Boeing Plant 2
Seattle/Tukwila, Washington

Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

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List of Acronyms and Abbreviations

Acronym/ Abbreviation	Definition
AOC	Area of Concern
bgs	Below ground surface
Boeing	The Boeing Company
cDCE	*cis*-1,2-dichloroethene
CMI	Correctives Measures Implementation
CMS	Corrective Measures Study
COC	Contaminant of concern
CSM	Conceptual site model
cVOC	Chlorinated volatile organic compounds
DHE	*Dehalococcoides ethenogenes*
ERD	Enhanced reductive dechlorination

Acronym/ Abbreviation	Definition
FMCL	Final Media Cleanup Level
ft/day	Feet per day
IM	Interim measure
lbs	Pounds
lbs/day	Pounds per day
µg/L	Micrograms per liter
RCRA	Resource Conservation and Recovery Act
SMWN	Shoreline Monitoring Well Network
SVE	Soil vapor extraction
TCE	Trichloroethene
USEPA	U.S. Environmental Protection Agency
VC	Vinyl chloride

1.0 Introduction and Site Background

This report has been prepared to summarize the Interim Measure (IM) activities completed to date at the-2-10 Building area of Boeing Plant 2 in Seattle and Tukwila, Washington and to describe proposed future activities to optimize the measures implemented. IMs have been implemented at the north and south sheetpiles in the 2-10 Building Area (Areas of Concern [AOCs] 2-10.3A and 2-10.4A). The IMs described in this report have been implemented to reduce/remove chlorinated volatile organic compounds (cVOCs) in groundwater, soil, and soil vapor from both AOCs. The work has been implemented under the Resource Conservation and Recovery Act (RCRA) Administrative Order on Consent, between The Boeing Company (Boeing) and the U.S. Environmental Protection Agency (USEPA) Region 10 (RCRA Docket No. 1092-01-22-3008(h) [USEPA 1994]). The IMs were performed in accordance with USEPA-approved Work Plans (CALIBRE and Floyd|Snider 2010).

Two corrective measures/remedial actions have been implemented as IMs: soil vapor extraction (SVE) for cVOCs in vadose zone soils, and enhanced reductive dechlorination (ERD) for cVOCs in groundwater. These two technologies (SVE and ERD) have been implemented successfully in the IMs at both the north and south sheetpile areas.

The objective of the IMs is to remove (or destroy through degradation) solvent contamination within the vadose zone enclosed by the sheetpiles and in groundwater within and downgradient of the north and south sheetpile areas. In addition, performance data from the IMs have been collected to assist in evaluating technologies and post-IM conditions for the Corrective Measures Study (CMS).

Shortly after the initiation of the IMs in 2010, Boeing developed proposed Final Media Cleanup Levels (FMCLs) for impacted media at Plant 2, which are currently being revised in a collaborative process with USEPA to incorporate new toxicity information. These proposed FMCLs, when approved by USEPA, will be the final cleanup levels for the corrective measures and will replace all previous cleanup levels and screening levels used at the site. Throughout the remainder of this report, when “proposed FMCL” is used, the term will refer to Boeing’s proposed FMCLs at the time the work was being evaluated (i.e., either the proposed FMCLs presented to USEPA in the October 2014 Draft of the CMS Volume X Report (EPI, Floyd|Snider, and Golder 2014) or the proposed FMCLs presented to USEPA in January 2016 as part of the current work to revise the Volume X report). As IMs, this work is not intended to be a final remedy; therefore, the IMs have proceeded even though proposed FMCLs have not been approved by USEPA, as has been the case for IMs at other locations at Plant 2. The CMS report, including the 2-10 Building Area of Plant 2, will evaluate IM-phase results, as reported here, and will propose whether additional work needs to be performed on one or both of the sheetpile areas in order to complete the corrective action for all media.

1.1 SITE LOCATION

The Plant 2 property is located on approximately 107 acres between the Duwamish Waterway and East Marginal Way South, in Seattle and Tukwila, Washington (refer to Figure 1.1). Plant 2 began operating in 1936 and the facility contains numerous manufacturing and process buildings related to aircraft fabrication. Portions of Plant 2 (including operations in the 2-10 Building) continue to support aerospace manufacturing. Figure 1.2 presents the location of the 2-10 Building, the two AOC sheetpile areas, and other features in the immediate area. A general description of the site hydrogeology and summary of previous investigations is presented in the *RCRA Facility Investigation Groundwater Investigation Interim Report* (Weston 1996) and the *Draft Uplands Corrective Measures Study, Volume I: Conceptual Hydrogeologic Model – Plant 2* (EPI 2015).

1.2 SITE HISTORY/NATURE OF CONTAMINATION

The initial site investigations started in 1992 and identified a trichloroethene (TCE) release to soil and groundwater at each of two degreaser areas in the 2-10 Building. Boeing implemented the first interim corrective measures at these two areas in 1993 (Weston 1993) with a containment technology using steel sheetpile walls constructed around each area. The work was initiated in late 1993 and completed in April 1994 (Weston 1994). The 2-10 Building was an active manufacturing facility when the sheetpiles were installed and remains active today with a variety of uses.

The north sheetpile was installed to a depth of 30 feet below ground surface (bgs) and the south sheetpile was installed to a depth of 25 feet bgs. A detailed effectiveness evaluation of the two sheetpile structures was performed in 2001, demonstrating continued containment effectiveness (Weston 2001). The IM design data (specifically cVOC concentrations in groundwater and soil vapor collected in 2010) showed that elevated concentrations of TCE remained in the sheetpile areas, particularly near the former degreaser locations. Monitoring data collected outside of the source areas, but still within the sheetpile containment structures, also showed that the cVOC plume contained the biodegradation daughter products of *cis*-1,2-dichloroethene (cDCE) and vinyl chloride (VC), predominantly in areas more removed from the degreaser TCE source areas.

A conceptual site model (CSM) was developed as part of the initial project planning (CALIBRE and Floyd|Snider 2009) and updated as part of the 2014 Tech Memo for the SVE rebound testing (refer to Section 2.4; and CALIBRE and Floyd|Snider 2014a). Additional routine characterization and performance monitoring data have been collected as part of the IM implementation. Some of the important hydrogeologic parameters in the CSM include the aquifer properties (hydraulic, conductivity, gradient, and corresponding groundwater transport velocity). The hydraulic conductivity (K) is estimated at 300 feet per day (ft/day). Groundwater is tidally influenced and, outside of the sheetpile areas, flows in a direction generally perpendicular to the adjacent Duwamish Waterway. The gradient (i) has been estimated at 0.002 feet per foot (based on tidally averaged measurements), with a calculated groundwater pore velocity of 2.4 ft/day (based

on K, i, and porosity of 25 percent). The current CSM is presented in the *Draft Uplands Corrective Measures Study, Volume I: Conceptual Hydrogeologic Model – Plant 2* (EPI 2015).

The initial IM design and CSM included specific performance metrics, which are listed below; the current evaluation of specific performance metrics based on review of operations and monitoring are included in *italicized* font. Previous evaluations of the historical IMs[1] are summarized in prior reports (Weston 2001, Golder 2010).

Performance metrics for the current IMs and the corresponding performance evaluation based on sampling results include the following:

- Can the degradation/removal rate be accelerated?

  Yes. IM performance data have demonstrated effective SVE operations and accelerated cVOC degradation in groundwater with ERD treatment.

- Is the contaminant mass declining at a rate that will eliminate unacceptable risk (as measured by indoor air and groundwater discharge) within a reasonable timeframe?

  Yes. SVE systems have been operated, rebound testing completed and systems shut down, and performance data have demonstrated that indoor air is no longer a complete pathway. ERD treatment in groundwater has met the compliance goals at wells in the Shoreline Monitoring Well Network (SMWN), which is monitored as a surrogate for the point of discharge to the Duwamish Waterway.[2] Source area concentrations have declined significantly (either 99.9+ percent reductions or to non-detect levels).

- Do the IM performance data support a final corrective measure decision?

  Yes. SVE systems have been operated, shut down, and undergone rebound testing, and compliance goals have been met. ERD treatment in groundwater has met the compliance goals at wells in the SMWN. Source area treatment is continuing.

- Can the residual mass in the source areas that is contained by the sheetpiles be reduced sufficiently to allow for no long-term maintenance requirements for the sheetpile structures?

  Yes. SVE systems have been operated and shut down, compliance goals have been met, and no further actions anticipated. ERD treatment in groundwater has met the compliance goals at wells in the SMWN. Continued source area treatment is anticipated in limited areas.

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[1] Prior evaluations have included: A containment evaluation in 2001 concluded contaminants were not migrating out of the sheetpile enclosures in groundwater (Weston 2001); and the 2008–2009 Data Gaps Investigation (Golder 2010) determined that indoor air was acceptable, even before the start of the current IMs.

[2] Though the point of compliance is the location at which groundwater discharges to surface water, in the CMS Volume X, Boeing proposes to evaluate compliance at the SMWN prior to the location of discharge to the Duwamish Waterway.

1.3 OBJECTIVES AND ORGANIZATION OF REPORT

The objective of this report is to document current site conditions following IMs implementation; this also includes a summary of historical IM actions completed to date (a brief summary of prior IM activities and associated reports is included in Section 2.0). This report is organized as follows:

Section 1.0 Introduction and Site Background

Section 2.0 Summary of Historical Interim Measure Activities

Section 3.0 Summary of Current Soil and Groundwater Conditions at the Site

Section 4.0 Summary and Recommendations

Section 5.0 References

2.0 Summary of Historical Interim Measure Activities

The present IMs have been implemented at the north and south sheetpile areas in the 2-10 Building starting in 2009 and continuing to the present day. This section summarizes the key deliverables and milestones throughout this period. The IMs implemented have been voluntary and have been implemented on an accelerated schedule compared to the typical RCRA Facility Investigation/CMS, Statement of Basis, and Corrective Measures Implementation processes. The reporting associated with the IMs has focused on performance evaluation at key decision points in the projects. The background information summarized in this section provides a synopsis of the key planning/implementation milestones and reports associated with the IMs; further details and data are provided in the prior reports cited.

2.1 INTERIM MEASURE PHASE 1: DATA COLLECTION – OCTOBER 2009

Boeing began plans to implement IMs for areas associated with the north and south sheetpiles in the 2-10 Building in 2008/2009. A significant amount of prior characterization data had been collected in the two areas; however, much of the groundwater data were more than 7 years old and insufficient for design of the planned IMs. The 2009 Work Plan (Phase 1: Data Collection; CALIBRE and Floyd|Snider 2009) defined the objectives and procedures for additional data collection deemed necessary for technology selection, design, and implementation of the IMs. A second Work Plan (Phase 2: IM Design and Implementation; CALIBRE and Floyd|Snider 2010) was submitted for implementation after the IMs had been selected; that plan summarized and evaluated the data collected under the initial Work Plan and proposed IMs for each sheetpile area.

Two remediation technologies had been identified as the likely remedies (candidates) that would be implemented for one or both sheetpile IMs: SVE for treating cVOCs in vadose zone soils, and ERD for treating cVOCs in groundwater and saturated soils. These technologies were implemented successfully at other areas of Plant 2 with similar conditions. SVE and ERD were considered the most likely remediation technologies for the IMs and the data collected during Phase 1 were used to confirm that assumption. The new Phase 1 sampling data were combined with the results of other new/recent sampling in the immediate area (the other sampling included the ongoing Shoreline Monitoring Program [several wells immediately downgradient of the north and south sheetpile areas] and the 2-10 Area Data Gap Investigation sampling [several probe samples and additional monitoring well samples in the immediate area of the north and south sheetpiles]). The new sampling data were consistent with the historical data/conditions and the CSM. These new data were used to support the proposed remedial technologies for the sheetpile area IMs.

2.2 INTERIM MEASURE PHASE 2: IM DESIGN AND IMPLEMENTATION – OCTOBER 2010

The next Work Plan (Phase 2: IM Design and Implementation) was prepared to recommend and design IMs for contamination present at the two sheetpile areas. Two remediation technologies

and design details were recommended for each of the sheetpile IMs: SVE for treating cVOCs in vadose zone soils and ERD for treating cVOCs in groundwater and saturated soils.

In the north sheetpile, a total of five SVE extraction wells were installed and operated. The south sheetpile area, which had TCE concentrations in soil that were much less than the impacted portions of the north sheetpile area, included two SVE extraction wells.

The IMs included an ERD groundwater remedy designed to reduce constituents of concern (COC) concentrations in groundwater within the north and south sheetpiles. ERD groundwater treatment also included an area immediately upgradient of the south sheetpile and an area downgradient of the north sheetpile. Based on the overall areas of treatment and depths at which COCs were detected, 11 ERD injection wells were installed in the north sheetpile area and 5 ERD injection wells were installed in the south sheetpile area.

The SVE and ERD construction for the IMs started in April 2012.

2.3 TECHNICAL MEMORANDUM: CONSTRUCTION SUMMARY AND REMEDIAL OPTIMIZATION OF 2-10 INTERIM MEASURES*: SITES AOC 2-10.3A AND AOC 2-10.4A* – APRIL 2013

The 2013 Tech Memo was prepared to summarize IM construction, report the initial performance monitoring data, summarize remedial optimization measures implemented, and to provide recommendations for continued remedial optimization and performance monitoring of the IMs.

Four remediation systems were addressed in the 2013 Tech Memo: two SVE systems and two ERD injection networks. Each of the SVE systems included an equipment system for operation and an off-gas treatment system to remove cVOC vapors before discharge. The two ERD injection well networks consisted of deeper wells with screened intervals at specific depths in the aquifer where the cVOC plume was present.

The initial ERD substrate injection occurred in August 2012 and SVE systems started operations in January 2013.

2.3.1 Initial SVE Performance

The initial performance monitoring period demonstrated that the concentrations of total cVOCs[3] in air extracted by the SVE system had declined significantly (more than a 95-percent reduction when compared to concentrations observed in extracted air following startup) in the first quarter of operation in the north sheetpile area. The total cVOC concentrations in the vent well with the greatest vapor concentrations (N-SVE-1) decreased by more than 99 percent. The estimated total cVOC mass removed during this first quarter (90 days of operation) was approximately 14 pounds

[3] The term "total cVOCs" refers to the summed concentrations of TCE, cDCE, trans-1,2-dichloroethene, and VC.

(lbs) and the mass removal rate declined to approximately 0.1 pounds per day (lbs/day) at the end of the period.

For the south sheetpile area, the initial performance monitoring period demonstrated that the concentrations of total cVOCs in the air extracted by the SVE system had declined significantly (more than a 90-percent reduction when compared to concentrations observed in extracted air following startup) in the first quarter of operation. The estimated total cVOC mass removal in this first quarter (90 days of operation) was approximately 2 lbs and the mass removal rate declined to approximately 0.01 lbs/day at the end of the period.

2.3.2 Initial ERD Performance

The groundwater monitoring data after approximately 6 months of treatment demonstrated that ERD accelerated the cVOC degradation rate (reducing the cVOC half-life). The accelerated cVOC degradation rate indicated degradation kinetics approximately 10 times faster (i.e., the post-ERD half-life was approximately 1/10 the half-life of the baseline pre-ERD conditions). The new half-lives calculated based on the IM performance monitoring data compared reasonably well with experience at other sites in the local area using ERD as the remediation technology. Results from the bacterial census count indicated that appropriate dechlorinating bacteria are present and the populations (or cell abundance) had increased by an order of magnitude in some wells compared to the pre-ERD 2010 baseline census counts.

2.4 TECHNICAL MEMORANDUM: REMEDIAL OPTIMIZATION FOR THE 2-10 INTERIM MEASURES – JULY 2014

This 2014 Tech Memo summarized the IM activities completed as of July 2014 and described future activities proposed to optimize the corrective measures/remedial actions being implemented (CALIBRE and Floyd|Snider 2014a).

2.4.1 North Sheetpile Area, SVE

As of July 2014, the north sheetpile SVE system had operated for approximately 16 months. Performance monitoring data from the SVE system demonstrated significant declines in cVOC vapor concentrations (99.9-percent reductions based on measurement of soil vapor concentration and inlet concentrations to the SVE system). Based on the performance data, the north sheetpile SVE system was recommended for shutdown and rebound testing. USEPA subsequently approved the initial SVE system shutdown and start of rebound testing.

2.4.2 North Sheetpile Area, ERD

As of July 2014, TCE concentrations in samples from well PL2-212A (at the source area) were down to 0.3 micrograms per liter (µg/L), demonstrating a 99.999-percent reduction compared to 62,000 µg/L as a baseline at the start of ERD treatment. In addition, the data for TCE degradation

daughter products (cDCE and VC) showed rapid and significant reductions in concentrations (99.8-percent reduction).

Wells PL2-218A and PL2-218B appeared to be responding more slowly (these two wells are within the sheetpile and 150 feet downgradient from the degreaser source area). Well PL2-218A maintained relatively stable cVOC concentrations for the first 16 months of ERD treatment but later showed significant reductions (99-percent reductions as of April 2014). cVOC concentrations in samples from well PL2-218B also declined (overall cVOC reductions were about 92 percent as of April 2014), but subsurface conditions may have caused the degradation process to "stall" at cDCE rather than continue to VC. This specific area and depth (PL2-218B) included bacterial counts in prior sampling events and indicated lower *Dehalococcoides ethenogenes* (DHE) counts for samples collected in 2010 (CALIBRE and Floyd|Snider 2010) and 2012 (CALIBRE 2013). Bioaugmentation in this area was recommended to increase the populations of DHE bacteria.

Shoreline wells PL2-258A and PL2-258B (downgradient outside of the north sheetpile) were in compliance with the then current proposed FMCLs for groundwater in the April 2014 event.[4]

2.4.3 South Sheetpile Area, SVE

As of July 2014, the south sheetpile SVE system had operated for approximately 16 months. Performance monitoring data from the SVE system demonstrated significant declines in cVOC vapor concentrations (over 99-percent reductions based on measurements of soil vapor concentrations and inlet concentrations to the SVE system). Based on the performance data, the south sheetpile SVE system was recommended for shutdown and rebound testing. USEPA subsequently approved the initial SVE system shutdown and start of rebound testing.

2.4.4 South Sheetpile Area, ERD

As of July 2014, cVOC concentrations in samples from well PL2-209A (near the former degreaser inside the south sheetpile) had declined steadily since the start of ERD treatment. VC concentrations as of April 2014 had declined to 4.8 µg/L (about 2 times the proposed FMCL), while TCE was at 0.3 µg/L and cDCE was at 3.1 µg/L, both less than their respective proposed FMCLs. The deeper well in this area, PL2-209B, had concentrations at non-detect levels (<0.2 µg/L) for all cVOCs.

cVOC concentrations in samples from well PL2-253A (downgradient inside the south sheetpile) were less than the proposed FMCLs and approaching non-detect levels (VC was the only cVOC detection at 0.2 µg/L). Similar results were measured at PL2-256A (upgradient side inside the south sheetpile), which had concentrations approaching non-detect levels (VC was the only cVOC detection at 0.5 µg/L).

[4] In 2014, proposed FMCLs for these chemicals in groundwater were 130 µg/L for cDCE, 1.4 µg/L for TCE, and 2.4 µg/L for VC.

Shoreline wells PL2-214A and PL2-214B (downgradient outside the south sheetpile) were in compliance with the proposed FMCLs with concentrations at non-detect levels for all cVOCs.

Well PL2-257A (outside south sheetpile, upgradient side at/near stagnation point) was responding slowly to the ERD treatment. cVOC concentrations declined with ERD treatment, but subsurface conditions may have caused the degradation process to "stall" at cDCE rather than continue to VC. Results from samples collected at this specific area (PL2-257A) in 2012 indicated lower DHE counts (CALIBRE 2013). Bio-augmentation in this area was recommended to increase the populations of DHE bacteria.

The recommended remedial optimization of the IMs in summary included the following steps:

1. Initiate the SVE rebound testing.
2. Complete revised or new Underground Injection Control registration for the planned bioaugmentation wells.
3. Continue the ERD treatment of groundwater and include bio-augmentation in selected areas.
4. Modify the monitoring program and continue the focused monitoring and remedial optimization.

2.5 TECHNICAL MEMORANDUM: REMEDIAL OPTIMIZATION OF 2-10 INTERIM MEASURES SITES: SVE REBOUND AND GROUNDWATER MONITORING SUMMARY – NOVEMBER 2014

Rebound testing was completed as outlined in the USEPA-approved plan (CALIBRE and Floyd|Snider 2014a). The November Tech Memo summarized the results from the SVE rebound testing completed and recommended continued ERD (CALIBRE and Floyd|Snider 2014b).

The SVE operations and rebound test data indicated that cVOC concentrations in soil vapor were reduced by 95 to 99+ percent. The performance monitoring data demonstrated that the SVE operations (for vadose zone soil treatment) fully met the IM objectives.

The groundwater monitoring data showed that low levels of cVOCs remained (greater than applicable criteria in selected areas). The performance monitoring data, however, demonstrated that cVOC concentration trends continued to show significant reductions (99.99 percent from prior/baseline concentrations) with levels at, or progressing toward, non-detect in most areas. The data also demonstrated that ERD operations (for groundwater treatment) were performing as expected, making good progress in meeting IM objectives.

SVE and ERD combined had eliminated any potential for indoor air exposure risk. Based on these data, Boeing recommended that operation of both SVE systems be discontinued and the systems decommissioned, and that ERD be continued in both locations until cleanup goals are met in groundwater. USEPA approved this recommendation and both SVE systems were decommissioned.

3.0 Summary of Current Soil and Groundwater Conditions at the Site

3.1 SOIL

The SVE operations and rebound test data indicated that cVOC concentrations in soil vapor were significantly reduced (95 to 99+ percent; CALIBRE and Floyd|Snider 2014b). These performance data, coupled with prior indoor air sampling data[5], demonstrated that cVOC concentrations in soil vapor would not rebound to levels that could potentially cause indoor air concentrations to exceed indoor air target media cleanup levels/proposed FMCLs[6]. In addition, the groundwater treatment processes in place have demonstrated any potential vapor transfer of cVOCs from soil to groundwater would be effectively managed by ERD. These two conditions demonstrate that the SVE operations (for vadose zone soil treatment) had fully met the IM objectives.

3.2 GROUNDWATER

Baseline groundwater cVOC concentrations were measured initially in February and March 2010 and performance monitoring has been conducted approximately quarterly since September 2012. Groundwater samples were collected from the north and south sheetpile areas most recently in November 2016 from groundwater monitoring and injection wells both inside and outside of the sheetpile areas (some of the wells sampled are also monitored semiannually as part of the shoreline monitoring program). Results for the recent groundwater sampling are presented in Tables 3.1 through 3.18 and Figures 3.1 through 3.15. Field sampling forms from groundwater sampling events are included in Appendix A. Laboratory data packages are included in Appendix B.

3.2.1 Summary of Current Groundwater Conditions: North Sheetpile Area

Groundwater monitoring results for the north sheetpile area are presented in Tables 3.1 to 3.9 and Figures 3.1 to 3.3. Current monitoring results for TCE are non-detect at five of the seven wells

[5] The prior indoor air sampling data, collected in the Plant 2 Data Gaps investigation, are presented in Golder 2010 and summarized in Appendix C of this report. Following the approved Work Plan, indoor air samples were collected from 16 locations throughout the interior of Building 2-10; sample locations were concentrated near the north and south sheetpile areas and two ambient air samples were collected from locations outside the building. TCE was detected at all indoor air sampling locations except one; TCE concentrations were fairly uniform throughout the building and there was no apparent correlation between TCE concentration and proximity to the sheetpile structures. All detected TCE concentrations were less than the TMCL/FMCL (8.4 µg/m^3 for TCE in indoor based on an industrial exposure scenario; Floyd|Snider 2016); all other VOCs detected were also less than their respective TMCLs/FMCLs.

[6] Operation of the SVE systems removed significant VOC mass from the vadose zone and performance monitoring data demonstrating greater than 99 percent reduction in soil vapor levels. Data collected prior to the IM startup indicated all indoor air concentrations less than TMCLs/FMCLs (for industrial exposure) and SVE systems operation reduced the in-situ soil vapor concentrations by more than 99 percent. EPA approved the plan for SVE shutdown and rebound test procedures in June 2014. The SVE rebound test data were reported in November 2014 (CALIBRE and Floyd|Snider 2014b) and EPA subsequently approved the dismantling and removal of the two SVE systems in January 2015.

sampled within the north sheetpile area. Monitoring well PL2-212A (adjacent to the former TCE degreaser pit) shows TCE at 26 µg/L, down from historical levels of 420,000 µg/L. To date, PL2-212A has demonstrated a 99.99+ percent reduction in TCE and a 99.6-percent reduction in total cVOCs from historical levels. The data collected from the remaining six wells inside the sheetpile area show similar reductions in cVOCs with concentrations continuing to decline or remain at non-detect. Wells PL2-258A and PL2-258B, downgradient and outside of the north sheetpile, show low levels of cVOCs (0.3 µg/L and 1.5 µg/L, respectively) and continue to remain at or near non-detect after the initiation of ERD treatment.

3.2.2 cVOC Degradation Rate: North Sheetpile Area

Estimated half-lives for TCE and other cVOCs from a number of monitoring wells attributable to ERD were calculated based on performance monitoring results collected following the start of ERD treatment. These values are shown in Figures 3.4 to 3.10. The average half-life calculated for cVOCs downgradient of the north sheetpile source area is approximately 11 months (or approximately 338 days) based on degradation rates observed at wells PL2-212A, PL2-218A, PL2-218B, PL2-258A, and PL2-258B. Wells PL2-258A and PL2-258B have undergone consistent reductions in cVOCs since the start of ERD treatment resulting in much shorter half-lives (i.e., faster degradation rates). Wells PL2-212A, PL2-218A, and PL2-218B were included in the average half-life calculations in order to interpret the current data conservatively. These three wells show variable cVOC concentrations (with increases and decreases) since the start of ERD treatment resulting in longer calculated half-lives than the other wells.

Bioaugmentation was completed in wells PL2-218A and PL2-218B in March 2015 and wells PL2 212A and IW-N-6 in August 2015. TCE has remained non-detect and concentrations of degradation daughter products have decreased or reached non-detect concentrations for wells PL2-218A and PL2-218B in response to this bioaugmentation. The response observed in source area well PL2-212A has shown a decrease in TCE concentrations (TCE was detected at a concentration of 77 µg/L in August 2015 and was most recently detected at a concentration of 26 µg/L in November 2016) and an initial increase in daughter products. For example, total cVOC concentrations increased from 4,345 µg/L in August 2015 (before bioaugmentation) to 8,426 µg/L in March 2016 (cDCE at 6,300 µg/L and VC at 2,100 µg/L). Total cVOC concentrations have decreased since March 2016 and were 2,220 µg/L in November 2016. The half-life calculated for TCE in the north sheetpile area is approximately 6.5 months based on degradation rates observed at well PL2-212A (the only well with TCE detected). A baseline condition (pre-ERD treatment) half-life of 83 months for cVOCs in the north sheetpile area was calculated based on historical monitoring data from well PL2-212A (CALIBRE 2013).

Groundwater treatment using ERD has continued in this area, with the most recent substrate injection event completed in August 2016. Substrate injections for this area have been further refined to focus on remaining cVOCs observed at PL2-212A with injection wells IW-N-1, IW-N-4, and IW-N-6 as the only wells used to meet this objective. The site-wide sampling data (described above) will be reviewed as part of the draft CMS Report process and will be used to adjust and

optimize the treatment plan as appropriate (e.g., if specific areas have achieved the cleanup goals they might be dropped from further treatment).

3.2.3 Summary of Current Groundwater Conditions: South Sheetpile Area

Groundwater monitoring results for the south sheetpile area are presented in Tables 3.10 to 3.18 and Figures 3.11 to 3.15. Results from the most recent sampling event show a consistent trend of low to non-detect cVOC concentrations, as has been observed previously. Well PL2-257A shows the greatest total cVOC concentrations for this area, at 20.8 µg/L. Bioaugmentation injections were completed at wells PL2-257A and IW-S-12 in March 2015 in order to promote accelerated degradation of the remaining cVOCs. Two wells downgradient and outside of the south sheetpile, PL2-214A and PL2-216A, were sampled in November 2016 (PL2-214A is also sampled semiannually as part of the shoreline monitoring program). Results from these wells for all cVOCs are non-detect, consistent with historical data. Based on current groundwater data, the remaining cVOC plume mass is centered at well PL2-257A, which is located outside (upgradient from) the sheetpile area. Groundwater treatment using ERD has continued in this limited area (i.e., at IW-S-12, adjacent to PL2-257A). The site-wide sampling data (described above) will be reviewed and used to adjust and optimize the treatment plan (e.g., if specific areas have achieved the cleanup goals they might be dropped from further treatment).

3.2.4 cVOC Degradation Rate: South Sheetpile Area

Estimated half-lives for TCE and other cVOCs from selected monitoring wells were calculated based on performance monitoring results from the south sheetpile area. These values are shown in Figures 3.11 and 3.12. The average half-life calculated for cVOCs at/near the south sheetpile area is approximately 14 months based on degradation rates observed at wells PL2-209A and PL2-257A. Other wells in the area do not have sufficient data to evaluate trends and calculate degradation rates/ half-lives (most are at non-detect levels of >0.2 µg/L for all cVOCs). A baseline condition (pre-ERD treatment) half-life was not calculated for cVOCs in the south sheetpile area but the results presented in Figures 3.11 and 3.12 demonstrate an accelerated degradation rate with the start of ERD treatment.

Groundwater treatment using ERD has continued in this area with the last substrate injection event completed in August 2016 and bioaugmentation completed in well IW-S-12 in March 2015. The site-wide sampling data will be reviewed as part of the draft CMS Report process and used to adjust and optimize the treatment plan as appropriate (e.g., if specific areas have achieved the cleanup goals they might be dropped from further treatment).

3.3 CURRENT UPDATES TO THE CONCEPTUAL SITE MODEL

Soil vapor monitoring data show the SVE systems had fully met the IM objectives for soil treatment with cVOC concentrations in soil vapor reduced by 95 to 99+ percent (CALIBRE and Floyd|Snider 2014b). Groundwater performance monitoring data show that limited portions of the original groundwater plumes remain today. The remaining cVOC groundwater plumes

observed at the north and south sheetpile areas have been significantly reduced in size and concentration based on current performance monitoring data.

The original footprint for the north plume (AOC 2-10.3A) covered an area approximately 450 feet (southwest to northeast in the direction of groundwater flow) by 250 feet (northwest to southeast in the direction transverse to groundwater flow) beneath the north end of the 2-10 Building. The remaining area comprising the current north plume footprint (the area exceeding proposed FMCLs) is centered on the concrete sump at well PL2-212A (with total cVOCs at 2,200 µg/L in November 2016) and extends to downgradient injection well IW-N-6 (with total cVOCs at 2.5 µg/L and VC at 1.7 µg/L in November 2016) covering an area approximately 40 feet (southwest to northeast in the direction of groundwater flow) by 25 feet (northwest to southeast in the direction transverse to groundwater flow).

The original footprint for the south plume (AOC 2-10.4A) covered an area approximately 250 feet (southwest to northeast in the direction of groundwater flow) by 150 feet (northwest to southeast in direction transverse to groundwater flow) beneath the south end of the 2-10 Building. The remaining area comprising the current south plume footprint (the area exceeding proposed FMCLs) is centered on an area outside of the south sheetpile near PL2-257A (with total cVOCs at 20.8 µg/L and VC at 9.2 µg/L in November 2016) covering an area approximately 15 feet (southwest to northeast in the direction of groundwater flow) by 15 feet (northwest to southeast in the direction transverse to groundwater flow).

The current treatment approach is to continue actively remediating what remains of the north and south cVOC plumes with ERD using the existing injection well network. The substrate injections will follow existing procedures presented in the 2010 IM Work Plan (CALIBRE and Floyd|Snider 2010; including a soluble substrate, trace nutrients, yeast extracts, and buffer). The total volume of substrate applied at each injection well will depend on the well depth; approximately 1,000 gallons for deep wells and approximately 500 gallons for shallow wells. The planned injections will be optimized to only treat the areas and intervals necessary (based on the performance monitoring data and residual total organic carbon remaining).

4.0 Summary and Recommendations

This report presents a summary of the IM activities implemented at the north and south sheetpile areas in the 2-10 Building. Following the completion of the SVE system rebound study in 2014, it was recommended that both SVE systems be decommissioned (vadose zone soil treatment was considered complete) and that ERD be continued in both locations until cleanup objectives are met in groundwater (consistent with remedial optimization recommendations in the 2014 Tech Memo, dated July 2014 and approved by USEPA).

The November 2016 groundwater data show cVOC concentrations continue to decline or remain at or near non-detect levels in most areas in response to the ongoing ERD treatment. The area covered by both cVOC plumes at the north and south sheetpile has been significantly reduced and cVOC concentrations show reductions of 99.99+ percent in some areas.

The concentrations of TCE and daughter products have decreased significantly at the north sheetpile source area well PL2-212A since the start of ERD treatment at the site. TCE, cDCE, and VC were found at concentrations of 62,000 µg/L 22,000 µg/L, and 7,700 µg/L, respectively, in March 2010 before the start of ERD. November 2016 concentrations for these analytes were 26 µg/L, 1,200 µg/L, and 1,100 µg/L, respectively. Downgradient from this source area, multiple wells show non-detect levels or levels less than 1 part per billion of the targeted cVOCs (refer to Figure 3.1). The performance monitoring data demonstrate that significant and rapid reductive dechlorination of cVOCs has occurred and is ongoing.

South sheetpile well PL2-257A, the only remaining well with measureable detections of cVOCs in groundwater, has similarly undergone favorable decreases in cVOC concentrations since the start of ERD. TCE, cDCE, and VC were found at concentrations of 20 µg/L, 52 µg/L, and 3.9 µg/L, respectively, in March 2010 before the start of ERD. November 2016 concentrations for these analytes were 0.3 µg/L, 11 µg/L and 9.2 µg/L, respectively, indicating that significant reductive dechlorination of cVOCs has occurred and is ongoing. Downgradient from this area, all wells show non-detect levels or levels less than 1 part per billion of the targeted cVOCs (refer to Figure 3.13). These results are less than the proposed FMCLs for TCE and cDCE, and are less than the proposed FMCL for VC.[7]

Performance monitoring data in downgradient monitoring wells at both north and south sheetpile areas, also sampled semiannually as part of the shoreline monitoring program, have shown favorable results continuing with the ongoing ERD. cVOC concentrations in these wells remain at non-detect levels or at levels less than the proposed FMCLs indicating the IM objectives have been met and these wells are in compliance.

[7] The current proposed FMCLs for cDCE and TCE are 130 µg/L and 0.7 µg/L, respectively. Boeing's proposed FMCL is 1.6 µg/L for VC; this value is greater than the new VC Water Quality Standard approved for Washington State (0.18 µg/L), which is also being considered.

The next sampling event is planned for spring 2017. Current recommendations for additional substrate injections include selected wells near PL2-212A at the north sheetpile area and selected wells near PL2-257A at the south sheetpile area where detectable levels of cVOCs remain. Specifically, the current and proposed ongoing treatment approach is to continue actively remediating what remains of the north and south cVOC plumes with ERD using the existing injection well network. The substrate injections will follow existing procedures presented in the IM Work Plan (CALIBRE and Floyd|Snider 2010; including a soluble substrate, trace nutrients, yeast extracts, and buffer). The total volume of substrate applied at each injection well will depend on the well depth; approximately 1,000 gallons for deep wells and approximately 500 gallons for shallow wells. The planned injections will be optimized to only treat the areas and intervals necessary based on the performance monitoring data and residual total organic carbon remaining.

5.0 References

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Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

Tables

Table 3.1
Performance Monitoring Data from Well PL2-212A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/17/2010	62,000	22,000	610	7,700
9/20/2012*	2,000	1,800	36	160
10/23/2012	9,700	7,200	210	1,500
11/29/2012	6,100	10,000	350	2,000
2/26/2013	2,100	7,300	110	1,400
5/21/2013	2,500	4,600	100	1,800
8/27/2013	1,600	4,900	78	1,600
1/14/2014	<2.0 U	420	6.6	550
4/29/2014	0.3	63	0.3	90
7/28/2014	2.6	190	<2.0 UJ	530
10/28/2014	12	420	<1.0 UJ	450
3/4/2015	17	6,300	9.4	2,400
5/20/2015	41	1,000	2.8	1,700
DUP	110	650	<2.0 U	520
8/24/2015	77 J	1,700	<10 U	2,300
DUP	45 J	1,800	<10 U	2,500
3/10/2016	26	6,300	<20 U	2,100
DUP	29	6,100	<20 U	1,900
7/7/2016	43	4,700	<10 U	2,100
DUP	36	5,300	<20 U	2,300
11/21/2016	20	1,100	<4 U	1,100
DUP	26	1,200	<4 U	950

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
DUP Duplicate sample
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

J Estimated
U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.2
Performance Monitoring Data from Well PL2-218A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
2/9/2010	<10 U	1,000	120	480
3/18/2010	1.6	930	110	460
9/20/2012*	<5.0 U	2,300	220	550
10/23/2012	<1.0 U	570	93	240
11/29/2012	6.3	2,400	180	640
2/27/2013	<10 U	430	130	2,000
5/21/2013	<0.2 U	37	30	430
8/27/2013	<10 U	4,300	230	2,200
1/14/2014	59	3,700	260	2,700
4/29/2014	1	20	6.8	62
7/28/2014	<0.2 UJ	5	0.4	23
10/28/2014	<0.2 U	2.4	0.5	6.7
3/4/2015	<0.2 U	1.7	0.2	3.3
5/20/2015	<0.2 U	0.3	<0.2 U	2.7
8/24/2015	<0.2 U	1.2	0.2	3.3
3/10/2016	<0.2 U	<0.2 U	<0.2 U	0.3
7/7/2016	<0.2 U	<0.2 U	<0.2 U	0.3
11/21/2016	<0.2 U	<0.2 U	<0.2 U	0.3

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.3
Performance Monitoring Data from Well PL2-218B

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
2/9/2010	<1.0 U	200	0.5	1.3
3/18/2010	1.2	9,800	15	3.5
9/20/2012*	<5.0 U	2,300	<5.0 U	<5.0 U
10/23/2012	<1.0 U	1,200	2.4	<1.0 U
11/29/2012	<4.0 U	2,200	<4.0 U	<4.0 U
2/27/2013	<4.0 U	2,800	4.1	4.3
5/21/2013	<10 U	3,100	<10 U	<10 U
8/27/2013	0.2	720	1.7	0.7
1/14/2014	<0.4 U	180	0.5	<0.4 U
4/29/2014	<2.0 U	750	<2.0 U	<2.0 U
7/28/2014	<0.2 UJ	130	0.4	0.2
10/28/2014	<0.2 U	67	0.3	<0.2 U
3/4/2015	<1.0 U	150	<1.0 U	<1.0 U
5/20/2015	<2.0 U	9	<2.0 U	<2.0 U
8/24/2015	<0.2 U	2.4	<0.2 U	<0.2 U
3/10/2016	<0.2 U	3.1	<0.2 U	<0.2 U
7/7/2016	<0.2 U	1.1	<0.2 U	<0.2 U
11/21/2016	<0.2 U	0.8	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.4
Performance Monitoring Data from Well PL2-258A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
2/10/2010	<1 U	<1 U	2.3	300
3/10/2010	<0.2 U	28	20	1,500
8/6/2010	<1 U	<1 U	1.6	180
2/3/2011	<2 U	78	62	1,000
8/18/2011	<4 U	87	39	940
2/7/2012	<0.2 U	21	27	550
8/7/2012	<0.2 U	80	27	600
1/8/2013*	0.2	8.6	11	230
5/22/2013	<0.2 U	2	<0.2 U	37
8/27/2013	<0.2 U	0.5	<0.2 U	19
1/15/2014	<0.2 U	1.1	<0.2 U	59
4/29/2014	<0.2 U	<0.2 U	<0.2 U	0.9
8/5/2014	0.4	2.6	0.3	5.2
10/28/2014	<0.2 U	<0.2 U	<0.2 U	0.7
3/3/2015	<0.2 U	<0.2 U	<0.3 U	0.4
5/20/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/25/2015	<0.2 U	<0.2 U	<0.2 U	0.3
9/1/2015	<0.2 U	<0.2 U	<0.2 U	0.3
3/2/2016	<0.2 U	<0.2 U	<0.2 U	0.3
7/7/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
11/22/2016	<0.2 U	<0.2 U	<0.2 U	0.3

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifier:

U Non-detect

Table 3.5
Performance Monitoring Data from Well PL2-258B

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
2/10/2010	<1 U	50	<1 U	<1 U
3/10/2010	0.5	42	0.5	0.7
8/6/2010	<1 U	81	<1 U	<1 U
2/3/2011	0.4	11	0.3	0.2
8/18/2011	0.4	13	0.4	0.2
2/7/2012	0.4	2.6	0.6	<0.2 U
8/7/2012	0.4	2.7	1.1	<0.2 U
1/8/2013*	1.5	5.5	0.6	0.8
5/22/2013	4.9	45	<2.5 U	2.7
8/27/2013	2.9	49	0.9	3.6
1/15/2014	0.7	13	0.6	6.3
4/29/2014	0.3	2.4	<0.2 U	0.8
8/5/2014	<0.2 U	<0.2 U	<0.2 U	0.2
10/28/2014	<0.2 U	1.2	0.2	0.6
3/3/2015	<0.2 U	1.7	<0.2 U	0.4
5/20/2015	<0.2 U	1.4	<0.2 U	<0.2 U
8/25/2015	<0.2 U	1.1	<0.2 U	<0.2 U
9/1/2015	<0.2 U	1.2	<0.2 U	0.4
3/2/2016	0.2	2.1	<0.2 U	0.3
7/7/2016	<0.2 U	1.4	<0.2 U	<0.2 U
11/22/2016	<0.2 U	1.5	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifier:

U Non-detect

Table 3.6
Performance Monitoring Data from Well IW-N-1

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	<0.1 U	1.1	0.5	1.4
10/24/2012	<1.0 U	<1.0 U	<1.0 U	<1.0 U
11/30/2012	<2.0 U	<2.0 U	<2.0 U	<2.0 U
2/26/2013	<100 U	<100 U	<100 U	<100 U
5/21/2013	<4.0 U	<4.0 U	<4.0 U	<4.0 U
8/27/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1/14/2014	<1.0 U	<1.0 U	<1.0 U	<1.0 U
4/29/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/28/2014	<0.2 UJ	0.3	<0.2 UJ	<0.2 U
10/28/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Notes:

A well was dropped from the sampling list in 2014 due to consistent non-detections.

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.7
Performance Monitoring Data from Well IW-N-4

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	<1.0 U	3.9	<1.0 U	11
10/24/2012	<1.0 U	1.2 J	<1.0 U	<1.0 U
11/30/2012	<1.0 U	4.6	<1.0 U	3.6
2/27/2013	<1.0 U	4.3	<1.0 U	2.9
5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
8/28/2013	1.2	3.2	<1.0 U	2.9
1/14/2014	<0.2 U	0.4	<0.2 U	0.5
4/30/2014	<0.2 U	0.3	0.4	<0.2 U
7/28/2014	<0.2 UJ	0.3	0.3	<0.2 UJ
10/28/2014	<0.2 U	0.2	<0.2 U	<0.2 U
3/4/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/24/2015	<0.2 U	0.2	<0.2 U	0.3
3/10/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/7/2016	<0.2 U	<0.2 U	<0.2 U	0.3
11/21/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

J Estimated
U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.8
Performance Monitoring Data from Well IW-N-5

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	19	23.0	0.3	0.9
10/24/2012	10	9.7	<1.0 U	<1.0 U
11/30/2012	8.1	3.6	<1.0 U	<1.0 U
2/27/2013	5.8	9.2	<4.0 U	8.5
5/21/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
8/27/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1/14/2014	<0.2 U	0.2	<0.2 U	<0.2 U
4/29/2014	<0.2 U	0.2	<0.2 U	<0.2 U
7/28/2014	<0.2 UJ	<0.2 UJ	<0.2 UJ	<0.2 UJ
10/28/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Notes:

A well was dropped from the sampling list in 2014 due to consistent non-detections.

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.9
Performance Monitoring Data from Well IW-N-6

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	23	490	8.1	11
10/24/2012	120	85	<5.0 U	<5.0 U
11/30/2012	48	1,300	20	30
2/26/2013	430	3,200	54	62
5/21/2013	68	1,600	22	140
8/27/2013	20	530	11	170
1/14/2014	0.6	7.4	<0.5 U	26
4/29/2014	0.2	4.5	0.4	33
7/28/2014	<0.2 UJ	0.9	<0.2 UJ	4.7
10/28/2014	0.3	1.9	<0.2 U	6.6
3/4/2015	<0.2 U	1.3	<0.2 U	2.3
5/20/2015	0.3	3.6	0.3	21
8/24/2015	<0.2 U	1.0	<0.2 U	8.3
3/10/2016	0.5	0.6	<0.2 U	0.5
7/7/2016	0.3	0.6	<0.2 U	1.1
11/21/2016	0.3	0.5	<0.2 U	1.7

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.10
Performance Monitoring Data from Well PL2-209A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/17/2010	1.1	42	0.2	26
9/20/2012*	2.3	27	0.1 J	20
10/23/2012	1	6.5	<0.1 U	10
11/29/2012	1.4	2.9	<0.2 U	3.1
2/26/2013	1.2	24	<0.2 U	22
5/21/2013	0.4	15	<0.2 U	18
8/28/2013	<0.2 U	8.5	<0.2 U	18
1/14/2014	<0.2 U	1.4	<0.2 U	4.4
4/29/2014	0.3	3.1	<0.2 U	4.8
7/28/2014	<0.2 UJ	1.7	<0.2 UJ	4.1
10/28/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
3/4/2015	<0.2 U	0.9	<0.2 U	3.0
5/20/2015	0.2	0.2	<0.2 U	0.3
8/24/2015	<0.2 U	0.7	<0.2 U	2.7
3/10/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/8/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
11/21/2016	0.2	<0.2 U	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

J Estimated
U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.11
Performance Monitoring Data from Well PL2-209B

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/17/2010	<0.2 U	<0.2 U	<0.2 U	<0.2 U
9/20/2012*	<0.5 U	<0.5 U	<0.5 U	<0.5 U
10/23/2012	<0.5 U	<0.5 U	<0.5 U	<0.5 U
11/29/2012	<1.0 U	<1.0 U	<1.0 U	<1.0 U
2/26/2013	<0.2 U	<0.2 U	<0.2 U	<0.2 U
5/21/2013	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/28/2013	<0.2 U	<0.2 U	<0.2 U	<0.2 U
1/14/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
4/29/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/28/2014	<0.2 UJ	<0.2 UJ	<0.2 UJ	<0.2 UJ
10/28/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.12
Performance Monitoring Data from Well PL2-253A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/12/2010	<0.2 U	15	0.8	91
5/22/2013*	<0.2 U	0.4	0.3	6.8
8/28/2013	<0.2 U	<0.2 U	0.2	2.0
1/14/2014	<0.2 U	0.3	0.2	0.7
4/30/2014	<0.2 U	<0.2 U	<0.2 U	0.2
7/28/2014	<0.2 UJ	<0.2 UJ	<0.2 UJ	<0.2 UJ
10/29/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
3/4/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
5/20/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/24/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
3/10/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/7/2016	<0.2 U	0.7	<0.2 U	0.4
11/21/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.13
Performance Monitoring Data from Well PL2-257A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/9/2010	20	52	1	3.9
9/20/2012*	22	31	0.6	1.1
10/23/2012	6.1	31	<1.0 U	1.7
11/29/2012	12	32	0.7	3.5
5/22/2013	17	36	0.7	2.0
8/28/2013	10	34	0.7	3.5
1/15/2014	4	36	0.7	5.3
4/30/2014	1	37	0.5	5.0
7/29/2014	1	26	0.3	3.3
10/29/2014	1	22	0.4	5.5
3/4/2015	1	23	0.3	1.8
5/21/2015	<0.2 U	0.3	0.3	4.2
8/25/2015	0.4	2.3	0.2	7.1
3/10/2016	<0.2 U	10	0.2	9.6
7/8/2016	0.3	15	0.2	8.0
11/22/2016	0.3	11	0.3	9.2

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifier:

U Non-detect

Table 3.14
Performance Monitoring Data from Well PL2-256A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/12/2010	<0.2 U	0.3	<0.2 U	0.7
9/20/2012*	1	2.9	<0.1 U	2.5
10/23/2012	<1.0 U	<1.0 U	<1.0 U	<1.0 U
11/29/2012	1.3	0.3	<0.2 U	0.7
2/27/2013	1.0	0.4	<0.2 U	0.4
5/22/2013	0.3	<2.0 U	<2.0 U	<2.0 U
8/28/2013	<0.2 U	<2.0 U	<2.0 U	0.3
1/15/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
4/30/2014	<0.2 U	<0.2 U	<0.2 U	0.5
7/29/2014	<0.2 UJ	<0.2 UJ	<0.2 UJ	<0.2 UJ
10/29/2014	<0.2 U	<0.2 U	<0.2 U	0.3
3/5/2015	0.3	<0.2 U	<0.2 U	0.5
5/21/2015	0.6	0.7	<0.2 U	1.4
8/25/2015	0.4	<0.2 U	<0.2 U	<0.2 U
3/10/2016	0.4	0.4	<0.2 U	1.0
7/8/2016	0.4	1.7	<0.2 U	1.1
11/22/2016	<0.2 U	0.5	<0.2 U	1.4

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.15
Performance Monitoring Data from Well PL2-216A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/5/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/25/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
3/10/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
11/21/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Note:

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifier:

U Non-detect

Table 3.16
Performance Monitoring Data from Well PL2-214A

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
3/3/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
8/25/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
9/1/2015	<0.2 U	<0.2 U	<0.2 U	<0.2 U
3/2/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U
11/21/2016	<0.2 U	<0.2 U	<0.2 U	<0.2 U

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifier:

U Non-detect

Table 3.17
Performance Monitoring Data from Well IW-S-12

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	5.9	5.5	0.3	1.2
10/24/2012	3.7	1.7 J	<1.0 U	<1.0 U
11/30/2012	4.1	4.2	<2.0 U	<2.0 U
2/27/2013	8.8	14	<1.0 U	3.3
5/22/2013	3.3	11	<1.0 U	<1.0 U
8/28/2013	<20 U	<20 U	<20 U	<20 U
1/15/2014	<1.0 U	<1.0 U	<1.0 U	<1.0 U
4/30/2014	0.4	1	<0.2 U	<0.2 U
7/29/2014	<0.2 UJ	0.4	<0.2 UJ	<0.2 UJ
10/29/2014	<2.0 U	<2.0 U	<2.0 U	<2.0 U

Notes:

A well was dropped from the sampling list in 2014 due to consistent non-detections.

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

Qualifiers:

J Estimated
U Non-detect
UJ Non-detect with estimated reporting limit

Table 3.18
Performance Monitoring Data from Well IW-S-13

Sample Date	TCE (µg/L)	cDCE (µg/L)	tDCE (µg/L)	VC (µg/L)
9/20/2012*	0.6	4	<1.0 U	2
10/24/2012	1.2 J	<1.0 U	<1.0 U	<1.0 U
11/30/2012	2.6	<2.0 U	<2.0 U	<2.0 U
2/26/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
5/22/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
8/28/2013	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1/15/2014	<0.4 U	<0.4 U	<0.4 U	<0.4 U
4/30/2014	<0.2 U	<0.2 U	<0.2 U	<0.2 U
7/29/2014	<0.2 UJ	<0.2 UJ	<0.2 UJ	<0.2 UJ
10/29/2014	0.3	<0.2 U	<0.2 U	<0.2 U

Notes:

A well was dropped from the sampling list in 2014 due to consistent non-detections.

* Indicates first sampling event after the start of substrate injections for enhanced reductive dechlorination.

Abbreviations:

cDCE *cis*- 1,2-dichloroethene
µg/L Micrograms per liter
TCE Trichloroethene
tDCE *trans*- 1,2-dichloroethene
VC Vinyl chloride

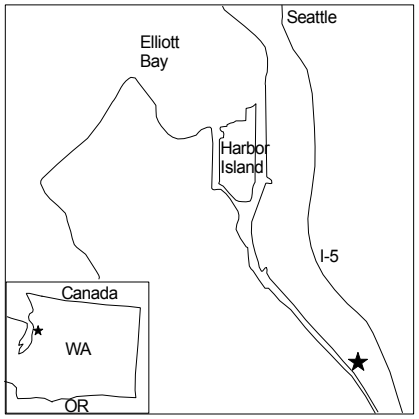
Qualifiers:

J Estimated
U Non-detect
UJ Non-detect with estimated reporting limit

Boeing Plant 2
Seattle/Tukwila, Washington

Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

Figures



2-10 PLANT 2 BUILDING ID

PLANT 2 BOUNDARY (approx.)

APPROXIMATE SCALE IN FEET

0 250 500 1000

N

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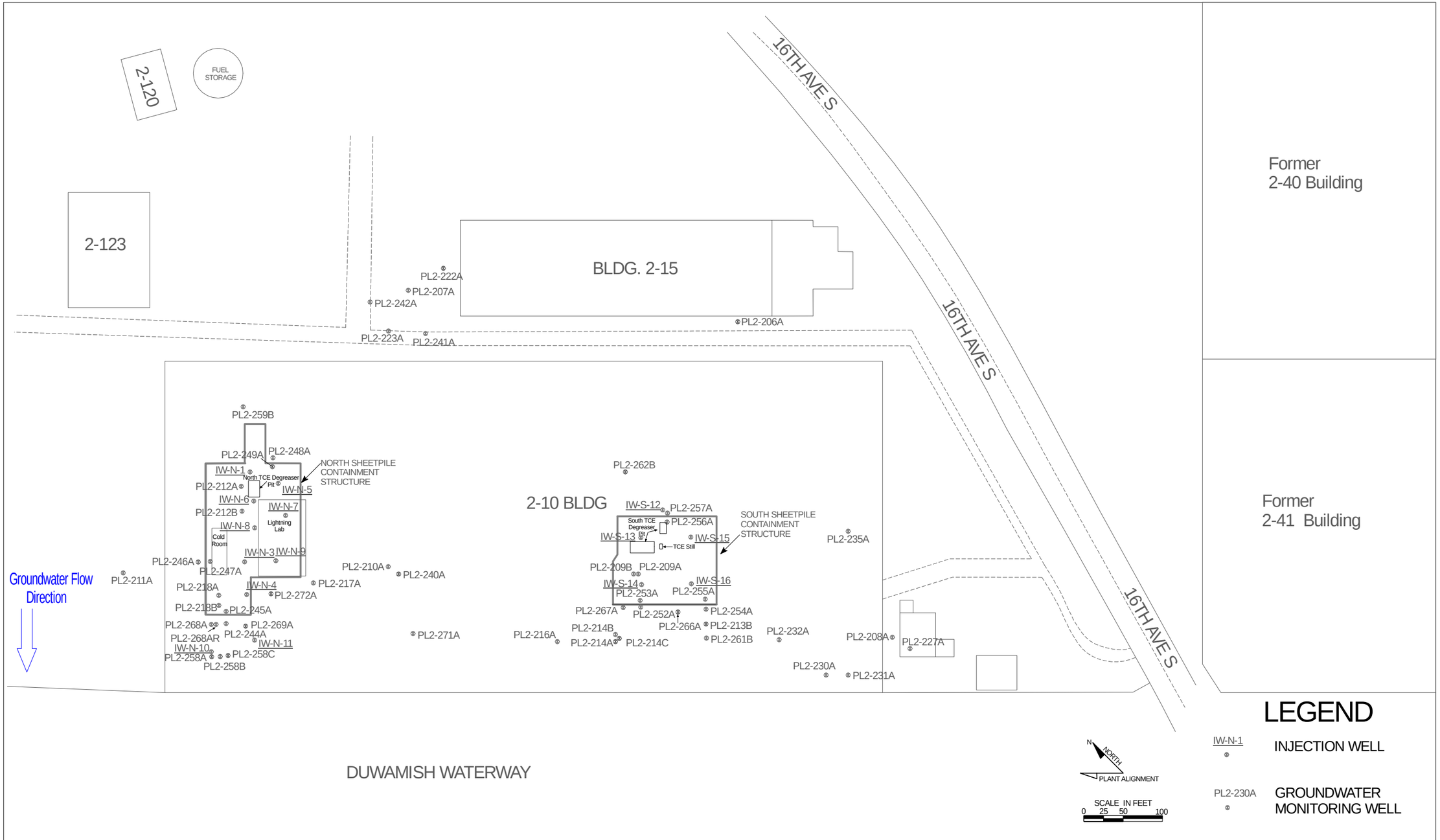
Interim Measures
North and South Sheetpiles in the 2-10 Building
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1.1
Site Location Map
Building 2-10 IM



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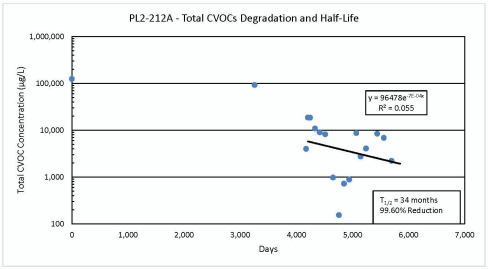
Interim Measures
North and South Sheetpiles in the 2-10 Building
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 1.2
Site Layout and Monitoring Wells
Building 2-10 IM



3/11/10	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
0.3	VC

10/28/14	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

11/21/16	Sample Date
20	TCE
1,100	cDCE
ND	tDCE
1,100	VC

11/21/16	DUP-1
26	TCE
1,200	cDCE
ND	tDCE
950	VC

PL2-259B

Lower Duwamish Waterway/ Groundwater Flow Direction

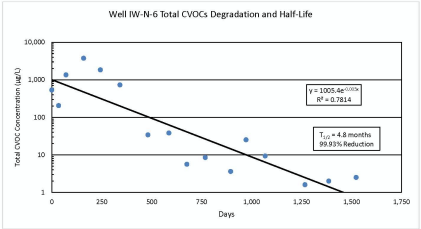
10/28/14	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

IW-N-1 IW-N-5 IW-N-7 IW-N-6 IW-N-8 IW-N-3 IW-N-9 IW-N-4 IW-N-11 IW-N-10

PL2-212A

NORTH SHEETPILE CONTAINMENT STRUCTURE

North TCE Degreaser Pit



3/18/10	Sample Date
ND	TCE
0.2	cDCE
ND	tDCE
0.5	VC

11/21/16	Sample Date
0.3	TCE
0.5	cDCE
ND	tDCE
1.7	VC

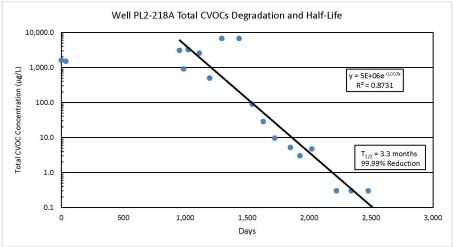
PL2-246A PL2-247A PL2-217A PL2-218A PL2-272A PL2-218B PL2-258A PL2-258B PL2-258C

11/21/16	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
0.3	VC

1/29/02	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

11/21/16	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

11/21/16	Sample Date
ND	TCE
0.8	cDCE
ND	tDCE
ND	VC



8/5/14	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

11/22/16	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
0.3	VC

11/22/16	Sample Date
ND	TCE
1.5	cDCE
ND	tDCE
ND	VC

DUWAMISH WATERWAY

SCALE IN FEET
0 25 50 100

N NORTH
PLANT ALIGNMENT

LEGEND

PL2-258C — Groundwater Monitoring Well

IW-N-9 — Groundwater Injection Well

Dashed box represents older data; well not sampled regularly.

