELLE
200.8 Rev 5.4	Preparation, Total Recoverable Metals	EPA	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

OI CORP = OI Corporation Instrument Manual.

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-33023-1	Trip Blanks	Water	03/17/21 00:00	03/19/21 11:21	
410-33023-2	PL2-258A-210317	Water	03/17/21 10:51	03/19/21 11:21	
410-33023-3	PL2-258B-210317	Water	03/17/21 11:26	03/19/21 11:21	
410-33023-4	PL2-258C-210317	Water	03/17/21 12:06	03/19/21 11:21	
410-33023-5	PL2-271A-210317	Water	03/17/21 13:11	03/19/21 11:21	
410-33023-6	PL2-214A-210317	Water	03/17/21 13:46	03/19/21 11:21	
410-33023-7	PL2-214B-210317	Water	03/17/21 14:16	03/19/21 11:21	
410-33023-8	PL2-214C-210317	Water	03/17/21 14:46	03/19/21 11:21	
410-33023-9	PL2-213A-210317	Water	03/17/21 15:26	03/19/21 11:21	
410-33023-10	PL2-619A-210317	Water	03/17/21 17:00	03/19/21 11:21	

Boeing Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ 410-33023 Chain of Custody

ntal use only

nd.

1 Client Information

Site Location: Boeing Plant 2, Seattle, WA
Site Project: Plant 2 Semi Annual GW Sampling
Site Program/#: 0025217.099.089
Boeing PM: Jennifer Parsons
Consultant Contact: Chris Kimmel
Report To: Jennifer Parsons & Chris Kimmel
Invoice To: ☒ Boeing EHS ☐ Other (specify):
Sampler: JAN # of Coolers: 1

4 Analyses Requested

5 Remarks/Comments

Page 1 of 1

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs-39 (8260D) + Naphthalene	VOC (8260D-SIM) PCE only	Total Arsenic + Copper (200.8/200.7)	Free Cyanide (OIA-1677-09)								
Trip Blanks	—	—	AQ	4	X	X										
PL2-258A-210317	3/17/21	1051	AQ	6	X	X	X									
PL2-258B-210317	↓	1126	AQ	6	X	X	X									
PL2-258C-210317	↓	1206	AQ	5	X	X										
PL2-271A-210317	↓	1311	AQ	6	X	X	X									
PL2-214A-210317	↓	1346	AQ	6	X	X	X									
PL2-214B-210317	↓	1416	AQ	6	X	X	X									
PL2-214C-210317	↓	1446	AQ	5	X	X										
PL2-213A-210317	↓	1526	AQ	6	X	X	X									
PL2-619A-210317	↓	1700	AQ	7	X	X	X	X								

6 Turnaround Time Requested (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

Date needed: _____

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/18/21 10:00		
		[signature]	3/19/21 1121

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: -0.2 °C

Custody Seals Intact?: Yes No

7

Eurofins Lancaster Laboratories Environmental, LLC, 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300 7063 0913

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be given to the SeaTac Courier. The pink copy should be retained by the client.

3/30/2021

Login Sample Receipt Checklist

Client: The Boeing Company

Job Number: 410-33023-1

Login Number: 33023
List Number: 1
Creator: Rivera, Tatiana

List Source: Eurofins Lancaster Laboratories Env

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

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: Trip Blanks

Lab Sample ID: 410-33023-1

Date Collected: 03/17/21 00:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		03/26/21 01:30	1
Dibromofluoromethane (Surr)	102		80 - 120		03/26/21 01:30	1
Toluene-d8 (Surr)	100		80 - 120		03/26/21 01:30	1

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		03/23/21 20:34	1
1,4-Difluorobenzene (Surr)	102		80 - 120		03/23/21 20:34	1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 02:59	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 02:59	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Acetone	5.00	U	5.00		ug/L			03/26/21 02:59	1
Benzene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 02:59	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 02:59	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 02:59	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 02:59	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 02:59	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Styrene	0.500	U	0.500		ug/L			03/26/21 02:59	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 02:59	1

JC 4/14/2021

3/30/2021

Client Sample ID: PL2-258A-210317

Lab Sample ID: 410-33023-2

Date Collected: 03/17/21 10:51

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 02:59	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 02:59	1
Vinyl chloride	**0.204**		0.200		ug/L			03/26/21 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 02:59*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 02:59*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 02:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 02:59*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.38**		0.680		ug/L		03/23/21 12:53	03/25/21 20:57	1
Copper	0.362	U	0.362		ug/L		03/23/21 12:53	03/25/21 20:57	1

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:55*	*1*
1,4-Difluorobenzene (Surr)	*101*		*80 - 120*		*03/23/21 20:55*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:21	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:21	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:21	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:21	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:21	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1

Client Sample ID: PL2-258B-210317

Lab Sample ID: 410-33023-3

Date Collected: 03/17/21 11:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:21	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
cis-1,2-Dichloroethene	**2.26**		0.200		ug/L			03/26/21 03:21	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:21	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:21	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:21	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 03:21	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:21	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:21	1
Trichloroethene	**0.239**		0.200		ug/L			03/26/21 03:21	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:21	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/26/21 03:21*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 03:21*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:21*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:21*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 12:53	03/25/21 22:06	1
Copper	**3.61**		0.362		ug/L		03/23/21 12:53	03/27/21 14:04	1

Client Sample ID: PL2-258C-210317

Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 12:43*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 12:43*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1

Client Sample ID: PL2-258C-210317

Lab Sample ID: 410-33023-4

Date Collected: 03/17/21 12:06

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 03:42	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 03:42	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Acetone	5.00	U	5.00		ug/L			03/26/21 03:42	1
Benzene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 03:42	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 03:42	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 03:42	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 03:42	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 03:42	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Styrene	0.500	U	0.500		ug/L			03/26/21 03:42	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 03:42	1
Toluene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 03:42	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 03:42	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 03:42*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 03:42*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/26/21 03:42*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 03:42*	*1*

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:04	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-271A-210317

Date Collected: 03/17/21 13:11
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/29/21 13:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*80 - 120*		*03/29/21 13:04*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:04	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:04	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:04	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:04	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:04	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:04	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:04	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:04	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:04	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 04:04	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:04	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:04	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/26/21 04:04*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:04*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:04*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-271A-210317

Lab Sample ID: 410-33023-5

Date Collected: 03/17/21 13:11
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.1**		0.680		ug/L		03/23/21 13:29	03/24/21 15:29	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:29	03/24/21 15:29	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*03/29/21 13:24*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 13:24*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:27	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:27	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:27	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:27	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:27	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:27	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:27	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:27	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:27	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 04:27	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:27	1

Client Sample ID: PL2-214A-210317

Lab Sample ID: 410-33023-6

Date Collected: 03/17/21 13:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:27	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:27	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/26/21 04:27*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:27*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/26/21 04:27*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:20	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:08	03/25/21 20:20	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 13:45*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 13:45*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 04:49	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 04:49	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Acetone	5.00	U	5.00		ug/L			03/26/21 04:49	1
Benzene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 04:49	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 04:49	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 04:49	1

Client Sample ID: PL2-214B-210317

Lab Sample ID: 410-33023-7

Date Collected: 03/17/21 14:16

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.200	U	0.200		ug/L			03/26/21 04:49	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 04:49	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 04:49	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Styrene	0.500	U	0.500		ug/L			03/26/21 04:49	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 04:49	1
Toluene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 04:49	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 04:49	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/26/21 04:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 04:49*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 04:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 04:49*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 16:58	1
Copper	0.362	U	0.362		ug/L		03/23/21 13:16	03/25/21 17:23	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:05*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/29/21 14:05*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1

Client Sample ID: PL2-214C-210317

Lab Sample ID: 410-33023-8

Date Collected: 03/17/21 14:46

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:11	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:11	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:11	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:11	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:11	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:11	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:11	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:11	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:11	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 05:11	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:11	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:11	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*80 - 120*		*03/26/21 05:11*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/26/21 05:11*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*03/26/21 05:11*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 05:11*	*1*

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26

Matrix: Water

Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:25	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Date Collected: 03/17/21 15:26
Date Received: 03/19/21 11:21

Lab Sample ID: 410-33023-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*80 - 120*		*03/29/21 14:25*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:33	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:33	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:33	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:33	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:33	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:33	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:33	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:33	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:33	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 05:33	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichloroethene	0.200	U	0.200		ug/L			03/26/21 05:33	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:33	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/26/21 05:33*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/26/21 05:33*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:33*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:33*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-213A-210317

Lab Sample ID: 410-33023-9

Date Collected: 03/17/21 15:26
Matrix: Water
Date Received: 03/19/21 11:21

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.27**		0.680		ug/L		03/23/21 13:16	03/24/21 17:06	1
Copper	0.362 ~~0.709~~	~~B~~ U	0.362		ug/L		03/23/21 13:16	03/25/21 17:25	1

Client Sample ID: PL2-619A-210317

JC 4/14/2021

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/29/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*03/29/21 14:46*	*1*
1,4-Difluorobenzene (Surr)	*105*		*80 - 120*		*03/29/21 14:46*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 05:54	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 05:54	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Acetone	5.00	U	5.00		ug/L			03/26/21 05:54	1
Benzene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 05:54	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 05:54	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 05:54	1
Chloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
cis-1,2-Dichloroethene	**0.269**		0.200		ug/L			03/26/21 05:54	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 05:54	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 05:54	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Styrene	0.500	U	0.500		ug/L			03/26/21 05:54	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 05:54	1
Toluene	0.200	U	0.200		ug/L			03/26/21 05:54	1

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-33023-1

Client Sample ID: PL2-619A-210317

Lab Sample ID: 410-33023-10

Date Collected: 03/17/21 17:00
Matrix: Water
Date Received: 03/19/21 11:21

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 05:54	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 05:54	1
Trichloroethene	**1.30**		0.200		ug/L			03/26/21 05:54	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl acetate	0.500	U	0.500		ug/L			03/26/21 05:54	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 05:54*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 05:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 05:54*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:08	03/25/21 20:14	1
Copper	**1.50**		0.362		ug/L		03/23/21 13:08	03/25/21 20:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/25/21 13:49	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-614B-210316

Lab Sample ID: 410-32797-1

Date Collected: 03/16/21 08:55
Date Received: 03/18/21 10:53

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 16:09*	*1*
1,4-Difluorobenzene (Surr)	*100*		*80 - 120*		*03/23/21 16:09*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
1,1,2,2-Tetrachloroethane	0.200	U		0.200		ug/L			03/24/21 15:17	1
1,1,2-Trichloroethane	0.200	U		0.200		ug/L			03/24/21 15:17	1
1,1-Dichloroethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
1,1-Dichloroethene	0.200	U		0.200		ug/L			03/24/21 15:17	1
1,2-Dichloroethane	0.200	U		0.200		ug/L			03/24/21 15:17	1
1,2-Dichloropropane	0.500	U		0.500		ug/L			03/24/21 15:17	1
2-Butanone	5.00	U		5.00		ug/L			03/24/21 15:17	1
2-Hexanone	5.00	U		5.00		ug/L			03/24/21 15:17	1
4-Methyl-2-pentanone	5.00	U		5.00		ug/L			03/24/21 15:17	1
Acetone	5.00	U		5.00		ug/L			03/24/21 15:17	1
Benzene	0.200	U		0.200		ug/L			03/24/21 15:17	1
Bromodichloromethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
Bromoform	1.00	U	UJ	1.00		ug/L			03/24/21 15:17	1
Bromomethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
Carbon disulfide	0.500	U		0.500		ug/L			03/24/21 15:17	1
Carbon tetrachloride	0.200	U		0.200		ug/L			03/24/21 15:17	1
Chlorobenzene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Chloroethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
Chloroform	0.200	U		0.200		ug/L			03/24/21 15:17	1
Chloromethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
cis-1,2-Dichloroethene	0.200	U		0.200		ug/L			03/24/21 15:17	1
cis-1,3-Dichloropropene	0.200	U		0.200		ug/L			03/24/21 15:17	1
Dibromochloromethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
Naphthalene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Ethylbenzene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Freon 113	0.500	U	UJ	0.500		ug/L			03/24/21 15:17	1
m&p-Xylene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Methylene Chloride	0.500	U		0.500		ug/L			03/24/21 15:17	1
o-Xylene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Styrene	0.500	U		0.500		ug/L			03/24/21 15:17	1
Tetrachloroethene	0.200	U	R1	0.200		ug/L			03/24/21 15:17	1
Toluene	0.200	U		0.200		ug/L			03/24/21 15:17	1
trans-1,2-Dichloroethene	0.200	U		0.200		ug/L			03/24/21 15:17	1
trans-1,3-Dichloropropene	0.200	U		0.200		ug/L			03/24/21 15:17	1
Trichloroethene	0.200	U		0.200		ug/L			03/24/21 15:17	1
Trichlorofluoromethane	0.500	U		0.500		ug/L			03/24/21 15:17	1
Vinyl acetate	0.500	U		0.500		ug/L			03/24/21 15:17	1
Vinyl chloride	0.200	U		0.200		ug/L			03/24/21 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/24/21 15:17*	*1*

Client Sample ID: PL2-614B-210316

Lab Sample ID: 410-32797-1
Date Collected: 03/16/21 08:55
Matrix: Water
Date Received: 03/18/21 10:53

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/24/21 15:17*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/24/21 15:17*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/24/21 15:17*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:36	03/24/21 18:21	1
Copper	**1.29**		0.362		ug/L		03/23/21 13:36	03/25/21 16:46	1