VOC Concentrations in µg/L	
11/21/16	Sample Date
ND	TCE
0.3	cDCE
ND	tDCE
ND	VC

*ND = Non-detect

10/28/14	Sample Date
ND	TCE
ND	cDCE
ND	tDCE
ND	VC

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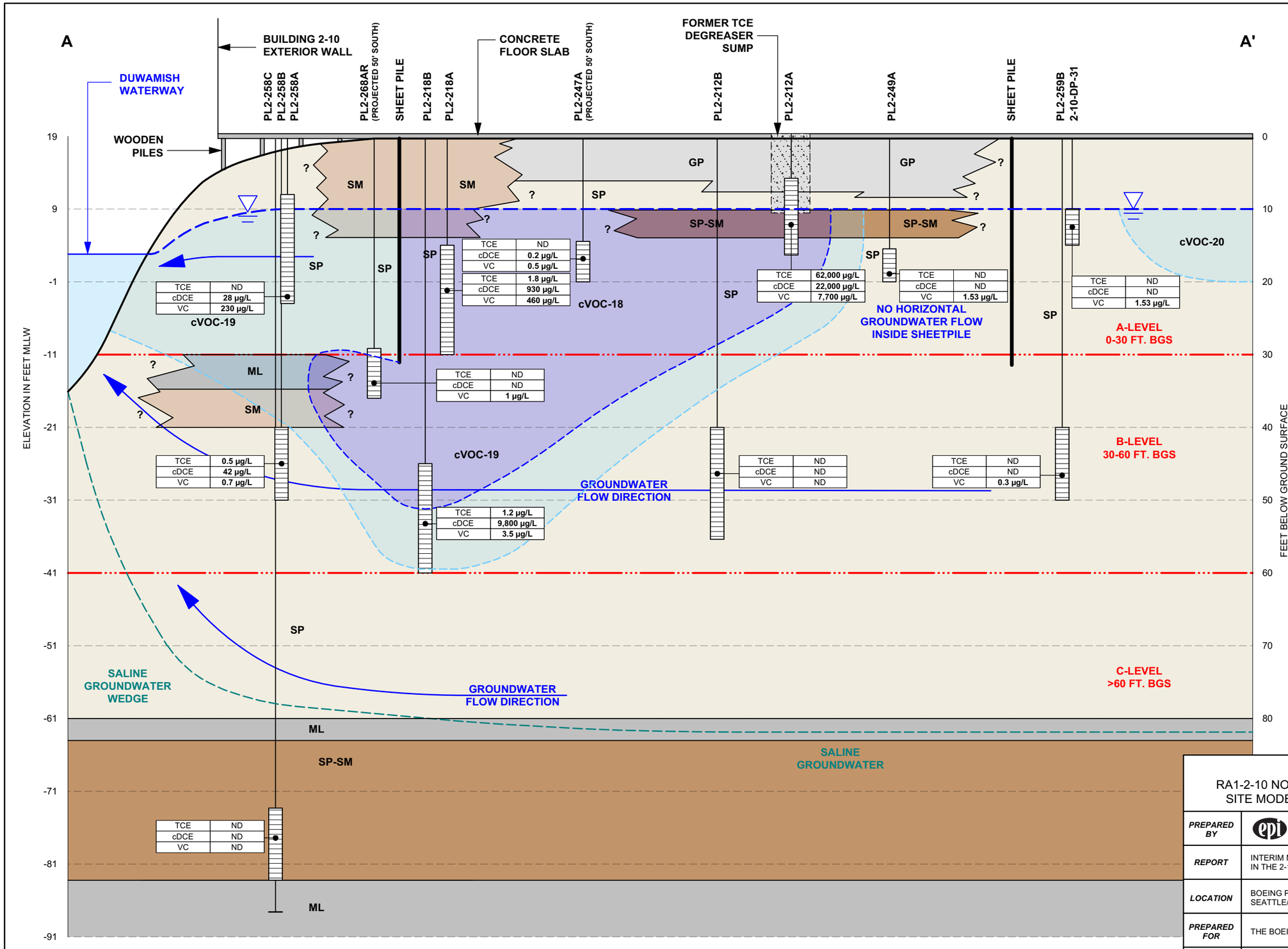
Interim Measures
North and South Sheetpiles in the 2-10 Building
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.1
Plan View North Sheetpile Area
Monitoring and Injection Wells
Current/Recent cVOCs - 2016
Building 2-10



NOTES:

GP	POORLY-GRADED GRAVEL
SM	SILTY SAND
SP	POORLY-GRADED SAND
ML	SILT
SP-SM	POORLY-GRADED SAND WITH SILT
TCE	TRICHLOROETHENE
cDCE	CIS-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE
ND	NOT DETECTED
NS	NOT SAMPLED
µg/L	MICROGRAMS PER LITER
	GROUNDWATER LEVEL
	GROUNDWATER FLOW DIRECTION
	>1,000 µg/L FMCL EXCEEDANCE AREA
	<1,000 µg/L FMCL EXCEEDANCE AREA

PL2-218A — MONITORING WELL ID
WELL SCREEN
TOTAL WELL DEPTH

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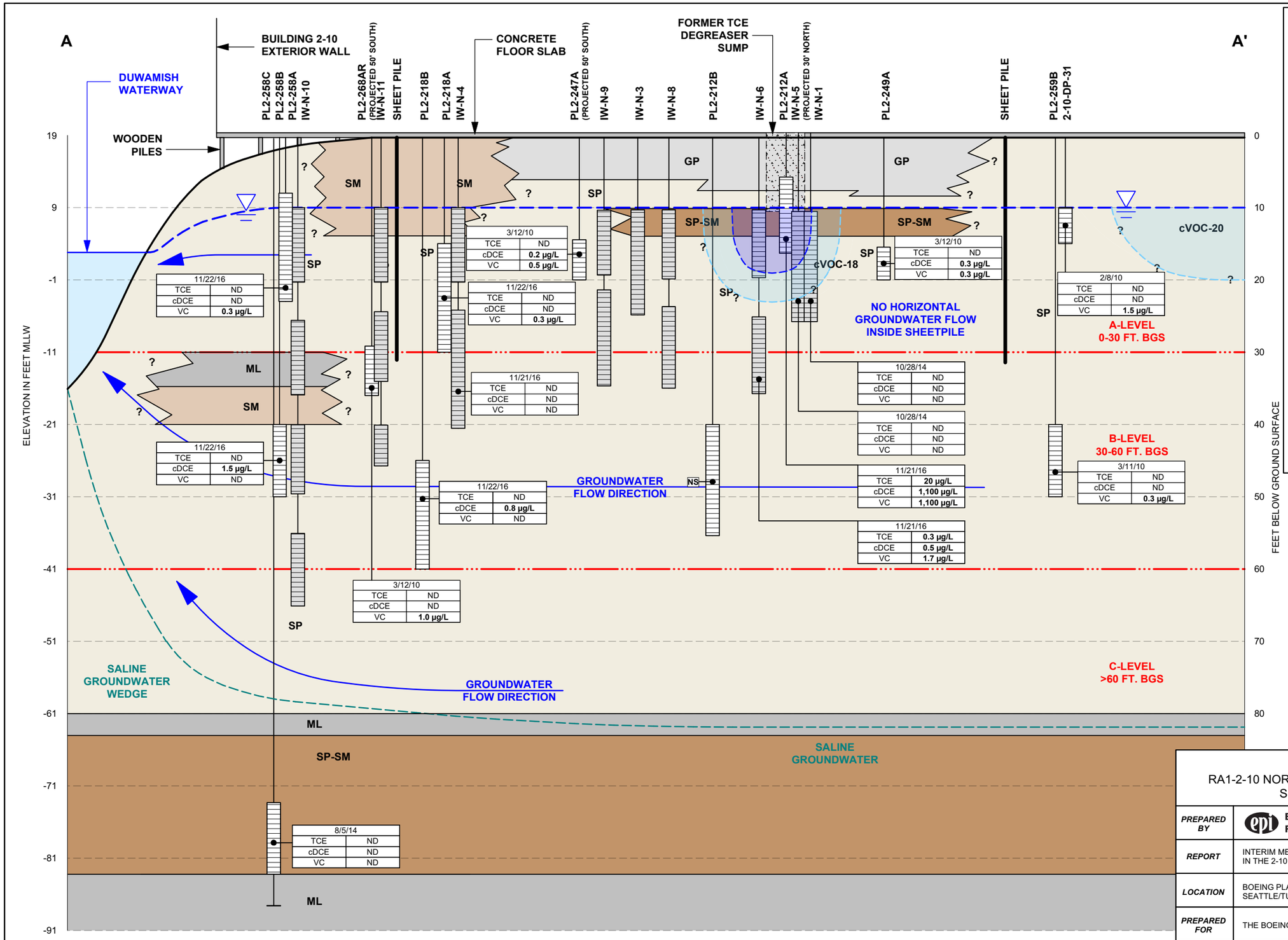
0 10 20 40
SCALE: 1" = 40'
3X VERTICAL EXAGGERATION

FIGURE 3.2
RA1-2-10 NORTH SHEETPILE AREA CONCEPTUAL SITE MODEL (DATA THROUGH JANUARY 2013)

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM MEASURES NORTH AND SOUTH SHEETPILES IN THE 2-10 BUILDING		
LOCATION	BOEING PLANT 2 SEATTLE/TUKWILLA WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 3/10/17	DRAWN BY VPB	REVIEWED BY DCK	PROJECT NUMBER 17516.0.600.01



NOTES:

GP	POORLY-GRADED GRAVEL
SM	SILTY SAND
SP	POORLY-GRADED SAND
ML	SILT
SP-SM	POORLY-GRADED SAND WITH SILT
TCE	TRICHLOROETHENE
cDCE	CIS-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE
ND	NOT DETECTED
NS	NOT SAMPLED
µg/L	MICROGRAMS PER LITER
	GROUNDWATER LEVEL
	GROUNDWATER FLOW DIRECTION
	>1,000 µg/L FMCL EXCEEDANCE AREA
	<1,000 µg/L FMCL EXCEEDANCE AREA

PL2-218A — MONITORING WELL ID; WELL SCREEN; TOTAL WELL DEPTH

IW-N-1 — INJECTION WELL ID; WELL SCREEN; TOTAL WELL DEPTH

Most recent concentrations presented.

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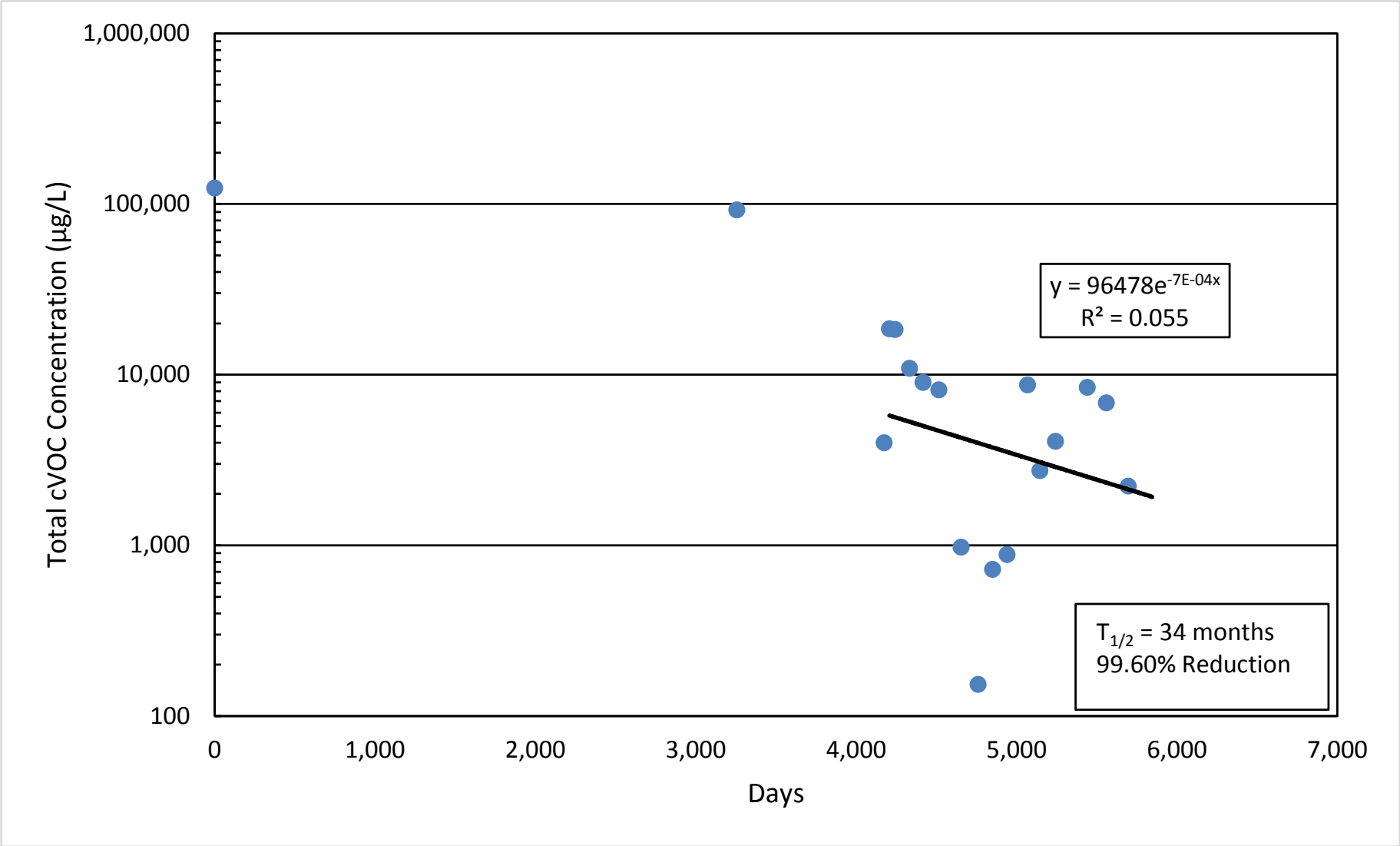
0 10 20 40
SCALE: 1" = 40'
3X VERTICAL EXAGGERATION

FIGURE 3.3
RA1-2-10 NORTH SHEETPILE AREA CONCEPTUAL SITE MODEL (2016 DATA)

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM MEASURES NORTH AND SOUTH SHEETPILES IN THE 2-10 BUILDING		
LOCATION	BOEING PLANT 2 SEATTLE/TUKWILLA WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 3/10/17	DRAWN BY VPB	REVIEWED BY DCK	PROJECT NUMBER 17516.0.600.01



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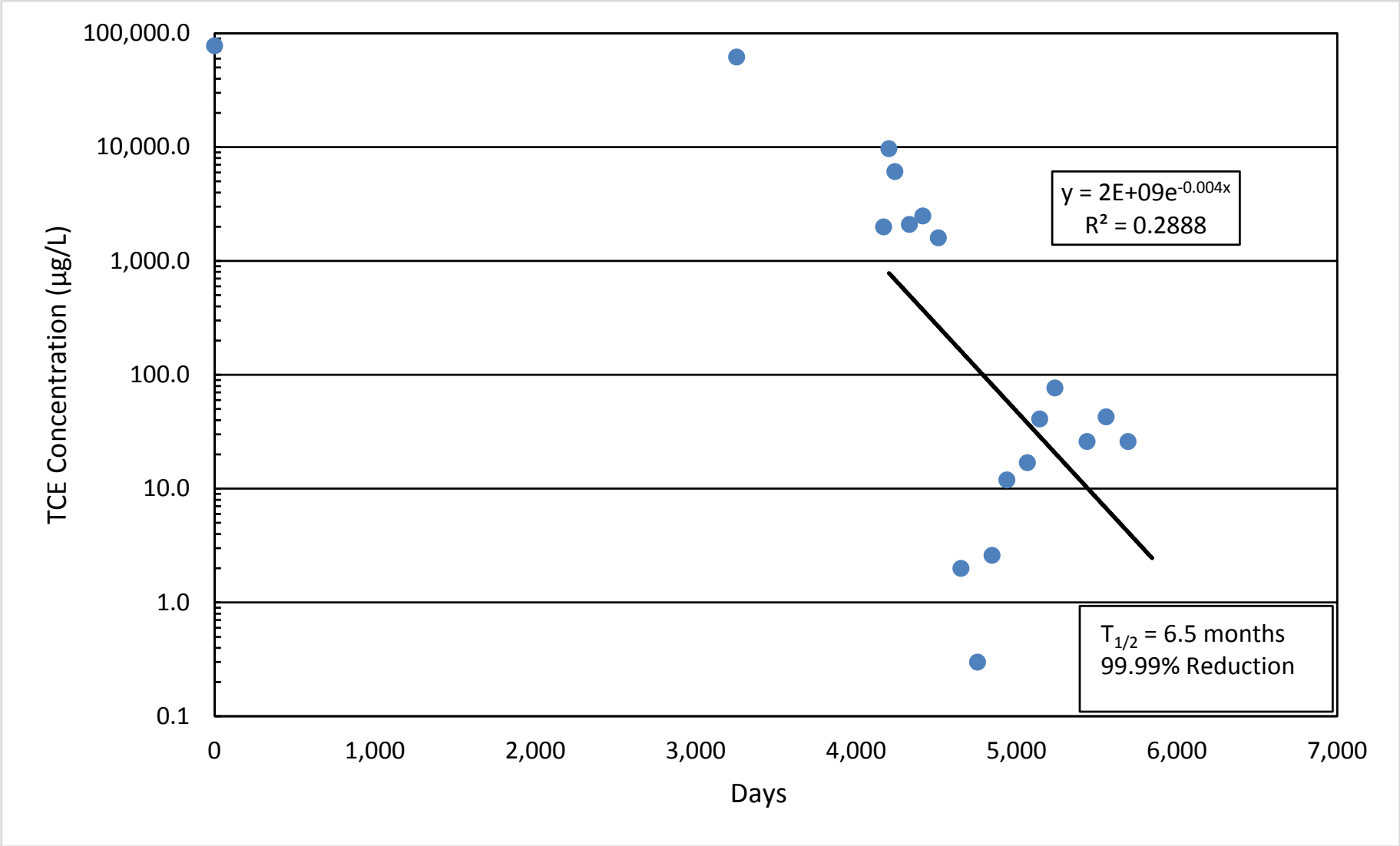
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.4
PL2-212A - Total cVOCs Degradation and Half-Life



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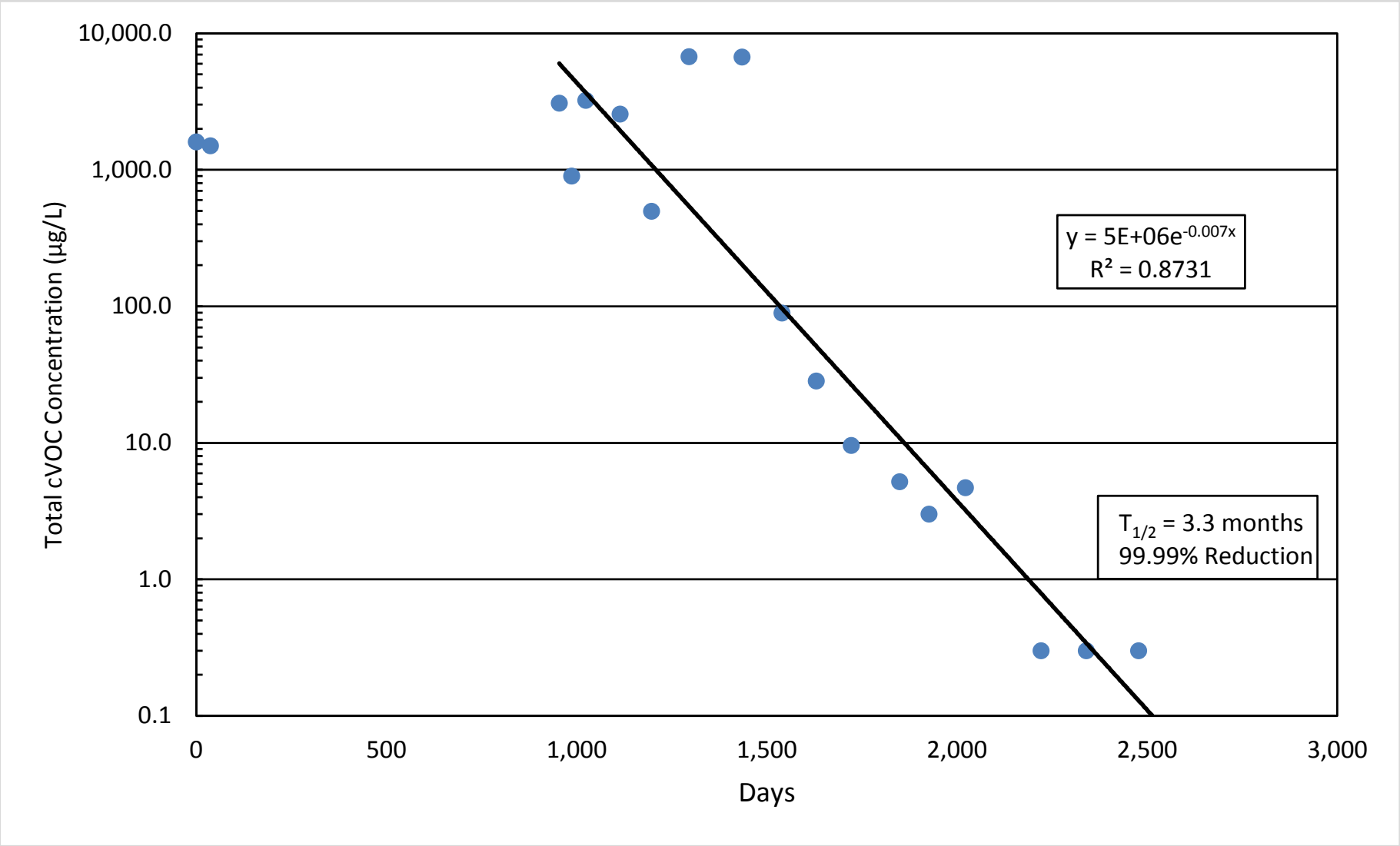
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.5
PL2-212A - TCE Degradation and Half-Life



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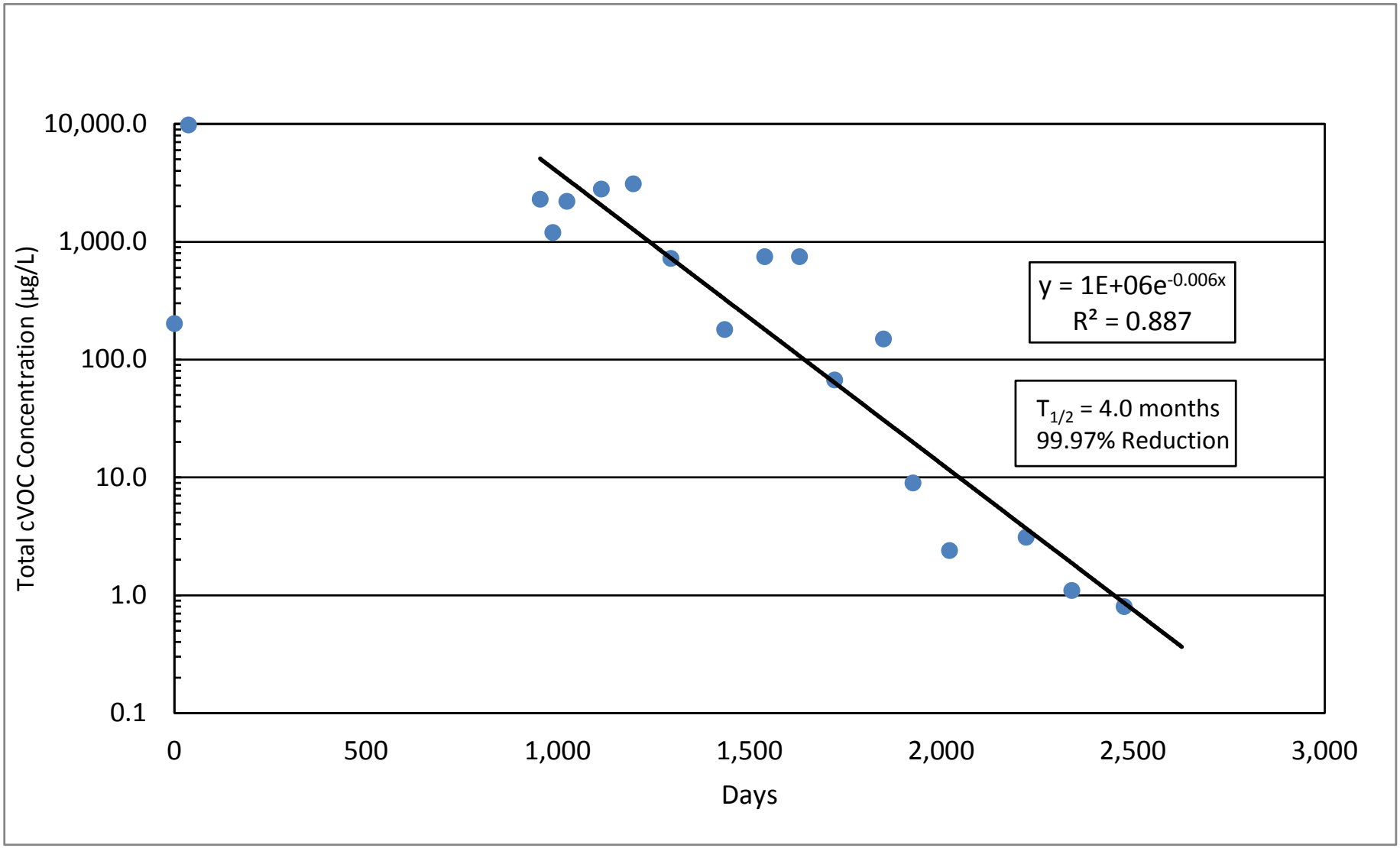
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.6
Well PL2-218A Total cVOCs Degradation and Half-Life

F:\projects\Boeing Plant 2 2015\JOB 01 Uplands CMI\TASK 3 Uplands CMS\2-10 Building IM Report\03 Figures\Figure 3.6.docx
3/16/2017



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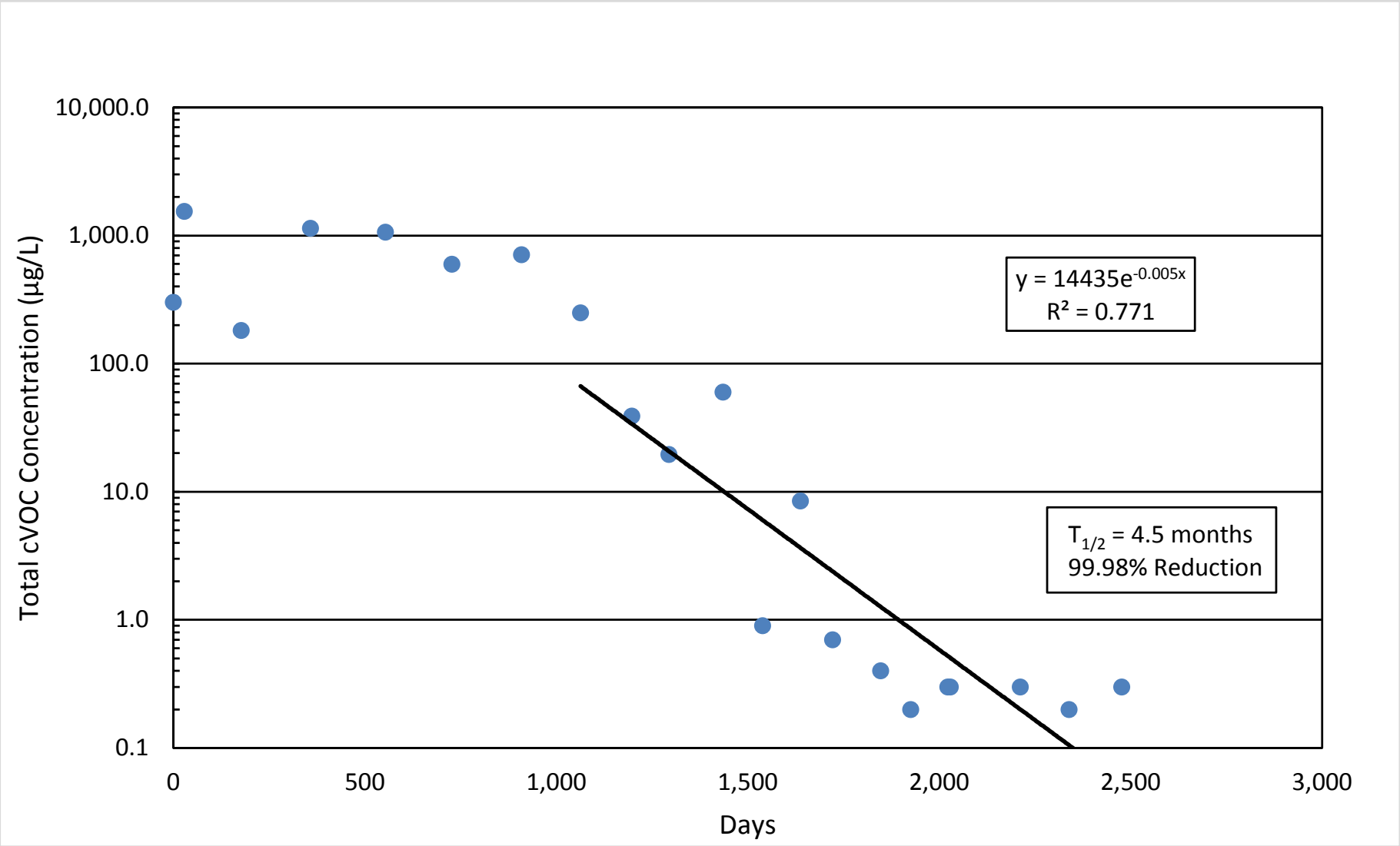
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.7
Well PL2-218B Total cVOCs Degradation and Half-Life



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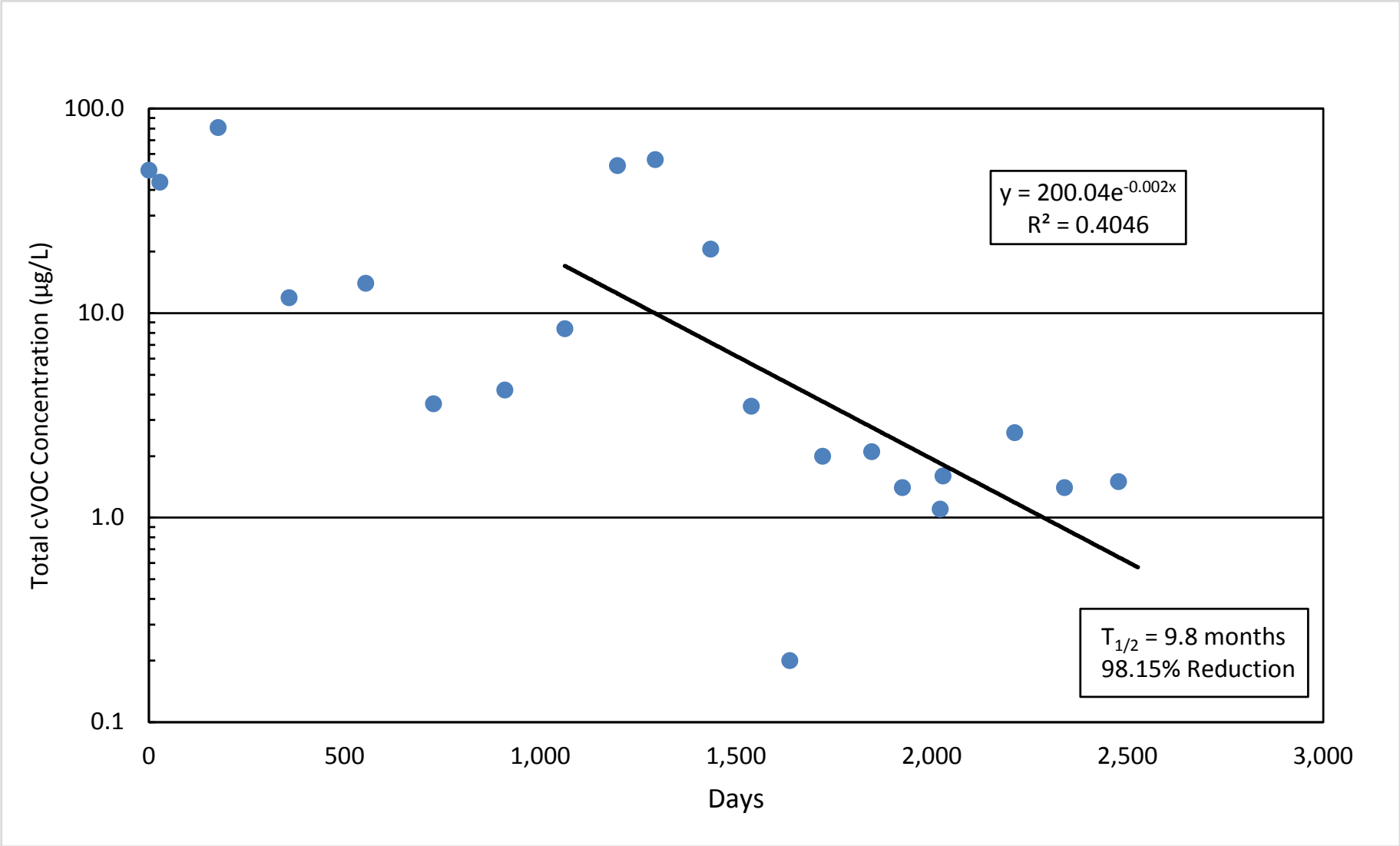
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.8
Well PL2-258A Total cVOCs Degradation and Half-Life

F:\projects\Boeing Plant 2 2015\JOB 01 Uplands CMI\TASK 3 Uplands CMS\2-10 Building IM Report\03 Figures\Figure 3.8.docx
3/16/2017



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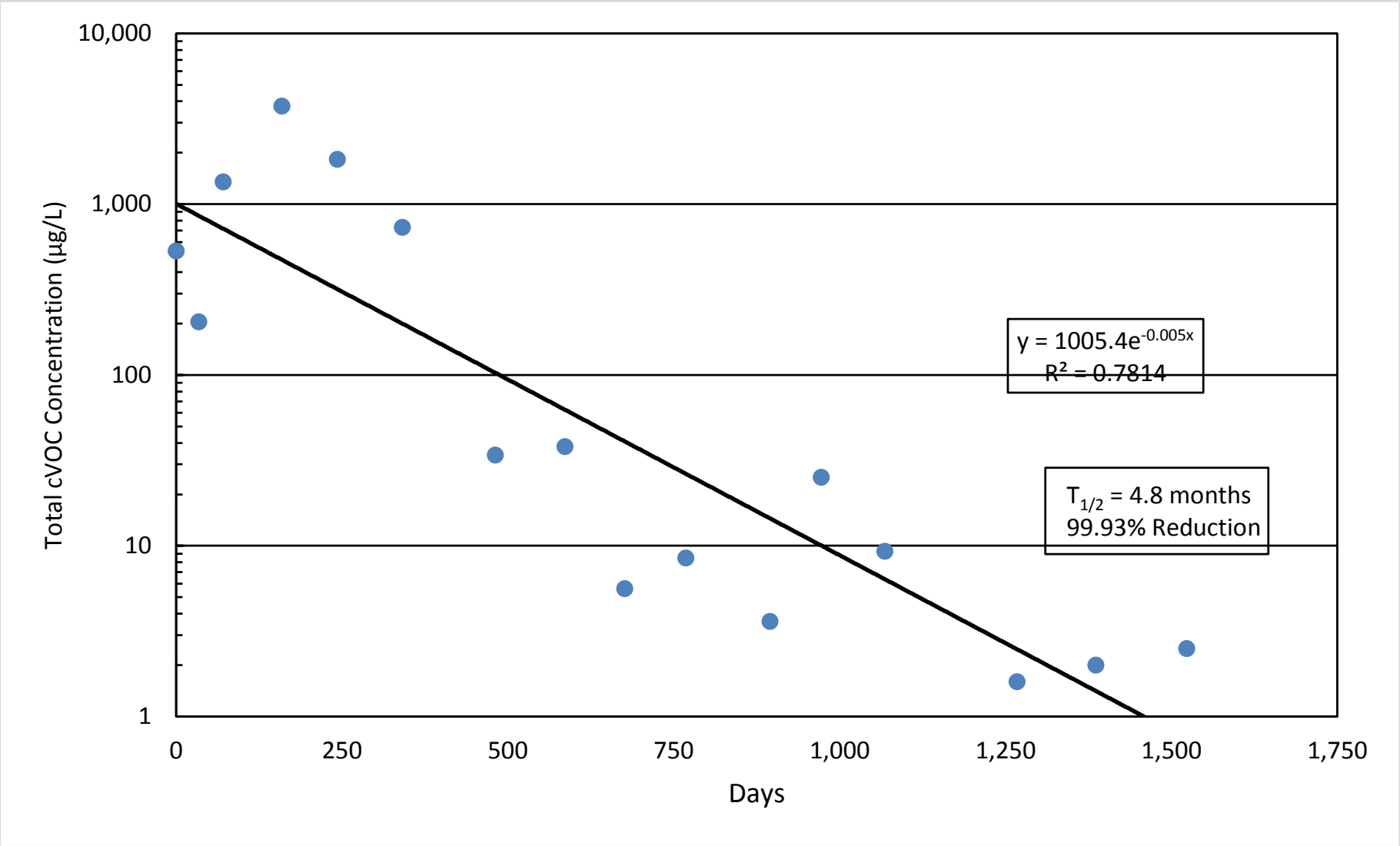
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.9
Well PL2-258B Total cVOCs Degradation and Half-Life



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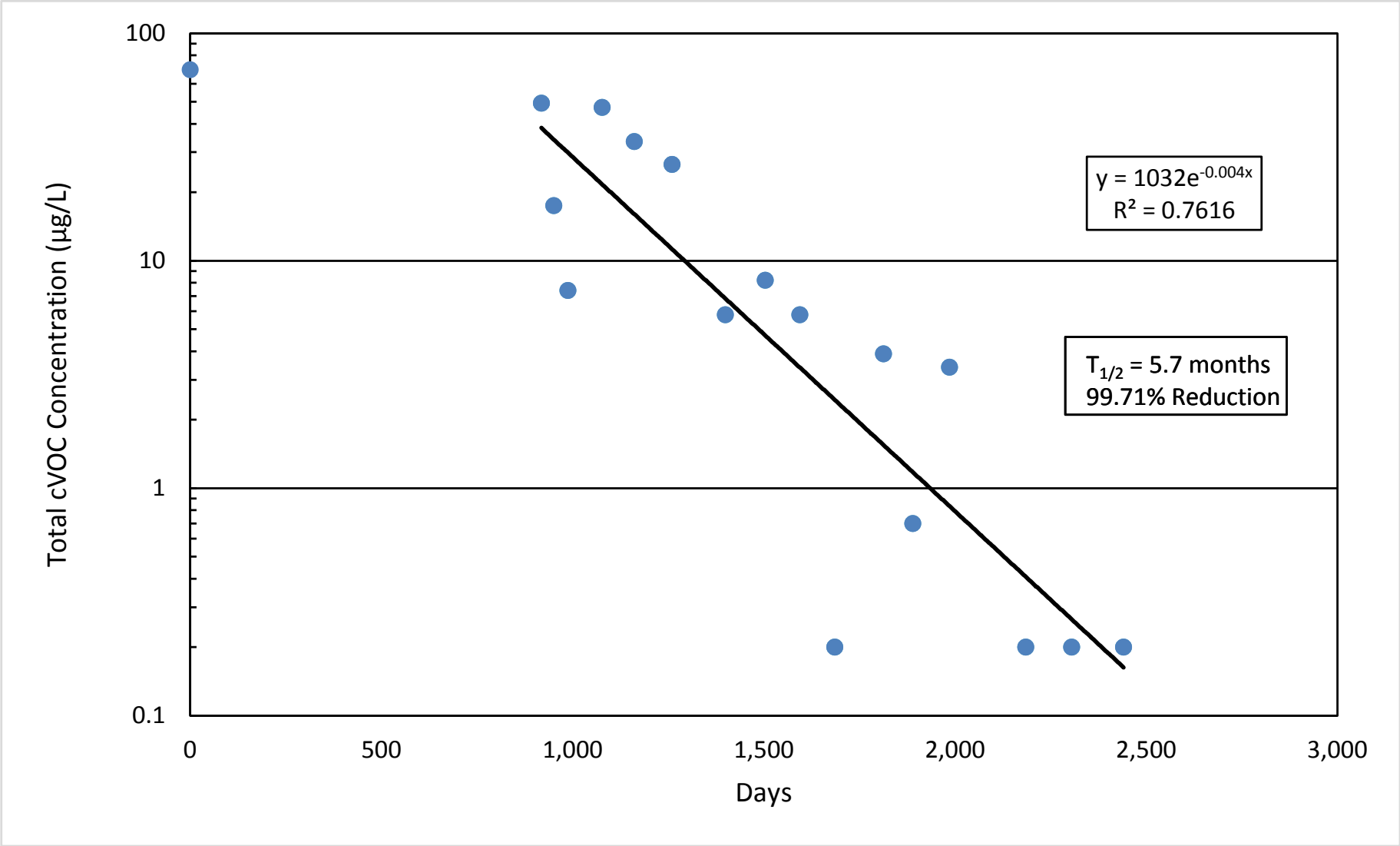
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.10
Well IW-N-6 Total cVOCs Degradation and Half-Life

F:\projects\Boeing Plant 2 2015\JOB 01 Uplands CMI\TASK 3 Uplands CMS\2-10 Building IM Report\03 Figures\Figure 3.10.docx
3/16/2017



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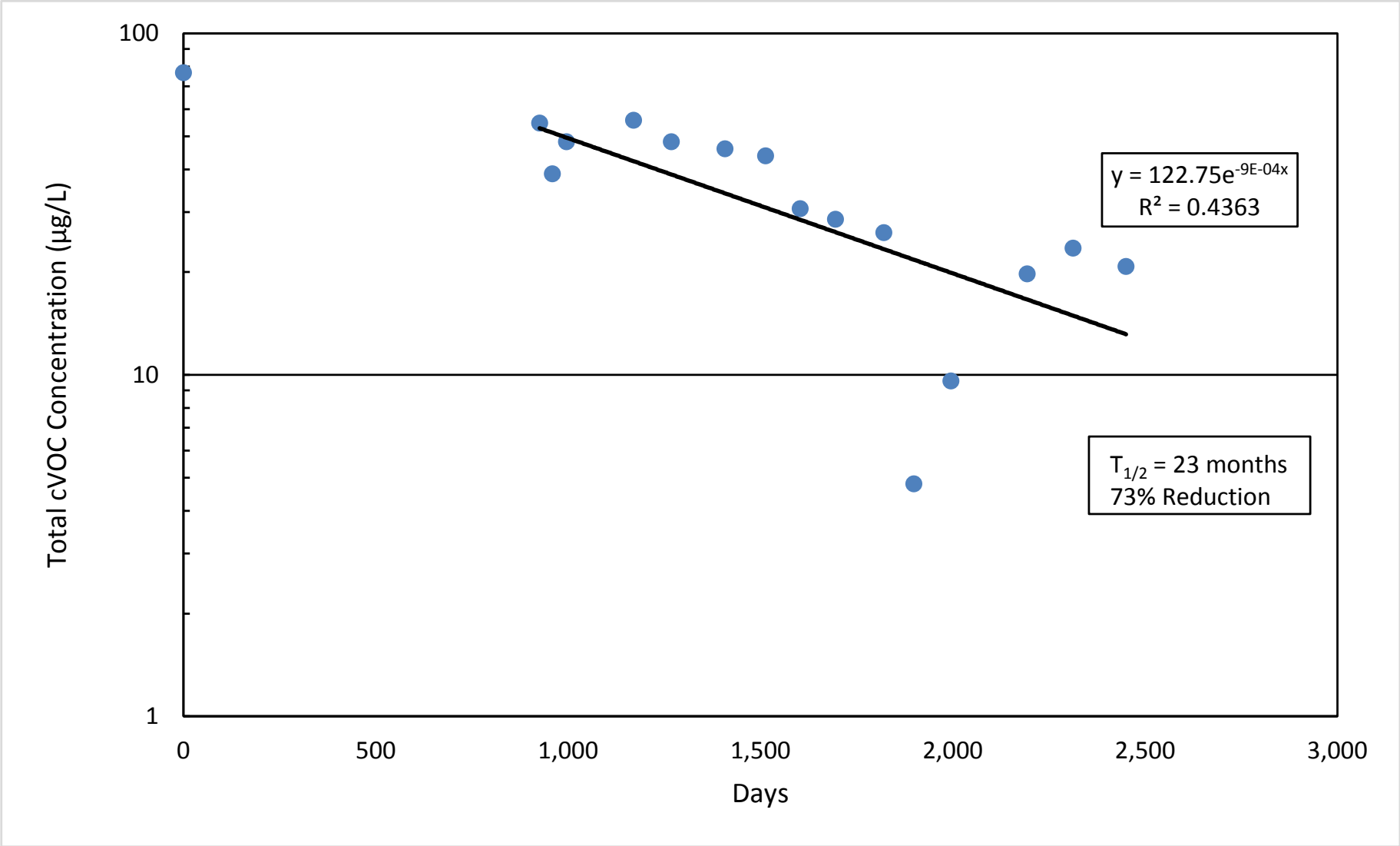
Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.11
Monitoring Well PL2-209A – Total cVOCs
Degradation and Half-Life

F:\projects\Boeing Plant 2 2015\JOB 01 Uplands CMI\TASK 3 Uplands CMS\2-10 Building IM Report\03 Figures\Figure 3.11.docx
3/16/2017



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Interim Measures in the 2-10 Building Area
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.12
Monitoring Well PL2-257A – Total cVOCs
Degradation and Half-Life

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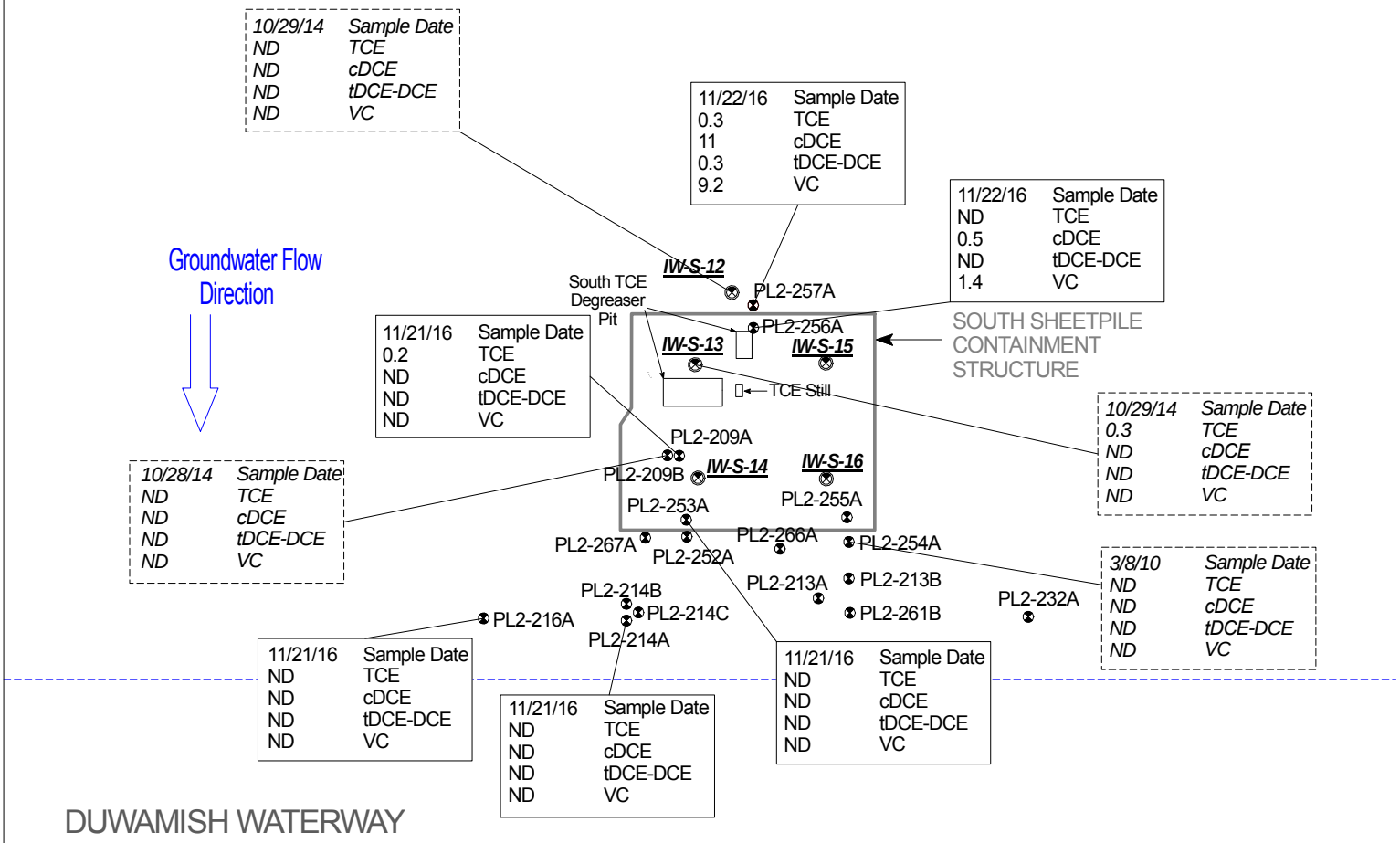
3/16/2017



LEGEND

PL2-209A — Groundwater Monitoring Well

IW-S-14 — Groundwater Injection Well

VOC Concentrations in µg/L

11/21/16	Sample Date
ND	TCE
ND	cDCE
ND	tDCE-DCE
ND	VC

Dashed box represents older data; well not sampled regularly.

10/28/14	Sample Date
ND	TCE
ND	cDCE
ND	tDCE-DCE
ND	VC

*ND=Non-detect

SCALE IN FEET
0 25 50 100

N NORTH
PLANT ALIGNMENT

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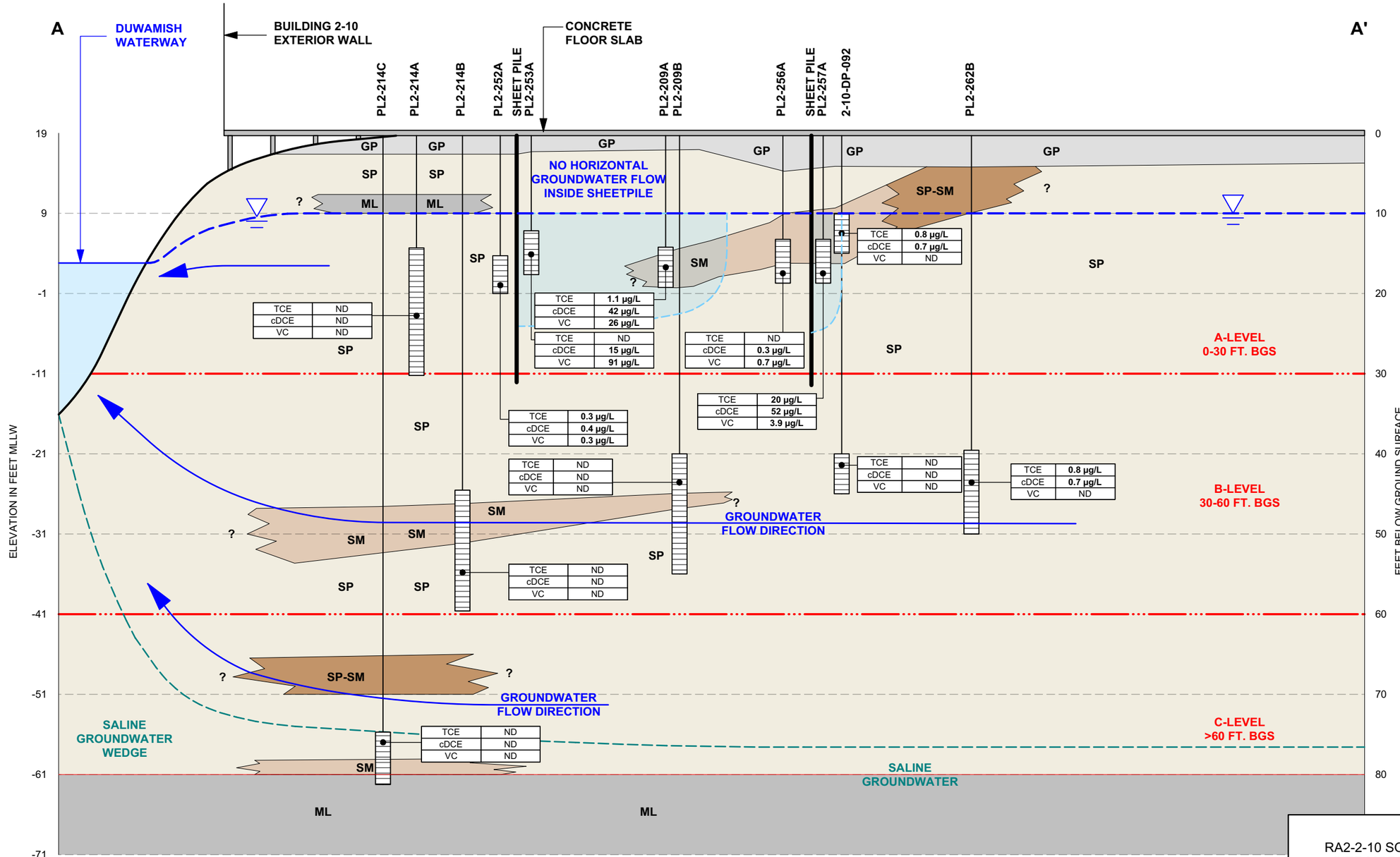
Interim Measures
North and South Sheetpiles in the 2-10 Building
Boeing Plant 2
Seattle/Tukwila, Washington

Figure 3.13
Plan View South Sheetpile Area
Monitoring and Injection Wells
Current/Recent cVOCs - 2016
Building 2-10



NOTES:

GP	POORLY-GRADED GRAVEL
SM	SILTY SAND
SP	POORLY-GRADED SAND
ML	SILT
SP-SM	POORLY-GRADED SAND WITH SILT
TCE	TRICHLOROETHENE
cDCE	CIS-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE
ND	NOT DETECTED
NS	NOT SAMPLED
µg/L	MICROGRAMS PER LITER
	GROUNDWATER LEVEL
	GROUNDWATER FLOW DIRECTION
	<1,000 µg/L FMCL EXCEEDANCE AREA

PL2-218A — MONITORING WELL ID; WELL SCREEN; TOTAL WELL DEPTH

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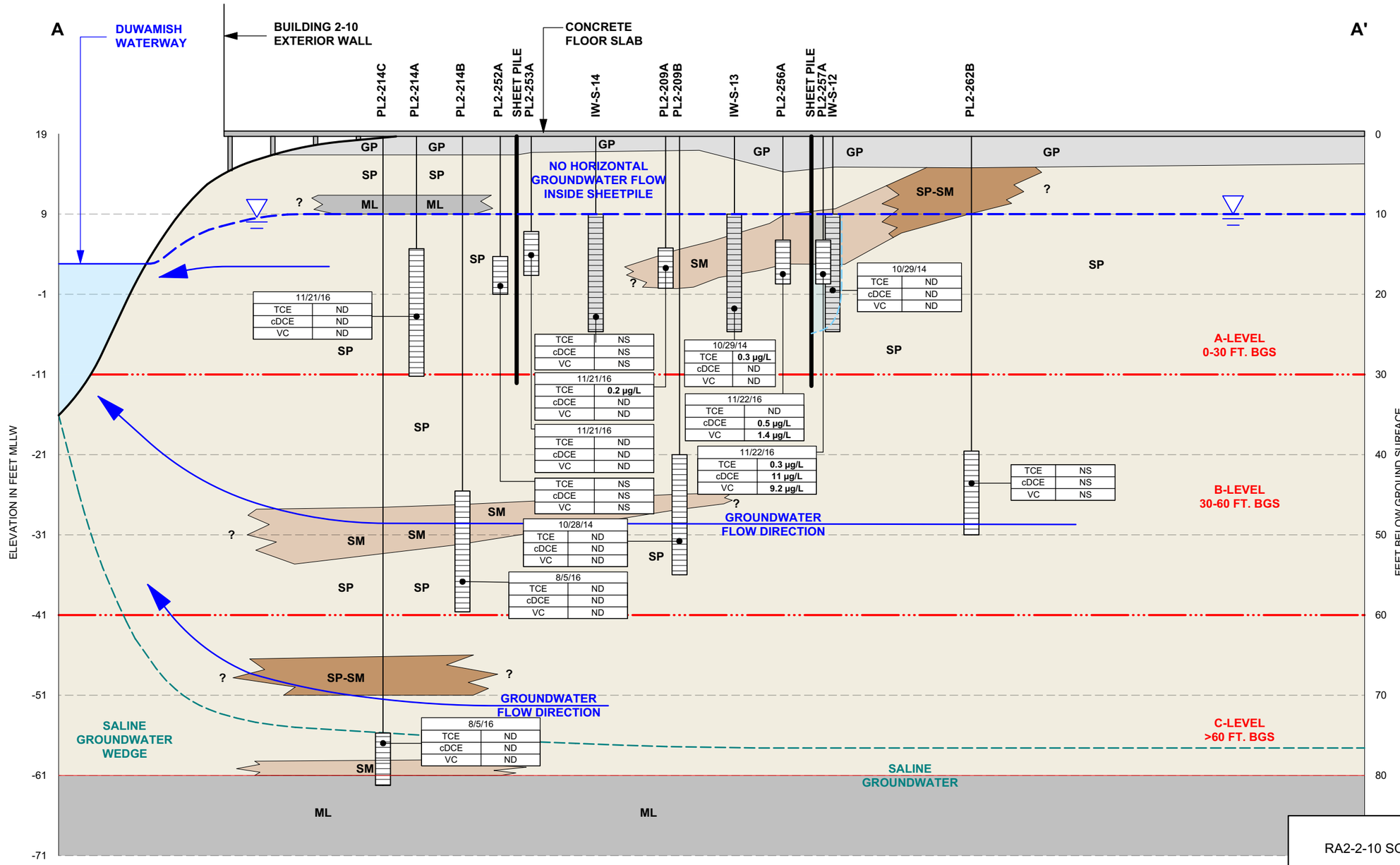
DRAFT

0 10 20 40
SCALE: 1" = 40'
3X VERTICAL EXAGGERATION

FIGURE 3.14
RA2-2-10 SOUTH SHEETPILE AREA CONCEPTUAL SITE MODEL (DATA THROUGH JANUARY 2013)

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM MEASURES NORTH AND SOUTH SHEETPILES IN THE 2-10 BUILDING		
LOCATION	BOEING PLANT 2 SEATTLE/TUKWILLA WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 3/10/17	DRAWN BY VPB	REVIEWED BY DCK	PROJECT NUMBER 17516.0.600.01



NOTES:

GP	POORLY-GRADED GRAVEL
SM	SILTY SAND
SP	POORLY-GRADED SAND
ML	SILT
SP-SM	POORLY-GRADED SAND WITH SILT
TCE	TRICHLOROETHENE
cDCE	CIS-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE
ND	NOT DETECTED
NS	NOT SAMPLED
µg/L	MICROGRAMS PER LITER
	GROUNDWATER LEVEL
	GROUNDWATER FLOW DIRECTION
	<1,000 µg/L FMCL EXCEEDANCE AREA

PL2-218A — MONITORING WELL ID; WELL SCREEN; TOTAL WELL DEPTH

IW-N-14 — INJECTION WELL ID; WELL SCREEN; TOTAL WELL DEPTH

Most recent concentrations presented.