Client Sample ID: PL2-615A-210316

Lab Sample ID: 410-32797-2
Date Collected: 03/16/21 10:05
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 16:29*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 16:29*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
1,1,2,2-Tetrachloroethane	0.200	U		0.200		ug/L			03/24/21 15:39	1
1,1,2-Trichloroethane	0.200	U		0.200		ug/L			03/24/21 15:39	1
1,1-Dichloroethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
1,1-Dichloroethene	0.200	U		0.200		ug/L			03/24/21 15:39	1
1,2-Dichloroethane	0.200	U		0.200		ug/L			03/24/21 15:39	1
1,2-Dichloropropane	0.500	U		0.500		ug/L			03/24/21 15:39	1
2-Butanone	5.00	U		5.00		ug/L			03/24/21 15:39	1
2-Hexanone	5.00	U		5.00		ug/L			03/24/21 15:39	1
4-Methyl-2-pentanone	5.00	U		5.00		ug/L			03/24/21 15:39	1
Acetone	5.00	U		5.00		ug/L			03/24/21 15:39	1
Benzene	0.200	U		0.200		ug/L			03/24/21 15:39	1
Bromodichloromethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
Bromoform	1.00	U	UJ	1.00		ug/L			03/24/21 15:39	1
Bromomethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
Carbon disulfide	0.500	U		0.500		ug/L			03/24/21 15:39	1
Carbon tetrachloride	0.200	U		0.200		ug/L			03/24/21 15:39	1
Chlorobenzene	0.500	U		0.500		ug/L			03/24/21 15:39	1
Chloroethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
Chloroform	0.200	U		0.200		ug/L			03/24/21 15:39	1
Chloromethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
cis-1,2-Dichloroethene	**0.571**			0.200		ug/L			03/24/21 15:39	1
cis-1,3-Dichloropropene	0.200	U		0.200		ug/L			03/24/21 15:39	1
Dibromochloromethane	0.500	U		0.500		ug/L			03/24/21 15:39	1
Naphthalene	0.500	U		0.500		ug/L			03/24/21 15:39	1
Ethylbenzene	0.500	U		0.500		ug/L			03/24/21 15:39	1
Freon 113	0.500	U	UJ	0.500		ug/L			03/24/21 15:39	1

Client Sample ID: PL2-615A-210316 — Lab Sample ID: 410-32797-2

Date Collected: 03/16/21 10:05
Date Received: 03/18/21 10:53
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m&p-Xylene	0.500	U	0.500		ug/L			03/24/21 15:39	1
Methylene Chloride	0.500	U	0.500		ug/L			03/24/21 15:39	1
o-Xylene	0.500	U	0.500		ug/L			03/24/21 15:39	1
Styrene	0.500	U	0.500		ug/L			03/24/21 15:39	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/24/21 15:39	1
Toluene	0.200	U	0.200		ug/L			03/24/21 15:39	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/24/21 15:39	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/24/21 15:39	1
Trichloroethene	0.200	U	0.200		ug/L			03/24/21 15:39	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/24/21 15:39	1
Vinyl acetate	0.500	U	0.500		ug/L			03/24/21 15:39	1
Vinyl chloride	0.200	U	0.200		ug/L			03/24/21 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/24/21 15:39*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*03/24/21 15:39*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/24/21 15:39*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*03/24/21 15:39*	*1*

JC 05/24/2021

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.63**	J	0.680		ug/L		03/22/21 09:36	03/23/21 10:14	1
Copper	0.362	U	0.362		ug/L		03/22/21 09:36	03/23/21 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.00200	U	0.00200		mg/L			03/19/21 17:02	1

Client Sample ID: PL2-227A-210316 — Lab Sample ID: 410-32797-3

Date Collected: 03/16/21 10:46
Date Received: 03/18/21 10:53
Matrix: Water

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.72**	J	0.680		ug/L		03/23/21 13:16	03/24/21 17:16	1
Copper	**2.53**		0.362		ug/L		03/23/21 13:16	03/25/21 17:29	1

Client Sample ID: PL2-615B-210316 — Lab Sample ID: 410-32797-4

Date Collected: 03/16/21 10:55
Date Received: 03/18/21 10:53
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 16:50*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 16:50*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/24/21 16:01	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-615B-210316

Lab Sample ID: 410-32797-4

Date Collected: 03/16/21 10:55
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/24/21 16:01	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/24/21 16:01	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/24/21 16:01	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/24/21 16:01	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/24/21 16:01	1
2-Butanone	5.00	U	5.00		ug/L			03/24/21 16:01	1
2-Hexanone	5.00	U	5.00		ug/L			03/24/21 16:01	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/24/21 16:01	1
Acetone	5.00	U	5.00		ug/L			03/24/21 16:01	1
Benzene	0.200	U	0.200		ug/L			03/24/21 16:01	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
Bromoform	1.00	U UJ	1.00		ug/L			03/24/21 16:01	1
Bromomethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
Carbon disulfide	0.500	U	0.500		ug/L			03/24/21 16:01	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/24/21 16:01	1
Chlorobenzene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Chloroethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
Chloroform	0.200	U	0.200		ug/L			03/24/21 16:01	1
Chloromethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/24/21 16:01	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/24/21 16:01	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
Naphthalene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Ethylbenzene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Freon 113	0.500	U UJ	0.500		ug/L			03/24/21 16:01	1
m&p-Xylene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Methylene Chloride	0.500	U	0.500		ug/L			03/24/21 16:01	1
o-Xylene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Styrene	0.500	U	0.500		ug/L			03/24/21 16:01	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/24/21 16:01	1
Toluene	0.200	U	0.200		ug/L			03/24/21 16:01	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/24/21 16:01	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/24/21 16:01	1
Trichloroethene	0.200	U	0.200		ug/L			03/24/21 16:01	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/24/21 16:01	1
Vinyl acetate	0.500	U	0.500		ug/L			03/24/21 16:01	1
Vinyl chloride	0.200	U	0.200		ug/L			03/24/21 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/24/21 16:01*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/24/21 16:01*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/24/21 16:01*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/24/21 16:01*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/23/21 13:16	03/24/21 17:13	1
Copper	**0.765**	J	0.362		ug/L		03/23/21 13:16	03/25/21 17:27	1

JC 4/20/2021

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-621B-210316

Date Collected: 03/16/21 11:26
Date Received: 03/18/21 10:53

Lab Sample ID: 410-32797-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U F1	0.0200		ug/L			03/23/21 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 14:47*	*1*
1,4-Difluorobenzene (Surr)	*100*		*80 - 120*		*03/23/21 14:47*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 15:07	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 15:07	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 15:07	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 15:07	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 15:07	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 15:07	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 15:07	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 15:07	1
Acetone	5.00	U	5.00		ug/L			03/25/21 15:07	1
Benzene	0.200	U	0.200		ug/L			03/25/21 15:07	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 15:07	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 15:07	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 15:07	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 15:07	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
cis-1,2-Dichloroethene	**0.997**		0.200		ug/L			03/25/21 15:07	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 15:07	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 15:07	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 15:07	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Styrene	0.500	U	0.500		ug/L			03/25/21 15:07	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 15:07	1
Toluene	0.200	U	0.200		ug/L			03/25/21 15:07	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 15:07	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 15:07	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 15:07	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 15:07	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 15:07	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/25/21 15:07*	*1*

Client Sample ID: PL2-621B-210316

Lab Sample ID: 410-32797-5
Matrix: Water

Date Collected: 03/16/21 11:26
Date Received: 03/18/21 10:53

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 15:07*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/25/21 15:07*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 15:07*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/19/21 02:29	03/22/21 14:22	1
Copper	0.362	U	0.362		ug/L		03/19/21 02:29	03/22/21 14:22	1

Client Sample ID: PL2-616A-210316

Lab Sample ID: 410-32797-6
Matrix: Water

Date Collected: 03/16/21 11:55
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 17:10*	*1*
1,4-Difluorobenzene (Surr)	*100*		*80 - 120*		*03/23/21 17:10*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 17:41	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 17:41	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 17:41	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 17:41	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 17:41	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 17:41	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 17:41	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 17:41	1
Acetone	5.00	U	5.00		ug/L			03/25/21 17:41	1
Benzene	0.200	U	0.200		ug/L			03/25/21 17:41	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 17:41	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 17:41	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 17:41	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 17:41	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 17:41	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
cis-1,2-Dichloroethene	**19.6**		0.200		ug/L			03/25/21 17:41	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 17:41	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 17:41	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 17:41	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 17:41	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 17:41	1

Client Sample ID: PL2-616A-210316

Lab Sample ID: 410-32797-6
Date Collected: 03/16/21 11:55
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m&p-Xylene	0.500	U		0.500		ug/L			03/25/21 17:41	1
Methylene Chloride	0.500	U		0.500		ug/L			03/25/21 17:41	1
o-Xylene	0.500	U		0.500		ug/L			03/25/21 17:41	1
Styrene	0.500	U		0.500		ug/L			03/25/21 17:41	1
Tetrachloroethene	0.200	U	R1	0.200		ug/L			03/25/21 17:41	1
Toluene	0.200	U		0.200		ug/L			03/25/21 17:41	1
trans-1,2-Dichloroethene	0.200	U		0.200		ug/L			03/25/21 17:41	1
trans-1,3-Dichloropropene	0.200	U		0.200		ug/L			03/25/21 17:41	1
Trichloroethene	**15.7**			0.200		ug/L			03/25/21 17:41	1
Trichlorofluoromethane	0.500	U		0.500		ug/L			03/25/21 17:41	1
Vinyl acetate	0.500	U		0.500		ug/L			03/25/21 17:41	1
Vinyl chloride	0.200	U		0.200		ug/L			03/25/21 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*03/25/21 17:41*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 17:41*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/25/21 17:41*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 17:41*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/19/21 02:29	03/22/21 15:06	1
Copper	**3.05**		0.362		ug/L		03/19/21 02:29	03/22/21 15:06	1

Client Sample ID: PL2-620B-210316

Lab Sample ID: 410-32797-7
Date Collected: 03/16/21 12:11
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 17:30*	*1*
1,4-Difluorobenzene (Surr)	*101*		*80 - 120*		*03/23/21 17:30*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 18:25	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 18:25	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 18:25	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 18:25	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 18:25	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 18:25	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 18:25	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 18:25	1
Acetone	5.00	U	5.00		ug/L			03/25/21 18:25	1
Benzene	0.200	U	0.200		ug/L			03/25/21 18:25	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 18:25	1

Client Sample ID: PL2-620B-210316

Lab Sample ID: 410-32797-7
Date Collected: 03/16/21 12:11
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	1.00	U	1.00		ug/L			03/25/21 18:25	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 18:25	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 18:25	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 18:25	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 18:25	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 18:25	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 18:25	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 18:25	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Styrene	0.500	U	0.500		ug/L			03/25/21 18:25	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 18:25	1
Toluene	0.200	U	0.200		ug/L			03/25/21 18:25	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 18:25	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 18:25	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 18:25	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 18:25	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 18:25	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/25/21 18:25*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 18:25*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/25/21 18:25*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/25/21 18:25*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/19/21 02:29	03/22/21 14:42	1
Copper	0.362	U	0.362		ug/L		03/19/21 02:29	03/22/21 14:42	1

Client Sample ID: PL2-620A-210316

Lab Sample ID: 410-32797-8
Date Collected: 03/16/21 13:36
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 17:51*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 17:51*	*1*

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-620A-210316

Lab Sample ID: 410-32797-8

Date Collected: 03/16/21 13:36
Date Received: 03/18/21 10:53

Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 18:47	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 18:47	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 18:47	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 18:47	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 18:47	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 18:47	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 18:47	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 18:47	1
Acetone	5.00	U	5.00		ug/L			03/25/21 18:47	1
Benzene	0.200	U	0.200		ug/L			03/25/21 18:47	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 18:47	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 18:47	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 18:47	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 18:47	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
cis-1,2-Dichloroethene	**0.282**		0.200		ug/L			03/25/21 18:47	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 18:47	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 18:47	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 18:47	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Styrene	0.500	U	0.500		ug/L			03/25/21 18:47	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 18:47	1
Toluene	0.200	U	0.200		ug/L			03/25/21 18:47	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 18:47	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 18:47	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 18:47	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 18:47	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 18:47	1
Vinyl chloride	**0.939**		0.200		ug/L			03/25/21 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/25/21 18:47*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*03/25/21 18:47*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/25/21 18:47*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/25/21 18:47*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.30**	J	0.680		ug/L		03/19/21 02:29	03/22/21 15:04	1
Copper	**1.15**		0.362		ug/L		03/19/21 02:29	03/22/21 15:04	1

Eurofins Lancaster Laboratories Env, LLC

JC 4/20/2021

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-617A-210316

Date Collected: 03/16/21 13:45
Date Received: 03/18/21 10:53

Lab Sample ID: 410-32797-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 18:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 18:11*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 19:09	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 19:09	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:09	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 19:09	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 19:09	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 19:09	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 19:09	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 19:09	1
Acetone	5.00	U	5.00		ug/L			03/25/21 19:09	1
Benzene	0.200	U	0.200		ug/L			03/25/21 19:09	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 19:09	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 19:09	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 19:09	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 19:09	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
cis-1,2-Dichloroethene	**0.580**		0.200		ug/L			03/25/21 19:09	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:09	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 19:09	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 19:09	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Styrene	0.500	U	0.500		ug/L			03/25/21 19:09	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 19:09	1
Toluene	0.200	U	0.200		ug/L			03/25/21 19:09	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:09	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:09	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 19:09	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 19:09	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 19:09	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/25/21 19:09*	*1*

Client Sample ID: PL2-617A-210316

Lab Sample ID: 410-32797-9

Date Collected: 03/16/21 13:45
Matrix: Water
Date Received: 03/18/21 10:53

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 19:09*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/25/21 19:09*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 19:09*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.5**		0.680		ug/L		03/19/21 02:29	03/22/21 15:08	1
Copper	0.362	U	0.362		ug/L		03/19/21 02:29	03/22/21 15:08	1

Client Sample ID: PL2-619B-210316

Lab Sample ID: 410-32797-10

Date Collected: 03/16/21 14:26
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 18:32*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 18:32*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 19:31	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 19:31	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:31	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 19:31	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 19:31	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 19:31	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 19:31	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 19:31	1
Acetone	5.00	U	5.00		ug/L			03/25/21 19:31	1
Benzene	0.200	U	0.200		ug/L			03/25/21 19:31	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 19:31	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 19:31	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 19:31	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 19:31	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:31	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:31	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 19:31	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-619B-210316