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DRAFT

0 10 20 40
SCALE: 1" = 40'
3X VERTICAL EXAGGERATION

FIGURE 3.15
RA2-2-10 SOUTH SHEETPILE AREA CONCEPTUAL SITE MODEL (2016 DATA)

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	INTERIM MEASURES NORTH AND SOUTH SHEETPILES IN THE 2-10 BUILDING		
LOCATION	BOEING PLANT 2 SEATTLE/TUKWILLA WASHINGTON		
PREPARED FOR	THE BOEING COMPANY		
DATE 3/10/17	DRAWN BY VPB	REVIEWED BY DCK	PROJECT NUMBER 17516.0.600.01

Boeing Plant 2
Seattle/Tukwila, Washington

Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

Appendix A
Groundwater Field Sampling Sheets

Groundwater Monitoring Sample Sheets (October 2014)

Well Sampling Data Sheet

Date	10/28/14	Site Location	~~PC2 2-10~~ Plant 2-10
Samplers	CG + GD	Well ID	PC2-258A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0915	Depth Measured From:	
Depth to Water	5.55"		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0918	0923	0928	0933			
pH	6.94	7.70	7.77	7.84			
Conductivity	0.657	0.578	0.544	0.560			
Turbidity	259	141	143	106			
D.O.	7.31	6.00	5.43	4.76			
Temperature	15.46	15.73	16.25	16.44			
ORP	123	40	-17	-82			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.3	0.5	0.8			

Sampling Data:

Time	0938	Sample ID	PC2-258A-102814
pH	7.88	Duplicates	
Conductivity	0.558	QA/QC Volumes	
Turbidity	76.5		
D.O.	4.68		
Temperature	16.53		
ORP	-117		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)
Dissolved Metals			Total Organic Carbon 415.1		Other

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-28-14	Site Location	Plant 2
Samplers	CG+GD	Well ID	PC2-258B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0947	Depth Measured From:	
Depth to Water	8.70'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0949	0954	0959	~~00~~1004			
pH	7.29	6.87	7.05	7.20			
Conductivity	5.24	29.8	29.1	28.3			
Turbidity	108	52.2	42.1	41.1			
D.O.	1.85	0.81	0.65	0.50			
Temperature	16.68	16.03	16.18	16.23			
ORP	-103	-104	-110	-114			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1009	Sample ID	PC2-258B-102814
pH	7.31	Duplicates	
Conductivity	27.8	QA/QC Volumes	
Turbidity	41.1		
D.O.	0.41		
Temperature	16.37		
ORP	-118		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

very effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-28-14	Site Location	Plant 2
Samplers	LG + GD	Well ID	PL2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1630	Depth Measured From:	
Depth to Water	8.70'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1034	1039	1043	1049			
pH	7.21	7.44	7.49	7.52			
Conductivity	31.1	35.7	35.5	35.4			
Turbidity	58.6	15.7	5.7	1.0			
D.O.	2.23	0.37	0.30	0.34			
Temperature	17.47	16.00	16.55	16.47			
ORP	-114	-138	-148	-156			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1053	Sample ID	PL2-218B-102814
pH	7.53	Duplicates	
Conductivity	35.3	QA/QC Volumes	
Turbidity	0.0		
D.O.	0.28		
Temperature	16.34		
ORP	-158		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	X	
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/28/14	Site Location	Plant 2
Samplers	CG + GD	Well ID	PC2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1059	Depth Measured From:	
Depth to Water	8.87'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1101	1106	1111	1116			
pH	7.51	8.85	8.53	8.49			
Conductivity	5.64	0.625	0.595	0.590			
Turbidity	55.9	3.2	2.5	2.9			
D.O.	1.34	0.29	0.26	0.24			
Temperature	17.44	17.02	17.12	17.12			
ORP	-166	-185	-167	-168			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1121	Sample ID	PC2-218A-102814
pH	8.22	Duplicates	
Conductivity	0.587	QA/QC Volumes	
Turbidity	0.0		
D.O.	0.29		
Temperature	17.10		
ORP	-161		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		X
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/28/14	Site Location	Plant 2
Samplers	CG + GP	Well ID	IW-4 North
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1131	Depth Measured From:	
Depth to Water	8.90'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1133	1138	1143	1148			
pH	7.17	7.07	7.51	7.62			
Conductivity	1.12	1.80	1.63	1.48			
Turbidity	476	99.6	59.1	44.5			
D.O.	0.81	0.22	0.21	0.22			
Temperature	17.46	16.74	16.74	16.75			
ORP	49	-91	-130	-142			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1153	Sample ID	IW-NH-102814
pH	7.69	Duplicates	
Conductivity	1.36	QA/QC Volumes	
Turbidity	31.5		
D.O.	0.21		
Temperature	16.73		
ORP	-148		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:

- Reducing Odor
- effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/28/14	Site Location	Plant 2
Samplers	CG + GD	Well ID	IW-N5
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1256	Depth Measured From:	
Depth to Water	9.93'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1258	1303	1308	1313			
pH	8.19	7.98	7.86	7.77			
Conductivity	0.794	0.313	0.304	0.299			
Turbidity	20.8	23.6	19.6	18.0			
D.O.	1.3	0.41	0.32	0.28			
Temperature	17.83	16.72	16.68	16.68			
ORP	27	-24	-40	-49			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1	1.5			

Sampling Data:

Time	1318	Sample ID	IW-N5-102814
pH	7.72	Duplicates	
Conductivity	0.296	QA/QC Volumes	
Turbidity	15.0		
D.O.	0.34		
Temperature	16.66		
ORP	-55		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:

Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/28/14	Site Location	Plant 7
Samplers	GL + GD	Well ID	FW-~~[illegible]~~ N1
Casing Material	SS	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1326	Depth Measured From:	
Depth to Water	9.77'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1329	1334	1339	1344			
pH	7.59	7.66	7.63	7.69			
Conductivity	0.473	0.481	0.477	0.473			
Turbidity	93.5	20.1	19.0	17.5			
D.O.	2.20	0.53	0.37	0.29			
Temperature	18.09	17.56	17.68	17.68			
ORP	-24	-50	-64	-79			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1349	Sample ID	FW-N1-102814
pH	7.70	Duplicates	
Conductivity	0.469	QA/QC Volumes	
Turbidity	17.5		
D.O.	0.28		
Temperature	17.70		
ORP	-89		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Reducing Odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-28-14	Site Location	Plant 2
Samplers	CG + GD	Well ID	PC2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1357	Depth Measured From:	
Depth to Water	10.37'		Top of access port
			Mark on PVC casing
		X	Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1400	1405	1410	1415			
pH	6.28	6.93	7.10	7.27			
Conductivity	1.25	1.28	1.29	1.29			
Turbidity	317	0.0	0.0	0.0			
D.O.	1.36	0.54	0.23	0.20			
Temperature	19.22	19.36	19.416	19.41			
ORP	-65	-100	-119	-134			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1420	Sample ID	PC2-212A-102814
pH	7.37	Duplicates	Dup-1 @0700
Conductivity	1.28	QA/QC Volumes	
Turbidity	0.0		
D.O.	0.18		
Temperature	19.36		
ORP	-143		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		X
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-28-14	Site Location	Plant 3
Samplers	CG + GD	Well ID	~~2~~ IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good.

Field Measurements:

Time	1431	Depth Measured From:	
Depth to Water	10.28'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1433	1438	1443	1448			
pH	8.35	7.75	7.91	7.78			
Conductivity	0.547	0.581	0.574	0.568			
Turbidity	292	93.3	79.7	77.6			
D.O.	0.83	0.48	1.83	1.59			
Temperature	17.84	16.33	16.56	16.56			
ORP	-74	-74	-80	-88			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1453	Sample ID	IW-N6-102814
pH	7.89	Duplicates	
Conductivity	0.565	QA/QC Volumes	
Turbidity	72.7		
D.O.	1.01		
Temperature	16.59		
ORP	-107		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/28/14	Site Location	Plant 2 - [redacted]10
Samplers	CG + GD	Well ID	PC2-[redacted]209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1506	Depth Measured From:	
Depth to Water	10.67'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1509	1514	1519	1524			
pH	8.34	8.09	7.87	7.82			
Conductivity	0.303	0.289	0.287	0.287			
Turbidity	17.1	24.9	19.9	13.4			
D.O.	0.80	0.22	0.18	0.17			
Temperature	18.10	17.96	17.94	17.94			
ORP	-112	-116	-122	-120			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1529	Sample ID	PC2-209A-102814
pH	7.84	Duplicates	
Conductivity	0.286	QA/QC Volumes	
Turbidity	10.1		
D.O.	0.16		
Temperature	17.95		
ORP	-134		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)
Dissolved Metals			Total Organic Carbon 415.1		Other

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-28-14	Site Location	Plant 2-10
Samplers	CG + GO	Well ID	PL2-209B ~~103~~
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1537	Depth Measured From:	
Depth to Water	10.64		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1534	1539	1544	1549			
pH	5.53	7.32	7.61	7.41			
Conductivity	15.4	19.6	19.0	18.6			
Turbidity	179	37.0	25.1	22.6			
D.O.	1.05	0.89	1.02	0.93			
Temperature	16.87	16.83	16.86	16.85			
ORP	-134	-162	-172	-179			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1554	Sample ID	PL2-209B-102814
pH	7.67	Duplicates	
Conductivity	18.4	QA/QC Volumes	
Turbidity	12.9		
D.O.	0.86		
Temperature	16.86		
ORP	-184		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/29/14	Site Location	Plant 2-10
Samplers	CG AGP	Well ID	PL2-253A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0947	Depth Measured From:	
Depth to Water	10.81'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0950	0955	1000	1005			
pH	6.43	7.50	7.22	7.12			
Conductivity	2.33	0.658	0.649	0.644			
Turbidity	45.6	20.2	9.0	6.8			
D.O.	3.08	0.54	0.44	0.42			
Temperature	18.20	18.37	18.43	18.49			
ORP	45	-9	-35	-68			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1010	Sample ID	PL2-253A-102914
pH	8.02	Duplicates	
Conductivity	0.642	QA/QC Volumes	
Turbidity	7.1		
D.O.	0.37		
Temperature	18.51		
ORP	-85		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/29/14	Site Location	Plant 2-10
Samplers	CG & GP	Well ID	IW-S13
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1019	Depth Measured From:	
Depth to Water	10.23'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1020	1025	1030	1035			
pH	6.10	6.76	6.78	6.95			
Conductivity	0.415	0.362	0.346	0.339			
Turbidity	725	317	266	231			
D.O.	0.76	0.30	0.27	0.27			
Temperature	17.55	17.23	17.19	17.13			
ORP	62	-5	-2	-9			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1040	Sample ID	IW-S13-102914
pH	7.04	Duplicates	
Conductivity	0.335	QA/QC Volumes	
Turbidity	209		
D.O.	0.33		
Temperature	17.11		
ORP	-12		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Strong Rotten Odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10/29/14	Site Location	Plant 2-10
Samplers	LG + GP	Well ID	~~[illegible]~~ PC2-256A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1048	Depth Measured From:	
Depth to Water	9.99'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1050	1055	1100	1105			
pH	6.98	7.32	7.37	7.34			
Conductivity	0.342	0.359	0.361	0.362			
Turbidity	45.8	21.8	20.3	16.9			
D.O.	1.68	0.39	0.72	0.55			
Temperature	17.82	17.62	17.62	17.64			
ORP	3	-40	~~-65~~	-84			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1110	Sample ID	~~PC2-256~~ 6A-102914
pH	7.41	Duplicates	
Conductivity	0.361	QA/QC Volumes	
Turbidity	13.7		
D.O.	0.48		
Temperature	17.62		
ORP	-101		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C	Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM	RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-29-14	Site Location	Plant 2-10
Samplers	CG + GD	Well ID	IW-S12
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1128	Depth Measured From:	
Depth to Water	10.19'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1131	1136	1141	1146			
pH	6.71	6.93	7.05	7.14			
Conductivity	0.933	0.603	0.590	0.581			
Turbidity	423	312	320	341			
D.O.	0.56	0.30	0.29	0.27			
Temperature	17.98	17.41	17.35	17.31			
ORP	-29	-36	-44	-50			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1151	Sample ID	IW-S12-102914
pH	7.18	Duplicates	
Conductivity	0.573	QA/QC Volumes	
Turbidity	354		
D.O.	0.26		
Temperature	17.32		
ORP	-34		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	10-29-14	Site Location	Plant 2-10
Samplers	CG + GD	Well ID	PC2-257A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1350	Depth Measured From:	
Depth to Water	10.24'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1353	1358	1403	1408			
pH	7.14	7.18	7.27	7.29			
Conductivity	0.710	0.720	0.735	0.751			
Turbidity	30.7	5.4	2.1	0.9			
D.O.	1.15	0.43	0.32	0.27			
Temperature	18.56	18.36	18.37	18.36			
ORP	28	-3	-47	-87			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1413	Sample ID	PC2-257A-102914 @ 0706
pH	7.35	Duplicates	Dup2
Conductivity	0.765	QA/QC Volumes	
Turbidity	0.4		
D.O.	0.29		
Temperature	18.37		
ORP	-111		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (March 2015)

Well Sampling Data Sheet

Date	3/4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PC2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1515	Depth Measured From:	
Depth to Water	11.52'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1520	0	19.30	1.06	4.47	6.86	-48	646
1525	0.3	19.07	1.06	3.06	6.55	-76	160
1530	0.7	18.72	1.16	4.58	5.40	-107	48.5
1535	1.0	18.66	1.25	4.78	6.19	-114	127

Sampling Data:

Time	1540	Sample ID	PC2-212A-030415
Vol. Purged	1.5	Duplicates	DUP-030415 @ 0800
Temperature (°C)	18.63	QA/QC Volumes	
Conductivity (mS)	1.31		
D.O. (mg/L)	4.80		
pH	6.34		
ORP (mV)	-122		
Turbidity	25.6		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

- Dup-030415

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	~~01~~ 3 4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	IW-N4
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good.

Field Measurements:

Time	1340	Depth Measured From:	
Depth to Water	11.65'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1343	0	18.27	1.41	2.89	5.66	-118	497
1348	0.5	17.15	0.866	0.40	6.60	-96	145
1353	1.0	17.29	0.819	0.32	6.43	-97	124
1358	1.5	17.27	0.795	0.29	6.37	-98	123

Sampling Data:

Time 1403	~~1503~~	Sample ID	IW-N4-030415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.23	QA/QC Volumes	
Conductivity (mS)	0.786		
D.O. (mg/L)	0.30		
pH	6.35		
ORP (mV)	-101		
Turbidity	119		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/ 4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1548	Depth Measured From:	
Depth to Water	10.821		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1549	6	18.22	0.669	1.77	7.35	-116	123
1554	0.4	17.00	0.537	0.41	6.95	-122	44.5
1559	0.8	17.00	0.518	0.34	6.76	-122	43.1
1604	1.3	17.01	0.512	0.31	6.25	-107	32.6

Sampling Data:

Time	1609	Sample ID	IW-N6-030415
Vol. Purged	1.7	Duplicates	
Temperature (°C)	16.98	QA/QC Volumes	
Conductivity (mS)	0.508		
D.O. (mg/L)	0.29		
pH	6.05		
ORP (mV)	-94		
Turbidity	28.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1301	Depth Measured From:	
Depth to Water	11.96'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1307	0	16.96	3.09	1.55	6.14	-177	9.3
1312	0.4	17.04	0.809	0.53	7.35	-172	0.0
1317	1.0	17.15	0.608	0.40	6.85	-166	0.0
1322	1.4	17.11	0.575	0.37	6.82	-167	0.0

Sampling Data:

Time	1327	Sample ID	PL2-218A-030415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.13	QA/QC Volumes	
Conductivity (mS)	0.564		
D.O. (mg/L)	0.35		
pH	6.79		
ORP (mV)	-166		
Turbidity	0.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)
Dissolved Metals			Total Organic Carbon 415.1		Other

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1227	Depth Measured From:	
Depth to Water	12.24'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1231	0	16.70	35.9	1.50	4.69	-73	>10
1236	0.5	15.24	33.5	0.46	5.45	-118	~~>999~~ 10.0
1241	1.2	15.00	33.3	0.35	5.86	-144	~~>999~~ 0.0
1246	2.0	15.07	33.4	0.33	5.95	-150	~~>999~~ 0.0

Sampling Data:

Time	1251	Sample ID	PL2-218B-030415
Vol. Purged	3.0	Duplicates	
Temperature (°C) 15.43	15.43	QA/QC Volumes	
Conductivity (mS)	33.8		
D.O. (mg/L)	0.36		
pH	6.04		
ORP (mV)	-154		
Turbidity 0.0	~~>999~~		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		~~X~~
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/ 4/ /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1620	Depth Measured From:	
Depth to Water	11.17'		Top of access port
		∝	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1623	0	18.07	0.587 3.41	[illegible]	6.43	-94	9.4
1628	0.4	17.93	0.665	0.45	6.5	-135	0.0
1633	0.9	17.93	0.665	0.35	6.42	-143	0.0
1638	1.3	17.91	0.664	0.32	6.19	-136	0.0

Sampling Data:

Time	1643	Sample ID	PL2-209A-030415
Vol. Purged	1.8	Duplicates	
Temperature (°C)	17.90	QA/QC Volumes	
Conductivity (mS)	0.663		
D.O. (mg/L)	0.30		
pH	6.32		
ORP (mV)	-149		
Turbidity	0.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/4 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-257A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1130	Depth Measured From:	
Depth to Water	11.59'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1136	0	15.55	1.14	1.06	5.63	-14	85.3
1141	0.3	17.24	1.08	0.60	5.61	-108	79.7
1146	0.7	17.41	1.07	0.54	5.57	-124	74.5
1151	1.3	17.49	1.06	0.52	5.40	-132	69.4

Sampling Data:

Time	1156	Sample ID	PL2-257A-030415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.55	QA/QC Volumes	
Conductivity (mS)	1.04		
D.O. (mg/L)	0.48		
pH	5.87		
ORP (mV)	-149		
Turbidity	60.6		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/ 5 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PC2-256A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	6945	Depth Measured From:	
Depth to Water	11.36'		Top of access port
		<	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1000	0	12.15	0.448	4.51	6.53	118	133
1005	0.4	16.01	0.386	1.17	6.17	58	110
1010	0.9	15.93	0.390	1.10	6.01	1	101
1015	1.3	16.35	0.388	0.95	5.82	-43	0.95

Sampling Data:

Time	1020	Sample ID	PC2-256A-030515
Vol. Purged	1.8	Duplicates	
Temperature (°C)	16.19	QA/QC Volumes	
Conductivity (mS)	0.389		
D.O. (mg/L)	0.95		
pH	5.81		
ORP (mV)	-72		
Turbidity	69.1		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/4/2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-253A
Casing Material	2"	Constructed Depth	
Casing Diameter	SS	Condition of Well	Good

Field Measurements:

Time	1653 ~~[illegible]~~	Depth Measured From:	
Depth to Water	11.51'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1654	0	18.25	0.666	5.41	6.00	-130	5.5
1659	0.3	18.17	0.690	0.45	6.43	-139	0.0
1704	0.7	18.21	0.690	0.46	6.20	-126	0.0
1709	1.2	18.23	0.690	0.48	6.22	-129	0.0

Sampling Data:

Time	1714	Sample ID	PL2-253A-030415
Vol. Purged	1.8	Duplicates	
Temperature (°C)	18.25	QA/QC Volumes	
Conductivity (mS)	0.691		
D.O. (mg/L)	0.46		
pH	6.31		
ORP (mV)	-135		
Turbidity	0.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	31 5 /2015	Site Location	Boeing 2-10 IM
Samplers	GD and CG	Well ID	PL2-216A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1342	Depth Measured From:	
Depth to Water	12.57'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1343	0	17.23	1.42	2.07	5.46	42	615
1348	0.4	16.98	1.02	0.61	7.08	13	135
1353	1.0	16.94	0.855	0.48	6.80	-17	91.4
1358	1.5	16.89	0.749	0.43	6.74	-36	79.1

Sampling Data:

Time	1403	Sample ID	PL2-216A-030515
Vol. Purged	2.0	Duplicates	
Temperature (°C)	16.85	QA/QC Volumes	
Conductivity (mS)	0.671		
D.O. (mg/L)	0.40		
pH	6.67		
ORP (mV)	-48		
Turbidity	67.7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (May 2015)

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10 TM
Samplers	GWD	Well ID	PL2-218 B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	0925	Depth Measured From:	
Depth to Water	10.76		Top of access port
			Mark on PVC casing
		X	Mark of protective casing
			Other

Purging Information:

Pump:	X	Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time	0926	Purge End Time	0946			
Approximate Volume Purged	2.5					

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0926	0	16.36	33.5	0.74	4.51	192	141
0931	1	15.82	37.7	0.50	5.41	97	0.0
0936	1.5	15.65	37.6	0.43	5.72	53	831
0941	2.0	15.53	36.7	0.38	5.92	18	220

Sampling Data:

Time	0946	Sample ID	PL2-218B-052015
Vol. Purged	2.5	Duplicates	
Temperature (°C)	15.82	QA/QC Volumes	
Conductivity (mS)	36.4		
D.O. (mg/L)	0.36		
pH	6.03		
ORP (mV)	-4		
Turbidity (NTU)	198		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well was pressurized upon opening

Reducing odor - strong

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10 IM
Samplers	GWD	Well ID	PL2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1000	Depth Measured From:	
Depth to Water	11.42		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time	1000	Purge End Time	1022			
Approximate Volume Purged	2.5					

Water Monitoring Conditions:

	Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1001	~~0901~~	0	17.39	3.87	1.37	5.75	12	0.0
1006	~~0906~~	0.5	16.92	0.685	0.55	7.37	-42	120
1011	~~0911~~	1	16.93	0.604	0.43	7.07	-43	50.6
1016	~~0916~~	1.5	16.94	0.588	0.40	7.05	-45	29.7

Sampling Data: 1021

Time	~~0921~~	Sample ID	PL2-218A-052015
Vol. Purged	2.5	Duplicates	
Temperature (°C)	16.93	QA/QC Volumes	
Conductivity (mS)	0.583		
D.O. (mg/L)	0.41		
pH	6.91		
ORP (mV)	-37		
Turbidity (NTU)	22.5		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Strong reducing odor

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10 IM
Samplers	GWD	Well ID	PL2-258A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1049	Depth Measured From:	
Depth to Water	13.31		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1049	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1050	0	16.68	0.667	3.09	7.19	-7	121
1055	0.5	16.08	0.630	0.71	7.00	-11	36.4
1100	1	16.02	0.615	0.42	6.94	-22	53.9
1105	1.5	16.01	0.613	0.40	6.82	-22	61.7

Sampling Data:

Time	1110	Sample ID	PL2-258A-052015
Vol. Purged	2	Duplicates	
Temperature (°C)	16.02	QA/QC Volumes	
Conductivity (mS)	0.610		
D.O. (mg/L)	0.37		
pH	6.89		
ORP (mV)	-33		
Turbidity (NTU)	66.7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10IM
Samplers	GWD	Well ID	PL2-258B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1130	Depth Measured From:	
Depth to Water	14.52		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1130	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1130	0	16.49	24.7	2.45	5.24	15	799
1135	0.5	15.76	32.5	0.42	5.89	1	91.8
1140	1	15.41	33.7	0.30	6.16	-8	44.1
1145	2	15.22	33.9	0.26	6.29	-14	32.1

Sampling Data:

Time	1150	Sample ID	PL2-258B-052015
Vol. Purged	2.5	Duplicates	
Temperature (°C)	15.18	QA/QC Volumes	
Conductivity (mS)	34.1		
D.O. (mg/L)	0.23		
pH	6.34		
ORP (mV)	-19		
Turbidity (NTU)	26.6		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well was effervescent.

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20/2015	Site Location	2-10 IM
Samplers	GWD	Well ID	PL2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1318	Depth Measured From:	
Depth to Water	12.45		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:	X	Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1320	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1320	0	19.10	1.93	2.12	6.90	-43	542
1325	0.5	19.16	2.60	2.38	7.07	-34	360
1330	1	19.19	1.52	2.69	7.10	-29	228
1335	1.5	19.15	1.34	2.93	7.09	-28	135

Sampling Data:

Time	1340	Sample ID	PL2-212A-052015
Vol. Purged	2	Duplicates	DUP 1-052015
Temperature (°C)	19.17	QA/QC Volumes	
Conductivity (mS)	1.30		
D.O. (mg/L)	2.90		
pH	7.21		
ORP (mV)	-36		
Turbidity (NTU)	82.2		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10 IM
Samplers	GWD	Well ID	IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	

Field Measurements:

Time	1407	Depth Measured From:	
Depth to Water	13.10		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1409	0	18.05	0.817	0.93	7.90	47	174
1414	1	16.64	0.591	0.53	7.13	32	110
1419	2	16.53	0.577	0.51	7.15	22	104
1424	3	16.50	0.568	0.46	7.11	22	96.4

Sampling Data:

Time	1429	Sample ID	IW-N6-052015
Vol. Purged	4	Duplicates	
Temperature (°C)	16.51	QA/QC Volumes	
Conductivity (mS)	0.564		
D.O. (mg/L)	0.41		
pH	7.03		
ORP (mV)	20		
Turbidity (NTU)	92.3		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	X	Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20/2015	Site Location	2-10 JM
Samplers	GWD	Well ID	PL2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1500	Depth Measured From:	
Depth to Water	12.90		Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1502	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1505	0	18.36	0.603	1.65	6.91	35	90.5
1510	0.5	17.86	0.398	0.54	7.23	5	30.4
1515	1	17.99	0.397	0.47	7.08	-5	16.3
1520	1.5	17.88	0.400	0.46	7.24	-28	16.4

Sampling Data:

Time	1525	Sample ID	PL2-209A-052015
Vol. Purged	2	Duplicates	
Temperature (°C)	17.90	QA/QC Volumes	
Conductivity (mS)	0.403		
D.O. (mg/L)	0.44		
pH	7.22		
ORP (mV)	-34		
Turbidity (NTU)	17.5		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/20 /2015	Site Location	2-10 IM
Samplers	GWP	Well ID	PL2-253A
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1540	Depth Measured From:	
Depth to Water	11.88		Top of access port
			Mark on PVC casing
		X	Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1550	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1550	0	18.83	0.572	7.81	8.03	-49	279
1555	0.5	18.17	0.699	0.61	7.20	-8	23.3
1600	1	18.14	0.705	0.42	7.13	-11	12.2
1605	1.5	18.14	0.710	0.40	7.05	-14	8.0

Sampling Data:

Time	1610	Sample ID	PL2-253A-052015
Vol. Purged	2	Duplicates	
Temperature (°C)	18.14	QA/QC Volumes	
Conductivity (mS)	0.712		
D.O. (mg/L)	0.39		
pH	7.02		
ORP (mV)	-18		
Turbidity (NTU)	7.3		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5/21 /2015	Site Location	2-10 IM
Samplers	GWD	Well ID	PL2-256A
Casing Material	Steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	0907	Depth Measured From:	
Depth to Water	10.38		Top of access port
			Mark on PVC casing
		X	Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		0912	Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0912	0	17.21	0.520	6.86	4.66	167	26.5
0917	0.5	17.31	0.388	0.89	5.03	122	25.1
0922	1	17.34	0.366	0.58	5.20	95	23.9
0927	1.5	17.37	0.359	0.54	5.29	76	26.2

Sampling Data:

Time	0932	Sample ID	PL2-256A-052115
Vol. Purged	2	Duplicates	
Temperature (°C)	17.42	QA/QC Volumes	
Conductivity (mS)	0.359		
D.O. (mg/L)	0.50		
pH	5.40		
ORP (mV)	60		
Turbidity (NTU)	29.3		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	5 / 21 /2015	Site Location	2-10 I.M
Samplers	GWD	Well ID	PL2-257A
Casing Material	steel	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	0953	Depth Measured From:	
Depth to Water	10.68		Top of access port
			Mark on PVC casing
		X	Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time	0955	Purge End Time				
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0956	0	18.27	0.988	2.76	5.36	80	88.6
1001	0.5	17.93	1.05	0.65	5.62	53	36.4
1006	1	17.93	1.07	0.61	5.84	20	25.5
1011	1.5	17.93	1.10	0.58	5.91	-3	8.4

Sampling Data:

Time	1016	Sample ID	PL2-257A-052115
Vol. Purged	2	Duplicates	
Temperature (°C)	17.94	QA/QC Volumes	
Conductivity (mS)	1.10		
D.O. (mg/L)	0.56		
pH	6.04		
ORP (mV)	-22		
Turbidity (NTU)	4.8		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump	X	Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (August 2015)

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 EM
Samplers	JW+CG	Well ID	PL2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0930	Depth Measured From:	
Depth to Water	13.45		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time	0939	Purge End Time	0959				
Approximate Volume Purged	2.0 gal						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
09:39	0	18.73	1.40	3.70	5.21	88	>999
0944	0.5	18.05	0.856	2.00	7.30	26	>999
0949	1.0	17.91	0.515	1.54	7.56	5	245
0954	1.5	17.79	0.465	1.43	7.57	8	102

Sampling Data:

Time	09.59	Sample ID	PL2-218A-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.74	QA/QC Volumes	
Conductivity (mg)	0.442	turbidity	
D.O.	1.29	75.6	
pH	7.37		
ORP (mV)	7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

strong reducing odor
water was cloudy looking

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10TM
Samplers	JN+CG	Well ID	PC2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1005	Depth Measured From:	
Depth to Water	13.28'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time	1008	Purge End Time	1028				
Approximate Volume Purged	2.0gal						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1008	0	18.52	22.8	5.90	5.55	46	103
1013	0.5	16.62	32.1	6.58	6.59	6	>999
1018	1.0	16.50	21.6	0.85	6.81	-7	407
1023	1.5	16.39	30.5	0.64	6.93	-19	128

Sampling Data:

Time	1028	Sample ID	PC2-218B-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	16.22	QA/QC Volumes	
Conductivity (mg)	30.0		
D.O.	0.59		
pH	7.00		
ORP (mV)	-29		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C	Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM	RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 IM
Samplers	JW+CG	Well ID	IW-N4
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1040	Depth Measured From:	
Depth to Water	12.95		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		1043	Purge End Time	1103			
Approximate Volume Purged			2.0 gal				

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1043	0	17.25	23.7	1.98	6.97	37	216
1048	0.5	17.72	4.74	0.65	5.78	91	173
1053	1.0	18.14	2.14	0.59	6.81	13	83.4
1058	1.5	18.21	1.78	0.53	7.16	-11	623

Sampling Data:

Time	1103	Sample ID	IW-N4-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.23	QA/QC Volumes	
Conductivity (mg)	1.65	turb: 51.4	
D.O.	0.57		
pH	7.28		
ORP (mV)	-18		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 IM
Samplers	JW+CG	Well ID	IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1116	Depth Measured From:	
Depth to Water	12.44		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		1120	Purge End Time	1140			
Approximate Volume Purged			2.0 gal				

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1120	0	17.49	0.608	1.44	8.32	-23	112
1125	0.5	16.47	0.430	0.90	8.31	-5	40.0
1130	1.0	16.42	0.423	0.78	8.02	1	30.5
1135	1.5	16.39	0.420	0.75	7.88	-1	26.4

Sampling Data:

Time	1140	Sample ID	IW-N6-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	16.35	QA/QC Volumes	
Conductivity (mg)	0.419	turbidity 27.2	
D.O.	0.77		
pH	7.80		
ORP (mV)	-4		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 IM
Samplers	JW+CG	Well ID	PC2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1255	Depth Measured From:	
Depth to Water	12.03'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time	1303	Purge End Time	1323				
Approximate Volume Purged	~18 gal						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1303	0	19.60	0.870	6.15	[illegible]	71	357
1308	0.5	19.47	0.927	4.79	7.37	42	236
1313	1.0	19.28	0.970	3.77	7.55	35	142
1318	1.5	19.24	1.01	3.22	7.59	28	133

Sampling Data:

Time	1323	Sample ID	PC2-212A-082415
Vol. Purged	2.0	Duplicates	Dup1-082415 @ 0800
Temperature (°C)	19.34	QA/QC Volumes	
Conductivity (mg)	1.03	turbidity 125	
D.O.	2.87		
pH	7.03		
ORP (mV)	20		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	/	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 IM
Samplers	CG + JN	Well ID	PC2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1344	Depth Measured From:	
Depth to Water	11.66'		Top of access port
		+	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		1347	Purge End Time	1407			
Approximate Volume Purged			2.0 gal				

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1347	0	17.55	14.4	2.26	7.70	-26	38.8
1352	0.5	18.38	2.31	1.87	7.74	-42	20.4
1357	1.0	18.52	1.20	1.64	7.74	-41	24.9
1402	1.5	18.46	0.721	1.47	8.37	-36	31.1

Sampling Data:

Time	1407	Sample ID	PC2-209A-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.38	QA/QC Volumes	
Conductivity (mg)	0.653	turb: 19.8	
D.O.	1.25		
pH	8.08		
ORP (mV)	-35		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/24/15	Site Location	2-10 IM
Samplers	CG + JN	Well ID	PC2-253A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1415	Depth Measured From:	
Depth to Water	11.86'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time	1419	Purge End Time	1439				
Approximate Volume Purged	2.0 gal						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1419	0	19.03	0.392	8.03	7.82	-24	109
1424	0.5	18.56	0.609	5.62	7.64	-14	15.1
1429	1.0	18.53	0.607	4.85	7.56	-13	14.6
1434	1.5	18.52	0.604	4.52	7.53	-14	13.5

Sampling Data:

Time	1439	Sample ID	PC2-253A-082415
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.50	QA/QC Volumes	
Conductivity (mg)	0.606	turbidity 11.8	
D.O.	4.14		
pH	7.52		
ORP (mV)	-17		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C	Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM	RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/15	Site Location	2-10 IM
Samplers	CG + JA	Well ID	PC2-258A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0804	Depth Measured From:	
Depth to Water	15.22		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time	0822	Purge End Time	0842				
Approximate Volume Purged	2.5 gal						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0822	0	15.94	0.519	3.55	7.10	84	221
0827	0.7	16.18	0.467	1.17	7.54	<9	62.1
0832	1.2	16.17	0.468	1.04	7.47	-25	40.3
0837	2.0	16.10	0.472	1.04	7.73	-35	25.8

Sampling Data:

Time	0842	Sample ID	PC2-258A-082515
Vol. Purged	2.7	Duplicates	
Temperature (°C)	16.10	QA/QC Volumes	
Conductivity (mg)	0.484	turbidity 25.6	
D.O.	1.05		
pH	7.75		
ORP (mV)	-39		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

VOC only
Screen 8-23 ft bgs

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/15	Site Location	22-10 IM
Samplers	CG + JN	Well ID	PC2-258B
Casing Material	PC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	0849	Depth Measured From:	
Depth to Water	15.33		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		0900	Purge End Time	0920			
Approximate Volume Purged			2.0 gal				

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0900	0	16.51	9.48	2.71	5.73	17	368
0905	0.5	15.17	28.0	0.69	6.70	-11	28.7
0910	1.0	15.11	28.0	0.67	6.97	-16	28.6
0915	1.5	15.07	28.1	0.64	7.15	-21	29.5

Sampling Data:

Time	0920	Sample ID	PL2-258B-~~0825~~ 082515
Vol. Purged	2.0	Duplicates	
Temperature (°C)	15.01	QA/QC Volumes	
Conductivity (mg)	28.2	turb 31.2	
D.O.	0.70		
pH	7.25		
ORP (mV)	-23		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:
well pressurized. Cap popped when opened.

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/2015	Site Location	2-10 IM
Samplers	CG+JN	Well ID	PC2-216A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0939	Depth Measured From:	
Depth to Water	14.65'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		0944	Purge End Time	1004		
Approximate Volume Purged			2.5 gal			

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0944	0	16.12	22.7	6.06	7.28	-37	22.2
0949	0.6	17.28	1.84	9.44	7.78	-74	83.4
0954	1.2	17.23	0.6866	9.18	8.69	-77	33.9
0959	2.0	17.21	0.490	8.73	8.35	-74	30.0

Sampling Data:

Time	1004	Sample ID	PC2-214A-082515
Vol. Purged	3.6	Duplicates	
Temperature (°C)	17.18	QA/QC Volumes	
Conductivity (mS)	0.426		
D.O. (mg/L)	8.21		
pH	8.13		
ORP (mV)	-71		
Turbidity (NTU)	29.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/2015	Site Location	2-10 IM
Samplers	CG + JN	Well ID	PL2-214A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1013	Depth Measured From:	
Depth to Water	14.55'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1021	Purge End Time	1041		
Approximate Volume Purged			2.0 gal			

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1021	0	17.68	0.663	2.21	7.78	-11	787
1026	0.5	16.78	0.644	0.90	7.63	-24	85.7
1031	1.0	16.73	0.673	0.78	7.64	-34	89.9
1036	1.5	16.74	0.688	0.74	7.64	-36	87.9

Sampling Data:

Time	1041	Sample ID	PL2-214A-082515
Vol. Purged	2.0	Duplicates	
Temperature (°C)	16.82	QA/QC Volumes	
Conductivity (mS)	0.710		
D.O. (mg/L)	0.74		
pH	7.67		
ORP (mV)	-37		
Turbidity (NTU)	77.6		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other	

Sampling Notes:
Water is dark w/ sediment at start of purging.

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/2015	Site Location	2-10 Fwn
Samplers	CG + JN	Well ID	PL2-254A
Casing Material	PS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1056	Depth Measured From:	
Depth to Water	12.91'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1102	Purge End Time	1122		
Approximate Volume Purged			2.0 gal			

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1102	0	17.74	0.513	3.40	7.83	-2	250
1107	0.5	17.96	0.266	0.97	8.31	-57	41.4
1112	1.0	17.98	0.260	0.[illegible]11	8.34	-60	31.5
1117	1.5	17.93	0.256	0.87	8.32	-61	30.5

Sampling Data:

Time	1122	Sample ID	PL2-254A-082515
Vol. Purged 2.0	~~17.94~~	Duplicates	
Temperature (°C)	17.94	QA/QC Volumes	
Conductivity (mS)	0.254		
D.O. (mg/L)	1.03		
pH	8.32		
ORP (mV)	-43		
Turbidity (NTU)	28.1		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics		VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	8/25/2015	Site Location	2-10 IM
Samplers	CG + JN	Well ID	PL2-257A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1129	Depth Measured From:	
Depth to Water	12.01		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated	X	Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		1136	Purge End Time	1156		
Approximate Volume Purged			2.0 gal			

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1136	0	18.24	0.374	3.21	7.65	-12	43.9
1141	0.5	18.62	0.648	7.20	7.54	-7	28.3
1146	1.0	18.02	0.679	4.90	7.61	-9	24.0
1151	1.5	18.60	0.708	6.55	7.48	-14	17.9

Sampling Data:

Time	1156	Sample ID	PL2-257A-082515
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.59	QA/QC Volumes	
Conductivity (mS)	0.741		
D.O. (mg/L)	6.30		
pH	7.72		
ORP (mV)	-21		
Turbidity (NTU)	13.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (March 2016)

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10
Samplers	CY & JW	Well ID	PL2-257A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1335	Depth Measured From:	
Depth to Water	10.32'	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1340	0	19.37	0.472	6.81	6.62	-1	19.4
1345	0.5	19.68	0.935	2.40	6.41	-24	4.7
1350	1.0	19.71	0.942	1.96	6.49	-36	5.0
1355	1.5	19.72	0.944	1.75	6.48	-40	4.8

Sampling Data:

Time	1400	Sample ID	PL2-257A-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	19.72	QA/QC Volumes	
Conductivity (mg)	0.949		
D.O.	1.49		
pH	6.49		
ORP (mV)	-40		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10 EM
Samplers	CG + JW	Well ID	PL2-[redacted]256A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1306	Depth Measured From:	
Depth to Water	10.38'	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1309	0	19.31	0.774	1.45	6.57	-52	7.2
1314	0.5	19.24	0.513	2.89	6.56	-28	5.6
1319	1.0	19.28	0.468	2.49	6.54	-22	7.1
1324	1.5	19.30	0.460	1.43	6.52	-22	8.8

Sampling Data:

Time	1329	Sample ID	PL2-256A-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	19.30	QA/QC Volumes	
Conductivity (mg)	0.456		
D.O.	1.61		
pH	6.52		
ORP (mV)	-28		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10FA
Samplers	CG+JN	Well ID	PC2-253A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1233	Depth Measured From:	
Depth to Water	10.40	✓	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1238	0	19.23	0.968	3.27	6.60	57	232
1243	0.5	19.34	0.807	1.70	6.28	2	9.7
1248	1.0	19.36	0.777	0.92	6.47	-30	9.1
1253	1.5	19.31	0.775	0.76	6.49	-43	6.0

Sampling Data:

Time	1257	Sample ID	PC2-253A-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	19.37	QA/QC Volumes	
Conductivity (mg)	0.779		
D.O.	0.51		
pH	6.52		
ORP (mV)	-52		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10 ~~2015~~ 2016	Site Location	Boeing 2-10 Em
Samplers	CG + JN	Well ID	PC2-214A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	1119	Depth Measured From:	
Depth to Water	11.94	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1122	0	19.20	0.574	2.82	6.71	7	110
1127	0.5	18.94	2.57	0.41	6.52	-15	16.2
1132	1.0	18.96	2.51	0.30	6.58	-13	9.6
1137	1.5	19.02	2.12	0.28	6.41	-12	9.9

Sampling Data:

Time	1142	Sample ID	PC2-214A-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	19.07	QA/QC Volumes	
Conductivity (mS)	1.82		
D.O. (mg/L)	0.28		
pH	6.41		
ORP (mV)	-13		
Turbidity (NTU)	10.4		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10 FM
Samplers	CG / JN	Well ID	PC2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1047	Depth Measured From:	
Depth to Water	10.71	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1050	0	20.11	0.774	2.73	6.87	-24	229
1055	0.5	19.19	0.421	0.45	6.86	-79	17.7
1100	1.0	19.10	0.379	0.33	6.86	-87	
1105	1.5	19.07	0.369	0.30	6.85	-91	8.1

Sampling Data:

Time	1110	Sample ID	PC2-209A-031016
Vol. Purged	2.0 ~~19.10~~	Duplicates	
Temperature (°C)	19.10	QA/QC Volumes	
Conductivity (mg)	0.371		
D.O.	0.29		
pH	6.86		
ORP (mV)	-93		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10 FM
Samplers	CG + JN	Well ID	PC2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1007	Depth Measured From:	
Depth to Water		X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1012	0	20.32	1.40	3.28	6.48	-21	86.6
1017	0.5	20.50	1.53	1.41	6.43	-43	831
1022	1.0	20.55	1.54	0.87	6.47	-58	7999
1027	1.5	20.54	1.53	0.69	6.48	-64	7999

Sampling Data:

Time	1032	Sample ID	PC2-212A-031016
Vol. Purged	2.0	Duplicates	Dupl-031016 @ 0700
Temperature (°C)	20.55	QA/QC Volumes	
Conductivity (mg)	1.52		
D.O.	0.58		
pH	6.52		
ORP (mV)	-70		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Cloudy water

Reducing Odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10/2016	Site Location	Boeing 2-10 Ind
Samplers		Well ID	IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	0934	Depth Measured From:	
Depth to Water	9.56'	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0937	0	19.86	0.688	5.12	4.82	83	43.6
0942	0.5	19.03	0.734	0.35	5.31	49	38.7
0947	1.0	19.17	0.760	0.27	6.11	-33	21.4
0952	1.5	19.15	0.754	0.27	6.17	-44	13.16

Sampling Data:

Time	0957	Sample ID	IW-N6-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	19.19	QA/QC Volumes	
Conductivity (mg)	0.747		
D.O.	0.26		
pH	6.20		
ORP (mV)	-55		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Reducing odor
effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10 /2015	Site Location	Boeing 2-10 FM
Samplers	CG + JN	Well ID	IW-NH
Casing Material		Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	0901	Depth Measured From:	
Depth to Water	9.12	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		Purge End Time					
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0903	0	18.56	17.5	0.35	6.40	-86	85.4
0908	0.5	18.14	1.40	0.31	6.47	-96	38.6
0913	1.0	18.16	1.27	0.29	6.44	-91	45.6
0918	1.5	18.18	1.20	0.27	6.38	-84	31.9

Sampling Data:

Time	~~0923~~ 0923	Sample ID	IW-NH-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.19	QA/QC Volumes	
Conductivity (mS/cm)	1.16		
D.O. (mg/L)	0.27		
pH	6.37		
ORP (mV)	-88		
Turbidity (NTU)	33.8		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	X	Other	

Sampling Notes:

effervescent
reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10 ~~/2015~~ 2014	Site Location	Boeing 2-10 I.M
Samplers	CG + JM	Well ID	PC2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0820	Depth Measured From:	
Depth to Water	8.43'	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0822	0	18.56	21.4	2.01	5.78	20	41.6
0827	0.5	17.28	29.2	0.74	6.38	-79	15.2
0832	1.0	17.15	29.4	0.78	6.48	-89	14.5
0837	1.5	17.14	29.6	0.66	6.49	-94	8.7

Sampling Data:

Time	0842	Sample ID	PC2-218B-031016
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.10	QA/QC Volumes	
Conductivity (mS/cm)	29.6		
D.O. (mg/L)	0.64		
pH	6.53		
ORP (mV)	-98		
Turbidity (NTU)	6.7		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:
Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	3/10 ~~/2015~~ 2016	Site Location	Boeing 2-10 IM
Samplers	CG + JN	Well ID	PC2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0745	Depth Measured From:	
Depth to Water	8.11'	X	Top of access port
			Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0748	0	18.24	0.800	3.54	6.16	101	25.1
0753	0.5	18.04	0.681	0.92	6.15	-42	47.7
0758	1.5	18.15	0.676	0.77	6.35	-55	28.6
0803	2.0	18.22	0.671	0.74	6.43	-60	16.0
0808	2.5	18.27	0.670	0.69	6.44	-61	9.1

Sampling Data:

Time	0813	Sample ID	PC2-218A-030116
Vol. Purged	3.0	Duplicates	
Temperature (°C)	18.31	QA/QC Volumes	
Conductivity (mS/cm)	0.669		
D.O. (mg/L)	0.69		
pH	6.32		
ORP (mV)	-57		
Turbidity (NTU)	60.5		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:
water has a reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (July 2016)

Well Sampling Data Sheet

Date	7 / 7 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	PL2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good.

Field Measurements:

Time	0911	Depth Measured From:	
Depth to Water	10.39		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0919	0924	0929	0934			
pH	6.05	6.63	6.75	6.78			
Conductivity	0.936	0.565	0.554	0.552			
Turbidity	67.5	20.0	12.7	13.2			
D.O.	2.74	0.91	0.93	0.88			
Temperature	18.92	18.37	18.78	18.84			
ORP	143	47	9	-13			
Purge Rate	–	–	–	–			
Gallons Purged	0	1.0	1.5	2.0			

Sampling Data:

Time	0939	Sample ID	PL2-218A-070716
pH	6.80	Duplicates	
Conductivity	0.549	QA/QC Volumes	
Turbidity	9.5		
D.O.	0.78		
Temperature	18.84		
ORP	-27		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

very Strong Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7 / 7 /2016	Site Location	Boeing Plant 2-10
Samplers	CG	Well ID	PL2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0946	Depth Measured From:	
Depth to Water	10.88		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0948	0953	0958	1003			
pH	5.14	6.19	6.36	6.44			
Conductivity	21.7	30.6	31.5	30.9			
Turbidity	8.6	902	240	54.2			
D.O.	2.39	0.67	0.64	0.65			
Temperature	19.81	18.61	18.51	18.36			
ORP	57	7	-13	-26			
Purge Rate	-	—	—	-			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1008	Sample ID	PL2-218B-070716
pH	6.50	Duplicates	
Conductivity	30.3	QA/QC Volumes	
Turbidity	19.1		
D.O.	0.63		
Temperature	18.30		
ORP	-35		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Reducing Odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7 / 7 /2016	Site Location	Boeing Plant 2-10
Samplers	JW + CG	Well ID	PL2-258A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1030	Depth Measured From:	
Depth to Water	12.54'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1035	1040	1045	1050			
pH	7.05	6.82	6.76	6.67			
Conductivity	2.43	0.561	0.538	0.524			
Turbidity	113	17.8	16.0	14.7			
D.O.	1.71	0.67	0.61	0.56			
Temperature	18.89	18.14	18.10	18.08			
ORP	-82	-73	-69	-64			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1055	Sample ID	PL2-258A-070716
pH	6.66	Duplicates	
Conductivity	0.525	QA/QC Volumes	
Turbidity	15.4		
D.O.	0.55		
Temperature	18.06		
ORP	-63		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7/7 /2016	Site Location	Boeing Plant 2-10
Samplers	CG JN	Well ID	PL2-258B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	1105	Depth Measured From:	
Depth to Water	13.48		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1107	1112	1117	1122			
pH	5.83	6.48	6.57	6.59			
Conductivity	23.4	27.4	28.0	28.4			
Turbidity	43.0	7.9	5.1	3.5			
D.O.	1.64	0.54	0.57	0.58			
Temperature	18.07	17.53	17.40	17.35			
ORP	22	-22	-37	-42			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.0			

Sampling Data:

Time	1127	Sample ID	PL2-258B-070716
pH	6.60	Duplicates	
Conductivity	28.7	QA/QC Volumes	
Turbidity 2.4	[illegible]		
D.O.	0.60		
Temperature	17.31		
ORP	-46		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C	Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM	RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1	Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7/7/2016	Site Location	Boeing Plant 2-10
Samplers	CG & JN	Well ID	IW-N4
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1141	Depth Measured From:	
Depth to Water	12.76'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1143	1148	1153	1158			
pH	7.68	6.41	6.36	6.42			
Conductivity	2.93	1.17	1.10	1.04			
Turbidity	112	24.2	24.2	20.8			
D.O.	1.83	0.52	0.38	0.37			
Temperature	19.01	18.96	19.10	19.15			
ORP	-107	-78	-68	-67			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1203	Sample ID	PC2-IW-N-4-070716
pH	6.54	Duplicates	
Conductivity	1.00	QA/QC Volumes	
Turbidity	16.6		
D.O.	0.69		
Temperature	19.19		
ORP	-66		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:

effervescent

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7 17 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	IW-N6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1248	Depth Measured From:	
Depth to Water	12.70'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1251	1256	1301	1306			
pH	6.23	6.52	6.65	6.70			
Conductivity	0.739	0.499	0.489	0.483			
Turbidity	260	44.1	47.9	45.0			
D.O.	1.97	1.18	1.09	0.90			
Temperature	19.79	18.57	18.36	18.30			
ORP	0	-24	-36	-42			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1311	Sample ID	PL2-IW-N6-070716
pH	6.70	Duplicates	
Conductivity	0.483	QA/QC Volumes	
Turbidity	40.5		
D.O.	0.76		
Temperature	18.29		
ORP	-45		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7/17 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	PL2 - 212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1320	Depth Measured From:	
Depth to Water	12.46		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated			
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Gallons Purged							

Water Monitoring Conditions:

Time	1325	1330	1335	1340			
pH	6.38	6.37	6.38	6.41			
Conductivity	1.09	1.15	1.23	1.31			
Turbidity	428	121	57.7	29.1			
D.O.	2.20	1.60	1.00	0.81			
Temperature	20.63	20.63	20.50	20.46			
ORP	-11	-15	-20	-26			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1345	Sample ID	PL2-212A-070716
pH	6.43	Duplicates Dup	Dup-01-070716
Conductivity	1.36	QA/QC Volumes	
Turbidity	23.1		
D.O.	0.73		
Temperature	20.44		
ORP	-29		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Duplicate
Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7 / 7 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	PL2-253A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1410	Depth Measured From:	
Depth to Water	11.81		Top of access port
		+	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1413	1418	1423	1428			
pH	6.55	6.50	6.48	6.46			
Conductivity	1.06	0.702	0.703	0.704			
Turbidity	181	11.5	10.0	8.6			
D.O.	2.14	0.64	0.58	0.58			
Temperature	20.79	19.79	19.78	19.76			
ORP	-29	-31	-32	-32			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.5	2.0			

Sampling Data:

Time	~~1445~~ 1433	Sample ID	PL2-253A-070716
pH	6.46	Duplicates	
Conductivity	0.704	QA/QC Volumes	
Turbidity	8.1		
D.O.	0.54		
Temperature	19.77		
ORP	-36		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	+	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7/8 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	PL2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0800	Depth Measured From:	
Depth to Water	10.90'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0804	0809	0814	0819			
pH	5.87	6.47	6.64	6.68			
Conductivity mS/cm	0.463	0.428	0.418	0.417			
Turbidity	16.3	13.5	14.0	9.3			
D.O.	3.64	2.98	2.97	2.20			
Temperature	18.90	19.04	19.08	19.04			
ORP	-128	91	75	66			
Purge Rate	–	–	–				
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	0824	Sample ID	PL2-209A-070816
pH	6.64	Duplicates	
Conductivity	0.418	QA/QC Volumes	
Turbidity	8.4		
D.O.	2.01		
Temperature	19.00		
ORP	64		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Strong Reducing odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	07 / 08 /2016	Site Location	Boeing Plant 2-10
Samplers	CG + JN	Well ID	PL2-256A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	10.57	Depth Measured From:	
Depth to Water	08.44		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0850	0855	0900	0905			
pH	6.53	6.49	6.44	6.51			
Conductivity	0.404	0.403	0.399	0.392			
Turbidity	5.4	2.9	1.9	2.5			
D.O.	3.07	1.94	1.53	1.36			
Temperature	19.68	19.64	19.54	19.54			
ORP	69	68	70	64			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	0910	Sample ID	PL2-256A-070816
pH	6.49	Duplicates	
Conductivity	0.391	QA/QC Volumes	
Turbidity	0.9		
D.O.	1.26		
Temperature	19.53		
ORP	61		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	7 / 8 /2016	Site Location	Boeing Plant 2-10
Samplers	CG & JN	Well ID	PL2 -257A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	0917	Depth Measured From:	
Depth to Water	10.89'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time		Purge End Time				
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0920	0925	0930	0935			
pH	6.27	6.32	6.34	6.33			
Conductivity	0.887	0.886	0.890	0.893			
Turbidity	14.9	7.2	5.1	3.7			
D.O.	1.51	0.87	0.77	0.77			
Temperature	20.00	20.03	20.08	20.09			
ORP	79	74	73	71			
Purge Rate	—	—	—	—			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	0940 ~~0948~~	Sample ID	PL2 -257A -070816
pH	6.38	Duplicates	
Conductivity	0.897	QA/QC Volumes	
Turbidity	2.4		
D.O.	0.76		
Temperature	20.10		
ORP	66		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Groundwater Monitoring Sample Sheets (November 2016)

Well Sampling Data Sheet

Date	11/22/14	Site Location	PC2 2-10
Samplers	JN + CG	Well ID	PC2- 256A
Casing Material		Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1016	Depth Measured From:	
Depth to Water	10.15'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	1018	1023	1028	1033			
pH	5.89	5.79	5.70	5.79			
Conductivity	0.534	0.441	0.454	0.455			
Turbidity	24.4	10.8	6.6	5.9			
D.O.	1.59	0.89	1.01	0.86			
Temperature	19.39	19.24	19.18	19.22			
ORP	-27	-34	-31	-33			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1038	Sample ID	PC2-256A-112214
pH	5.74	Duplicates	
Conductivity	0.455	QA/QC Volumes	
Turbidity	6.1		
D.O.	0.80		
Temperature	19.23		
ORP	-32		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/22/16	Site Location	PC2 2-10
Samplers	JN + CG	Well ID	PC2-257A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0946	Depth Measured From:	
Depth to Water	10.61		Top of access port
		+	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0949	0954	0959	1004			
pH	5.66	5.57	5.60	5.62			
Conductivity	0.936	0.957	0.952	0.948			
Turbidity	27.4	30.3	28.1	20.1			
D.O.	2.27	1.03	0.97	0.92			
Temperature	19.31	19.77	19.86	19.93			
ORP	42	-12	-30	-42			
Purge Rate	-	-	-	-			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	1009	Sample ID	PC2-257A-112216
pH	5.65	Duplicates	
Conductivity	0.947	QA/QC Volumes	
Turbidity	11.9		
D.O.	0.89		
Temperature	19.97		
ORP	-51		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/22/16	Site Location	PC2 2-10
Samplers	JN & CG	Well ID	PC2-258A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	

Field Measurements:

Time	0901	Depth Measured From:	
Depth to Water	10.51		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time		0904	0909	0914	0919	0924		
pH		6.55	5.89	5.78	5.75	5.68		
Conductivity		7.79	1.71	0.761	0.652	0.629		
Turbidity		135	84.2	44.9	25.6	12.7		
D.O.	1.51	[illegible]	1.12	1.47	1.23	1.07		
Temperature		17.19	17.45	17.79	17.81	17.78		
ORP		-9	2	-20	-33	-43		
Purge Rate		–	–	–	–	–		
Gallons Purged		0	0.5	1.0	1.5	2.0		

Sampling Data:

Time	0929	Sample ID	PC2-258A-112216
pH	5.64	Duplicates	
Conductivity	0.624	QA/QC Volumes	
Turbidity	6.5		
D.O.	1.01	[illegible]	
Temperature	17.78		
ORP	-47		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/22/16	Site Location	PC-2 2-10 IM
Samplers	JW + CG	Well ID	PC2-258B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	Good

Field Measurements:

Time	0827	Depth Measured From:	
Depth to Water	11.54'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Gallons Purged						

Water Monitoring Conditions:

Time	0831	0836	0841	0846			
pH	5.04	5.74	5.73	5.73			
Conductivity	24.8	31.0	31.9	32.2			
Turbidity	63.0	68.7	67.5	61.7			
D.O. 1.68		1.25	1.17	1.10			
Temperature	15.52	16.43	16.60	16.61			
ORP	174	100	68	48			
Purge Rate	–	–	–	–			
Gallons Purged	0	0.5	1.0	1.5			

Sampling Data:

Time	0851	Sample ID	PC2-258B-112216
pH	5.75	Duplicates	
Conductivity	32.4	QA/QC Volumes	
Turbidity	49.9		
D.O.	1.02		
Temperature	16.61		
ORP	25		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Reducing Odor

Well Diameter	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or:(total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2018	Site Location	PC2 m 2-10
Samplers	JN CG	Well ID	PC2-209A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1408	Depth Measured From:	
Depth to Water	9.92		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1412	0	18.94	0.400	1.47	6.57	-28	56.8
1419	0.5	18.97	0.376	0.90	6.50	-38	17.6
1424	1.0	18.94	0.375	0.65	6.62	-51	13.8
1429	1.5	18.97	0.373	0.61	6.69	-60	11.3

Sampling Data:

Time	1434	Sample ID	PC2-209A-112118
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.98	QA/QC Volumes	
Conductivity (mS)	0.371		
D.O. (mg/L)	0.58		
pH	6.87		
ORP (mV)	-77		
Turbidity (NTU)	8.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK 175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	PC-2 2-10
Samplers	JW + CG	Well ID	PC2-214A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1334	Depth Measured From:	
Depth to Water	8.86'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1337	0	18.67	0.576	1.58	6.61	-18	7999
1342	0.5	18.14	0.487	0.71	6.40	-37	9.5
1347	1.5	18.11	0.483	0.64	6.42	-46	2.0
1352	2.0	18.11	0.479	0.61	6.45	-54	0.0

Sampling Data:

Time	1357	Sample ID	PC2-214A-112116
Vol. Purged	2.5	Duplicates	
Temperature (°C)	18.10	QA/QC Volumes	
Conductivity (mS)	0.478		
D.O. (mg/L)	0.60		
pH	6.38		
ORP (mV)	-52		
Turbidity (NTU)	0.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	PC-2 2-10
Samplers	JN + CG	Well ID	PC2-253A
Casing Material	SS	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	1300	Depth Measured From:	
Depth to Water	10.38'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time		Purge End Time					
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1304	0	19.33	0.759	1.79	6.51	-1	24.9
1309	0.5	19.37	0.745	1.06	6.32	1	14.5
1314	1.0	19.42	0.731	0.82	6.35	-13	7.0
1319	1.5	19.45	0.728	0.71	6.41	-27	4.6
					6.41		

Sampling Data:

Time	1324	Sample ID	PC2-253A-112116
Vol. Purged	2.6	Duplicates	
Temperature (°C)	19.49	QA/QC Volumes	
Conductivity (mS)	0.727		
D.O. (mg/L)	0.69		
pH	6.45		
ORP (mV)	-38		
Turbidity (NTU)	3.3		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2018	Site Location	PL-2 2-10
Samplers	JN + CG	Well ID	PL2-216A
Casing Material	2"	Constructed Depth	
Casing Diameter	PVC	Condition of Well	good

Field Measurements:

Time	1224	Depth Measured From:	
Depth to Water	8.41'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1228	0	19.65	2.23	2.85	6.39	19	77.4
1233	0.5	18.28	2.44				
1238	1.0	18.27	1.78	0.82	6.38	-16	62.9
1243	1.5	18.17	1.21	0.72	6.40	-26	38.9

Sampling Data:

Time	1240	Sample ID	PL2-216A-112116
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.10	QA/QC Volumes	
Conductivity (mS)	0.824		
D.O. (mg/L)	0.92		
pH	6.64		
ORP (mV)	-37		
Turbidity (NTU)	24.8		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1		Other		

Sampling Notes:

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	PL-2 2-10
Samplers	JNRCG	Well ID	PL2-212A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2" ~~PVC~~	Condition of Well	good

Field Measurements:

Time	1108	Depth Measured From:	
Depth to Water	9.89'		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1112	0	19.75	1.33	1.24	5.89	-19	131
1117	0.5	20.42	1.42	0.866	6.07	-34	267
1122	1.0	20.42	1.45 ~~0.725~~	0.75	6.09	-43	357
1127	1.5	20.42	1.46	0.606	6.12	-52	370

Sampling Data:

Time	1132	Sample ID	PL2-212A-112116
Vol. Purged	2.0	Duplicates ✓	Dup01-112116 @ 0800
Temperature (°C)	20.42	QA/QC Volumes	
Conductivity (mS)	1.47		
D.O. (mg/L)	0.61		
pH	6.13		
ORP (mV)	-57		
Turbidity (NTU)	338		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Dup01

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	PL-2 - 2-10
Samplers	JN + CG	Well ID	IWN-6
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	good

Field Measurements:

Time	1037	Depth Measured From:	
Depth to Water	9.35'		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1040	0	19.05	0.719	1.52	6.11	-40	52.2
1045	0.5	18.24	0.714	0.77	5.84	-54	17.1
1050	1.0	18.24	0.695	0.70	6.02	-64	13.9
1055	1.5	18.24	0.685	0.68	6.02	-63	12.3

Sampling Data:

Time	1110	Sample ID	PL2-IWN6-112116
Vol. Purged	2.0	Duplicates	
Temperature (°C)	18.21	QA/QC Volumes	
Conductivity (mS)	0.685		
D.O. (mg/L)	0.66		
pH	6.18		
ORP (mV)	-72		
Turbidity (NTU)	11.4		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	X	Other		

Sampling Notes:
Reducing odor
effervescent

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	2-10
Samplers	JN/CG	Well ID	IW-N-4
Casing Material	PVC	Constructed Depth	
Casing Diameter	4"	Condition of Well	

Field Measurements:

Time	1005	Depth Measured From:	
Depth to Water	9.02		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
1006	0	18.22	3.06	1.21	6.82	-137	51.7
1011	1.0	17.62	0.951	1.00	6.43	-134	27.4
1016	1.5	17.83	0.961	0.88	6.36	-119	17.8
1021	2.0	17.92	1.01	0.83	6.34	-110	15.3

Sampling Data:

Time	1026	Sample ID	PC2-IWN-4-112116
Vol. Purged	2.5	Duplicates	
Temperature (°C)	17.88	QA/QC Volumes	
Conductivity (mS)	1.06		
D.O. (mg/L)	0.78		
pH	6.20		
ORP (mV)	-95		
Turbidity (NTU)	13.9		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals			Total Organic Carbon 415.1	✓	Other		

Sampling Notes:
Reducing odor.
effervescent

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	2-10
Samplers	JN + CG	Well ID	PL2-218B
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	0933	Depth Measured From:	
Depth to Water	9.181		Top of access port
		✓	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic
Bailer:		PVC		Stainless Steel		Other:
Purge Start Time			Purge End Time			
Approximate Volume Purged						

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0935	0	18.34	27.7	1.17	5.15	87.8	106
0940	0.5	17.86	33.6	0.78	5.81	-54	73.2
0945	1.0	17.77	33.4	0.78	5.89	-63	35.0
0950	1.5	17.65	33.2	0.78	5.97	-71	11.5

Sampling Data:

Time	0955	Sample ID	PL2-218B-112116
Vol. Purged	2.0	Duplicates	
Temperature (°C)	17.57	QA/QC Volumes	
Conductivity (mS)	33.2		
D.O. (mg/L)	0.77		
pH	6.02		
ORP (mV)	-74		
Turbidity (NTU)	5.2		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	✓	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2	
Total Metals		RCRA 8 or Priority Pollutants	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)	
Dissolved Metals			Total Organic Carbon 415.1		Other	

Sampling Notes:

Reducing odor

Well Diam.	Well Volume (Gal/ft)	
1 inch	0.041	
2 inch	0.163	
4 inch	0.653	
6 inch	1.469	

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Well Sampling Data Sheet

Date	11/21/2016	Site Location	Z-10
Samplers	CG+TN	Well ID	PC2-218A
Casing Material	PVC	Constructed Depth	
Casing Diameter	2"	Condition of Well	good

Field Measurements:

Time	9.81	Depth Measured From:	
Depth to Water	085[illegible]		Top of access port
		X	Mark on PVC casing
			Mark of protective casing
			Other

Purging Information:

Pump:		Dedicated		Non-dedicated		Peristaltic	
Bailer:		PVC		Stainless Steel		Other:	
Purge Start Time			Purge End Time				
Approximate Volume Purged							

Water Monitoring Conditions:

Time	Vol. Purged	Temperature (°C)	Conductivity (mS)	D.O. (mg/L)	pH	ORP (mV)	Turbidity
0902	0	16.89	0.652	1.50	5.81	[illegible]	7999
0907	0.5	18.00	0.330	1.34	6.11	42	220
0912	1.0	18.27	0.310	1.20	6.08	-17	115
0917	1.5	18.03	0.304	1.23	5.95	-40	72.8

Sampling Data:

Time	0922	Sample ID	PC2-218A-112116
Vol. Purged 2.0	[illegible]	Duplicates	
Temperature (°C)	18.00	QA/QC Volumes	
Conductivity (mS)	0.301		
D.O. (mg/L)	1.00		
pH	5.96		
ORP (mV)	-50		
Turbidity (NTU)	55.0		

Sampling Device:

PVC Bailer		SS Bailer		Dedicated Pump		Teflon Bailer	

Analyses to be Performed:

Volatile Organics	X	VOCs 8260B	SVOCs by 8270C		Sulfate 375.2		
Total Metals		RCRA 8 or	SVOCs by 8270C/SIM		RSK-175 (methane, ethane, ethene)		
Dissolved Metals		Priority Pollutants	Total Organic Carbon 415.1		Other		

Sampling Notes:
Strong reducing odor

Well Diam.	Well Volume (Gal/ft)
1 inch	0.041
2 inch	0.163
4 inch	0.653
6 inch	1.469

Or: (total depth(ft) - DTW(ft)) x Well Dia^2 x 0.0408 = 1 Well Volume

Boeing Plant 2
Seattle/Tukwila, Washington

Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

Appendix B
Groundwater Monitoring Laboratory Data Sheets

Groundwater Monitoring Laboratory Data Sheets (October 2014)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

November 10, 2014

Project: Boeing Plant 2 2-10 IM

Submittal Date: 10/30/2014
Group Number: 1514893
SDG: BNF99
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-258A-102814 Water	7656126
PL2-258B-102814 Water	7656127
PL2-218B-102814 Water	7656128
PL2-218A-102814 Water	7656129
IW-N4-102814 Water	7656130
IW-N5-102814 Water	7656131
IW-N1-102814 Water	7656132
PL2-212A-102814 Water	7656133
Dup1 Water	7656134
IW-N6-102814 Water	7656135
PL2-209A-102814 Water	7656136
PL2-209B-102814 Water	7656137
PL2-253A-102914 Water	7656138
IW-513-102914 Water	7656139
PL2-256A-102914 Water	7656140
IW-512-102914 Water	7656141
PL2-257A-102914 Water	7656142
Dup2 Water	7656143
Trip Blank Water	7656144

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Kent Angelos
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Jill Lamberts
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Alyssa Neir

ELECTRONIC COPY TO	The Boeing Company	Attn: Will Ernst
ELECTRONIC COPY TO	Calibre	Attn: Tom McKeon
ELECTRONIC COPY TO	CALIBRE	Attn: Grant Dawson

Respectfully Submitted,

Kay Hower

Kay Hower
Manager

(510) 232-8894

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1514893

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 7656126, 7656127, 7656129, 7656130, 7656131, 7656132, 7656133, 7656135, 7656136, 7656137, 7656138, 7656139, 7656140, 7656142, 7656144

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 7656128

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The re-analysis was performed from a previously opened container with headspace.