Lab Sample ID: 410-32797-10
Date Collected: 03/16/21 14:26
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 19:31	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Styrene	0.500	U	0.500		ug/L			03/25/21 19:31	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 19:31	1
Toluene	0.200	U	0.200		ug/L			03/25/21 19:31	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:31	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:31	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 19:31	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 19:31	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 19:31	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/25/21 19:31*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 19:31*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/25/21 19:31*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 19:31*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.680	U	0.680		ug/L		03/19/21 02:29	03/22/21 14:44	1
Copper	0.362	U	0.362		ug/L		03/19/21 02:29	03/22/21 14:44	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium MDL 0.156 U	0.515	U	0.515		ug/L		03/19/21 05:17	03/19/21 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	**0.00714**	~~F2~~	0.00200		mg/L			03/19/21 16:56	1

Client Sample ID: PL2-618A-210316

Lab Sample ID: 410-32797-11
Date Collected: 03/16/21 14:55
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 18:52*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/23/21 18:52*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 19:53	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 19:53	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:53	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-618A-210316

Lab Sample ID: 410-32797-11

Date Collected: 03/16/21 14:55
Date Received: 03/18/21 10:53

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 19:53	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 19:53	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 19:53	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 19:53	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 19:53	1
Acetone	5.00	U	5.00		ug/L			03/25/21 19:53	1
Benzene	0.200	U	0.200		ug/L			03/25/21 19:53	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 19:53	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 19:53	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 19:53	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 19:53	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:53	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:53	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 19:53	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 19:53	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Styrene	0.500	U	0.500		ug/L			03/25/21 19:53	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 19:53	1
Toluene	0.200	U	0.200		ug/L			03/25/21 19:53	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 19:53	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 19:53	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 19:53	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 19:53	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 19:53	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/25/21 19:53*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/25/21 19:53*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/25/21 19:53*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 19:53*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.16**	J	0.680		ug/L		03/19/21 02:29	03/22/21 15:02	1
Copper	**4.97**		0.362		ug/L		03/19/21 02:29	03/22/21 15:02	1

JC 5/24/2021

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-DUP2-210316

Lab Sample ID: 410-32797-12

Date Collected: 03/16/21 08:30
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 19:13*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/23/21 19:13*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 20:15	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 20:15	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 20:15	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 20:15	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 20:15	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 20:15	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 20:15	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 20:15	1
Acetone	5.00	U	5.00		ug/L			03/25/21 20:15	1
Benzene	0.200	U	0.200		ug/L			03/25/21 20:15	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 20:15	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 20:15	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 20:15	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 20:15	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
cis-1,2-Dichloroethene	**0.577**		0.200		ug/L			03/25/21 20:15	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 20:15	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 20:15	1
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 20:15	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Styrene	0.500	U	0.500		ug/L			03/25/21 20:15	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 20:15	1
Toluene	0.200	U	0.200		ug/L			03/25/21 20:15	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 20:15	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 20:15	1
Trichloroethene	0.200	U	0.200		ug/L			03/25/21 20:15	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 20:15	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 20:15	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*03/25/21 20:15*	*1*

Client Sample ID: PL2-DUP2-210316

Lab Sample ID: 410-32797-12
Date Collected: 03/16/21 08:30
Matrix: Water
Date Received: 03/18/21 10:53

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 20:15*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/25/21 20:15*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/25/21 20:15*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12.0**		0.680		ug/L		03/19/21 02:29	03/22/21 15:10	1
Copper	0.362	U	0.362		ug/L		03/19/21 02:29	03/22/21 15:10	1

Client Sample ID: PL2-621A-210316

Lab Sample ID: 410-32797-13
Date Collected: 03/16/21 16:29
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 19:33*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 19:33*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/25/21 20:37	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/25/21 20:37	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 20:37	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/25/21 20:37	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/25/21 20:37	1
2-Butanone	5.00	U	5.00		ug/L			03/25/21 20:37	1
2-Hexanone	5.00	U	5.00		ug/L			03/25/21 20:37	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/25/21 20:37	1
Acetone	5.00	U	5.00		ug/L			03/25/21 20:37	1
Benzene	0.200	U	0.200		ug/L			03/25/21 20:37	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
Bromoform	1.00	U	1.00		ug/L			03/25/21 20:37	1
Bromomethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
Carbon disulfide	0.500	U	0.500		ug/L			03/25/21 20:37	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/25/21 20:37	1
Chlorobenzene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Chloroethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
Chloroform	0.200	U	0.200		ug/L			03/25/21 20:37	1
Chloromethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
cis-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 20:37	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 20:37	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
Naphthalene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Ethylbenzene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Freon 113	0.500	U	0.500		ug/L			03/25/21 20:37	1

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-621A-210316

Date Collected: 03/16/21 16:29
Date Received: 03/18/21 10:53

Lab Sample ID: 410-32797-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m&p-Xylene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Methylene Chloride	0.500	U	0.500		ug/L			03/25/21 20:37	1
o-Xylene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Styrene	0.500	U	0.500		ug/L			03/25/21 20:37	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/25/21 20:37	1
Toluene	0.200	U	0.200		ug/L			03/25/21 20:37	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/25/21 20:37	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/25/21 20:37	1
Trichloroethene	**0.577**		0.200		ug/L			03/25/21 20:37	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/25/21 20:37	1
Vinyl acetate	0.500	U	0.500		ug/L			03/25/21 20:37	1
Vinyl chloride	0.200	U	0.200		ug/L			03/25/21 20:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/25/21 20:37*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/25/21 20:37*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/25/21 20:37*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/25/21 20:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	0.00970	U *- UJ	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1221 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1232 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1242 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1248 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1254 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1260 (2C)	**0.0121**	*- J	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1
PCB-1262 (2C)	0.00970	U	0.00970		ug/L		03/23/21 20:38	03/24/21 09:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*124*		*46 - 161*	*03/23/21 20:38*	*03/24/21 09:13*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*132*		*46 - 161*	*03/23/21 20:38*	*03/24/21 09:13*	*1*
Tetrachloro-m-xylene (1C)	*89*		*41 - 146*	*03/23/21 20:38*	*03/24/21 09:13*	*1*
Tetrachloro-m-xylene (2C)	*92*		*41 - 146*	*03/23/21 20:38*	*03/24/21 09:13*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.65**	J	0.680		ug/L		03/19/21 02:29	03/22/21 14:46	1
Copper	**5.81**		0.362		ug/L		03/19/21 02:29	03/22/21 14:46	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.156 U	U	0.515	0.515	ug/L		03/19/21 05:17	03/19/21 11:46	1