Sample #s: 7656134, 7656141

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 7656143

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Batch #: H143041AA (Sample number(s): 7656126-7656133, 7656135-7656140, 7656142-7656144)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Vinyl Acetate

Batch #: H143071AA (Sample number(s): 7656128, 7656134, 7656141, 7656143 UNSPK: P654653)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Vinyl Acetate

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: 1,3,5-Trimethylbenzene, Vinyl Acetate

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 7656128, 7656128RE

Sample Description: PL2-258A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656126
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 09:38 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2258A SDG#: BNF99-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-258A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656126
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 09:38 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2258A SDG#: BNF99-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.7**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 12:39	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 12:39	Kerri E Legerlotz	1

Sample Description: PL2-258B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656127
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:09 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2258B SDG#: BNF99-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**7.8**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.2**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-258B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656127
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:09 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2258B SDG#: BNF99-02

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.6**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 13:00	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 13:00	Kerri E Legerlotz	1

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**86**	**E**	0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	25	U	25	5
11996	Acrolein	107-02-8	130	U	130	5
11996	Acrylonitrile	107-13-1	25	U	25	5
11996	Benzene	71-43-2	1.0	U	1.0	5
11996	Bromobenzene	108-86-1	2.5	U	2.5	5
11996	Bromochloromethane	74-97-5	2.5	U	2.5	5
11996	Bromodichloromethane	75-27-4	2.5	U	2.5	5
11996	Bromoform	75-25-2	2.5	U	2.5	5
11996	Bromomethane	74-83-9	2.5	U	2.5	5
11996	2-Butanone	78-93-3	25	U	25	5
11996	n-Butylbenzene	104-51-8	2.5	U	2.5	5
11996	sec-Butylbenzene	135-98-8	2.5	U	2.5	5
11996	tert-Butylbenzene	98-06-6	2.5	U	2.5	5
11996	Carbon Disulfide	75-15-0	2.5	U	2.5	5
11996	Carbon Tetrachloride	56-23-5	1.0	U	1.0	5
11996	Chlorobenzene	108-90-7	2.5	U	2.5	5
11996	Chloroethane	75-00-3	2.5	U	2.5	5
11996	Chloroform	67-66-3	1.0	U	1.0	5
11996	Chloromethane	74-87-3	2.5	U	2.5	5
11996	2-Chlorotoluene	95-49-8	2.5	U	2.5	5
11996	4-Chlorotoluene	106-43-4	2.5	U	2.5	5
11996	1,2-Dibromo-3-chloropropane	96-12-8	2.5	U	2.5	5
11996	Dibromochloromethane	124-48-1	2.5	U	2.5	5
11996	Dibromomethane	74-95-3	2.5	U	2.5	5
11996	trans-1,4-Dichloro-2-butene	110-57-6	25	U	25	5
11996	1,2-Dichlorobenzene	95-50-1	2.5	U	2.5	5
11996	1,3-Dichlorobenzene	541-73-1	2.5	U	2.5	5
11996	1,4-Dichlorobenzene	106-46-7	2.5	U	2.5	5
11996	1,1-Dichloroethane	75-34-3	2.5	U	2.5	5
11996	1,2-Dichloroethane	107-06-2	1.0	U	1.0	5
11996	1,1-Dichloroethene	75-35-4	1.0	U	1.0	5

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**67**		1.0	5
11996	trans-1,2-Dichloroethene	156-60-5	1.0	U	1.0	5
11996	1,2-Dichloropropane	78-87-5	2.5	U	2.5	5
11996	1,3-Dichloropropane	142-28-9	2.5	U	2.5	5
11996	2,2-Dichloropropane	594-20-7	2.5	U	2.5	5
11996	1,1-Dichloropropene	563-58-6	2.5	U	2.5	5
11996	cis-1,3-Dichloropropene	10061-01-5	1.0	U	1.0	5
11996	trans-1,3-Dichloropropene	10061-02-6	1.0	U	1.0	5
11996	Ethylbenzene	100-41-4	2.5	U	2.5	5
11996	Ethylene dibromide	106-93-4	2.5	U	2.5	5
11996	Hexachlorobutadiene	87-68-3	2.5	U	2.5	5
11996	2-Hexanone	591-78-6	25	U	25	5
11996	Isopropylbenzene	98-82-8	2.5	U	2.5	5
11996	4-Isopropyltoluene	99-87-6	2.5	U	2.5	5
11996	Methyl Iodide	74-88-4	2.5	U	2.5	5
11996	4-Methyl-2-pentanone	108-10-1	25	U	25	5
11996	Methylene Chloride	75-09-2	2.5	U	2.5	5
11996	Naphthalene	91-20-3	2.5	U	2.5	5
11996	n-Propylbenzene	103-65-1	2.5	U	2.5	5
11996	Styrene	100-42-5	2.5	U	2.5	5
11996	1,1,1,2-Tetrachloroethane	630-20-6	2.5	U	2.5	5
11996	1,1,2,2-Tetrachloroethane	79-34-5	1.0	U	1.0	5
11996	Tetrachloroethene	127-18-4	1.0	U	1.0	5
11996	Toluene	108-88-3	1.0	U	1.0	5
11996	112Trichloro122Trifluoroethane	76-13-1	2.5	U	2.5	5
11996	1,2,3-Trichlorobenzene	87-61-6	2.5	U	2.5	5
11996	1,2,4-Trichlorobenzene	120-82-1	2.5	U	2.5	5
11996	1,1,1-Trichloroethane	71-55-6	2.5	U	2.5	5
11996	1,1,2-Trichloroethane	79-00-5	1.0	U	1.0	5
11996	Trichloroethene	79-01-6	1.0	U	1.0	5
11996	Trichlorofluoromethane	75-69-4	2.5	U	2.5	5
11996	1,2,3-Trichloropropane	96-18-4	5.0	U	5.0	5
11996	1,2,4-Trimethylbenzene	95-63-6	2.5	U	2.5	5
11996	1,3,5-Trimethylbenzene	108-67-8	2.5	U	2.5	5
11996	Vinyl Acetate	108-05-4	2.5	U	2.5	5
11996	Vinyl Chloride	75-01-4	1.0	U	1.0	5
11996	m,p-Xylene	179601-23-1	2.5	U	2.5	5
11996	o-Xylene	95-47-6	2.5	U	2.5	5
Trial ID: RE						
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**79**	**E**	0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The re-analysis was performed from a previously opened container with headspace.

GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**		**ug/l**	
07105	Ethane	74-84-0	5.0	U	5.0	1
07105	Ethene	74-85-1	5.0	U	5.0	1
07105	**Methane**	74-82-8	**48**		5.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: PL2-218B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656128
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 10:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218B SDG#: BNF99-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143071AA	11/03/2014 12:32	Kerri E Legerlotz	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143041AA	10/31/2014 18:16	Kerri E Legerlotz	5
11996	8260C Boeing 69	SW-846 8260C	3-RE	H143071AA	11/03/2014 17:48	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 18:16	Kerri E Legerlotz	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143071AA	11/03/2014 12:32	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	3	H143071AA	11/03/2014 17:48	Kerri E Legerlotz	1
07105	MEE by RSK-175	RSKSOP-175 modified	1	143070027A	11/03/2014 22:33	Nicholas R Rossi	1

Sample Description: PL2-218A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656129
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:21 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218A SDG#: BNF99-04

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**2.4**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.5**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-218A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656129
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:21 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218A SDG#: BNF99-04

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**0.2**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**6.7**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**		**ug/l**	
07105	**Ethane**	74-84-0	**53**		5.0	1
07105	Ethene	74-85-1	5.0	U	5.0	1
07105	**Methane**	74-82-8	**13,000**	**E**	5.0	1
Trial ID: DL						
07105	Ethane	74-84-0	500	U	500	100
07105	Ethene	74-85-1	500	U	500	100
07105	**Methane**	74-82-8	**18,000**		500	100

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: PL2-218A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656129
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:21 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2218A SDG#: BNF99-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 13:21	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 13:21	Kerri E Legerlotz	1
07105	MEE by RSK-175	RSKSOP-175 modified	1	143070027A	11/03/2014 21:56	Nicholas R Rossi	1
07105	MEE by RSK-175	RSKSOP-175 modified	2-DL	143070027A	11/04/2014 11:31	Nicholas R Rossi	100

Sample Description: IW-N4-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656130
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNF99-05

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**18**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	**Benzene**	71-43-2	**0.2**		0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**30**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.2**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**4.4**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

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Analysis Report

Sample Description: IW-N4-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656130
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNF99-05

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**1.8**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**44.7**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 13:42	Kerri E Legerlotz	1

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Analysis Report

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Sample Description: IW-N4-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656130
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 11:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNF99-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 13:42	Kerri E Legerlotz	1
00273	Total Organic Carbon	SM 5310 C-2000	1	14309049502A	11/05/2014 02:14	James S Mathiot	1

Sample Description: IW-N5-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656131
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:18 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N5 SDG#: BNF99-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**1.3**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-N5-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656131
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:18 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N5 SDG#: BNF99-06

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**5.3**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 14:03	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 14:03	Kerri E Legerlotz	1

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Analysis Report

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Sample Description: IW-N5-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656131
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:18 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N5 SDG#: BNF99-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14309049502A	11/05/2014 02:27	James S Mathiot	1

Sample Description: IW-N1-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656132
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:49 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N1 SDG#: BNF99-07

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-N1-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656132
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:49 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N1 SDG#: BNF99-07

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**6.5**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 14:24	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 14:24	Kerri E Legerlotz	1

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Analysis Report

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Sample Description: IW-N1-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656132
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 13:49 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N1 SDG#: BNF99-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14309049502A	11/05/2014 02:41	James S Mathiot	1

Sample Description: PL2-212A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656133
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:20 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2212A SDG#: BNF99-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Acetone	67-64-1	25	U	25	5
11996	Acrolein	107-02-8	130	U	130	5
11996	Acrylonitrile	107-13-1	25	U	25	5
11996	Benzene	71-43-2	1.0	U	1.0	5
11996	Bromobenzene	108-86-1	2.5	U	2.5	5
11996	Bromochloromethane	74-97-5	2.5	U	2.5	5
11996	Bromodichloromethane	75-27-4	2.5	U	2.5	5
11996	Bromoform	75-25-2	2.5	U	2.5	5
11996	Bromomethane	74-83-9	2.5	U	2.5	5
11996	2-Butanone	78-93-3	25	U	25	5
11996	n-Butylbenzene	104-51-8	2.5	U	2.5	5
11996	sec-Butylbenzene	135-98-8	2.5	U	2.5	5
11996	tert-Butylbenzene	98-06-6	2.5	U	2.5	5
11996	Carbon Disulfide	75-15-0	2.5	U	2.5	5
11996	Carbon Tetrachloride	56-23-5	1.0	U	1.0	5
11996	Chlorobenzene	108-90-7	2.5	U	2.5	5
11996	Chloroethane	75-00-3	2.5	U	2.5	5
11996	Chloroform	67-66-3	1.0	U	1.0	5
11996	Chloromethane	74-87-3	2.5	U	2.5	5
11996	2-Chlorotoluene	95-49-8	2.5	U	2.5	5
11996	4-Chlorotoluene	106-43-4	2.5	U	2.5	5
11996	1,2-Dibromo-3-chloropropane	96-12-8	2.5	U	2.5	5
11996	Dibromochloromethane	124-48-1	2.5	U	2.5	5
11996	Dibromomethane	74-95-3	2.5	U	2.5	5
11996	trans-1,4-Dichloro-2-butene	110-57-6	25	U	25	5
11996	1,2-Dichlorobenzene	95-50-1	2.5	U	2.5	5
11996	1,3-Dichlorobenzene	541-73-1	2.5	U	2.5	5
11996	1,4-Dichlorobenzene	106-46-7	2.5	U	2.5	5
11996	1,1-Dichloroethane	75-34-3	2.5	U	2.5	5
11996	1,2-Dichloroethane	107-06-2	1.0	U	1.0	5
11996	1,1-Dichloroethene	75-35-4	1.0	U	1.0	5
11996	**cis-1,2-Dichloroethene**	156-59-2	**410**	**E**	1.0	5
11996	trans-1,2-Dichloroethene	156-60-5	1.0	U	1.0	5
11996	1,2-Dichloropropane	78-87-5	2.5	U	2.5	5
11996	1,3-Dichloropropane	142-28-9	2.5	U	2.5	5
11996	2,2-Dichloropropane	594-20-7	2.5	U	2.5	5
11996	1,1-Dichloropropene	563-58-6	2.5	U	2.5	5
11996	cis-1,3-Dichloropropene	10061-01-5	1.0	U	1.0	5
11996	trans-1,3-Dichloropropene	10061-02-6	1.0	U	1.0	5
11996	Ethylbenzene	100-41-4	2.5	U	2.5	5
11996	Ethylene dibromide	106-93-4	2.5	U	2.5	5
11996	Hexachlorobutadiene	87-68-3	2.5	U	2.5	5
11996	2-Hexanone	591-78-6	25	U	25	5
11996	Isopropylbenzene	98-82-8	2.5	U	2.5	5
11996	4-Isopropyltoluene	99-87-6	2.5	U	2.5	5
11996	Methyl Iodide	74-88-4	2.5	U	2.5	5
11996	4-Methyl-2-pentanone	108-10-1	25	U	25	5
11996	Methylene Chloride	75-09-2	2.5	U	2.5	5
11996	Naphthalene	91-20-3	2.5	U	2.5	5
11996	n-Propylbenzene	103-65-1	2.5	U	2.5	5
11996	Styrene	100-42-5	2.5	U	2.5	5

Sample Description: PL2-212A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656133
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:20 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2212A SDG#: BNF99-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	2.5	U	2.5	5
11996	1,1,2,2-Tetrachloroethane	79-34-5	1.0	U	1.0	5
11996	Tetrachloroethene	127-18-4	1.0	U	1.0	5
11996	Toluene	108-88-3	1.0	U	1.0	5
11996	112Trichloro122Trifluoroethane	76-13-1	2.5	U	2.5	5
11996	1,2,3-Trichlorobenzene	87-61-6	2.5	U	2.5	5
11996	1,2,4-Trichlorobenzene	120-82-1	2.5	U	2.5	5
11996	1,1,1-Trichloroethane	71-55-6	2.5	U	2.5	5
11996	1,1,2-Trichloroethane	79-00-5	1.0	U	1.0	5
11996	**Trichloroethene**	79-01-6	**12**		1.0	5
11996	Trichlorofluoromethane	75-69-4	2.5	U	2.5	5
11996	1,2,3-Trichloropropane	96-18-4	5.0	U	5.0	5
11996	1,2,4-Trimethylbenzene	95-63-6	2.5	U	2.5	5
11996	1,3,5-Trimethylbenzene	108-67-8	2.5	U	2.5	5
11996	Vinyl Acetate	108-05-4	2.5	U	2.5	5
11996	**Vinyl Chloride**	75-01-4	**400**	**E**	1.0	5
11996	m,p-Xylene	179601-23-1	2.5	U	2.5	5
11996	o-Xylene	95-47-6	2.5	U	2.5	5
Trial ID: DL						
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50

Sample Description: PL2-212A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656133
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:20 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2212A SDG#: BNF99-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**420**		10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**13**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**450**		10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below

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Analysis Report

Sample Description: PL2-212A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656133
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:20 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2212A SDG#: BNF99-08

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
the reporting limit.						
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**		**ug/l**	
07105	**Ethane**	74-84-0	**700**	**E**	5.0	1
07105	**Ethene**	74-85-1	**290**		5.0	1
07105	**Methane**	74-82-8	**11,000**	**E**	5.0	1
Trial ID: DL						
07105	**Ethane**	74-84-0	**1,100**		500	100
07105	Ethene	74-85-1	500	U	500	100
07105	**Methane**	74-82-8	**16,000**		500	100

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 18:59	Kerri E Legerlotz	5
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143041AA	10/31/2014 19:19	Kerri E Legerlotz	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 18:59	Kerri E Legerlotz	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143041AA	10/31/2014 19:19	Kerri E Legerlotz	50
07105	MEE by RSK-175	RSKSOP-175 modified	1	143070027A	11/03/2014 22:15	Nicholas R Rossi	1
07105	MEE by RSK-175	RSKSOP-175 modified	2-DL	143070027A	11/04/2014 11:49	Nicholas R Rossi	100

Sample Description: Dup1 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656134
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP1 SDG#: BNF99-09FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	25	U	25	5
11996	Acrolein	107-02-8	130	U	130	5
11996	Acrylonitrile	107-13-1	25	U	25	5
11996	Benzene	71-43-2	1.0	U	1.0	5
11996	Bromobenzene	108-86-1	2.5	U	2.5	5
11996	Bromochloromethane	74-97-5	2.5	U	2.5	5
11996	Bromodichloromethane	75-27-4	2.5	U	2.5	5
11996	Bromoform	75-25-2	2.5	U	2.5	5
11996	Bromomethane	74-83-9	2.5	U	2.5	5
11996	2-Butanone	78-93-3	25	U	25	5
11996	n-Butylbenzene	104-51-8	2.5	U	2.5	5
11996	sec-Butylbenzene	135-98-8	2.5	U	2.5	5
11996	tert-Butylbenzene	98-06-6	2.5	U	2.5	5
11996	Carbon Disulfide	75-15-0	2.5	U	2.5	5
11996	Carbon Tetrachloride	56-23-5	1.0	U	1.0	5
11996	Chlorobenzene	108-90-7	2.5	U	2.5	5
11996	Chloroethane	75-00-3	2.5	U	2.5	5
11996	Chloroform	67-66-3	1.0	U	1.0	5
11996	Chloromethane	74-87-3	2.5	U	2.5	5
11996	2-Chlorotoluene	95-49-8	2.5	U	2.5	5
11996	4-Chlorotoluene	106-43-4	2.5	U	2.5	5
11996	1,2-Dibromo-3-chloropropane	96-12-8	2.5	U	2.5	5
11996	Dibromochloromethane	124-48-1	2.5	U	2.5	5
11996	Dibromomethane	74-95-3	2.5	U	2.5	5
11996	trans-1,4-Dichloro-2-butene	110-57-6	25	U	25	5
11996	1,2-Dichlorobenzene	95-50-1	2.5	U	2.5	5
11996	1,3-Dichlorobenzene	541-73-1	2.5	U	2.5	5
11996	1,4-Dichlorobenzene	106-46-7	2.5	U	2.5	5
11996	1,1-Dichloroethane	75-34-3	2.5	U	2.5	5
11996	1,2-Dichloroethane	107-06-2	1.0	U	1.0	5
11996	1,1-Dichloroethene	75-35-4	1.0	U	1.0	5
11996	**cis-1,2-Dichloroethene**	156-59-2	**450**	**E**	1.0	5
11996	**trans-1,2-Dichloroethene**	156-60-5	**1.2**		1.0	5
11996	1,2-Dichloropropane	78-87-5	2.5	U	2.5	5
11996	1,3-Dichloropropane	142-28-9	2.5	U	2.5	5
11996	2,2-Dichloropropane	594-20-7	2.5	U	2.5	5
11996	1,1-Dichloropropene	563-58-6	2.5	U	2.5	5
11996	cis-1,3-Dichloropropene	10061-01-5	1.0	U	1.0	5
11996	trans-1,3-Dichloropropene	10061-02-6	1.0	U	1.0	5
11996	Ethylbenzene	100-41-4	2.5	U	2.5	5
11996	Ethylene dibromide	106-93-4	2.5	U	2.5	5
11996	Hexachlorobutadiene	87-68-3	2.5	U	2.5	5
11996	2-Hexanone	591-78-6	25	U	25	5
11996	Isopropylbenzene	98-82-8	2.5	U	2.5	5
11996	4-Isopropyltoluene	99-87-6	2.5	U	2.5	5
11996	Methyl Iodide	74-88-4	2.5	U	2.5	5
11996	4-Methyl-2-pentanone	108-10-1	25	U	25	5
11996	Methylene Chloride	75-09-2	2.5	U	2.5	5
11996	Naphthalene	91-20-3	2.5	U	2.5	5
11996	n-Propylbenzene	103-65-1	2.5	U	2.5	5
11996	Styrene	100-42-5	2.5	U	2.5	5

Sample Description: Dup1 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656134
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP1 SDG#: BNF99-09FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	2.5	U	2.5	5
11996	1,1,2,2-Tetrachloroethane	79-34-5	1.0	U	1.0	5
11996	Tetrachloroethene	127-18-4	1.0	U	1.0	5
11996	Toluene	108-88-3	1.0	U	1.0	5
11996	112Trichloro122Trifluoroethane	76-13-1	2.5	U	2.5	5
11996	1,2,3-Trichlorobenzene	87-61-6	2.5	U	2.5	5
11996	1,2,4-Trichlorobenzene	120-82-1	2.5	U	2.5	5
11996	1,1,1-Trichloroethane	71-55-6	2.5	U	2.5	5
11996	1,1,2-Trichloroethane	79-00-5	1.0	U	1.0	5
11996	**Trichloroethene**	79-01-6	**15**		1.0	5
11996	Trichlorofluoromethane	75-69-4	2.5	U	2.5	5
11996	1,2,3-Trichloropropane	96-18-4	5.0	U	5.0	5
11996	1,2,4-Trimethylbenzene	95-63-6	2.5	U	2.5	5
11996	1,3,5-Trimethylbenzene	108-67-8	2.5	U	2.5	5
11996	Vinyl Acetate	108-05-4	2.5	U	2.5	5
11996	**Vinyl Chloride**	75-01-4	**440**	**E**	1.0	5
11996	m,p-Xylene	179601-23-1	2.5	U	2.5	5
11996	o-Xylene	95-47-6	2.5	U	2.5	5
Trial ID: DL						
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50

Sample Description: Dup1 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656134
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP1 SDG#: BNF99-09FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**460**		10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**16**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**470**		10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside

Sample Description: Dup1 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656134
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP1 SDG#: BNF99-09FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor

the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143071AA	11/03/2014 13:14	Kerri E Legerlotz	5
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143071AA	11/03/2014 13:35	Kerri E Legerlotz	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143071AA	11/03/2014 13:14	Kerri E Legerlotz	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143071AA	11/03/2014 13:35	Kerri E Legerlotz	50

Sample Description: IW-N6-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656135
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNF99-10

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**5.8**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.9**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**7.3**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: IW-N6-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656135
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNF99-10

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**0.3**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**6.6**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**14.1**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 14:45	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 14:45	Kerri E Legerlotz	1

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Analysis Report

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Sample Description: IW-N6-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656135
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 14:53 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNF99-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14309049502A	11/05/2014 02:54	James S Mathiot	1

Sample Description: PL2-209A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656136
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 15:29 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2209A SDG#: BNF99-11

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209A-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656136
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 15:29 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2209A SDG#: BNF99-11

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 15:07	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 15:07	Kerri E Legerlotz	1

Sample Description: PL2-209B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656137
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 15:54 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2209B SDG#: BNF99-12

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209B-102814 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656137
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 15:54 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2209B SDG#: BNF99-12

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 15:28	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 15:28	Kerri E Legerlotz	1

Sample Description: PL2-253A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656138
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 10:10 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2253A SDG#: BNF99-13

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-253A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656138
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 10:10 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2253A SDG#: BNF99-13

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 15:49	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 15:49	Kerri E Legerlotz	1

Sample Description: IW-513-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656139
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 10:40 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW513 SDG#: BNF99-14

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**8.2**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**23**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**15**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-513-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656139
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 10:40 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW513 SDG#: BNF99-14

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**0.6**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**221**		10.0	10

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 16:52	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 16:52	Kerri E Legerlotz	1

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: IW-513-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656139
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 10:40 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW513 SDG#: BNF99-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14310049501A	11/06/2014 01:57	James S Mathiot	10

Sample Description: PL2-256A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656140
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:10 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2256A SDG#: BNF99-15

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-256A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656140
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:10 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2256A SDG#: BNF99-15

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 16:10	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 16:10	Kerri E Legerlotz	1

Sample Description: IW-512-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656141
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:51 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW512 SDG#: BNF99-16

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**74**		50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	**2-Butanone**	78-93-3	**250**		50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10
11996	cis-1,2-Dichloroethene	156-59-2	2.0	U	2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	**4-Isopropyltoluene**	99-87-6	**7.3**		5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10

Sample Description: IW-512-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656141
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:51 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW512 SDG#: BNF99-16

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	**Toluene**	108-88-3	**1,100**	**E**	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	Vinyl Chloride	75-01-4	2.0	U	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10
Trial ID: DL						
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100

Sample Description: IW-512-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656141
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:51 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW512 SDG#: BNF99-16

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	cis-1,2-Dichloroethene	156-59-2	20	U	20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	**Toluene**	108-88-3	**1,100**		20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	Trichloroethene	79-01-6	20	U	20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	Vinyl Chloride	75-01-4	20	U	20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside

Sample Description: IW-512-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656141
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 11:51 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW512 SDG#: BNF99-16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor
	the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.				
Wet Chemistry		**SM 5310 C-2000**	**mg/l**	**mg/l**	
00273	**Total Organic Carbon**	n.a.	**181**	5.0	5

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143071AA	11/03/2014 13:56	Kerri E Legerlotz	10
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143071AA	11/03/2014 14:17	Kerri E Legerlotz	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143071AA	11/03/2014 13:56	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143071AA	11/03/2014 14:17	Kerri E Legerlotz	100
00273	Total Organic Carbon	SM 5310 C-2000	1	14310049501A	11/06/2014 02:12	James S Mathiot	5

Sample Description: PL2-257A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656142
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 14:13 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2257A SDG#: BNF99-17

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**26**	**E**	0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.4**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-257A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656142
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 14:13 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2257A SDG#: BNF99-17

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.7**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**5.5**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10

Sample Description: PL2-257A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656142
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 14:13 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2257A SDG#: BNF99-17

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**22**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**4.8**		2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below

Sample Description: PL2-257A-102914 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656142
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 14:13 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2257A SDG#: BNF99-17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor

the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 17:34	Kerri E Legerlotz	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143041AA	10/31/2014 17:55	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 17:34	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143041AA	10/31/2014 17:55	Kerri E Legerlotz	10

Sample Description: Dup2 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656143
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP2 SDG#: BNF99-18FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**27**	**E**	0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.4**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Dup2 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656143
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP2 SDG#: BNF99-18FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.9**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**5.8**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10

Sample Description: Dup2 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656143
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP2 SDG#: BNF99-18FD

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	**cis-1,2-Dichloroethene**	156-59-2	**23**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**4.3**		2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Sample Description: Dup2 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656143
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/29/2014 07:00 by CG

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2DUP2 SDG#: BNF99-18FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Dilution Factor

Analyte	Response (%Drift)
naphthalene	-25%
1,2,3-trichlorobenzene	-24%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 16:31	Kerri E Legerlotz	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H143071AA	11/03/2014 12:53	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 16:31	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H143071AA	11/03/2014 12:53	Kerri E Legerlotz	10

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656144
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 08:00

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210TB SDG#: BNF99-19TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7656144
LL Group # 1514893
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 10/28/2014 08:00

Submitted: 10/30/2014 09:15
Reported: 11/10/2014 10:34

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210TB SDG#: BNF99-19TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-21%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H143041AA	10/31/2014 12:18	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H143041AA	10/31/2014 12:18	Kerri E Legerlotz	1

Quality Control Summary

Client Name: The Boeing Company Group Number: 1514893
Reported: 11/10/14 at 10:34 AM

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H143041AA	Sample number(s): 7656126-7656133,7656135-7656140,7656142-7656144								
Acetone	5.0	U	5.0	ug/l	83	93	60-139	12	30
Acrolein	25	U	25.	ug/l	87	94	36-137	7	30
Acrylonitrile	5.0	U	5.0	ug/l	96	109	64-141	12	30
Benzene	0.2	U	0.2	ug/l	101	99	80-120	2	30
Bromobenzene	0.5	U	0.5	ug/l	97	98	80-120	2	30
Bromochloromethane	0.5	U	0.5	ug/l	113	114	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	91	91	80-120	1	30
Bromoform	0.5	U	0.5	ug/l	101	102	72-138	1	30
Bromomethane	0.5	U	0.5	ug/l	94	98	62-126	4	30
2-Butanone	5.0	U	5.0	ug/l	90	100	63-137	10	30
n-Butylbenzene	0.5	U	0.5	ug/l	92	92	80-120	0	30
sec-Butylbenzene	0.5	U	0.5	ug/l	92	94	80-120	1	30
tert-Butylbenzene	0.5	U	0.5	ug/l	91	93	80-120	2	30
Carbon Disulfide	0.5	U	0.5	ug/l	102	100	70-128	2	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	100	98	80-135	2	30
Chlorobenzene	0.5	U	0.5	ug/l	98	99	80-120	1	30
Chloroethane	0.5	U	0.5	ug/l	96	101	68-120	5	30
Chloroform	0.2	U	0.2	ug/l	94	93	80-120	0	30
Chloromethane	0.5	U	0.5	ug/l	105	106	55-120	1	30
2-Chlorotoluene	0.5	U	0.5	ug/l	92	93	80-120	2	30
4-Chlorotoluene	0.5	U	0.5	ug/l	93	96	80-120	3	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	101	117	64-141	15	30
Dibromochloromethane	0.5	U	0.5	ug/l	98	100	80-126	2	30
Dibromomethane	0.5	U	0.5	ug/l	98	102	80-120	4	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	100	111	14-166	11	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	95	97	80-120	2	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	96	98	80-120	2	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	96	98	80-120	2	30
1,1-Dichloroethane	0.5	U	0.5	ug/l	97	98	80-120	1	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	93	93	76-132	0	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	98	98	80-123	0	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	99	98	80-120	1	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	101	99	80-120	2	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	102	103	80-120	0	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	93	96	80-120	3	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	94	90	60-139	4	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	103	102	80-120	2	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	97	98	80-120	1	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	93	95	80-120	2	30
Ethylbenzene	0.5	U	0.5	ug/l	93	93	80-120	0	30
Ethylene dibromide	0.5	U	0.5	ug/l	97	100	80-120	3	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	88	89	80-120	2	30
2-Hexanone	5.0	U	5.0	ug/l	86	95	72-124	11	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1514893
Reported: 11/10/14 at 10:34 AM

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	91	91	80-120	1	30
Methyl Iodide	0.5	U	0.5	ug/l	101	101	80-129	0	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	90	99	71-123	10	30
Methylene Chloride	0.5	U	0.5	ug/l	99	99	80-120	0	30
Naphthalene	0.5	U	0.5	ug/l	77	83	72-120	7	30
n-Propylbenzene	0.5	U	0.5	ug/l	90	91	80-120	1	30
Styrene	0.5	U	0.5	ug/l	97	97	80-120	0	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	97	97	80-120	0	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	88	91	80-120	4	30
Tetrachloroethene	0.2	U	0.2	ug/l	101	99	80-120	2	30
Toluene	0.2	U	0.2	ug/l	97	96	80-120	0	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	98	97	73-127	1	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	78	85	75-120	9	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	83	88	80-120	5	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	91	91	80-120	1	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	94	97	80-120	3	30
Trichloroethene	0.2	U	0.2	ug/l	99	98	80-120	1	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	100	98	64-141	1	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	90	95	80-120	6	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	91	93	80-120	2	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	91	93	80-120	2	30
Vinyl Acetate	0.5	U	0.5	ug/l	156*	153*	38-145	2	30
Vinyl Chloride	0.2	U	0.2	ug/l	107	108	59-124	0	30
m,p-Xylene	0.5	U	0.5	ug/l	98	99	80-120	0	30
o-Xylene	0.5	U	0.5	ug/l	96	97	80-120	1	30
Batch number: H143071AA	Sample number(s): 7656128,7656134,7656141,7656143								
Acetone	5.0	U	5.0	ug/l	94	97	60-139	3	30
Acrolein	25	U	25.	ug/l	85	89	36-137	4	30
Acrylonitrile	5.0	U	5.0	ug/l	109	112	64-141	3	30
Benzene	0.2	U	0.2	ug/l	108	108	80-120	0	30
Bromobenzene	0.5	U	0.5	ug/l	96	98	80-120	2	30
Bromochloromethane	0.5	U	0.5	ug/l	121	121	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	95	97	80-120	2	30
Bromoform	0.5	U	0.5	ug/l	105	110	72-138	5	30
Bromomethane	0.5	U	0.5	ug/l	98	100	62-126	2	30
2-Butanone	5.0	U	5.0	ug/l	102	103	63-137	1	30
n-Butylbenzene	0.5	U	0.5	ug/l	92	90	80-120	1	30
sec-Butylbenzene	0.5	U	0.5	ug/l	93	93	80-120	0	30
tert-Butylbenzene	0.5	U	0.5	ug/l	90	92	80-120	1	30
Carbon Disulfide	0.5	U	0.5	ug/l	113	111	70-128	1	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	108	104	80-135	4	30
Chlorobenzene	0.5	U	0.5	ug/l	103	104	80-120	1	30
Chloroethane	0.5	U	0.5	ug/l	100	100	68-120	1	30
Chloroform	0.2	U	0.2	ug/l	101	100	80-120	0	30
Chloromethane	0.5	U	0.5	ug/l	104	106	55-120	2	30
2-Chlorotoluene	0.5	U	0.5	ug/l	91	93	80-120	2	30
4-Chlorotoluene	0.5	U	0.5	ug/l	94	95	80-120	2	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	114	121	64-141	6	30
Dibromochloromethane	0.5	U	0.5	ug/l	102	104	80-126	3	30
Dibromomethane	0.5	U	0.5	ug/l	108	110	80-120	2	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	108	109	14-166	1	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	94	98	80-120	3	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	96	97	80-120	1	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	95	97	80-120	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1514893
Reported: 11/10/14 at 10:34 AM

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	0.5	U	0.5	ug/l	105	105	80-120	0	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	97	100	76-132	3	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	108	107	80-123	1	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	106	105	80-120	1	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	109	107	80-120	1	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	109	109	80-120	0	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	99	101	80-120	3	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	99	97	60-139	2	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	111	110	80-120	1	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	104	106	80-120	2	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	98	100	80-120	1	30
Ethylbenzene	0.5	U	0.5	ug/l	98	98	80-120	0	30
Ethylene dibromide	0.5	U	0.5	ug/l	100	104	80-120	3	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	87	87	80-120	0	30
2-Hexanone	5.0	U	5.0	ug/l	96	100	72-124	3	30
Isopropylbenzene	0.5	U	0.5	ug/l	100	101	80-120	1	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	91	91	80-120	0	30
Methyl Iodide	0.5	U	0.5	ug/l	111	111	80-129	0	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	103	103	71-123	0	30
Methylene Chloride	0.5	U	0.5	ug/l	107	108	80-120	1	30
Naphthalene	0.5	U	0.5	ug/l	76	83	72-120	9	30
n-Propylbenzene	0.5	U	0.5	ug/l	90	90	80-120	0	30
Styrene	0.5	U	0.5	ug/l	101	103	80-120	2	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	100	102	80-120	2	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	88	90	80-120	2	30
Tetrachloroethene	0.2	U	0.2	ug/l	106	106	80-120	1	30
Toluene	0.2	U	0.2	ug/l	102	102	80-120	0	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	106	106	73-127	0	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	79	84	75-120	7	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	84	88	80-120	5	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	99	98	80-120	2	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	98	99	80-120	1	30
Trichloroethene	0.2	U	0.2	ug/l	106	105	80-120	0	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	101	99	64-141	2	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	90	93	80-120	3	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	93	92	80-120	0	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	91	92	80-120	2	30
Vinyl Acetate	0.5	U	0.5	ug/l	157*	153*	38-145	2	30
Vinyl Chloride	0.2	U	0.2	ug/l	108	107	59-124	1	30
m,p-Xylene	0.5	U	0.5	ug/l	103	104	80-120	0	30
o-Xylene	0.5	U	0.5	ug/l	101	102	80-120	1	30

Batch number: 143070027A Sample number(s): 7656128-7656129,7656133

Ethane	5.0	U	5.0	ug/l	96	85-115
Ethene	5.0	U	5.0	ug/l	95	83-115
Methane	5.0	U	5.0	ug/l	94	85-115

Batch number: 14309049502A Sample number(s): 7656130-7656132,7656135

Total Organic Carbon	1.0	U	1.0	mg/l	99	91-113

Batch number: 14310049501A Sample number(s): 7656139,7656141

Total Organic Carbon	1.0	U	1.0	mg/l	105	91-113

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1514893
Reported: 11/10/14 at 10:34 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: H143071AA	Sample number(s): 7656128,7656134,7656141,7656143 UNSPK: P654653								
Acetone	86	88	57-163	1	30				
Acrolein	78	88	29-149	12	30				
Acrylonitrile	98	98	56-161	0	30				
Benzene	106	95	87-126	11	30				
Bromobenzene	98	94	80-123	4	30				
Bromochloromethane	117	107	82-125	9	30				
Bromodichloromethane	96	88	82-133	8	30				
Bromoform	103	99	60-138	3	30				
Bromomethane	97	95	66-130	2	30				
2-Butanone	93	95	56-160	1	30				
n-Butylbenzene	97	89	83-131	9	30				
sec-Butylbenzene	98	90	84-128	9	30				
tert-Butylbenzene	93	87	84-135	7	30				
Carbon Disulfide	114	101	84-141	12	30				
Carbon Tetrachloride	109	97	81-148	12	30				
Chlorobenzene	102	96	78-133	6	30				
Chloroethane	101	98	70-139	3	30				
Chloroform	99	90	86-136	10	30				
Chloromethane	106	104	49-135	1	30				
2-Chlorotoluene	95	88	84-122	8	30				
4-Chlorotoluene	97	91	76-134	6	30				
1,2-Dibromo-3-chloropropane	106	104	53-163	2	30				
Dibromochloromethane	101	95	79-125	5	30				
Dibromomethane	104	97	83-126	7	30				
trans-1,4-Dichloro-2-butene	95	99	11-172	4	30				
1,2-Dichlorobenzene	98	94	83-117	5	30				
1,3-Dichlorobenzene	98	93	79-132	6	30				
1,4-Dichlorobenzene	99	94	79-120	5	30				
1,1-Dichloroethane	105	93	81-126	13	30				
1,2-Dichloroethane	98	89	82-135	9	30				
1,1-Dichloroethene	110	97	86-132	13	30				
cis-1,2-Dichloroethene	103	93	82-129	10	30				
trans-1,2-Dichloroethene	108	94	88-127	14	30				
1,2-Dichloropropane	108	98	91-126	10	30				
1,3-Dichloropropane	98	93	80-127	6	30				
2,2-Dichloropropane	100	88	80-134	13	30				
1,1-Dichloropropene	113	101	86-139	11	30				
cis-1,3-Dichloropropene	101	94	74-132	7	30				
trans-1,3-Dichloropropene	95	91	71-128	5	30				
Ethylbenzene	98	90	80-140	8	30				
Ethylene dibromide	100	96	84-127	5	30				
Hexachlorobutadiene	93	87	65-128	7	30				
2-Hexanone	88	91	51-149	4	30				
Isopropylbenzene	99	91	81-133	8	30				
4-Isopropyltoluene	95	88	84-124	8	30				
Methyl Iodide	107	95	71-137	13	30				
4-Methyl-2-pentanone	93	94	69-149	1	30				
Methylene Chloride	105	93	77-135	12	30				
Naphthalene	77	80	56-132	3	30				
n-Propylbenzene	95	87	79-131	8	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1514893
Reported: 11/10/14 at 10:34 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Styrene	100	94	71-138	7	30				
1,1,1,2-Tetrachloroethane	100	93	87-126	7	30				
1,1,2,2-Tetrachloroethane	89	90	75-131	1	30				
Tetrachloroethene	107	97	75-129	10	30				
Toluene	102	92	83-127	10	30				
112Trichloro122Trifluoroethane	113	96	84-136	16	30				
1,2,3-Trichlorobenzene	81	79	73-125	3	30				
1,2,4-Trichlorobenzene	85	83	77-120	3	30				
1,1,1-Trichloroethane	100	89	85-140	11	30				
1,1,2-Trichloroethane	96	91	85-129	6	30				
Trichloroethene	105	95	85-131	9	30				
Trichlorofluoromethane	104	99	73-139	4	30				
1,2,3-Trichloropropane	94	93	76-120	1	30				
1,2,4-Trimethylbenzene	95	88	87-126	8	30				
1,3,5-Trimethylbenzene	95	87*	89-129	8	30				
Vinyl Acetate	171*	157	27-162	8	30				
Vinyl Chloride	107	107	62-135	0	30				
m,p-Xylene	104	95	81-137	9	30				
o-Xylene	100	92	81-137	9	30				
Batch number: 143070027A	Sample number(s): 7656128-7656129,7656133 UNSPK: 7656128								
Ethane	72	61	53-122	17	20				
Ethene	76	64	35-162	18	20				
Methane	66	61	46-129	4	20				
Batch number: 14309049502A	Sample number(s): 7656130-7656132,7656135 UNSPK: P657918 BKG: P657918								
Total Organic Carbon	103		63-142			1.8	1.9	4 (1)	4
Batch number: 14310049501A	Sample number(s): 7656139,7656141 UNSPK: P660371 BKG: P660371								
Total Organic Carbon	99		63-142			7.7	8.1	4	4

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H143041AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7656126	103	109	96	91
7656127	105	112	95	91
7656128	104	110	97	90
DL				
7656129	103	111	98	92
7656130	103	111	98	91
7656131	103	111	97	92
7656132	103	106	98	92
7656133	104	108	97	90
7656133	104	108	97	91

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/10/14 at 10:34 AM

Group Number: 1514893

Surrogate Quality Control

DL				
7656135	103	108	97	91
7656136	102	108	96	90
7656137	103	113	95	92
7656138	103	108	97	91
7656139	102	108	97	92
7656140	103	109	97	92
7656142	103	108	96	91
7656142	103	108	98	92
DL				
7656143	103	108	98	91
7656144	102	107	98	90
Blank	102	110	97	91
LCS	100	105	98	95
LCSD	101	109	99	96
Limits:	77-114	74-113	77-110	78-110

Analysis Name: 8260C Boeing 69
Batch number: H143071AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7656128	105	116*	95	93
7656128	108	114*	94	92
RE				
7656134	103	109	96	92
7656134	105	111	97	91
DL				
7656141	104	111	95	91
7656141	105	107	95	91
DL				
7656143	105	113	96	91
DL				
Blank	102	105	96	93
LCS	101	109	95	98
LCSD	102	107	97	97
MS	103	108	97	95
MSD	102	108	97	96
Limits:	77-114	74-113	77-110	78-110

Analysis Name: MEE by RSK-175
Batch number: 143070027A

	Propene
7656128	66
7656129	66
7656129	102
DL	
7656133	63
7656133	105
DL	
Blank	92
LCS	102
MS	65
MSD	64
Limits:	47-116

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/10/14 at 10:34 AM

Group Number: 1514893

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Boeing Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # 13419 Group # 1514893 Sample # 7656126-44
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10
Site Project: 2-10 IM
Site Program/#: K0211000
Boeing PM: Will Ernst
Consultant Contact: Tom McKeon, Grant Dawson
Report To: Will Ernst, Tom McKeon, Grant Dawson
Invoice To: ☒ Boeing EHS ☐ Other (specify):
Sampler: Chris Gallagher # of Coolers: 2

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC 8260C	MEE RSK-175	TOC
PL2-258A-102814	10/28/14	0938	aq	3	X		
PL2-258B-102814	↓	1009	aq	3	X		
PL2-218B-102814		1053	aq	5	X	X	
PL2-218A-102814		1121	aq	5	X	X	
IW-N4-102814		1153	aq	5	X		X
IW-N5-102814		1318	aq	5	X		X
IW-N1-102814		1349	aq	5	X		X
PL2-212A-102814		1420	aq	5	X	X	
Dup1		0700	aq	3	X		
IW-N6-102814		1453	aq	5	X		X
PL2-209A-102814		1529	aq	5	X		
PL2-209B-102814	↓	1554	aq	3	X		
PL2-253A-102914	10/29/14	1010	aq	3	X		
IW-S13-102914	↓	1040	aq	5	X		X
PL2-256A-102914	↓	1110	aq	3	X		

Remarks/Comments: VOC + MEE Samples collected into unpreserved bottles

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]	10/29/14 1524		
		[signature]	10/30/14 915

Relinquished by commercial carrier (circle): UPS FedEx Other: _____
Temperature upon Receipt: 0.5-0.9 °C
Custody Seals Intact?: Yes No

Page 1 of 5

Boeing Chain of Custody

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Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1514893 Sample # 7656126-44

Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10

Site Project: 2-10 IM

Site Program/#:

Boeing PM: Will Ernst

Consultant Contact: Tom McKeon / Grant Dawson

Report To: Will Ernst, Tom McKeon, Grant Dawson

Invoice To: ☒ Boeing EHS ☐ Other (specify):

Sampler: Chris Gallagher # of Coolers: 2

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC 8260C	MEE RSK-175	TOC	5 Remarks/Comments
IW-512-102914	10/29/14	1151	aq	5	X		X	VOC + MEE Samples are collected into unpreserved bottles
PC2-257A-102914	10/29/14	1415	aq	3	X			
Dup 2	10/26/14	0700	aq	3	X			
Trip Blank	10/28/14	0800	aq	2	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]	1029-14 1524		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by: [signature]	Date/Time 10301415

Relinquished by commercial carrier (circle): UPS FedEx Other:

Temperature upon Receipt: 0.3-0 °C

Custody Seals Intact?: Yes No

Page 7 of 7

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Sample Administration Receipt Documentation Log

Doc Log ID: 37373

Group Number(s): 1514893

Client: Boeing

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	10/30/2014 9:15
Number of Packages:	2	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

Unpacked by Brandy Barclay (2299) at 12:36 on 10/30/2014

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.3	DT	Wet	Y	Bagged	N
2	DT146	0.7	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
PL2-209A-102814	3	5	

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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LANCASTER, PA 17601
(717) 656-2300

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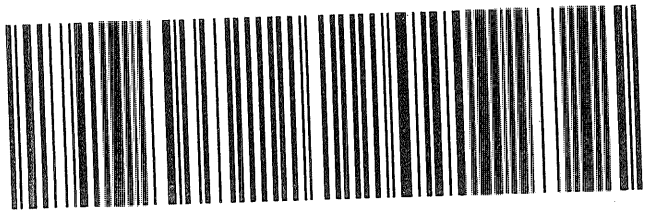

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SAMPLE RECEIVING
LANCASTER LABORATORIES
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LANCASTER, PA 17601
(717) 656-2300

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17601
PA–US MDT

1514893

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

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

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Groundwater Monitoring Laboratory Data Sheets (March 2015)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

March 13, 2015

Project: Boeing Plant 2 2-10 IM

Submittal Date: 03/09/2015
Group Number: 1543602
SDG: BNG32
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-257A-030415 Water	7796255
PL2-218B-030415 Water	7796256
PL2-218A-030415 Water	7796257
IW-N4-030415 Water	7796258
PL2-212A-030415 Water	7796259
IW-N6-030415 Water	7796260
PL2-209A Water	7796261
PL2-256A Water	7796262
PL2-253A Water	7796263
PL2-216A Water	7796264
Dup-030415 Water	7796265
Trip Blank Water	7796266

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

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COPY TO
ELECTRONIC COPY TO CALIBRE Attn: Grant Dawson

Respectfully Submitted,

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1543602

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 7796255, 7796256, 7796257, 7796258, 7796259, 7796260, 7796261, 7796262, 7796263, 7796264, 7796265, 7796266

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

Batch #: I150691AA (Sample number(s): 7796255-7796266)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 1,2-Dibromo-3-chloropropane

Sample Description: PL2-257A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796255
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 11:56 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-1 SDG#: BNG32-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**27**	**E**	0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-257A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796255
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 11:56 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-1 SDG#: BNG32-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**1**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.8**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10

Sample Description: PL2-257A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796255
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 11:56 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-1 SDG#: BNG32-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**23**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	Vinyl Chloride	75-01-4	2.0	U	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

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Analysis Report

Sample Description: PL2-257A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796255
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 11:56 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-1 SDG#: BNG32-01

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 16:56	Jason M Long	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	I150691AA	03/10/2015 17:17	Jason M Long	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 16:56	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	I150691AA	03/10/2015 17:17	Jason M Long	10

Sample Description: PL2-218B-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796256
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 12:51 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-2 SDG#: BNG32-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	25	U	25	5
11996	Acrolein	107-02-8	130	U	130	5
11996	Acrylonitrile	107-13-1	25	U	25	5
11996	Benzene	71-43-2	1.0	U	1.0	5
11996	Bromobenzene	108-86-1	2.5	U	2.5	5
11996	Bromochloromethane	74-97-5	2.5	U	2.5	5
11996	Bromodichloromethane	75-27-4	2.5	U	2.5	5
11996	Bromoform	75-25-2	2.5	U	2.5	5
11996	Bromomethane	74-83-9	2.5	U	2.5	5
11996	2-Butanone	78-93-3	25	U	25	5
11996	n-Butylbenzene	104-51-8	2.5	U	2.5	5
11996	sec-Butylbenzene	135-98-8	2.5	U	2.5	5
11996	tert-Butylbenzene	98-06-6	2.5	U	2.5	5
11996	Carbon Disulfide	75-15-0	2.5	U	2.5	5
11996	Carbon Tetrachloride	56-23-5	1.0	U	1.0	5
11996	Chlorobenzene	108-90-7	2.5	U	2.5	5
11996	Chloroethane	75-00-3	2.5	U	2.5	5
11996	Chloroform	67-66-3	1.0	U	1.0	5
11996	Chloromethane	74-87-3	2.5	U	2.5	5
11996	2-Chlorotoluene	95-49-8	2.5	U	2.5	5
11996	4-Chlorotoluene	106-43-4	2.5	U	2.5	5
11996	1,2-Dibromo-3-chloropropane	96-12-8	2.5	U	2.5	5
11996	Dibromochloromethane	124-48-1	2.5	U	2.5	5
11996	Dibromomethane	74-95-3	2.5	U	2.5	5
11996	trans-1,4-Dichloro-2-butene	110-57-6	25	U	25	5
11996	1,2-Dichlorobenzene	95-50-1	2.5	U	2.5	5
11996	1,3-Dichlorobenzene	541-73-1	2.5	U	2.5	5
11996	1,4-Dichlorobenzene	106-46-7	2.5	U	2.5	5
11996	1,1-Dichloroethane	75-34-3	2.5	U	2.5	5
11996	1,2-Dichloroethane	107-06-2	1.0	U	1.0	5
11996	1,1-Dichloroethene	75-35-4	1.0	U	1.0	5
11996	**cis-1,2-Dichloroethene**	156-59-2	**160**	**E**	1.0	5
11996	trans-1,2-Dichloroethene	156-60-5	1.0	U	1.0	5
11996	1,2-Dichloropropane	78-87-5	2.5	U	2.5	5
11996	1,3-Dichloropropane	142-28-9	2.5	U	2.5	5
11996	2,2-Dichloropropane	594-20-7	2.5	U	2.5	5
11996	1,1-Dichloropropene	563-58-6	2.5	U	2.5	5
11996	cis-1,3-Dichloropropene	10061-01-5	1.0	U	1.0	5
11996	trans-1,3-Dichloropropene	10061-02-6	1.0	U	1.0	5
11996	Ethylbenzene	100-41-4	2.5	U	2.5	5
11996	Ethylene dibromide	106-93-4	2.5	U	2.5	5
11996	Hexachlorobutadiene	87-68-3	2.5	U	2.5	5
11996	2-Hexanone	591-78-6	25	U	25	5
11996	Isopropylbenzene	98-82-8	2.5	U	2.5	5
11996	4-Isopropyltoluene	99-87-6	2.5	U	2.5	5
11996	Methyl Iodide	74-88-4	2.5	U	2.5	5
11996	4-Methyl-2-pentanone	108-10-1	25	U	25	5
11996	Methylene Chloride	75-09-2	2.5	U	2.5	5
11996	Naphthalene	91-20-3	2.5	U	2.5	5
11996	n-Propylbenzene	103-65-1	2.5	U	2.5	5
11996	Styrene	100-42-5	2.5	U	2.5	5

Sample Description: PL2-218B-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796256
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 12:51 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-2 SDG#: BNG32-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	2.5	U	2.5	5
11996	1,1,2,2-Tetrachloroethane	79-34-5	1.0	U	1.0	5
11996	Tetrachloroethene	127-18-4	1.0	U	1.0	5
11996	Toluene	108-88-3	1.0	U	1.0	5
11996	112Trichloro122Trifluoroethane	76-13-1	2.5	U	2.5	5
11996	1,2,3-Trichlorobenzene	87-61-6	2.5	U	2.5	5
11996	1,2,4-Trichlorobenzene	120-82-1	2.5	U	2.5	5
11996	1,1,1-Trichloroethane	71-55-6	2.5	U	2.5	5
11996	1,1,2-Trichloroethane	79-00-5	1.0	U	1.0	5
11996	Trichloroethene	79-01-6	1.0	U	1.0	5
11996	Trichlorofluoromethane	75-69-4	2.5	U	2.5	5
11996	1,2,3-Trichloropropane	96-18-4	5.0	U	5.0	5
11996	1,2,4-Trimethylbenzene	95-63-6	2.5	U	2.5	5
11996	1,3,5-Trimethylbenzene	108-67-8	2.5	U	2.5	5
11996	Vinyl Acetate	108-05-4	2.5	U	2.5	5
11996	Vinyl Chloride	75-01-4	1.0	U	1.0	5
11996	m,p-Xylene	179601-23-1	2.5	U	2.5	5
11996	o-Xylene	95-47-6	2.5	U	2.5	5
Trial ID: DL						
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50

Sample Description: PL2-218B-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796256
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 12:51 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-2 SDG#: BNG32-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**150**		10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	Trichloroethene	79-01-6	10	U	10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	Vinyl Chloride	75-01-4	10	U	10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

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Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: PL2-218B-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796256
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 12:51 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-2 SDG#: BNG32-02

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 17:38	Jason M Long	5
11996	8260C Boeing 69	SW-846 8260C	2-DL	I150691AA	03/10/2015 17:59	Jason M Long	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 17:38	Jason M Long	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	I150691AA	03/10/2015 17:59	Jason M Long	50

Sample Description: PL2-218A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796257
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 13:27 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-3 SDG#: BNG32-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.7**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-218A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796257
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 13:27 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-3 SDG#: BNG32-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**3.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 14:27	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 14:27	Jason M Long	1

Sample Description: IW-N4-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796258
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 14:03 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-4 SDG#: BNG32-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**41**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**40**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**2.9**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-N4-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796258
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 14:03 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-4 SDG#: BNG32-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**3.3**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**102**		5.0	5

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 14:49	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 14:49	Jason M Long	1
00273	Total Organic Carbon	SM 5310 C-2000	1	15070049501B	03/12/2015 04:40	James S Mathiot	5