MDL

JC 5/24/2021

JC 4/20/2021

Client Sample Results

Client: The Boeing Company
Project/Site: Plant 2 Semi Annual GW Sampling

Job ID: 410-32797-1

Client Sample ID: PL2-614A-210316

Date Collected: 03/16/21 16:30
Date Received: 03/18/21 10:53

Lab Sample ID: 410-32797-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 19:53*	*1*
1,4-Difluorobenzene (Surr)	*101*		*80 - 120*		*03/23/21 19:53*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 02:14	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 02:14	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:14	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 02:14	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 02:14	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 02:14	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 02:14	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 02:14	1
Acetone	5.00	U	5.00		ug/L			03/26/21 02:14	1
Benzene	0.200	U	0.200		ug/L			03/26/21 02:14	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 02:14	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 02:14	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 02:14	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 02:14	1
Chloromethane	0.500	U UJ	0.500		ug/L			03/26/21 02:14	1
cis-1,2-Dichloroethene	**0.257**		0.200		ug/L			03/26/21 02:14	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:14	1
Dibromochloromethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
Naphthalene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Ethylbenzene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Freon 113	0.500	U	0.500		ug/L			03/26/21 02:14	1
m&p-Xylene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Methylene Chloride	0.500	U	0.500		ug/L			03/26/21 02:14	1
o-Xylene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Styrene	0.500	U	0.500		ug/L			03/26/21 02:14	1
Tetrachloroethene	0.200	U R1	0.200		ug/L			03/26/21 02:14	1
Toluene	0.200	U	0.200		ug/L			03/26/21 02:14	1
trans-1,2-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:14	1
trans-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:14	1
Trichloroethene	**0.365**		0.200		ug/L			03/26/21 02:14	1
Trichlorofluoromethane	0.500	U	0.500		ug/L			03/26/21 02:14	1
Vinyl acetate	0.500	U UJ	0.500		ug/L			03/26/21 02:14	1
Vinyl chloride	0.200	U	0.200		ug/L			03/26/21 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/26/21 02:14*	*1*

JC 4/20/2021

Client Sample ID: PL2-614A-210316

Lab Sample ID: 410-32797-14
Date Collected: 03/16/21 16:30
Matrix: Water
Date Received: 03/18/21 10:53

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 02:14*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 02:14*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/26/21 02:14*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.35**	J	0.680		ug/L		03/23/21 13:29	03/24/21 15:36	1
Copper	**3.87**		0.362		ug/L		03/23/21 13:29	03/24/21 15:36	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Dissolved

JC 5/24/2021

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium MDL 0.156 U	0.515	U	0.515		ug/L		03/19/21 05:17	03/19/21 11:52	1

Client Sample ID: PL2-DUP1-210316

Lab Sample ID: 410-32797-15
Date Collected: 03/16/21 08:40
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*03/23/21 20:14*	*1*
1,4-Difluorobenzene (Surr)	*102*		*80 - 120*		*03/23/21 20:14*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 02:37	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 02:37	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 02:37	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 02:37	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 02:37	1
1,2-Dichloroethane	0.200	U	0.200		ug/L			03/26/21 02:37	1
1,2-Dichloropropane	0.500	U	0.500		ug/L			03/26/21 02:37	1
2-Butanone	5.00	U	5.00		ug/L			03/26/21 02:37	1
2-Hexanone	5.00	U	5.00		ug/L			03/26/21 02:37	1
4-Methyl-2-pentanone	5.00	U	5.00		ug/L			03/26/21 02:37	1
Acetone	5.00	U	5.00		ug/L			03/26/21 02:37	1
Benzene	0.200	U	0.200		ug/L			03/26/21 02:37	1
Bromodichloromethane	0.500	U	0.500		ug/L			03/26/21 02:37	1
Bromoform	1.00	U	1.00		ug/L			03/26/21 02:37	1
Bromomethane	0.500	U	0.500		ug/L			03/26/21 02:37	1
Carbon disulfide	0.500	U	0.500		ug/L			03/26/21 02:37	1
Carbon tetrachloride	0.200	U	0.200		ug/L			03/26/21 02:37	1
Chlorobenzene	0.500	U	0.500		ug/L			03/26/21 02:37	1
Chloroethane	0.500	U	0.500		ug/L			03/26/21 02:37	1
Chloroform	0.200	U	0.200		ug/L			03/26/21 02:37	1
Chloromethane	0.500	U UJ	0.500		ug/L			03/26/21 02:37	1
cis-1,2-Dichloroethene	**0.250**		0.200		ug/L			03/26/21 02:37	1
cis-1,3-Dichloropropene	0.200	U	0.200		ug/L			03/26/21 02:37	1

JC 4/20/2021

Client Sample ID: PL2-DUP1-210316

Lab Sample ID: 410-32797-15
Date Collected: 03/16/21 08:40
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.500	U		0.500		ug/L			03/26/21 02:37	1
Naphthalene	0.500	U		0.500		ug/L			03/26/21 02:37	1
Ethylbenzene	0.500	U		0.500		ug/L			03/26/21 02:37	1
Freon 113	0.500	U		0.500		ug/L			03/26/21 02:37	1
m&p-Xylene	0.500	U		0.500		ug/L			03/26/21 02:37	1
Methylene Chloride	0.500	U		0.500		ug/L			03/26/21 02:37	1
o-Xylene	0.500	U		0.500		ug/L			03/26/21 02:37	1
Styrene	0.500	U		0.500		ug/L			03/26/21 02:37	1
Tetrachloroethene	0.200	U	R1	0.200		ug/L			03/26/21 02:37	1
Toluene	0.200	U		0.200		ug/L			03/26/21 02:37	1
trans-1,2-Dichloroethene	0.200	U		0.200		ug/L			03/26/21 02:37	1
trans-1,3-Dichloropropene	0.200	U		0.200		ug/L			03/26/21 02:37	1
Trichloroethene	**0.392**			0.200		ug/L			03/26/21 02:37	1
Trichlorofluoromethane	0.500	U		0.500		ug/L			03/26/21 02:37	1
Vinyl acetate	0.500	U	UJ	0.500		ug/L			03/26/21 02:37	1
Vinyl chloride	0.200	U		0.200		ug/L			03/26/21 02:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/26/21 02:37*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/26/21 02:37*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/26/21 02:37*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/26/21 02:37*	*1*

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Total Recoverable

JC 5/24/2021

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.98**	J	0.680		ug/L		03/23/21 13:36	03/24/21 18:31	1
Copper	**4.43**		0.362		ug/L		03/23/21 13:36	03/25/21 16:54	1

Method: 200.8 Rev 5.4 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium MDL 0.156 U	0.515	U	0.515		ug/L		03/19/21 05:17	03/19/21 11:50	1

Client Sample ID: Trip Blanks

Lab Sample ID: 410-32797-16
Date Collected: 03/16/21 00:00
Matrix: Water
Date Received: 03/18/21 10:53

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.0200	U	0.0200		ug/L			03/23/21 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/23/21 14:06*	*1*
1,4-Difluorobenzene (Surr)	*103*		*80 - 120*		*03/23/21 14:06*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.500	U	0.500		ug/L			03/26/21 01:08	1
1,1,2,2-Tetrachloroethane	0.200	U	0.200		ug/L			03/26/21 01:08	1
1,1,2-Trichloroethane	0.200	U	0.200		ug/L			03/26/21 01:08	1
1,1-Dichloroethane	0.500	U	0.500		ug/L			03/26/21 01:08	1
1,1-Dichloroethene	0.200	U	0.200		ug/L			03/26/21 01:08	1

Boeing Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only
Acct. # _____ Group # _____ Sample # _____
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing Plant 2, Seattle, WA
Site Project: Plant 2 Semi Annual GW Sampling
Site Program/#: 0025217.099.089
Boeing PM: Jennifer Parsons
Consultant Contact: Chris Kimmel
Report To: Jennifer Parsons & Chris Kimmel
Invoice To: [X] Boeing EHS [ ] Other (specify): _____
Sampler: JAN / AHA # of Coolers: 2

4 Analyses Requested / 5 Remarks/Comments

* Dissolved Cadmium field filtered

Page 1 of 2

815528292008

815528292019

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs-39 (8260D) + Naphthalene	VOC (8260D-SIM) PCE only	Total Arsenic + Copper (200.8/200.7)	Dissolved Cadmium (200.8)*	PCB (8082A)	Free Cyanide (OIA-1677-09)							Remarks
PL2-614B-210316	3/16/21	855	AQ	6	X	X	X										
PL2-615A-210316		1005	AQ	7	X	X	X			X							
PL2-227A-210316		1046	AQ	1			X										
PL2-615B-210316		1055	AQ	6	X	X	X										
PL2-621B-210316		1126	AQ	18	X	X	X										MS/MSD
~~PL2-616A-115~~																	
PL2-616A-210316		1155	AQ	6	X	X	X										
PL2-620B-210316		1211	AQ	6	X	X	X										
PL2-620A-210316		1336	AQ	6	X	X	X										
PL2-617A-210316		1345	AQ	6	X	X	X										
PL2-619B-210316		1426	AQ	8	X	X	X	X		X							
PL2-618A-210316		1455	AQ	6	X	X	X										
PL2-DUP2-210316		830	AQ	6	X	X	X										
PL2-621A-210316		1629	AQ	9	X	X	X	X	X								
PL2-614A-210316		1630	AQ	7	X	X	X	X									

6 Turnaround Time Requested (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

Date needed: _____

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/17/21 10:00		

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: _____ °C

Custody Seals Intact?: Yes No

7

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be given to the SeaTac Courier. The pink copy should be retained by the client.

Boeing Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only
Acct. # _____ Group # _____ Sample # _____
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing Plant 2, Seattle, WA
Site Project: Plant 2 Semi Annual GW Sampling
Site Program/#: 0025217.099.089
Boeing PM: Jennifer Parsons
Consultant Contact: Chris Kimmel
Report To: Jennifer Parsons & Chris Kimmel
Invoice To: [x] Boeing EHS [ ] Other (specify): _____
Sampler: JAN/AHA # of Coolers: 2

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs-39 (8260D)+Naphthalene	VOC (8260D-SIM) PCE only	Total Arsenic + Copper (200.7)	Dissolved Cadmium (200.8)*	PCB (8082A)	Free Cyanide (OIA-1677-09)	Remarks/Comments
PL2-DUP1-210316	3/16/21	840	AQ	7	X	X	X	X			
Trip Blanks	—	—	AQ	4	X	X					

*Dissolved Cadmium field filtered

Page 2 of 2

815528292008

815528292019

6 Turnaround Time Requested (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

Date needed: _____

7

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/17/21 10:00		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: _____ °C

Custody Seals Intact?: Yes No

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be given to the SeaTac Courier. The pink copy should be retained by the client.

Boeing Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # _____ Group # _____ Sample # _____
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing Plant 2, Seattle, WA
Site Project: Plant 2 Semi Annual GW Sampling
Site Program/#: 0025217.099.089
Boeing PM: Jennifer Parsons
Consultant Contact: Chris Kimmel
Report To: Jennifer Parsons & Chris Kimmel
Invoice To: [X] Boeing EHS [ ] Other (specify): _____
Sampler: JAN # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

Page 1 of 1

815528292020

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs-39 (8260D) + Naphthalene	VOC (8260D - JTM) ACE only	Total Arsenic + Copper (200.8/200.7)	Free Cyanide (OIA-1677-09)	Remarks/Comments
Trip Blanks	—	—	AQ	4	X	X			
PL2-258A-210317	3/17/21	1051	AQ	6	X	X	X		
PL2-258B-210317	↓	1126	AQ	6	X	X	X		
PL2-258C-210317	↓	1206	AQ	5	X	X			
PL2-271A-210317	↓	1311	AQ	6	X	X	X		
PL2-214A-210317	↓	1346	AQ	6	X	X	X		
PL2-214B-210317	↓	1416	AQ	6	X	X	X		
PL2-214C-210317	↓	1446	AQ	5	X	X			
PL2-213A-210317	↓	1526	AQ	6	X	X	X		
PL2-619A-210317	↓	1700	AQ	7	X	X	X	X	