Sample Description: PL2-212A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796259
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 15:40 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-5 SDG#: BNG32-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	25	U	25	5
11996	Acrolein	107-02-8	130	U	130	5
11996	Acrylonitrile	107-13-1	25	U	25	5
11996	Benzene	71-43-2	1.0	U	1.0	5
11996	Bromobenzene	108-86-1	2.5	U	2.5	5
11996	Bromochloromethane	74-97-5	2.5	U	2.5	5
11996	Bromodichloromethane	75-27-4	2.5	U	2.5	5
11996	Bromoform	75-25-2	2.5	U	2.5	5
11996	Bromomethane	74-83-9	2.5	U	2.5	5
11996	2-Butanone	78-93-3	25	U	25	5
11996	n-Butylbenzene	104-51-8	2.5	U	2.5	5
11996	sec-Butylbenzene	135-98-8	2.5	U	2.5	5
11996	tert-Butylbenzene	98-06-6	2.5	U	2.5	5
11996	Carbon Disulfide	75-15-0	2.5	U	2.5	5
11996	Carbon Tetrachloride	56-23-5	1.0	U	1.0	5
11996	Chlorobenzene	108-90-7	2.5	U	2.5	5
11996	Chloroethane	75-00-3	2.5	U	2.5	5
11996	Chloroform	67-66-3	1.0	U	1.0	5
11996	Chloromethane	74-87-3	2.5	U	2.5	5
11996	2-Chlorotoluene	95-49-8	2.5	U	2.5	5
11996	4-Chlorotoluene	106-43-4	2.5	U	2.5	5
11996	1,2-Dibromo-3-chloropropane	96-12-8	2.5	U	2.5	5
11996	Dibromochloromethane	124-48-1	2.5	U	2.5	5
11996	Dibromomethane	74-95-3	2.5	U	2.5	5
11996	trans-1,4-Dichloro-2-butene	110-57-6	25	U	25	5
11996	1,2-Dichlorobenzene	95-50-1	2.5	U	2.5	5
11996	1,3-Dichlorobenzene	541-73-1	2.5	U	2.5	5
11996	1,4-Dichlorobenzene	106-46-7	2.5	U	2.5	5
11996	1,1-Dichloroethane	75-34-3	2.5	U	2.5	5
11996	1,2-Dichloroethane	107-06-2	1.0	U	1.0	5
11996	**1,1-Dichloroethene**	75-35-4	**8.0**		1.0	5
11996	**cis-1,2-Dichloroethene**	156-59-2	**3,000**	**E**	1.0	5
11996	**trans-1,2-Dichloroethene**	156-60-5	**9.4**		1.0	5
11996	1,2-Dichloropropane	78-87-5	2.5	U	2.5	5
11996	1,3-Dichloropropane	142-28-9	2.5	U	2.5	5
11996	2,2-Dichloropropane	594-20-7	2.5	U	2.5	5
11996	1,1-Dichloropropene	563-58-6	2.5	U	2.5	5
11996	cis-1,3-Dichloropropene	10061-01-5	1.0	U	1.0	5
11996	trans-1,3-Dichloropropene	10061-02-6	1.0	U	1.0	5
11996	Ethylbenzene	100-41-4	2.5	U	2.5	5
11996	Ethylene dibromide	106-93-4	2.5	U	2.5	5
11996	Hexachlorobutadiene	87-68-3	2.5	U	2.5	5
11996	2-Hexanone	591-78-6	25	U	25	5
11996	Isopropylbenzene	98-82-8	2.5	U	2.5	5
11996	4-Isopropyltoluene	99-87-6	2.5	U	2.5	5
11996	Methyl Iodide	74-88-4	2.5	U	2.5	5
11996	4-Methyl-2-pentanone	108-10-1	25	U	25	5
11996	Methylene Chloride	75-09-2	2.5	U	2.5	5
11996	Naphthalene	91-20-3	2.5	U	2.5	5
11996	n-Propylbenzene	103-65-1	2.5	U	2.5	5
11996	Styrene	100-42-5	2.5	U	2.5	5

Sample Description: PL2-212A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796259
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 15:40 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-5 SDG#: BNG32-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	2.5	U	2.5	5
11996	1,1,2,2-Tetrachloroethane	79-34-5	1.0	U	1.0	5
11996	Tetrachloroethene	127-18-4	1.0	U	1.0	5
11996	Toluene	108-88-3	1.0	U	1.0	5
11996	112Trichloro122Trifluoroethane	76-13-1	2.5	U	2.5	5
11996	1,2,3-Trichlorobenzene	87-61-6	2.5	U	2.5	5
11996	1,2,4-Trichlorobenzene	120-82-1	2.5	U	2.5	5
11996	1,1,1-Trichloroethane	71-55-6	2.5	U	2.5	5
11996	1,1,2-Trichloroethane	79-00-5	1.0	U	1.0	5
11996	**Trichloroethene**	79-01-6	**17**		1.0	5
11996	Trichlorofluoromethane	75-69-4	2.5	U	2.5	5
11996	1,2,3-Trichloropropane	96-18-4	5.0	U	5.0	5
11996	1,2,4-Trimethylbenzene	95-63-6	2.5	U	2.5	5
11996	1,3,5-Trimethylbenzene	108-67-8	2.5	U	2.5	5
11996	Vinyl Acetate	108-05-4	2.5	U	2.5	5
11996	**Vinyl Chloride**	75-01-4	**1,900**	**E**	1.0	5
11996	m,p-Xylene	179601-23-1	2.5	U	2.5	5
11996	o-Xylene	95-47-6	2.5	U	2.5	5
Trial ID: DL						
11996	Acetone	67-64-1	5,000	U	5,000	1000
11996	Acrolein	107-02-8	25,000	U	25,000	1000
11996	Acrylonitrile	107-13-1	5,000	U	5,000	1000
11996	Benzene	71-43-2	200	U	200	1000
11996	Bromobenzene	108-86-1	500	U	500	1000
11996	Bromochloromethane	74-97-5	500	U	500	1000
11996	Bromodichloromethane	75-27-4	500	U	500	1000
11996	Bromoform	75-25-2	500	U	500	1000
11996	Bromomethane	74-83-9	500	U	500	1000
11996	2-Butanone	78-93-3	5,000	U	5,000	1000
11996	n-Butylbenzene	104-51-8	500	U	500	1000
11996	sec-Butylbenzene	135-98-8	500	U	500	1000
11996	tert-Butylbenzene	98-06-6	500	U	500	1000
11996	Carbon Disulfide	75-15-0	500	U	500	1000
11996	Carbon Tetrachloride	56-23-5	200	U	200	1000
11996	Chlorobenzene	108-90-7	500	U	500	1000
11996	Chloroethane	75-00-3	500	U	500	1000
11996	Chloroform	67-66-3	200	U	200	1000
11996	Chloromethane	74-87-3	500	U	500	1000
11996	2-Chlorotoluene	95-49-8	500	U	500	1000
11996	4-Chlorotoluene	106-43-4	500	U	500	1000
11996	1,2-Dibromo-3-chloropropane	96-12-8	500	U	500	1000
11996	Dibromochloromethane	124-48-1	500	U	500	1000
11996	Dibromomethane	74-95-3	500	U	500	1000
11996	trans-1,4-Dichloro-2-butene	110-57-6	5,000	U	5,000	1000
11996	1,2-Dichlorobenzene	95-50-1	500	U	500	1000
11996	1,3-Dichlorobenzene	541-73-1	500	U	500	1000
11996	1,4-Dichlorobenzene	106-46-7	500	U	500	1000
11996	1,1-Dichloroethane	75-34-3	500	U	500	1000
11996	1,2-Dichloroethane	107-06-2	200	U	200	1000
11996	1,1-Dichloroethene	75-35-4	200	U	200	1000

Sample Description: PL2-212A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796259
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 15:40 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-5 SDG#: BNG32-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,300**		200	1000
11996	trans-1,2-Dichloroethene	156-60-5	200	U	200	1000
11996	1,2-Dichloropropane	78-87-5	500	U	500	1000
11996	1,3-Dichloropropane	142-28-9	500	U	500	1000
11996	2,2-Dichloropropane	594-20-7	500	U	500	1000
11996	1,1-Dichloropropene	563-58-6	500	U	500	1000
11996	cis-1,3-Dichloropropene	10061-01-5	200	U	200	1000
11996	trans-1,3-Dichloropropene	10061-02-6	200	U	200	1000
11996	Ethylbenzene	100-41-4	500	U	500	1000
11996	Ethylene dibromide	106-93-4	500	U	500	1000
11996	Hexachlorobutadiene	87-68-3	500	U	500	1000
11996	2-Hexanone	591-78-6	5,000	U	5,000	1000
11996	Isopropylbenzene	98-82-8	500	U	500	1000
11996	4-Isopropyltoluene	99-87-6	500	U	500	1000
11996	Methyl Iodide	74-88-4	500	U	500	1000
11996	4-Methyl-2-pentanone	108-10-1	5,000	U	5,000	1000
11996	Methylene Chloride	75-09-2	500	U	500	1000
11996	Naphthalene	91-20-3	500	U	500	1000
11996	n-Propylbenzene	103-65-1	500	U	500	1000
11996	Styrene	100-42-5	500	U	500	1000
11996	1,1,1,2-Tetrachloroethane	630-20-6	500	U	500	1000
11996	1,1,2,2-Tetrachloroethane	79-34-5	200	U	200	1000
11996	Tetrachloroethene	127-18-4	200	U	200	1000
11996	Toluene	108-88-3	200	U	200	1000
11996	112Trichloro122Trifluoroethane	76-13-1	500	U	500	1000
11996	1,2,3-Trichlorobenzene	87-61-6	500	U	500	1000
11996	1,2,4-Trichlorobenzene	120-82-1	500	U	500	1000
11996	1,1,1-Trichloroethane	71-55-6	500	U	500	1000
11996	1,1,2-Trichloroethane	79-00-5	200	U	200	1000
11996	Trichloroethene	79-01-6	200	U	200	1000
11996	Trichlorofluoromethane	75-69-4	500	U	500	1000
11996	1,2,3-Trichloropropane	96-18-4	1,000	U	1,000	1000
11996	1,2,4-Trimethylbenzene	95-63-6	500	U	500	1000
11996	1,3,5-Trimethylbenzene	108-67-8	500	U	500	1000
11996	Vinyl Acetate	108-05-4	500	U	500	1000
11996	**Vinyl Chloride**	75-01-4	**2,400**		200	1000
11996	m,p-Xylene	179601-23-1	500	U	500	1000
11996	o-Xylene	95-47-6	500	U	500	1000

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

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Analysis Report

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Sample Description: PL2-212A-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796259
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 15:40 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-5 SDG#: BNG32-05

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 18:21	Jason M Long	5
11996	8260C Boeing 69	SW-846 8260C	2-DL	I150691AA	03/10/2015 19:46	Jason M Long	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 18:21	Jason M Long	5
01163	GC/MS VOA Water Prep	SW-846 5030B	2	I150691AA	03/10/2015 19:46	Jason M Long	1000

Sample Description: IW-N6-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796260
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 16:09 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-6 SDG#: BNG32-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.3**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**4.7**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: IW-N6-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796260
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 16:09 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-6 SDG#: BNG32-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**18**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**2.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**9.6**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 15:10	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 15:10	Jason M Long	1
00273	Total Organic Carbon	SM 5310 C-2000	1	15070049501B	03/11/2015 09:57	James S Mathiot	1

Sample Description: PL2-209A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796261
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 16:43 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-7 SDG#: BNG32-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.9**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796261
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 16:43 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-7 SDG#: BNG32-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**3.0**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 15:31	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 15:31	Jason M Long	1

Sample Description: PL2-256A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796262
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/05/2015 10:20 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-8 SDG#: BNG32-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-256A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796262
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/05/2015 10:20 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-8 SDG#: BNG32-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.5**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 15:53	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 15:53	Jason M Long	1

Sample Description: PL2-253A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796263
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 17:14 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-9 SDG#: BNG32-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-253A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796263
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 17:14 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-9 SDG#: BNG32-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 16:14	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 16:14	Jason M Long	1

Sample Description: PL2-216A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796264
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/05/2015 14:03 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21010 SDG#: BNG32-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-216A Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796264
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/05/2015 14:03 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21010 SDG#: BNG32-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 16:35	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 16:35	Jason M Long	1

Sample Description: Dup-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796265
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 08:00 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21011 SDG#: BNG32-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	**1,1-Dichloroethene**	75-35-4	**8.2**		2.0	10
11996	**cis-1,2-Dichloroethene**	156-59-2	**4,800**	**E**	2.0	10
11996	**trans-1,2-Dichloroethene**	156-60-5	**10**		2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10

Sample Description: Dup-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796265
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 08:00 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21011 SDG#: BNG32-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	**Trichloroethene**	79-01-6	**16**		2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**2,000**	**E**	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10
Trial ID: DL						
11996	Acetone	67-64-1	5,000	U	5,000	1000
11996	Acrolein	107-02-8	25,000	U	25,000	1000
11996	Acrylonitrile	107-13-1	5,000	U	5,000	1000
11996	Benzene	71-43-2	200	U	200	1000
11996	Bromobenzene	108-86-1	500	U	500	1000
11996	Bromochloromethane	74-97-5	500	U	500	1000
11996	Bromodichloromethane	75-27-4	500	U	500	1000
11996	Bromoform	75-25-2	500	U	500	1000
11996	Bromomethane	74-83-9	500	U	500	1000
11996	2-Butanone	78-93-3	5,000	U	5,000	1000
11996	n-Butylbenzene	104-51-8	500	U	500	1000
11996	sec-Butylbenzene	135-98-8	500	U	500	1000
11996	tert-Butylbenzene	98-06-6	500	U	500	1000
11996	Carbon Disulfide	75-15-0	500	U	500	1000
11996	Carbon Tetrachloride	56-23-5	200	U	200	1000
11996	Chlorobenzene	108-90-7	500	U	500	1000
11996	Chloroethane	75-00-3	500	U	500	1000
11996	Chloroform	67-66-3	200	U	200	1000
11996	Chloromethane	74-87-3	500	U	500	1000
11996	2-Chlorotoluene	95-49-8	500	U	500	1000
11996	4-Chlorotoluene	106-43-4	500	U	500	1000
11996	1,2-Dibromo-3-chloropropane	96-12-8	500	U	500	1000
11996	Dibromochloromethane	124-48-1	500	U	500	1000
11996	Dibromomethane	74-95-3	500	U	500	1000
11996	trans-1,4-Dichloro-2-butene	110-57-6	5,000	U	5,000	1000
11996	1,2-Dichlorobenzene	95-50-1	500	U	500	1000
11996	1,3-Dichlorobenzene	541-73-1	500	U	500	1000
11996	1,4-Dichlorobenzene	106-46-7	500	U	500	1000
11996	1,1-Dichloroethane	75-34-3	500	U	500	1000
11996	1,2-Dichloroethane	107-06-2	200	U	200	1000
11996	1,1-Dichloroethene	75-35-4	200	U	200	1000

Sample Description: Dup-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796265
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 08:00 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21011 SDG#: BNG32-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,100**		200	1000
11996	trans-1,2-Dichloroethene	156-60-5	200	U	200	1000
11996	1,2-Dichloropropane	78-87-5	500	U	500	1000
11996	1,3-Dichloropropane	142-28-9	500	U	500	1000
11996	2,2-Dichloropropane	594-20-7	500	U	500	1000
11996	1,1-Dichloropropene	563-58-6	500	U	500	1000
11996	cis-1,3-Dichloropropene	10061-01-5	200	U	200	1000
11996	trans-1,3-Dichloropropene	10061-02-6	200	U	200	1000
11996	Ethylbenzene	100-41-4	500	U	500	1000
11996	Ethylene dibromide	106-93-4	500	U	500	1000
11996	Hexachlorobutadiene	87-68-3	500	U	500	1000
11996	2-Hexanone	591-78-6	5,000	U	5,000	1000
11996	Isopropylbenzene	98-82-8	500	U	500	1000
11996	4-Isopropyltoluene	99-87-6	500	U	500	1000
11996	Methyl Iodide	74-88-4	500	U	500	1000
11996	4-Methyl-2-pentanone	108-10-1	5,000	U	5,000	1000
11996	Methylene Chloride	75-09-2	500	U	500	1000
11996	Naphthalene	91-20-3	500	U	500	1000
11996	n-Propylbenzene	103-65-1	500	U	500	1000
11996	Styrene	100-42-5	500	U	500	1000
11996	1,1,1,2-Tetrachloroethane	630-20-6	500	U	500	1000
11996	1,1,2,2-Tetrachloroethane	79-34-5	200	U	200	1000
11996	Tetrachloroethene	127-18-4	200	U	200	1000
11996	Toluene	108-88-3	200	U	200	1000
11996	112Trichloro122Trifluoroethane	76-13-1	500	U	500	1000
11996	1,2,3-Trichlorobenzene	87-61-6	500	U	500	1000
11996	1,2,4-Trichlorobenzene	120-82-1	500	U	500	1000
11996	1,1,1-Trichloroethane	71-55-6	500	U	500	1000
11996	1,1,2-Trichloroethane	79-00-5	200	U	200	1000
11996	Trichloroethene	79-01-6	200	U	200	1000
11996	Trichlorofluoromethane	75-69-4	500	U	500	1000
11996	1,2,3-Trichloropropane	96-18-4	1,000	U	1,000	1000
11996	1,2,4-Trimethylbenzene	95-63-6	500	U	500	1000
11996	1,3,5-Trimethylbenzene	108-67-8	500	U	500	1000
11996	Vinyl Acetate	108-05-4	500	U	500	1000
11996	**Vinyl Chloride**	75-01-4	**2,200**		200	1000
11996	m,p-Xylene	179601-23-1	500	U	500	1000
11996	o-Xylene	95-47-6	500	U	500	1000

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

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Analysis Report

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Sample Description: Dup-030415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796265
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/04/2015 08:00 by CG

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21011 SDG#: BNG32-11FD

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 19:03	Jason M Long	10
11996	8260C Boeing 69	SW-846 8260C	2-DL	I150691AA	03/10/2015 20:07	Jason M Long	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 19:03	Jason M Long	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	I150691AA	03/10/2015 20:07	Jason M Long	1000

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796266
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 01/23/2015 08:00

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21012 SDG#: BNG32-12TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7796266
LL Group # 1543602
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 01/23/2015 08:00

Submitted: 03/09/2015 09:00
Reported: 03/13/2015 07:52

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

21012 SDG#: BNG32-12TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
1,2-Dibromo-3-chloropropane	27%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	I150691AA	03/10/2015 14:06	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	I150691AA	03/10/2015 14:06	Jason M Long	1

Quality Control Summary

Client Name: The Boeing Company Group Number: 1543602
Reported: 03/13/2015 07:52

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: I150691AA	Sample number(s): 7796255-7796266								
Acetone	5.0	U	5.0	ug/l	104	114	66-132	9	30
Acrolein	25	U	25.	ug/l	84	96	44-122	13	30
Acrylonitrile	5.0	U	5.0	ug/l	98	112	75-133	13	30
Benzene	0.2	U	0.2	ug/l	97	96	80-120	1	30
Bromobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Bromochloromethane	0.5	U	0.5	ug/l	107	106	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	102	101	80-120	1	30
Bromoform	0.5	U	0.5	ug/l	104	104	64-134	0	30
Bromomethane	0.5	U	0.5	ug/l	85	85	62-126	0	30
2-Butanone	5.0	U	5.0	ug/l	99	111	75-128	12	30
n-Butylbenzene	0.5	U	0.5	ug/l	93	92	80-120	1	30
sec-Butylbenzene	0.5	U	0.5	ug/l	97	96	80-120	1	30
tert-Butylbenzene	0.5	U	0.5	ug/l	100	99	80-120	2	30
Carbon Disulfide	0.5	U	0.5	ug/l	95	93	70-128	2	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	103	100	80-135	3	30
Chlorobenzene	0.5	U	0.5	ug/l	96	95	80-120	1	30
Chloroethane	0.5	U	0.5	ug/l	83	82	68-120	1	30
Chloroform	0.2	U	0.2	ug/l	102	100	80-120	2	30
Chloromethane	0.5	U	0.5	ug/l	72	71	55-125	1	30
2-Chlorotoluene	0.5	U	0.5	ug/l	94	94	80-120	0	30
4-Chlorotoluene	0.5	U	0.5	ug/l	95	95	80-120	0	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	125	145*	72-136	14	30
Dibromochloromethane	0.5	U	0.5	ug/l	103	102	80-126	0	30
Dibromomethane	0.5	U	0.5	ug/l	104	104	80-120	0	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	93	106	14-166	13	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	94	95	80-120	0	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	95	93	80-120	1	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	94	94	80-120	1	30
1,1-Dichloroethane	0.5	U	0.5	ug/l	94	94	80-120	0	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	101	101	80-125	0	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	100	99	80-120	1	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	104	103	80-120	1	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	104	103	80-120	1	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	97	96	80-120	1	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	97	96	80-120	0	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	98	97	60-139	2	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	106	104	80-120	2	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	102	101	80-120	1	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	100	99	77-126	1	30
Ethylbenzene	0.5	U	0.5	ug/l	98	95	80-120	3	30
Ethylene dibromide	0.5	U	0.5	ug/l	105	105	80-120	0	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	95	94	74-123	1	30
2-Hexanone	5.0	U	5.0	ug/l	104	117	72-124	12	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1543602
Reported: 03/13/2015 07:52

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	0.5	U	0.5	ug/l	104	102	80-120	2	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	96	95	80-120	1	30
Methyl Iodide	0.5	U	0.5	ug/l	102	102	79-120	0	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	101	117	71-123	15	30
Methylene Chloride	0.5	U	0.5	ug/l	97	97	80-120	1	30
Naphthalene	0.5	U	0.5	ug/l	105	109	72-120	4	30
n-Propylbenzene	0.5	U	0.5	ug/l	93	91	80-120	2	30
Styrene	0.5	U	0.5	ug/l	107	106	80-120	1	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	101	101	80-120	0	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	91	93	80-120	1	30
Tetrachloroethene	0.2	U	0.2	ug/l	99	98	80-120	1	30
Toluene	0.2	U	0.2	ug/l	95	93	80-120	2	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	94	91	75-120	4	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	98	99	75-120	1	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	101	102	80-120	1	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	98	97	80-120	1	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	98	99	80-120	1	30
Trichloroethene	0.2	U	0.2	ug/l	104	103	80-120	1	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	91	88	64-141	3	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	99	100	80-120	1	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	98	97	80-120	1	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	97	95	80-120	2	30
Vinyl Acetate	0.5	U	0.5	ug/l	83	81	18-200	2	30
Vinyl Chloride	0.2	U	0.2	ug/l	79	78	59-124	2	30
m,p-Xylene	0.5	U	0.5	ug/l	100	98	80-120	2	30
o-Xylene	0.5	U	0.5	ug/l	103	101	80-120	2	30

Batch number: 15070049501B Sample number(s): 7796258,7796260

Total Organic Carbon	1.0	U	1.0	mg/l	106	91-113

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 15070049501B	Sample number(s): 7796258,7796260 UNSPK: P796610 BKG: P796610								
Total Organic Carbon	105		63-142			20.5	21.3	4	4

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: I150691AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7796255	106	105	94	97
7796255	105	104	93	97

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1543602
Reported: 03/13/2015 07:52

Surrogate Quality Control

DL				
7796256	106	105	93	98
7796256	106	103	93	96
DL				
7796257	106	104	93	97
7796258	104	103	94	100
7796259	108	104	94	98
7796259	106	104	93	97
DL				
7796260	105	108	92	97
7796261	106	109	93	98
7796262	105	109	93	99
7796263	106	104	92	97
7796264	105	102	93	97
7796265	107	105	93	98
7796265	106	107	92	97
DL				
7796266	105	103	94	97
Blank	104	103	94	97
LCS	104	103	96	101
LCSD	104	103	95	101
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1543602 Sample # 7796255-66

Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10

Site Project: 2-10 IM

Site Program/#:

Boeing PM: Will Ernst

Consultant Contact: CALIBRE/Grant Dawson + Tom McKeon

Report To: Will Ernst, Tom McKeon + Grant Dawson

Invoice To: ☒ Boeing EHS ☐ Other (specify):

Sampler: Chris Gallagher # of Coolers: 1

4 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC 8260C Boeing 69	TOC											5 Remarks/Comments
PL2-257A-030415	3-4-15	1156	aq	3	X												VOC's collected in unpreserved Vials.
PL2-218B-030415	3-4-15	1251	aq	3	X												
PL2-218A-030415	3-4-15	1327	aq	3	X												
IW-N4-030415	3-4-15	1403	aq	5	X	X											
PL2-212A-030415	3-4-15	1540	aq	3	X												
IW-N6-030415	3-4-15	1609	aq	5	X	X											
PL2-209A	3-4-15	1643	aq	3	X												
~~PL2-257A-56~~		1020	aq	3	X												
PL2-256A	3/5/15	~~1714~~	aq	3	X												1020 Collection time
PL2-253A	3/4/15	1714	aq	3	X												
PL2-216A	3/5/15	1403	aq	3	X												
Dup-030415	3/4/15	0800	aq	3	X												
Trip Blank	1/23/15	0800	aq	4	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]	3/5/15 1644		
		[signature]	3-9-15 900

Relinquished by commercial carrier (circle): UPS FedEx Other:

Temperature upon Receipt: 1.9 °C

Custody Seals Intact? Yes No

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 59374

Group Number(s): 1543602

Client: Boeing

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	03/09/2015 9:00
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	unpres
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Brandy Barclay (2299) at 13:51 on 03/09/2015

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.9	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

G.1543602

Do Not Lift Using This Tag

10:30 6124 03.09

RT 729 FZ

FedEx Express Expa[illegible] le Stamp

Use only for s[illegible] Saturday deliver[illegible]

There is an artificial watermark on this document. Hold at an angle to view.

1 From

ORDER: 00805887

( ) -

Package Weight

FedEx Priority Overnight®

Release Signature
For nonresidential deliveries.

Sign within this area. Please do not remove.

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

For FedEx Use Only	
Employee Number	Base Charges
Other	Total Charges

2 To *Shipment will not be accepted if address below is altered.*

M-10091 Rev. 3/10

SAMPLE RECEIVING
LANCASTER LABORATORIES
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601
(717) 656-2300

NONREDEEMABLE
Please see the back of the receipt for important terms and conditions.

SATURDAY DELIVERY
Shipments tendered on Friday are delivered on Saturday to most locations.

8054 3011 6124

Form ID 0667

G.1543602

FedEx

FedEx

FedEx

TRK# 0667 8054 3011 6124

FRI – 06 MAR 10:30A
PRIORITY OVERNIGHT

XH LNSA

17601
PA-US MDT

Courier or Driver: Place Astra or Barcoded Label Here

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Groundwater Monitoring Laboratory Data Sheets (May 2015)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

June 03, 2015

Project: Boeing Plant 2 2-10 IM

Submittal Date: 05/22/2015
Group Number: 1563516
SDG: BNG53
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-218B-052015 Water	7900027
PL2-218A-052015 Water	7900028
PL2-258A-052015 Water	7900029
PL2-258B-052015 Water	7900030
PL2-212A-052015 Water	7900031
DUP1-052015 Water	7900032
IW-N6-052015 Water	7900033
PL2-209A-052015 Water	7900034
PL2-253A-052015 Water	7900035
PL2-256A-052115 Water	7900036
PL2-257A-052115 Water	7900037
2-10-IDW-052115 Water	7900038
Trip Blank Water	7900039

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	CALIBRE	Attn: Grant Dawson
ELECTRONIC COPY TO	Calibre	Attn: Tom McKeon
ELECTRONIC COPY TO	The Boeing Company	Attn: Will Ernst
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Alyssa Neir

ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Jill Lamberts
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1563516

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 7900028, 7900029, 7900030, 7900031, 7900032, 7900033, 7900034, 7900035, 7900036, 7900037, 7900039

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 7900027

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
Reporting limits were raised due to sample foaming.

Sample #s: 7900038

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%
1,2,3-Trichlorobenzene	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The further diluted analysis (DF10) was analyzed during a tune period in which Vinyl Acetate was not included in the continuing calibration verification standard; therefore, the compound will not be reported in the second trial for this sample. There will be no impact on the data since the compound was not
detected in the primary analysis.

Sample Description: PL2-218B-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900027
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:46 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218B- SDG#: BNG53-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10
11996	**cis-1,2-Dichloroethene**	156-59-2	**9.0**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10

Sample Description: PL2-218B-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900027
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:46 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218B- SDG#: BNG53-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	Vinyl Chloride	75-01-4	2.0	U	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Reporting limits were raised due to sample foaming.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 17:45	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 17:45	Kerri E Legerlotz	10

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Analysis Report

Sample Description: PL2-218A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900028
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 10:21 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218A- SDG#: BNG53-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.3**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-218A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900028
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 10:21 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218A- SDG#: BNG53-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**2.7**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 15:37	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 15:37	Kerri E Legerlotz	1

Sample Description: PL2-258A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900029
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 11:10 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258A- SDG#: BNG53-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-258A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900029
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 11:10 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258A- SDG#: BNG53-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 16:20	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 16:20	Kerri E Legerlotz	1

Sample Description: PL2-258B-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900030
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 11:50 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258B SDG#: BNG53-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**34**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**8.6**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.4**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-258B-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900030
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 11:50 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258B SDG#: BNG53-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 14:11	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 14:11	Kerri E Legerlotz	1

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-212A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900031
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 13:40 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212A- SDG#: BNG53-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10
11996	**cis-1,2-Dichloroethene**	156-59-2	**990**	**E**	2.0	10
11996	**trans-1,2-Dichloroethene**	156-60-5	**2.8**		2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10

Sample Description: PL2-212A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900031
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 13:40 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212A- SDG#: BNG53-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	**Trichloroethene**	79-01-6	**41**		2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**1,500**	**E**	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10
Trial ID: DL						
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100

Sample Description: PL2-212A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900031
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 13:40 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212A- SDG#: BNG53-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,000**		20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	Toluene	108-88-3	20	U	20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	**Trichloroethene**	79-01-6	**45**		20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	**Vinyl Chloride**	75-01-4	**1,700**		20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below

Sample Description: PL2-212A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900031
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 13:40 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212A- SDG#: BNG53-05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 18:28	Kerri E Legerlotz	10
11996	8260C Boeing 69	SW-846 8260C	2-DL	H151471AA	05/27/2015 18:49	Kerri E Legerlotz	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 18:28	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H151471AA	05/27/2015 18:49	Kerri E Legerlotz	100

Sample Description: DUP1-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900032
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:00 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

1-DUP SDG#: BNG53-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10
11996	**cis-1,2-Dichloroethene**	156-59-2	**620**	**E**	2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10

Sample Description: DUP1-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900032
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:00 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

1-DUP SDG#: BNG53-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	Toluene	108-88-3	2.0	U	2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	**Trichloroethene**	79-01-6	**110**		2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**430**	**E**	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10
Trial ID: DL						
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100

Sample Description: DUP1-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900032
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:00 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

1-DUP SDG#: BNG53-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**650**		20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	Toluene	108-88-3	20	U	20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	**Trichloroethene**	79-01-6	**120**		20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	**Vinyl Chloride**	75-01-4	**520**		20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below

Sample Description: DUP1-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900032
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 09:00 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

1-DUP SDG#: BNG53-06FD

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 19:10	Kerri E Legerlotz	10
11996	8260C Boeing 69	SW-846 8260C	2-DL	H151471AA	05/27/2015 19:32	Kerri E Legerlotz	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 19:10	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H151471AA	05/27/2015 19:32	Kerri E Legerlotz	100

Sample Description: IW-N6-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900033
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 14:29 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210N6 SDG#: BNG53-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**11**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**5.9**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**3.6**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**5.2**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: IW-N6-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900033
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 14:29 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210N6 SDG#: BNG53-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**95**	**E**	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**21**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10

Sample Description: IW-N6-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900033
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 14:29 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210N6 SDG#: BNG53-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10
11996	**cis-1,2-Dichloroethene**	156-59-2	**3.1**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	**Toluene**	108-88-3	**82**		2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**17**		2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside

Sample Description: IW-N6-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900033
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 14:29 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210N6 SDG#: BNG53-07

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.				
Wet Chemistry	**SM 5310 C-2000**		**mg/l**	**mg/l**	
00273	**Total Organic Carbon**	n.a.	**25.1**	1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 17:02	Kerri E Legerlotz	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H151471AA	05/27/2015 17:24	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 17:02	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H151471AA	05/27/2015 17:24	Kerri E Legerlotz	10
00273	Total Organic Carbon	SM 5310 C-2000	1	15147049502A	05/27/2015 04:38	James S Mathiot	1

Sample Description: PL2-209A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900034
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 15:25 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

209A- SDG#: BNG53-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.2**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900034
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 15:25 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

209A- SDG#: BNG53-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.2**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 14:32	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 14:32	Kerri E Legerlotz	1

Sample Description: PL2-253A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900035
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 16:10 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

253A- SDG#: BNG53-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-253A-052015 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900035
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/20/2015 16:10 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

253A- SDG#: BNG53-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 14:54	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 14:54	Kerri E Legerlotz	1

Sample Description: PL2-256A-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900036
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 09:32 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

256A- SDG#: BNG53-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.7**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-256A-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900036
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 09:32 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

256A- SDG#: BNG53-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.6**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.4**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 15:15	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 15:15	Kerri E Legerlotz	1

Sample Description: PL2-257A-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900037
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:16 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNG53-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.3**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-257A-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900037
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:16 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNG53-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**4.2**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 19:53	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 19:53	Kerri E Legerlotz	1

Sample Description: 2-10-IDW-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900038
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:45 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNG53-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**11**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: 2-10-IDW-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900038
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:45 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNG53-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**9.5**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**1.2**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**26**	**E**	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10

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Analysis Report

Sample Description: 2-10-IDW-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900038
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:45 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNG53-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	**cis-1,2-Dichloroethene**	156-59-2	**9.4**		2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	4-Isopropyltoluene	99-87-6	5.0	U	5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	**Toluene**	108-88-3	**8.5**		2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	**Vinyl Chloride**	75-01-4	**23**		2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Description: 2-10-IDW-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900038
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:45 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNG53-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%
1,2,3-Trichlorobenzene	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The further diluted analysis (DF10) was analyzed during a tune period in which Vinyl Acetate was not included in the continuing calibration verification standard; therefore, the compound will not be reported in the second trial for this sample. There will be no impact on the data since the compound was not detected in the primary analysis.

Pesticides/PCBs	**SW-846 8082**		**ug/l**		**ug/l**	
12013	Aroclor-1016	12674-11-2	0.011	U	0.011	1
12013	Aroclor-1221	11104-28-2	0.011	U	0.011	1
12013	Aroclor-1232	11141-16-5	0.011	U	0.011	1
12013	Aroclor-1242	53469-21-9	0.011	U	0.011	1
12013	Aroclor-1248	12672-29-6	0.011	U	0.011	1
12013	Aroclor-1254	11097-69-1	0.011	U	0.011	1
12013	Aroclor-1260	11096-82-5	0.011	U	0.011	1
12013	Aroclor-1262	37324-23-5	0.011	U	0.011	1
12013	Aroclor-1268	11100-14-4	0.011	U	0.011	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 20:15	Kerri E Legerlotz	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H151482AA	05/28/2015 15:23	Kerri E Legerlotz	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 20:15	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H151482AA	05/28/2015 15:23	Kerri E Legerlotz	10
12013	PCBs in Water - Low Level	SW-846 8082	1	151480008A	06/02/2015 02:10	Jessica L Miller	1

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Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: 2-10-IDW-052115 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900038
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 10:45 by CD

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNG53-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12026	PCB Waters Ext. - Low Level	SW-846 3510C	1	151480008A	05/28/2015 16:00	Seth A Farrier	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900039
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 08:00

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-TB-- SDG#: BNG53-13TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 7900039
LL Group # 1563516
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 05/21/2015 08:00

Submitted: 05/22/2015 09:15
Reported: 06/03/2015 16:05

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-TB-- SDG#: BNG53-13TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H151471AA	05/27/2015 13:50	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H151471AA	05/27/2015 13:50	Kerri E Legerlotz	1

Quality Control Summary

Client Name: The Boeing Company Group Number: 1563516
Reported: 06/03/2015 16:05

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H151471AA	Sample number(s): 7900027-7900039								
Acetone	5.0	U	5.0	ug/l	92	88	66-132	4	30
Acrolein	25	U	25.	ug/l	71	74	44-122	4	30
Acrylonitrile	5.0	U	5.0	ug/l	101	100	75-133	1	30
Benzene	0.2	U	0.2	ug/l	100	99	80-120	2	30
Bromobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Bromochloromethane	0.5	U	0.5	ug/l	103	103	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	95	96	80-120	1	30
Bromoform	0.5	U	0.5	ug/l	88	88	64-134	1	30
Bromomethane	0.5	U	0.5	ug/l	111	106	62-126	4	30
2-Butanone	5.0	U	5.0	ug/l	96	99	75-128	3	30
n-Butylbenzene	0.5	U	0.5	ug/l	102	98	80-120	4	30
sec-Butylbenzene	0.5	U	0.5	ug/l	100	96	80-120	4	30
tert-Butylbenzene	0.5	U	0.5	ug/l	94	90	80-120	3	30
Carbon Disulfide	0.5	U	0.5	ug/l	101	96	70-128	5	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	96	91	80-135	5	30
Chlorobenzene	0.5	U	0.5	ug/l	98	96	80-120	2	30
Chloroethane	0.5	U	0.5	ug/l	112	107	68-120	4	30
Chloroform	0.2	U	0.2	ug/l	99	97	80-120	2	30
Chloromethane	0.5	U	0.5	ug/l	106	103	55-125	3	30
2-Chlorotoluene	0.5	U	0.5	ug/l	98	97	80-120	1	30
4-Chlorotoluene	0.5	U	0.5	ug/l	100	96	80-120	3	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	80	82	72-136	3	30
Dibromochloromethane	0.5	U	0.5	ug/l	93	93	80-126	0	30
Dibromomethane	0.5	U	0.5	ug/l	100	100	80-120	0	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	101	105	14-166	4	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	94	94	80-120	0	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	95	95	80-120	1	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	96	96	80-120	1	30
1,1-Dichloroethane	0.5	U	0.5	ug/l	99	97	80-120	2	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	96	96	80-125	1	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	98	95	80-120	3	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	99	96	80-120	3	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	101	98	80-120	3	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	104	102	80-120	2	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	96	96	80-120	1	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	100	96	60-139	4	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	99	97	80-120	2	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	99	98	80-120	1	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	97	97	77-126	1	30
Ethylbenzene	0.5	U	0.5	ug/l	96	93	80-120	3	30
Ethylene dibromide	0.5	U	0.5	ug/l	98	98	80-120	0	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	83	79	74-123	4	30
2-Hexanone	5.0	U	5.0	ug/l	97	100	72-124	3	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1563516
Reported: 06/03/2015 16:05

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	0.5	U	0.5	ug/l	93	91	80-120	2	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	95	92	80-120	3	30
Methyl Iodide	0.5	U	0.5	ug/l	94	92	79-120	2	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	95	96	71-123	2	30
Methylene Chloride	0.5	U	0.5	ug/l	100	100	80-120	0	30
Naphthalene	0.5	U	0.5	ug/l	79	82	72-120	4	30
n-Propylbenzene	0.5	U	0.5	ug/l	101	98	80-120	3	30
Styrene	0.5	U	0.5	ug/l	99	96	80-120	2	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	93	91	80-120	2	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	106	104	80-120	1	30
Tetrachloroethene	0.2	U	0.2	ug/l	92	89	80-120	3	30
Toluene	0.2	U	0.2	ug/l	98	96	80-120	2	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	99	94	75-120	5	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	77	78	75-120	1	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	81	82	80-120	1	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	95	93	80-120	2	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	99	99	80-120	0	30
Trichloroethene	0.2	U	0.2	ug/l	102	99	80-120	3	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	104	98	64-141	6	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	101	103	80-120	2	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	101	97	80-120	3	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	98	96	80-120	2	30
Vinyl Acetate	0.5	U	0.5	ug/l	82	81	18-200	2	30
Vinyl Chloride	0.2	U	0.2	ug/l	113	106	59-124	6	30
m,p-Xylene	0.5	U	0.5	ug/l	96	94	80-120	2	30
o-Xylene	0.5	U	0.5	ug/l	94	92	80-120	2	30
Batch number: H151482AA	Sample number(s): 7900038								
Acetone	5.0	U	5.0	ug/l	89	92	66-132	3	30
Acrolein	25	U	25.	ug/l	77	72	44-122	6	30
Acrylonitrile	5.0	U	5.0	ug/l	105	102	75-133	3	30
Benzene	0.2	U	0.2	ug/l	105	100	80-120	6	30
Bromobenzene	0.5	U	0.5	ug/l	99	93	80-120	7	30
Bromochloromethane	0.5	U	0.5	ug/l	103	99	80-125	4	30
Bromodichloromethane	0.5	U	0.5	ug/l	101	96	80-120	4	30
Bromoform	0.5	U	0.5	ug/l	89	87	64-134	3	30
Bromomethane	0.5	U	0.5	ug/l	110	102	62-126	8	30
2-Butanone	5.0	U	5.0	ug/l	103	101	75-128	2	30
n-Butylbenzene	0.5	U	0.5	ug/l	106	98	80-120	9	30
sec-Butylbenzene	0.5	U	0.5	ug/l	104	97	80-120	7	30
tert-Butylbenzene	0.5	U	0.5	ug/l	97	89	80-120	9	30
Carbon Disulfide	0.5	U	0.5	ug/l	104	96	70-128	9	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	100	92	80-135	8	30
Chlorobenzene	0.5	U	0.5	ug/l	100	95	80-120	5	30
Chloroethane	0.5	U	0.5	ug/l	111	104	68-120	7	30
Chloroform	0.2	U	0.2	ug/l	104	98	80-120	6	30
Chloromethane	0.5	U	0.5	ug/l	104	97	55-125	7	30
2-Chlorotoluene	0.5	U	0.5	ug/l	102	97	80-120	5	30
4-Chlorotoluene	0.5	U	0.5	ug/l	102	96	80-120	6	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	82	84	72-136	3	30
Dibromochloromethane	0.5	U	0.5	ug/l	97	93	80-126	4	30
Dibromomethane	0.5	U	0.5	ug/l	105	99	80-120	6	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	105	101	14-166	4	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	98	91	80-120	7	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	97	92	80-120	5	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	101	94	80-120	7	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1563516
Reported: 06/03/2015 16:05

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	0.5	U	0.5	ug/l	105	98	80-120	7	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	103	98	80-125	5	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	104	96	80-120	7	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	104	97	80-120	6	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	106	100	80-120	5	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	109	103	80-120	6	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	101	96	80-120	5	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	103	95	60-139	8	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	104	97	80-120	6	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	103	98	80-120	4	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	100	98	77-126	3	30
Ethylbenzene	0.5	U	0.5	ug/l	100	94	80-120	6	30
Ethylene dibromide	0.5	U	0.5	ug/l	102	98	80-120	5	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	87	80	74-123	8	30
2-Hexanone	5.0	U	5.0	ug/l	103	102	72-124	0	30
Isopropylbenzene	0.5	U	0.5	ug/l	98	91	80-120	7	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	99	92	80-120	8	30
Methyl Iodide	0.5	U	0.5	ug/l	97	92	79-120	6	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	101	99	71-123	2	30
Methylene Chloride	0.5	U	0.5	ug/l	104	100	80-120	4	30
Naphthalene	0.5	U	0.5	ug/l	85	80	72-120	6	30
n-Propylbenzene	0.5	U	0.5	ug/l	105	97	80-120	8	30
Styrene	0.5	U	0.5	ug/l	102	97	80-120	6	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	97	91	80-120	6	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	107	102	80-120	5	30
Tetrachloroethene	0.2	U	0.2	ug/l	95	89	80-120	6	30
Toluene	0.2	U	0.2	ug/l	103	96	80-120	7	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	104	95	75-120	10	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	83	76	75-120	9	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	87	82	80-120	6	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	100	93	80-120	7	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	105	100	80-120	5	30
Trichloroethene	0.2	U	0.2	ug/l	105	100	80-120	5	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	102	95	64-141	7	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	103	103	80-120	0	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	103	96	80-120	6	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	103	95	80-120	8	30
Vinyl Chloride	0.2	U	0.2	ug/l	110	103	59-124	6	30
m,p-Xylene	0.5	U	0.5	ug/l	100	94	80-120	6	30
o-Xylene	0.5	U	0.5	ug/l	98	93	80-120	6	30
Batch number: 151480008A	Sample number(s): 7900038								
Aroclor-1016	0.010	U	0.010	ug/l	85	91	60-117	7	30
Aroclor-1221	0.010	U	0.010	ug/l					
Aroclor-1232	0.010	U	0.010	ug/l					
Aroclor-1242	0.010	U	0.010	ug/l					
Aroclor-1248	0.010	U	0.010	ug/l					
Aroclor-1254	0.010	U	0.010	ug/l					
Aroclor-1260	0.010	U	0.010	ug/l	103	103	64-134	1	30
Aroclor-1262	0.010	U	0.010	ug/l					
Aroclor-1268	0.010	U	0.010	ug/l					
Batch number: 15147049502A	Sample number(s): 7900033								
Total Organic Carbon	1.0	U	1.0	mg/l	99		91-113		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1563516
Reported: 06/03/2015 16:05

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 15147049502A	Sample number(s): 7900033 UNSPK: P899717 BKG: P899717								
Total Organic Carbon	97		91-113			4.6	4.6	1 (1)	4

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H151471AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7900027	101	108	98	96
7900028	101	105	98	97
7900029	100	106	98	96
7900030	102	111	97	97
7900031	100	103	98	97
7900031 DL	101	106	98	94
7900032	102	105	98	95
7900032 DL	101	105	97	95
7900033	100	106	97	96
7900033 DL	99	106	98	96
7900034	100	108	98	96
7900035	101	108	98	97
7900036	101	104	98	96
7900037	100	105	97	95
7900038	101	106	97	96
7900039	99	106	98	95
Blank	100	105	98	96
LCS	97	102	99	99
LCSD	97	101	99	99
Limits:	77-114	74-113	77-110	78-110

Analysis Name: 8260C Boeing 69
Batch number: H151482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7900038 DL	101	105	98	96
Blank	100	105	98	97
LCS	96	103	99	100
LCSD	98	102	99	100
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company
Reported: 06/03/2015 16:05

Group Number: 1563516

Surrogate Quality Control

Analysis Name: PCBs in Water - Low Level
Batch number: 151480008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7900038	62	63
Blank	59	106
LCS	67	113
LCSD	82	108
Limits:	49-141	30-150

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419

For Eurofins Lancaster Laboratories use only
Group # 1563516 Sample # 7900027-39
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: 2-10 Interim Measures
Site Project: 2-10 IM
Site Program/#:
Boeing PM: Will Ernst
Consultant Contact: Tom McKeon/Grant Dawson
Report To: Will Ernst, Tom McKeon, Grant Dawson
Invoice To: ☒ Boeing EHS ☐ Other (specify):
Sampler: Grant Dawson # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs (Boeing 69)	TOC	PCBs	5 Remarks/Comments
PL2-218B-052015	5/20/15	0946	H_2O	3	X			
PL2-218A-052015	5/20/15	1021	H_2O	3	X			
PL2-258A-052015	5/20/15	1110	H_2O	3	X			
PL2-258B-052015	5/20/15	1150	H_2O	3	X			
PL2-212A-052015	5/20/15	1340	H_2O	3	X			
DUP1-052015	5/20/15	0900	H_2O	3	X			
IW-N6-052015	5/20/15	1429	H_2O	5	X	X		
PL2-209A-052015	5/20/15	1525	H_2O	3	X			
PL2-253A-052015	5/20/15	1610	H_2O	3	X			
PL2-256A-052115	5/21/15	0932	H_2O	3	X			
PL2-257A-052115	5/21/15	1016	H_2O	3	X			
2-10-IDW-052115	5/21/15	1045	H_2O	5	X		X	
Trip Blank	5/21/15	0800	H_2O	4	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]	5/21/15 1145		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by: [signature]	Date/Time 5/22/15 9:15

Relinquished by commercial carrier (circle): UPS FedEx Other:_____

Temperature upon Receipt: 3.1 °C

Custody Seals Intact?: Yes No

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.
Issued by Dept. 40 Management
7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 71137

Group Number(s): 1563516

Client: Boeing

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	05/22/2015 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): Unpreserved

Unpacked by Jordan Woods (6698) at 15:37 on 05/22/2015

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	5.1	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

G-1563516

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M-10091 Rev. 3/10

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2425 NEW HOLLAND PIKE
LANCASTER, PA 17601
(717) 656-2300

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XH LNSA

17601
PA-US MDT

#538927 05/21 537J3/C918/EE4B

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Groundwater Monitoring Laboratory Data Sheets (August 2015)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

September 02, 2015

Project: Boeing Plant 2 2-10 IM

Submittal Date: 08/25/2015
Group Number: 1587458
SDG: BNG73
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-218A-082415 Water	8020631
PL2-218B-082415 Water	8020632
IW-N4-082415 Water	8020633
IW-N6-082415 Water	8020634
PL2-212A-082415 Water	8020635
PL2-209A-082415 Water	8020636
PL2-253A-082415 Water	8020637
Dup1-082415 Water	8020638
Trip Blank Water	8020639

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Calibre	Attn: Tom McKeon
ELECTRONIC COPY TO	The Boeing Company	Attn: Will Ernst
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Alyssa Neir
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Jill Lamberts
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1587458

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 8020631, 8020632, 8020633, 8020634, 8020636, 8020637, 8020639

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

Sample #s: 8020635, 8020638

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) in Trial 1 are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

The affected analyte(s) and response(s) in Trial 2 are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Description: PL2-218A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020631
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 09:59 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218A SDG#: BNG73-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.2**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-218A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020631
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 09:59 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218A SDG#: BNG73-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**0.2**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**3.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 19:57	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 19:57	Kevin A Sposito	1

Sample Description: PL2-218B-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020632
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 10:28 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218B SDG#: BNG73-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**2.4**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-218B-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020632
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 10:28 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218B SDG#: BNG73-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 22:05	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 22:05	Kevin A Sposito	1

Sample Description: IW-N4-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020633
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:03 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNG73-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.2**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**7.5**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-N4-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020633
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:03 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNG73-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**56**	**E**	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	50	U	50	10
11996	Acrolein	107-02-8	250	U	250	10
11996	Acrylonitrile	107-13-1	50	U	50	10
11996	Benzene	71-43-2	2.0	U	2.0	10
11996	Bromobenzene	108-86-1	5.0	U	5.0	10
11996	Bromochloromethane	74-97-5	5.0	U	5.0	10
11996	Bromodichloromethane	75-27-4	5.0	U	5.0	10
11996	Bromoform	75-25-2	5.0	U	5.0	10
11996	Bromomethane	74-83-9	5.0	U	5.0	10
11996	2-Butanone	78-93-3	50	U	50	10
11996	n-Butylbenzene	104-51-8	5.0	U	5.0	10
11996	sec-Butylbenzene	135-98-8	5.0	U	5.0	10
11996	tert-Butylbenzene	98-06-6	5.0	U	5.0	10
11996	Carbon Disulfide	75-15-0	5.0	U	5.0	10
11996	Carbon Tetrachloride	56-23-5	2.0	U	2.0	10
11996	Chlorobenzene	108-90-7	5.0	U	5.0	10
11996	Chloroethane	75-00-3	5.0	U	5.0	10
11996	Chloroform	67-66-3	2.0	U	2.0	10
11996	Chloromethane	74-87-3	5.0	U	5.0	10
11996	2-Chlorotoluene	95-49-8	5.0	U	5.0	10
11996	4-Chlorotoluene	106-43-4	5.0	U	5.0	10
11996	1,2-Dibromo-3-chloropropane	96-12-8	5.0	U	5.0	10
11996	Dibromochloromethane	124-48-1	5.0	U	5.0	10
11996	Dibromomethane	74-95-3	5.0	U	5.0	10
11996	trans-1,4-Dichloro-2-butene	110-57-6	50	U	50	10
11996	1,2-Dichlorobenzene	95-50-1	5.0	U	5.0	10
11996	1,3-Dichlorobenzene	541-73-1	5.0	U	5.0	10
11996	1,4-Dichlorobenzene	106-46-7	5.0	U	5.0	10
11996	1,1-Dichloroethane	75-34-3	5.0	U	5.0	10
11996	1,2-Dichloroethane	107-06-2	2.0	U	2.0	10
11996	1,1-Dichloroethene	75-35-4	2.0	U	2.0	10

Sample Description: IW-N4-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020633
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:03 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNG73-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	cis-1,2-Dichloroethene	156-59-2	2.0	U	2.0	10
11996	trans-1,2-Dichloroethene	156-60-5	2.0	U	2.0	10
11996	1,2-Dichloropropane	78-87-5	5.0	U	5.0	10
11996	1,3-Dichloropropane	142-28-9	5.0	U	5.0	10
11996	2,2-Dichloropropane	594-20-7	5.0	U	5.0	10
11996	1,1-Dichloropropene	563-58-6	5.0	U	5.0	10
11996	cis-1,3-Dichloropropene	10061-01-5	2.0	U	2.0	10
11996	trans-1,3-Dichloropropene	10061-02-6	2.0	U	2.0	10
11996	Ethylbenzene	100-41-4	5.0	U	5.0	10
11996	Ethylene dibromide	106-93-4	5.0	U	5.0	10
11996	Hexachlorobutadiene	87-68-3	5.0	U	5.0	10
11996	2-Hexanone	591-78-6	50	U	50	10
11996	Isopropylbenzene	98-82-8	5.0	U	5.0	10
11996	**4-Isopropyltoluene**	99-87-6	**5.5**		5.0	10
11996	Methyl Iodide	74-88-4	5.0	U	5.0	10
11996	4-Methyl-2-pentanone	108-10-1	50	U	50	10
11996	Methylene Chloride	75-09-2	5.0	U	5.0	10
11996	Naphthalene	91-20-3	5.0	U	5.0	10
11996	n-Propylbenzene	103-65-1	5.0	U	5.0	10
11996	Styrene	100-42-5	5.0	U	5.0	10
11996	1,1,1,2-Tetrachloroethane	630-20-6	5.0	U	5.0	10
11996	1,1,2,2-Tetrachloroethane	79-34-5	2.0	U	2.0	10
11996	Tetrachloroethene	127-18-4	2.0	U	2.0	10
11996	**Toluene**	108-88-3	**47**		2.0	10
11996	112Trichloro122Trifluoroethane	76-13-1	5.0	U	5.0	10
11996	1,2,3-Trichlorobenzene	87-61-6	5.0	U	5.0	10
11996	1,2,4-Trichlorobenzene	120-82-1	5.0	U	5.0	10
11996	1,1,1-Trichloroethane	71-55-6	5.0	U	5.0	10
11996	1,1,2-Trichloroethane	79-00-5	2.0	U	2.0	10
11996	Trichloroethene	79-01-6	2.0	U	2.0	10
11996	Trichlorofluoromethane	75-69-4	5.0	U	5.0	10
11996	1,2,3-Trichloropropane	96-18-4	10	U	10	10
11996	1,2,4-Trimethylbenzene	95-63-6	5.0	U	5.0	10
11996	1,3,5-Trimethylbenzene	108-67-8	5.0	U	5.0	10
11996	Vinyl Acetate	108-05-4	5.0	U	5.0	10
11996	Vinyl Chloride	75-01-4	2.0	U	2.0	10
11996	m,p-Xylene	179601-23-1	5.0	U	5.0	10
11996	o-Xylene	95-47-6	5.0	U	5.0	10

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: IW-N4-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020633
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:03 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N4 SDG#: BNG73-03

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	Analyte	Response (%Drift)			
	Acrolein	-26%			
	trans-1,4-Dichloro-2-Butene -25%				
Wet Chemistry	**SM 5310 C-2000**		**mg/l**	**mg/l**	
00273	**Total Organic Carbon**	n.a.	**14.8**	1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 20:18	Kevin A Sposito	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H152401AA	08/29/2015 03:27	Kevin A Sposito	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 20:18	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H152401AA	08/29/2015 03:27	Kevin A Sposito	10
00273	Total Organic Carbon	SM 5310 C-2000	1	15244049503A	09/01/2015 14:14	James S Mathiot	1

Sample Description: IW-N6-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020634
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:40 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNG73-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.0**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**2.7**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: IW-N6-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020634
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:40 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNG73-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**16**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**8.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**6.6**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

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Sample Description: IW-N6-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020634
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 11:40 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IW-N6 SDG#: BNG73-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 22:49	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 22:49	Kevin A Sposito	1
00273	Total Organic Carbon	SM 5310 C-2000	1	15244049503A	09/01/2015 14:29	James S Mathiot	1

Sample Description: PL2-212A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020635
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 13:23 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNG73-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,800**	**E**	10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50

Sample Description: PL2-212A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020635
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 13:23 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNG73-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**77**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**2,300**	**E**	10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50
Trial ID: DL						
11996	Acetone	67-64-1	1,000	U	1,000	200
11996	Acrolein	107-02-8	5,000	U	5,000	200
11996	Acrylonitrile	107-13-1	1,000	U	1,000	200
11996	Benzene	71-43-2	40	U	40	200
11996	Bromobenzene	108-86-1	100	U	100	200
11996	Bromochloromethane	74-97-5	100	U	100	200
11996	Bromodichloromethane	75-27-4	100	U	100	200
11996	Bromoform	75-25-2	100	U	100	200
11996	Bromomethane	74-83-9	100	U	100	200
11996	2-Butanone	78-93-3	1,000	U	1,000	200
11996	n-Butylbenzene	104-51-8	100	U	100	200
11996	sec-Butylbenzene	135-98-8	100	U	100	200
11996	tert-Butylbenzene	98-06-6	100	U	100	200
11996	Carbon Disulfide	75-15-0	100	U	100	200
11996	Carbon Tetrachloride	56-23-5	40	U	40	200
11996	Chlorobenzene	108-90-7	100	U	100	200
11996	Chloroethane	75-00-3	100	U	100	200
11996	Chloroform	67-66-3	40	U	40	200
11996	Chloromethane	74-87-3	100	U	100	200
11996	2-Chlorotoluene	95-49-8	100	U	100	200
11996	4-Chlorotoluene	106-43-4	100	U	100	200
11996	1,2-Dibromo-3-chloropropane	96-12-8	100	U	100	200
11996	Dibromochloromethane	124-48-1	100	U	100	200
11996	Dibromomethane	74-95-3	100	U	100	200
11996	trans-1,4-Dichloro-2-butene	110-57-6	1,000	U	1,000	200
11996	1,2-Dichlorobenzene	95-50-1	100	U	100	200
11996	1,3-Dichlorobenzene	541-73-1	100	U	100	200
11996	1,4-Dichlorobenzene	106-46-7	100	U	100	200
11996	1,1-Dichloroethane	75-34-3	100	U	100	200
11996	1,2-Dichloroethane	107-06-2	40	U	40	200
11996	1,1-Dichloroethene	75-35-4	40	U	40	200

Sample Description: PL2-212A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020635
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 13:23 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNG73-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,700**		40	200
11996	trans-1,2-Dichloroethene	156-60-5	40	U	40	200
11996	1,2-Dichloropropane	78-87-5	100	U	100	200
11996	1,3-Dichloropropane	142-28-9	100	U	100	200
11996	2,2-Dichloropropane	594-20-7	100	U	100	200
11996	1,1-Dichloropropene	563-58-6	100	U	100	200
11996	cis-1,3-Dichloropropene	10061-01-5	40	U	40	200
11996	trans-1,3-Dichloropropene	10061-02-6	40	U	40	200
11996	Ethylbenzene	100-41-4	100	U	100	200
11996	Ethylene dibromide	106-93-4	100	U	100	200
11996	Hexachlorobutadiene	87-68-3	100	U	100	200
11996	2-Hexanone	591-78-6	1,000	U	1,000	200
11996	Isopropylbenzene	98-82-8	100	U	100	200
11996	4-Isopropyltoluene	99-87-6	100	U	100	200
11996	Methyl Iodide	74-88-4	100	U	100	200
11996	4-Methyl-2-pentanone	108-10-1	1,000	U	1,000	200
11996	Methylene Chloride	75-09-2	100	U	100	200
11996	Naphthalene	91-20-3	100	U	100	200
11996	n-Propylbenzene	103-65-1	100	U	100	200
11996	Styrene	100-42-5	100	U	100	200
11996	1,1,1,2-Tetrachloroethane	630-20-6	100	U	100	200
11996	1,1,2,2-Tetrachloroethane	79-34-5	40	U	40	200
11996	Tetrachloroethene	127-18-4	40	U	40	200
11996	Toluene	108-88-3	40	U	40	200
11996	112Trichloro122Trifluoroethane	76-13-1	100	U	100	200
11996	1,2,3-Trichlorobenzene	87-61-6	100	U	100	200
11996	1,2,4-Trichlorobenzene	120-82-1	100	U	100	200
11996	1,1,1-Trichloroethane	71-55-6	100	U	100	200
11996	1,1,2-Trichloroethane	79-00-5	40	U	40	200
11996	**Trichloroethene**	79-01-6	**55**		40	200
11996	Trichlorofluoromethane	75-69-4	100	U	100	200
11996	1,2,3-Trichloropropane	96-18-4	200	U	200	200
11996	1,2,4-Trimethylbenzene	95-63-6	100	U	100	200
11996	1,3,5-Trimethylbenzene	108-67-8	100	U	100	200
11996	Vinyl Acetate	108-05-4	100	U	100	200
11996	**Vinyl Chloride**	75-01-4	**2,300**		40	200
11996	m,p-Xylene	179601-23-1	100	U	100	200
11996	o-Xylene	95-47-6	100	U	100	200

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) in Trial 1 are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

The affected analyte(s) and response(s) in Trial 2 are:

Analyte	Response (%Drift)

Sample Description: PL2-212A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020635
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 13:23 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNG73-05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	Acrolein	-42%			
	Acetone	-22%			

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/29/2015 01:40	Kevin A Sposito	50
11996	8260C Boeing 69	SW-846 8260C	2-DL	H152421AA	08/30/2015 13:48	Kerri E Legerlotz	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/29/2015 01:40	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H152421AA	08/30/2015 13:48	Kerri E Legerlotz	200

Sample Description: PL2-209A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020636
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 14:07 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-209A SDG#: BNG73-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.7**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020636
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 14:07 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-209A SDG#: BNG73-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**2.7**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 20:40	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 20:40	Kevin A Sposito	1

Sample Description: PL2-253A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020637
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 14:39 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-253A SDG#: BNG73-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-253A-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020637
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 14:39 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-253A SDG#: BNG73-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 21:01	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 21:01	Kevin A Sposito	1

Sample Description: Dup1-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020638
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 08:00 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10D SDG#: BNG73-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,700**	**E**	10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50

Sample Description: Dup1-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020638
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 08:00 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10D SDG#: BNG73-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**45**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**2,600**	**E**	10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50
Trial ID: DL						
11996	Acetone	67-64-1	1,000	U	1,000	200
11996	Acrolein	107-02-8	5,000	U	5,000	200
11996	Acrylonitrile	107-13-1	1,000	U	1,000	200
11996	Benzene	71-43-2	40	U	40	200
11996	Bromobenzene	108-86-1	100	U	100	200
11996	Bromochloromethane	74-97-5	100	U	100	200
11996	Bromodichloromethane	75-27-4	100	U	100	200
11996	Bromoform	75-25-2	100	U	100	200
11996	Bromomethane	74-83-9	100	U	100	200
11996	2-Butanone	78-93-3	1,000	U	1,000	200
11996	n-Butylbenzene	104-51-8	100	U	100	200
11996	sec-Butylbenzene	135-98-8	100	U	100	200
11996	tert-Butylbenzene	98-06-6	100	U	100	200
11996	Carbon Disulfide	75-15-0	100	U	100	200
11996	Carbon Tetrachloride	56-23-5	40	U	40	200
11996	Chlorobenzene	108-90-7	100	U	100	200
11996	Chloroethane	75-00-3	100	U	100	200
11996	Chloroform	67-66-3	40	U	40	200
11996	Chloromethane	74-87-3	100	U	100	200
11996	2-Chlorotoluene	95-49-8	100	U	100	200
11996	4-Chlorotoluene	106-43-4	100	U	100	200
11996	1,2-Dibromo-3-chloropropane	96-12-8	100	U	100	200
11996	Dibromochloromethane	124-48-1	100	U	100	200
11996	Dibromomethane	74-95-3	100	U	100	200
11996	trans-1,4-Dichloro-2-butene	110-57-6	1,000	U	1,000	200
11996	1,2-Dichlorobenzene	95-50-1	100	U	100	200
11996	1,3-Dichlorobenzene	541-73-1	100	U	100	200
11996	1,4-Dichlorobenzene	106-46-7	100	U	100	200
11996	1,1-Dichloroethane	75-34-3	100	U	100	200
11996	1,2-Dichloroethane	107-06-2	40	U	40	200
11996	1,1-Dichloroethene	75-35-4	40	U	40	200

Sample Description: Dup1-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020638
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 08:00 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10D SDG#: BNG73-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,800**		40	200
11996	trans-1,2-Dichloroethene	156-60-5	40	U	40	200
11996	1,2-Dichloropropane	78-87-5	100	U	100	200
11996	1,3-Dichloropropane	142-28-9	100	U	100	200
11996	2,2-Dichloropropane	594-20-7	100	U	100	200
11996	1,1-Dichloropropene	563-58-6	100	U	100	200
11996	cis-1,3-Dichloropropene	10061-01-5	40	U	40	200
11996	trans-1,3-Dichloropropene	10061-02-6	40	U	40	200
11996	Ethylbenzene	100-41-4	100	U	100	200
11996	Ethylene dibromide	106-93-4	100	U	100	200
11996	Hexachlorobutadiene	87-68-3	100	U	100	200
11996	2-Hexanone	591-78-6	1,000	U	1,000	200
11996	Isopropylbenzene	98-82-8	100	U	100	200
11996	4-Isopropyltoluene	99-87-6	100	U	100	200
11996	Methyl Iodide	74-88-4	100	U	100	200
11996	4-Methyl-2-pentanone	108-10-1	1,000	U	1,000	200
11996	Methylene Chloride	75-09-2	100	U	100	200
11996	Naphthalene	91-20-3	100	U	100	200
11996	n-Propylbenzene	103-65-1	100	U	100	200
11996	Styrene	100-42-5	100	U	100	200
11996	1,1,1,2-Tetrachloroethane	630-20-6	100	U	100	200
11996	1,1,2,2-Tetrachloroethane	79-34-5	40	U	40	200
11996	Tetrachloroethene	127-18-4	40	U	40	200
11996	Toluene	108-88-3	40	U	40	200
11996	112Trichloro122Trifluoroethane	76-13-1	100	U	100	200
11996	1,2,3-Trichlorobenzene	87-61-6	100	U	100	200
11996	1,2,4-Trichlorobenzene	120-82-1	100	U	100	200
11996	1,1,1-Trichloroethane	71-55-6	100	U	100	200
11996	1,1,2-Trichloroethane	79-00-5	40	U	40	200
11996	**Trichloroethene**	79-01-6	**47**		40	200
11996	Trichlorofluoromethane	75-69-4	100	U	100	200
11996	1,2,3-Trichloropropane	96-18-4	200	U	200	200
11996	1,2,4-Trimethylbenzene	95-63-6	100	U	100	200
11996	1,3,5-Trimethylbenzene	108-67-8	100	U	100	200
11996	Vinyl Acetate	108-05-4	100	U	100	200
11996	**Vinyl Chloride**	75-01-4	**2,500**		40	200
11996	m,p-Xylene	179601-23-1	100	U	100	200
11996	o-Xylene	95-47-6	100	U	100	200

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) in Trial 1 are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

The affected analyte(s) and response(s) in Trial 2 are:

Analyte	Response (%Drift)

Sample Description: Dup1-082415 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020638
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/24/2015 08:00 by JN

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10D SDG#: BNG73-08FD

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	Acrolein		-42%		
	Acetone		-22%		

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/29/2015 02:01	Kevin A Sposito	50
11996	8260C Boeing 69	SW-846 8260C	2-DL	H152421AA	08/30/2015 14:10	Kerri E Legerlotz	200
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/29/2015 02:01	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H152421AA	08/30/2015 14:10	Kerri E Legerlotz	200

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020639
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/05/2015 08:00

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10T SDG#: BNG73-09TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8020639
LL Group # 1587458
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/05/2015 08:00

Submitted: 08/25/2015 09:35
Reported: 09/02/2015 04:26

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

2-10T SDG#: BNG73-09TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-26%
trans-1,4-Dichloro-2-Butene	-25%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152401AA	08/28/2015 19:15	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152401AA	08/28/2015 19:15	Kevin A Sposito	1

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587458
Reported: 09/02/2015 04:26

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H152401AA	Sample number(s): 8020631-8020639								
Acetone	5.0	U	5.0	ug/l	84	81	55-136	3	30
Acrolein	25	U	25.	ug/l	57	61	37-125	6	30
Acrylonitrile	5.0	U	5.0	ug/l	79	84	63-141	6	30
Benzene	0.2	U	0.2	ug/l	98	96	80-120	2	30
Bromobenzene	0.5	U	0.5	ug/l	97	94	80-120	2	30
Bromochloromethane	0.5	U	0.5	ug/l	100	97	80-125	3	30
Bromodichloromethane	0.5	U	0.5	ug/l	98	95	80-120	2	30
Bromoform	0.5	U	0.5	ug/l	101	101	64-134	0	30
Bromomethane	0.5	U	0.5	ug/l	87	84	71-126	4	30
2-Butanone	5.0	U	5.0	ug/l	78	87	66-135	11	30
n-Butylbenzene	0.5	U	0.5	ug/l	93	91	80-120	3	30
sec-Butylbenzene	0.5	U	0.5	ug/l	94	91	80-120	3	30
tert-Butylbenzene	0.5	U	0.5	ug/l	94	90	80-120	4	30
Carbon Disulfide	0.5	U	0.5	ug/l	91	89	70-128	2	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	100	98	79-129	3	30
Chlorobenzene	0.5	U	0.5	ug/l	96	94	80-120	2	30
Chloroethane	0.5	U	0.5	ug/l	87	84	71-122	4	30
Chloroform	0.2	U	0.2	ug/l	99	95	80-120	4	30
Chloromethane	0.5	U	0.5	ug/l	78	75	63-121	3	30
2-Chlorotoluene	0.5	U	0.5	ug/l	92	89	80-120	3	30
4-Chlorotoluene	0.5	U	0.5	ug/l	91	90	80-120	2	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	82	92	54-147	11	30
Dibromochloromethane	0.5	U	0.5	ug/l	101	99	80-126	2	30
Dibromomethane	0.5	U	0.5	ug/l	104	100	80-122	4	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	64	67	14-166	5	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	96	93	80-120	3	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	94	92	80-120	3	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	95	93	80-120	2	30
1,1-Dichloroethane	0.5	U	0.5	ug/l	98	95	80-120	3	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	104	101	80-125	3	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	92	90	80-120	2	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	97	95	80-120	2	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	97	95	80-120	2	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	104	103	80-120	1	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	100	98	80-120	2	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	95	91	77-127	4	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	94	92	80-120	1	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	101	99	80-124	2	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	98	97	76-132	1	30
Ethylbenzene	0.5	U	0.5	ug/l	94	92	80-120	2	30
Ethylene dibromide	0.5	U	0.5	ug/l	103	100	80-120	3	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	91	90	74-123	1	30
2-Hexanone	5.0	U	5.0	ug/l	85	89	71-138	5	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587458
Reported: 09/02/2015 04:26

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	0.5	U	0.5	ug/l	96	95	80-120	1	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	92	90	80-120	2	30
Methyl Iodide	0.5	U	0.5	ug/l	96	94	72-127	2	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	87	90	73-135	4	30
Methylene Chloride	0.5	U	0.5	ug/l	99	97	80-120	2	30
Naphthalene	0.5	U	0.5	ug/l	86	86	59-136	0	30
n-Propylbenzene	0.5	U	0.5	ug/l	92	90	79-121	2	30
Styrene	0.5	U	0.5	ug/l	96	94	80-122	2	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	96	95	80-120	1	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	95	90	80-120	5	30
Tetrachloroethene	0.2	U	0.2	ug/l	99	95	80-120	4	30
Toluene	0.2	U	0.2	ug/l	93	92	80-120	1	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	99	96	75-120	3	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	86	86	64-124	1	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	89	89	70-123	0	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	97	94	80-120	3	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	99	98	80-120	2	30
Trichloroethene	0.2	U	0.2	ug/l	99	96	80-120	3	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	91	89	69-133	2	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	101	100	80-120	0	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	90	89	80-120	2	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	91	88	80-120	2	30
Vinyl Acetate	0.5	U	0.5	ug/l	92	91	10-183	2	30
Vinyl Chloride	0.2	U	0.2	ug/l	86	83	71-123	3	30
m,p-Xylene	0.5	U	0.5	ug/l	97	94	80-120	4	30
o-Xylene	0.5	U	0.5	ug/l	94	92	80-120	2	30
Batch number: H152421AA	Sample number(s): 8020635,8020638								
Acetone	5.0	U	5.0	ug/l	92	93	55-136	1	30
Acrolein	25	U	25.	ug/l	61	61	37-125	0	30
Acrylonitrile	5.0	U	5.0	ug/l	90	92	63-141	3	30
Benzene	0.2	U	0.2	ug/l	102	100	80-120	3	30
Bromobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Bromochloromethane	0.5	U	0.5	ug/l	105	104	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	101	99	80-120	2	30
Bromoform	0.5	U	0.5	ug/l	104	105	64-134	0	30
Bromomethane	0.5	U	0.5	ug/l	85	81	71-126	4	30
2-Butanone	5.0	U	5.0	ug/l	87	90	66-135	3	30
n-Butylbenzene	0.5	U	0.5	ug/l	92	90	80-120	2	30
sec-Butylbenzene	0.5	U	0.5	ug/l	92	90	80-120	2	30
tert-Butylbenzene	0.5	U	0.5	ug/l	91	90	80-120	2	30
Carbon Disulfide	0.5	U	0.5	ug/l	100	97	70-128	3	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	104	100	79-129	4	30
Chlorobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Chloroethane	0.5	U	0.5	ug/l	83	80	71-122	3	30
Chloroform	0.2	U	0.2	ug/l	101	98	80-120	3	30
Chloromethane	0.5	U	0.5	ug/l	74	71	63-121	4	30
2-Chlorotoluene	0.5	U	0.5	ug/l	91	89	80-120	2	30
4-Chlorotoluene	0.5	U	0.5	ug/l	90	90	80-120	0	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	90	91	54-147	0	30
Dibromochloromethane	0.5	U	0.5	ug/l	100	101	80-126	0	30
Dibromomethane	0.5	U	0.5	ug/l	106	105	80-122	2	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	73	76	14-166	5	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	93	93	80-120	0	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	93	92	80-120	1	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	94	94	80-120	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587458
Reported: 09/02/2015 04:26

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	0.5	U	0.5	ug/l	102	100	80-120	2	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	106	105	80-125	1	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	100	95	80-120	5	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	101	98	80-120	3	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	102	99	80-120	3	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	107	107	80-120	0	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	100	100	80-120	1	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	98	94	77-127	4	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	99	95	80-120	4	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	106	104	80-124	1	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	99	99	76-132	1	30
Ethylbenzene	0.5	U	0.5	ug/l	94	92	80-120	2	30
Ethylene dibromide	0.5	U	0.5	ug/l	102	102	80-120	1	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	92	90	74-123	2	30
2-Hexanone	5.0	U	5.0	ug/l	85	91	71-138	7	30
Isopropylbenzene	0.5	U	0.5	ug/l	96	94	80-120	2	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	90	88	80-120	2	30
Methyl Iodide	0.5	U	0.5	ug/l	103	101	72-127	2	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	88	90	73-135	2	30
Methylene Chloride	0.5	U	0.5	ug/l	102	102	80-120	0	30
Naphthalene	0.5	U	0.5	ug/l	86	89	59-136	3	30
n-Propylbenzene	0.5	U	0.5	ug/l	91	89	79-121	2	30
Styrene	0.5	U	0.5	ug/l	95	94	80-122	1	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	96	95	80-120	2	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	89	92	80-120	4	30
Tetrachloroethene	0.2	U	0.2	ug/l	99	96	80-120	3	30
Toluene	0.2	U	0.2	ug/l	93	91	80-120	2	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	104	101	75-120	3	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	87	87	64-124	0	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	91	90	70-123	1	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	100	97	80-120	3	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	98	98	80-120	1	30
Trichloroethene	0.2	U	0.2	ug/l	102	99	80-120	2	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	89	85	69-133	5	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	98	98	80-120	1	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	89	88	80-120	1	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	89	88	80-120	1	30
Vinyl Acetate	0.5	U	0.5	ug/l	124	123	10-183	1	30
Vinyl Chloride	0.2	U	0.2	ug/l	82	78	71-123	5	30
m,p-Xylene	0.5	U	0.5	ug/l	96	94	80-120	2	30
o-Xylene	0.5	U	0.5	ug/l	93	92	80-120	1	30

Batch number: 15244049503A Sample number(s): 8020633-8020634

Total Organic Carbon	1.0	U	1.0	mg/l	94	91-113

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

Batch number: 15244049503A Sample number(s): 8020633-8020634 UNSPK: P021374 BKG: P021374

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587458
Reported: 09/02/2015 04:26

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Total Organic Carbon	93		91-113			5.4	5.3	3	3

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H152401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8020631	102	105	96	97
8020632	102	110	95	98
8020633	102	103	95	96
8020633 DL	103	104	96	96
8020634	101	107	96	96
8020635	101	105	96	96
8020636	101	103	96	97
8020637	102	105	97	97
8020638	102	106	97	96
8020639	102	105	97	97
Blank	102	104	97	98
LCS	102	105	98	99
LCSD	102	107	97	99
Limits:	77-114	74-113	77-110	78-110

Analysis Name: 8260C Boeing 69
Batch number: H152421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8020635 DL	103	105	96	96
8020638 DL	102	108	95	97
Blank	102	106	96	98
LCS	103	107	95	99
LCSD	103	108	95	99
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1587458 Sample # 8020631-39

Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10

Site Project: 2-10 IM

Site Program/#: K0294000

Boeing PM: Will Ernst

Consultant Contact: Tom McKeon, Chris Gallagher

Report To: Will Ernst, Tom McKeon + Chris Gallagher

Invoice To: ☒ Boeing EHS ☐ Other (specify): _____

Sampler: Justin Veste + Chris Gallagher # of Coolers: 1

4 Analyses Requested

5 Remarks/Comments

VOC's in unpreserved vials.

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC's 8260C Boeing	TOC
PL2-218A-082415	8/24/15	0959	aq	3	X	
PL2-218B-082415	8/24/15	1028	aq	3	X	
IW-N4-082415	8/24/15	1103	aq	5	X	X
IW-N6-082415	8/24/15	1140	aq	5	X	X
PL2-212A-082415	8/24/15	1323	aq	3	X	
PL2-209A-082415	8/24/15	1407	aq	3	X	
PL2-253A-082415	8/24/15	1439	aq	3	X	
Dupl-082415	8/24/15	0800	aq	3	X	
Trip Blank	8/5/15	0800	aq	2	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]	8/24/15 1535		
		[signature]	8/25/15 0935

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: 1.2 °C

Custody Seals Intact?: Yes No

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 100078

Group Number(s): 1587458

Client: BOEING 2-10

2-10IM

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	08/25/2015 9:35
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	NP
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Corey Eshleman (3647) at 11:27 on 08/25/2015

Samples Chilled Details: 2-10IM

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	1.2	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

1587458

VINCE YU
EUROFINS LANCASTER LABORATORIE
11720 NORTH CREEK PARKWAY N
BOTHELL WA 98011-8244

40 LBS

RS

SHIP TO:
SAMPLE ADMINASTRATION
(717) 656-2300
EUROFINS LANCASTER LABORATORIES
2425 NEW HOLLAND PIKE
LANCASTER PA 17601-5946

PA 175 9-37

UPS NEXT DAY AIR **1 S**
TRACKING #: 1Z RV3 069 Y0 4521 1610

BILLING: P/P
DESC: SAMPLING
RETURN SERVICE

REF 1:DEPT 40

WS 17.0.31 LD620D 63.0A 04/2015

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

August 31, 2015

Project: Boeing Plant 2 2-10 IM

Submittal Date: 08/26/2015
Group Number: 1587951
SDG: BNG75
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-258A-082515 Water	8023151
PL2-258B-082515 Water	8023152
PL2-216A-082515 Water	8023153
PL2-214A-082515 Water	8023154
PL2-256A-082515 Water	8023155
PL2-257A-082515 Water	8023156
Trip Blank Water	8023157

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Calibre	Attn: Tom McKeon
ELECTRONIC COPY TO	The Boeing Company	Attn: Will Ernst
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Alyssa Neir
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Jill Lamberts
ELECTRONIC COPY TO	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1587951

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 8023157

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

Sample #s: 8023151, 8023152, 8023153, 8023154, 8023155, 8023156

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

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Analysis Report

Sample Description: PL2-258A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023151
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 08:42 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258A SDG#: BNG75-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-258A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023151
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 08:42 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258A SDG#: BNG75-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 15:35	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 15:35	Kerri E Legerlotz	1

Sample Description: PL2-258B-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023152
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 09:20 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258B SDG#: BNG75-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.1**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-258B-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023152
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 09:20 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-258B SDG#: BNG75-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 15:57	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 15:57	Kerri E Legerlotz	1

Sample Description: PL2-216A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023153
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 10:04 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-216A SDG#: BNG75-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-216A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023153
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 10:04 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-216A SDG#: BNG75-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 17:01	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 17:01	Kerri E Legerlotz	1

Sample Description: PL2-214A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023154
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 10:41 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-214A SDG#: BNG75-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-214A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023154
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 10:41 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-214A SDG#: BNG75-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 16:18	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 16:18	Kerri E Legerlotz	1

Sample Description: PL2-256A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023155
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 11:22 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-256A SDG#: BNG75-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-256A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023155
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 11:22 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-256A SDG#: BNG75-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.4**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 16:40	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 16:40	Kerri E Legerlotz	1

Sample Description: PL2-257A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023156
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 11:56 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNG75-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**2.3**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-257A-082515 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023156
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/25/2015 11:56 by JN

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNG75-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.4**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**7.1**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 17:22	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 17:22	Kerri E Legerlotz	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023157
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/05/2015 08:00

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

TB210 SDG#: BNG75-07TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8023157
LL Group # 1587951
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 08/05/2015 08:00

Submitted: 08/26/2015 09:30
Reported: 08/31/2015 23:39

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

TB210 SDG#: BNG75-07TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
Acrolein	-42%
Acetone	-22%

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H152421AA	08/30/2015 12:23	Kerri E Legerlotz	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H152421AA	08/30/2015 12:23	Kerri E Legerlotz	1

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587951
Reported: 08/31/2015 23:39

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H152421AA	Sample number(s): 8023151-8023157								
Acetone	5.0	U	5.0	ug/l	92	93	55-136	1	30
Acrolein	25	U	25.	ug/l	61	61	37-125	0	30
Acrylonitrile	5.0	U	5.0	ug/l	90	92	63-141	3	30
Benzene	0.2	U	0.2	ug/l	102	100	80-120	3	30
Bromobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Bromochloromethane	0.5	U	0.5	ug/l	105	104	80-125	1	30
Bromodichloromethane	0.5	U	0.5	ug/l	101	99	80-120	2	30
Bromoform	0.5	U	0.5	ug/l	104	105	64-134	0	30
Bromomethane	0.5	U	0.5	ug/l	85	81	71-126	4	30
2-Butanone	5.0	U	5.0	ug/l	87	90	66-135	3	30
n-Butylbenzene	0.5	U	0.5	ug/l	92	90	80-120	2	30
sec-Butylbenzene	0.5	U	0.5	ug/l	92	90	80-120	2	30
tert-Butylbenzene	0.5	U	0.5	ug/l	91	90	80-120	2	30
Carbon Disulfide	0.5	U	0.5	ug/l	100	97	70-128	3	30
Carbon Tetrachloride	0.2	U	0.2	ug/l	104	100	79-129	4	30
Chlorobenzene	0.5	U	0.5	ug/l	95	95	80-120	0	30
Chloroethane	0.5	U	0.5	ug/l	83	80	71-122	3	30
Chloroform	0.2	U	0.2	ug/l	101	98	80-120	3	30
Chloromethane	0.5	U	0.5	ug/l	74	71	63-121	4	30
2-Chlorotoluene	0.5	U	0.5	ug/l	91	89	80-120	2	30
4-Chlorotoluene	0.5	U	0.5	ug/l	90	90	80-120	0	30
1,2-Dibromo-3-chloropropane	0.5	U	0.5	ug/l	90	91	54-147	0	30
Dibromochloromethane	0.5	U	0.5	ug/l	100	101	80-126	0	30
Dibromomethane	0.5	U	0.5	ug/l	106	105	80-122	2	30
trans-1,4-Dichloro-2-butene	5.0	U	5.0	ug/l	73	76	14-166	5	30
1,2-Dichlorobenzene	0.5	U	0.5	ug/l	93	93	80-120	0	30
1,3-Dichlorobenzene	0.5	U	0.5	ug/l	93	92	80-120	1	30
1,4-Dichlorobenzene	0.5	U	0.5	ug/l	94	94	80-120	0	30
1,1-Dichloroethane	0.5	U	0.5	ug/l	102	100	80-120	2	30
1,2-Dichloroethane	0.2	U	0.2	ug/l	106	105	80-125	1	30
1,1-Dichloroethene	0.2	U	0.2	ug/l	100	95	80-120	5	30
cis-1,2-Dichloroethene	0.2	U	0.2	ug/l	101	98	80-120	3	30
trans-1,2-Dichloroethene	0.2	U	0.2	ug/l	102	99	80-120	3	30
1,2-Dichloropropane	0.5	U	0.5	ug/l	107	107	80-120	0	30
1,3-Dichloropropane	0.5	U	0.5	ug/l	100	100	80-120	1	30
2,2-Dichloropropane	0.5	U	0.5	ug/l	98	94	77-127	4	30
1,1-Dichloropropene	0.5	U	0.5	ug/l	99	95	80-120	4	30
cis-1,3-Dichloropropene	0.2	U	0.2	ug/l	106	104	80-124	1	30
trans-1,3-Dichloropropene	0.2	U	0.2	ug/l	99	99	76-132	1	30
Ethylbenzene	0.5	U	0.5	ug/l	94	92	80-120	2	30
Ethylene dibromide	0.5	U	0.5	ug/l	102	102	80-120	1	30
Hexachlorobutadiene	0.5	U	0.5	ug/l	92	90	74-123	2	30
2-Hexanone	5.0	U	5.0	ug/l	85	91	71-138	7	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: The Boeing Company Group Number: 1587951
Reported: 08/31/2015 23:39

Analysis Name	Blank Result		Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Isopropylbenzene	0.5	U	0.5	ug/l	96	94	80-120	2	30
4-Isopropyltoluene	0.5	U	0.5	ug/l	90	88	80-120	2	30
Methyl Iodide	0.5	U	0.5	ug/l	103	101	72-127	2	30
4-Methyl-2-pentanone	5.0	U	5.0	ug/l	88	90	73-135	2	30
Methylene Chloride	0.5	U	0.5	ug/l	102	102	80-120	0	30
Naphthalene	0.5	U	0.5	ug/l	86	89	59-136	3	30
n-Propylbenzene	0.5	U	0.5	ug/l	91	89	79-121	2	30
Styrene	0.5	U	0.5	ug/l	95	94	80-122	1	30
1,1,1,2-Tetrachloroethane	0.5	U	0.5	ug/l	96	95	80-120	2	30
1,1,2,2-Tetrachloroethane	0.2	U	0.2	ug/l	89	92	80-120	4	30
Tetrachloroethene	0.2	U	0.2	ug/l	99	96	80-120	3	30
Toluene	0.2	U	0.2	ug/l	93	91	80-120	2	30
112Trichloro122Trifluoroethane	0.5	U	0.5	ug/l	104	101	75-120	3	30
1,2,3-Trichlorobenzene	0.5	U	0.5	ug/l	87	87	64-124	0	30
1,2,4-Trichlorobenzene	0.5	U	0.5	ug/l	91	90	70-123	1	30
1,1,1-Trichloroethane	0.5	U	0.5	ug/l	100	97	80-120	3	30
1,1,2-Trichloroethane	0.2	U	0.2	ug/l	98	98	80-120	1	30
Trichloroethene	0.2	U	0.2	ug/l	102	99	80-120	2	30
Trichlorofluoromethane	0.5	U	0.5	ug/l	89	85	69-133	5	30
1,2,3-Trichloropropane	1.0	U	1.0	ug/l	98	98	80-120	1	30
1,2,4-Trimethylbenzene	0.5	U	0.5	ug/l	89	88	80-120	1	30
1,3,5-Trimethylbenzene	0.5	U	0.5	ug/l	89	88	80-120	1	30
Vinyl Acetate	0.5	U	0.5	ug/l	124	123	10-183	1	30
Vinyl Chloride	0.2	U	0.2	ug/l	82	78	71-123	5	30
m,p-Xylene	0.5	U	0.5	ug/l	96	94	80-120	2	30
o-Xylene	0.5	U	0.5	ug/l	93	92	80-120	1	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H152421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8023151	102	107	96	97
8023152	105	113	94	99
8023153	102	106	96	99
8023154	104	106	95	97
8023155	103	106	95	96
8023156	103	108	95	97
8023157	102	107	96	98
Blank	102	106	96	98
LCS	103	107	95	99
LCSD	103	108	95	99
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1587451 Sample # 8023151-57

Please print. Instructions on reverse side correspond.

(1) Client Information

Site Location: Boeing 2-10

Site Project: 2-10 IM

Site Program/#: KO 294000-000

Boeing PM: Will Ernst

Consultant Contact: Tom McKeon & Chris Gallagher

Report To: Will Ernst, Tom McKeon, Chris Gallagher

Invoice To: ☒ Boeing EHS ☐ Other (specify): _____

Sampler: Justin Neste & Chris Gallagher # of Coolers: _____

(4) Analyses Requested

(5) Remarks/Comments

unpreserved VOC bottles

(2) Sample Identification	Collected Date	Collected Time	(3) Matrix	No. of Containers	VOC 8260C Boeing 69
PL2-258A-082515	8/25/15	0842	aq	3	X
PL2-258B-082515	8/25/15	0920	aq	3	X
PL2-214A-082515	8/25/15	1004	aq	3	X
PL2-214A-082515	8/25/15	1041	aq	3	X
PL2-256A-082515	8/25/15	1122	aq	3	X
PL2-257A-082515	8/25/15	1156	aq	3	X
Trip Blank	8/5/15	0800	aq	2	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 (7)
[signature]	8-25-15/1335		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
		[signature]	8-26-15 1930

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: 0.8 °C

Custody Seals Intact?: Yes No

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 100420

Group Number(s): 1587951

Client: Boeing

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	08/26/2015 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): Unpreserved

Unpacked by Timothy Cubberley (6520) at 14:27 on 08/26/2015

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	0.8	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

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EUROFINS LANCASTER LABORATORIE
11720 NORTH CREEK PARKWAY N
BOTHELL WA 98011-8244

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(510) 232-8894
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2425 NEW HOLLAND PIKE
LANCASTER PA 17601

PA 175 9-37

UPS NEXT DAY AIR 1 S

TRACKING #: 1Z RV3 069 Y0 4550 1824

BILLING: P/P
DESC: SAMPLING
RETURN SERVICE

REF 1:DEPT 40

WS 17 0 31

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and the < Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Groundwater Monitoring Laboratory Data Sheets (March 2016)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Report Date: March 17, 2016

Project: Boeing Plant 2 2-10 IM

Submittal Date: 03/11/2016
Group Number: 1639666
SDG: BNH20
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-218A-031016 Water	8281478
PL2-218B-031016 Water	8281479
IW-N4-031016 Water	8281480
IW-N6-031016 Water	8281481
PL2-212A-031016 Water	8281482
PL2-209A-031016 Water	8281483
PL2-216A-031016 Water	8281484
PL2-253A-031016 Water	8281485
PL2-256A-031016 Water	8281486
PL2-257A-031016 Water	8281487
DUP1-031016 Water	8281488
Trip Blank Water	8281489

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

Electronic Copy To	Calibre	Attn: Chris Gallagher
Electronic Copy To	Calibre	Attn: Tom McKeon
Electronic Copy To	The Boeing Company	Attn: Will Ernst
Electronic Copy To	Golder Associates Inc.	Attn: Alyssa Neir
Electronic Copy To	Golder Associates Inc.	Attn: Jill Lamberts
Electronic Copy To	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower

Kay Hower
Manager

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1639666

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

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Analysis Report

Sample Description: PL2-218A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281478
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 08:13 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218A SDG#: BNH20-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**Acetone**	67-64-1	**6.6**		5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-218A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281478
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 08:13 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218A SDG#: BNH20-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 03:38	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 03:38	Matthew S Krause	1

Sample Description: PL2-218B-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281479
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 08:42 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218B SDG#: BNH20-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**3.1**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-218B-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281479
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 08:42 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-218B SDG#: BNH20-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 03:59	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 03:59	Matthew S Krause	1

Sample Description: IW-N4-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281480
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:23 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN4- SDG#: BNH20-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**65**	**E**	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: IW-N4-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281480
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:23 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN4- SDG#: BNH20-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**6.0**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: DL						
11996	Acetone	67-64-1	100	U	100	20
11996	Acrolein	107-02-8	500	U	500	20
11996	Acrylonitrile	107-13-1	100	U	100	20
11996	Benzene	71-43-2	4.0	U	4.0	20
11996	Bromobenzene	108-86-1	10	U	10	20
11996	Bromochloromethane	74-97-5	10	U	10	20
11996	Bromodichloromethane	75-27-4	10	U	10	20
11996	Bromoform	75-25-2	10	U	10	20
11996	Bromomethane	74-83-9	10	U	10	20
11996	2-Butanone	78-93-3	100	U	100	20
11996	n-Butylbenzene	104-51-8	10	U	10	20
11996	sec-Butylbenzene	135-98-8	10	U	10	20
11996	tert-Butylbenzene	98-06-6	10	U	10	20
11996	Carbon Disulfide	75-15-0	10	U	10	20
11996	Carbon Tetrachloride	56-23-5	4.0	U	4.0	20
11996	Chlorobenzene	108-90-7	10	U	10	20
11996	Chloroethane	75-00-3	10	U	10	20
11996	Chloroform	67-66-3	4.0	U	4.0	20
11996	Chloromethane	74-87-3	10	U	10	20
11996	2-Chlorotoluene	95-49-8	10	U	10	20
11996	4-Chlorotoluene	106-43-4	10	U	10	20
11996	1,2-Dibromo-3-chloropropane	96-12-8	10	U	10	20
11996	Dibromochloromethane	124-48-1	10	U	10	20
11996	Dibromomethane	74-95-3	10	U	10	20
11996	trans-1,4-Dichloro-2-butene	110-57-6	100	U	100	20
11996	1,2-Dichlorobenzene	95-50-1	10	U	10	20
11996	1,3-Dichlorobenzene	541-73-1	10	U	10	20
11996	1,4-Dichlorobenzene	106-46-7	10	U	10	20
11996	1,1-Dichloroethane	75-34-3	10	U	10	20
11996	1,2-Dichloroethane	107-06-2	4.0	U	4.0	20
11996	1,1-Dichloroethene	75-35-4	4.0	U	4.0	20

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Analysis Report

Sample Description: IW-N4-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281480
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:23 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN4- SDG#: BNH20-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	cis-1,2-Dichloroethene	156-59-2	4.0	U	4.0	20
11996	trans-1,2-Dichloroethene	156-60-5	4.0	U	4.0	20
11996	1,2-Dichloropropane	78-87-5	10	U	10	20
11996	1,3-Dichloropropane	142-28-9	10	U	10	20
11996	2,2-Dichloropropane	594-20-7	10	U	10	20
11996	1,1-Dichloropropene	563-58-6	10	U	10	20
11996	cis-1,3-Dichloropropene	10061-01-5	4.0	U	4.0	20
11996	trans-1,3-Dichloropropene	10061-02-6	4.0	U	4.0	20
11996	Ethylbenzene	100-41-4	10	U	10	20
11996	Ethylene dibromide	106-93-4	10	U	10	20
11996	Hexachlorobutadiene	87-68-3	10	U	10	20
11996	2-Hexanone	591-78-6	100	U	100	20
11996	Isopropylbenzene	98-82-8	10	U	10	20
11996	**4-Isopropyltoluene**	99-87-6	**71**		10	20
11996	Methyl Iodide	74-88-4	10	U	10	20
11996	4-Methyl-2-pentanone	108-10-1	100	U	100	20
11996	Methylene Chloride	75-09-2	10	U	10	20
11996	Naphthalene	91-20-3	10	U	10	20
11996	n-Propylbenzene	103-65-1	10	U	10	20
11996	Styrene	100-42-5	10	U	10	20
11996	1,1,1,2-Tetrachloroethane	630-20-6	10	U	10	20
11996	1,1,2,2-Tetrachloroethane	79-34-5	4.0	U	4.0	20
11996	Tetrachloroethene	127-18-4	4.0	U	4.0	20
11996	**Toluene**	108-88-3	**5.5**		4.0	20
11996	112Trichloro122Trifluoroethane	76-13-1	10	U	10	20
11996	1,2,3-Trichlorobenzene	87-61-6	10	U	10	20
11996	1,2,4-Trichlorobenzene	120-82-1	10	U	10	20
11996	1,1,1-Trichloroethane	71-55-6	10	U	10	20
11996	1,1,2-Trichloroethane	79-00-5	4.0	U	4.0	20
11996	Trichloroethene	79-01-6	4.0	U	4.0	20
11996	Trichlorofluoromethane	75-69-4	10	U	10	20
11996	1,2,3-Trichloropropane	96-18-4	20	U	20	20
11996	1,2,4-Trimethylbenzene	95-63-6	10	U	10	20
11996	1,3,5-Trimethylbenzene	108-67-8	10	U	10	20
11996	Vinyl Acetate	108-05-4	10	U	10	20
11996	Vinyl Chloride	75-01-4	4.0	U	4.0	20
11996	m,p-Xylene	179601-23-1	10	U	10	20
11996	o-Xylene	95-47-6	10	U	10	20
Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**9.9**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: IW-N4-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281480
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:23 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN4- SDG#: BNH20-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 06:00	Matthew S Krause	1
11996	8260C Boeing 69	SW-846 8260C	2-DL	H160742AA	03/15/2016 06:21	Matthew S Krause	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 06:00	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H160742AA	03/15/2016 06:21	Matthew S Krause	20
00273	Total Organic Carbon	SM 5310 C-2000	1	16074049503A	03/14/2016 10:22	James S Mathiot	1

Sample Description: IW-N6-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281481
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:57 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNH20-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.6**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**16**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: IW-N6-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281481
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 09:57 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

IWN6- SDG#: BNH20-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**15**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.5**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.5**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**8.0**		1.0	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 06:41	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 06:41	Matthew S Krause	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16074049503A	03/14/2016 10:35	James S Mathiot	1

Sample Description: PL2-212A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281482
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 10:32 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNH20-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,300**	**E**	20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100

Sample Description: PL2-212A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281482
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 10:32 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNH20-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	Toluene	108-88-3	20	U	20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	**Trichloroethene**	79-01-6	**26**		20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	**Vinyl Chloride**	75-01-4	**2,100**		20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100
Trial ID: DL						
11996	Acetone	67-64-1	5,000	U	5,000	1000
11996	Acrolein	107-02-8	25,000	U	25,000	1000
11996	Acrylonitrile	107-13-1	5,000	U	5,000	1000
11996	Benzene	71-43-2	200	U	200	1000
11996	Bromobenzene	108-86-1	500	U	500	1000
11996	Bromochloromethane	74-97-5	500	U	500	1000
11996	Bromodichloromethane	75-27-4	500	U	500	1000
11996	Bromoform	75-25-2	500	U	500	1000
11996	Bromomethane	74-83-9	500	U	500	1000
11996	2-Butanone	78-93-3	5,000	U	5,000	1000
11996	n-Butylbenzene	104-51-8	500	U	500	1000
11996	sec-Butylbenzene	135-98-8	500	U	500	1000
11996	tert-Butylbenzene	98-06-6	500	U	500	1000
11996	Carbon Disulfide	75-15-0	500	U	500	1000
11996	Carbon Tetrachloride	56-23-5	200	U	200	1000
11996	Chlorobenzene	108-90-7	500	U	500	1000
11996	Chloroethane	75-00-3	500	U	500	1000
11996	Chloroform	67-66-3	200	U	200	1000
11996	Chloromethane	74-87-3	500	U	500	1000
11996	2-Chlorotoluene	95-49-8	500	U	500	1000
11996	4-Chlorotoluene	106-43-4	500	U	500	1000
11996	1,2-Dibromo-3-chloropropane	96-12-8	500	U	500	1000
11996	Dibromochloromethane	124-48-1	500	U	500	1000
11996	Dibromomethane	74-95-3	500	U	500	1000
11996	trans-1,4-Dichloro-2-butene	110-57-6	5,000	U	5,000	1000
11996	1,2-Dichlorobenzene	95-50-1	500	U	500	1000
11996	1,3-Dichlorobenzene	541-73-1	500	U	500	1000
11996	1,4-Dichlorobenzene	106-46-7	500	U	500	1000
11996	1,1-Dichloroethane	75-34-3	500	U	500	1000
11996	1,2-Dichloroethane	107-06-2	200	U	200	1000
11996	1,1-Dichloroethene	75-35-4	200	U	200	1000

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Analysis Report

Sample Description: PL2-212A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281482
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 10:32 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNH20-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,300**		200	1000
11996	trans-1,2-Dichloroethene	156-60-5	200	U	200	1000
11996	1,2-Dichloropropane	78-87-5	500	U	500	1000
11996	1,3-Dichloropropane	142-28-9	500	U	500	1000
11996	2,2-Dichloropropane	594-20-7	500	U	500	1000
11996	1,1-Dichloropropene	563-58-6	500	U	500	1000
11996	cis-1,3-Dichloropropene	10061-01-5	200	U	200	1000
11996	trans-1,3-Dichloropropene	10061-02-6	200	U	200	1000
11996	Ethylbenzene	100-41-4	500	U	500	1000
11996	Ethylene dibromide	106-93-4	500	U	500	1000
11996	Hexachlorobutadiene	87-68-3	500	U	500	1000
11996	2-Hexanone	591-78-6	5,000	U	5,000	1000
11996	Isopropylbenzene	98-82-8	500	U	500	1000
11996	4-Isopropyltoluene	99-87-6	500	U	500	1000
11996	Methyl Iodide	74-88-4	500	U	500	1000
11996	4-Methyl-2-pentanone	108-10-1	5,000	U	5,000	1000
11996	Methylene Chloride	75-09-2	500	U	500	1000
11996	Naphthalene	91-20-3	500	U	500	1000
11996	n-Propylbenzene	103-65-1	500	U	500	1000
11996	Styrene	100-42-5	500	U	500	1000
11996	1,1,1,2-Tetrachloroethane	630-20-6	500	U	500	1000
11996	1,1,2,2-Tetrachloroethane	79-34-5	200	U	200	1000
11996	Tetrachloroethene	127-18-4	200	U	200	1000
11996	Toluene	108-88-3	200	U	200	1000
11996	112Trichloro122Trifluoroethane	76-13-1	500	U	500	1000
11996	1,2,3-Trichlorobenzene	87-61-6	500	U	500	1000
11996	1,2,4-Trichlorobenzene	120-82-1	500	U	500	1000
11996	1,1,1-Trichloroethane	71-55-6	500	U	500	1000
11996	1,1,2-Trichloroethane	79-00-5	200	U	200	1000
11996	Trichloroethene	79-01-6	200	U	200	1000
11996	Trichlorofluoromethane	75-69-4	500	U	500	1000
11996	1,2,3-Trichloropropane	96-18-4	1,000	U	1,000	1000
11996	1,2,4-Trimethylbenzene	95-63-6	500	U	500	1000
11996	1,3,5-Trimethylbenzene	108-67-8	500	U	500	1000
11996	Vinyl Acetate	108-05-4	500	U	500	1000
11996	**Vinyl Chloride**	75-01-4	**2,100**		200	1000
11996	m,p-Xylene	179601-23-1	500	U	500	1000
11996	o-Xylene	95-47-6	500	U	500	1000

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

Sample Description: PL2-212A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281482
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 10:32 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-212A SDG#: BNH20-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160752AA	03/15/2016 16:05	Kerri E Legerlotz	100
11996	8260C Boeing 69	SW-846 8260C	2-DL	H160752AA	03/15/2016 16:26	Kerri E Legerlotz	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160752AA	03/15/2016 16:05	Kerri E Legerlotz	100
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H160752AA	03/15/2016 16:26	Kerri E Legerlotz	1000

Sample Description: PL2-209A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281483
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 11:10 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-209A SDG#: BNH20-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-209A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281483
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 11:10 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-209A SDG#: BNH20-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 04:19	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 04:19	Matthew S Krause	1

Sample Description: PL2-216A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281484
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 11:42 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-216A SDG#: BNH20-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-216A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281484
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 11:42 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-216A SDG#: BNH20-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 04:39	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 04:39	Matthew S Krause	1

Sample Description: PL2-253A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281485
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 12:57 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-253A SDG#: BNH20-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-253A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281485
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 12:57 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-253A SDG#: BNH20-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 04:59	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 04:59	Matthew S Krause	1

Sample Description: PL2-256A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281486
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 13:29 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-256A SDG#: BNH20-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.4**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-256A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281486
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 13:29 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-256A SDG#: BNH20-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.4**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.0**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 05:20	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 05:20	Matthew S Krause	1

Sample Description: PL2-257A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281487
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 14:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNH20-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**10**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-257A-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281487
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 14:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

-257A SDG#: BNH20-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**9.6**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 05:40	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 05:40	Matthew S Krause	1

Sample Description: DUP1-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281488
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 07:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-D SDG#: BNH20-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,100**	**E**	20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100

Sample Description: DUP1-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281488
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 07:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-D SDG#: BNH20-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	Toluene	108-88-3	20	U	20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	**Trichloroethene**	79-01-6	**29**		20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	**Vinyl Chloride**	75-01-4	**1,900**		20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100
Trial ID: DL						
11996	Acetone	67-64-1	5,000	U	5,000	1000
11996	Acrolein	107-02-8	25,000	U	25,000	1000
11996	Acrylonitrile	107-13-1	5,000	U	5,000	1000
11996	Benzene	71-43-2	200	U	200	1000
11996	Bromobenzene	108-86-1	500	U	500	1000
11996	Bromochloromethane	74-97-5	500	U	500	1000
11996	Bromodichloromethane	75-27-4	500	U	500	1000
11996	Bromoform	75-25-2	500	U	500	1000
11996	Bromomethane	74-83-9	500	U	500	1000
11996	2-Butanone	78-93-3	5,000	U	5,000	1000
11996	n-Butylbenzene	104-51-8	500	U	500	1000
11996	sec-Butylbenzene	135-98-8	500	U	500	1000
11996	tert-Butylbenzene	98-06-6	500	U	500	1000
11996	Carbon Disulfide	75-15-0	500	U	500	1000
11996	Carbon Tetrachloride	56-23-5	200	U	200	1000
11996	Chlorobenzene	108-90-7	500	U	500	1000
11996	Chloroethane	75-00-3	500	U	500	1000
11996	Chloroform	67-66-3	200	U	200	1000
11996	Chloromethane	74-87-3	500	U	500	1000
11996	2-Chlorotoluene	95-49-8	500	U	500	1000
11996	4-Chlorotoluene	106-43-4	500	U	500	1000
11996	1,2-Dibromo-3-chloropropane	96-12-8	500	U	500	1000
11996	Dibromochloromethane	124-48-1	500	U	500	1000
11996	Dibromomethane	74-95-3	500	U	500	1000
11996	trans-1,4-Dichloro-2-butene	110-57-6	5,000	U	5,000	1000
11996	1,2-Dichlorobenzene	95-50-1	500	U	500	1000
11996	1,3-Dichlorobenzene	541-73-1	500	U	500	1000
11996	1,4-Dichlorobenzene	106-46-7	500	U	500	1000
11996	1,1-Dichloroethane	75-34-3	500	U	500	1000
11996	1,2-Dichloroethane	107-06-2	200	U	200	1000
11996	1,1-Dichloroethene	75-35-4	200	U	200	1000

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Analysis Report

Sample Description: DUP1-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281488
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 07:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-D SDG#: BNH20-11FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**6,100**		200	1000
11996	trans-1,2-Dichloroethene	156-60-5	200	U	200	1000
11996	1,2-Dichloropropane	78-87-5	500	U	500	1000
11996	1,3-Dichloropropane	142-28-9	500	U	500	1000
11996	2,2-Dichloropropane	594-20-7	500	U	500	1000
11996	1,1-Dichloropropene	563-58-6	500	U	500	1000
11996	cis-1,3-Dichloropropene	10061-01-5	200	U	200	1000
11996	trans-1,3-Dichloropropene	10061-02-6	200	U	200	1000
11996	Ethylbenzene	100-41-4	500	U	500	1000
11996	Ethylene dibromide	106-93-4	500	U	500	1000
11996	Hexachlorobutadiene	87-68-3	500	U	500	1000
11996	2-Hexanone	591-78-6	5,000	U	5,000	1000
11996	Isopropylbenzene	98-82-8	500	U	500	1000
11996	4-Isopropyltoluene	99-87-6	500	U	500	1000
11996	Methyl Iodide	74-88-4	500	U	500	1000
11996	4-Methyl-2-pentanone	108-10-1	5,000	U	5,000	1000
11996	Methylene Chloride	75-09-2	500	U	500	1000
11996	Naphthalene	91-20-3	500	U	500	1000
11996	n-Propylbenzene	103-65-1	500	U	500	1000
11996	Styrene	100-42-5	500	U	500	1000
11996	1,1,1,2-Tetrachloroethane	630-20-6	500	U	500	1000
11996	1,1,2,2-Tetrachloroethane	79-34-5	200	U	200	1000
11996	Tetrachloroethene	127-18-4	200	U	200	1000
11996	Toluene	108-88-3	200	U	200	1000
11996	112Trichloro122Trifluoroethane	76-13-1	500	U	500	1000
11996	1,2,3-Trichlorobenzene	87-61-6	500	U	500	1000
11996	1,2,4-Trichlorobenzene	120-82-1	500	U	500	1000
11996	1,1,1-Trichloroethane	71-55-6	500	U	500	1000
11996	1,1,2-Trichloroethane	79-00-5	200	U	200	1000
11996	Trichloroethene	79-01-6	200	U	200	1000
11996	Trichlorofluoromethane	75-69-4	500	U	500	1000
11996	1,2,3-Trichloropropane	96-18-4	1,000	U	1,000	1000
11996	1,2,4-Trimethylbenzene	95-63-6	500	U	500	1000
11996	1,3,5-Trimethylbenzene	108-67-8	500	U	500	1000
11996	Vinyl Acetate	108-05-4	500	U	500	1000
11996	**Vinyl Chloride**	75-01-4	**2,000**		200	1000
11996	m,p-Xylene	179601-23-1	500	U	500	1000
11996	o-Xylene	95-47-6	500	U	500	1000

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DUP1-031016 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281488
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 03/10/2016 07:00 by CG

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210-D SDG#: BNH20-11FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160752AA	03/15/2016 16:46	Kerri E Legerlotz	100
11996	8260C Boeing 69	SW-846 8260C	2-DL	H160752AA	03/15/2016 17:06	Kerri E Legerlotz	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160752AA	03/15/2016 16:46	Kerri E Legerlotz	100
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H160752AA	03/15/2016 17:06	Kerri E Legerlotz	1000

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281489
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 02/01/2016 08:00

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210TB SDG#: BNH20-12TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8281489
LL Group # 1639666
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 02/01/2016 08:00

Submitted: 03/11/2016 09:25
Reported: 03/17/2016 11:44

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

210TB SDG#: BNH20-12TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H160742AA	03/15/2016 03:18	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H160742AA	03/15/2016 03:18	Matthew S Krause	1

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l		LOQ ug/l
Batch number: H160742AA	Sample number(s): 8281478-8281481,8281483-8281487,8281489		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	Result ug/l		LOQ ug/l
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
Batch number: H160752AA	Sample number(s): 8281482,8281488		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.
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Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	Result		LOQ
	ug/l		ug/l
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
	mg/l		mg/l
Batch number: 16074049503A	Sample number(s): 8281480-8281481		
Total Organic Carbon	1.0	U	1.0

LCS/LCSD

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Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H160742AA	Sample number(s): 8281478-8281481,8281483-8281487,8281489								
Acetone	37.5	32.97	37.5	33.96	88	91	65-124	3	30
Acrolein	37.5	37.6	37.5	41.18	100	110	35-137	9	30
Acrylonitrile	25	25.59	25	27.74	102	111	68-135	8	30
Benzene	5.00	4.80	5.00	4.84	96	97	80-120	1	30
Bromobenzene	5.00	5.09	5.00	5.14	102	103	80-120	1	30
Bromochloromethane	5.00	5.20	5.00	5.21	104	104	80-125	0	30
Bromodichloromethane	5.00	5.03	5.00	5.03	101	101	80-120	0	30
Bromoform	5.00	5.40	5.00	5.25	108	105	62-128	3	30
Bromomethane	5.00	4.42	5.00	4.49	88	90	71-126	2	30
2-Butanone	37.5	39.25	37.5	42.01	105	112	66-135	7	30
n-Butylbenzene	5.00	5.03	5.00	5.18	101	104	80-120	3	30
sec-Butylbenzene	5.00	4.94	5.00	5.07	99	101	80-120	3	30
tert-Butylbenzene	5.00	5.34	5.00	5.43	107	109	80-120	2	30
Carbon Disulfide	5.00	4.22	5.00	4.24	84	85	65-120	0	30
Carbon Tetrachloride	5.00	4.90	5.00	5.00	98	100	65-134	2	30
Chlorobenzene	5.00	4.99	5.00	5.02	100	100	80-120	0	30
Chloroethane	5.00	4.17	5.00	4.24	83	85	71-122	2	30
Chloroform	5.00	4.83	5.00	4.86	97	97	80-120	1	30
Chloromethane	5.00	4.32	5.00	4.34	86	87	63-121	1	30
2-Chlorotoluene	5.00	4.95	5.00	5.09	99	102	80-120	3	30
4-Chlorotoluene	5.00	4.97	5.00	5.12	99	102	80-120	3	30
1,2-Dibromo-3-chloropropane	5.00	5.37	5.00	5.88	107	118	56-131	9	30
Dibromochloromethane	5.00	5.31	5.00	5.25	106	105	68-131	1	30
Dibromomethane	5.00	4.96	5.00	5.00	99	100	80-122	1	30
trans-1,4-Dichloro-2-butene	25	28.96	25	31.22	116	125	10-182	7	30
1,2-Dichlorobenzene	5.00	5.00	5.00	5.08	100	102	80-120	2	30
1,3-Dichlorobenzene	5.00	5.00	5.00	5.12	100	102	80-120	2	30
1,4-Dichlorobenzene	5.00	4.88	5.00	5.01	98	100	80-120	3	30
1,1-Dichloroethane	5.00	4.76	5.00	4.78	95	96	75-120	0	30
1,2-Dichloroethane	5.00	5.02	5.00	5.03	100	101	72-127	0	30
1,1-Dichloroethene	5.00	4.61	5.00	4.61	92	92	70-120	0	30
cis-1,2-Dichloroethene	5.00	4.92	5.00	4.89	98	98	80-120	0	30
trans-1,2-Dichloroethene	5.00	4.83	5.00	4.86	97	97	80-120	1	30
1,2-Dichloropropane	5.00	5.03	5.00	5.00	101	100	80-120	1	30
1,3-Dichloropropane	5.00	5.23	5.00	5.16	105	103	80-120	1	30
2,2-Dichloropropane	5.00	4.75	5.00	4.77	95	95	64-126	0	30
1,1-Dichloropropene	5.00	4.64	5.00	4.66	93	93	71-120	1	30
cis-1,3-Dichloropropene	5.00	5.12	5.00	5.11	102	102	80-124	0	30
trans-1,3-Dichloropropene	5.00	5.37	5.00	5.31	107	106	77-121	1	30
Ethylbenzene	5.00	4.90	5.00	4.95	98	99	80-120	1	30
Ethylene dibromide	5.00	5.46	5.00	5.32	109	106	80-120	3	30
Hexachlorobutadiene	5.00	4.68	5.00	4.81	94	96	69-120	3	30
2-Hexanone	25	28.08	25	30.66	112	123	73-128	9	30
Isopropylbenzene	5.00	5.00	5.00	5.07	100	101	80-120	1	30
4-Isopropyltoluene	5.00	4.91	5.00	5.08	98	102	80-120	3	30
Methyl Iodide	5.00	4.70	5.00	4.69	94	94	72-127	0	30
4-Methyl-2-pentanone	25	28.21	25	30.22	113	121	71-129	7	30
Methylene Chloride	5.00	4.67	5.00	4.63	93	93	80-120	1	30
Naphthalene	5.00	4.65	5.00	4.80	93	96	58-125	3	30
n-Propylbenzene	5.00	4.92	5.00	5.09	98	102	79-120	3	30
Styrene	5.00	5.09	5.00	5.13	102	103	80-122	1	30
1,1,1,2-Tetrachloroethane	5.00	5.08	5.00	5.10	102	102	72-125	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
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P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1,2,2-Tetrachloroethane	5.00	5.34	5.00	5.32	107	106	80-120	0	30
Tetrachloroethene	5.00	4.90	5.00	4.88	98	98	80-120	0	30
Toluene	5.00	4.90	5.00	4.95	98	99	80-120	1	30
112Trichloro122Trifluoroethane	5.00	4.70	5.00	4.77	94	95	75-120	2	30
1,2,3-Trichlorobenzene	5.00	4.39	5.00	4.53	88	91	59-120	3	30
1,2,4-Trichlorobenzene	5.00	4.52	5.00	4.62	90	92	67-120	2	30
1,1,1-Trichloroethane	5.00	4.84	5.00	4.96	97	99	70-124	2	30
1,1,2-Trichloroethane	5.00	5.14	5.00	5.07	103	101	80-120	1	30
Trichloroethene	5.00	4.94	5.00	5.04	99	101	80-120	2	30
Trichlorofluoromethane	5.00	4.62	5.00	4.83	92	97	64-133	4	30
1,2,3-Trichloropropane	5.00	5.71	5.00	5.71	114	114	80-120	0	30
1,2,4-Trimethylbenzene	5.00	4.93	5.00	5.10	99	102	80-120	4	30
1,3,5-Trimethylbenzene	5.00	4.92	5.00	5.10	98	102	80-120	4	30
Vinyl Acetate	12.5	12.06	12.5	11.98	96	96	40-185	1	30
Vinyl Chloride	5.00	4.37	5.00	4.35	87	87	62-128	0	30
m,p-Xylene	10	9.86	10	10.03	99	100	80-120	2	30
o-Xylene	5.00	4.91	5.00	4.98	98	100	80-120	2	30
Batch number: H160752AA	Sample number(s): 8281482,8281488								
Acetone	37.5	35.06	37.5	34.79	93	93	65-124	1	30
Acrolein	37.5	36.05	37.5	34.5	96	92	35-137	4	30
Acrylonitrile	25	24.78	25	24.19	99	97	68-135	2	30
Benzene	5.00	4.93	5.00	4.78	99	96	80-120	3	30
Bromobenzene	5.00	4.84	5.00	4.87	97	97	80-120	1	30
Bromochloromethane	5.00	5.21	5.00	5.13	104	103	80-125	2	30
Bromodichloromethane	5.00	5.01	5.00	4.92	100	98	80-120	2	30
Bromoform	5.00	4.66	5.00	4.72	93	94	62-128	1	30
Bromomethane	5.00	4.41	5.00	4.20	88	84	71-126	5	30
2-Butanone	37.5	36.54	37.5	35.92	97	96	66-135	2	30
n-Butylbenzene	5.00	5.08	5.00	4.98	102	100	80-120	2	30
sec-Butylbenzene	5.00	4.99	5.00	4.95	100	99	80-120	1	30
tert-Butylbenzene	5.00	4.90	5.00	4.91	98	98	80-120	0	30
Carbon Disulfide	5.00	4.35	5.00	4.13	87	83	65-120	5	30
Carbon Tetrachloride	5.00	5.09	5.00	4.92	102	98	65-134	3	30
Chlorobenzene	5.00	4.93	5.00	4.82	99	96	80-120	2	30
Chloroethane	5.00	4.23	5.00	3.95	85	79	71-122	7	30
Chloroform	5.00	5.00	5.00	4.82	100	96	80-120	4	30
Chloromethane	5.00	4.44	5.00	4.28	89	86	63-121	4	30
2-Chlorotoluene	5.00	4.89	5.00	4.97	98	99	80-120	2	30
4-Chlorotoluene	5.00	4.81	5.00	4.87	96	97	80-120	1	30
1,2-Dibromo-3-chloropropane	5.00	4.49	5.00	4.58	90	92	56-131	2	30
Dibromochloromethane	5.00	4.92	5.00	4.86	98	97	68-131	1	30
Dibromomethane	5.00	4.87	5.00	4.88	97	98	80-122	0	30
trans-1,4-Dichloro-2-butene	25	23.79	25	23.13	95	93	10-182	3	30
1,2-Dichlorobenzene	5.00	4.78	5.00	4.90	96	98	80-120	2	30
1,3-Dichlorobenzene	5.00	4.80	5.00	4.89	96	98	80-120	2	30
1,4-Dichlorobenzene	5.00	4.71	5.00	4.81	94	96	80-120	2	30
1,1-Dichloroethane	5.00	4.84	5.00	4.77	97	95	75-120	2	30
1,2-Dichloroethane	5.00	5.04	5.00	4.96	101	99	72-127	2	30
1,1-Dichloroethene	5.00	4.78	5.00	4.55	96	91	70-120	5	30
cis-1,2-Dichloroethene	5.00	4.92	5.00	4.85	98	97	80-120	1	30
trans-1,2-Dichloroethene	5.00	5.01	5.00	4.81	100	96	80-120	4	30
1,2-Dichloropropane	5.00	5.16	5.00	4.98	103	100	80-120	3	30