6 Turnaround Time Requested (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour

Date needed: _____

7

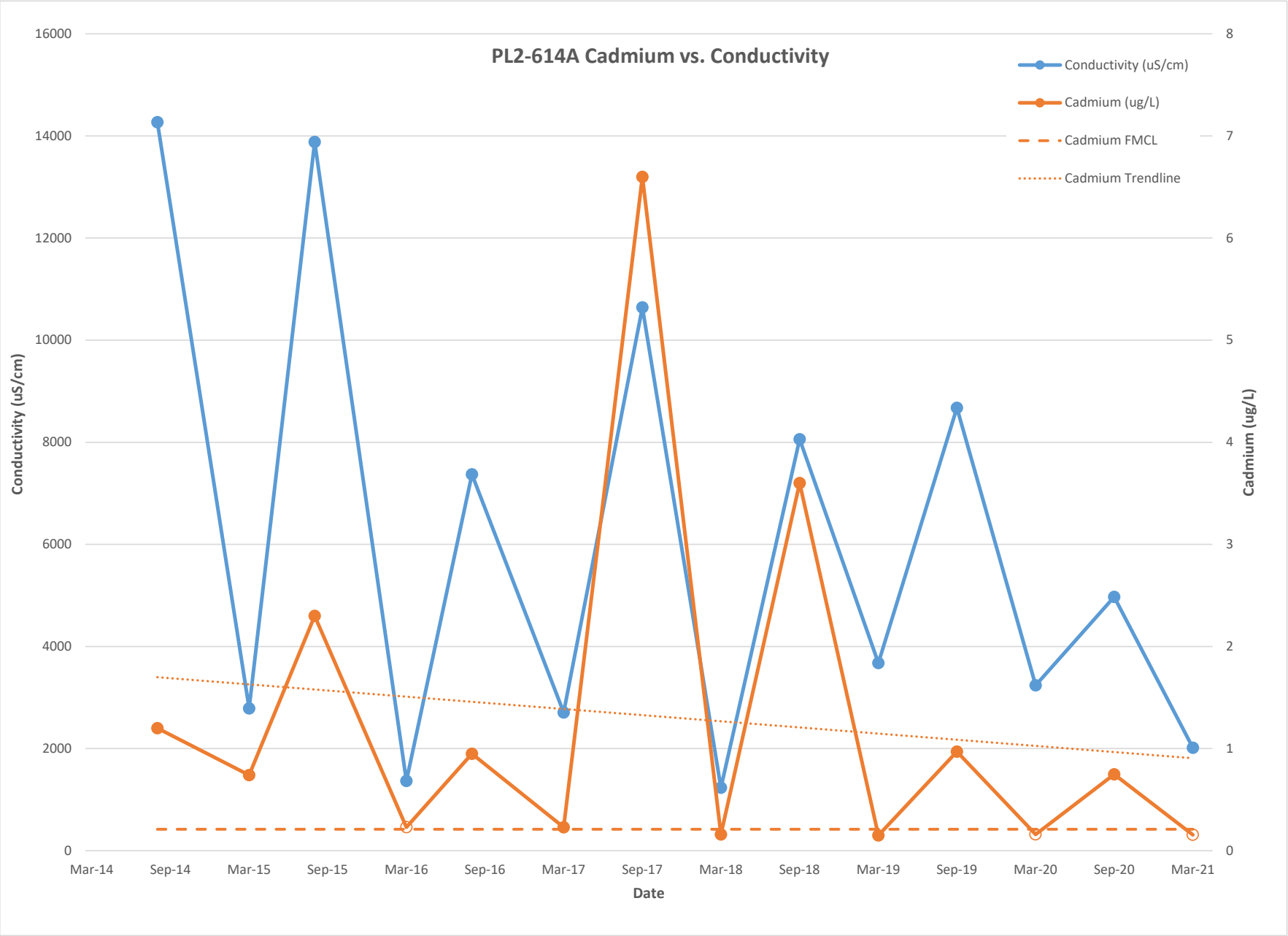
Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	3/18/21 10:00		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

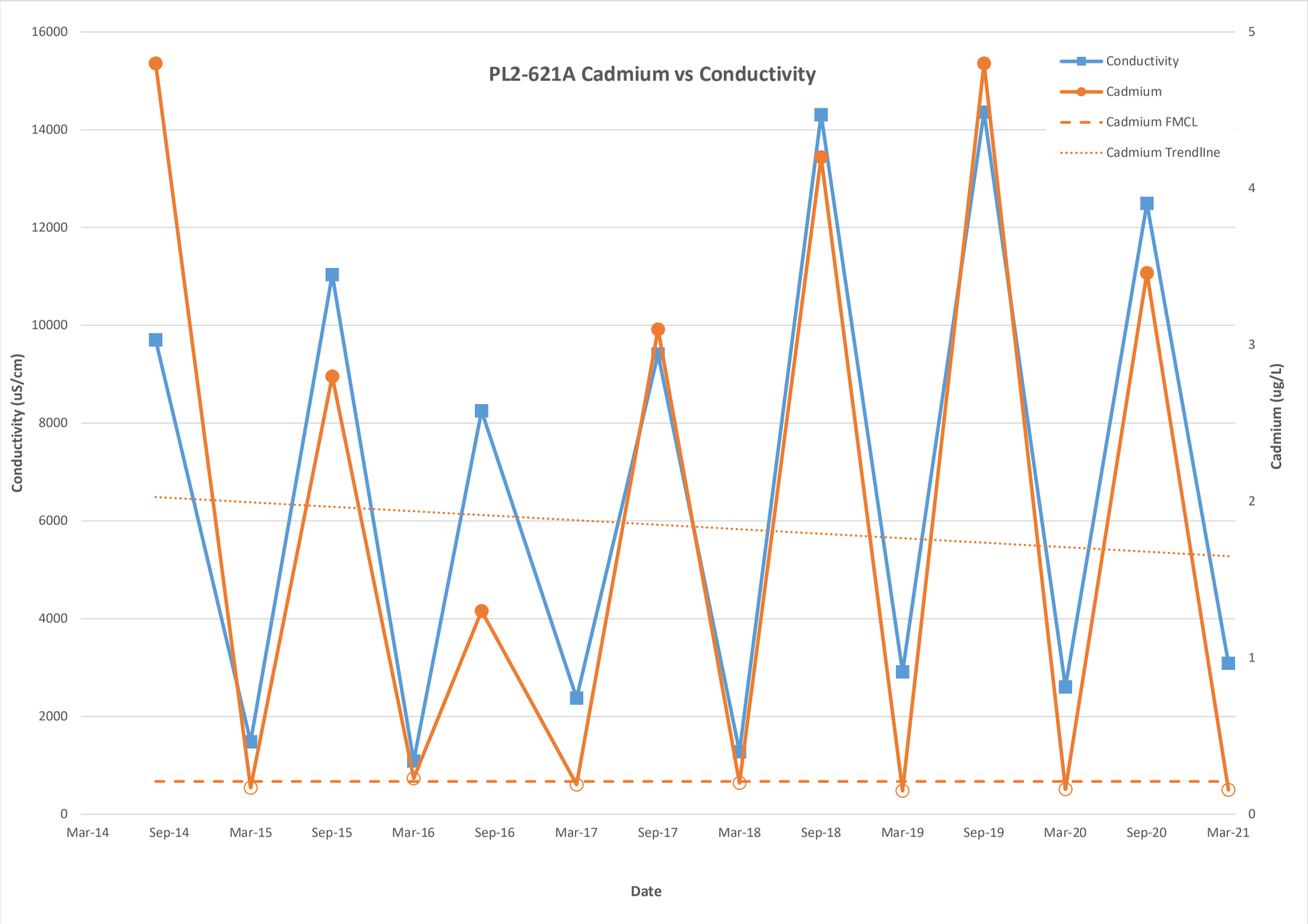
Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: _____ °C

Custody Seals Intact?: Yes No

Attachment E
Cadmium versus Conductivity
Time Series Graphs


PL2-614A Cadmium vs. Conductivity
Conductivity (uS/cm)
Cadmium (ug/L)
Cadmium FMCL
Cadmium Trendline
Conductivity (uS/cm)
Cadmium (ug/L)
Date
16000
14000
12000
10000
8000
6000
4000
2000
0
8
7
6
5
4
3
2
1
0
Mar-14
Sep-14
Mar-15
Sep-15
Mar-16
Sep-16
Mar-17
Sep-17
Mar-18
Sep-18
Mar-19
Sep-19
Mar-20
Sep-20
Mar-21


PL2-621A Cadmium vs Conductivity
Conductivity
Cadmium
Cadmium FMCL
Cadmium Trendline
Conductivity (uS/cm)
Cadmium (ug/L)
Date
16000
14000
12000
10000
8000
6000
4000
2000
0
5
4
3
2
1
0
Mar-14
Sep-14
Mar-15
Sep-15
Mar-16
Sep-16
Mar-17
Sep-17
Mar-18
Sep-18
Mar-19
Sep-19
Mar-20
Sep-20
Mar-21