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Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,3-Dichloropropane	5.00	5.02	5.00	4.99	100	100	80-120	1	30
2,2-Dichloropropane	5.00	4.89	5.00	4.74	98	95	64-126	3	30
1,1-Dichloropropene	5.00	4.75	5.00	4.62	95	92	71-120	3	30
cis-1,3-Dichloropropene	5.00	4.99	5.00	4.92	100	98	80-124	1	30
trans-1,3-Dichloropropene	5.00	5.13	5.00	5.01	103	100	77-121	2	30
Ethylbenzene	5.00	4.91	5.00	4.83	98	97	80-120	2	30
Ethylene dibromide	5.00	5.11	5.00	5.11	102	102	80-120	0	30
Hexachlorobutadiene	5.00	4.72	5.00	4.67	94	93	69-120	1	30
2-Hexanone	25	23.9	25	23.49	96	94	73-128	2	30
Isopropylbenzene	5.00	5.03	5.00	4.92	101	98	80-120	2	30
4-Isopropyltoluene	5.00	4.93	5.00	4.90	99	98	80-120	1	30
Methyl Iodide	5.00	4.71	5.00	4.63	94	93	72-127	2	30
4-Methyl-2-pentanone	25	24.58	25	23.58	98	94	71-129	4	30
Methylene Chloride	5.00	4.81	5.00	4.73	96	95	80-120	2	30
Naphthalene	5.00	4.44	5.00	4.73	89	95	58-125	6	30
n-Propylbenzene	5.00	5.01	5.00	4.99	100	100	79-120	1	30
Styrene	5.00	5.00	5.00	4.93	100	99	80-122	1	30
1,1,1,2-Tetrachloroethane	5.00	4.92	5.00	4.86	98	97	72-125	1	30
1,1,2,2-Tetrachloroethane	5.00	4.87	5.00	4.92	97	98	80-120	1	30
Tetrachloroethene	5.00	4.88	5.00	4.76	98	95	80-120	2	30
Toluene	5.00	4.96	5.00	4.83	99	97	80-120	3	30
112Trichloro122Trifluoroethane	5.00	4.84	5.00	4.75	97	95	75-120	2	30
1,2,3-Trichlorobenzene	5.00	4.22	5.00	4.48	84	90	59-120	6	30
1,2,4-Trichlorobenzene	5.00	4.40	5.00	4.49	88	90	67-120	2	30
1,1,1-Trichloroethane	5.00	4.97	5.00	4.80	99	96	70-124	3	30
1,1,2-Trichloroethane	5.00	4.88	5.00	4.96	98	99	80-120	2	30
Trichloroethene	5.00	5.06	5.00	4.92	101	98	80-120	3	30
Trichlorofluoromethane	5.00	4.76	5.00	4.56	95	91	64-133	4	30
1,2,3-Trichloropropane	5.00	5.21	5.00	5.33	104	107	80-120	2	30
1,2,4-Trimethylbenzene	5.00	4.93	5.00	4.95	99	99	80-120	0	30
1,3,5-Trimethylbenzene	5.00	4.98	5.00	4.94	100	99	80-120	1	30
Vinyl Acetate	12.5	11.74	12.5	11.11	94	89	40-185	5	30
Vinyl Chloride	5.00	4.45	5.00	4.18	89	84	62-128	6	30
m,p-Xylene	10	9.89	10	9.67	99	97	80-120	2	30
o-Xylene	5.00	4.90	5.00	4.79	98	96	80-120	2	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16074049503A	Sample number(s): 8281480-8281481								
Total Organic Carbon	25	24.67			99		91-113		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: H160752AA	Sample number(s): 8281482,8281488 UNSPK: P283547										
Acetone	5.0	U	37.5	32.48	37.5	35.96	87	96	65-124	10	30
Acrolein	25	U	37.5	34.09	37.5	35.81	91	95	35-137	5	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Acrylonitrile	5.0	U	25	23.72	25	24.9	95	100	68-135	5	30
Benzene	0.2	U	5.00	4.86	5.00	4.95	97	99	80-120	2	30
Bromobenzene	0.5	U	5.00	4.71	5.00	5.18	94	104	80-120	10	30
Bromochloromethane	0.5	U	5.00	5.12	5.00	5.06	102	101	80-125	1	30
Bromodichloromethane	0.5	U	5.00	4.89	5.00	5.15	98	103	80-120	5	30
Bromoform	0.5	U	5.00	4.41	5.00	4.93	88	99	62-128	11	30
Bromomethane	0.5	U	5.00	4.44	5.00	4.39	89	88	71-126	1	30
2-Butanone	5.0	U	37.5	36.02	37.5	38.79	96	103	66-135	7	30
n-Butylbenzene	0.5	U	5.00	5.03	5.00	5.34	101	107	80-120	6	30
sec-Butylbenzene	0.5	U	5.00	4.96	5.00	5.36	99	107	80-120	8	30
tert-Butylbenzene	0.5	U	5.00	4.90	5.00	5.40	98	108	80-120	10	30
Carbon Disulfide	0.5	U	5.00	4.33	5.00	4.48	87	90	65-120	3	30
Carbon Tetrachloride	0.2	U	5.00	4.98	5.00	5.17	100	103	65-134	4	30
Chlorobenzene	0.5	U	5.00	4.79	5.00	5.14	96	103	80-120	7	30
Chloroethane	0.5	U	5.00	4.28	5.00	4.27	86	85	71-122	0	30
Chloroform	0.2	U	5.00	4.87	5.00	5.05	97	101	80-120	4	30
Chloromethane	0.5	U	5.00	4.50	5.00	4.51	90	90	63-121	0	30
2-Chlorotoluene	0.5	U	5.00	4.86	5.00	5.20	97	104	80-120	7	30
4-Chlorotoluene	0.5	U	5.00	4.85	5.00	5.26	97	105	80-120	8	30
1,2-Dibromo-3-chloropropane	0.5	U	5.00	4.46	5.00	5.11	89	102	56-131	13	30
Dibromochloromethane	0.5	U	5.00	4.62	5.00	5.15	92	103	68-131	11	30
Dibromomethane	0.5	U	5.00	4.83	5.00	5.01	97	100	80-122	4	30
trans-1,4-Dichloro-2-butene	5.0	U	25	22.07	25	22.96	88	92	10-182	4	30
1,2-Dichlorobenzene	0.5	U	5.00	4.67	5.00	5.17	93	103	80-120	10	30
1,3-Dichlorobenzene	0.5	U	5.00	4.72	5.00	5.16	94	103	80-120	9	30
1,4-Dichlorobenzene	0.5	U	5.00	4.60	5.00	5.08	92	102	80-120	10	30
1,1-Dichloroethane	0.117		5.00	4.95	5.00	5.05	97	99	75-120	2	30
1,2-Dichloroethane	0.2	U	5.00	4.83	5.00	5.10	97	102	72-127	5	30
1,1-Dichloroethene	0.2	U	5.00	4.66	5.00	4.88	93	98	70-120	5	30
cis-1,2-Dichloroethene	0.498		5.00	5.28	5.00	5.43	96	99	80-120	3	30
trans-1,2-Dichloroethene	0.2	U	5.00	4.95	5.00	5.07	99	101	80-120	2	30
1,2-Dichloropropane	0.5	U	5.00	4.99	5.00	5.15	100	103	80-120	3	30
1,3-Dichloropropane	0.5	U	5.00	4.85	5.00	5.23	97	105	80-120	8	30
2,2-Dichloropropane	0.5	U	5.00	4.87	5.00	5.06	97	101	64-126	4	30
1,1-Dichloropropene	0.5	U	5.00	4.77	5.00	4.90	95	98	71-120	3	30
cis-1,3-Dichloropropene	0.2	U	5.00	4.80	5.00	5.10	96	102	80-124	6	30
trans-1,3-Dichloropropene	0.2	U	5.00	4.89	5.00	5.27	98	105	77-121	7	30
Ethylbenzene	0.5	U	5.00	4.85	5.00	5.19	97	104	80-120	7	30
Ethylene dibromide	0.5	U	5.00	4.93	5.00	5.39	99	108	80-120	9	30
Hexachlorobutadiene	0.5	U	5.00	4.62	5.00	5.14	92	103	69-120	11	30
2-Hexanone	5.0	U	25	24.06	25	26.69	96	107	73-128	10	30
Isopropylbenzene	0.5	U	5.00	4.93	5.00	5.34	99	107	80-120	8	30
4-Isopropyltoluene	0.5	U	5.00	4.87	5.00	5.28	97	106	80-120	8	30
Methyl Iodide	0.5	U	5.00	4.62	5.00	4.73	92	95	72-127	2	30
4-Methyl-2-pentanone	5.0	U	25	23.95	25	26.41	96	106	71-129	10	30
Methylene Chloride	0.5	U	5.00	4.75	5.00	4.92	95	98	80-120	4	30
Naphthalene	0.5	U	5.00	4.15	5.00	4.78	83	96	58-125	14	30
n-Propylbenzene	0.5	U	5.00	4.94	5.00	5.34	99	107	79-120	8	30
Styrene	0.5	U	5.00	4.80	5.00	5.27	96	105	80-122	9	30
1,1,1,2-Tetrachloroethane	0.5	U	5.00	4.72	5.00	5.22	94	104	72-125	10	30
1,1,2,2-Tetrachloroethane	0.2	U	5.00	4.78	5.00	5.24	96	105	80-120	9	30
Tetrachloroethene	0.2	U	5.00	4.78	5.00	5.08	96	102	80-120	6	30
Toluene	0.2	U	5.00	4.85	5.00	5.10	97	102	80-120	5	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
112Trichloro122Trifluoroethane	0.5	U	5.00	4.78	5.00	4.88	96	98	75-120	2	30
1,2,3-Trichlorobenzene	0.5	U	5.00	3.99	5.00	4.58	80	92	59-120	14	30
1,2,4-Trichlorobenzene	0.5	U	5.00	4.15	5.00	4.71	83	94	67-120	13	30
1,1,1-Trichloroethane	0.5	U	5.00	4.91	5.00	5.18	98	104	70-124	5	30
1,1,2-Trichloroethane	0.2	U	5.00	4.68	5.00	5.08	94	102	80-120	8	30
Trichloroethene	0.2	U	5.00	5.08	5.00	5.13	102	103	80-120	1	30
Trichlorofluoromethane	0.5	U	5.00	4.94	5.00	5.04	99	101	64-133	2	30
1,2,3-Trichloropropane	1.0	U	5.00	5.11	5.00	5.53	102	111	80-120	8	30
1,2,4-Trimethylbenzene	0.5	U	5.00	4.87	5.00	5.26	97	105	80-120	8	30
1,3,5-Trimethylbenzene	0.5	U	5.00	4.84	5.00	5.28	97	106	80-120	9	30
Vinyl Acetate	0.5	U	12.5	12.22	12.5	12.31	98	98	40-185	1	30
Vinyl Chloride	0.2	U	5.00	4.64	5.00	4.62	93	92	62-128	0	30
m,p-Xylene	0.5	U	10	9.61	10	10.34	96	103	80-120	7	30
o-Xylene	0.5	U	5.00	4.73	5.00	5.13	95	103	80-120	8	30
	mg/l		mg/l	mg/l	mg/l	mg/l					
Batch number: 16074049503A	Sample number(s): 8281480-8281481 UNSPK: P281055										
Total Organic Carbon	8.79		10	18.32			95		91-113		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 16074049503A	Sample number(s): 8281480-8281481 BKG: P281055			
Total Organic Carbon	8.79	8.79	0	3

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H160742AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8281478	98	93	101	100
8281479	102	103	99	101
8281480	96	95	105	98
8281480DL	96	97	105	98
8281481	95	94	104	98
8281483	100	100	102	100
8281484	100	98	102	99
8281485	98	97	102	99
8281486	97	95	104	97
8281487	96	93	103	98
8281489	96	94	105	98
Blank	98	100	104	98

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 03/17/2016 11:44

Group Number: 1639666

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	101	100	101	101
LCSD	99	100	100	100
Limits:	77-114	74-113	77-110	78-110

Analysis Name: 8260C Boeing 69
Batch number: H160752AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8281482	95	93	105	98
8281482DL	100	99	101	100
8281488	99	96	101	98
8281488DL	100	102	101	100
Blank	98	95	104	98
LCS	102	102	100	102
LCSD	101	98	100	100
MS	103	101	99	101
MSD	101	101	101	101
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1639666 Sample # 8281478-89

Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10

Site Project: 2-10 IM

Site Program/#:

Boeing PM: Will Ernst

Consultant Contact: Tom McKeon

Report To: Will Ernst, Tom McKeon, Chris Gallagher

Invoice To: ☒ Boeing EHS ☐ Other (specify):

Sampler: Chris Gallagher + Justin Nesle # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC 8260C Boeing 69	TOC 415.1											Remarks/Comments
PL2-218A-031016	3/10/16	0813	aq	3	X												unpreserved VOAs.
PL2-218B-031016	3/10/16	0842	aq	3	X												
IW-N4-031016	3/10/16	0923	aq	5	X	X											
IW-N6-031016	3/10/16	0957	aq	5	X	X											
PL2-212A-031016	3/10/16	1032	aq	3	X												
PL2-209A-031016	3/10/16	1110	aq	3	X												
PL2-216A-031016	3/10/16	1142	aq	3	X												
PL2-253A-031016	3/10/16	1257	aq	3	X												
PL2-256A-031016	3/10/16	1329	aq	3	X												
PL2-257A-031016	3/10/16	1400	aq	3	X												
Dup1-031016	3/10/16	0700	aq	3	X												
Trip blank Water	3/1/16	0800	aq	2	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]	3/10/16 1443		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by: [signature]	Date/Time 3/11/16 0425

Relinquished by commercial carrier (circle): UPS FedEx Other:

Temperature upon Receipt: 1.1 °C

Custody Seals Intact?: Yes No

7

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 139103

Group Number(s): 1639666

Client: Boeing

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	03/11/2016 9:25
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Krista Abel (3058) at 09:36 on 03/11/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	1.1	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

VINCE YU
EUROFINS LANCASTER LABORATORIE
11720 NORTH CREEK PARKWAY N
BOTHELL WA 98011-8244

40 LBS

RS DWT: 25,14,14

SHIP TO:

SAMPLE ADMINISTRATION
(717) 656-2300
EUROFINS LANCASTER LABORATORIES
2425 NEW HOLLAND PIKE
LANCASTER PA 17601-5946

PA 175 9-37

UPS NEXT DAY AIR

TRACKING #: 1Z RV3 069 Y0 4307 1061

1 S

BILLING: P/P
DESC: SAMPLING
RETURN SERVICE

REF 1:DEPT 40

SEE NOTICE ON REVERSE regarding UPS Terms, and notice of limitatio[illegible]. Where allowed by law, [illegible]horizes UPS to act as forwarding agent for export control and customs purposes. If exported from the US, shipper certifies that the [illegible]ities, technology or software we[illegible] from the US in accordance with the Export Administration Regulations. Diversion contrary to law is prohibited.

WS 17 0 31 LD620D 46 0A 01/2014

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Groundwater Monitoring Laboratory Data Sheets (July 2016)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Report Date: July 20, 2016

Project: Boeing Plant 2 2-10 IM

Submittal Date: 07/09/2016
Group Number: 1680938
SDG: BNH40
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-218A-070716 Water	8467161
PL2-218B-070716 Water	8467162
PL2-258A-070716 Water	8467163
PL2-258B-070716 Water	8467164
PL2-IW-N-4-070716 Water	8467165
PL2-IW-N-6-070716 Water	8467166
PL2-212A-070716 Water	8467167
Dup-01-070716 Water	8467168
PL2-253A-070716 Water	8467169
PL2-209A-070816 Water	8467170
PL2-256A-070816 Water	8467171
PL2-257A-070816 Water	8467172
Trip Blank Water	8467173

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

Electronic Copy To	Calibre	Attn: Chris Gallagher
Electronic Copy To	Calibre	Attn: Tom McKeon
Electronic Copy To	The Boeing Company	Attn: Will Ernst
Electronic Copy To	Golder Associates Inc.	Attn: Alyssa Neir
Electronic Copy To	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1680938

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 8467161, 8467162, 8467163, 8467164, 8467166, 8467167, 8467168, 8467169, 8467170, 8467171, 8467172, 8467173

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 8467165

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift that are not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	27
naphthalene	-28
1,2,3-trichlorobenzene	-28

The reported concentration in the associated sample(s) for an analyte that is detected is considered to be estimated.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	22

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Description: PL2-218A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467161
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 09:39 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218-A SDG#: BNH40-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-218A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467161
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 09:39 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218-A SDG#: BNH40-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/12/2016 23:44	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/12/2016 23:44	Kevin A Sposito	1

Sample Description: PL2-218B-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467162
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 10:08 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218-B SDG#: BNH40-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.1**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-218B-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467162
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 10:08 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

218-B SDG#: BNH40-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 00:04	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 00:04	Kevin A Sposito	1

Sample Description: PL2-258A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467163
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 10:55 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258-A SDG#: BNH40-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-258A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467163
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 10:55 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258-A SDG#: BNH40-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 00:24	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 00:24	Kevin A Sposito	1

Sample Description: PL2-258B-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467164
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 11:27 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258-B SDG#: BNH40-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.4**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-258B-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467164
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 11:27 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

258-B SDG#: BNH40-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 00:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 00:45	Kevin A Sposito	1

Sample Description: PL2-IW-N-4-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467165
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 12:03 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N4 SDG#: BNH40-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-IW-N-4-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467165
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 12:03 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N4 SDG#: BNH40-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift that are not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	27
naphthalene	-28
1,2,3-trichlorobenzene	-28

The reported concentration in the associated sample(s) for an analyte that is detected is considered to be estimated.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	22

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**13.4**		1.0	1

eurofins
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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-IW-N-4-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467165
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 12:03 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N4 SDG#: BNH40-05

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161961AA	07/14/2016 20:08	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161961AA	07/14/2016 20:08	Matthew S Krause	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16201237301A	07/19/2016 17:13	Joseph E McKenzie	1

Sample Description: PL2-IW-N-6-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467166
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:11 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N6 SDG#: BNH40-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.6**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**0.6**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-IW-N-6-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467166
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:11 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N6 SDG#: BNH40-06

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**0.2**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.1**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**7.2**		1.0	1

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 01:05	Kevin A Sposito	1

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Analysis Report

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Sample Description: PL2-IW-N-6-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467166
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:11 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2N6 SDG#: BNH40-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 01:05	Kevin A Sposito	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16201237301A	07/19/2016 17:52	Joseph E McKenzie	1

Sample Description: PL2-212A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467167
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:45 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212-A SDG#: BNH40-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50
11996	**cis-1,2-Dichloroethene**	156-59-2	**4,900**	**E**	10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50

Sample Description: PL2-212A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467167
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:45 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212-A SDG#: BNH40-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**43**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**2,200**	**E**	10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50
Trial ID: DL						
11996	Acetone	67-64-1	2,500	U	2,500	500
11996	Acrolein	107-02-8	13,000	U	13,000	500
11996	Acrylonitrile	107-13-1	2,500	U	2,500	500
11996	Benzene	71-43-2	100	U	100	500
11996	Bromobenzene	108-86-1	250	U	250	500
11996	Bromochloromethane	74-97-5	250	U	250	500
11996	Bromodichloromethane	75-27-4	250	U	250	500
11996	Bromoform	75-25-2	250	U	250	500
11996	Bromomethane	74-83-9	250	U	250	500
11996	2-Butanone	78-93-3	2,500	U	2,500	500
11996	n-Butylbenzene	104-51-8	250	U	250	500
11996	sec-Butylbenzene	135-98-8	250	U	250	500
11996	tert-Butylbenzene	98-06-6	250	U	250	500
11996	Carbon Disulfide	75-15-0	250	U	250	500
11996	Carbon Tetrachloride	56-23-5	100	U	100	500
11996	Chlorobenzene	108-90-7	250	U	250	500
11996	Chloroethane	75-00-3	250	U	250	500
11996	Chloroform	67-66-3	100	U	100	500
11996	Chloromethane	74-87-3	250	U	250	500
11996	2-Chlorotoluene	95-49-8	250	U	250	500
11996	4-Chlorotoluene	106-43-4	250	U	250	500
11996	1,2-Dibromo-3-chloropropane	96-12-8	250	U	250	500
11996	Dibromochloromethane	124-48-1	250	U	250	500
11996	Dibromomethane	74-95-3	250	U	250	500
11996	trans-1,4-Dichloro-2-butene	110-57-6	2,500	U	2,500	500
11996	1,2-Dichlorobenzene	95-50-1	250	U	250	500
11996	1,3-Dichlorobenzene	541-73-1	250	U	250	500
11996	1,4-Dichlorobenzene	106-46-7	250	U	250	500
11996	1,1-Dichloroethane	75-34-3	250	U	250	500
11996	1,2-Dichloroethane	107-06-2	100	U	100	500
11996	1,1-Dichloroethene	75-35-4	100	U	100	500

Sample Description: PL2-212A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467167
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:45 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212-A SDG#: BNH40-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**4,700**		100	500
11996	trans-1,2-Dichloroethene	156-60-5	100	U	100	500
11996	1,2-Dichloropropane	78-87-5	250	U	250	500
11996	1,3-Dichloropropane	142-28-9	250	U	250	500
11996	2,2-Dichloropropane	594-20-7	250	U	250	500
11996	1,1-Dichloropropene	563-58-6	250	U	250	500
11996	cis-1,3-Dichloropropene	10061-01-5	100	U	100	500
11996	trans-1,3-Dichloropropene	10061-02-6	100	U	100	500
11996	Ethylbenzene	100-41-4	250	U	250	500
11996	Ethylene dibromide	106-93-4	250	U	250	500
11996	Hexachlorobutadiene	87-68-3	250	U	250	500
11996	2-Hexanone	591-78-6	2,500	U	2,500	500
11996	Isopropylbenzene	98-82-8	250	U	250	500
11996	4-Isopropyltoluene	99-87-6	250	U	250	500
11996	Methyl Iodide	74-88-4	250	U	250	500
11996	4-Methyl-2-pentanone	108-10-1	2,500	U	2,500	500
11996	Methylene Chloride	75-09-2	250	U	250	500
11996	Naphthalene	91-20-3	250	U	250	500
11996	n-Propylbenzene	103-65-1	250	U	250	500
11996	Styrene	100-42-5	250	U	250	500
11996	1,1,1,2-Tetrachloroethane	630-20-6	250	U	250	500
11996	1,1,2,2-Tetrachloroethane	79-34-5	100	U	100	500
11996	Tetrachloroethene	127-18-4	100	U	100	500
11996	Toluene	108-88-3	100	U	100	500
11996	112Trichloro122Trifluoroethane	76-13-1	250	U	250	500
11996	1,2,3-Trichlorobenzene	87-61-6	250	U	250	500
11996	1,2,4-Trichlorobenzene	120-82-1	250	U	250	500
11996	1,1,1-Trichloroethane	71-55-6	250	U	250	500
11996	1,1,2-Trichloroethane	79-00-5	100	U	100	500
11996	Trichloroethene	79-01-6	100	U	100	500
11996	Trichlorofluoromethane	75-69-4	250	U	250	500
11996	1,2,3-Trichloropropane	96-18-4	500	U	500	500
11996	1,2,4-Trimethylbenzene	95-63-6	250	U	250	500
11996	1,3,5-Trimethylbenzene	108-67-8	250	U	250	500
11996	Vinyl Acetate	108-05-4	250	U	250	500
11996	**Vinyl Chloride**	75-01-4	**2,100**		100	500
11996	m,p-Xylene	179601-23-1	250	U	250	500
11996	o-Xylene	95-47-6	250	U	250	500

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside

Sample Description: PL2-212A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467167
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 13:45 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

212-A SDG#: BNH40-07

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 02:46	Kevin A Sposito	50
11996	8260C Boeing 69	SW-846 8260C	2-DL	H161942AA	07/13/2016 03:07	Kevin A Sposito	500
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 02:46	Kevin A Sposito	50
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H161942AA	07/13/2016 03:07	Kevin A Sposito	500

Sample Description: Dup-01-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467168
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 08:00 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PLDD1 SDG#: BNH40-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	500	U	500	100
11996	Acrolein	107-02-8	2,500	U	2,500	100
11996	Acrylonitrile	107-13-1	500	U	500	100
11996	Benzene	71-43-2	20	U	20	100
11996	Bromobenzene	108-86-1	50	U	50	100
11996	Bromochloromethane	74-97-5	50	U	50	100
11996	Bromodichloromethane	75-27-4	50	U	50	100
11996	Bromoform	75-25-2	50	U	50	100
11996	Bromomethane	74-83-9	50	U	50	100
11996	2-Butanone	78-93-3	500	U	500	100
11996	n-Butylbenzene	104-51-8	50	U	50	100
11996	sec-Butylbenzene	135-98-8	50	U	50	100
11996	tert-Butylbenzene	98-06-6	50	U	50	100
11996	Carbon Disulfide	75-15-0	50	U	50	100
11996	Carbon Tetrachloride	56-23-5	20	U	20	100
11996	Chlorobenzene	108-90-7	50	U	50	100
11996	Chloroethane	75-00-3	50	U	50	100
11996	Chloroform	67-66-3	20	U	20	100
11996	Chloromethane	74-87-3	50	U	50	100
11996	2-Chlorotoluene	95-49-8	50	U	50	100
11996	4-Chlorotoluene	106-43-4	50	U	50	100
11996	1,2-Dibromo-3-chloropropane	96-12-8	50	U	50	100
11996	Dibromochloromethane	124-48-1	50	U	50	100
11996	Dibromomethane	74-95-3	50	U	50	100
11996	trans-1,4-Dichloro-2-butene	110-57-6	500	U	500	100
11996	1,2-Dichlorobenzene	95-50-1	50	U	50	100
11996	1,3-Dichlorobenzene	541-73-1	50	U	50	100
11996	1,4-Dichlorobenzene	106-46-7	50	U	50	100
11996	1,1-Dichloroethane	75-34-3	50	U	50	100
11996	1,2-Dichloroethane	107-06-2	20	U	20	100
11996	1,1-Dichloroethene	75-35-4	20	U	20	100
11996	**cis-1,2-Dichloroethene**	156-59-2	**5,500**	**E**	20	100
11996	trans-1,2-Dichloroethene	156-60-5	20	U	20	100
11996	1,2-Dichloropropane	78-87-5	50	U	50	100
11996	1,3-Dichloropropane	142-28-9	50	U	50	100
11996	2,2-Dichloropropane	594-20-7	50	U	50	100
11996	1,1-Dichloropropene	563-58-6	50	U	50	100
11996	cis-1,3-Dichloropropene	10061-01-5	20	U	20	100
11996	trans-1,3-Dichloropropene	10061-02-6	20	U	20	100
11996	Ethylbenzene	100-41-4	50	U	50	100
11996	Ethylene dibromide	106-93-4	50	U	50	100
11996	Hexachlorobutadiene	87-68-3	50	U	50	100
11996	2-Hexanone	591-78-6	500	U	500	100
11996	Isopropylbenzene	98-82-8	50	U	50	100
11996	4-Isopropyltoluene	99-87-6	50	U	50	100
11996	Methyl Iodide	74-88-4	50	U	50	100
11996	4-Methyl-2-pentanone	108-10-1	500	U	500	100
11996	Methylene Chloride	75-09-2	50	U	50	100
11996	Naphthalene	91-20-3	50	U	50	100
11996	n-Propylbenzene	103-65-1	50	U	50	100
11996	Styrene	100-42-5	50	U	50	100

Sample Description: Dup-01-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467168
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 08:00 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PLDD1 SDG#: BNH40-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	50	U	50	100
11996	1,1,2,2-Tetrachloroethane	79-34-5	20	U	20	100
11996	Tetrachloroethene	127-18-4	20	U	20	100
11996	Toluene	108-88-3	20	U	20	100
11996	112Trichloro122Trifluoroethane	76-13-1	50	U	50	100
11996	1,2,3-Trichlorobenzene	87-61-6	50	U	50	100
11996	1,2,4-Trichlorobenzene	120-82-1	50	U	50	100
11996	1,1,1-Trichloroethane	71-55-6	50	U	50	100
11996	1,1,2-Trichloroethane	79-00-5	20	U	20	100
11996	**Trichloroethene**	79-01-6	**36**		20	100
11996	Trichlorofluoromethane	75-69-4	50	U	50	100
11996	1,2,3-Trichloropropane	96-18-4	100	U	100	100
11996	1,2,4-Trimethylbenzene	95-63-6	50	U	50	100
11996	1,3,5-Trimethylbenzene	108-67-8	50	U	50	100
11996	Vinyl Acetate	108-05-4	50	U	50	100
11996	**Vinyl Chloride**	75-01-4	**2,300**		20	100
11996	m,p-Xylene	179601-23-1	50	U	50	100
11996	o-Xylene	95-47-6	50	U	50	100
Trial ID: DL						
11996	Acetone	67-64-1	5,000	U	5,000	1000
11996	Acrolein	107-02-8	25,000	U	25,000	1000
11996	Acrylonitrile	107-13-1	5,000	U	5,000	1000
11996	Benzene	71-43-2	200	U	200	1000
11996	Bromobenzene	108-86-1	500	U	500	1000
11996	Bromochloromethane	74-97-5	500	U	500	1000
11996	Bromodichloromethane	75-27-4	500	U	500	1000
11996	Bromoform	75-25-2	500	U	500	1000
11996	Bromomethane	74-83-9	500	U	500	1000
11996	2-Butanone	78-93-3	5,000	U	5,000	1000
11996	n-Butylbenzene	104-51-8	500	U	500	1000
11996	sec-Butylbenzene	135-98-8	500	U	500	1000
11996	tert-Butylbenzene	98-06-6	500	U	500	1000
11996	Carbon Disulfide	75-15-0	500	U	500	1000
11996	Carbon Tetrachloride	56-23-5	200	U	200	1000
11996	Chlorobenzene	108-90-7	500	U	500	1000
11996	Chloroethane	75-00-3	500	U	500	1000
11996	Chloroform	67-66-3	200	U	200	1000
11996	Chloromethane	74-87-3	500	U	500	1000
11996	2-Chlorotoluene	95-49-8	500	U	500	1000
11996	4-Chlorotoluene	106-43-4	500	U	500	1000
11996	1,2-Dibromo-3-chloropropane	96-12-8	500	U	500	1000
11996	Dibromochloromethane	124-48-1	500	U	500	1000
11996	Dibromomethane	74-95-3	500	U	500	1000
11996	trans-1,4-Dichloro-2-butene	110-57-6	5,000	U	5,000	1000
11996	1,2-Dichlorobenzene	95-50-1	500	U	500	1000
11996	1,3-Dichlorobenzene	541-73-1	500	U	500	1000
11996	1,4-Dichlorobenzene	106-46-7	500	U	500	1000
11996	1,1-Dichloroethane	75-34-3	500	U	500	1000
11996	1,2-Dichloroethane	107-06-2	200	U	200	1000
11996	1,1-Dichloroethene	75-35-4	200	U	200	1000

Sample Description: Dup-01-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467168
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 08:00 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PLDD1 SDG#: BNH40-08FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	**cis-1,2-Dichloroethene**	156-59-2	**5,300**		200	1000
11996	trans-1,2-Dichloroethene	156-60-5	200	U	200	1000
11996	1,2-Dichloropropane	78-87-5	500	U	500	1000
11996	1,3-Dichloropropane	142-28-9	500	U	500	1000
11996	2,2-Dichloropropane	594-20-7	500	U	500	1000
11996	1,1-Dichloropropene	563-58-6	500	U	500	1000
11996	cis-1,3-Dichloropropene	10061-01-5	200	U	200	1000
11996	trans-1,3-Dichloropropene	10061-02-6	200	U	200	1000
11996	Ethylbenzene	100-41-4	500	U	500	1000
11996	Ethylene dibromide	106-93-4	500	U	500	1000
11996	Hexachlorobutadiene	87-68-3	500	U	500	1000
11996	2-Hexanone	591-78-6	5,000	U	5,000	1000
11996	Isopropylbenzene	98-82-8	500	U	500	1000
11996	4-Isopropyltoluene	99-87-6	500	U	500	1000
11996	Methyl Iodide	74-88-4	500	U	500	1000
11996	4-Methyl-2-pentanone	108-10-1	5,000	U	5,000	1000
11996	Methylene Chloride	75-09-2	500	U	500	1000
11996	Naphthalene	91-20-3	500	U	500	1000
11996	n-Propylbenzene	103-65-1	500	U	500	1000
11996	Styrene	100-42-5	500	U	500	1000
11996	1,1,1,2-Tetrachloroethane	630-20-6	500	U	500	1000
11996	1,1,2,2-Tetrachloroethane	79-34-5	200	U	200	1000
11996	Tetrachloroethene	127-18-4	200	U	200	1000
11996	Toluene	108-88-3	200	U	200	1000
11996	112Trichloro122Trifluoroethane	76-13-1	500	U	500	1000
11996	1,2,3-Trichlorobenzene	87-61-6	500	U	500	1000
11996	1,2,4-Trichlorobenzene	120-82-1	500	U	500	1000
11996	1,1,1-Trichloroethane	71-55-6	500	U	500	1000
11996	1,1,2-Trichloroethane	79-00-5	200	U	200	1000
11996	Trichloroethene	79-01-6	200	U	200	1000
11996	Trichlorofluoromethane	75-69-4	500	U	500	1000
11996	1,2,3-Trichloropropane	96-18-4	1,000	U	1,000	1000
11996	1,2,4-Trimethylbenzene	95-63-6	500	U	500	1000
11996	1,3,5-Trimethylbenzene	108-67-8	500	U	500	1000
11996	Vinyl Acetate	108-05-4	500	U	500	1000
11996	**Vinyl Chloride**	75-01-4	**2,400**		200	1000
11996	m,p-Xylene	179601-23-1	500	U	500	1000
11996	o-Xylene	95-47-6	500	U	500	1000

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside

Sample Description: Dup-01-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467168
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 08:00 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PLDD1 SDG#: BNH40-08FD

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 03:27	Kevin A Sposito	100
11996	8260C Boeing 69	SW-846 8260C	2-DL	H161942AA	07/13/2016 03:47	Kevin A Sposito	1000
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 03:27	Kevin A Sposito	100
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H161942AA	07/13/2016 03:47	Kevin A Sposito	1000

Sample Description: PL2-253A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467169
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 14:33 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

253-A SDG#: BNH40-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.7**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-253A-070716 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467169
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/07/2016 14:33 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

253-A SDG#: BNH40-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.4**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 01:25	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 01:25	Kevin A Sposito	1

Sample Description: PL2-209A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467170
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 08:24 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

209-A SDG#: BNH40-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-209A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467170
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 08:24 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

209-A SDG#: BNH40-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 01:46	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 01:46	Kevin A Sposito	1

Sample Description: PL2-256A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467171
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 09:10 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

256-A SDG#: BNH40-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.7**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

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Analysis Report

Sample Description: PL2-256A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467171
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 09:10 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

256-A SDG#: BNH40-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.4**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.1**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 02:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 02:06	Kevin A Sposito	1

Sample Description: PL2-257A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467172
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 09:40 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

257-A SDG#: BNH40-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**15**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.2**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: PL2-257A-070816 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467172
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/08/2016 09:40 by JN

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

257-A SDG#: BNH40-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**8.0**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/13/2016 02:26	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/13/2016 02:26	Kevin A Sposito	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467173
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/06/2016 08:00

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2TB SDG#: BNH40-13TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8467173
LL Group # 1680938
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 07/06/2016 08:00

Submitted: 07/09/2016 09:15
Reported: 07/20/2016 15:58

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2TB SDG#: BNH40-13TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
naphthalene	-25

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H161942AA	07/12/2016 23:04	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H161942AA	07/12/2016 23:04	Kevin A Sposito	1

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l		LOQ ug/l
Batch number: H161942AA	Sample number(s): 8467161-8467164,8467166-8467173		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

Method Blank (continued)

Analysis Name	Result ug/l		LOQ ug/l
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
Batch number: H161961AA	Sample number(s): 8467165		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

Method Blank (continued)

Analysis Name	Result		LOQ
	ug/l		ug/l
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
	mg/l		mg/l
Batch number: 16201237301A	Sample number(s): 8467165-8467166		
Total Organic Carbon	1.0	U	1.0

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
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Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H161942AA	Sample number(s): 8467161-8467164,8467166-8467173								
Acetone	37.5	35.28	37.5	33.52	94	89	65-124	5	30
Acrolein	37.5	33.05	37.5	32.6	88	87	35-137	1	30
Acrylonitrile	25	26.4	25	25.24	106	101	68-135	4	30
Benzene	5.00	4.73	5.00	4.78	95	96	80-120	1	30
Bromobenzene	5.00	4.75	5.00	4.96	95	99	80-120	4	30
Bromochloromethane	5.00	5.28	5.00	5.36	106	107	80-125	1	30
Bromodichloromethane	5.00	4.72	5.00	4.68	94	94	80-120	1	30
Bromoform	5.00	4.65	5.00	4.73	93	95	62-128	2	30
Bromomethane	5.00	5.86	5.00	5.89	117	118	71-126	0	30
2-Butanone	37.5	35.38	37.5	33.84	94	90	66-135	4	30
n-Butylbenzene	5.00	4.57	5.00	4.76	91	95	80-120	4	30
sec-Butylbenzene	5.00	4.61	5.00	4.72	92	94	80-120	2	30
tert-Butylbenzene	5.00	4.85	5.00	4.78	97	96	80-120	1	30
Carbon Disulfide	5.00	4.53	5.00	4.53	91	91	65-120	0	30
Carbon Tetrachloride	5.00	4.86	5.00	4.86	97	97	65-134	0	30
Chlorobenzene	5.00	4.81	5.00	4.95	96	99	80-120	3	30
Chloroethane	5.00	5.24	5.00	5.31	105	106	71-122	1	30
Chloroform	5.00	4.75	5.00	4.69	95	94	80-120	1	30
Chloromethane	5.00	5.47	5.00	5.61	109	112	63-121	2	30
2-Chlorotoluene	5.00	4.70	5.00	4.88	94	98	80-120	4	30
4-Chlorotoluene	5.00	4.73	5.00	4.81	95	96	80-120	2	30
1,2-Dibromo-3-chloropropane	5.00	5.64	5.00	5.10	113	102	56-131	10	30
Dibromochloromethane	5.00	4.69	5.00	4.76	94	95	68-131	2	30
Dibromomethane	5.00	4.86	5.00	4.95	97	99	80-122	2	30
trans-1,4-Dichloro-2-butene	25	23.86	25	24.04	95	96	10-182	1	30
1,2-Dichlorobenzene	5.00	4.71	5.00	4.92	94	98	80-120	4	30
1,3-Dichlorobenzene	5.00	4.75	5.00	4.86	95	97	80-120	2	30
1,4-Dichlorobenzene	5.00	4.71	5.00	4.97	94	99	80-120	5	30
1,1-Dichloroethane	5.00	4.50	5.00	4.45	90	89	75-120	1	30
1,2-Dichloroethane	5.00	4.74	5.00	4.71	95	94	72-127	1	30
1,1-Dichloroethene	5.00	4.93	5.00	5.01	99	100	70-120	2	30
cis-1,2-Dichloroethene	5.00	4.97	5.00	4.92	99	98	80-120	1	30
trans-1,2-Dichloroethene	5.00	5.05	5.00	4.98	101	100	80-120	1	30
1,2-Dichloropropane	5.00	4.65	5.00	4.74	93	95	80-120	2	30
1,3-Dichloropropane	5.00	4.67	5.00	4.69	93	94	80-120	0	30
2,2-Dichloropropane	5.00	4.40	5.00	4.32	88	86	64-126	2	30
1,1-Dichloropropene	5.00	4.59	5.00	4.57	92	91	71-120	0	30
cis-1,3-Dichloropropene	5.00	4.45	5.00	4.58	89	92	80-124	3	30
trans-1,3-Dichloropropene	5.00	4.41	5.00	4.43	88	89	77-121	0	30
Ethylbenzene	5.00	4.67	5.00	4.70	93	94	80-120	1	30
Ethylene dibromide	5.00	4.99	5.00	5.07	100	101	80-120	2	30
Hexachlorobutadiene	5.00	4.22	5.00	4.34	84	87	69-120	3	30
2-Hexanone	25	22.7	25	22.33	91	89	73-128	2	30
Isopropylbenzene	5.00	4.78	5.00	4.80	96	96	80-120	0	30
4-Isopropyltoluene	5.00	4.48	5.00	4.72	90	94	80-120	5	30
Methyl Iodide	5.00	4.83	5.00	4.88	97	98	72-127	1	30
4-Methyl-2-pentanone	25	24.7	25	24.42	99	98	71-129	1	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Methylene Chloride	5.00	4.70	5.00	4.68	94	94	80-120	1	30
Naphthalene	5.00	3.84	5.00	4.05	77	81	58-125	5	30
n-Propylbenzene	5.00	4.51	5.00	4.64	90	93	79-120	3	30
Styrene	5.00	4.83	5.00	4.80	97	96	80-122	1	30
1,1,1,2-Tetrachloroethane	5.00	4.73	5.00	4.88	95	98	72-125	3	30
1,1,2,2-Tetrachloroethane	5.00	4.54	5.00	4.58	91	92	80-120	1	30
Tetrachloroethene	5.00	4.90	5.00	4.92	98	98	80-120	0	30
Toluene	5.00	4.80	5.00	4.80	96	96	80-120	0	30
112Trichloro122Trifluoroethane	5.00	4.92	5.00	4.91	98	98	75-120	0	30
1,2,3-Trichlorobenzene	5.00	4.00	5.00	4.28	80	86	59-120	7	30
1,2,4-Trichlorobenzene	5.00	4.18	5.00	4.39	84	88	67-120	5	30
1,1,1-Trichloroethane	5.00	4.64	5.00	4.59	93	92	70-124	1	30
1,1,2-Trichloroethane	5.00	4.82	5.00	4.84	96	97	80-120	0	30
Trichloroethene	5.00	4.96	5.00	4.92	99	98	80-120	1	30
Trichlorofluoromethane	5.00	5.50	5.00	5.47	110	109	64-133	1	30
1,2,3-Trichloropropane	5.00	4.91	5.00	4.95	98	99	80-120	1	30
1,2,4-Trimethylbenzene	5.00	4.49	5.00	4.66	90	93	80-120	4	30
1,3,5-Trimethylbenzene	5.00	4.49	5.00	4.60	90	92	80-120	2	30
Vinyl Acetate	12.5	12.02	12.5	11.78	96	94	40-185	2	30
Vinyl Chloride	5.00	5.92	5.00	5.77	118	115	62-128	3	30
m,p-Xylene	10	9.79	10	9.71	98	97	80-120	1	30
o-Xylene	5.00	4.82	5.00	4.81	96	96	80-120	0	30
Batch number: H161961AA	Sample number(s): 8467165								
Acetone	37.5	39.17	37.5	35.98	104	96	65-124	8	30
Acrolein	37.5	33.95	37.5	31.93	91	85	35-137	6	30
Acrylonitrile	25	31.49	25	27.85	126	111	68-135	12	30
Benzene	5.00	4.94	5.00	4.94	99	99	80-120	0	30
Bromobenzene	5.00	5.17	5.00	5.41	103	108	80-120	5	30
Bromochloromethane	5.00	5.47	5.00	5.57	109	111	80-125	2	30
Bromodichloromethane	5.00	4.82	5.00	4.89	96	98	80-120	2	30
Bromoform	5.00	5.05	5.00	5.12	101	102	62-128	1	30
Bromomethane	5.00	6.15	5.00	6.05	123	121	71-126	2	30
2-Butanone	37.5	43.09	37.5	39.09	115	104	66-135	10	30
n-Butylbenzene	5.00	4.75	5.00	5.06	95	101	80-120	6	30
sec-Butylbenzene	5.00	4.79	5.00	5.05	96	101	80-120	5	30
tert-Butylbenzene	5.00	5.22	5.00	5.50	104	110	80-120	5	30
Carbon Disulfide	5.00	4.55	5.00	4.60	91	92	65-120	1	30
Carbon Tetrachloride	5.00	4.92	5.00	4.88	98	98	65-134	1	30
Chlorobenzene	5.00	5.02	5.00	5.14	100	103	80-120	2	30
Chloroethane	5.00	5.63	5.00	5.58	113	112	71-122	1	30
Chloroform	5.00	4.90	5.00	4.86	98	97	80-120	1	30
Chloromethane	5.00	5.95	5.00	6.00	119	120	63-121	1	30
2-Chlorotoluene	5.00	4.99	5.00	5.25	100	105	80-120	5	30
4-Chlorotoluene	5.00	5.05	5.00	5.23	101	105	80-120	4	30
1,2-Dibromo-3-chloropropane	5.00	6.13	5.00	6.03	123	121	56-131	2	30
Dibromochloromethane	5.00	5.05	5.00	5.04	101	101	68-131	0	30
Dibromomethane	5.00	5.01	5.00	4.95	100	99	80-122	1	30
trans-1,4-Dichloro-2-butene	25	22.59	25	21.49	90	86	10-182	5	30
1,2-Dichlorobenzene	5.00	4.98	5.00	5.33	100	107	80-120	7	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,3-Dichlorobenzene	5.00	5.01	5.00	5.32	100	106	80-120	6	30
1,4-Dichlorobenzene	5.00	5.01	5.00	5.29	100	106	80-120	5	30
1,1-Dichloroethane	5.00	4.64	5.00	4.74	93	95	75-120	2	30
1,2-Dichloroethane	5.00	4.86	5.00	4.85	97	97	72-127	0	30
1,1-Dichloroethene	5.00	5.01	5.00	5.08	100	102	70-120	1	30
cis-1,2-Dichloroethene	5.00	5.07	5.00	4.98	101	100	80-120	2	30
trans-1,2-Dichloroethene	5.00	5.04	5.00	5.19	101	104	80-120	3	30
1,2-Dichloropropane	5.00	4.91	5.00	4.92	98	98	80-120	0	30
1,3-Dichloropropane	5.00	4.94	5.00	4.95	99	99	80-120	0	30
2,2-Dichloropropane	5.00	4.51	5.00	4.48	90	90	64-126	1	30
1,1-Dichloropropene	5.00	4.65	5.00	4.70	93	94	71-120	1	30
cis-1,3-Dichloropropene	5.00	4.60	5.00	4.65	92	93	80-124	1	30
trans-1,3-Dichloropropene	5.00	4.70	5.00	4.68	94	94	77-121	0	30
Ethylbenzene	5.00	4.82	5.00	4.96	96	99	80-120	3	30
Ethylene dibromide	5.00	5.44	5.00	5.38	109	108	80-120	1	30
Hexachlorobutadiene	5.00	4.24	5.00	4.36	85	87	69-120	3	30
2-Hexanone	25	29.47	25	25.41	118	102	73-128	15	30
Isopropylbenzene	5.00	4.90	5.00	5.07	98	101	80-120	3	30
4-Isopropyltoluene	5.00	4.74	5.00	4.98	95	100	80-120	5	30
Methyl Iodide	5.00	4.92	5.00	4.94	98	99	72-127	0	30
4-Methyl-2-pentanone	25	31.34	25	26.85	125	107	71-129	15	30
Methylene Chloride	5.00	4.86	5.00	4.86	97	97	80-120	0	30
Naphthalene	5.00	3.67	5.00	4.12	73	82	58-125	12	30
n-Propylbenzene	5.00	4.78	5.00	5.02	96	100	79-120	5	30
Styrene	5.00	5.03	5.00	5.18	101	104	80-122	3	30
1,1,1,2-Tetrachloroethane	5.00	5.01	5.00	5.11	100	102	72-125	2	30
1,1,2,2-Tetrachloroethane	5.00	5.00	5.00	4.94	100	99	80-120	1	30
Tetrachloroethene	5.00	5.08	5.00	5.20	102	104	80-120	2	30
Toluene	5.00	4.98	5.00	5.13	100	103	80-120	3	30
112Trichloro122Trifluoroethane	5.00	4.72	5.00	4.78	94	96	75-120	1	30
1,2,3-Trichlorobenzene	5.00	3.59	5.00	4.08	72	82	59-120	13	30
1,2,4-Trichlorobenzene	5.00	4.16	5.00	4.44	83	89	67-120	7	30
1,1,1-Trichloroethane	5.00	4.74	5.00	4.76	95	95	70-124	0	30
1,1,2-Trichloroethane	5.00	5.11	5.00	5.03	102	101	80-120	2	30
Trichloroethene	5.00	5.15	5.00	5.16	103	103	80-120	0	30
Trichlorofluoromethane	5.00	5.27	5.00	5.55	105	111	64-133	5	30
1,2,3-Trichloropropane	5.00	5.33	5.00	5.42	107	108	80-120	2	30
1,2,4-Trimethylbenzene	5.00	4.71	5.00	4.97	94	99	80-120	5	30
1,3,5-Trimethylbenzene	5.00	4.75	5.00	4.99	95	100	80-120	5	30
Vinyl Acetate	12.5	13.35	12.5	13.48	107	108	40-185	1	30
Vinyl Chloride	5.00	5.86	5.00	6.01	117	120	62-128	2	30
m,p-Xylene	10	10.02	10	10.48	100	105	80-120	5	30
o-Xylene	5.00	4.94	5.00	5.06	99	101	80-120	3	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16201237301A	Sample number(s): 8467165-8467166								
Total Organic Carbon	25	26.92			108		91-113		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16201237301A	Sample number(s): 8467165-8467166 UNSPK: 8467165									
Total Organic Carbon	13.41	10	24.07			107		91-113		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 16201237301A	Sample number(s): 8467165-8467166 BKG: 8467165			
Total Organic Carbon	13.41	13.43	0	3

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H161942AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8467161	101	100	98	89
8467162	104	108	96	91
8467163	102	96	99	91
8467164	102	101	98	90
8467166	98	97	100	91
8467167	101	100	100	88
8467167DL	102	97	97	88
8467168	100	99	99	89
8467168DL	100	100	101	88
8467169	97	94	101	87
8467170	98	101	100	89
8467171	98	95	105	89
8467172	96	95	103	88
8467173	98	97	102	88
Blank	98	99	101	88
LCS	102	101	99	95
LCSD	99	97	99	91
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 07/20/2016 15:58

Group Number: 1680938

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H161961AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8467165	96	100	101	91
Blank	97	97	102	89
LCS	99	98	99	95
LCSD	96	94	101	92
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419

For Eurofins Lancaster Laboratories use only
Group # 1680938 Sample # 8116161-73
Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing
Site Project: Plant 2-10 IM
Site Program/#:
Boeing PM: Will Ernst
Consultant Contact: ~~Will Ernst~~ Tom McKeon
Report To: Will Ernst + Tom McKeon
Invoice To: ☒ Boeing EHS ☐ Other (specify):
Sampler: Justin Nesbitt + Chris Gallagher # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOC & 8260C Boeing EH	TCL / preserved ~~HCl~~ H_3PO_4	5 Remarks/Comments
PL2-218A-070716	7/7/16	0939	aq	3	X		Unpreserved VOAs
PL2-218B-070716	7/7/16	1008	aq	3	X		
PL2-258A-070716	7/7/16	1055	aq	3	X		
PL2-258B-070716	7/7/16	1127	aq	3	X		
PL2-IW-N-4-070716	7/7/16	1203	aq	5	X	X	
PL2-IW-N-6-070716	7/7/16	1311	aq	5	X	X	
PL2-212A-070716	7/7/16	1345	aq	3	X		
Dup-01-070716	7/7/16	0800	aq	3	X		
PL2-253A-070716	7/7/16	1433	aq	3	X		
PL2-209A-070816	7/8/16	0824	aq	3	X		
PL2-256A-070816	7/8/16	0910	aq	3	X		
PL2-257A-070816	7/8/16	0940	aq	3	X		
Trip Blank	7/6/16	0800	aq	2	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]	7/8/16 1035		
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by: [signature]	Date/Time 7/8/16 915

Relinquished by commercial carrier (circle): UPS FedEx Other: _____

Temperature upon Receipt: 2.2 °C

Custody Seals Intact?: Yes No

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.
Issued by Dept. 40 Management
7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 153274

Group Number(s): 1680938

Client: Boeing

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	07/09/2016 9:15
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	upresv'd
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Joseph Huber (7831) at 09:30 on 07/09/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	2.2	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

NCE YU
EUROFINS LANCASTER LABORATORIE
11720 NORTH CREEK PARKWAY N
BOTHELL, WA 98011-8244

40 LBS

RS DWT: 25,14,14

SHIP TO:
SAMPLE ADMINISTRATION
(717) 656-2300
EUROFINS LANCASTER LABORATORIES
2425 NEW HOLLAND PIKE
LANCASTER PA 17601

PA 175 9-37

UPS NEXT DAY AIR 1 S
TRACKING #: 1Z RV3 069 Y0 4518 3526

BILLING: P/P
DESC: SAMPLING
RETURN SERVICE

REF 1:DEPT 40

WS 17.0.31 LD620D 66.0A 07/2015

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G# 1680938

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Groundwater Monitoring Laboratory Data Sheets (November 2016)

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

Report Date: November 30, 2016

Project: Boeing Plant 2 2-10 IM

Submittal Date: 11/23/2016
Group Number: 1736826
SDG: BNH83
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
PL2-218A-112116 Water	8712329
PL2-218B-112116 Water	8712330
PL2-IWN-4-112116 Water	8712331
PL2-IWN-6-112116 Water	8712332
PL2-212A-112116 Water	8712333
DUP01-112116 Water	8712334
PL2-216A-112116 Water	8712335
PL2-253A-112116 Water	8712336
PL2-214A-112116 Water	8712337
PL2-209A-112116 Water	8712338
PL2-258B-112216 Water	8712339
PL2-258A-112216 Water	8712340
PL2-257A-112216 Water	8712341
PL2-256A-112216 Water	8712342
Trip Blank Water	8712343

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	Calibre	Attn: Chris Gallagher
Electronic Copy To	Calibre	Attn: Tom McKeon
Electronic Copy To	The Boeing Company	Attn: Will Ernst
Electronic Copy To	Golder Associates Inc.	Attn: Alyssa Neir
Electronic Copy To	Golder Associates Inc.	Attn: Kent Angelos

Respectfully Submitted,

Kay Hower

(510) 672-3979

Project Name: Boeing Plant 2 2-10 IM
LL Group #: 1736826

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260C, GC/MS Volatiles

Sample #s: 8712329

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and no target analytes were detected, the data is reported.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample #s: 8712334

The recovery for the method blank surrogate(s) is outside the QC acceptance limits for the initial trail as noted on the QC Summary.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits for the initial trial as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift in the initial trail is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

The LCS and/or LCSD recoveries are outside the stated QC window on the second trial but withinthe marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.
The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the second trial of the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:

Analyte	Response (%Drift)
vinyl chloride	23

Sample #s: 8712333

The recovery for the method blank surrogate(s) is outside the QC acceptance limits for the initial trial as noted on the QC Summary.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary for the initial trial. Since the recovery is high and the target analyte(s)
was not detected in the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift in the initial trail is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

The LCS and/or LCSD recoveries are outside the stated QC window on the second trial but withinthe marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.
The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the second trial of the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:

Analyte	Response (%Drift)
vinyl chloride	23

Sample #s: 8712330

The recovery for the method blank surrogate(s) is outside the QC acceptance limits for the second trial as noted on the QC Summary.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary for the second trial. Since the recovery is high and the target analyte(s)
was not detected in the second trial of the sample, the data is reported.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in the inital trial of this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted in the initial trial based on this allowance: 4-methyl-2-pentanone.
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

Sample #s: 8712340, 8712341, 8712342

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.
The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23

Sample #s: 8712332

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.
The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
2-butanone	-21

Sample #s: 8712331, 8712335, 8712336, 8712337, 8712338, 8712339, 8712343

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.
The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.
The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

Batch #: H163301AA (Sample number(s): 8712330-8712343 UNSPK: P704419)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD were below the acceptance window: 4-Methyl-2-pentanone

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: n-Butylbenzene, m,p-Xylene

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 8712330, LCS

Batch #: H163331AA (Sample number(s): 8712329-8712330, 8712333-8712334)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: 1,1,2-Trichloroethane

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) 8712330RE, Blank

SM 5310 C-2000, Wet Chemistry

Batch #: 16333667602B (Sample number(s): 8712331 UNSPK: P708531 BKG: P708531)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Total Organic Carbon

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Total Organic Carbon

Batch #: 16333667603A (Sample number(s): 8712332 UNSPK: P708615 BKG: P708615)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Total Organic Carbon

Sample Description: PL2-218A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712329
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:22 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218A SDG#: BNH83-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-218A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712329
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:22 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218A SDG#: BNH83-01

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: PL2-218A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712329
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:22 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218A SDG#: BNH83-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163331AA	11/28/2016 12:27	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163331AA	11/28/2016 12:27	Kevin A Sposito	1

Sample Description: PL2-218B-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712330
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:55 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218B SDG#: BNH83-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.8**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-218B-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712330
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:55 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218B SDG#: BNH83-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1
Trial ID: RE						
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1

Sample Description: PL2-218B-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712330
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:55 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218B SDG#: BNH83-02

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.8**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in the inital trial of this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21

Sample Description: PL2-218B-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712330
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 09:55 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P218B SDG#: BNH83-02

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	chloroethane		22		
	acrolein		-30		
	2-butanone		-21		
	4-methyl-2-pentanone		-26		
	2-hexanone		-27		
	trans-1,4-dichloro-2-butene		-27		

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted in the initial trial based on this allowance: 4-methyl-2-pentanone.

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
acrolein	-40
acetone	-31
acrylonitrile	-23
2-butanone	-31
4-methyl-2-pentanone	-35
2-hexanone	-34
trans-1,4-dichloro-2-butene	-25
1,2-dibromo-3-chloropropane	-27
hexachlorobutadiene	-22
1,2,3-trichlorobenzene	-23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 14:37	Matthew S Krause	1
11996	8260C Boeing 69	SW-846 8260C	2-RE	H163331AA	11/28/2016 12:47	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 14:37	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H163331AA	11/28/2016 12:47	Kevin A Sposito	1

Sample Description: PL2-IWN-4-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712331
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 10:26 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN4 SDG#: BNH83-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-IWN-4-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712331
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 10:26 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN4 SDG#: BNH83-03

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

Wet Chemistry	**SM 5310 C-2000**		**mg/l**		**mg/l**	
00273	**Total Organic Carbon**	n.a.	**14.2**		1.0	1

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Analysis Report

Sample Description: PL2-IWN-4-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712331
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 10:26 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN4 SDG#: BNH83-03

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 14:58	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 14:58	Matthew S Krause	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16333667602B	11/28/2016 21:52	Drew M Gerhart	1

Sample Description: PL2-IWN-6-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712332
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN6 SDG#: BNH83-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	**2-Butanone**	78-93-3	**11**		5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.5**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	**4-Isopropyltoluene**	99-87-6	**2.4**		0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1

Sample Description: PL2-IWN-6-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712332
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN6 SDG#: BNH83-04

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	**Toluene**	108-88-3	**5.8**		0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.7**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the

Sample Description: PL2-IWN-6-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712332
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PIWN6 SDG#: BNH83-04

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
2-butanone	-21

Wet Chemistry		**SM 5310 C-2000**	**mg/l**	**mg/l**	
00273	**Total Organic Carbon**	n.a.	**6.9**	1.0	1

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 15:18	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 15:18	Matthew S Krause	1
00273	Total Organic Carbon	SM 5310 C-2000	1	16333667603A	11/28/2016 23:26	Drew M Gerhart	1

Sample Description: PL2-212A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712333
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:32 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P212A SDG#: BNH83-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	100	U	100	20
11996	Acrolein	107-02-8	500	U	500	20
11996	Acrylonitrile	107-13-1	100	U	100	20
11996	Benzene	71-43-2	4.0	U	4.0	20
11996	Bromobenzene	108-86-1	10	U	10	20
11996	Bromochloromethane	74-97-5	10	U	10	20
11996	Bromodichloromethane	75-27-4	10	U	10	20
11996	Bromoform	75-25-2	10	U	10	20
11996	Bromomethane	74-83-9	10	U	10	20
11996	2-Butanone	78-93-3	100	U	100	20
11996	n-Butylbenzene	104-51-8	10	U	10	20
11996	sec-Butylbenzene	135-98-8	10	U	10	20
11996	tert-Butylbenzene	98-06-6	10	U	10	20
11996	Carbon Disulfide	75-15-0	10	U	10	20
11996	Carbon Tetrachloride	56-23-5	4.0	U	4.0	20
11996	Chlorobenzene	108-90-7	10	U	10	20
11996	Chloroethane	75-00-3	10	U	10	20
11996	Chloroform	67-66-3	4.0	U	4.0	20
11996	Chloromethane	74-87-3	10	U	10	20
11996	2-Chlorotoluene	95-49-8	10	U	10	20
11996	4-Chlorotoluene	106-43-4	10	U	10	20
11996	1,2-Dibromo-3-chloropropane	96-12-8	10	U	10	20
11996	Dibromochloromethane	124-48-1	10	U	10	20
11996	Dibromomethane	74-95-3	10	U	10	20
11996	trans-1,4-Dichloro-2-butene	110-57-6	100	U	100	20
11996	1,2-Dichlorobenzene	95-50-1	10	U	10	20
11996	1,3-Dichlorobenzene	541-73-1	10	U	10	20
11996	1,4-Dichlorobenzene	106-46-7	10	U	10	20
11996	1,1-Dichloroethane	75-34-3	10	U	10	20
11996	1,2-Dichloroethane	107-06-2	4.0	U	4.0	20
11996	1,1-Dichloroethene	75-35-4	4.0	U	4.0	20
11996	**cis-1,2-Dichloroethene**	156-59-2	**980**	**E**	4.0	20
11996	trans-1,2-Dichloroethene	156-60-5	4.0	U	4.0	20
11996	1,2-Dichloropropane	78-87-5	10	U	10	20
11996	1,3-Dichloropropane	142-28-9	10	U	10	20
11996	2,2-Dichloropropane	594-20-7	10	U	10	20
11996	1,1-Dichloropropene	563-58-6	10	U	10	20
11996	cis-1,3-Dichloropropene	10061-01-5	4.0	U	4.0	20
11996	trans-1,3-Dichloropropene	10061-02-6	4.0	U	4.0	20
11996	Ethylbenzene	100-41-4	10	U	10	20
11996	Ethylene dibromide	106-93-4	10	U	10	20
11996	Hexachlorobutadiene	87-68-3	10	U	10	20
11996	2-Hexanone	591-78-6	100	U	100	20
11996	Isopropylbenzene	98-82-8	10	U	10	20
11996	4-Isopropyltoluene	99-87-6	10	U	10	20
11996	Methyl Iodide	74-88-4	10	U	10	20
11996	4-Methyl-2-pentanone	108-10-1	100	U	100	20
11996	Methylene Chloride	75-09-2	10	U	10	20
11996	Naphthalene	91-20-3	10	U	10	20
11996	n-Propylbenzene	103-65-1	10	U	10	20

Sample Description: PL2-212A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712333
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:32 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P212A SDG#: BNH83-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	10	U	10	20
11996	1,1,1,2-Tetrachloroethane	630-20-6	10	U	10	20
11996	1,1,2,2-Tetrachloroethane	79-34-5	4.0	U	4.0	20
11996	Tetrachloroethene	127-18-4	4.0	U	4.0	20
11996	Toluene	108-88-3	4.0	U	4.0	20
11996	112Trichloro122Trifluoroethane	76-13-1	10	U	10	20
11996	1,2,3-Trichlorobenzene	87-61-6	10	U	10	20
11996	1,2,4-Trichlorobenzene	120-82-1	10	U	10	20
11996	1,1,1-Trichloroethane	71-55-6	10	U	10	20
11996	1,1,2-Trichloroethane	79-00-5	4.0	U	4.0	20
11996	**Trichloroethene**	79-01-6	**20**		4.0	20
11996	Trichlorofluoromethane	75-69-4	10	U	10	20
11996	1,2,3-Trichloropropane	96-18-4	20	U	20	20
11996	1,2,4-Trimethylbenzene	95-63-6	10	U	10	20
11996	1,3,5-Trimethylbenzene	108-67-8	10	U	10	20
11996	Vinyl Acetate	108-05-4	10	U	10	20
11996	**Vinyl Chloride**	75-01-4	**1,000**	**E**	4.0	20
11996	m,p-Xylene	179601-23-1	10	U	10	20
11996	o-Xylene	95-47-6	10	U	10	20
Trial ID: DL						
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50

Sample Description: PL2-212A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712333
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:32 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P212A SDG#: BNH83-05

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,100**		10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**27**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**1,100**		10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift in the initial trail is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte Response (%Drift)

Sample Description: PL2-212A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712333
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:32 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P212A SDG#: BNH83-05

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	acrolein	-40			
	acetone	-31			
	acrylonitrile	-23			
	2-butanone	-31			
	4-methyl-2-pentanone	-35			
	2-hexanone	-34			
	trans-1,4-dichloro-2-butene	-25			
	1,2-dibromo-3-chloropropane	-27			
	hexachlorobutadiene	-22			
	1,2,3-trichlorobenzene	-23			

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

The LCS and/or LCSD recoveries are outside the stated QC window on the second trial but withinthe marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the second trial of the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:

Analyte	Response (%Drift)
vinyl chloride	23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: PL2-212A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712333
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 11:32 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P212A SDG#: BNH83-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163331AA	11/28/2016 13:28	Kevin A Sposito	20
11996	8260C Boeing 69	SW-846 8260C	2-DL	H163301AA	11/25/2016 15:38	Matthew S Krause	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163331AA	11/28/2016 13:28	Kevin A Sposito	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H163301AA	11/25/2016 15:38	Matthew S Krause	50

Sample Description: DUP01-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712334
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 08:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2FD SDG#: BNH83-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	100	U	100	20
11996	Acrolein	107-02-8	500	U	500	20
11996	Acrylonitrile	107-13-1	100	U	100	20
11996	Benzene	71-43-2	4.0	U	4.0	20
11996	Bromobenzene	108-86-1	10	U	10	20
11996	Bromochloromethane	74-97-5	10	U	10	20
11996	Bromodichloromethane	75-27-4	10	U	10	20
11996	Bromoform	75-25-2	10	U	10	20
11996	Bromomethane	74-83-9	10	U	10	20
11996	2-Butanone	78-93-3	100	U	100	20
11996	n-Butylbenzene	104-51-8	10	U	10	20
11996	sec-Butylbenzene	135-98-8	10	U	10	20
11996	tert-Butylbenzene	98-06-6	10	U	10	20
11996	Carbon Disulfide	75-15-0	10	U	10	20
11996	Carbon Tetrachloride	56-23-5	4.0	U	4.0	20
11996	Chlorobenzene	108-90-7	10	U	10	20
11996	Chloroethane	75-00-3	10	U	10	20
11996	Chloroform	67-66-3	4.0	U	4.0	20
11996	Chloromethane	74-87-3	10	U	10	20
11996	2-Chlorotoluene	95-49-8	10	U	10	20
11996	4-Chlorotoluene	106-43-4	10	U	10	20
11996	1,2-Dibromo-3-chloropropane	96-12-8	10	U	10	20
11996	Dibromochloromethane	124-48-1	10	U	10	20
11996	Dibromomethane	74-95-3	10	U	10	20
11996	trans-1,4-Dichloro-2-butene	110-57-6	100	U	100	20
11996	1,2-Dichlorobenzene	95-50-1	10	U	10	20
11996	1,3-Dichlorobenzene	541-73-1	10	U	10	20
11996	1,4-Dichlorobenzene	106-46-7	10	U	10	20
11996	1,1-Dichloroethane	75-34-3	10	U	10	20
11996	1,2-Dichloroethane	107-06-2	4.0	U	4.0	20
11996	1,1-Dichloroethene	75-35-4	4.0	U	4.0	20
11996	**cis-1,2-Dichloroethene**	156-59-2	**990**	**E**	4.0	20
11996	trans-1,2-Dichloroethene	156-60-5	4.0	U	4.0	20
11996	1,2-Dichloropropane	78-87-5	10	U	10	20
11996	1,3-Dichloropropane	142-28-9	10	U	10	20
11996	2,2-Dichloropropane	594-20-7	10	U	10	20
11996	1,1-Dichloropropene	563-58-6	10	U	10	20
11996	cis-1,3-Dichloropropene	10061-01-5	4.0	U	4.0	20
11996	trans-1,3-Dichloropropene	10061-02-6	4.0	U	4.0	20
11996	Ethylbenzene	100-41-4	10	U	10	20
11996	Ethylene dibromide	106-93-4	10	U	10	20
11996	Hexachlorobutadiene	87-68-3	10	U	10	20
11996	2-Hexanone	591-78-6	100	U	100	20
11996	Isopropylbenzene	98-82-8	10	U	10	20
11996	4-Isopropyltoluene	99-87-6	10	U	10	20
11996	Methyl Iodide	74-88-4	10	U	10	20
11996	4-Methyl-2-pentanone	108-10-1	100	U	100	20
11996	Methylene Chloride	75-09-2	10	U	10	20
11996	Naphthalene	91-20-3	10	U	10	20
11996	n-Propylbenzene	103-65-1	10	U	10	20

Sample Description: DUP01-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712334
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 08:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2FD SDG#: BNH83-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	10	U	10	20
11996	1,1,1,2-Tetrachloroethane	630-20-6	10	U	10	20
11996	1,1,2,2-Tetrachloroethane	79-34-5	4.0	U	4.0	20
11996	Tetrachloroethene	127-18-4	4.0	U	4.0	20
11996	Toluene	108-88-3	4.0	U	4.0	20
11996	112Trichloro122Trifluoroethane	76-13-1	10	U	10	20
11996	1,2,3-Trichlorobenzene	87-61-6	10	U	10	20
11996	1,2,4-Trichlorobenzene	120-82-1	10	U	10	20
11996	1,1,1-Trichloroethane	71-55-6	10	U	10	20
11996	1,1,2-Trichloroethane	79-00-5	4.0	U	4.0	20
11996	**Trichloroethene**	79-01-6	**26**		4.0	20
11996	Trichlorofluoromethane	75-69-4	10	U	10	20
11996	1,2,3-Trichloropropane	96-18-4	20	U	20	20
11996	1,2,4-Trimethylbenzene	95-63-6	10	U	10	20
11996	1,3,5-Trimethylbenzene	108-67-8	10	U	10	20
11996	Vinyl Acetate	108-05-4	10	U	10	20
11996	**Vinyl Chloride**	75-01-4	**1,000**	**E**	4.0	20
11996	m,p-Xylene	179601-23-1	10	U	10	20
11996	o-Xylene	95-47-6	10	U	10	20
Trial ID: DL						
11996	Acetone	67-64-1	250	U	250	50
11996	Acrolein	107-02-8	1,300	U	1,300	50
11996	Acrylonitrile	107-13-1	250	U	250	50
11996	Benzene	71-43-2	10	U	10	50
11996	Bromobenzene	108-86-1	25	U	25	50
11996	Bromochloromethane	74-97-5	25	U	25	50
11996	Bromodichloromethane	75-27-4	25	U	25	50
11996	Bromoform	75-25-2	25	U	25	50
11996	Bromomethane	74-83-9	25	U	25	50
11996	2-Butanone	78-93-3	250	U	250	50
11996	n-Butylbenzene	104-51-8	25	U	25	50
11996	sec-Butylbenzene	135-98-8	25	U	25	50
11996	tert-Butylbenzene	98-06-6	25	U	25	50
11996	Carbon Disulfide	75-15-0	25	U	25	50
11996	Carbon Tetrachloride	56-23-5	10	U	10	50
11996	Chlorobenzene	108-90-7	25	U	25	50
11996	Chloroethane	75-00-3	25	U	25	50
11996	Chloroform	67-66-3	10	U	10	50
11996	Chloromethane	74-87-3	25	U	25	50
11996	2-Chlorotoluene	95-49-8	25	U	25	50
11996	4-Chlorotoluene	106-43-4	25	U	25	50
11996	1,2-Dibromo-3-chloropropane	96-12-8	25	U	25	50
11996	Dibromochloromethane	124-48-1	25	U	25	50
11996	Dibromomethane	74-95-3	25	U	25	50
11996	trans-1,4-Dichloro-2-butene	110-57-6	250	U	250	50
11996	1,2-Dichlorobenzene	95-50-1	25	U	25	50
11996	1,3-Dichlorobenzene	541-73-1	25	U	25	50
11996	1,4-Dichlorobenzene	106-46-7	25	U	25	50

Sample Description: DUP01-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712334
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 08:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2FD SDG#: BNH83-06FD

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	1,1-Dichloroethane	75-34-3	25	U	25	50
11996	1,2-Dichloroethane	107-06-2	10	U	10	50
11996	1,1-Dichloroethene	75-35-4	10	U	10	50
11996	**cis-1,2-Dichloroethene**	156-59-2	**1,200**		10	50
11996	trans-1,2-Dichloroethene	156-60-5	10	U	10	50
11996	1,2-Dichloropropane	78-87-5	25	U	25	50
11996	1,3-Dichloropropane	142-28-9	25	U	25	50
11996	2,2-Dichloropropane	594-20-7	25	U	25	50
11996	1,1-Dichloropropene	563-58-6	25	U	25	50
11996	cis-1,3-Dichloropropene	10061-01-5	10	U	10	50
11996	trans-1,3-Dichloropropene	10061-02-6	10	U	10	50
11996	Ethylbenzene	100-41-4	25	U	25	50
11996	Ethylene dibromide	106-93-4	25	U	25	50
11996	Hexachlorobutadiene	87-68-3	25	U	25	50
11996	2-Hexanone	591-78-6	250	U	250	50
11996	Isopropylbenzene	98-82-8	25	U	25	50
11996	4-Isopropyltoluene	99-87-6	25	U	25	50
11996	Methyl Iodide	74-88-4	25	U	25	50
11996	4-Methyl-2-pentanone	108-10-1	250	U	250	50
11996	Methylene Chloride	75-09-2	25	U	25	50
11996	Naphthalene	91-20-3	25	U	25	50
11996	n-Propylbenzene	103-65-1	25	U	25	50
11996	Styrene	100-42-5	25	U	25	50
11996	1,1,1,2-Tetrachloroethane	630-20-6	25	U	25	50
11996	1,1,2,2-Tetrachloroethane	79-34-5	10	U	10	50
11996	Tetrachloroethene	127-18-4	10	U	10	50
11996	Toluene	108-88-3	10	U	10	50
11996	112Trichloro122Trifluoroethane	76-13-1	25	U	25	50
11996	1,2,3-Trichlorobenzene	87-61-6	25	U	25	50
11996	1,2,4-Trichlorobenzene	120-82-1	25	U	25	50
11996	1,1,1-Trichloroethane	71-55-6	25	U	25	50
11996	1,1,2-Trichloroethane	79-00-5	10	U	10	50
11996	**Trichloroethene**	79-01-6	**25**		10	50
11996	Trichlorofluoromethane	75-69-4	25	U	25	50
11996	1,2,3-Trichloropropane	96-18-4	50	U	50	50
11996	1,2,4-Trimethylbenzene	95-63-6	25	U	25	50
11996	1,3,5-Trimethylbenzene	108-67-8	25	U	25	50
11996	Vinyl Acetate	108-05-4	25	U	25	50
11996	**Vinyl Chloride**	75-01-4	**950**		10	50
11996	m,p-Xylene	179601-23-1	25	U	25	50
11996	o-Xylene	95-47-6	25	U	25	50

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift in the initial trail is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte Response (%Drift)

Sample Description: DUP01-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712334
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 08:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2FD SDG#: BNH83-06FD

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
	acrolein	-40			
	acetone	-31			
	acrylonitrile	-23			
	2-butanone	-31			
	4-methyl-2-pentanone	-35			
	2-hexanone	-34			
	trans-1,4-dichloro-2-butene	-25			
	1,2-dibromo-3-chloropropane	-27			
	hexachlorobutadiene	-22			
	1,2,3-trichlorobenzene	-23			

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

The LCS and/or LCSD recoveries are outside the stated QC window on the second trial but withinthe marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the second trial of the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated:

Analyte	Response (%Drift)
vinyl chloride	23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: DUP01-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712334
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 08:00 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2FD SDG#: BNH83-06FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163331AA	11/28/2016 13:48	Kevin A Sposito	20
11996	8260C Boeing 69	SW-846 8260C	2-DL	H163301AA	11/25/2016 16:19	Matthew S Krause	50
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163331AA	11/28/2016 13:48	Kevin A Sposito	20
01163	GC/MS VOA Water Prep	SW-846 5030B	2	H163301AA	11/25/2016 16:19	Matthew S Krause	50

Sample Description: PL2-216A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712335
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 12:48 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P216A SDG#: BNH83-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-216A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712335
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 12:48 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P216A SDG#: BNH83-07

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

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Analysis Report

Sample Description: PL2-216A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712335
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 12:48 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P216A SDG#: BNH83-07

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 17:00	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 17:00	Matthew S Krause	1

Sample Description: PL2-253A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712336
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:24 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P253A SDG#: BNH83-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-253A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712336
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:24 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P253A SDG#: BNH83-08

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

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Analysis Report

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Sample Description: PL2-253A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712336
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:24 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P253A SDG#: BNH83-08

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 17:20	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 17:20	Matthew S Krause	1

Sample Description: PL2-214A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712337
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:57 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P214A SDG#: BNH83-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-214A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712337
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:57 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P214A SDG#: BNH83-09

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

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Analysis Report

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Sample Description: PL2-214A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712337
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 13:57 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P214A SDG#: BNH83-09

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 17:40	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 17:40	Matthew S Krause	1

Sample Description: PL2-209A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712338
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 14:34 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P209A SDG#: BNH83-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-209A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712338
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 14:34 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P209A SDG#: BNH83-10

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.2**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

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Analysis Report

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Sample Description: PL2-209A-112116 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712338
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016 14:34 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P209A SDG#: BNH83-10

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 18:01	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 18:01	Matthew S Krause	1

Sample Description: PL2-258B-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712339
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 08:51 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258B SDG#: BNH83-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**1.5**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-258B-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712339
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 08:51 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258B SDG#: BNH83-11

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: PL2-258B-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712339
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 08:51 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258B SDG#: BNH83-11

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 18:21	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 18:21	Matthew S Krause	1

Sample Description: PL2-258A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712340
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 09:29 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258A SDG#: BNH83-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-258A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712340
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 09:29 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258A SDG#: BNH83-12

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**0.3**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore

Sample Description: PL2-258A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712340
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 09:29 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P258A SDG#: BNH83-12

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the result for the following analyte(s) is estimated:

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 18:42	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 18:42	Matthew S Krause	1

Sample Description: PL2-257A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712341
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:09 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P257A SDG#: BNH83-13

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**11**		0.2	1
11996	**trans-1,2-Dichloroethene**	156-60-5	**0.3**		0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-257A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712341
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:09 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P257A SDG#: BNH83-13

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	**Trichloroethene**	79-01-6	**0.3**		0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**9.2**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore

Sample Description: PL2-257A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712341
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:09 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P257A SDG#: BNH83-13

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the result for the following analyte(s) is estimated:

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 19:02	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 19:02	Matthew S Krause	1

Sample Description: PL2-256A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712342
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:38 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P256A SDG#: BNH83-14

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	**cis-1,2-Dichloroethene**	156-59-2	**0.5**		0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: PL2-256A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712342
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:38 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P256A SDG#: BNH83-14

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l		ug/l	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	**Vinyl Chloride**	75-01-4	**1.4**		0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore

Sample Description: PL2-256A-112216 Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712342
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/22/2016 10:38 by CG

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

P256A SDG#: BNH83-14

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor

the result for the following analyte(s) is estimated:

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 19:22	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 19:22	Matthew S Krause	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712343
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2TB SDG#: BNH83-15TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Acetone	67-64-1	5.0	U	5.0	1
11996	Acrolein	107-02-8	25	U	25	1
11996	Acrylonitrile	107-13-1	5.0	U	5.0	1
11996	Benzene	71-43-2	0.2	U	0.2	1
11996	Bromobenzene	108-86-1	0.5	U	0.5	1
11996	Bromochloromethane	74-97-5	0.5	U	0.5	1
11996	Bromodichloromethane	75-27-4	0.5	U	0.5	1
11996	Bromoform	75-25-2	0.5	U	0.5	1
11996	Bromomethane	74-83-9	0.5	U	0.5	1
11996	2-Butanone	78-93-3	5.0	U	5.0	1
11996	n-Butylbenzene	104-51-8	0.5	U	0.5	1
11996	sec-Butylbenzene	135-98-8	0.5	U	0.5	1
11996	tert-Butylbenzene	98-06-6	0.5	U	0.5	1
11996	Carbon Disulfide	75-15-0	0.5	U	0.5	1
11996	Carbon Tetrachloride	56-23-5	0.2	U	0.2	1
11996	Chlorobenzene	108-90-7	0.5	U	0.5	1
11996	Chloroethane	75-00-3	0.5	U	0.5	1
11996	Chloroform	67-66-3	0.2	U	0.2	1
11996	Chloromethane	74-87-3	0.5	U	0.5	1
11996	2-Chlorotoluene	95-49-8	0.5	U	0.5	1
11996	4-Chlorotoluene	106-43-4	0.5	U	0.5	1
11996	1,2-Dibromo-3-chloropropane	96-12-8	0.5	U	0.5	1
11996	Dibromochloromethane	124-48-1	0.5	U	0.5	1
11996	Dibromomethane	74-95-3	0.5	U	0.5	1
11996	trans-1,4-Dichloro-2-butene	110-57-6	5.0	U	5.0	1
11996	1,2-Dichlorobenzene	95-50-1	0.5	U	0.5	1
11996	1,3-Dichlorobenzene	541-73-1	0.5	U	0.5	1
11996	1,4-Dichlorobenzene	106-46-7	0.5	U	0.5	1
11996	1,1-Dichloroethane	75-34-3	0.5	U	0.5	1
11996	1,2-Dichloroethane	107-06-2	0.2	U	0.2	1
11996	1,1-Dichloroethene	75-35-4	0.2	U	0.2	1
11996	cis-1,2-Dichloroethene	156-59-2	0.2	U	0.2	1
11996	trans-1,2-Dichloroethene	156-60-5	0.2	U	0.2	1
11996	1,2-Dichloropropane	78-87-5	0.5	U	0.5	1
11996	1,3-Dichloropropane	142-28-9	0.5	U	0.5	1
11996	2,2-Dichloropropane	594-20-7	0.5	U	0.5	1
11996	1,1-Dichloropropene	563-58-6	0.5	U	0.5	1
11996	cis-1,3-Dichloropropene	10061-01-5	0.2	U	0.2	1
11996	trans-1,3-Dichloropropene	10061-02-6	0.2	U	0.2	1
11996	Ethylbenzene	100-41-4	0.5	U	0.5	1
11996	Ethylene dibromide	106-93-4	0.5	U	0.5	1
11996	Hexachlorobutadiene	87-68-3	0.5	U	0.5	1
11996	2-Hexanone	591-78-6	5.0	U	5.0	1
11996	Isopropylbenzene	98-82-8	0.5	U	0.5	1
11996	4-Isopropyltoluene	99-87-6	0.5	U	0.5	1
11996	Methyl Iodide	74-88-4	0.5	U	0.5	1
11996	4-Methyl-2-pentanone	108-10-1	5.0	U	5.0	1
11996	Methylene Chloride	75-09-2	0.5	U	0.5	1
11996	Naphthalene	91-20-3	0.5	U	0.5	1
11996	n-Propylbenzene	103-65-1	0.5	U	0.5	1

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712343
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2TB SDG#: BNH83-15TB

CAT No.	Analysis Name	CAS Number	Result		Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**		**ug/l**	
11996	Styrene	100-42-5	0.5	U	0.5	1
11996	1,1,1,2-Tetrachloroethane	630-20-6	0.5	U	0.5	1
11996	1,1,2,2-Tetrachloroethane	79-34-5	0.2	U	0.2	1
11996	Tetrachloroethene	127-18-4	0.2	U	0.2	1
11996	Toluene	108-88-3	0.2	U	0.2	1
11996	112Trichloro122Trifluoroethane	76-13-1	0.5	U	0.5	1
11996	1,2,3-Trichlorobenzene	87-61-6	0.5	U	0.5	1
11996	1,2,4-Trichlorobenzene	120-82-1	0.5	U	0.5	1
11996	1,1,1-Trichloroethane	71-55-6	0.5	U	0.5	1
11996	1,1,2-Trichloroethane	79-00-5	0.2	U	0.2	1
11996	Trichloroethene	79-01-6	0.2	U	0.2	1
11996	Trichlorofluoromethane	75-69-4	0.5	U	0.5	1
11996	1,2,3-Trichloropropane	96-18-4	1.0	U	1.0	1
11996	1,2,4-Trimethylbenzene	95-63-6	0.5	U	0.5	1
11996	1,3,5-Trimethylbenzene	108-67-8	0.5	U	0.5	1
11996	Vinyl Acetate	108-05-4	0.5	U	0.5	1
11996	Vinyl Chloride	75-01-4	0.2	U	0.2	1
11996	m,p-Xylene	179601-23-1	0.5	U	0.5	1
11996	o-Xylene	95-47-6	0.5	U	0.5	1

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The Analyte(s) exceeding 20% Drift is not detected in this sample.

The affected analyte(s) and response(s) are:

Analyte	Response (%Drift)
vinyl chloride	23
bromomethane	21
chloroethane	22
acrolein	-30
2-butanone	-21
4-methyl-2-pentanone	-26
2-hexanone	-27
trans-1,4-dichloro-2-butene	-27

A Method Detection Limit (MDL) standard is analyzed to confirm sensitivity of the instrument for samples with non-detect analytes associated with a continuing calibration verification standard exhibiting low response (outside the 20%D criteria). The MDL standard shows adequate sensitivity at or below the reporting limit.

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC/DoD Standards. The following analytes are accepted based on this allowance: 4-methyl-2-pentanone.

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: Trip Blank Water
Boeing Plant 2 2-10 IM

LL Sample # WW 8712343
LL Group # 1736826
Account # 13419

Project Name: Boeing Plant 2 2-10 IM

Collected: 11/21/2016

Submitted: 11/23/2016 09:30
Reported: 11/30/2016 15:11

The Boeing Company
PO Box 3707 M/C 1W-12
Seattle WA 98124-2207

PL2TB SDG#: BNH83-15TB

Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11996	8260C Boeing 69	SW-846 8260C	1	H163301AA	11/25/2016 12:15	Matthew S Krause	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	H163301AA	11/25/2016 12:15	Matthew S Krause	1

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

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 was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ug/l		LOQ ug/l
Batch number: H163301AA	Sample number(s): 8712330-8712343		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

Method Blank (continued)

Analysis Name	Result ug/l		LOQ ug/l
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
Batch number: H163331AA	Sample number(s): 8712329-8712330,8712333-8712334		
Acetone	5.0	U	5.0
Acrolein	25	U	25
Acrylonitrile	5.0	U	5.0
Benzene	0.2	U	0.2
Bromobenzene	0.5	U	0.5
Bromochloromethane	0.5	U	0.5
Bromodichloromethane	0.5	U	0.5
Bromoform	0.5	U	0.5
Bromomethane	0.5	U	0.5
2-Butanone	5.0	U	5.0
n-Butylbenzene	0.5	U	0.5
sec-Butylbenzene	0.5	U	0.5
tert-Butylbenzene	0.5	U	0.5
Carbon Disulfide	0.5	U	0.5
Carbon Tetrachloride	0.2	U	0.2
Chlorobenzene	0.5	U	0.5
Chloroethane	0.5	U	0.5

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

Method Blank (continued)

Analysis Name	Result ug/l		LOQ ug/l
Chloroform	0.2	U	0.2
Chloromethane	0.5	U	0.5
2-Chlorotoluene	0.5	U	0.5
4-Chlorotoluene	0.5	U	0.5
1,2-Dibromo-3-chloropropane	0.5	U	0.5
Dibromochloromethane	0.5	U	0.5
Dibromomethane	0.5	U	0.5
trans-1,4-Dichloro-2-butene	5.0	U	5.0
1,2-Dichlorobenzene	0.5	U	0.5
1,3-Dichlorobenzene	0.5	U	0.5
1,4-Dichlorobenzene	0.5	U	0.5
1,1-Dichloroethane	0.5	U	0.5
1,2-Dichloroethane	0.2	U	0.2
1,1-Dichloroethene	0.2	U	0.2
cis-1,2-Dichloroethene	0.2	U	0.2
trans-1,2-Dichloroethene	0.2	U	0.2
1,2-Dichloropropane	0.5	U	0.5
1,3-Dichloropropane	0.5	U	0.5
2,2-Dichloropropane	0.5	U	0.5
1,1-Dichloropropene	0.5	U	0.5
cis-1,3-Dichloropropene	0.2	U	0.2
trans-1,3-Dichloropropene	0.2	U	0.2
Ethylbenzene	0.5	U	0.5
Ethylene dibromide	0.5	U	0.5
Hexachlorobutadiene	0.5	U	0.5
2-Hexanone	5.0	U	5.0
Isopropylbenzene	0.5	U	0.5
4-Isopropyltoluene	0.5	U	0.5
Methyl Iodide	0.5	U	0.5
4-Methyl-2-pentanone	5.0	U	5.0
Methylene Chloride	0.5	U	0.5
Naphthalene	0.5	U	0.5
n-Propylbenzene	0.5	U	0.5
Styrene	0.5	U	0.5
1,1,1,2-Tetrachloroethane	0.5	U	0.5
1,1,2,2-Tetrachloroethane	0.2	U	0.2
Tetrachloroethene	0.2	U	0.2
Toluene	0.2	U	0.2
112Trichloro122Trifluoroethane	0.5	U	0.5
1,2,3-Trichlorobenzene	0.5	U	0.5
1,2,4-Trichlorobenzene	0.5	U	0.5
1,1,1-Trichloroethane	0.5	U	0.5
1,1,2-Trichloroethane	0.2	U	0.2
Trichloroethene	0.2	U	0.2
Trichlorofluoromethane	0.5	U	0.5
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimethylbenzene	0.5	U	0.5
1,3,5-Trimethylbenzene	0.5	U	0.5

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

Method Blank (continued)

Analysis Name	Result		LOQ
	ug/l		ug/l
Vinyl Acetate	0.5	U	0.5
Vinyl Chloride	0.2	U	0.2
m,p-Xylene	0.5	U	0.5
o-Xylene	0.5	U	0.5
	mg/l		mg/l
Batch number: 16333667602B	Sample number(s): 8712331		
Total Organic Carbon	1.0	U	1.0
Batch number: 16333667603A	Sample number(s): 8712332		
Total Organic Carbon	1.0	U	1.0

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: H163301AA	Sample number(s): 8712330-8712343								
Acetone	37.5	27.29			73		65-130		
Acrolein	37.5	23.16			62		34-144		
Acrylonitrile	25	20.31			81		68-135		
Benzene	5.00	4.88			98		80-120		
Bromobenzene	5.00	4.36			87		80-120		
Bromochloromethane	5.00	4.97			99		80-125		
Bromodichloromethane	5.00	5.28			106		80-120		
Bromoform	5.00	5.73			115		62-128		
Bromomethane	5.00	5.25			105		62-131		
2-Butanone	37.5	27.65			74		66-135		
n-Butylbenzene	5.00	5.03			101		80-120		
sec-Butylbenzene	5.00	4.17			83		80-120		
tert-Butylbenzene	5.00	4.62			92		80-120		
Carbon Disulfide	5.00	3.49			70		65-120		
Carbon Tetrachloride	5.00	4.50			90		79-124		
Chlorobenzene	5.00	5.67			113		80-120		
Chloroethane	5.00	5.16			103		63-125		
Chloroform	5.00	4.79			96		80-120		
Chloromethane	5.00	4.48			90		55-126		
2-Chlorotoluene	5.00	4.29			86		80-120		
4-Chlorotoluene	5.00	4.22			84		80-120		
1,2-Dibromo-3-chloropropane	5.00	4.80			96		63-134		
Dibromochloromethane	5.00	4.88			98		78-127		
Dibromomethane	5.00	5.20			104		80-122		
trans-1,4-Dichloro-2-butene	25	17.99			72		10-188		
1,2-Dichlorobenzene	5.00	4.96			99		80-120		
1,3-Dichlorobenzene	5.00	4.92			98		80-120		
1,4-Dichlorobenzene	5.00	4.80			96		80-120		

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1-Dichloroethane	5.00	4.65			93		75-120		
1,2-Dichloroethane	5.00	4.74			95		72-127		
1,1-Dichloroethene	5.00	4.25			85		76-120		
cis-1,2-Dichloroethene	5.00	4.79			96		80-120		
trans-1,2-Dichloroethene	5.00	4.70			94		80-120		
1,2-Dichloropropane	5.00	5.28			106		80-120		
1,3-Dichloropropane	5.00	4.85			97		80-120		
2,2-Dichloropropane	5.00	4.53			91		73-121		
1,1-Dichloropropene	5.00	4.39			88		77-120		
cis-1,3-Dichloropropene	5.00	5.21			104		80-124		
trans-1,3-Dichloropropene	5.00	4.85			97		77-121		
Ethylbenzene	5.00	5.41			108		80-120		
Ethylene dibromide	5.00	5.04			101		80-120		
Hexachlorobutadiene	5.00	3.79			76		69-120		
2-Hexanone	25	18.2			73		73-128		
Isopropylbenzene	5.00	5.47			109		80-120		
4-Isopropyltoluene	5.00	4.78			96		80-120		
Methyl Iodide	5.00	3.88			78		75-120		
4-Methyl-2-pentanone	25	17.49			70*		71-129		
Methylene Chloride	5.00	4.63			93		80-120		
Naphthalene	5.00	4.56			91		64-123		
n-Propylbenzene	5.00	4.34			87		79-120		
Styrene	5.00	4.97			99		80-120		
1,1,1,2-Tetrachloroethane	5.00	5.45			109		80-120		
1,1,2,2-Tetrachloroethane	5.00	5.53			111		75-123		
Tetrachloroethene	5.00	4.30			86		80-120		
Toluene	5.00	4.52			90		80-120		
112Trichloro122Trifluoroethane	5.00	4.17			83		75-120		
1,2,3-Trichlorobenzene	5.00	4.17			83		66-120		
1,2,4-Trichlorobenzene	5.00	4.31			86		67-120		
1,1,1-Trichloroethane	5.00	4.30			86		79-120		
1,1,2-Trichloroethane	5.00	4.91			98		80-120		
Trichloroethene	5.00	4.95			99		80-120		
Trichlorofluoromethane	5.00	5.15			103		71-131		
1,2,3-Trichloropropane	5.00	4.80			96		80-125		
1,2,4-Trimethylbenzene	5.00	4.16			83		80-120		
1,3,5-Trimethylbenzene	5.00	4.25			85		80-120		
Vinyl Acetate	12.5	12.15	12.5	11.97	97	96	63-122	1	30
Vinyl Chloride	5.00	4.70			94		62-128		
m,p-Xylene	10	10.86			109		80-120		
o-Xylene	5.00	4.57			91		80-120		
Batch number: H163331AA	Sample number(s): 8712329-8712330,8712333-8712334								
Acetone	37.5	28.33	37.5	28	76	75	65-130	1	30
Acrolein	37.5	23.16	37.5	22.47	62	60	34-144	3	30
Acrylonitrile	25	21.83	25	20.71	87	83	68-135	5	30
Benzene	5.00	5.13	5.00	5.12	103	102	80-120	0	30

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bromobenzene	5.00	4.61	5.00	4.37	92	87	80-120	5	30
Bromochloromethane	5.00	4.67	5.00	4.61	93	92	80-125	1	30
Bromodichloromethane	5.00	5.57	5.00	5.72	111	114	80-120	3	30
Bromoform	5.00	4.90	5.00	5.11	98	102	62-128	4	30
Bromomethane	5.00	4.70	5.00	5.23	94	105	62-131	11	30
2-Butanone	37.5	28.57	37.5	27.74	76	74	66-135	3	30
n-Butylbenzene	5.00	5.17	5.00	5.35	103	107	80-120	3	30
sec-Butylbenzene	5.00	4.74	5.00	4.91	95	98	80-120	3	30
tert-Butylbenzene	5.00	4.95	5.00	4.91	99	98	80-120	1	30
Carbon Disulfide	5.00	4.56	5.00	4.90	91	98	65-120	7	30
Carbon Tetrachloride	5.00	4.71	5.00	4.69	94	94	79-124	0	30
Chlorobenzene	5.00	4.78	5.00	5.11	96	102	80-120	7	30
Chloroethane	5.00	5.06	5.00	4.71	101	94	63-125	7	30
Chloroform	5.00	4.69	5.00	4.73	94	95	80-120	1	30
Chloromethane	5.00	3.94	5.00	3.83	79	77	55-126	3	30
2-Chlorotoluene	5.00	4.93	5.00	4.55	99	91	80-120	8	30
4-Chlorotoluene	5.00	4.83	5.00	5.26	97	105	80-120	9	30
1,2-Dibromo-3-chloropropane	5.00	4.14	5.00	4.14	83	83	63-134	0	30
Dibromochloromethane	5.00	4.96	5.00	5.73	99	115	78-127	14	30
Dibromomethane	5.00	5.63	5.00	5.50	113	110	80-122	2	30
trans-1,4-Dichloro-2-butene	25	20.28	25	18.6	81	74	10-188	9	30
1,2-Dichlorobenzene	5.00	4.66	5.00	5.00	93	100	80-120	7	30
1,3-Dichlorobenzene	5.00	4.65	5.00	5.12	93	102	80-120	10	30
1,4-Dichlorobenzene	5.00	4.58	5.00	4.64	92	93	80-120	1	30
1,1-Dichloroethane	5.00	4.76	5.00	4.83	95	97	75-120	1	30
1,2-Dichloroethane	5.00	4.82	5.00	4.89	96	98	72-127	2	30
1,1-Dichloroethene	5.00	4.68	5.00	4.86	94	97	76-120	4	30
cis-1,2-Dichloroethene	5.00	4.77	5.00	4.88	95	98	80-120	2	30
trans-1,2-Dichloroethene	5.00	4.85	5.00	5.01	97	100	80-120	3	30
1,2-Dichloropropane	5.00	5.65	5.00	5.42	113	108	80-120	4	30
1,3-Dichloropropane	5.00	4.90	5.00	6.00	98	120	80-120	20	30
2,2-Dichloropropane	5.00	4.63	5.00	4.80	93	96	73-121	3	30
1,1-Dichloropropene	5.00	4.72	5.00	4.65	94	93	77-120	2	30
cis-1,3-Dichloropropene	5.00	5.76	5.00	6.03	115	121	80-124	5	30
trans-1,3-Dichloropropene	5.00	5.41	5.00	5.28	108	106	77-121	3	30
Ethylbenzene	5.00	4.64	5.00	4.92	93	98	80-120	6	30
Ethylene dibromide	5.00	5.16	5.00	5.67	103	113	80-120	9	30
Hexachlorobutadiene	5.00	3.82	5.00	4.55	76	91	69-120	18	30
2-Hexanone	25	19.66	25	22.53	79	90	73-128	14	30
Isopropylbenzene	5.00	4.60	5.00	4.85	92	97	80-120	5	30
4-Isopropyltoluene	5.00	4.71	5.00	5.13	94	103	80-120	9	30
Methyl Iodide	5.00	4.40	5.00	4.43	88	89	75-120	1	30
4-Methyl-2-pentanone	25	20.18	25	18.75	81	75	71-129	7	30
Methylene Chloride	5.00	4.78	5.00	4.93	96	99	80-120	3	30
Naphthalene	5.00	3.93	5.00	4.26	79	85	64-123	8	30
n-Propylbenzene	5.00	4.89	5.00	4.87	98	97	79-120	0	30
Styrene	5.00	4.87	5.00	5.18	97	104	80-120	6	30
1,1,1,2-Tetrachloroethane	5.00	4.62	5.00	4.92	92	98	80-120	6	30

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Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1,2,2-Tetrachloroethane	5.00	5.21	5.00	5.04	104	101	75-123	3	30
Tetrachloroethene	5.00	4.71	5.00	5.46	94	109	80-120	15	30
Toluene	5.00	4.91	5.00	4.95	98	99	80-120	1	30
112Trichloro122Trifluoroethane	5.00	4.67	5.00	4.65	93	93	75-120	0	30
1,2,3-Trichlorobenzene	5.00	3.99	5.00	3.82	80	76	66-120	4	30
1,2,4-Trichlorobenzene	5.00	4.07	5.00	4.00	81	80	67-120	2	30
1,1,1-Trichloroethane	5.00	4.46	5.00	4.43	89	89	79-120	1	30
1,1,2-Trichloroethane	5.00	5.62	5.00	6.16	112	123*	80-120	9	30
Trichloroethene	5.00	5.69	5.00	5.05	114	101	80-120	12	30
Trichlorofluoromethane	5.00	4.97	5.00	4.60	99	92	71-131	8	30
1,2,3-Trichloropropane	5.00	4.82	5.00	4.64	96	93	80-125	4	30
1,2,4-Trimethylbenzene	5.00	5.00	5.00	4.96	100	99	80-120	1	30
1,3,5-Trimethylbenzene	5.00	4.88	5.00	5.04	98	101	80-120	3	30
Vinyl Acetate	12.5	10.37	12.5	9.58	83	77	63-122	8	30
Vinyl Chloride	5.00	4.43	5.00	4.35	89	87	62-128	2	30
m,p-Xylene	10	9.62	10	10.02	96	100	80-120	4	30
o-Xylene	5.00	4.60	5.00	5.19	92	104	80-120	12	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16333667602B	Sample number(s): 8712331								
Total Organic Carbon	25	26.15			105		91-113		
Batch number: 16333667603A	Sample number(s): 8712332								
Total Organic Carbon	25	26.81			107		91-113		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: H163301AA	Sample number(s): 8712330-8712343 UNSPK: P704419										
Acetone	5.0	U	37.5	35.79	37.5	34.94	95	93	65-130	2	30
Acrolein	25	U	37.5	23.27	37.5	24.71	62	66	34-144	6	30
Acrylonitrile	5.0	U	25	27.42	25	28.54	110	114	68-135	4	30
Benzene	0.2	U	5.00	5.66	5.00	5.64	113	113	80-120	0	30
Bromobenzene	0.5	U	5.00	5.09	5.00	5.11	102	102	80-120	0	30
Bromochloromethane	0.5	U	5.00	4.89	5.00	5.24	98	105	80-125	7	30
Bromodichloromethane	0.5	U	5.00	5.73	5.00	5.79	115	116	80-120	1	30
Bromoform	0.5	U	5.00	5.07	5.00	5.12	101	102	62-128	1	30
Bromomethane	0.5	U	5.00	5.10	5.00	5.69	102	114	62-131	11	30
2-Butanone	5.0	U	37.5	37.27	37.5	37.54	99	100	66-135	1	30
n-Butylbenzene	0.5	U	5.00	6.11	5.00	6.11	122*	122*	80-120	0	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l		MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
sec-Butylbenzene	0.5	U	5.00	5.58	5.00	5.57	112	111	80-120	0	30
tert-Butylbenzene	0.5	U	5.00	5.44	5.00	5.60	109	112	80-120	3	30
Carbon Disulfide	0.5	U	5.00	4.27	5.00	4.58	85	92	65-120	7	30
Carbon Tetrachloride	0.2	U	5.00	5.26	5.00	5.52	105	110	79-124	5	30
Chlorobenzene	0.5	U	5.00	5.36	5.00	5.38	107	108	80-120	0	30
Chloroethane	0.5	U	5.00	5.89	5.00	5.92	118	118	63-125	0	30
Chloroform	0.2	U	5.00	5.10	5.00	5.19	102	104	80-120	2	30
Chloromethane	0.5	U	5.00	4.11	5.00	5.20	82	104	55-126	23	30
2-Chlorotoluene	0.5	U	5.00	5.29	5.00	5.41	106	108	80-120	2	30
4-Chlorotoluene	0.5	U	5.00	5.37	5.00	5.33	107	107	80-120	1	30
1,2-Dibromo-3-chloropropane	0.5	U	5.00	5.95	5.00	6.07	119	121	63-134	2	30
Dibromochloromethane	0.5	U	5.00	5.23	5.00	5.29	105	106	78-127	1	30
Dibromomethane	0.5	U	5.00	5.48	5.00	5.37	110	107	80-122	2	30
trans-1,4-Dichloro-2-butene	5.0	U	25	15.99	25	15.34	64	61	10-188	4	30
1,2-Dichlorobenzene	0.5	U	5.00	5.51	5.00	5.26	110	105	80-120	5	30
1,3-Dichlorobenzene	0.5	U	5.00	5.10	5.00	5.34	102	107	80-120	5	30
1,4-Dichlorobenzene	0.5	U	5.00	4.93	5.00	5.14	99	103	80-120	4	30
1,1-Dichloroethane	0.5	U	5.00	5.04	5.00	5.34	101	107	75-120	6	30
1,2-Dichloroethane	0.2	U	5.00	5.07	5.00	5.15	101	103	72-127	2	30
1,1-Dichloroethene	0.2	U	5.00	4.68	5.00	5.18	94	104	76-120	10	30
cis-1,2-Dichloroethene	0.291		5.00	5.37	5.00	5.65	102	107	80-120	5	30
trans-1,2-Dichloroethene	0.2	U	5.00	5.20	5.00	5.59	104	112	80-120	7	30
1,2-Dichloropropane	0.5	U	5.00	5.83	5.00	5.69	117	114	80-120	2	30
1,3-Dichloropropane	0.5	U	5.00	5.53	5.00	5.25	111	105	80-120	5	30
2,2-Dichloropropane	0.5	U	5.00	4.96	5.00	5.35	99	107	73-121	7	30
1,1-Dichloropropene	0.5	U	5.00	5.30	5.00	5.38	106	108	77-120	1	30
cis-1,3-Dichloropropene	0.2	U	5.00	5.65	5.00	5.60	113	112	80-124	1	30
trans-1,3-Dichloropropene	0.2	U	5.00	5.41	5.00	5.46	108	109	77-121	1	30
Ethylbenzene	0.5	U	5.00	5.85	5.00	5.37	117	107	80-120	9	30
Ethylene dibromide	0.5	U	5.00	5.36	5.00	5.48	107	110	80-120	2	30
Hexachlorobutadiene	0.5	U	5.00	5.90	5.00	5.55	118	111	69-120	6	30
2-Hexanone	5.0	U	25	26.98	25	25.57	108	102	73-128	5	30
Isopropylbenzene	0.5	U	5.00	5.65	5.00	5.36	113	107	80-120	5	30
4-Isopropyltoluene	0.5	U	5.00	5.31	5.00	5.43	106	109	80-120	2	30
Methyl Iodide	0.5	U	5.00	4.10	5.00	4.35	82	87	75-120	6	30
4-Methyl-2-pentanone	5.0	U	25	27.76	25	26.5	111	106	71-129	5	30
Methylene Chloride	0.5	U	5.00	4.85	5.00	5.18	97	104	80-120	7	30
Naphthalene	0.5	U	5.00	4.93	5.00	5.08	99	102	64-123	3	30
n-Propylbenzene	0.5	U	5.00	5.48	5.00	5.44	110	109	79-120	1	30
Styrene	0.5	U	5.00	5.62	5.00	5.51	112	110	80-120	2	30
1,1,1,2-Tetrachloroethane	0.5	U	5.00	5.58	5.00	5.20	112	104	80-120	7	30
1,1,2,2-Tetrachloroethane	0.2	U	5.00	5.32	5.00	5.34	106	107	75-123	0	30
Tetrachloroethene	0.2	U	5.00	5.08	5.00	5.22	102	104	80-120	3	30
Toluene	0.2	U	5.00	5.65	5.00	5.47	113	109	80-120	3	30
112Trichloro122Trifluoroethane	0.5	U	5.00	4.67	5.00	5.17	93	103	75-120	10	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,2,3-Trichlorobenzene	0.5 U	5.00	4.60	5.00	4.82	92	96	66-120	5	30
1,2,4-Trichlorobenzene	0.5 U	5.00	4.66	5.00	5.14	93	103	67-120	10	30
1,1,1-Trichloroethane	0.5 U	5.00	5.06	5.00	5.17	101	103	79-120	2	30
1,1,2-Trichloroethane	0.2 U	5.00	5.31	5.00	5.30	106	106	80-120	0	30
Trichloroethene	0.2 U	5.00	5.64	5.00	5.70	113	114	80-120	1	30
Trichlorofluoromethane	0.5 U	5.00	5.40	5.00	5.69	108	114	71-131	5	30
1,2,3-Trichloropropane	1.0 U	5.00	5.09	5.00	5.38	102	108	80-125	5	30
1,2,4-Trimethylbenzene	0.5 U	5.00	5.26	5.00	5.44	105	109	80-120	3	30
1,3,5-Trimethylbenzene	0.5 U	5.00	5.83	5.00	5.43	117	109	80-120	7	30
Vinyl Chloride	0.341	5.00	5.20	5.00	6.43	97	122	62-128	21	30
m,p-Xylene	0.5 U	10	12.18	10	11.29	122*	113	80-120	8	30
o-Xylene	0.5 U	5.00	5.35	5.00	5.21	107	104	80-120	3	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16333667602B	Sample number(s): 8712331 UNSPK: P708531									
Total Organic Carbon	0.971	10	14.07			131*		91-113		
Batch number: 16333667603A	Sample number(s): 8712332 UNSPK: P708615									
Total Organic Carbon	1.0 U	10	12.64			126*		91-113		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 16333667602B	Sample number(s): 8712331 BKG: P708531			
Total Organic Carbon	0.971	0.917	6* (1)	3
Batch number: 16333667603A	Sample number(s): 8712332 BKG: P708615			
Total Organic Carbon	1.0 U	1.0 U	0 (1)	3

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H163301AA

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: The Boeing Company
Reported: 11/30/2016 15:11

Group Number: 1736826

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260C Boeing 69
Batch number: H163301AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8712330	100	105	99	120*
8712331	98	101	94	94
8712332	98	104	99	97
8712333DL	99	100	92	95
8712334DL	105	106	100	95
8712335	100	104	98	101
8712336	92	98	83	93
8712337	100	101	102	101
8712338	101	103	85	85
8712339	111	110	97	96
8712340	100	103	100	96
8712341	103	100	98	94
8712342	112	107	102	102
8712343	106	105	86	95
Blank	100	107	86	89
LCS	99	106	91	113*
LCSD	98	99	100	96
MS	99	108	100	109
MSD	97	106	98	106
Limits:	77-114	74-113	77-110	78-110

Analysis Name: 8260C Boeing 69
Batch number: H163331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8712329	93	105	93	103
8712330RE	108	114*	91	101
8712333	99	98	100	100
8712334	98	101	90	94
Blank	108	113	89	116*
LCS	97	103	97	100
LCSD	94	105	97	102
Limits:	77-114	74-113	77-110	78-110

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Boeing Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 13419 For Eurofins Lancaster Laboratories use only Group # 1756826 Sample # 8712329-43

Please print. Instructions on reverse side correspond.

1 Client Information

Site Location: Boeing 2-10

Site Project: Boeing 2-10

Site Program/#:

Boeing PM: Will Ernst

Consultant Contact: Tom McKeon

Report To: Will Ernst, Tom McKeon, Chris Gallagher

Invoice To: ☐ Boeing EHS ☐ Other (specify):

Sampler: C Gallagher JWSre # of Coolers: 1

4 Analyses Requested / 5 Remarks/Comments

2 Sample Identification	Collected Date	Collected Time	3 Matrix	No. of Containers	VOCs	TOC											5 Remarks/Comments
PL2-218A-112116	11-21-16	0922	Water	3	X												
PL2-218B-112116	11-21-16	0955	Water	3	X												
PL2-IWN-4-112116	11-21-16	1026	Water	5	X	X											
PL2-IWN-6-112116	11-21-16	1100	Water	5	X	X											
PL2-212A-112116	11-21-16	1132	Water	3	X												
DUP01-112116	11-21-16	0800	Water	3	X												
PL2-216A-112116	11-21-16	1248	Water	3	X												
PL2-253A-112116	11-21-16	1324	Water	3	X												
PL2-214A-112116	11-21-16	1357	Water	3	X												
PL2-209A-112116	11-21-16	1434	Water	3	X												
PL2-258B-112216	11-22-16	0851	Water	3	X												
PL2-258A-112216	11-22-16	0929	Water	3	X												
PL2-257A-112216	11-22-16	1009	Water	3	X												
PL2-256A-112216	11-22-16	1038	Water	3	X												
Trip Blank			Water		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]	11/9/15 11:34		
[signature]	11/22/16 1130		
		[signature]	11-23-16 930

Relinquished by commercial carrier (circle): UPS FedEx Other:

Temperature upon Receipt: 1.5 °C

Custody Seals Intact?: Yes No

7

Eurofins Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7063.02

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 168991
Group Number(s): 1736826

Client: Boeing

Delivery and Receipt Information

Delivery Method:	UPS	Arrival Timestamp:	11/23/2016 9:30
Number of Packages:	1	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	See Below
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Trip Blank Type(s): Unpreserved

Unpacked by Melvin Sanchez (8943) at 15:47 on 11/23/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	1.5	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	none detected
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…
W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

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.

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

Tests 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.

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

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Boeing Plant 2
Seattle/Tukwila, Washington

Interim Measure and Site Condition Summary for Areas of Concern 2-10.3A and 2-10.4A at Building 2-10

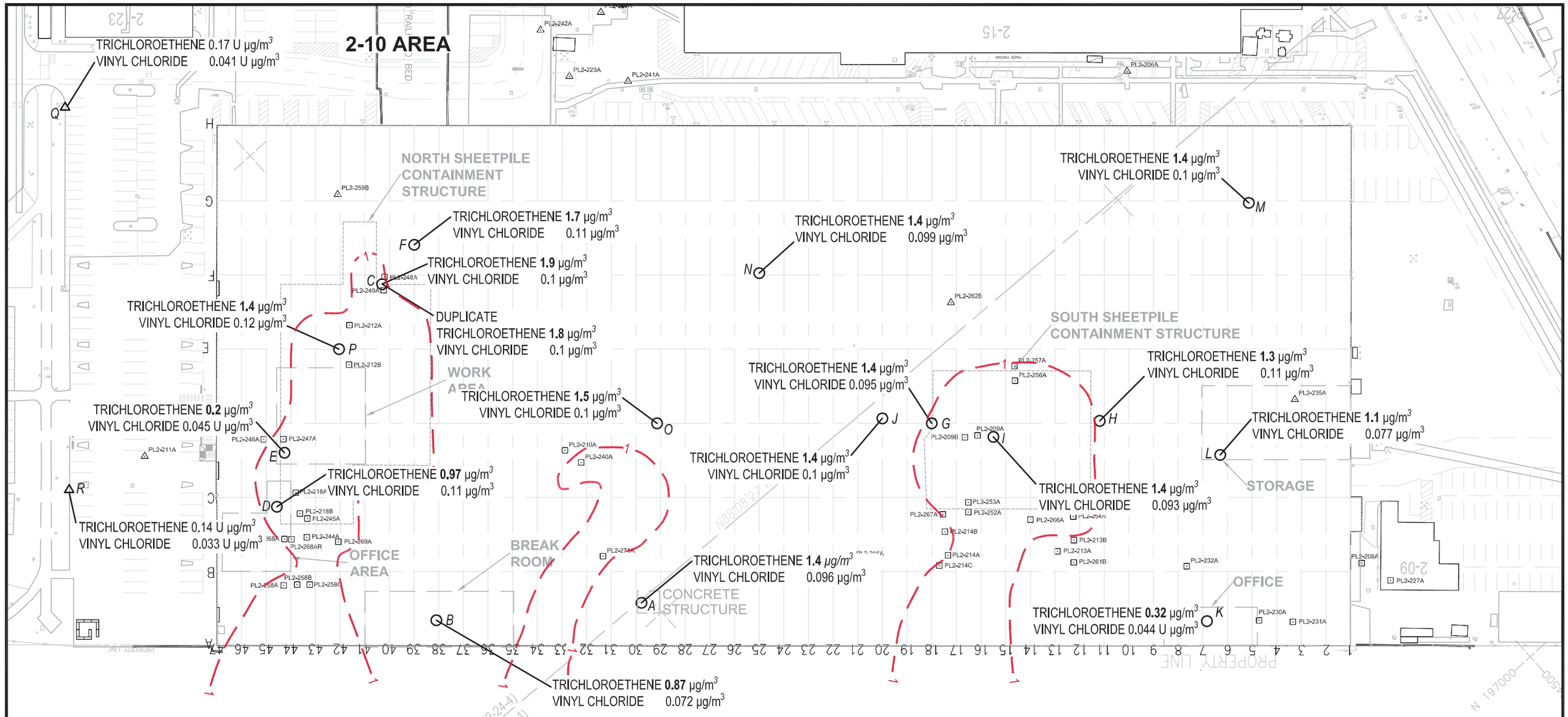
Appendix C
Summary of Analytical Results from Prior Indoor Air Sampling

(All data are from Golder 2010)

Table 4
Air Sampling Analytical Results
Vapor Intrusion Sampling in Building 2-10
Boeing Plant 2

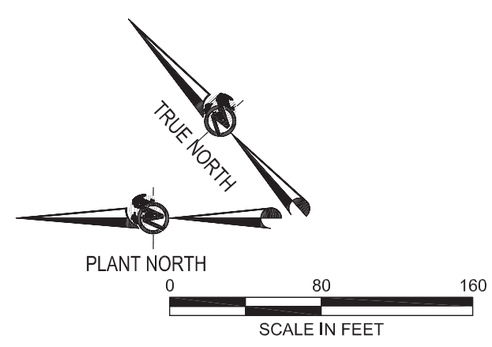
Sample Location	TO-15 SIM Analysis											
	1,1-Dichloroethene		Carbon Tetrachloride		cis-1,2-Dichloroethene		Tetrachloroethene		Trichloroethene		Vinyl Chloride	
	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv	ug/m^3	ppbv
MTCA [3]	500		6.3		87.5		15.6		3.7		10.4	
Building 2-10 Indoor Air												
A	0.068 U	0.017 U	0.42	0.068	0.14 U	0.034 U	0.23 U	0.034 U	1.4	0.27	0.096	0.038
B	0.076 U	0.019 U	0.42	0.067	0.15 U	0.038 U	0.26 U	0.038 U	0.87	0.16	0.072	0.028
C	0.071 U	0.018 U	0.4	0.063	0.14 U	0.036 U	0.24 U	0.036 U	1.9	0.35	0.1	0.039
C (Duplicate)	0.067 U	0.017 U	0.42	0.066	0.13 U	0.034 U	0.23 U	0.034 U	1.8	0.33	0.1	0.039
D	0.067 U	0.017 U	0.43	0.068	0.13 U	0.034 U	0.23 U	0.034 U	0.97	0.18	0.11	0.044
E	0.069 U	0.018 U	0.42	0.066	0.14 U	0.035 U	0.24 U	0.035 U	0.2	0.038	0.045 U	0.018 U
F	0.069 U	0.018 U	0.41	0.065	0.14 U	0.035 U	0.25	0.037	1.7	0.32	0.11	0.044
G	0.067 U	0.017 U	0.41	0.065	0.13 U	0.034 U	0.23 U	0.034 U	1.4	0.26	0.095	0.037
H	0.071 U	0.018 U	0.43	0.068	0.14 U	0.036 U	0.24 U	0.036 U	1.3	0.24	0.11	0.044
I	0.069 U	0.018 U	0.4	0.064	0.14 U	0.035 U	0.25	0.036	1.4	0.27	0.093	0.036
J	0.071 U	0.018 U	0.4	0.063	0.14 U	0.036 U	0.24 U	0.036 U	1.4	0.27	0.1	0.04
K	0.068 U	0.017 U	0.4	0.064	0.14 U	0.034 U	0.23 U	0.034 U	0.32	0.06	0.044 U	0.017 U
L	0.069 U	0.018 U	0.43	0.068	0.14 U	0.035 U	0.24 U	0.035 U	1.1	0.2	0.077	0.03
M	0.063 U	0.016 U	0.42	0.067	0.12 U	0.032 U	0.21 U	0.032 U	1.4	0.27	0.1	0.04
N	0.071 U	0.018 U	0.4	0.063	0.14 U	0.036 U	0.24 U	0.036 U	1.4	0.25	0.099	0.039
O	0.069 U	0.018 U	0.42	0.066	0.14 U	0.035 U	0.24 U	0.035 U	1.5	0.27	0.1	0.041
P	0.071 U	0.018 U	0.41	0.065	0.14 U	0.036 U	0.24 U	0.036 U	1.4	0.26	0.12	0.045
Ambient Air Outside Building 2-10												
Q	0.064 U	0.016 U	0.41	0.066	0.13 U	0.032 U	0.22 U	0.032 U	0.17 U	0.032 U	0.041 U	0.016 U
R	0.051 U	0.013 U	0.41	0.066	0.1 U	0.026 U	0.2	0.029	0.14 U	0.026 U	0.033 U	0.013 U

Notes:
1. ug/m^3 - micrograms per cubic meter
2. ppbv - parts per billion by volume
3. MTCA Method C indoor air concentrations provided by EPA in the March 2010 comment letter on the draft version of this report (EPA, 2010).
4. U - Not detected, value shown is reporting limit.



LEGEND:

O A	INDOOR AIR SAMPLE LOCATION
△ Q	OUTDOOR AIR SAMPLE LOCATION
▫ PL2-231A	MONITORING WELL
µg/m³	MICROGRAMS PER CUBIC METER
— —	1 µg/L TRICHLOROETHENE CONTOUR IN GROUNDWATER



SOURCE: DHA Surveyors 2002, 2006.
HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATES, NORTH ZONE NAD83-91 (US FEET)
VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD29)

FIGURE **2**
BUILDING 2-10
AIR SAMPLE LOCATIONS
Boeing/Plant 2 CMS Support/WA

K:\CAD\Projects\2001\0131646\x009\100\Task 07\013_1646_009_100_F02r2.dwg | Fig 2 | Mod: 02/17/2010, 11:51 | Plotted: 02/17/2010, 12:29 | ssimmons

Golder Associates